

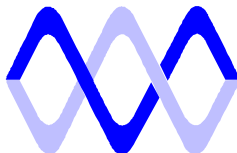
INVESTMENT PERFORMANCE REVIEW

for

THE OHIO RETIREMENT

STUDY COUNCIL

Analysis prepared by



Milliman & Robertson Investment Consulting

June 20, 2000

The following analysis was prepared by Milliman & Robertson, Inc. utilizing rates of return provided by the individual Fund Offices, M&R computer software and selected information in the M&R database. Reasonable care has been taken to assure the accuracy of the data contained herein, and all written comments are objectively stated and are based on facts gathered in good faith. No attempt has been made to recalculate returns or otherwise question or audit the information provided by the Fund Offices. M&R disclaims responsibility, financial or otherwise, for the accuracy or completeness of this report.

OHIO RETIREMENT STUDY COUNCIL
Comparative Performance Study

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OHIO RETIREMENT STUDY COUNCIL
Comparative Performance Study
Executive Summary and Explanation of Exhibits

Milliman & Robertson is pleased to present the year-end 1999 results of our ongoing comparative study of the performance of the five Ohio Statewide pension funds. This report compares, over a period that now spans six years ending December, 1999, the investment performance of the Highway Patrol Retirement System (HPRS), the Public Employees Retirement System (PERS), the Ohio Police and Fire Pension Fund (OP&F), the School Employees Retirement System (SERS) and the State Teachers Retirement System (STRS).

The report begins with a table that summarizes the data that are analyzed further in the body of the document. Each fund's results is displayed, for periods ending 12/31/99, and broken out for the most recent quarter, two quarters, three quarters, one year, three years and five years. Here, as in the rest of the report, results for periods of one year or less are for that period (not annualized) and returns for periods more than one year are annual compound returns for that period.

The Summary Table (page 1) shows that, for a six-year measurement period, SERS had the highest total return (14.60% per year) and HPRS had the lowest total return (9.99% per year). Total Return, here and throughout the report, is defined as the return for the entire fund, including all asset classes.

For the three years ending 12/31/99, SERS again had the highest total return (17.07% per year) and HPRS had the lowest total return (8.50% per year). For the year ending 12/31/99, the highest return was enjoyed by STRS (18.87%) and the lowest produced by HPRS (6.96%)

Page 2 summarizes the returns of the various benchmarks utilized by the funds. These may be used as reference points to compare the asset class results of the various funds. For example, for the six-year measurement period, the broad equity market, as defined by the Russell 3000 Index, returned 22.03% per year. None of the funds experienced equity performance that outperformed this index for the period.ⁱ

i In order to put performance in the proper context, it is important to understand the historical evolution of the investment restrictions imposed on the funds by statute. Prior to 1993 and the passage of S.B. 43, the investment authority of the funds was severely limited. Only 35% of each fund's assets could be invested in common stock and individual stock purchases were limited to domestic securities specified by a legal list. S.B. 43 expanded the legal list to include American Depository Receipts (ADRs), commingled stock investment funds, derivative instruments and real estate investment trusts (REITs). More importantly, the act permitted the funds to invest up to 50% of their total assets in U.S. stock and 10% in foreign stocks, bonds and other obligations.

In 1997, S.B. 82 abolished the legal list and adopted the "prudent person rule." The funds' investment authority under this act is expanded to allow any individual investment, so long as the overall portfolio is diversified. Along with this expansion, however, comes the requirement of prudence and diligence in the development of guidelines, benchmarks and objectives and, importantly, mandates ongoing monitoring by those with fiduciary responsibility.

The remainder of the report is divided into sections. **Section I** (pp. 3-9) provides additional analysis of the Total Fund results for each system. Pages 3 and 4 compare the Total Fund results to a broad universeⁱⁱ of Total Funds – roughly 700 other funds including those of public, corporate and multiemployer pension plans – over the five year measurement period. Here and elsewhere in the report, the “floating bars” define the universe against which the performance is being compared. The top of the bar is the 5th percentile, the higher dotted line is the 25th percentile (bottom of the first quartile), the solid line is the median, the lower dotted line is the 75th percentile (bottom of the third quartile) and the bottom of the bar is the 95th percentile. The table below the graph defines the quartile marks and the table at the bottom of the page displays each fund’s return for that period and the relevant ranking in the universe. At the very bottom of the page is the return and rank of a hypothetical portfolio of 50% stocks (Wilshire 5000) and 50% bonds (Lehman Aggregate Bond Index).

Pages 5 through 8 are similar to pages 3 and 4. This time, however, the Total Fund results are compared to a universe comprised solely of the 96 Public Retirement Systems in the universe (pp. 5-6) and again (pp. 7-8) to funds with assets in excess of \$1 Billion (45 fundsⁱⁱⁱ). The percentile rankings vary a bit, depending on the universe chosen, but the relative results are similar: SERS has the best long-term relative rankings and STRS has had the best results recently, causing it to join SERS in the top quartile of funds , regardless of universe.

In sections I-V, each of which compares all five funds’ results for either the Total Fund or a particular asset class, there are both cumulative and consecutive period comparisons. The cumulative period graphs (pp. 3, and 5, for example) show quarter, one year, two year, three, four, five and six year periods ending 12/31/99. The consecutive period graphs (pp. 4, 6 and 8, for example), on the other hand, look at the year ending 12/31/94, the year ending 12/31/95, etc. This second group of graphs can be useful for examining trends in performance. For example, both PERS and HPRS have had relatively poor Total Fund results over the six-year measurement period. An examination of the consecutive performance comparison on page 4 shows that PERS, after a particularly bad year in 1996 (86th percentile), has been showing improvement in relative returns since then with results in the 83rd, 40th and 39th percentiles for the years ending 12/97, 98 and 99. HPRS, on the other hand, exhibits a very different trend. After a good relative year in 1996 (38th percentile), results have been particularly hurt by a 96th percentile ranking in 1998. 1999 shows some improvement for HPRS, with a 3rd quartile (62nd percentile) ranking vs. the entire database.

Page 9 provides the first analysis of risk. The six-year results of each Total Fund are displayed in risk-return space. The vertical axis shows the fund’s return and the horizontal axis shows the fund’s risk (defined as annualized quarterly

ii The universe comparisons referred to in the report are those of the Wilshire Cooperative Universe Service. The participant funds that make up the various universes, e.g., Public Funds, Funds in Excess of \$1 Billion, are, by agreement, not disclosed.

iii The universe of funds in excess of \$1 billion does not include statistically significant data prior to the second quarter of 1995, therefore a six-year comparison is unavailable.

standard deviation of returns) for the period. The diagonal line is the Capital Market Line, drawn by connecting the risk/return point of US T-bills (the theoretical risk-free rate) and the risk/return point of that hypothetical 50% stock, 50% bond portfolio defined above. This line is included because, theoretically, an investor could, using a combination of index funds and T-bills, have risk/return performance that is on the line. This analysis allows us to compare the two funds with the lowest return for the period (PERS and HPRS) and note that PERS' low return was achieved with the lowest risk (volatility) while HPRS experienced the higher volatility for the period.

Whenever risk and return are compared, a Sharpe Ratio is calculated for each fund or asset class being examined. This ratio, developed by the Nobel Prize-winning economist William Sharpe, is a measure of risk-adjusted return. It is designed to measure the expected return per unit of risk and is calculated by dividing the portfolio's return in excess of the risk-free T-bill rate by the variability of the portfolio's returns. When comparing two funds or a fund and a benchmark, the Higher Sharpe Ratio is the better risk-adjusted return.

Section II focuses on US Equity results. The analysis is similar to the Total Fund analysis described above, with comparisons to a broad equity universe (pages 10 and 11) and to the equity returns of Public Funds (pages 12 and 13).

When compared to all equity portfolios in the universe, the Ohio systems, with the exception of HPRS, fare rather well over the past four years in particular. The SERS equity results are in the top half (46th percentile) and only HPRS is below the third quartile (91st percentile). Comparisons to the narrower Public Fund universe, however, are not as favorable. SERS was the only fund whose four-year equity return was in the top half of the Public Fund universe.

Page 14 is a risk-return analysis of domestic equity portfolios for all of the funds. The Capital Market Line is drawn, this time, between T-bills and the Wilshire 5000, the proxy for the total US stock market. As noted above, here, and in every case where risk-return analysis is performed, a Sharpe Ratio is calculated, providing a means of comparing returns adjusted for volatility.

Section III is an analysis of Fixed Income results. Each fund is compared, using an analytical framework similar to previous sections, to a broad universe of fixed income portfolios (pages 15 and 16) and to a Public Fund fixed income universe (pages 17 and 18). Compared to the broad fixed income universe, all of the funds' fixed income returns are near or above the median fund for the past five years. Once again, the Public Fund universe proves to be a somewhat tougher comparison.

The risk/return analysis on page 19 shows that three of the funds' fixed income portfolios (STRS, PERS and OP&F) have enjoyed risk-adjusted returns (as measured by Sharpe Ratio) equal to or greater than the bond market as defined

by the Lehman Aggregate Index. SERS has had the lowest Sharpe Ratio for the six-year period.

Section IV analyzes International Equity results. In this case, five year comparisons are unavailable, since two of the funds have not had allocations to this asset class for that length of time. All funds have at least four years of history, however, so comparisons over that time period are valid.

On page 20 we see that over the four years ending 12/31/99 all of the funds except OP&F have had International Equity returns that are below the median International Equity portfolio in our universe. On an absolute basis, these range from 18.88% (OP&F) to 12.29% (STRS). STRS had the best International Equity return in 1999, posting a 49.38% return.

On a risk/return basis, (page 22) the results have converged over time. Over the four-year measurement period the volatility of the funds' returns have been similar (standard deviations ranging from 17.66 to 21.78), resulting in Sharpe Ratios ranging from STRS' 0.33 to OP&F'S 0.67.

Section V looks at Real Estate. For the six-year period, four of the funds' returns have been at or near the benchmark NCREIF (10.70%) annualized return. The exception is HPRS, whose return of 6.40% per year is well below the other funds.

We have not included a risk/return analysis for real estate. While institutional investors in real property compute and report quarterly returns, these returns are based on appraisals and are not appropriately compared with other investments which actually trade on a daily basis. An annualized quarterly standard deviation of returns for real estate is, in our judgement, a meaningless number.

Recognizing the importance of asset allocation in the determination of long-term investment results, **Section VI** is a departure from the rest of the document. Instead of comparing the funds to one another, this section provides a comparison of each fund's total return to its own asset allocation policy benchmark. Five exhibits are included for each fund. First we lay out the asset allocation of the fund in a pie chart. Second, we trace the asset allocation of the fund over the past 10 quarters. Third, we describe the custom benchmark that has been used to measure relative results. Fourth, we display the total fund's return compared to its custom benchmark (Policy Index). For reference, each asset class is then compared to a broad market index. (In order to be consistent, we use the same broad indexes for all funds. Many of the funds have individual asset class policy benchmarks which differ from these indexes.) Finally, we display the five-year total fund results in risk-return space compared to the custom benchmark.

The inclusion of this fund-by-fund analysis is an acknowledgement of the importance of comparing each fund to its own set of objectives. While it is valid

OHIO RETIREMENT STUDY COUNCIL
Performance Summary Table
Quarter Ending 12/31/99

Manager	1 Qtr	2 Qtrs	3 Qtrs	1 Yr	3 Yrs	5 Yrs	Since 12/31/93	Incept Date	
HPRS									
Total Return	6.20	0.68	7.83	6.96	8.50	12.44	9.99	12/31/93	
Equity	6.40	-4.35	6.56	4.11	7.59	15.68	14.39	12/31/93	
Fixed Income	0.10	0.80	0.30	0.10	5.88	7.49	5.70	12/31/93	
Real Estate	2.30	1.89	6.68	7.43	6.46	7.02	6.40	12/31/93	
International Equity	19.50	21.89	28.59	31.94	16.45				
PERS									
Total Return	9.63	7.44	10.82	12.15	13.31	13.71	11.21	12/31/93	
Equity	13.01	4.07	11.60	14.64	22.01	22.15	17.52	12/31/93	
Fixed Income	0.04	0.73	-0.17	-0.50	5.60	8.17	6.41	12/31/93	
Real Estate	3.33	1.96	6.40	7.19	8.93	9.68	10.08	12/31/93	
International Equity	27.72	32.66	40.40	44.85	16.36				
OP&F									
Total Return	9.81	7.12	12.65	13.84	14.89	16.59	13.31	12/31/93	
Equity	13.86	5.98	16.66	17.41	21.15	23.41	18.97	12/31/93	
Fixed Income	0.13	0.80	0.40	0.35	5.64	7.75	5.85	12/31/93	
Real Estate	1.94	4.12	6.32	13.71	14.49	12.23	11.12	12/31/93	
International Equity	27.08	31.13	38.19	42.10	20.83	17.11			
SERS									
Total Return	11.50	8.71	13.82	16.33	17.07	17.98	14.60	12/31/93	
Equity	17.00	9.39	18.15	21.69	24.69	26.31	21.61	12/31/93	
Fixed Income	0.00	0.60	-0.31	-0.70	5.69	7.91	5.63	12/31/93	
Real Estate	3.80	5.46	8.52	10.58	11.48	11.36	10.77	12/31/93	
International Equity	17.70	20.41	27.99	32.86	18.90	15.35			
STRS									
Total Return	12.22	9.23	16.68	18.87	16.10	16.25	13.44	12/31/93	
Equity	13.41	5.81	16.08	17.75	22.89	23.08	19.11	12/31/93	
Fixed Income	-0.28	0.28	-0.95	-1.70	6.61	8.48	6.73	12/31/93	
Real Estate	3.76	5.48	9.24	11.73	13.28	11.51	10.76	12/31/93	
International Equity	26.63	26.26	41.58	49.38	14.12	11.29	10.33	12/31/93	

OHIO RETIREMENT STUDY COUNCIL
Performance Summary Table
Quarter Ending 3/31/00

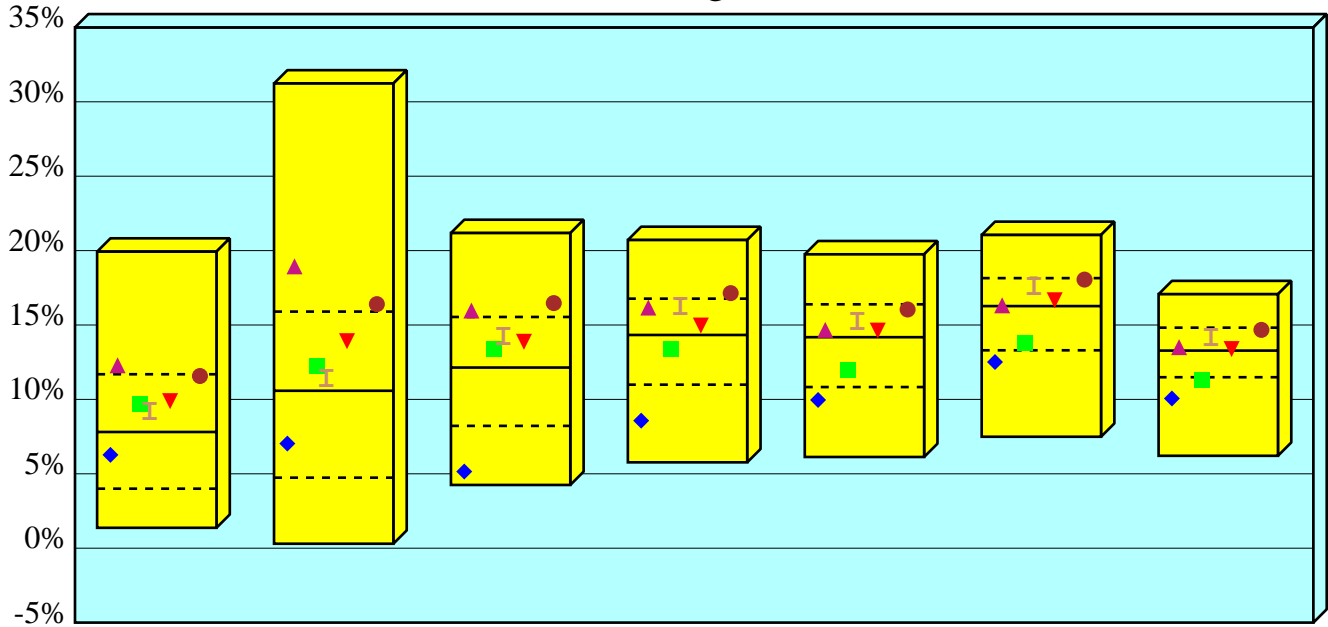
Manager		1 Qtr	2 Qtrs	3 Qtrs	1 Yr	3 Yrs	5 Yrs	Since 12/31/93	Inception Date
Indices									Since
Domestic Equity:	Russell 1000	16.05	8.39	16.12	20.91	26.83	28.04	22.95	12/31/1993
	Russell 2000	18.45	10.96	28.22	21.26	13.08	16.69	13.38	12/31/1993
	Russell 3000	16.22	8.56	16.92	20.89	25.52	26.94	22.03	12/31/1993
	Standard & Poors 500	14.88	7.78	15.28	20.98	27.56	28.56	23.56	12/31/1993
	S&P Equal Wtd	7.11	-2.84	10.96	12.24	18.51	21.68	18.07	12/31/1993
	S&P Smal Cap 600	12.46	7.01	23.51	12.40	11.69	17.05	13.09	12/31/1993
	S&P MidCap 400	17.18	7.42	22.64	14.86	21.77	23.03	18.13	12/31/1993
	S&P 1500	14.97	7.66	16.03	20.26				01/01/1998
Fixed Income:	LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88	12/31/1993
	SB Broad Inv Grade	-0.17	0.55	-0.38	-0.84	5.72	7.74	5.90	12/31/1993
Int'l Equity:	MSCI EAFE(Net)	16.99	22.13	25.23	26.97	15.73	12.83	11.97	12/31/1993
	MSCI EAFE(50% Hedged)	18.50	20.69	26.01	31.69				01/01/1998
	MSCI Em Mkts Free(Gross)	25.45	18.98	48.01	66.42	3.19	2.00	0.39	12/31/1993
	MSCI World Ex-US(Net)	17.37	22.40	25.94	27.92	15.82	13.09	12.11	12/31/1993
Real Estate:	LB Mortgage	0.39	1.32	0.86	1.85	6.05	7.98	6.32	12/31/1993
	NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70	12/31/1993
	NAREIT	-1.01	-8.97	0.21	-4.62	-1.83	8.09	7.25	12/31/1993
	NCREIF Timber	6.66	12.74	12.80	12.92	13.55	13.04	13.43	12/31/1993
	NCREIF Farmland	3.05	3.64	4.88	5.89	6.91	7.72	7.88	12/31/1993

