

PERFORMANCE AUDIT REPORT

Reviewing the Performance and Investment Practices of the Kansas Public Employees Retirement System

**A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas
January 1998**

Legislative Post Audit Committee

Legislative Division of Post Audit

THE LEGISLATIVE POST Audit Committee and its audit agency, the Legislative Division of Post Audit, are the audit arm of Kansas government. The programs and activities of State government now cost about \$8 billion a year. As legislators and administrators try increasingly to allocate tax dollars effectively and make government work more efficiently, they need information to evaluate the work of governmental agencies. The audit work performed by Legislative Post Audit helps provide that information.

We conduct our audit work in accordance with applicable government auditing standards set forth by the U.S. General Accounting Office. These standards pertain to the auditor's professional qualifications, the quality of the audit work, and the characteristics of professional and meaningful reports. The standards also have been endorsed by the American Institute of Certified Public Accountants and adopted by the Legislative Post Audit Committee.

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December 30, 1997


To: Members, Legislative Post Audit Committee

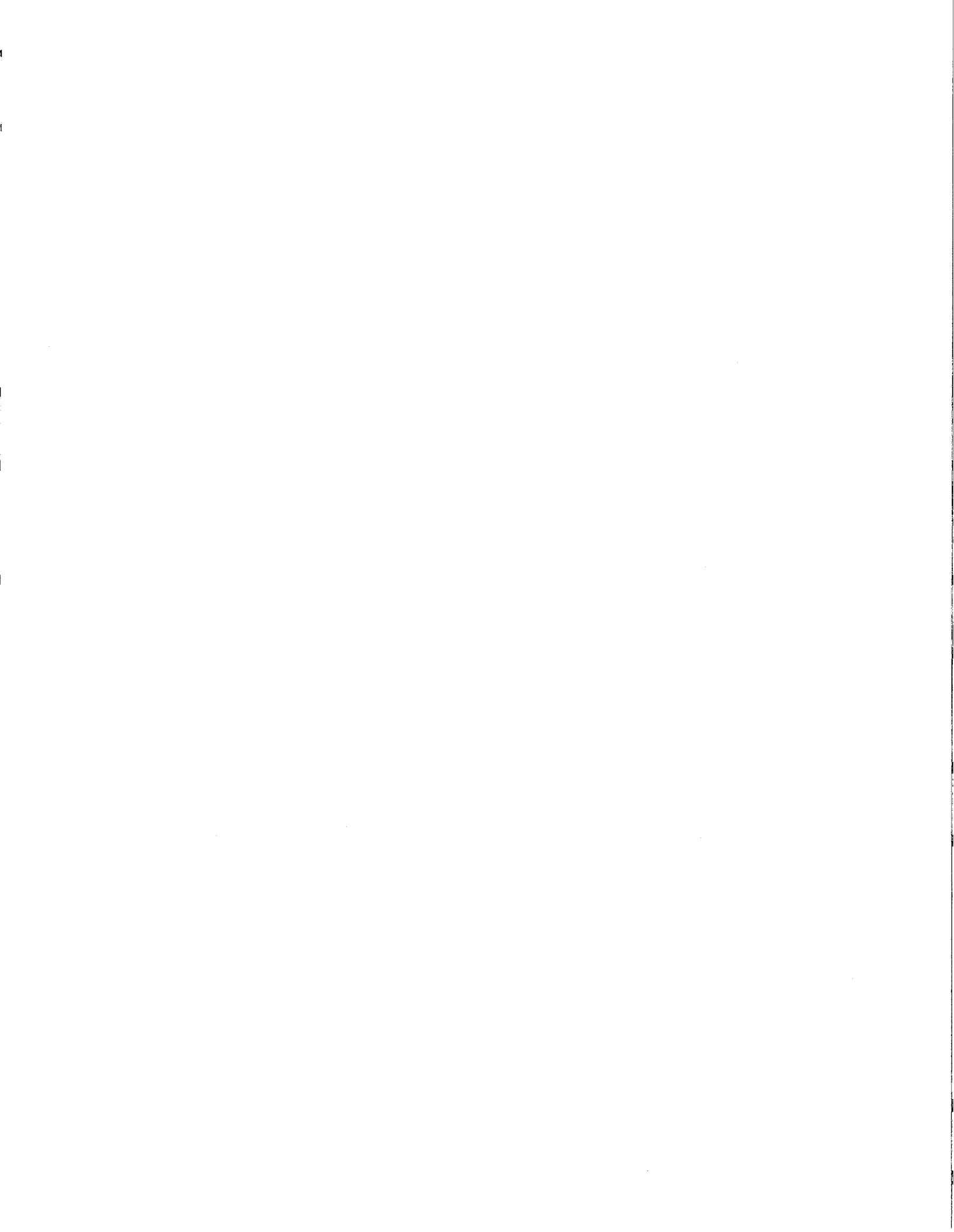
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This report contains the findings, conclusions, and recommendations from our completed performance audit, *Reviewing the Performance and Investment Practices of the Kansas Public Employees Retirement System*. The report also contains an appendix showing comparative information on the retirement plans of Kansas and six other states.

We would be happy to discuss the findings presented in this report with any legislative committees, individual legislators, or other State officials.


Barbara J. Hinton
Legislative Post Auditor



EXECUTIVE SUMMARY
LEGISLATIVE DIVISION OF POST AUDIT

Question 1: How Do the Retirement System's Rates of Return and Investment Practices by Type of Investment Compare With Other Retirement Systems?

In 1997, other systems generally achieved higher overall rates of return than KPERS, but over the longer term, KPERS has had the second best return of the retirement systems we reviewed. For fiscal year 1997, the Retirement System achieved an overall rate of return of 14.4%, which was lower than the other states whose investment performance we compared. The other state's rates of return ranged from 16.4% to 19.7%. On a longer-term basis, Kansas' three-year rate of return ranked third among the comparison states, and its five-year rate of return was the second best. page 5

For 1997, KPERS' rates of return for most individual classes of investments were lower than the comparison states, but those returns compared favorably when viewed over a five-year period. For fiscal year 1997, the Retirement System's rates of return for five of seven investment categories didn't compare favorably with the rates of return reported by the comparison states. However, two classes of investments - domestic fixed income, and cash equivalents- earned higher rates than any comparison state for fiscal year 1997. On a five-year basis, KPERS' average rates of return for four of seven investment classes ranked first or second compared to the comparison states. page 7

The Retirement System's investment policies, procedures, and restrictions generally are similar to other states we contacted. The Retirement System invested in similar types of investments as the other state systems, and generally has similar policies and procedures. Two exceptions we noted were that Kansas is allowed to invest more of its portfolio in common stocks than other states, and only one other state we contacted is prohibited from investing in banks, savings & loans, and credit unions. page 9

Question 2: How Do the Rates of Return Achieved by Individual Investment Managers Compare With Market Indices and With Returns Achieved by Other Managers Handling Similar Investments?

The board of trustees contracted with 23 external investment managers in fiscal year 1997. These external managers handled 23 different investment portfolios. Because each manager specializes in certain types of investments and follows certain investment styles, they can't be page 12

compared to each other and no single index can be used to measure the performance of all of them. It's appropriate to measure each manager against specific indices that represent a benchmark for the type of investment managed and the strategy followed.

For fiscal year 1997, about half the investment managers' portfolios matched or exceeded benchmarks established by the Retirement System. For fiscal year 1997, 10 of 23 portfolios met or exceeded the rate of return achieved by the indices. The three-year average rates of return for 9 of 18 portfolios met or exceeded the appropriate indices. On a five-year basis, 5 of 11 portfolios outperformed the indices. page 13

CONCLUSION page 16

APPENDIX A: Board of Trustees page 17

APPENDIX B: Rates of Return by Type of Investment - Kansas and Six Other State Retirement Systems As of June 30, 1997 page 18

APPENDIX C: Summary of Surveys of State Retirement Systems page 23

APPENDIX D: KPERs Investment Performance by Investment Type Compared to Selected Indices Fiscal Year 1997 page 30

APPENDIX E: Agency Response page 34

This audit was conducted by Chris Clarke. Leo Hafner was the audit manager. If you need any additional information about the audit's findings, please contact Ms. Clarke at the Division's offices. Our address is: Legislative Division of Post Audit, 800 SW Jackson Street, Suite 1200, Topeka, Kansas 66612. You also may call (785) 296-3792, or contact us via the Internet at: LPA@mail.ksleg.state.ks.us.

Reviewing the Performance and Investment Practices of the Kansas Public Employees Retirement System

Because of the Retirement System's investment losses in the 1980s, the 1992 Legislature passed a law requiring us to conduct a performance audit of the Retirement System each year.

The law gives the Legislative Post Audit Committee the authority to determine the scope of the audit, but it specifies that the audit must address each of the following topic areas at least once every two years.

- an evaluation of the performance of investment managers
- an evaluation of the rates of return on investments reported by the System
- an evaluation of the total compensation received for the planned year by investment managers by individual investment classification
- a comparison of the System's investment practices and performance with the investment practices and performance of other state pension programs by asset type including alternative investments.

The last completed performance audit of the Retirement System addressed the topic of investment manager compensation. This year's audit addresses the remaining areas mentioned above by answering the following questions:

- 1. How do the Retirement System's rates of return and investment practices by type of investment compare with other retirement systems?**
- 2. How do the rates of return achieved by individual investment managers compare with market indices and with returns achieved by other managers handling similar investments?**

To answer these questions, we reviewed the Retirement System's policies and procedures regarding investment practices and oversight. We also surveyed other states with similar-sized public pension funds, and compared the investment performance of the external investment managers, the asset classes, and the overall fund to standard indices. In addition, we compared the oversight of the Retirement System with that of other states we surveyed.