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Total Fund Portfolios

Periods Ending 12/99



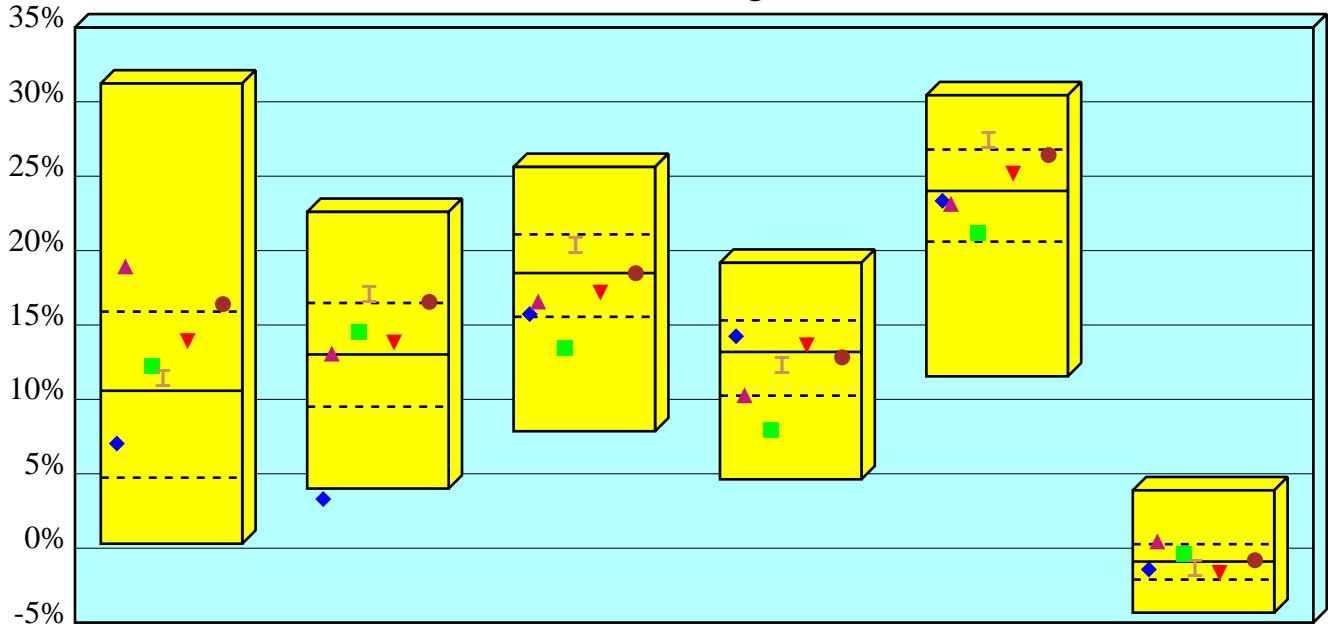
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	19.93	31.23	21.18	20.71	19.75	21.05	17.07
1st Qt	11.69	15.90	15.54	16.77	16.39	18.15	14.82
Median	7.81	10.58	12.14	14.33	14.18	16.27	13.28
3rd Qt	4.00	4.74	8.22	10.99	10.83	13.30	11.49
Low	1.37	0.30	4.25	5.77	6.13	7.49	6.21
◆ HPRS							
Return	6.20	6.96	5.08	8.50	9.89	12.44	9.99
Rank	61	62	93	87	81	79	83
■ PERS							
Return	9.63	12.15	13.29	13.31	11.93	13.71	11.21
Rank	40	39	42	59	68	72	77
▼ OP&F							
Return	9.81	13.84	13.80	14.89	14.55	16.59	13.31
Rank	40	33	39	44	47	46	49
● SERS							
Return	11.50	16.33	16.40	17.07	15.97	17.98	14.60
Rank	26	23	18	19	29	29	29
▲ STRS							
Return	12.22	18.87	15.90	16.10	14.60	16.25	13.44
Rank	20	15	23	35	47	50	48
I 50/50 Index							
Return	9.07	11.29	14.09	16.11	15.12	17.45	14.06
Rank	43	44	36	35	38	34	38

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Total Fund Portfolios

Years Ending



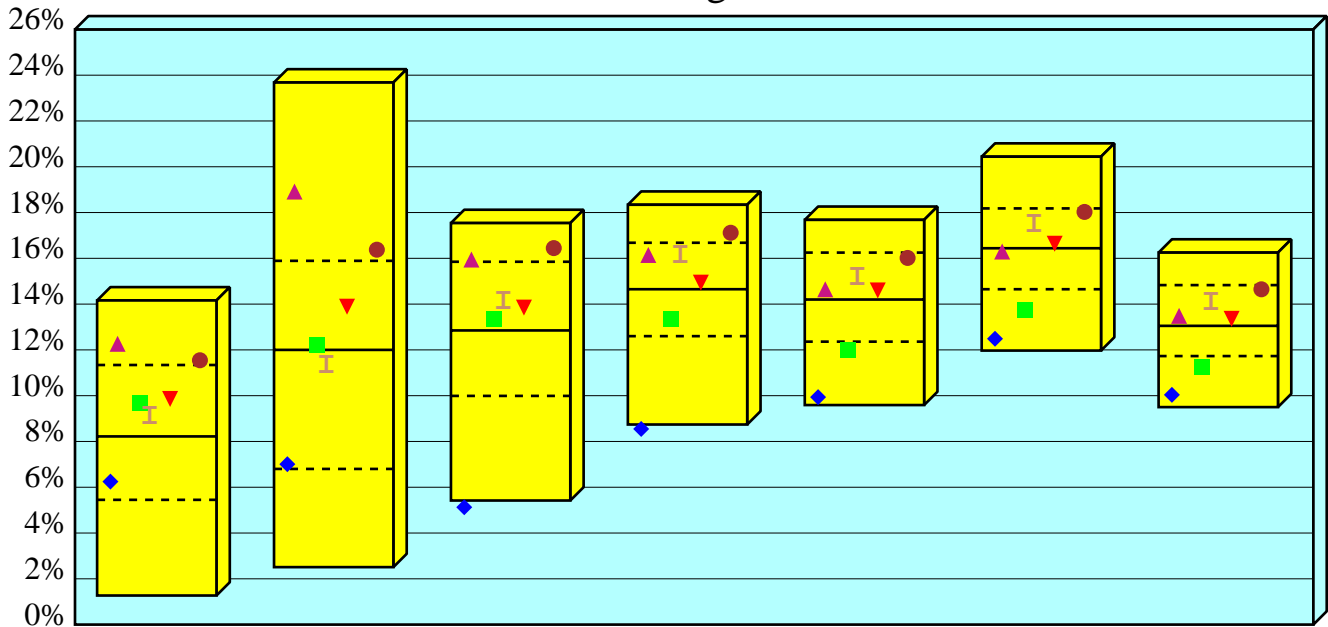
	12/99	12/98	12/97	12/96	12/95	12/94
High	31.23	22.60	25.62	19.18	30.44	3.89
1st Qt	15.90	16.48	21.09	15.31	26.79	0.27
Median	10.58	13.02	18.49	13.19	24.01	-0.90
3rd Qt	4.74	9.51	15.55	10.25	20.60	-2.11
Low	0.30	4.01	7.86	4.63	11.55	-4.33
◆ HPRS						
Return	6.96	3.23	15.66	14.17	23.27	-1.50
Rank	62	96	74	38	57	63
■ PERS						
Return	12.15	14.44	13.36	7.87	21.14	-0.49
Rank	39	40	83	86	71	39
▼ OP&F						
Return	13.84	13.75	17.10	13.56	25.10	-1.74
Rank	33	45	64	45	41	67
● SERS						
Return	16.33	16.48	18.41	12.75	26.35	-0.88
Rank	23	25	51	55	28	49
▲ STRS						
Return	18.87	13.01	16.51	10.21	23.07	0.39
Rank	15	50	68	75	58	23
I 50/50 Index						
Return	11.29	16.95	20.27	12.18	27.27	-1.47
Rank	44	22	33	60	21	62

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Total Fund Public Funds

Periods Ending 12/99



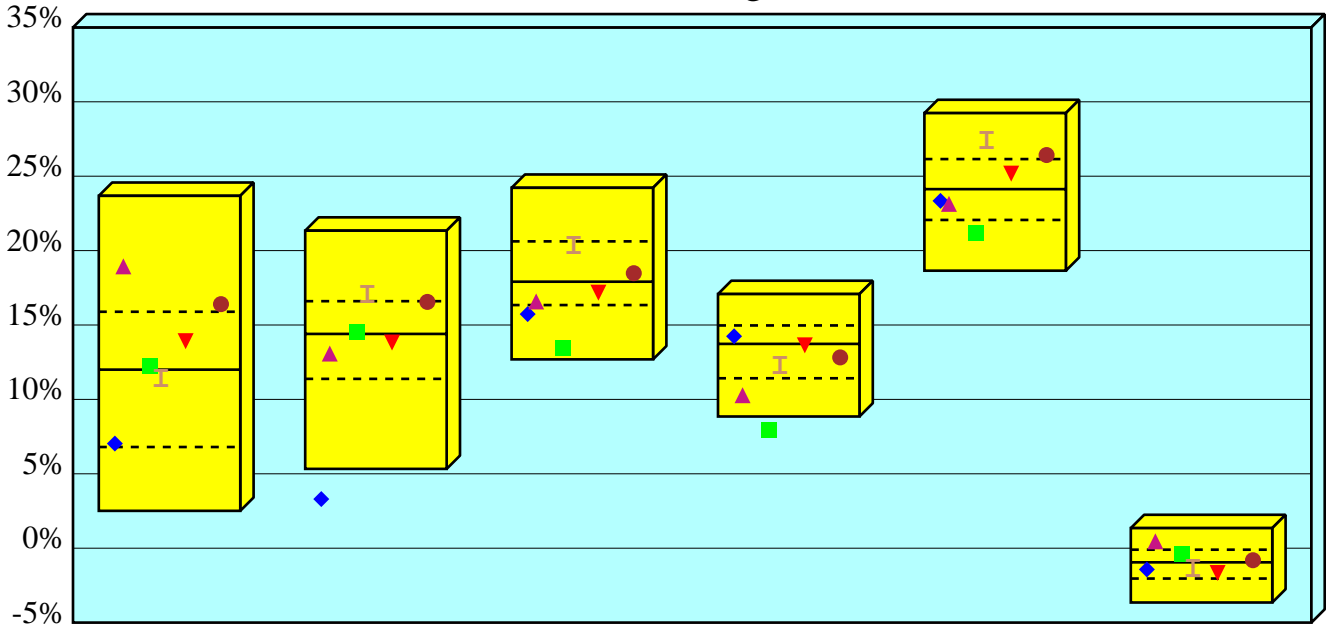
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	14.16	23.68	17.54	18.34	17.68	20.44	16.25
1st Qt	11.34	15.89	15.85	16.68	16.25	18.18	14.83
Median	8.22	12.00	12.85	14.65	14.20	16.44	13.05
3rd Qt	5.45	6.80	9.99	12.60	12.36	14.65	11.73
Low	1.27	2.51	5.42	8.74	9.59	11.97	9.50
◆ HPRS							
Return	6.20	6.96	5.08	8.50	9.89	12.44	9.99
Rank	72	72	97	99	90	91	91
■ PERS							
Return	9.63	12.15	13.29	13.31	11.93	13.71	11.21
Rank	38	48	43	63	80	87	87
▼ OP&F							
Return	9.81	13.84	13.80	14.89	14.55	16.59	13.31
Rank	36	33	39	48	45	46	46
● SERS							
Return	11.50	16.33	16.40	17.07	15.97	17.98	14.60
Rank	22	19	13	13	30	32	26
▲ STRS							
Return	12.22	18.87	15.90	16.10	14.60	16.25	13.44
Rank	9	6	23	35	45	51	40
I 50/50 Index							
Return	9.07	11.29	14.09	16.11	15.12	17.45	14.06
Rank	44	51	35	35	35	35	32

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Total Fund Public Funds

Years Ending



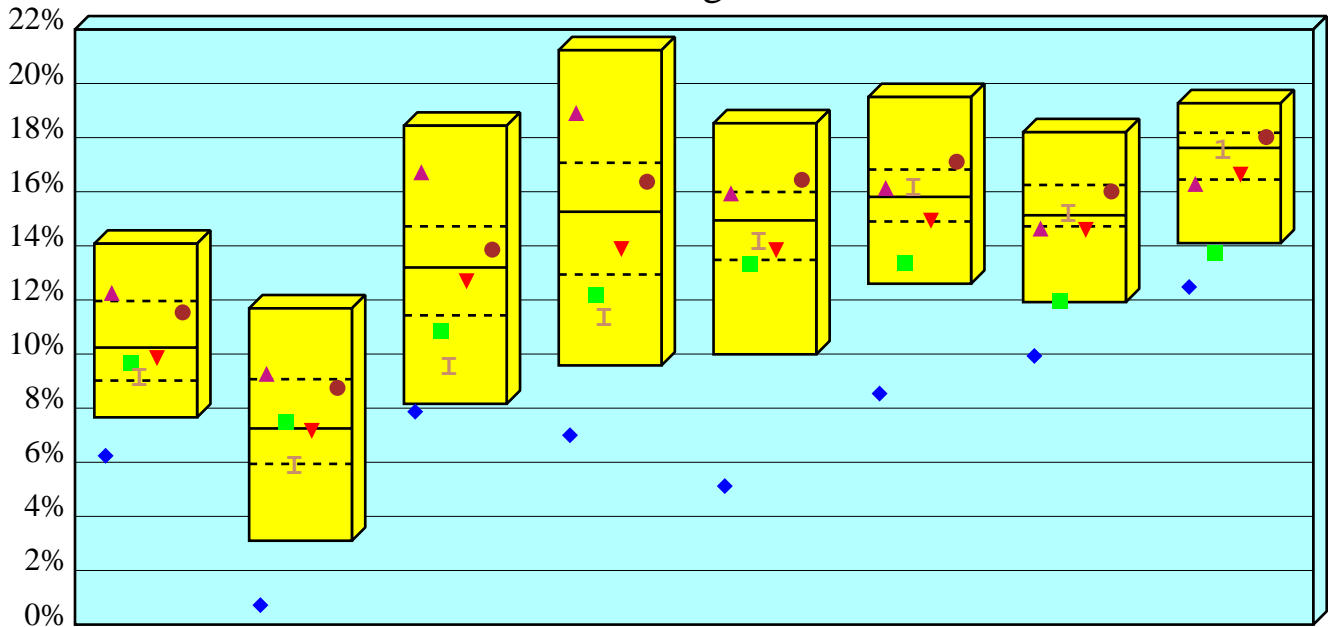
	12/99	12/98	12/97	12/96	12/95	12/94
High	23.68	21.34	24.22	17.08	29.24	1.35
1st Qt	15.89	16.60	20.62	14.97	26.15	-0.10
Median	12.00	14.40	17.91	13.73	24.13	-0.95
3rd Qt	6.80	11.38	16.34	11.42	22.06	-2.04
Low	2.51	5.33	12.69	8.85	18.65	-3.65
◆ HPRS						
Return	6.96	3.23	15.66	14.17	23.27	-1.50
Rank	72	98	82	45	62	64
■ PERS						
Return	12.15	14.44	13.36	7.87	21.14	-0.49
Rank	48	49	94	97	83	33
▼ OP&F						
Return	13.84	13.75	17.10	13.56	25.10	-1.74
Rank	33	58	67	52	40	71
● SERS						
Return	16.33	16.48	18.41	12.75	26.35	-0.88
Rank	19	26	48	61	23	49
▲ STRS						
Return	18.87	13.01	16.51	10.21	23.07	0.39
Rank	6	66	73	87	65	19
I 50/50 Index						
Return	11.29	16.95	20.27	12.18	27.27	-1.47
Rank	51	23	31	68	15	62

OHIO RETIREMENT STUDY COUNCIL

Funds Over One Billion Cumulative Performance Comparisons

Total Returns of Total Fund Portfolios

Periods ending 12/99



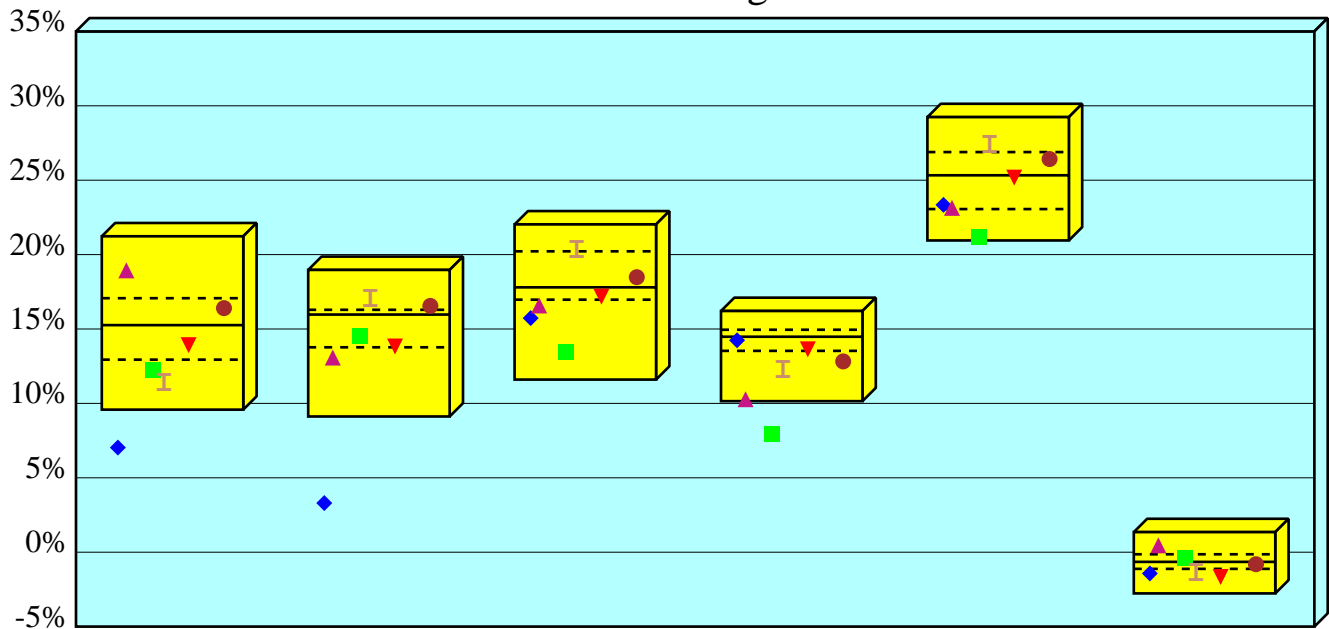
	Last Qtr	Last 2 Qtrs	Last 3 Qtrs	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years
High	14.08	11.69	18.44	21.23	18.53	19.50	18.20	19.27
1st Qt	11.96	9.07	14.72	17.07	15.99	16.82	16.25	18.18
Median	10.24	7.25	13.20	15.26	14.94	15.81	15.13	17.62
3rd Qt	9.02	5.94	11.43	12.94	13.48	14.90	14.72	16.45
Low	7.66	3.10	8.16	9.58	9.99	12.60	11.92	14.10
◆ HPRS								
Return	6.20	0.68	7.83	6.96	5.08	8.50	9.89	12.44
Rank	99	100	95	99	100	100	100	100
■ PERS								
Return	9.63	7.44	10.82	12.15	13.29	13.31	11.93	13.71
Rank	62	46	83	83	75	79	94	100
▼ OP&F								
Return	9.81	7.12	12.65	13.84	13.80	14.89	14.55	16.59
Rank	62	58	50	50	62	75	79	70
● SERS								
Return	11.50	8.71	13.82	16.33	16.40	17.07	15.97	17.98
Rank	39	28	35	28	17	17	41	37
▲ STRS								
Return	12.22	9.23	16.68	18.87	15.90	16.10	14.60	16.25
Rank	17	17	13	9	33	41	79	79
I 50/50 Index								
Return	9.07	5.84	9.50	11.29	14.09	16.11	15.12	17.45
Rank	70	79	91	83	54	41	54	50

OHIO RETIREMENT STUDY COUNCIL

Funds Over One Billion Consecutive Performance Comparisons

Total Returns of Total Fund Portfolios

Years Ending

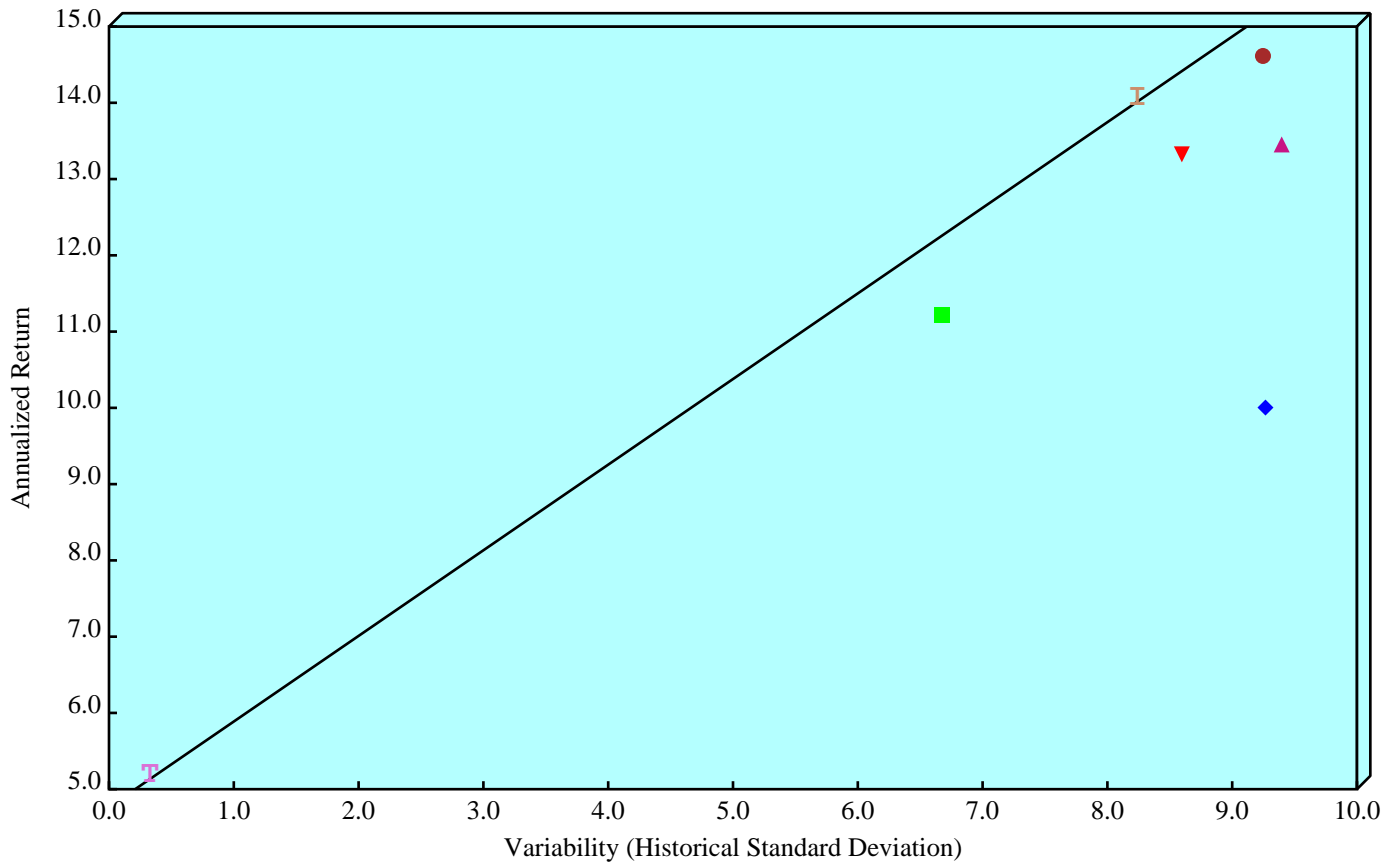


	12/99	12/98	12/97	12/96	12/95	12/94
High	21.23	18.97	22.03	16.21	29.24	1.35
1st Qt	17.07	16.29	20.22	14.95	26.89	-0.14
Median	15.26	15.97	17.80	14.48	25.33	-0.65
3rd Qt	12.94	13.77	16.97	13.53	23.06	-1.12
Low	9.58	9.12	11.60	10.15	20.95	-2.77
◆ HPRS						
Return	6.96	3.23	15.66	14.17	23.27	-1.50
Rank	99	99	87	58	70	75
■ PERS						
Return	12.15	14.44	13.36	7.87	21.14	-0.49
Rank	83	66	91	99	94	37
▼ OP&F						
Return	13.84	13.75	17.10	13.56	25.10	-1.74
Rank	50	75	70	70	66	84
● SERS						
Return	16.33	16.48	18.41	12.75	26.35	-0.88
Rank	28	21	41	79	33	54
▲ STRS						
Return	18.87	13.01	16.51	10.21	23.07	0.39
Rank	9	75	79	94	70	5
I 50/50 Index						
Return	11.29	16.95	20.27	12.18	27.27	-1.47
Rank	83	17	21	84	17	75

OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
◆ HPRS	9.99	9.32	4.81	0.52
■ PERS	11.21	6.73	6.03	0.90
▼ OP&F	13.31	8.65	8.13	0.94
● SERS	14.60	9.30	9.42	1.01
▲ STRS	13.44	9.45	8.25	0.87
⊥ 50/50 Index	14.06	8.28	8.88	1.07
⊥ 91-Day Treasury Bill	5.18	0.37	0.00	0.00

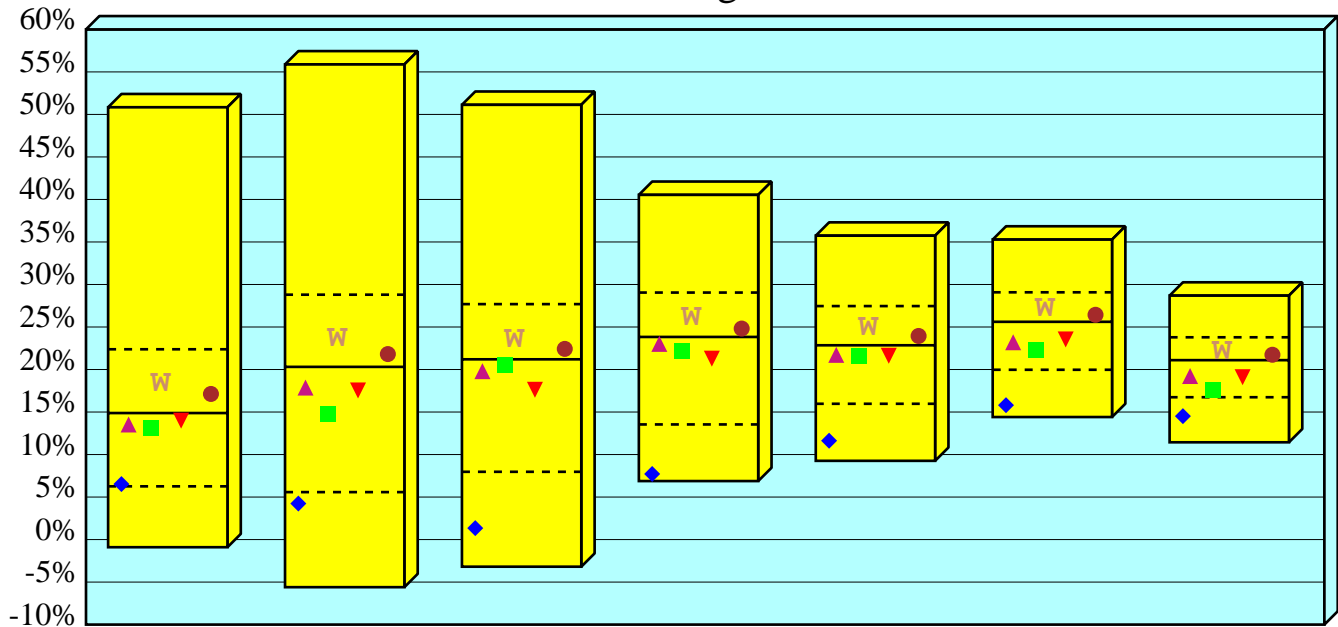
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Equity Portfolios

Periods Ending 12/99



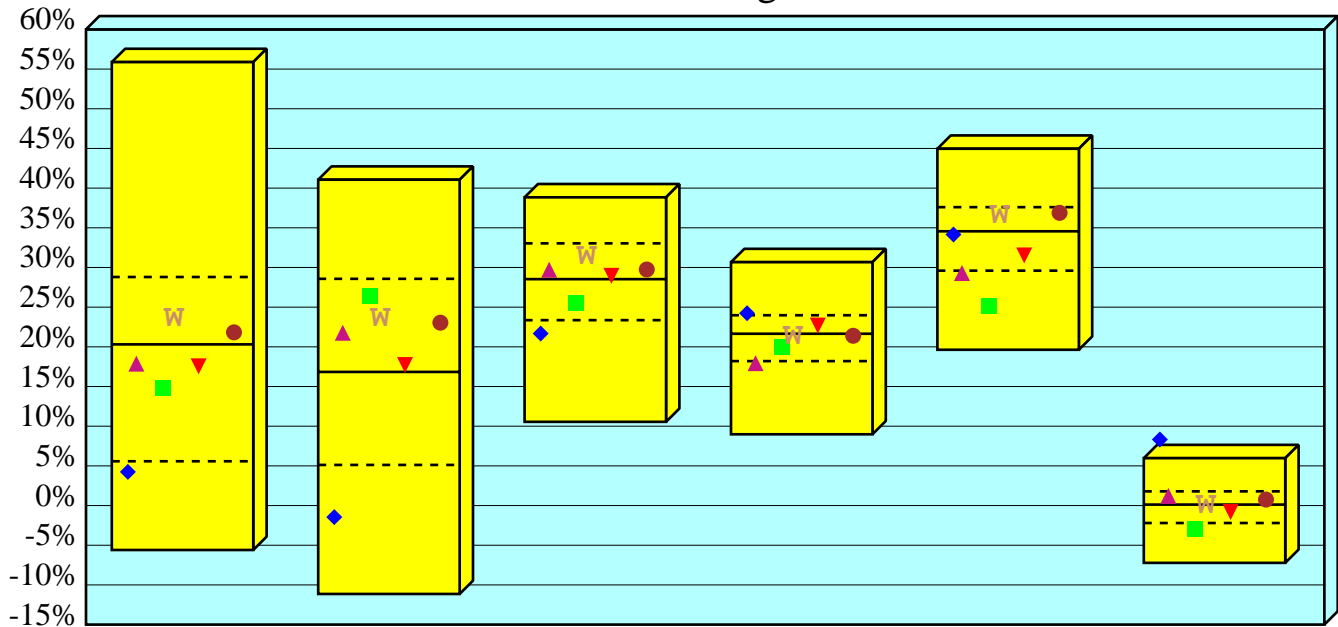
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	50.84	55.88	51.13	40.54	35.74	35.28	28.69
1st Qt	22.38	28.80	27.69	29.05	27.46	29.08	23.79
Median	14.88	20.31	21.20	23.83	22.85	25.61	21.10
3rd Qt	6.26	5.58	7.97	13.54	15.97	19.97	16.74
Low	-0.90	-5.60	-3.19	6.88	9.26	14.41	11.44
◆ HPRS Domestic Equity							
Return	6.40	4.11	1.22	7.59	11.50	15.68	14.39
Rank	74	77	90	93	91	92	89
■ PERS Domestic Equity							
Return	13.01	14.64	20.35	22.01	21.46	22.15	17.52
Rank	59	61	50	53	53	64	70
▼ OP&F Domestic Equity							
Return	13.86	17.41	17.49	21.15	21.49	23.41	18.97
Rank	55	55	54	54	53	60	60
● SERS Domestic Equity							
Return	17.00	21.69	22.30	24.69	23.82	26.31	21.61
Rank	39	39	47	46	46	46	45
▲ STRS Domestic Equity							
Return	13.41	17.75	19.68	22.89	21.60	23.08	19.11
Rank	57	55	52	52	53	61	59
W Wilshire 5000							
Return	18.27	23.56	23.50	26.04	24.82	27.06	22.08
Rank	33	32	45	42	42	43	43