In conducting this audit, we followed all applicable government auditing standards set forth by the U.S. General Accounting Office. Our findings begin on page five, after a brief overview of the Kansas Public Employees Retirement System.

Overview of the Kansas Public Employees Retirement System

The Kansas Public Employees Retirement System was established in 1962 to provide a systematic retirement plan for public employees in Kansas. The System also provides group life and disability insurance coverage for its members.

The Retirement System Actually Is an Umbrella Organization Made Up of Three Separate Membership Groups

Those three groups are the Kansas Public Employees Retirement System, the Kansas Police and Firemen's Retirement System, and the Retirement System for Judges. The System covers most State and local government employees in Kansas. On June 30, 1997, it had 159,100 members (active and inactive) and 1,375 participating employers.

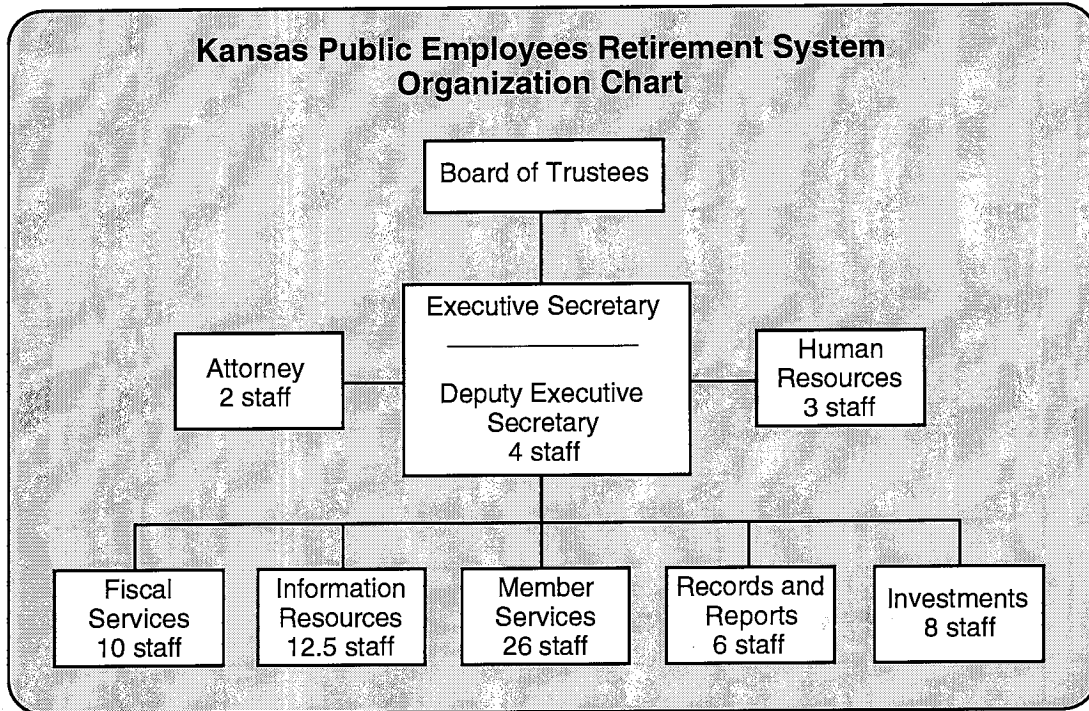
To pay the various retirement, disability, and death benefits to eligible members and beneficiaries, the Retirement System accumulates assets through employee and employer contributions and earnings on investments. Those investments include corporate stocks and bonds, government securities, real estate, alternative investments, and interest-producing short-term investments. The investments in the different asset classes provide income to the Retirement System through interest, dividends, and profits from sales.

The Retirement System is governed by a nine-member Board of Trustees. Four members are appointed by the Governor subject to confirmation by the Senate, and two are appointed by legislative leadership. Two members of the Board are elected by the members and retirees of the System—one school member and one non-school member. The State Treasurer is an ex-officio member of the Board. Appendix A provides a list of the Retirement System's current Board of Trustees.

The Board of Trustees appoints an Executive Secretary to manage the daily operations of the Retirement System. In fiscal year 1997, the System employed about 72 full-time staff. Its administrative expenses, including employees' salaries and wages, are paid from earnings on investments. An organizational chart of the Retirement System is presented on the next page. Its largest department is responsible for member services. The investment department, under the direction of an investment officer, monitors the System's investments.

Both the Board and the Legislature have a role in overseeing the Retirement System's investment activities. The Board of Trustees has designated several committees—including an Alternative Investment Committee and a Real Estate Committee—to meet with the System's investment staff and portfolio managers on a bi-monthly basis. These Committees review the status of the portfolio and the previous month's activity, and provide oversight for the portfolio's investments.

Legislative oversight is provided by the Joint Committee on Pensions, Investments, and Benefits. This Committee comprises eight representatives and five senators, and meets periodically to review the System's activities.



The Board Contracts with Outside Investment Managers and Consultants To Perform Most of the System's Investment-Related Activities

The System's investment staff monitor these managers' and consultants' performance. In general, the System contracts with the following types of professionals:

Actuaries help determine the probable obligations of the Retirement System, the contributions required, recommended rates for employer contributions, and other factors related to the relationship between present assets and liabilities, future contributions and benefits, and investments.

Investment managers select and make actual investments within certain guidelines established by the Board. The individual investment managers (except for the real estate and direct placement managers) are responsible for daily decisions related to the purchase and sale of investments and the composition of investment portfolios. Investment managers generally are hired to manage a particular type of investment, such as an equity (stock) or a fixed-income (bond) portfolio of investments.

Investment consultants help the Board make decisions about investment mix, investment manager choices, and how much money should be placed

with individual investment managers. They also help develop investment guidelines, evaluate the System's investment performance, and monitor the investment managers' performance.

Investment custodians account for and report on the securities held by the System.

The Retirement System hires investment managers to select and make actual investments. Investment managers are selected based on a number of criteria, including the type of investments the manager specializes in, the manager's investment strategy, and the manager's performance for other clients. Selection of investment managers is partly determined by the System's investment strategy and investment mix. The Board of Trustees makes the final decision on selection of managers.

The Retirement System currently manages three types of investments in-house. Those investments are the venture capital portfolio, the REIT (real estate investment trust) portfolio, and the dedicated cash portfolio.

How Do the Retirement System's Rates of Return and Investment Practices by Type of Investment Compare with Other Retirement Systems?

For fiscal year 1997, the Retirement System achieved an overall rate of return of 14.4%, which was lower than the other states whose investment performance we compared. On a longer-term basis, however, Kansas' average rate of return ranked third among the seven comparison states over a three-year period, and second over a five-year period.

The System's rates of return for most individual classes of investments didn't compare favorably with the rates of return reported by the comparison retirement systems for fiscal year 1997. The only exceptions were the rates of return for the domestic fixed-income portfolio and the cash equivalents portfolio. On a five-year basis, however, KPERS' average rates of return for four out of seven classes of investments ranked first or second compared to the comparison states.

Finally, we found that the Retirement System invested in similar types of investments as other state systems, and generally had similar policies and procedures. These and related findings are discussed in the following sections.

In 1997, Other Systems Generally Achieved Higher Overall Rates of Return Than KPERS, But Over the Longer Term, KPERS Has Had the Second Best Return of the Retirement Systems We Reviewed

To provide a degree of continuity in our comparisons, we contacted 10 other retirement systems that we've surveyed during the past several audits of the Retirement System. This year, two of those states didn't respond to our surveys, and two of the systems had grown so much they were no longer reasonably close in size to Kansas' retirement system. As a result, we limited our comparison to six other state retirement systems. Three of those comparison systems were somewhat larger than KPERS (Hawaii, Kentucky, and Nevada) and three were smaller (Illinois, New Mexico, and Rhode Island.)

KPERS' rate of return for fiscal year 1997 was 14.4%, which was lower than the other states whose investment performance we compared. The table on the next page shows the size of each retirement system included in our comparisons, the time-weighted rates of return for fiscal year 1997, and the latest three-year and five-year averages.

**1997 Investment Performance
For Kansas and Comparable States**

<u>State</u>	<u>Size of Fund</u> (in billions)	<u>Rate of Return on Investments</u>		
		<u>1997 (Rank)</u>	<u>Latest</u> <u>3-year (Rank)</u>	<u>Latest</u> <u>5-year (Rank)</u>
New Mexico	\$5.3	19.7% (1)	18.5% (1)	13.9% (1)
Kentucky(a)	9.4	19.6 (2)	16.6 (5)	12.4 (6)
Rhode Island	5.2	19.4 (3)	17.1 (2)	12.7 (4)
Illinois(a)	6.3	19.1 (4)	16.8 (4)	13.3 (3)
Hawaii	7.8	18.9 (5)	15.7 (6)	12.7 (4)
Nevada(a)	9.1	16.4 (6)	14.8 (7)	11.9 (7)
Kansas(a)	7.7	14.4 (7)	16.9 (3)	13.4 (2)

(a) The rates of return reported by these retirement systems are gross of fees.

The Retirement System earned \$976.5 million through its investment's performance in fiscal year 1997, for an overall rate of return of 14.4%. The comparison systems' one-year rates of return ranged from 16.4% to 19.7%.

On a longer-term basis, Kansas' average rate of return ranked third among the seven comparison states over a three-year period, and second over a five-year period. One-year rates of return can be significantly affected by market conditions in a given year and the investment strategy a retirement system has adopted. For example, if a system places much of its portfolio in relatively risky investments, those investments may produce wide swings in the rate of return in any given year. In good years those systems' return will be very high, and in bad years they will be very low. Usually, the riskier the investment, the wider those swings will be.

A "risk-adjusted" rate of return takes into account the amount of risk a retirement system has assumed in achieving its rate of return. This is usually measured by calculating variance in return rates on a monthly or quarterly basis, for a period of time. Using this measure can make return rates more comparable. Unfortunately, the other systems we surveyed generally couldn't provide us with risk-adjusted rates of return. Illinois was the only other state which was able to provide us with this information. Illinois and Kansas' risk comparison's on a 3-year and 5-year basis are shown on the table on the next page.

Another way to provide a more meaningful look at a retirement system's investment results is to look at the rates of return it has achieved over a longer period of time. Over the longer run, KPERS has done reasonably well.

As the previous table shows, KPERS' 16.9% average annual rate of return over the past three years ranked third when compared with the other retirement systems. Its 13.4% average annual rate of return over the past five years ranked second. This rate of return substantially exceeds the 8% rate of return assumed by the System's Actuary. It also exceeds the 10.4% rate of return estimated by the Retirement System's asset allocation study.

Risk-Return Comparison for Two States

	Annualized Rate of Return	Annualized Standard Deviation(a)
<u>3-Year</u>		
Kansas	16.9%	6.46
Illinois	16.8%	5.21
<u>5-Year</u>		
Kansas	13.4%	6.23
Illinois	13.3%	5.14

(a) The annualized standard deviation was calculated using monthly return rates. The 3-year figure was based on the 36 months ending June 30, 1997, and the 5-year figure was based on the 60 months ending June 30, 1997.

Both Kansas and Illinois earned nearly identical 3-year and 5-year rates of return before risk is taken into account. The annualized standard deviation is used to measure risk. The higher the standard deviation, the more risk is associated with a Systems' investments. The table shows that Kansas' Retirement System accepted somewhat more risk to achieve essentially the same return as the Illinois Retirement System.

For 1997, KPERS' Rates of Return for Most Individual Classes of Investments Were Lower Than the Comparison States, But Those Returns Compared Favorably When Viewed Over a Five-Year Period

The Retirement System's investments fall into seven major categories: domestic equity (stocks), domestic fixed income (bonds), international equity, international fixed income, alternative investments (direct investments in companies whose stock usually isn't publicly traded, and limited partnerships), real estate, and short-term cash investments. The following table shows how the Retirement System's rate of return for each investment category ranked compared with the other six retirement systems we used for comparisons.

Fiscal Year 1997 Investment Performance By Type of Investment

<u>Asset Class</u>	<u>Fiscal Year 1997</u>			<u>5-Year Average</u>		
	<u>Rate of return</u>	<u>Rank w/ other states</u>	<u># of states rptg.</u>	<u>Rate of return</u>	<u>Rank w/ other states</u>	<u># of states rptg.</u>
Domestic Equity	20.1%	7	7	19.1%	4	7
Dom. Fixed Income	10.0	1	7	9.0	1(tie)	7
Int'l Equity	17.9	4	6	12.9	3	5
Int'l Fixed Income	3.8	3	3	9.3	2	3
Real Estate	4.5	6	6	3.9	4	6
Altern. Investments	11.6	4	4	28.9	1(tie)	4
Cash Equivalents	6.4	1	4	5.8	1	3

On a one-year basis, Kansas' rate of return ranked below the median for five of the seven investment categories. On a 5-year average comparison, however, Kansas had the best or second best rate of return in four of the seven investment categories. Appendix B shows the rates of return for 1997 for each individual investment category for each of the retirement systems we contacted.

The Board of Trustees' Investment Targets for the Retirement System Haven't Changed Since Fiscal Year 1994

The Board changed its investment mix in 1994 in response to legislation passed in the early 1990s limiting the amount of money the System could invest in certain types of investments, and in response to benefit enhancements passed in 1993 legislation. No changes have been made since then. The table below shows the asset allocations and targets as of June 30, 1997.

<u>Asset Class</u>	<u>Target %</u>	<u>Actual %</u>
Domestic Equity	28.4%	42.1%
Dom. Fixed Income	25.7	20.3
Int'l Equity	15.0	15.0
Int'l Fixed Income	10.9	9.5
Real Estate	10.0	5.8
Alter. Investments	5.0	0.7
Cash	<u>5.0</u>	<u>6.6</u>
	100.0%	100.0%

For fiscal year 1997, the System had considerably more moneys invested in domestic stocks and less in real estate and alternative investments than it had targeted for that year. The domestic equity portfolio has exceeded its targeted allocation by a significant amount for a number of years. This money has remained in the domestic stock market while the Retirement System works on a plan for increasing its investments in real estate and alternative investments.

The increased exposure in domestic equities has been good for the System during the recent period of rising stock prices, but it could be detrimental should stock prices fall. In fiscal year 1998 the System plans to gradually reduce its investments in domestic equities and begin making investments in real estate and alternative investments.

Kansas' Retirement System was more heavily invested in international stocks and bonds than the average of the six other comparison retirement systems. The table on the next page shows how the Retirement System's actual asset mix compared with the average for the six other systems as of June 30, 1997. Only one state we contacted (Kentucky) had no international investments.

**Investment Distribution of the Retirement Fund
June 30, 1997**

<u>Investment Category</u>	<u>Kansas' actual invest- ment mix</u>	<u>Other states' average mix</u>	<u>Other states' ranges</u>
Domestic Equity	42.1%	44.4%	40.0 to 52.0
Dom. Fixed Income	20.3	35.4	26.6 to 41.0
Int'l Equity	15.0	11.5	0.0 to 20.0
Int'l Fixed Income	9.5	2.4	0.0 to 7.8
Real Estate	5.8	3.8	0.0 to 9.1
Altern. Investment	0.7	0.9	0.0 to 3.0
Cash Equivalents	6.6	2.1	0.0 to 5.0
Mortgages	0.0	0.2	0.0 to 1.4

As the table shows, Kansas had less of its retirement funds invested in domestic stocks and bonds than the comparison states, but more in international stocks and bonds, real estate, and cash equivalents. The box on the following page lists the countries in which the Retirement System has investments. More information about each state's investment mix can be found in Appendix C.

The Retirement System's Investment Policies, Procedures, and Restrictions Generally Are Similar to Other States We Contacted

We compared the Retirement System's investment controls and practices with those of similar retirement systems in other states. Although most investment practices were similar, there were some differences. (Information we collected from other states' retirement systems is summarized in Appendix C.)

Kansas is allowed to invest more of its portfolio in common stock than other states. Most states had limitations on how much of their retirement funds could be invested in common stocks. This limitation ranged from 27% for Hawaii to 50% for New Mexico and Rhode Island. The average was about 42%. The limitation generally was set by each retirement systems's governing board, and was stated in the policy of the system.

In Kansas, the Retirement System is limited by State law to a maximum of 60% (book value) invested in any type of common stock. In fiscal year 1997, the System had 57.1% of its assets in stocks (book value of 46%). For fiscal year 1998 the System's targeted investment level for stocks will be 43.4%, or the same as in 1997 (28.4% in domestic stocks and 15% in international stocks).

Kansas' restriction against investments in banks, savings and loans, and credit unions isn't common among other states. K.S.A. 74-4921 prohibits the Retirement System from investing in the common stock of banks, savings and loans, and

**The Retirement System's International Investments
Are In A Number of Countries**

On June 30, 1997, the Retirement System had about 24.5% of its total net assets, or about \$1.9 billion, invested in foreign markets. The international investment target established by the Board of Trustees is 25.9%.

The System's international investments in 1997 were made in equity and fixed income investments in such countries as Japan, the United Kingdom, and France. International managers' portfolios include short-term cash (about \$17.7 million) and the market value of securities (about \$1.9 billion). The table below lists the gross amounts invested in foreign markets by the international fixed income managers as of June 30, 1997.

<u>Country</u>	<u>Percent of Internat'l Fixed Income Fund</u>	<u>Gross Dollar Amount (in millions)</u>
Australia	4.4%	32.5
Denmark	6.4	47.3
European Currency	0.1	.5
Finland	1.4	9.7
France	2.1	15.5
Germany	25.7	189.5
Ireland	0.9	6.5
Italy	15.0	110.5
Japan	4.3	32.1
New Zealand	3.1	22.9
Philippines	1.6	11.4
Spain	5.8	42.9
Sweden	5.9	43.5
United Kingdom	23.1	170.3
United States	0.2	1.3
Total	100.0%	\$736.4

The table at right lists the gross amounts invested in foreign markets by the international equity managers as of June 30, 1997.