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Equity Portfolios

Years Ending



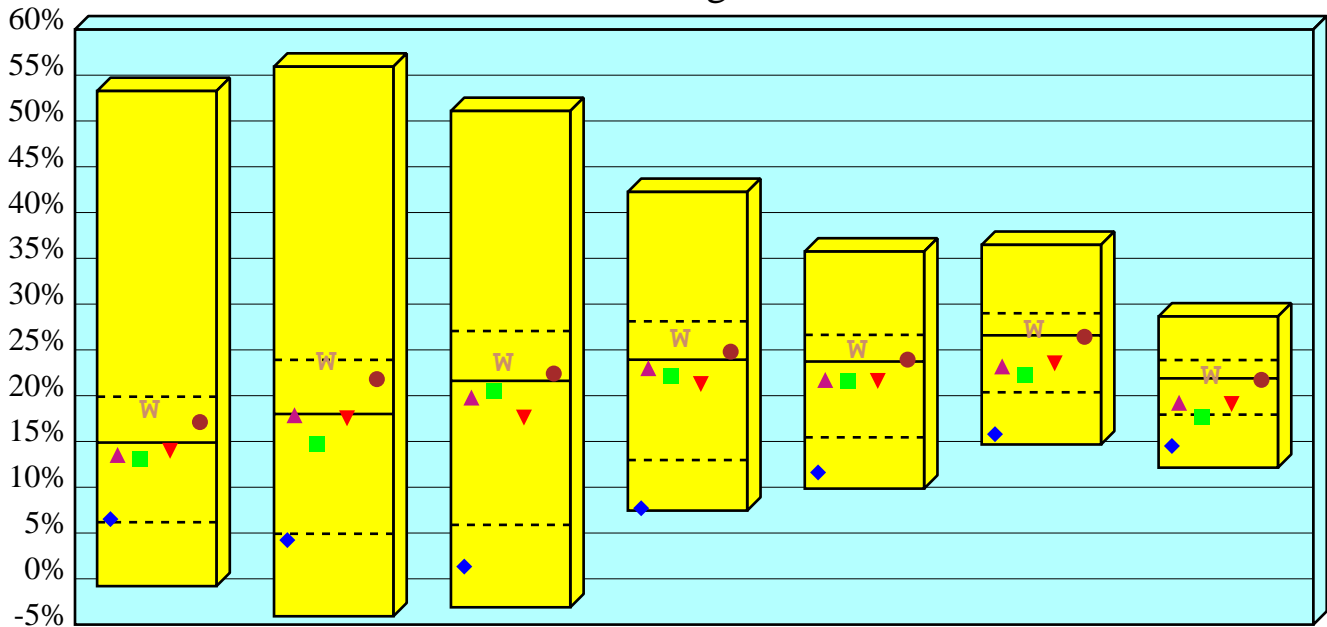
	12/99	12/98	12/97	12/96	12/95	12/94
High	55.88	41.06	38.84	30.67	44.96	5.97
1st Qt	28.80	28.57	33.04	23.98	37.60	1.79
Median	20.31	16.84	28.53	21.65	34.56	0.12
3rd Qt	5.58	5.12	23.36	18.20	29.60	-2.20
Low	-5.60	-11.14	10.55	8.98	19.63	-7.22
◆ HPRS Domestic Equity						
Return	4.11	-1.59	21.54	24.10	34.02	8.19
Rank	77	83	80	24	52	2
■ PERS Domestic Equity						
Return	14.64	26.33	25.41	19.84	24.95	-3.12
Rank	61	33	66	63	89	82
▼ OP&F Domestic Equity						
Return	17.41	17.57	28.81	22.54	31.38	-0.95
Rank	55	48	48	42	66	62
● SERS Domestic Equity						
Return	21.69	22.91	29.61	21.26	36.75	0.62
Rank	39	38	44	53	36	44
▲ STRS Domestic Equity						
Return	17.75	21.64	29.58	17.81	29.17	1.08
Rank	55	40	44	77	76	39
W Wilshire 5000						
Return	23.56	23.45	31.28	21.20	36.47	-0.06
Rank	32	37	36	53	38	52

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Equity Public Funds

Periods Ending 12/99



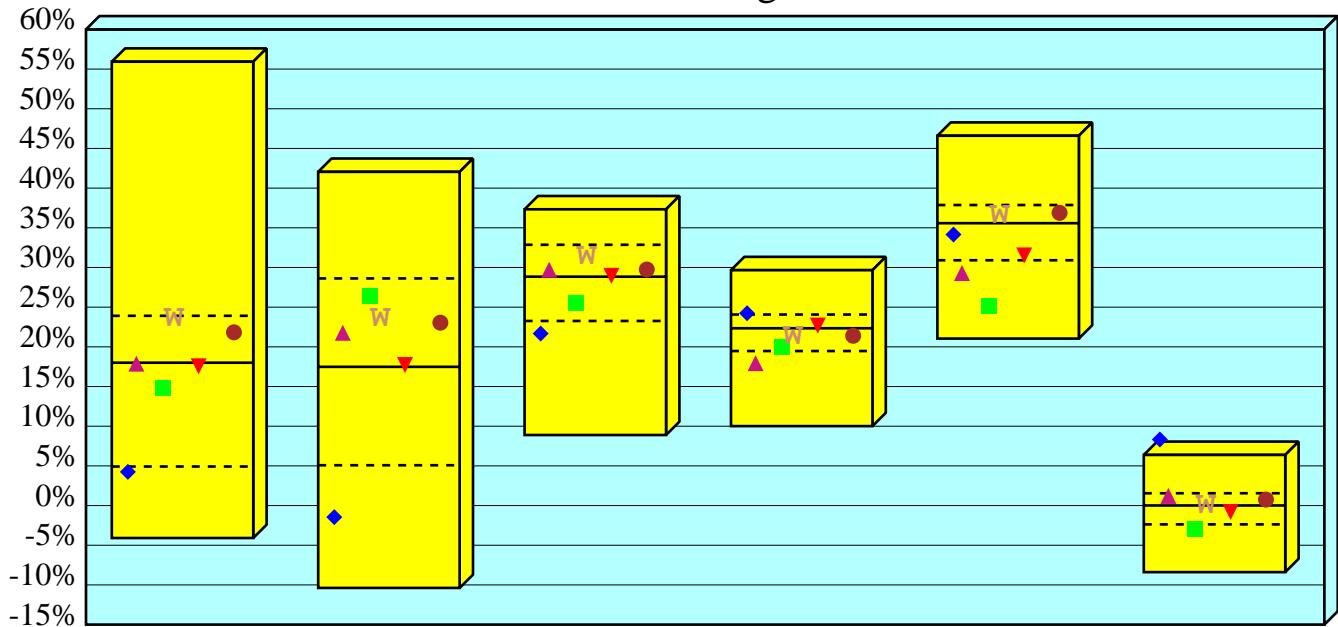
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	53.27	55.93	51.09	42.25	35.74	36.47	28.65
1st Qt	19.89	23.91	27.06	28.12	26.64	29.00	23.89
Median	14.88	18.00	21.62	23.93	23.73	26.59	21.89
3rd Qt	6.18	4.92	5.89	12.97	15.45	20.37	17.93
Low	-0.80	-4.09	-3.11	7.45	9.85	14.67	12.14
◆ HPRS Domestic Equity							
Return	6.40	4.11	1.22	7.59	11.50	15.68	14.39
Rank	74	77	88	94	92	93	87
■ PERS Domestic Equity							
Return	13.01	14.64	20.35	22.01	21.46	22.15	17.52
Rank	60	58	53	55	56	68	76
▼ OP&F Domestic Equity							
Return	13.86	17.41	17.49	21.15	21.49	23.41	18.97
Rank	57	53	57	56	56	65	69
● SERS Domestic Equity							
Return	17.00	21.69	22.30	24.69	23.82	26.31	21.61
Rank	35	33	48	46	48	52	53
▲ STRS Domestic Equity							
Return	13.41	17.75	19.68	22.89	21.60	23.08	19.11
Rank	58	51	55	52	55	66	67
W Wilshire 5000							
Return	18.27	23.56	23.50	26.04	24.82	27.06	22.08
Rank	30	25	44	43	44	48	48

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Equity Public Funds

Years Ending

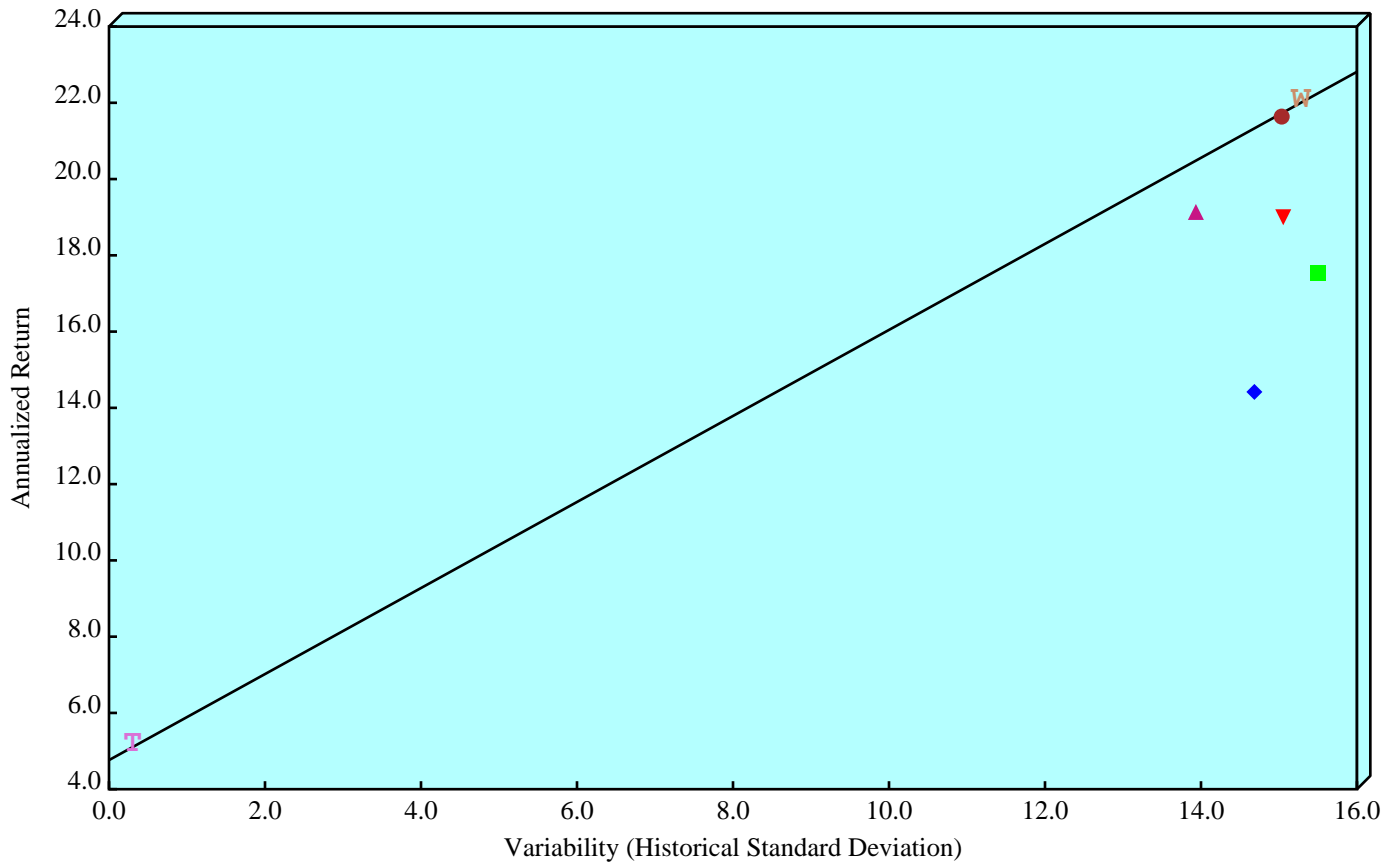


	12/99	12/98	12/97	12/96	12/95	12/94
High	55.93	42.05	37.33	29.66	46.60	6.38
1st Qt	23.91	28.62	32.86	24.07	37.87	1.55
Median	18.00	17.48	28.84	22.34	35.58	0.01
3rd Qt	4.92	5.08	23.26	19.47	30.91	-2.37
Low	-4.09	-10.38	8.89	10.01	21.04	-8.39
◆ HPRS Domestic Equity						
Return	4.11	-1.59	21.54	24.10	34.02	8.19
Rank	77	84	79	24	59	2
■ PERS Domestic Equity						
Return	14.64	26.33	25.41	19.84	24.95	-3.12
Rank	58	33	65	71	90	82
▼ OP&F Domestic Equity						
Return	17.41	17.57	28.81	22.54	31.38	-0.95
Rank	53	49	50	47	73	61
● SERS Domestic Equity						
Return	21.69	22.91	29.61	21.26	36.75	0.62
Rank	33	40	43	61	40	44
▲ STRS Domestic Equity						
Return	17.75	21.64	29.58	17.81	29.17	1.08
Rank	51	42	43	82	80	38
W Wilshire 5000						
Return	23.56	23.45	31.28	21.20	36.47	-0.06
Rank	25	38	34	61	42	50

OHIO RETIREMENT STUDY COUNCIL

Quarterly Equity Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
◆ HPRS	14.39	14.77	9.21	0.62
■ PERS	17.52	15.58	12.34	0.79
▼ OP&F	18.97	15.14	13.78	0.91
● SERS	21.61	15.12	16.43	1.09
▲ STRS	19.11	14.02	13.92	0.99
W Wilshire 5000	22.08	15.35	16.90	1.10
■ 91-Day Treasury Bill	5.18	0.37	0.00	0.00

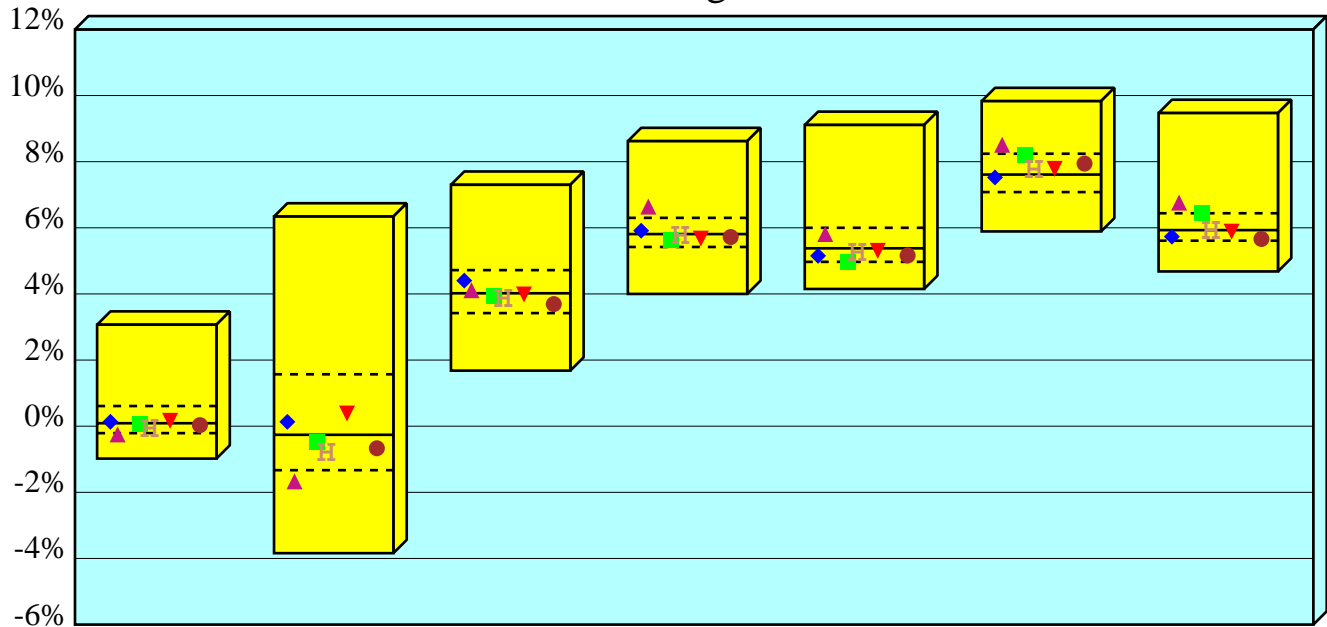
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Fixed Income Portfolios