<u>Country</u>	<u>Percent of International Equity Fund</u>	<u>Gross Dollar Amount (in millions)</u>
Australia	2.9	33.5
Austria	0.1	1.7
Belgium	0.5	6.1
Bermuda	0.1	1.2
Denmark	0.5	6.1
Finland	1.2	14.5
France	9.0	104.7
Germany	9.0	104.1
Hong Kong	3.5	40.7
Indonesia	0.1	1.5
Ireland	0.1	1.3
Italy	3.5	39.8
Japan	30.8	359.3
Malaysia	1.7	20.5
Netherlands	5.0	56.0
New Zealand	0.4	4.5
Norway	0.6	6.9
Philippines	0.1	1.6
Portugal	0.1	0.8
Singapore	1.5	18.1
South Korea	0.2	2.3
Spain	1.7	19.8
Sweden	2.6	29.9
Switzerland	6.6	77.5
Taiwan	0.0	0.4
Thailand	0.0	0.5
United Kingdom	18.4	215.1
United States	-0.2	-2.2
Total	100.0%	1,166.2

The figures listed in these tables are gross amounts invested. The net investment amounts may be different due to a process called hedging. Hedging is a means of securing the investment against any fluctuations of the market. Hedging involves entering into compensatory arrangements or counterbalancing transactions. Usually only currency exposure is hedged.

credit unions. New Mexico was the only other state we contacted that had these prohibitions.

Members of the Joint Committee on Pensions, Investments, and Benefits have questioned whether the System was losing investment opportunities because of these restrictions. Having such restrictions increases management fees and such other expenses as the cost of creating customized indices. The Retirement System studied the impact of such restrictions and presented its report to the Committee in October 1993. System staff also prepared a package for the 1996 legislative session explaining the impact.

Kansas was one of two states we reviewed that had ongoing legislative oversight of their retirement systems outside the appropriations process. An annual financial audit was the most frequent form of outside supervision. Two other states have performance audits of their retirement systems. One is reviewed annually by an actuary, and the other is reviewed once every five years by an external auditing firm.

The System's Board of Trustees and staff periodically provide information to the Joint Committee on Pensions, Investments, and Benefits. That Committee reviews the System's activities and makes recommendations to the Legislature concerning the laws that govern the System.

Only one other state we contacted—Nevada—had legislative committee oversight of the retirement system's activities outside the appropriations process.

**How Do the Rates of Return
Achieved by Individual Investment Managers
Compare with Market Indices and with Returns Achieved
By Other Managers Handling Similar Investments?**

For fiscal year 1997, the Board of Trustees contracted with 23 external investment managers to handle 23 individual investment portfolios. Two other portfolios were managed in-house by the Retirement System's investment staff. About half of the investment managers' portfolios matched or exceeded benchmarks established by the Retirement System, for both fiscal year 1997, and on a five-year basis. These and related findings are discussed in more detail in the following sections.

**The Board of Trustees Contracted with 23 External Investment Managers
In Fiscal Year 1997**

As noted earlier, the Retirement System has diversified its assets among seven major categories of investments in order to lower the risk of the Fund being adversely affected by a downturn in any one investment area. The number of portfolios and managers for each investment category for fiscal year 1997 is shown in the following table.

<u>Investment Category</u>	<u>Number of Portfolios</u>	<u>Number of Managers</u>
Domestic Equity	7	5 (a)
Domestic Fixed Income	4	4
International Equity	5	6
International Fixed Income	2	2
Real Estate	4	3 (c)
Alternative Investments	2	2 (b), (c)
Cash Equivalents	1	1
Total	25	23

(a) Some managers handle more than one portfolio for the Retirement System.
 (b) Two managers handle the direct placement portfolio.
 (c) The venture capital portfolio and the REIT real estate portfolio were managed in-house by the Retirement System's investment staff in fiscal year 1997.

Because each manager specializes in certain types of investments and follows certain investment styles, no single index can be used to measure the performance of all of them. For example, individual managers investing in common stocks have a number of different strategies. Some invest in large capitalization growth companies (companies that generally have a market capitalization value of \$5 billion or more that are expected to grow faster than the economy as a whole), while others may invest in value stocks (companies whose stock currently appears to be undervalued in relation to their assets). Still others may be tied to a certain index (they essentially buy a portfolio of stocks that duplicates the rate of return and level of risk of an index such as the Standard and Poor's 500). Hence, it's appropriate to measure each manager against specific indices that represent a benchmark for the type of investment managed and the management strategy followed.

For Fiscal Year 1997, About Half the Investment Managers' Portfolios Matched or Exceeded Benchmarks Established by the Retirement System

The Retirement System's investment staff have identified a number of performance indices they consider to be appropriate to measure individual investment managers' performance. We compared the rates of return achieved by those indices with the rates of return achieved by the individual investment managers handling the System's investments. That comparison is shown in the table on the next page.

As the table shows, 10 of the 23 individual portfolios that were active for all of fiscal year 1997 (43.5%) met or exceeded the rate of return achieved by their corresponding index. The investment managers that tended to exceed the averages managed domestic fixed income and international equity portfolios. Domestic equity, alternative investments, real estate, and cash managers generally didn't meet their expectations in 1997.

Because investing is a long-term process, any manager or type of investment can have a year with a low rate of return. That's why it's important to look at the longer-term performance of investment managers. When we reviewed the latest three-year and five-year performance records for the managers that had been with the Retirement System that long, we found that nine of 18 investment managers (50%) did better than the index on a three-year basis, and five out of 11 (45.5%) did better on a five-year basis. Those that tended to consistently outperform the indices on the three-year and five-year basis were the domestic and international fixed income managers.

Specific information about the rates of return for each manager compared to the indices can be found in Appendix D.

The Alternative Investment Portfolio Earned an 11.6% Rate Of Return in Fiscal Year 1997

The alternative investment portfolio comprises the direct placement portfolio and the venture capital portfolio. The Retirement System didn't make any new alternative investments during fiscal year 1997.

Direct placements are investments made in companies whose stock usually isn't publicly traded. These investments have a higher risk level associated with them. In the past fiscal year, the Retirement System had less than 1% of its assets in these types of investments. For fiscal year 1997, the direct placement portfolio earned a 3.7% rate of return.

The venture capital portfolio invests in limited partnerships, and is managed in-house by the Retirement System. This portfolio has a higher risk level, and earned a 64.5% rate of return for fiscal year 1997.

The Board of Trustees set up a reserve fund which allows the System to account for any permanent impairment (loss in value) on an investment in the alternative investment portfolio in the fiscal year it occurs rather than waiting for the disposition of the investment. During the past fiscal year, the reserve fund had a decrease of about \$450,000. At the end of the fiscal year, the reserve fund for the alternative investment portfolio had a balance of \$31.9 million. The adjustments to the reserve fund were due to final dispositions of three investments.

In addition, the System has set up a funding account to meet this portfolio's funding commitments, such as capital call obligations. The funding account was originally set up in 1991, with a beginning balance of \$20 million. As of June 30, 1997, the funding account balance was \$5.0 million.

External Investment Managers' Performance for Fiscal Year 1997

Investment Management Firm	Net Market Value (in millions)	Percent of Fund	Rate of Return	Index %	Return Compared to Index
Domestic Equity					
Brinson Partners	\$495.9	6.4%	30.6	33.2	lower
Provident Investment Counsel, Inc.	\$609.5	7.9%	26.0	33.2	lower
Barclays Global Investors	\$1,058.3	13.7%	33.0	33.2	lower
Barclays Global Investors	\$314.8	4.1%	38.3	33.2	higher
Pilgram, Baxter, Greig & Associates	\$410.4	5.3%	-6.2	23.3	lower
PB Small Cap	\$191.7	2.5%	2.8	16.3	lower
Capital Guardian Trust Company	\$176.1	2.3%	20.7	16.3	higher
Total Domestic Equity	\$3,256.6	42.1%	20.1	33.2	lower
Domestic Fixed Income					
Pacific Investment Management Co.	\$390.1	5.0%	9.5	8.2	higher
The Boston Company	\$163.5	2.1%	9.2	8.2	higher
Barclays Global Investors	\$605.5	7.8%	8.4	8.2	higher
Loomis, Sayles, & Company, Inc.	\$409.9	5.3%	14.1	11.4	higher
Total Domestic Fixed Income	\$1,569.1	20.3%	10.0	8.2	higher
International Equity					
Lazard Freres Asset Management	\$156.1	2.0%	18.3	13.9	higher
Morgan Stanley Asset Management	\$159.5	2.1%	16.9	13.9	higher
Bankers Trust Company	\$520.7	6.7%	13.7	13.9	lower
Nomura Capital Management	\$153.4	2.0%	4.3	-1.5	higher
Alliance Capital Management	\$177.2	2.3%	21.5	27.7	lower
Total International Equity	\$1,160.3	15.0%	17.9	13.9	higher
International Fixed Income					
Julius Baer Investment Management	\$428.3	5.5%	5.3	2.2	higher
Fiduciary Trust Company International	\$304.7	3.9%	2.0	2.2	lower
Total International Fixed Income	\$733.1	9.5%	3.8	2.2	higher
Alternative Investment					
Pacholder/Portfolio Advisors	\$50.1	0.6%	3.7	42.6	lower
Total Alternative Investment	\$59.5*	0.8%	11.6	42.6	lower
Real Estate					
Equitable Real Estate Investment	\$198.8	2.6%	3.7	10.9	lower
L & B Core Group Trust	\$90.3	1.2%	5.4	10.9	lower
JW O'Connor & Company	\$41.3	0.5%	6.8	10.9	lower
Total Real Estate	\$445.9*	5.8%	4.5	10.9	lower
Cash					
Payden & Rygel Investment	\$510.0	6.6%	6.4	6.6	lower
Total Cash	\$510.1*	6.6%	6.4	6.6	lower
Total Fund	\$7,734.6	100.0%	14.4	15.3	lower
* Internally Managed Funds					
Venture Capital (alternative)	\$9.4	0.1%	64.5	42.6	higher
KPERS REIT (real estate)	\$115.5	1.5%	na	na	na

**In Fiscal Year 1997,
Investment Litigation Resulted in
A \$4.4 Million Net Recovery**

Since fiscal year 1991, the System has been involved in investment litigation relating to losses on the Retirement System's direct placement portfolio. In fiscal year 1997, the Retirement System's litigation fees and expenses were about \$3.5 million. The System recovered about \$7.9 million as a result of the litigation, for a net recovery of \$4.4 million, in fiscal year 1997. To date, the Retirement System has spent about \$11.4 million on the litigation, and recovered about \$20 million.