Periods Ending 12/99



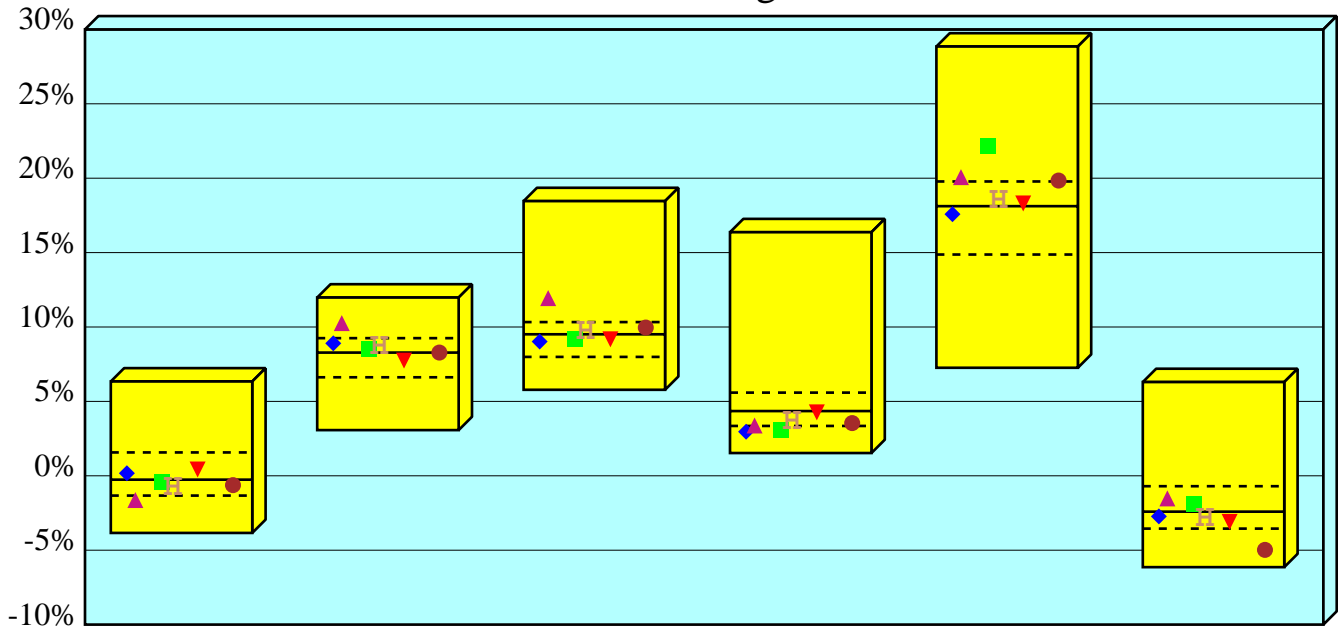
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	3.07	6.34	7.30	8.62	9.11	9.83	9.47
1st Qt	0.61	1.57	4.72	6.30	6.00	8.24	6.44
Median	0.09	-0.26	4.02	5.81	5.38	7.61	5.93
3rd Qt	-0.21	-1.33	3.42	5.42	4.97	7.08	5.61
Low	-0.98	-3.84	1.68	4.00	4.15	5.89	4.68
◆ HPRS Domestic Fixed Income							
Return	0.10	0.10	4.37	5.88	5.12	7.49	5.70
Rank	49	42	37	44	66	57	68
■ PERS Domestic Fixed Income							
Return	0.04	-0.50	3.90	5.60	4.94	8.17	6.41
Rank	56	57	54	64	77	25	27
▼ OP&F Domestic Fixed Income							
Return	0.13	0.35	3.95	5.64	5.27	7.75	5.85
Rank	47	38	53	63	56	44	58
● SERS Domestic Fixed Income							
Return	0.00	-0.70	3.66	5.69	5.13	7.91	5.63
Rank	59	62	66	57	66	39	74
▲ STRS Domestic Fixed Income							
Return	-0.28	-1.70	4.08	6.61	5.78	8.48	6.73
Rank	79	80	47	15	32	21	14
H LB Aggregate							
Return	-0.12	-0.83	3.81	5.73	5.20	7.73	5.88
Rank	68	67	58	56	63	45	55

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Fixed Income Portfolios

Years Ending



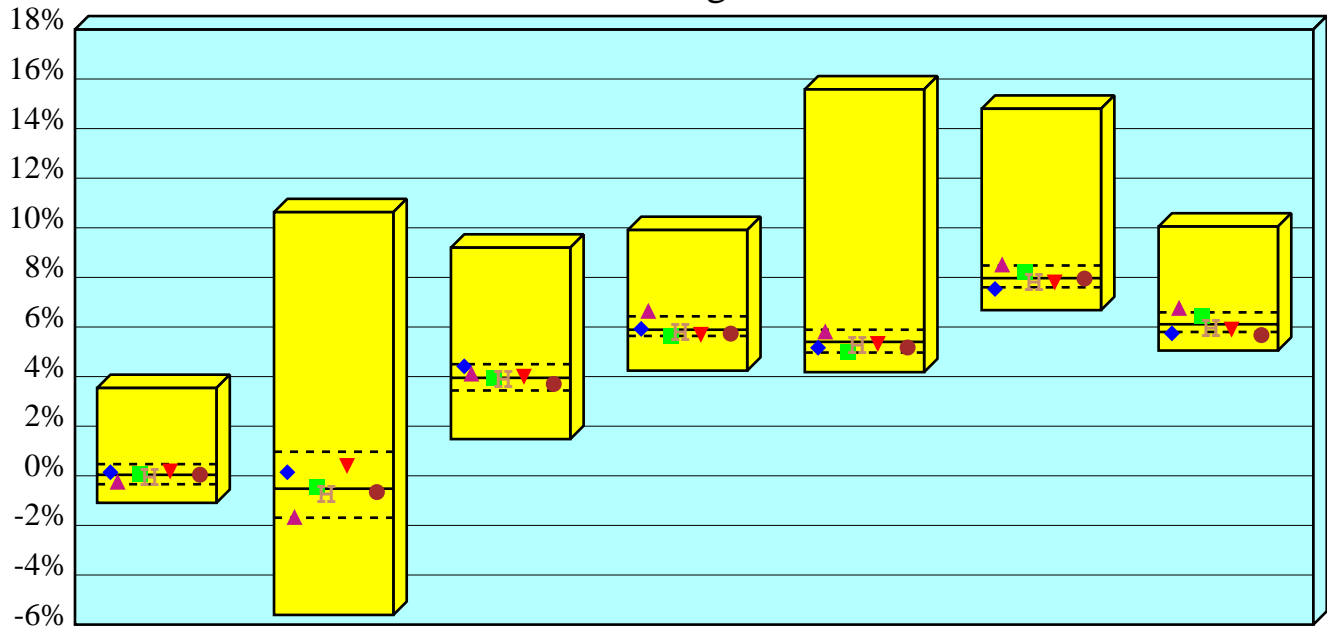
	12/99	12/98	12/97	12/96	12/95	12/94
High	6.34	11.98	18.46	16.37	28.85	6.30
1st Qt	1.57	9.25	10.33	5.59	19.78	-0.70
Median	-0.26	8.28	9.51	4.35	18.12	-2.41
3rd Qt	-1.33	6.62	7.99	3.35	14.87	-3.55
Low	-3.84	3.07	5.78	1.53	7.26	-6.14
◆ HPRS Domestic Fixed Income						
Return	0.10	8.83	8.95	2.89	17.51	-2.80
Rank	42	35	61	83	56	59
■ PERS Domestic Fixed Income						
Return	-0.50	8.48	9.09	3.01	22.10	-1.98
Rank	57	44	59	80	14	42
▼ OP&F Domestic Fixed Income						
Return	0.35	7.67	9.10	4.19	18.23	-3.17
Rank	38	60	59	53	48	65
● SERS Domestic Fixed Income						
Return	-0.70	8.21	9.89	3.47	19.77	-5.05
Rank	62	51	38	71	25	90
▲ STRS Domestic Fixed Income						
Return	-1.70	10.19	11.87	3.31	20.00	-1.59
Rank	80	11	15	75	21	34
H LB Aggregate						
Return	-0.83	8.67	9.68	3.61	18.48	-2.92
Rank	67	39	45	68	43	61

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Fixed Income Public Funds

Periods Ending 12/99



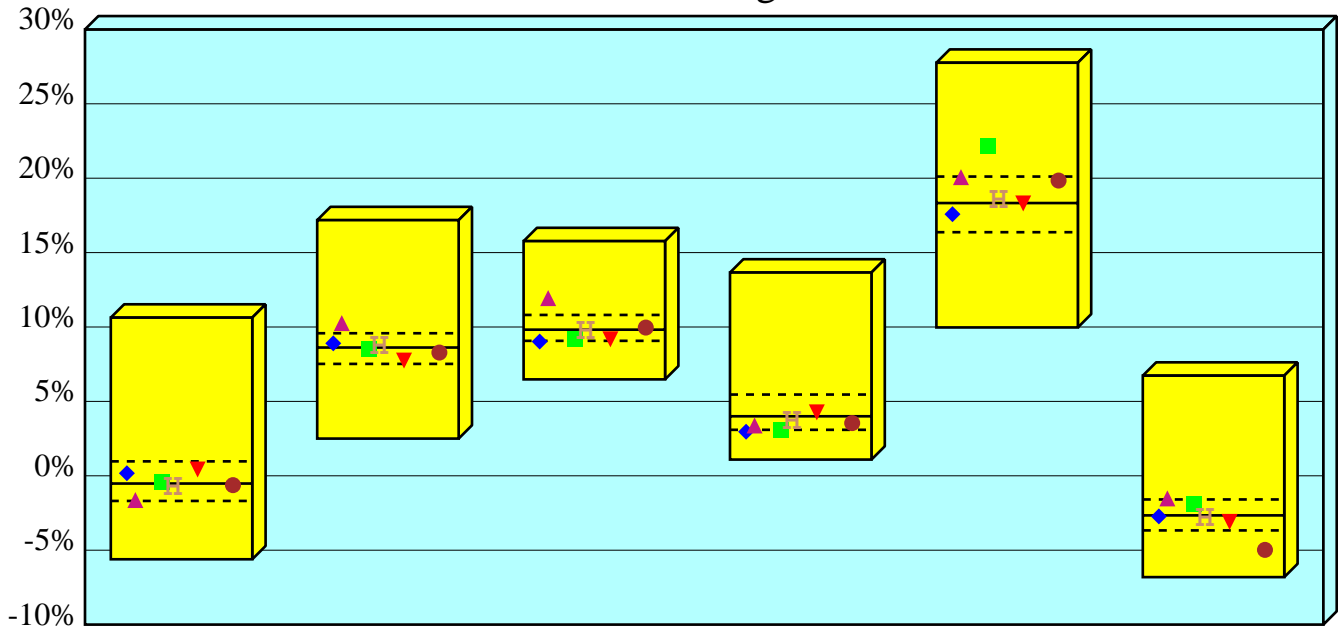
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	3.54	10.63	9.20	9.91	15.58	14.80	10.05
1st Qt	0.47	0.97	4.50	6.43	5.89	8.48	6.59
Median	0.04	-0.52	3.95	5.89	5.40	7.97	6.11
3rd Qt	-0.34	-1.69	3.44	5.64	4.97	7.60	5.80
Low	-1.09	-5.61	1.48	4.24	4.18	6.68	5.05
◆ HPRS Domestic Fixed Income							
Return	0.10	0.10	4.37	5.88	5.12	7.49	5.70
Rank	45	35	26	52	70	78	84
■ PERS Domestic Fixed Income							
Return	0.04	-0.50	3.90	5.60	4.94	8.17	6.41
Rank	50	49	53	78	75	40	31
▼ OP&F Domestic Fixed Income							
Return	0.13	0.35	3.95	5.64	5.27	7.75	5.85
Rank	43	32	50	75	58	65	64
● SERS Domestic Fixed Income							
Return	0.00	-0.70	3.66	5.69	5.13	7.91	5.63
Rank	53	56	66	71	68	53	87
▲ STRS Domestic Fixed Income							
Return	-0.28	-1.70	4.08	6.61	5.78	8.48	6.73
Rank	73	75	41	21	30	26	20
H LB Aggregate							
Return	-0.12	-0.83	3.81	5.73	5.20	7.73	5.88
Rank	66	59	59	68	65	66	63

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Fixed Income Public Funds

Years Ending

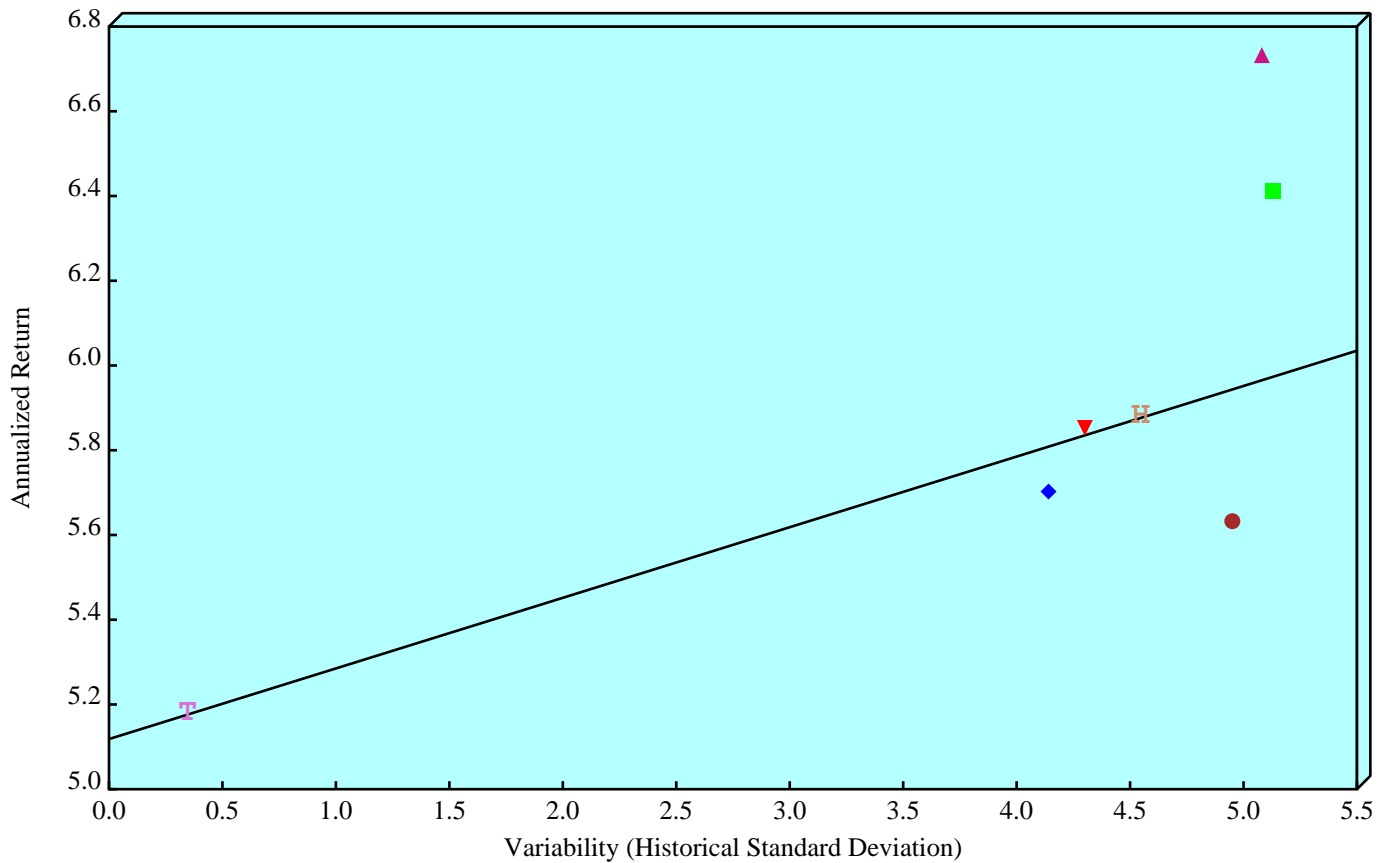


	12/99	12/98	12/97	12/96	12/95	12/94
High	10.63	17.18	15.77	13.66	27.76	6.73
1st Qt	0.97	9.58	10.81	5.46	20.11	-1.59
Median	-0.52	8.62	9.82	4.00	18.33	-2.66
3rd Qt	-1.69	7.52	9.07	3.09	16.37	-3.67
Low	-5.61	2.50	6.48	1.09	9.97	-6.81
◆ HPRS Domestic Fixed Income						
Return	0.10	8.83	8.95	2.89	17.51	-2.80
Rank	35	44	76	77	65	55
■ PERS Domestic Fixed Income						
Return	-0.50	8.48	9.09	3.01	22.10	-1.98
Rank	49	54	74	76	16	37
▼ OP&F Domestic Fixed Income						
Return	0.35	7.67	9.10	4.19	18.23	-3.17
Rank	32	72	73	44	53	64
● SERS Domestic Fixed Income						
Return	-0.70	8.21	9.89	3.47	19.77	-5.05
Rank	56	61	47	66	28	89
▲ STRS Domestic Fixed Income						
Return	-1.70	10.19	11.87	3.31	20.00	-1.59
Rank	75	15	17	71	25	26
H LB Aggregate						
Return	-0.83	8.67	9.68	3.61	18.48	-2.92
Rank	59	49	55	62	46	60

OHIO RETIREMENT STUDY COUNCIL

Quarterly Fixed Income Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
◆ HPRS	5.70	4.17	0.52	0.12
■ PERS	6.41	5.16	1.23	0.24
▼ OP&F	5.85	4.33	0.66	0.15
● SERS	5.63	4.98	0.45	0.09
▲ STRS	6.73	5.11	1.55	0.30
H LB Aggregate	5.88	4.57	0.69	0.15
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