The internally managed venture capital portfolio exceeded the benchmark established by the System for fiscal year 1997. The venture capital portfolio is comprised of limited partnership investments (and stock distributions from those limited partnerships) in which the System isn't the controlling or general partner. These investments previously were managed by an external manager. The System began managing this portfolio in July 1993. Information about the rate of return compared to the index can be found in Appendix D.

**In 1997, the System began to
manage part of its real estate portfolio**

in-house. The real estate portfolio includes a number of individual properties that are jointly owned by the Retirement System and other investors. In addition, the System

The Real Estate Portfolio Achieved a 4.5% Rate of Return in Fiscal Year 1997

In fiscal year 1997, the only property the Retirement System bought was a \$5 million add-on to the Overland Park International Trade Center. The real estate investments of the System, as of June 30, 1997, included investments in properties which are jointly owned by the Retirement System and other investors, as well as other types of investments in the following properties or groups of properties:

Kansas Commerce Center—Lenexa, KS
Board of Trade—Kansas City, MO
Village Mall—Great Bend, KS
Oxford Square—Lenexa, KS
Commerce Plaza I & II—Overland Park, KS
Ward Parkway Center—Kansas City, MO
Canyon Corp. (Koll) Plaza—Phoenix, AZ
KanMac—Santa Clara, CA
KanCro—Dallas, TX
Capitol Tower—Topeka, KS
O.P. International Trade Center—Overland Park, KS

Half the properties in the real estate portfolio were appraised in fiscal year 1997. As a result of the appraisal, the Retirement System reduced the market value of its real estate portfolio by about \$11.1 million.

The Board of Trustees has set up a reserve fund to cover such changes in the value of its properties. The reserve fund is

an accounting mechanism used to recognize permanent impairments when they occur rather than waiting for the sale transaction to occur. If the market value of a real estate investment is less than its actual cost at the end of the fiscal year because of a permanent impairment, the portfolio's cost basis is reduced and the reserve fund is increased by the amount of the difference, even if the investment wasn't actually sold in that fiscal year. When the investment is sold, the portfolio cost basis and the reserve fund are adjusted accordingly.

No adjustments were made to the reserve fund as a result of the appraisals completed in fiscal year 1997. Retirement staff explained that even though the appraisals lowered the current market value of the real estate properties, the decreases were not seen as permanent impairments. Rather, Retirement System staff stated that the appraisal adjustments were made to reflect current market conditions. The balance of the real estate reserve fund at the end of fiscal year 1997 was \$26.2 million.

In addition, the real estate portfolio has a funding account set up to meet capital calls on investments in the portfolio. The balance of the real estate funding account at the end of fiscal year 1997 was about \$1.6 million.

established the KPERS Real Estate Investment Trust portfolio which invests in companies that own and manage real estate. Because it was started in June 1997, rates of return for the Real Estate Investment Trust weren't available for the fiscal year 1997. The rate of return on the remainder of the real estate portfolio was 4.5%. Activity in the real estate portfolio is discussed in the box on the previous page.

Conclusion

Fiscal year 1997 was another relatively good year for stocks. However, even though the System had a larger percentage of its portfolio invested in stocks than other systems did, its rate of return was somewhat lower than those other systems. Nonetheless, the System's 14.4% rate of return for 1997 marked its third straight year of double digit returns, which helped give it the second best five-year rate of return for the retirement systems we looked at.

APPENDIX A

Board of Trustees Kansas Public Employees Retirement System

APPOINTED BY GOVERNOR

Michael Johnston (Chairperson)	Appointed: July 1, 1993 Term Expires: January 15, 1997*
Vern R. Chesbro (Vice-Chairperson)	Appointed: April 14, 1997 Term Expires: January 15, 1999
Jarold Boettcher	Appointed: July 1, 1995 Term Expires: January 15, 1999
Regenia Moore-Lee	Appointed: April 9, 1997 Term Expires: January 15, 2001

APPOINTED BY SPEAKER OF THE HOUSE

Ivan Crossland, Jr.	Appointed: July 25, 1995 Term Expires: June 30, 1999
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APPOINTED BY PRESIDENT OF SENATE

Patrick R. Smith	Appointed: July 1, 1997 Term Expires: June 30, 2001
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ELECTED MEMBER - SCHOOL

Marjorie Lee Webb	Term Began: July 1, 1997 Term Expires: June 30, 2001
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ELECTED MEMBER - NON-SCHOOL

Bruce Burditt	Term Began: July 1, 1997 Term Expires: June 30, 2001
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STATE TREASURER

Sally Thompson	Appointed: July 1, 1993 Ex Officio Member
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* Term expired, but continues to serve until the Governor appoints a replacement.

APPENDIX B

Rates of Return by Type of Investment Kansas and Six Other State Retirement Systems As of June 30, 1997

This appendix contains information about the rates of return for each of the various types of investments held by the Kansas Public Employees Retirement System and six other state retirement systems as of June 30, 1997.

**Comparison of Investment Performance
by Type of Investment**

ASSET TYPE: Domestic Equity

Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97		
			1-year	3-year	5-year
1	Nevada	\$ 2,872.0	33.8 %	28.3 %	19.7 %
2	Kentucky	4,893.0	33.1	27.9	19.3
3	Hawaii	3,476.0	30.0	25.0	18.0
4	Rhode Island	2,528.9	28.9	25.9	17.7
5	New Mexico	2,676.1	28.8	28.0	19.7
6	Illinois	2,522.0	26.3	24.5	18.3
7	Kansas	3,256.6	20.1	26.9	19.1

ASSET TYPE: International Equity

Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97		
			1-year	3-year	5-year
1	New Mexico	\$ 512.7	29.4 %	na %	na %
2	Illinois	1,243.0	19.6	15.1	14.9
3	Hawaii	1,228.0	18.0	11.0	12.0
4	Kansas	1,160.3	17.9	13.6	12.9
5	Rhode Island	792.6	17.6	11.4	12.2
6	Nevada	748.0	14.9	10.4	13.7
	Kentucky	na	na	na	na

**Comparison of Investment Performance
by Type of Investment**

ASSET TYPE:		Domestic Fixed Income				
Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97			
			1-year	3-year	5-year	
1	Kansas	\$ 1,569.1	10.0 %	10.1 %	9.0 %	
2	Illinois	2,094.0	9.5	9.3	9.0	
3	Rhode Island	1,730.5	8.5	7.2	8.5	
4	New Mexico	1,914.5	8.3	8.6	7.4	
5	Hawaii	2,085.0	8.0	9.0	8.0	
6	Kentucky	3,902.0	7.8	8.2	7.3	
7	Nevada	3,883.0	7.7	7.9	6.9	

ASSET TYPE:		International Fixed Income				
Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97			
			1-year	3-year	5-year	
1	Nevada	\$ 715.0	6.2 %	10.9 %	9.4 %	
2	Hawaii	493.0	6.0	9.0	9.0	
3	Kansas	733.1	3.8	9.5	9.3	
	Illinois	na	na	na	na	
	Kentucky	na	na	na	na	
	New Mexico	na	na	na	na	
	Rhode Island	na	na	na	na	

Comparison of Investment Performance by Type of Investment

ASSET TYPE:		Real Estate				
Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97			
			1-year	3-year	5-year	
1	Illinois	\$ 255.0	12.8 %	6.3 %	0.5 %	
2	Nevada	833.0	9.9	9.4	6.9	
3	Kentucky	18.5	8.8	10.2	9.3	
4	Hawaii	445.0	7.0	8.0	7.0	
5	Rhode Island	92.6	6.5	8.0	3.2	
6	Kansas	445.9	4.5	4.1	3.9	
	New Mexico	na	na	na	na	

ASSET TYPE:		Alternative Investments (market value or cost value)				
Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97			
			1-year	3-year	5-year	
1	Nevada	\$ 83.0	53.3 %	31.4 %	28.9 %	
2	Illinois	221.0	38.8	31.5	21.8	
3	Rhode Island	62.6	32.7	18.4	16.4	
4	Kansas	59.5	11.6	38.5	28.9	
	New Mexico	na	na	na	na	
	Hawaii	na	na	na	na	
	Kentucky	na	na	na	na	

ASSET TYPE:		Cash Equivalents				
Rank	State	Market Value 6-30-97 (in millions)	Total Return (%) as of 6-30-97			
			1-year	3-year	5-year	
1	Kansas	\$ 510.1	6.4 %	6.5 %	5.8 %	
2	New Mexico	226.5	6.0	6.5	na	
3	Kentucky	439.0	5.8	5.8	4.8	
4	Rhode Island	17.4	5.5	5.6	4.7	
	Illinois	na	na	na	na	
	Nevada	na	na	na	na	
	Hawaii	na	na	na	na	

APPENDIX C

Summary of Surveys of State Retirement Systems

We surveyed ten other state retirement systems to gather information to compare with Kansas' retirement system. For consistency, we chose ten other retirement systems that we've surveyed during the past several audits of the Retirement System. Two states didn't respond to our survey, and two of the systems had grown so much that they were no longer reasonably close in size to Kansas' retirement system. The information provided by the remaining six states and Kansas is contained in this appendix.