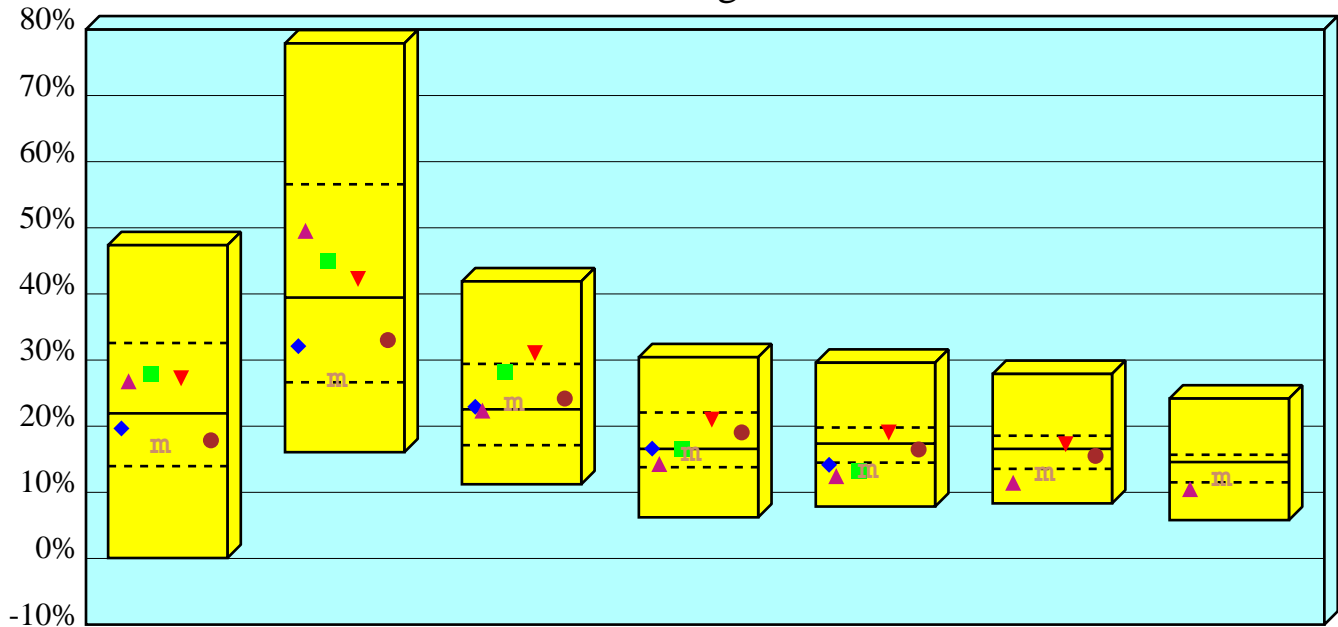
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of International Equity Portfolios

Periods Ending 12/99



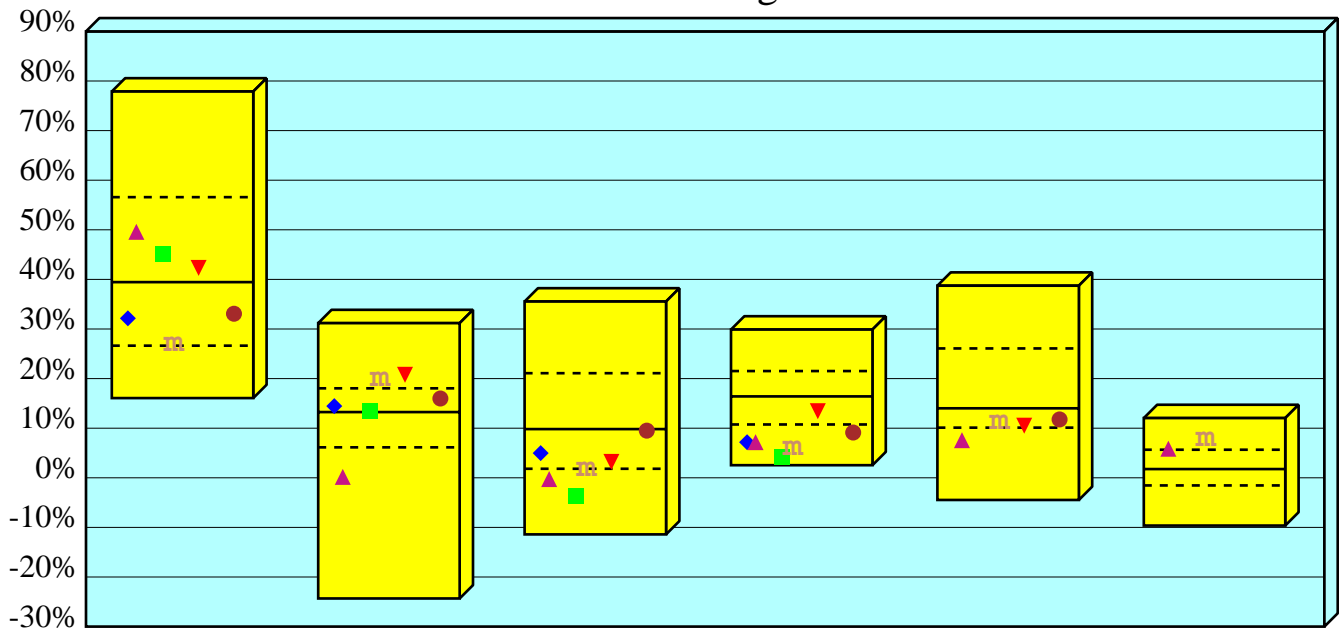
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	47.37	77.88	41.90	30.43	29.60	27.90	24.18
1st Qt	32.58	56.58	29.42	22.07	19.80	18.56	15.68
Median	21.94	39.45	22.55	16.57	17.37	16.57	14.58
3rd Qt	13.96	26.64	17.13	13.80	14.49	13.55	11.51
Low	0.07	16.07	11.22	6.22	7.85	8.33	5.80
◆ HPRS Intn'l Equity							
Return	19.50	31.94	22.77	16.45	14.00		
Rank	56	58	48	55	84		
■ PERS Intn'l Equity							
Return	27.72	44.85	28.07	16.36	13.12		
Rank	39	37	28	57	89		
▼ OP&F Intn'l Equity							
Return	27.08	42.10	30.88	20.83	18.88	17.11	
Rank	39	42	21	28	31	36	
● SERS Intn'l Equity							
Return	17.70	32.86	24.02	18.90	16.32	15.35	
Rank	62	57	42	35	65	65	
▲ STRS Intn'l Equity							
Return	26.63	49.38	22.20	14.12	12.29	11.29	10.33
Rank	39	34	51	72	91	88	87
m MSCI EAFE (Net)							
Return	16.99	26.97	23.42	15.73	13.23	12.83	11.97
Rank	63	74	46	67	89	87	67

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of International Equity Portfolios

Years Ending

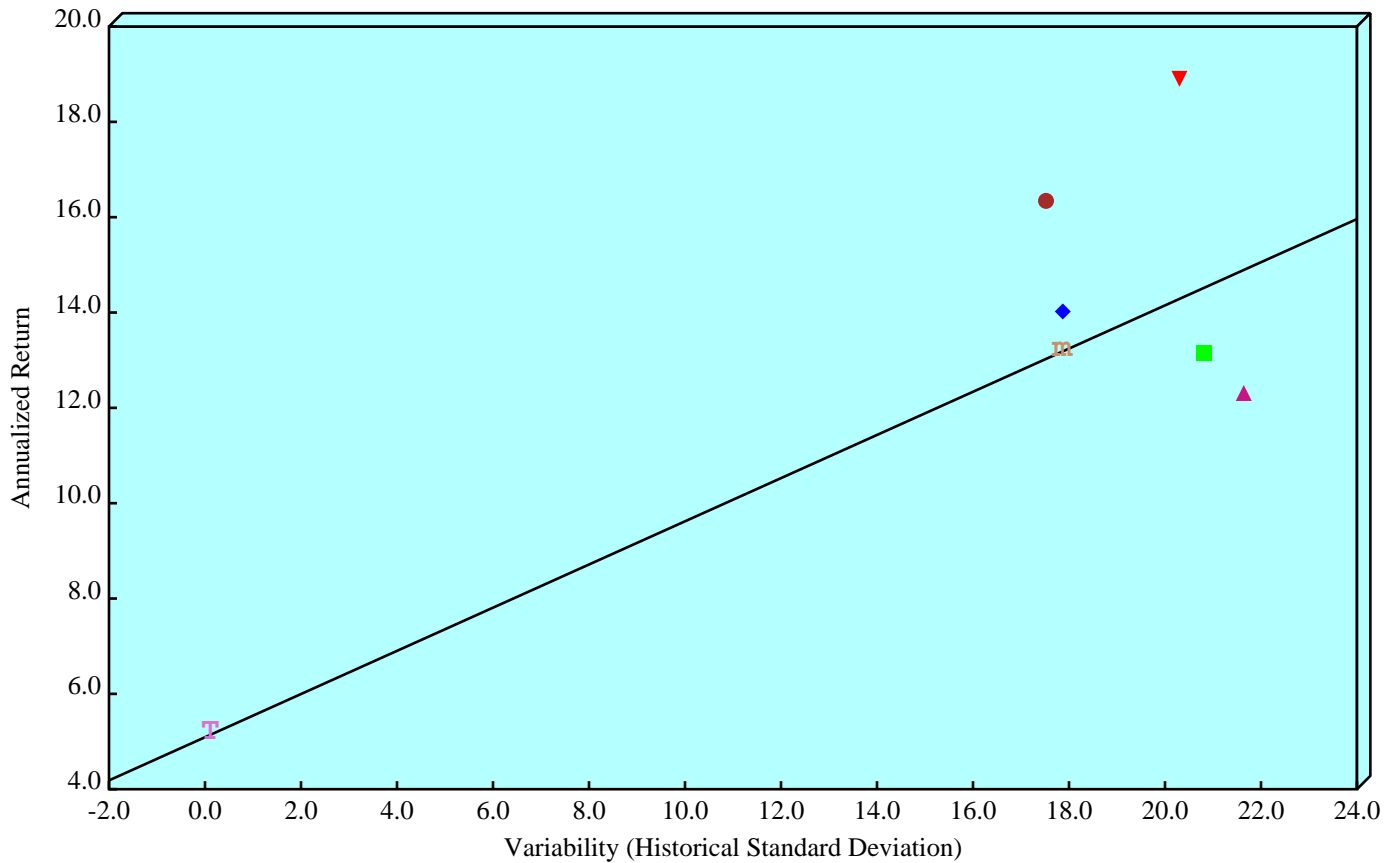


	12/99	12/98	12/97	12/96	12/95	12/94
High	77.88	31.18	35.54	29.89	38.73	12.04
1st Qt	56.58	18.04	21.09	21.52	26.08	5.66
Median	39.45	13.25	9.82	16.41	14.01	1.76
3rd Qt	26.64	6.14	1.82	10.75	10.11	-1.54
Low	16.07	-24.33	-11.41	2.54	-4.47	-9.63
◆ HPRS Intn'l Equity						
Return	31.94	14.24	4.76	6.96		
Rank	58	44	66	86		
■ PERS Intn'l Equity						
Return	44.85	13.23	-3.94	3.94		
Rank	37	50	87	93		
▼ OP&F Intn'l Equity						
Return	42.10	20.55	2.99	13.21	10.29	
Rank	42	17	71	67	74	
● SERS Intn'l Equity						
Return	32.86	15.77	9.29	8.91	11.55	
Rank	57	36	52	81	65	
▲ STRS Intn'l Equity						
Return	49.38	-0.03	-0.47	6.97	7.37	5.65
Rank	34	83	81	86	82	25
m MSCI EAFE (Net)						
Return	26.97	19.97	1.77	6.05	11.22	7.76
Rank	74	20	75	91	67	16

OHIO RETIREMENT STUDY COUNCIL

Quarterly International Equity Return Market Line Analysis

Periods from 12/95 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
◆ HPRS	14.00	18.01	8.81	0.49
■ PERS	13.12	20.95	7.94	0.38
▼ OP&F	18.88	20.44	13.69	0.67
● SERS	16.32	17.66	11.14	0.63
▲ STRS	12.29	21.78	7.11	0.33
■ MSCI EAFE (Net)	13.23	17.97	8.05	0.45
Ⓜ 91-Day Treasury Bill	5.19	0.22	0.00	0.00

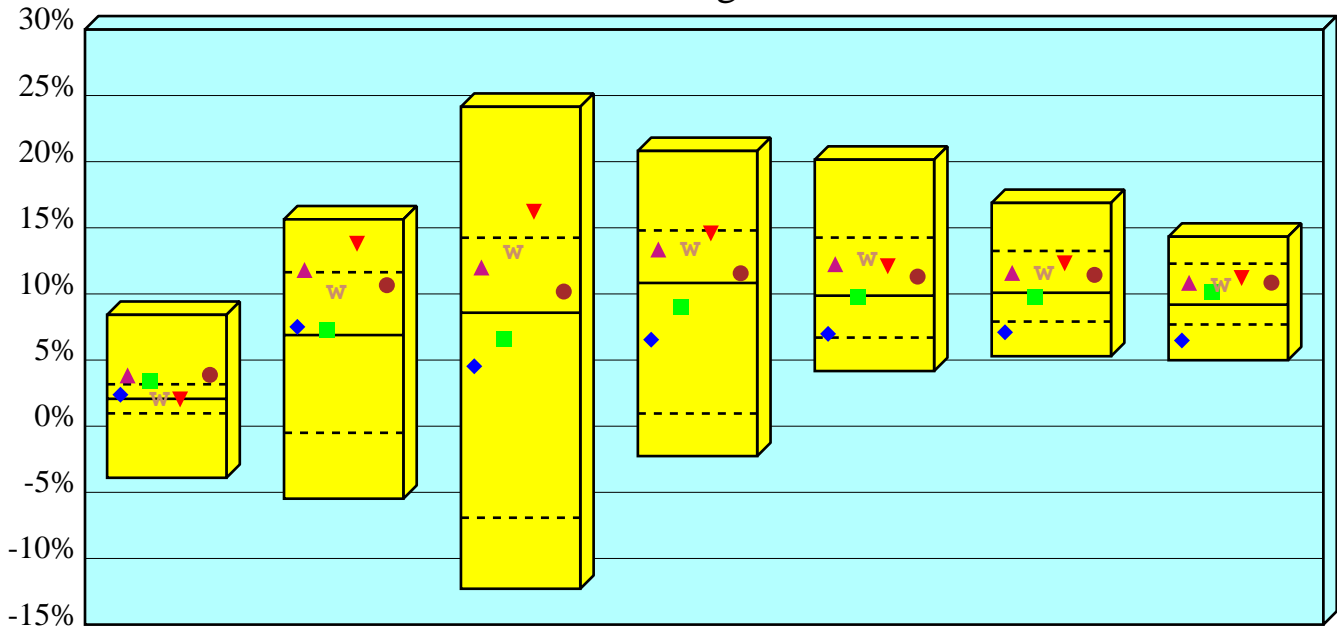
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

Cumulative Performance Comparison

Total Returns of Real Estate Portfolios

Periods Ending 12/99



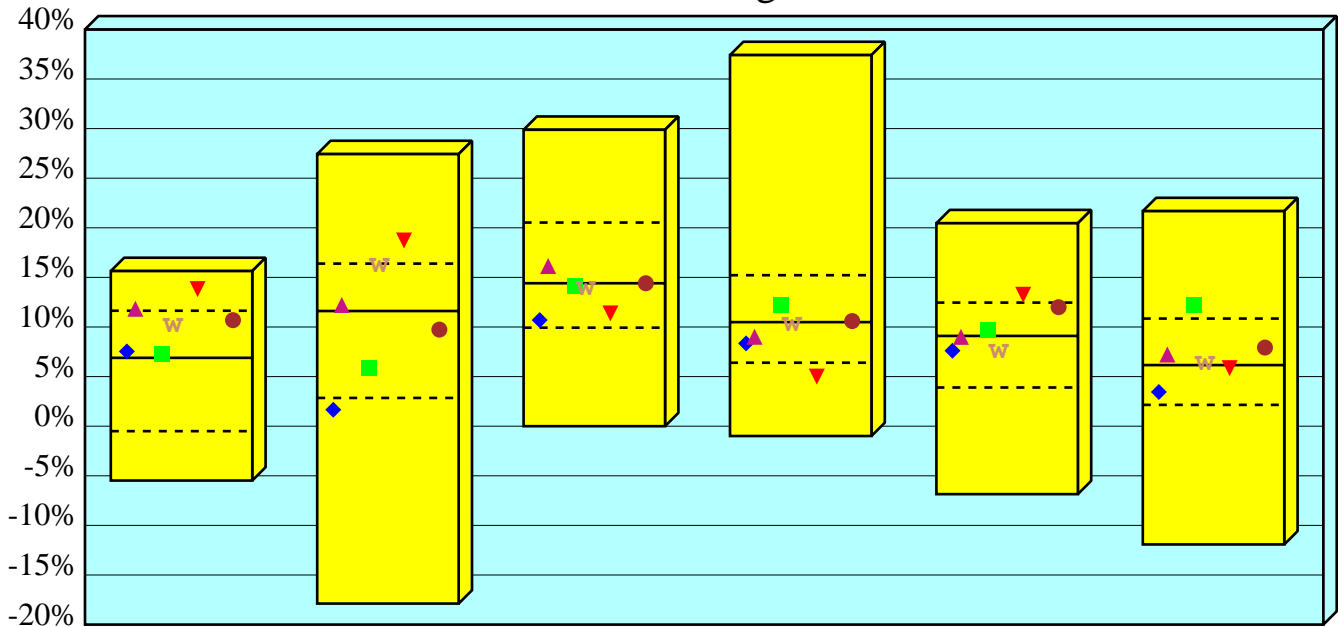
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	8.42	15.64	24.15	20.81	20.15	16.88	14.33
1st Qt	3.17	11.64	14.25	14.80	14.26	13.25	12.29
Median	2.07	6.89	8.58	10.83	9.87	10.09	9.19
3rd Qt	0.97	-0.50	-6.92	0.96	6.70	7.91	7.69
Low	-3.90	-5.48	-12.29	-2.26	4.17	5.29	4.99
◆ HPRS Real Estate							
Return	2.30	7.43	4.45	6.46	6.90	7.02	6.40
Rank	44	47	62	66	73	79	87
■ PERS Real Estate							
Return	3.33	7.19	6.48	8.93	9.72	9.68	10.08
Rank	21	48	58	60	51	51	40
▼ OP&F Real Estate							
Return	1.94	13.71	16.13	14.49	12.01	12.23	11.12
Rank	53	11	11	26	36	31	30
● SERS Real Estate							
Return	3.80	10.58	10.10	11.48	11.23	11.36	10.77
Rank	18	34	46	46	39	35	38
▲ STRS Real Estate							
Return	3.76	11.73	11.92	13.28	12.17	11.51	10.76
Rank	18	24	42	32	35	35	38
w NCREIF							
Return	2.07	10.15	13.15	13.40	12.62	11.59	10.70
Rank	50	40	32	31	30	34	38