Questions	Kansas	Hawaii	Illinois
Name of the Retirement System.	Kansas Public Employees Retirement System	The Employees' Retirement System of the State of Hawaii	Illinois State Board of Investment
Number of Board members:	9	8	9
Term length for Board members:	Four years	Six years	Four years
Selection process for Board members:	Four-appointed by Governor confirmed by the Senate; two appointed by House and Senate leadership; two elected by retirement members - one school, one non-school; and the State Treasurer serves as an ex officio member.	Members of the System elect two general employees, one teacher, and 1 retiree. The Governor appoints three (one must be a bank officer doing business in Hawaii) which are confirmed by the Senate. The Director of Finance serves as an ex officio member.	Five members of the Board are appointed by the Governor. Four ex officio members: State Treasurer, Judges Retirement System Chairman, State Employees Retirement System Chairman, and the General Assembly Retirement System Chairman.
Minimum qualifications for Board members:	The 4 appointed by the Gov. must have demonstrated experience in the financial affairs of a public or private organization or entity or which employs 100 or more employees, had at least five years experience in the field of investment management or analysis, actuarial analysis, or administration of an employee benefit plan.	All members of the Board must be citizens of Hawaii. 1 member must be a teacher, 1 a bank officer, 1 a retiree, and 2 members must be general employees.	No set qualifications for Board members. However, the five members appointed by the Governor are confirmed by the Senate.
Investment Distribution:	Actual Distribution for 6-30-97	Actual Distribution for 6-30-97	Actual Distribution for 6-30-97
Domestic Equity	42.2%	44.3%	40.0%
International Equity	14.9%	15.7%	20.0%
Domestic Bonds	20.1%	26.6%	33.0%
International Bonds	9.2%	6.3%	0.0%
Real Estate	5.8%	5.7%	4.0%
Alternative Investments	0.9%	0.0%	3.0%
Cash Equivalents	6.9%	0.0%	0.0%
Other	na	1.4% mortgages	0.0%
Investment Targets 1998:	Target Allocation 1998	Target 1998 (+/- 2%)	Target Allocation 1998
Domestic Equity	28.4%	38.0%	35.0%
International Equity	15.0%	16.0%	20.0%
Domestic Bonds	25.7%	29.0%	35.0%
International Bonds	10.9%	8.0%	na
Real Estate	10.0%	10.0%	5.0%
Alternative Investments	5.0%	0.0%	5.0%
Cash Equivalents	5.0%	na	0.0%
Other	na	2.0%	na
Market value of the System's total assets (in millions) as of 6-30-97.	\$7,734.6	\$7,840.0	\$6,334.0
Investment standard:	ERISA Prudent Expert	Prudent Person	Prudent Person

Nevada	Kentucky	New Mexico	Rhode Island
Public Employees Retirement System of Nevada	Kentucky Teachers Retirement System	New Mexico Public Employees' Retirement System	Public Employees Retirement System of Rhode Island
7	9	11	7
Four years	Four years	Four years	Three years
Seven representative groups nominate a representative board member for each group and submit that nomination to the Governor. The Governor then appoints the seven nominated representatives to the Board of Trustees. The nominees aren't confirmed.	Seven members to the Board are elected by the members of the System. In addition, the Chief School Officer of Kentucky and the State Treasurer are ex officio members.	Four members are elected by the public employees, four members are elected by the municipal employees, one member is elected by the retired members, and two ex-officio members; the State Treasurer and the Secretary of State.	State Treasurer, Director of Administration, one member appointed by the Speaker of the House, one member appointed by the Senate Majority Leader, and three public members which are appointed by the Governor (not confirmed by the Senate).
The only qualification is that the nominated person be a representative of one of the seven representative groups.	Four of the seven elected members are active members of the System, two are non-participants such as local business owners, and one is a retired member of the System.	All members of the Board must be members of the group that elected them to the Retirement Board.	No special qualifications; however, the appointments by the Governor are people who are knowledgeable in the field of investments.
Actual Distribution for 6-30-97	Actual Distribution for 6-30-97	Actual Distribution for 6-30-97	Actual Distribution for 6-30-97
31.4%	52.0%	50.2%	48.4%
8.2%	na	9.6%	15.2%
42.6%	41.0%	35.9%	33.1%
7.8%	na	na	0.0%
9.1%	2.0%	0.0%	1.7%
0.9%	na	0.0%	1.2%
0.0%	5.0%	4.3%	0.4%
na	na	0.0%	na
Target Allocation 1998	Target Allocation 1998	Target Allocation 1998	Target Allocation 1998
30.9%	45.0%	45.0%	45.0%
7.5%	na	15.0%	15.0%
40.0%	50.0%	40.0%	32.5%
10.0%	na	na	0.0%
10.0%	2.0%	na	0.0%
1.6%	na	na	7.5%
0.0%	3.0%	na	0.0%
na	na	na	na
\$9,145.0	\$9,418.7	\$5,329.8	\$5,224.6
Prudent Person	Prudent Person	State Legal List	Prudent Person

Questions	Kansas	Hawaii	Illinois
How does the System calculate the rate of return for the overall portfolio?	Monthly Time-Weighted Total Return	Monthly Time-Weighted Total Return	Monthly Time-Weighted Total Return
Does the Retirement System comply with the Association for Investment Management and Research (AIMR) performance presentation standards?	Yes	Yes	No
Who calculates the rate of return for the overall System and the System's external managers?	System Staff, Consultant (Thompson Investment Software) and Custodial Bank (Mellon Trust)	Consultant (Callan)	Custodial Bank (Northern Trust)
Please indicate the maximum percentage of assets that may be invested in each of the asset types listed below, and source of the restriction.	<p>Domestic Stocks 60.0% (all stocks)- State Statute na</p> <p>Corporate Bonds 30.0% - System Policy</p> <p>International Investment 5.0% - State Statute, Policy</p> <p>Alternative Investments 10.0% - System Policy</p> <p>Real Estate 5.0% - System Policy</p> <p>Cash na</p> <p>Other na</p>	<p>27.0% - System Policy</p> <p>34.0% - System Policy</p> <p>20.0% - System Policy</p> <p>na</p> <p>10.0% - State Statute</p> <p>na</p> <p>9.0% Mortgages - System Policy</p>	<p>40.0% - System Policy</p> <p>40.0% - System Policy</p> <p>26.0% - System Policy</p> <p>8.0% - System Policy</p> <p>8.0% - System Policy</p> <p>0 - System Policy</p> <p>na</p>
Please indicate the types of investments that are prohibited by the Retirement System and the source of the restriction.	Banking Institutions, Savings and Loans, and Credit Unions - State Statute and State Constitution.	South Africa - System Policy	None
Is there legislative review or oversight of the Retirement System and its investments?	Yes - the Joint Committee on Pensions, Investments, and Benefits	No	No
If the Retirement System invests in direct placements or venture capital, how does the System manage or oversee those investments?	Bi-monthly reports to the Board of Trustees. Bi-monthly review of all transactions by Board subcommittee. Three-party approval process up to \$2 million; Board approval required for all follow-on investments over \$2 million. New investments subject to State statute restrictions.	The Retirement System doesn't invest in direct placements or venture capital.	External managers oversee the alternative investments without oversight by the internal investment staff. Internal staff monitor performance of fund.
If the Retirement System makes investments in real estate, how does the System manage or oversee those investments?	Non-discretionary relationship with separate account real estate manager; two-party approval process up to \$2 million; Board approval required for all follow-on investments over \$2 million. New investments subject to State Statute restrictions.	The Retirement System employs an external oversight manager for the real estate investments.	External managers oversee the real estate investments without oversight by the internal investment staff. Internal staff monitor performance of fund.

Nevada	Kentucky	New Mexico	Rhode Island
Monthly Time-Weighted Total Return	Quarterly Time-Weighted Total Return	Monthly Time-Weighted Total Return	Quarterly Time-Weighted Total Return
Yes	Yes	Yes	no response
Consultant (Callan)	System Staff, Consultant (SEI and Becker-Burke)	Consultant (Wilshire and Associates)	Custodial Bank (State Street Bank)
40.0% - System Policy na 15.0% - System Policy 1.6% - System Policy 10.0% - System Policy na na	45.0% - System Policy 35.0% - System Policy 0.0% - System Policy 1.0% - System Policy 10.0% - System Policy na na	50.0% - System Policy 37.0% - System Policy 10.0% - State Statute 0.0% - State Statute na 5.0% - System Policy na	50.0% - System Policy 33.0% - System Policy 23.0% - System Policy 8.0% - System Policy 8.0% - System Policy 0.0% - System Policy na
None	None	Banking Institutions, Savings and Loans, Credit Unions, Direct Placements and Venture Capital, and Real Estate - not on State Legal List	None
Yes - Interim Retirement Committee	No	No	No
The Retirement System hires a discretionary investment manager who invests according to the System's policies and guidelines. The fund investment consultant does a review for the System.	The Retirement System has only a small percentage in direct placements and those must be rated "A" or better by Moody's or Standard and Poor's.	The Retirement System does not invest in direct placements or venture capital.	The Retirement System hires a venture capital money manager and the fund is reviewed by the System's investment consultant, Wilshire.
The Retirement System hires a discretionary investment manager who invests according to the System's policies and guidelines. The fund investment consultant does a review for the System.	The Retirement System is involved in only "triple-net" lease agreements with companies that are rated "A" or better. Examples are Winn Dixie, Wal Mart, and Kroger.	The only real estate owned by the Retirement System is the building that houses the Retirement System's offices. It is the only real estate investment allowed by the State Legal List.	The Retirement System hires a real estate money manager and the fund is reviewed by the System's investment consultant, Wilshire.

Questions	Kansas	Hawaii	Illinois
Is an external financial audit conducted on the Retirement System?	Yes - State law requires that Legislative Post Audit conducts an annual financial audit on the System.	Yes - State law requires that an outside CPA firm conduct an annual financial audit.	Yes - State law requires that the Illinois Auditor General conduct an annual financial audit.
Is an external performance audit conducted on the Retirement System?	Yes - State law requires that Legislative Post Audit conduct an annual performance audit on the System.	No	No
Does the Retirement System participate in a securities lending program?	Yes	Yes	Yes
Percent of profits received by the Retirement System.	70.0%	80.0%	60.0%
Percent of profits received by the bank.	30.0%	20.0%	40.0%
Percent of market value required for collateral for: Domestic Securities International Securities	102.0% 105.0%	102.0% 105.0%	102.0% 102.0%
What index or indices do you use to assess your rate of return on:			
Domestic Equity	Standard & Poor's 500 and KPERs Equity Benchmark	Standard & Poor's 500 Composite Stock	BARRA, all US
Domestic Fixed Income	Lehman Brothers Aggregate KPERs	Lehman Brothers Aggregate Bond	Lehman Aggregate
International Equity	International Equity Benchmark Salomon	MSCI-EAFE, Europe and Pacific	EAFE
International Fixed Income	Non-US Government Bond	Salomon Brother World Government Bond	na
Real Estate	NCREIF Real Estate	NCREIF	NCREIF
Direct Placements	Standard & Poor's 500 + 8.0%	na	BARRA all US
Cash Equivalent	Merrill Lynch 1-3 Year Government	3 month T-bills	90-day T-Bill
The average annualized rates of return for the Retirement System's investments for fiscal year 1997 are:	Gross of Fees	Net of Fees	Gross of Fees

Nevada	Kentucky	New Mexico	Rhode Island
Yes- State law requires that an outside auditing firm conduct an annual financial audit.	Yes - System Policy requires that an outside auditing firm conduct an annual financial audit.	Yes - State law requires that the New Mexico State Auditor conduct an annual financial audit.	Yes - State law requires that the Auditor General's Office conduct an annual financial audit, and that an independent auditor conduct a financial audit once every three years.
Yes- System Policy requires that an external auditing firm conduct a performance audit once every five years.	No	No	Yes - State law requires that the actuary conduct an annual performance audit.
Yes	No	Yes - through a third-party agent	Yes
80.0%		60.0%	60.0%
20.0%		40.0%	40.0%
102.0% 102.0%		102.0% 105.0%	103.0% na
Standard & Poor's 500	Standard & Poor's 500	Standard & Poor's 500	Wilshire
Lehman Aggregate	Lehman Government/Corporate	Lehman Aggregate Bond	no response
EAFE	na	na	EAFE
Salomon Non-Dollar	na	na	na
NCREIF	no response	na	Wilshire Real Estate
12% Real Rate of Return	na	na	na
na	90-Day Treasury Bill	1-3 yr Govt	none
Gross of Fees	Gross of Fees	no response	Net of Fees

APPENDIX D

Kansas Public Employees Retirement System Investment Performance by Investment Type Compared to Selected Indices Fiscal Year 1997

This appendix shows the rates of return earned by the entire retirement fund and each individual type of investment for the past fiscal year, and for three and five year averages. It compares those rates of return with indices the Retirement System has used to measure each investment manager's performance.

Kansas Public Employees Retirement System

Fiscal Year 1997 Investment Performance Compared to Selected Indices

TOTAL FUND: Overall Total Return	Net Asset Value (in millions) (b)	Time Weighted Total Return (a)		
		Latest 12 months	Latest 3-year	Latest 5-year
Time-weighted Rate of Return 6-30	\$7,734.6 (c)	14.4	16.9	13.4
Policy Index (d)		15.3	13.9	11.6
Consumer Price Index		2.3	2.7	2.7
Real Rate of Return 6-30 (e)		12.1	14.2	10.7

ASSET CLASS: Alternative Investments

Investment Manager	Investment Style	Net Asset Value (in millions) (b)	% of Asset Class	Time Weighted Total Return (a)		
				Latest 12 Months	Latest 3-year	Latest 5-year
Pacholder/Portfolio Advisors		\$50.1	84.2	3.7	42.8	31.5
Venture Capital Portfolio		\$9.4	15.8	64.5	27.3	na
TOTAL: Alternative Investments (f)		\$59.5	100.0	11.6	38.5	28.9
	Standard & Poor's 500 Index + 8%			42.6	36.8	27.7

ASSET CLASS: Domestic Equity (Stocks)

Investment Manager	Investment Style	Net Asset Value (in millions) (b)	% of Asset Class	Time Weighted Total Return (a)		
				Latest 12 Months	Latest 3-year	Latest 5-year
Brinson Partners	Multi-Cap Value	\$495.9	15.2	30.6	27.2	na
Provident Investment Counsel, Inc.	Large Cap Growth	\$609.5	18.7	26.0	25.0	16.7
Barclays Global Investors	Index	\$1,058.3	32.5	33.0	28.2	19.3
Barclays Global Investors (p)	Alpha Tilt	\$314.8	9.7	38.3	29.9	na
	KPERs Equity Benchmark (g)			33.2	28.3	19.6
	Standard & Poor's 500 Index			34.6	28.8	19.7
Pilgrim, Baxter & Associates	Mid-Cap Growth	\$410.4	12.6	-6.2	24.5	18.3
	Standard & Poor's Mid-Cap Index			23.3	22.4	17.6
Pilgrim, Baxter Small Cap	Small Cap Growth	\$191.7	5.9	2.8	33.4	26.5
Capital Guardian Trust Company	Small Cap Value	\$176.1	5.4	20.7	21.8	na
	Russell 2000 Index			16.3	20.1	17.9
TOTAL: Domestic Equity		\$3,256.6	100.0	20.1	26.9	19.1
	KPERs Equity Benchmark (g)			33.2	28.3	19.6

ASSET CLASS: Domestic Fixed Income (Bonds)

Investment Manager	Investment Style	Net Asset Value (in millions) (b)	% of Asset Class	Latest 12 Months	Latest 3-year	Latest 5-year
Pacific Investment Management Co.	Core	\$390.1	24.9	9.5	9.9	8.7
The Boston Company	Core	\$163.5	10.4	9.2	8.6	na
Barclays Global Investors	Quasi-Passive	\$605.5	38.6	8.4	8.7	8.5
Lehman Brothers Aggregate Index				8.2	8.5	7.1
Loomis, Sayles, & Company, Inc.	High Yield	\$409.9	26.1	14.1	13.9	11.5
Loomis Sayles Customized Benchmark (d)				11.4	10.7	9.4
Solomon High Yield Market Index				14.6	12.7	11.6
TOTAL: Domestic Fixed Income		\$1,569.1	100.0	10.0	10.1	9.0
Lehman Brothers Aggregate Index				8.2	8.5	7.1

ASSET CLASS: Real Estate

Investment Manager	Investment Style	Net Asset Value (in millions) (b)	% of Asset Class	Latest 12 Months	Latest 3-year	Latest 5-year
Equitable Real Estate Investment		\$198.8	44.6	3.7	3.3	na
L & B Core Group Trust		\$90.3	20.3	5.4	6.7	4.4
JW O'Connor & Company (h)		\$41.3	9.3	6.8	3.6	1.2
NCREIF Real Estate (i)				10.9	9.2	5.0
KPERS REIT Portfolio (began 6/97)		\$115.5	25.9	na	na	na
Morgan Stanley REIT Index				34.4	na	na
TOTAL: Real Estate		\$445.9	100.0	4.5	4.1	3.9
NCREIF Real Estate (i)				10.9	9.2	5.0

ASSET CLASS: International Fixed Income (Bonds)

Investment Manager	Investment Style	Net Asset Value (in millions)	% of Asset Class	Latest 12 Months	Latest 3-year	Latest 5-year
Julius Baer Investment Management	Core	\$428.3	58.4	5.3	11.3	10.4
Fiduciary Trust Company International	Core	\$304.7	41.6	2.0	na	na
TOTAL: International Fixed Income		\$733.0	100.0	3.8	9.5	9.3
Salomon Non-US Government Bond Index				2.2	7.2	8.2

ASSET CLASS: International Equity

Investment Manager	Investment Style	Net Asset Value (in millions)	% of Asset Class	Latest 12 Months	Latest 3-year	Latest 5-year
Lazard Freres Asset Management	Active Core	\$156.1	13.4	18.3	13.4	na
Morgan Stanley Asset Management	Active/Passive Core	\$159.5	13.7	16.9	13.2	na
Bankers Trust Company	Passive EAFE	\$520.7	44.6	13.7	10.4	na
KPERS International Equity Benchmark (j)				13.9	10.4	14.0
Nomura Capital Management	Active Far East	\$153.4	13.1	4.3	2.6	7.8
Pacific Ex-Banking Custom Benchmark(k)				-1.5	0.0	8.4
MSCI - Pacific Index				-4.5	-1.6	10.4
Alliance Capital Management	Active European	\$177.2	15.2	21.5	21.4	16.2
Europe Ex-Banking Custom Benchmark (l)				27.7	21.0	19.1
MSCI - Europe Index				30.0	21.0	14.9
TOTAL: International Equity		\$1,160.3 (q)	100.0	17.9	13.6	12.9
KPERS International Equity Benchmark (j)				13.9	10.4	14.0

ASSET CLASS: Cash Equivalents

Investment Manager	Investment Style	Net Asset Value (in millions) (b)	% of Asset Class	Latest 12 Months	Latest 3-year	Latest 5-year
Payden & Rygel Investment (m)	STIF	\$510.0	100.0	6.4	6.6	5.8
Merrill Lynch 1-3 Year Government Index				6.6	6.6	5.6
KPERS Dedicated Cash Portfolio (7/97)		\$0.1	0.0	na	na	na
Merrill Lynch 0-1 Year Treasury Index				5.7	5.9	na
TOTAL: Cash Equivalents (n)		\$510.1	100.0	6.4	6.5	5.8
Merrill Lynch 1-3 Year Government Index				6.6	6.6	5.6

- (a) Time-weighted total return includes income and changes in market value.
- (b) Net Asset Value is the market value of investments plus accrued receivables less accrued payables.
- (c) Slight inconsistencies in Net Asset Values are due to rounding.
- (d) The Policy Index reflects the asset allocation policies that have been in place since fiscal year 1995, the current allocation is 28.4% KPERS, Equity Benchmark, 15% KPERS International Equity Benchmark, 25.7% Lehman Aggregate Bond Index, 10.9% Salomon Non-US World Government Bond Index, 10% NCREIF Real Estate Index, and 10% US Treasury Bills.
- (e) Real Rate of Return is the Time-weighted Rate of Return minus the Consumer Price Index thus inflation is taken into consideration.
- (f) Alternative Investment assets are priced at an adjusted cost or market value. Total return reflects cash returns on adjusted cost basis, including gains realized on the sale of assets. Since assets are priced at lower of cost or market value, gains or losses incurred by sales are realized totally in the month of the sale transaction.
- (g) The KPERS Equity Benchmark is defined as the S&P 500 Index, less the stocks of companies engaged in banking institutions, savings and loan associations, or credit unions.
- (h) The J.W. O'Connor returns reflect the entire portfolio prior to the manager change, \$228.6 million as of 12-31-92, and only the return for the Retail Property Trust after the manager change on 1-1-93.
- (i) The NCREIF Real Estate Index lags one quarter and is updated quarterly. The returns shown are for the period ending 3-31-97.
- (j) The KPERS International Equity Benchmark is defined as the Morgan Stanley EAFE Index, less the stocks of companies classified as banking institutions, savings and loan associations, or credit unions.
- (k) The Pacific Ex-Banking Custom Benchmark is defined as the KPERS International Equity Benchmark prior to 4-1-94, and the Morgan Stanley International Pacific Ex-Banking Index after that date.
- (l) The Europe Ex-Banking Custom Benchmark is defined as the KPERS International Equity Benchmark prior to 4-1-94, and the Morgan Stanley International Europe Ex-Banking Index after that date.
- (m) The Payden & Rygel returns reflect both the STIF and STBF portfolios prior to 4-1-93, and only the return for the STIF after this date.
- (n) The Total Cash Equivalents return includes the assets in the real estate and direct placement funding accounts.
- (o) The Loomis Sayles Customized Benchmark is 50% Lehman Aggregate Bond Index/50% Merrill Lynch High Yield Bond Index blend through 3/31/97, and the Salomon High Yield Market Index after that.
- (p) Effective 5/1/97, the portfolio was changed to an Alpha Tilt (style neutral) strategy from a Low P/E Tilt (value) strategy.
- (q) Totals for International Equity portfolio include the currency overlay activities of Pareto Partners.

APPENDIX E

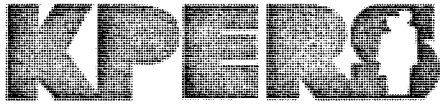
Agency Response

On December 11, 1997 we provided copies of the draft audit report to the Kansas Public Employees Retirement System. Its response is included in this Appendix.

In its response, the Retirement System objected to a comparison with the Illinois Retirement System shown at the top of page 7 of the report. The objection appears to be based on the time-period reviewed, and the fact that only one other state is included.

For several years, KPERS officials have suggested that we include rate of return comparisons adjusted for risk. When we've asked for this information in the past, other states haven't been able to provide it. This year, for the first time, we were able to obtain the information, but it was only provided by one state--Illinois.

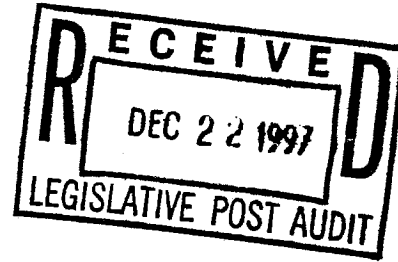
The information shown on page 7 is based on individual monthly rates of return for the past five years. We collected this information based on a recommendation from the Retirement System's staff and we analyzed the data using a methodology suggested by them.



Kansas Public Employees Retirement System

December 19, 1997

Barbara J. Hinton
Legislative Post Auditor
Legislative Division of Post Audit
Mercantile Bank Tower
800 S.W. Jackson Street, Suite 1200
Topeka, KS 66612-2212



Dear Ms. Hinton:

Thank you for the opportunity to formally respond to the draft copy of your completed review of the Performance and Investment Practices of the Kansas Public Employees Retirement System.

We appreciate the time and effort which was expended by the Legislative Post Audit staff in preparing the audit report. We agree generally with your findings, that the System has exemplary returns over most time periods, that most of our external managers have exceeded their benchmarks over most time periods and that the System's asset allocations are reasonable and appropriate relative to our objective of providing asset growth to meet retirement liabilities.

We recognize the importance of the role of investment returns to the System, and have gone to great lengths to create a reporting system that makes the process and its results available to anyone who has an interest. As an example, we are one of a handful of defined benefit systems that publishes their monthly investment returns on the internet. Our monthly investment reports are a concise and straightforward scorecard and are distributed at virtually every public presentation, at Board Meetings, to the press and to legislative entities. The transparency of our operation creates accountability and disclosure at virtually every level of investment activity.

With regard to your report, we would offer a few observations on some material issues that have been misinterpreted or may be misleading. For example, on page six, second paragraph, you state that "one year rates of return can be significantly affected by the investment strategy a retirement system has adopted". We believe this understates the impact of strategy. In fact, all return periods, particularly those encompassing longer periods of time, are dominated by investment strategy in the form of asset allocation. Empirical studies have determined that somewhere between seventy-five and ninety percent of total returns, over time, are a function of the asset mix chosen. As such, even subtle differences among fund strategies will have a material impact on the investment results. This is an important factor to keep in mind, particularly as it relates to comparisons within small groups.

The third paragraph of page six and the accompanying chart at the top of the page seven provide a good example of this type of error. A single state comparison is dubious at best, and to attempt to draw conclusions with regard to risk without additional information regarding the underlying risk profile of the systems is simply wrong. The measure of the variability of system returns says very little about the true "risk" of the underlying assets or asset allocation. Further, measurements of return dispersion are notoriously time sensitive.

Barbara J. Hinton
December 19, 1997
Page 2

Without additional rolling time periods, nearly any conclusion could be supported with the selection of the appropriate time period. This would be true regardless of how flattering or damning the conclusion.

Return comparisons of the sort you've engaged in and the resulting conclusions are always a function of the time period selected. We're pleased you've recognized this by including and referencing both three and five year returns in addition to the more standard one year numbers. By example, had this study been conducted at the conclusion of fiscal year 1996, you would have found that the percentage of managers exceeding their one year benchmarks would have risen from 57 percent in FY97 to 65 percent. To the question "Did the Return of the Total Fund and Each Asset Class Meet or Exceed the Stated Benchmark", the answer for one year would include 75 percent yes and for five years it was an extraordinary 88 percent.

We are also keenly aware of the expense side of the operational equation. Initiatives by the Investment Staff to reduce overhead, consolidate operations and build on efficiencies created substantial cost savings in fiscal year 1997. For example, by eliminating one redundant portfolio and internalizing two others, recurring fee savings of over \$1,000,000 per year were realized. In addition, successful management efforts in the former direct placement portfolio allowed staff to negotiate manager fees down by over \$500,000 per year.

We recognize that relative and absolute returns are a function of several factors, many of which, particularly in the short run, are out of the control of the Board of Trustees, their staff and the professional managers they've engaged. The exceptional longer term returns you reference are largely a function of our disciplined and long term approach to the process. We will continue to attempt at all times to place the assets of the System in the best possible position to realize these long term opportunities.

We look forward to discussing the audit report with the members of the Legislative Post Audit Committee. Upon the public release of the final audit report, as is our standard practice, it will be placed on the agendas of the next scheduled meetings of the Retirement System's Board of Trustees and its Audit Committee.

Sincerely,



Meredith Williams
Executive Secretary