OHIO RETIREMENT STUDY COUNCIL

Consecutive Performance Comparison

Total Returns of Real Estate Portfolios

Years Ending



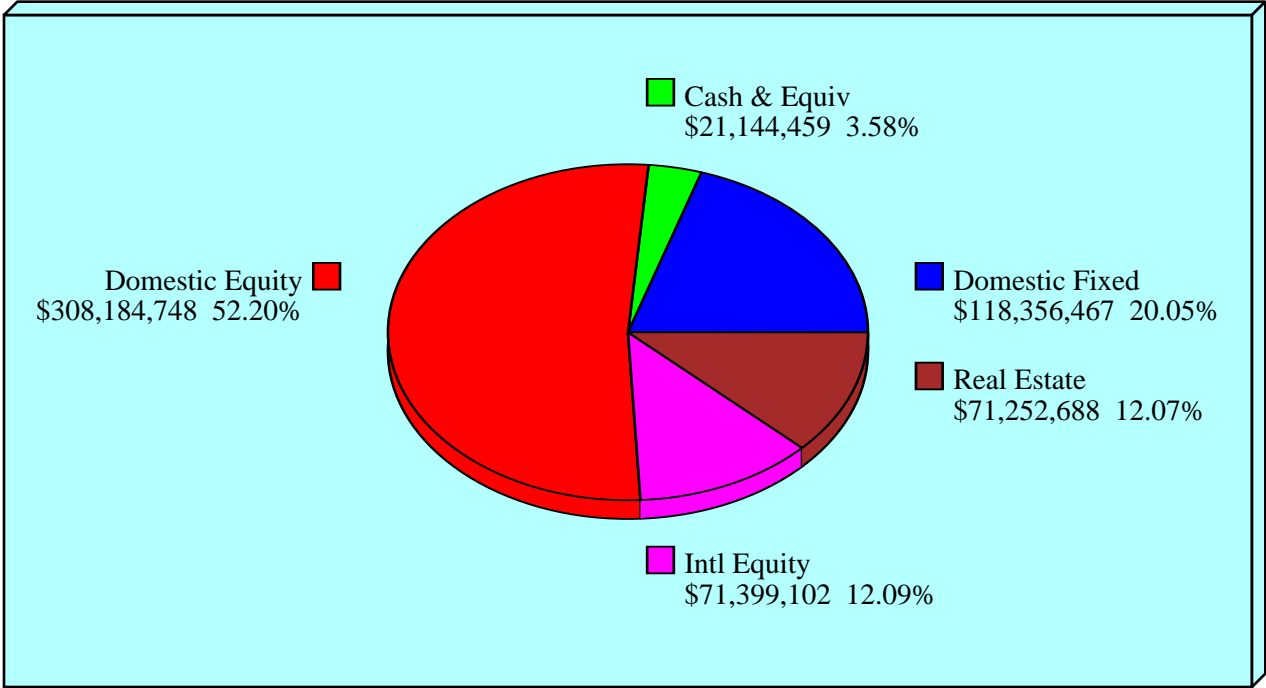
	12/99	12/98	12/97	12/96	12/95	12/94
High	15.64	27.43	29.88	37.41	20.46	21.68
1st Qt	11.64	16.39	20.53	15.22	12.46	10.85
Median	6.89	11.61	14.41	10.49	9.10	6.16
3rd Qt	-0.50	2.85	9.93	6.40	3.90	2.15
Low	-5.48	-17.88	0.00	-0.99	-6.85	-11.92
◆ HPRS Real Estate						
Return	7.43	1.55	10.59	8.24	7.50	3.34
Rank	47	77	73	64	64	67
■ PERS Real Estate						
Return	7.19	5.77	14.01	12.10	9.56	12.10
Rank	48	70	52	38	45	17
▼ OP&F Real Estate						
Return	13.71	18.61	11.26	4.89	13.14	5.74
Rank	11	16	67	81	23	53
● SERS Real Estate						
Return	10.58	9.63	14.30	10.49	11.89	7.82
Rank	34	58	51	50	29	40
▲ STRS Real Estate						
Return	11.73	12.11	16.04	8.91	8.90	7.12
Rank	24	46	44	57	53	44
w NCREIF						
Return	10.15	16.22	13.92	10.31	7.54	6.39
Rank	40	26	52	51	64	49

OHIO RETIREMENT STUDY COUNCIL

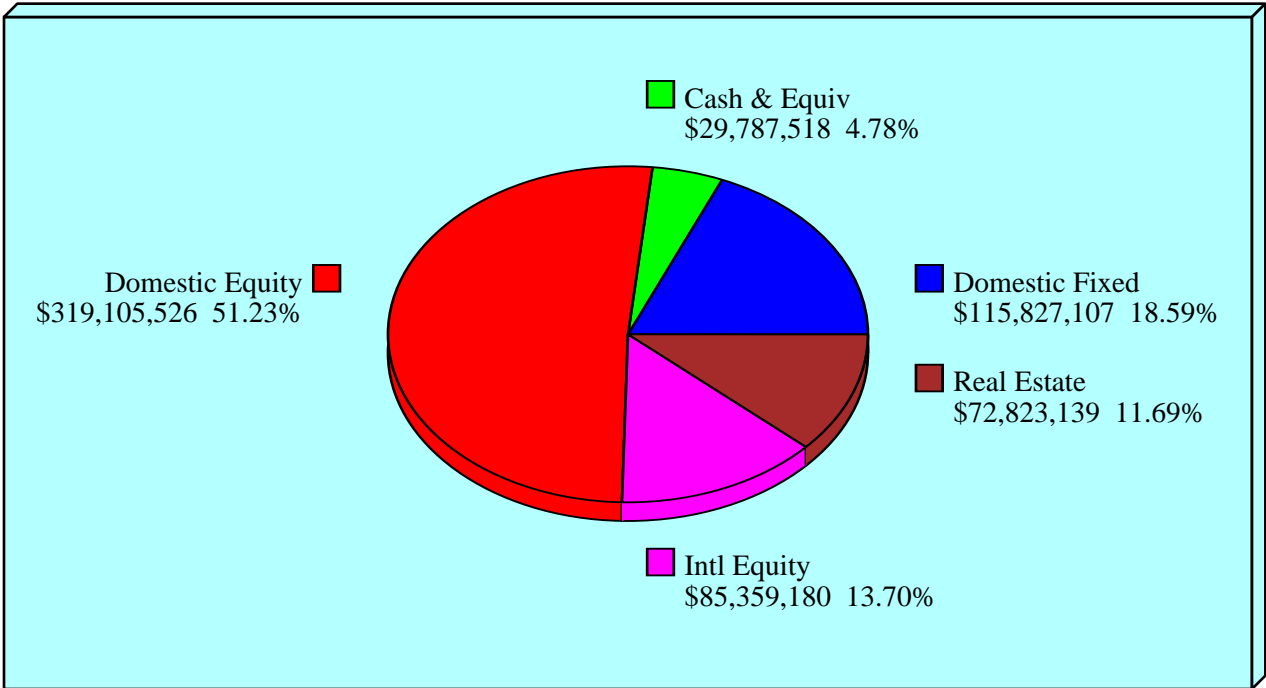
Asset Allocation

HPRS

September 30, 1999 \$590,337,464



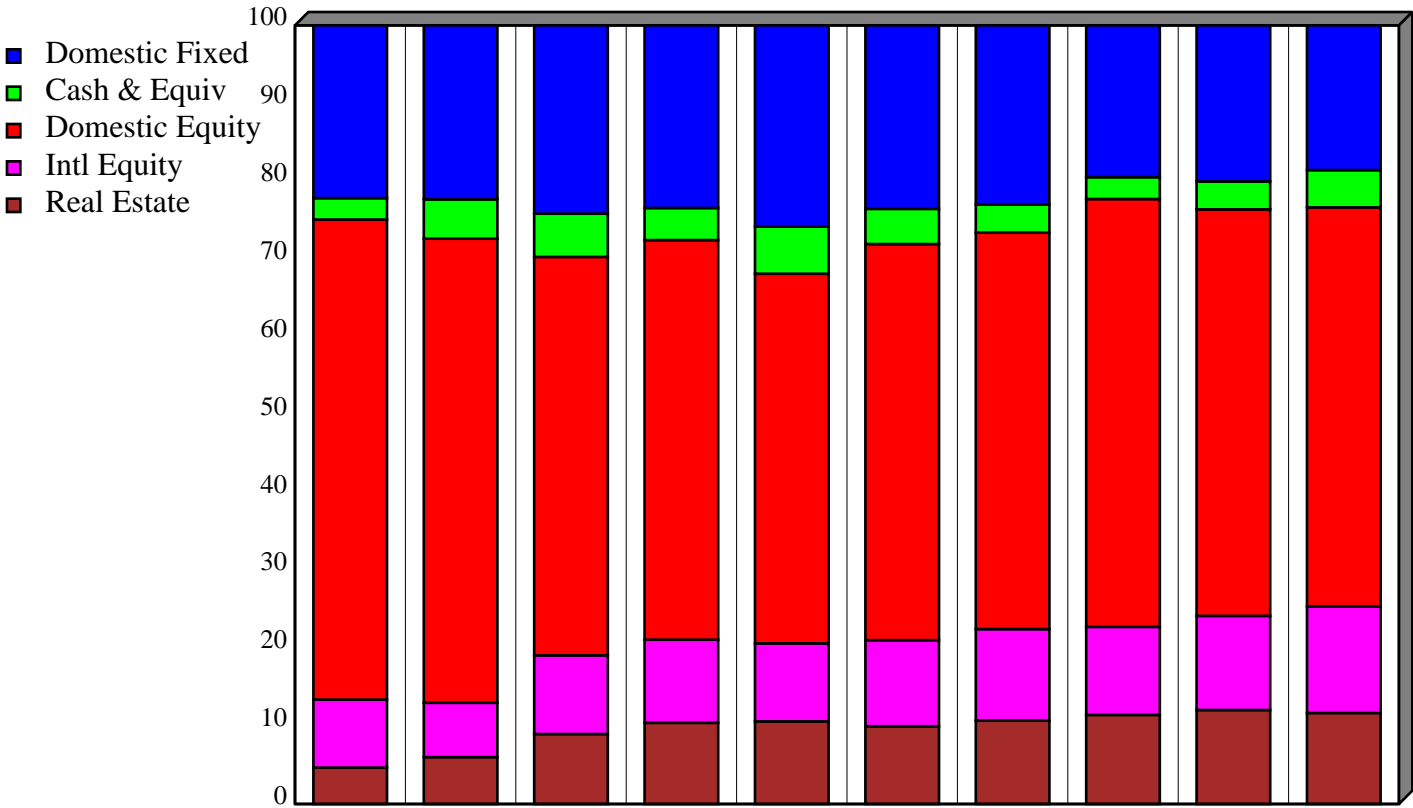
December 31, 1999 \$622,902,470



OHIO RETIREMENT STUDY COUNCIL

Asset Allocation

HPRS



	9/97	12/97	3/98	6/98	9/98	12/98	3/99	6/99	9/99	12/99
Domestic Fixed %	22.2	22.4	24.2	23.5	25.9	23.6	23.0	19.5	20.0	18.6
Cash & Equiv %	2.7	5.1	5.6	4.1	6.0	4.5	3.6	2.8	3.6	4.8
Domestic Equity %	61.7	59.6	51.2	51.3	47.5	50.9	50.9	54.9	52.2	51.2
Intl Equity %	8.7	7.0	10.1	10.7	10.0	11.1	11.7	11.3	12.1	13.7
Real Estate %	4.7	6.0	9.0	10.4	10.6	10.0	10.7	11.4	12.1	11.7
Total Value (\$mil)	589.7	580.6	625.6	620.7	552.1	591.4	571.6	626.2	590.3	622.9

OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 HPRS
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	3/94	12/95	50.00	Standard & Poors 500
			50.00	LB Aggregate
	3/96	12/97	50.00	Standard & Poors 500
			40.00	LB Aggregate
			5.00	MSCI EAFE (Net)
			5.00	NCREIF
	3/98	9/99	15.00	Russell 2000
			40.00	Standard & Poors 500
			25.00	LB Aggregate
			10.00	MSCI EAFE (Net)
			10.00	NCREIF
	12/99	12/99	20.00	Russell 2000
40.00			Standard & Poors 500	
20.00			LB Aggregate	
10.00			MSCI EAFE (Net)	
10.00			NCREIF	

OHIO RETIREMENT STUDY COUNCIL
Performance Overview
HPRS
Returns for Periods Ending December 31, 1999

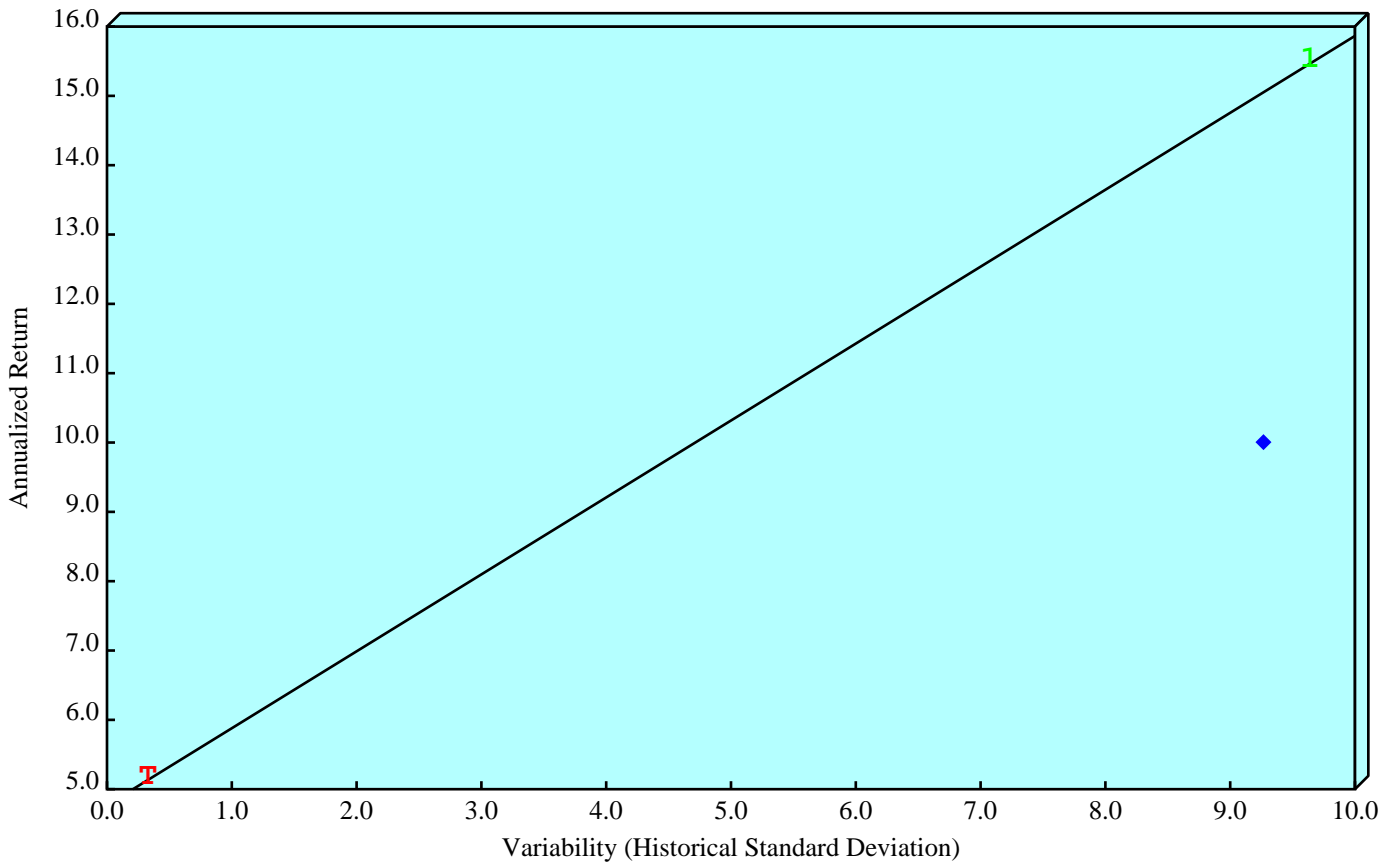
	<u>Last Quarter</u>	<u>Last 2 Quarters</u>	<u>Last 3 Quarters</u>	<u>Last Year</u>	<u>Last 3 Years</u>	<u>Last 5 Years</u>	<u>Since 1st Qtr 94</u>
Total Return	6.20	0.68	7.83	6.96	8.50	12.44	9.99
Policy Index Return	11.52	8.69	14.55	16.20	18.19	19.07	15.51
Domestic Equity Return	6.40	-4.35	6.56	4.11	7.59	15.68	14.39
Wilshire 5000	18.27	10.45	19.06	23.56	26.04	27.06	22.08
Int'l Equity Return	19.50	21.89	28.59	31.94	16.45		
MSCI EAFE (Net)	16.99	22.13	25.23	26.97	15.73	12.83	11.97
Domestic Fixed Return	0.10	0.80	0.30	0.10	5.88	7.49	5.70
LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88
Real Estate Return	2.30	1.89	6.68	7.43	6.46	7.02	6.40
NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70



OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
◆ HPRS	9.99	9.32	4.81	0.52
1 Policy Index	15.51	9.68	10.32	1.07
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

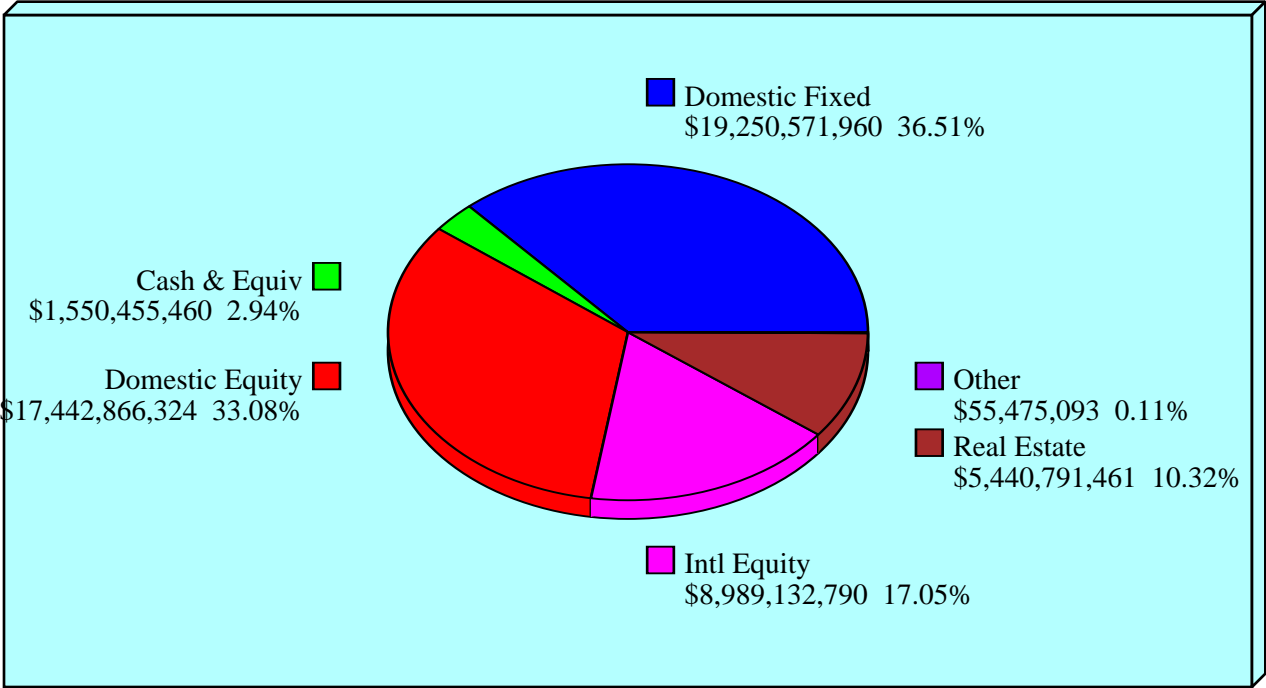
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

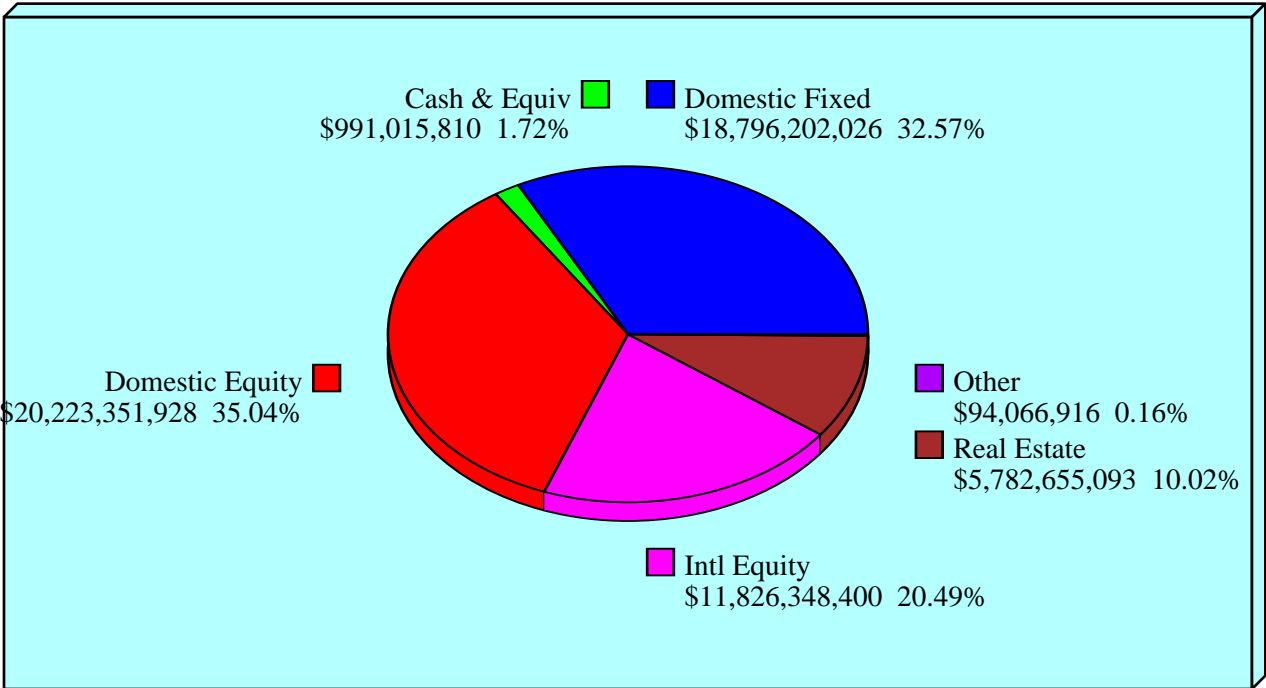
Asset Allocation

PERS

September 30, 1999 \$52,729,293,088



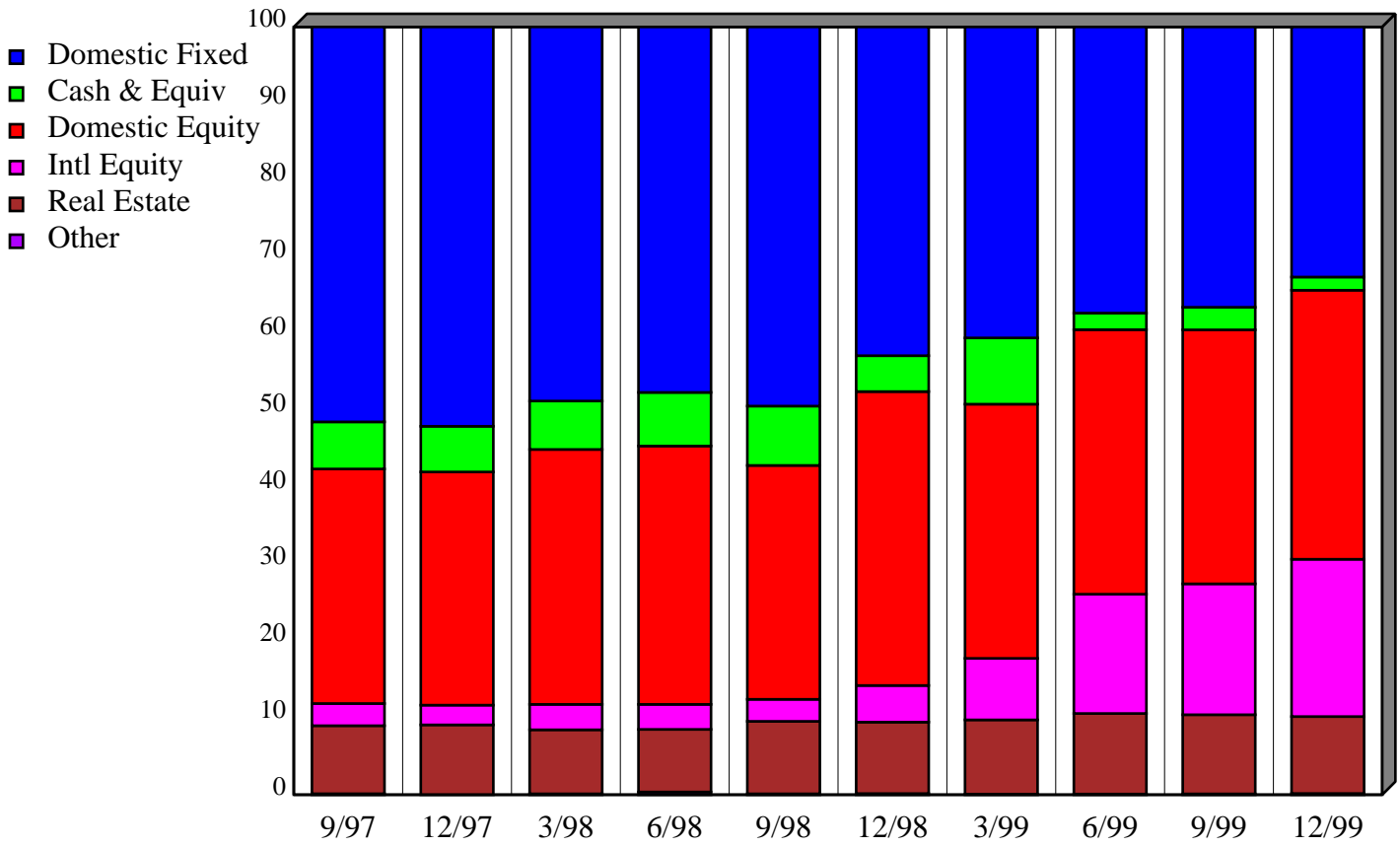
December 31, 1999 \$57,713,640,173



OHIO RETIREMENT STUDY COUNCIL

Asset Allocation

PERS



	9/97	12/97	3/98	6/98	9/98	12/98	3/99	6/99	9/99	12/99
Domestic Fixed %	51.4	52.0	48.7	47.6	49.4	42.8	40.5	37.3	36.5	32.6
Cash & Equiv %	6.1	6.0	6.3	7.0	7.7	4.7	8.6	2.2	2.9	1.7
Domestic Equity %	30.6	30.4	33.2	33.6	30.5	38.3	33.1	34.5	33.1	35.0
Intl Equity %	2.9	2.6	3.3	3.3	2.9	4.8	8.0	15.5	17.0	20.5
Real Estate %	8.9	9.1	8.3	8.1	9.4	9.3	9.7	10.5	10.3	10.0
Other %	0.1		0.1	0.4	0.1	0.2	0.1	0.1	0.1	0.2
Total Value (\$bil)	44.2	44.9	47.7	48.8	47.5	51.3	52.2	53.8	52.7	57.7

OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 PERS
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	3/94	6/95	17.00 68.00 7.00 8.00	Standard & Poors 500 SB Broad Inv Grade NCREIF 91-Day Treasury Bill
	9/95	12/95	26.00 59.00 1.00 8.00 6.00	Standard & Poors 500 SB Broad Inv Grade MSCI EAFE (Net) NCREIF 91-Day Treasury Bill
	3/96	12/96	23.00 62.50 2.00 8.00 4.50	Standard & Poors 500 SB Broad Inv Grade MSCI EAFE (Net) NCREIF 91-Day Treasury Bill
	3/97	12/97	27.00 56.50 4.00 8.00 4.50	Standard & Poors 500 SB Broad Inv Grade MSCI EAFE (Net) NCREIF 91-Day Treasury Bill
	3/98	9/98	30.50 51.00 6.00 8.00 4.50	Standard & Poors 500 SB Broad Inv Grade MSCI EAFE (Net) NCREIF 91-Day Treasury Bill
	12/98	12/98	30.50 51.00 6.00 1.60 1.60 4.80 4.50	Russell 3000 SB Broad Inv Grade MSCI World Ex-US (Net) Giliberto-Levy Mortgage NAREIT NCREIF 91-Day Treasury Bill
	3/99	3/99	35.00 45.40 7.60 2.20	Standard & Poors 500 SB Broad Inv Grade MSCI World Ex-US (Net) Giliberto-Levy Mortgage

OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 PERS
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)			2.20	NAREIT
			6.60	NCREIF
			1.00	91-Day Treasury Bill
	6/99	6/99	35.00	Standard & Poors 500
			40.10	SB Broad Inv Grade
			12.90	MSCI World Ex-US (Net)
			2.20	Giliberto-Levy Mortgage
			2.20	NAREIT
			6.60	NCREIF
			1.00	91-Day Treasury Bill
	9/99	9/99	35.00	Standard & Poors 500
			37.80	SB Broad Inv Grade
			15.20	MSCI World Ex-US (Net)
			2.20	Giliberto-Levy Mortgage
			2.20	NAREIT
			6.60	NCREIF
1.00			91-Day Treasury Bill	
12/99	12/99	35.00	Standard & Poors 500	
		36.10	SB Broad Inv Grade	
		16.90	MSCI World Ex-US (Net)	
		2.20	Giliberto-Levy Mortgage	
		2.20	NAREIT	
		6.60	NCREIF	
		1.00	91-Day Treasury Bill	

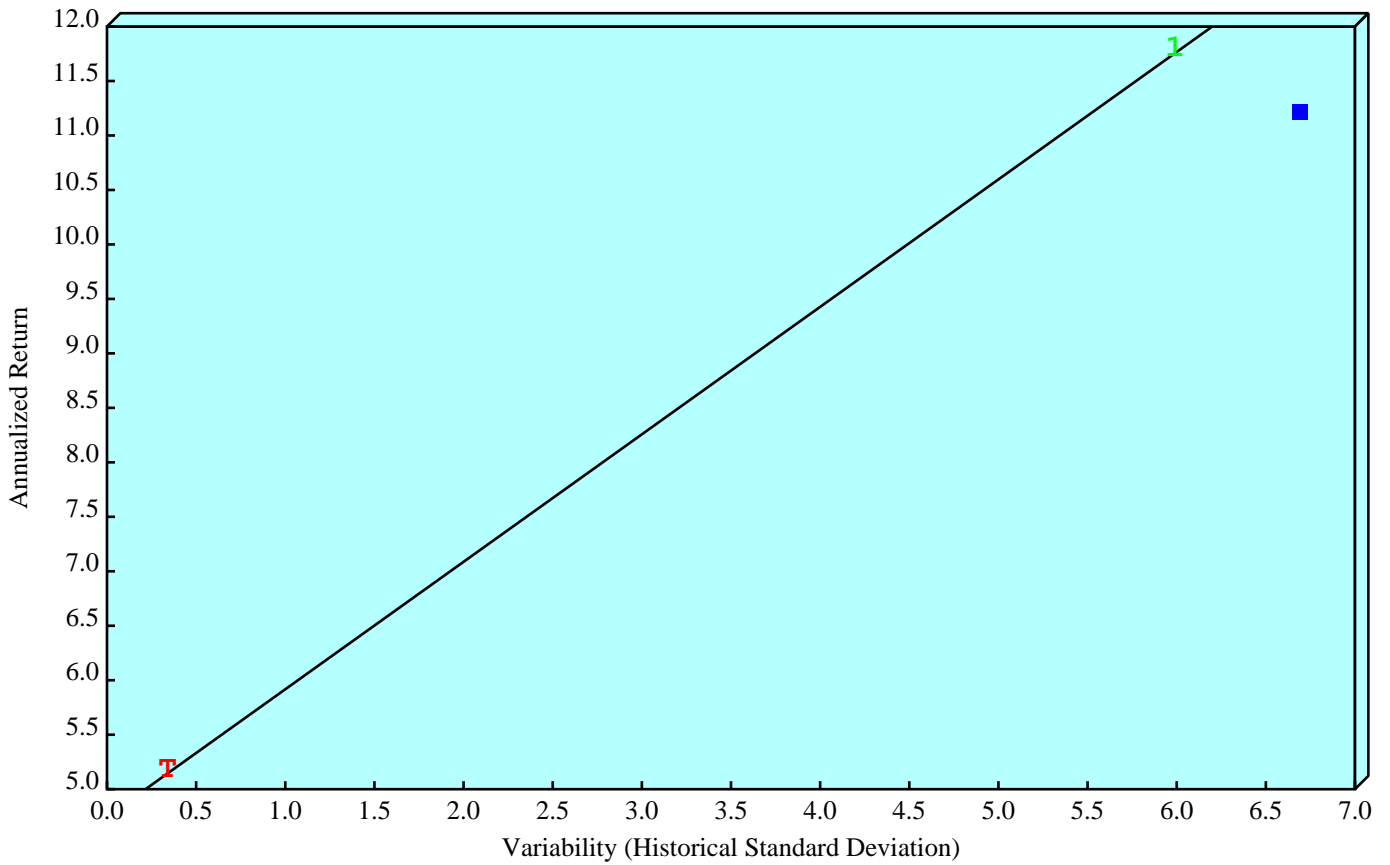
OHIO RETIREMENT STUDY COUNCIL
Performance Overview
PERS
Returns for Periods Ending December 31, 1999

	<u>Last Quarter</u>	<u>Last 2 Quarters</u>	<u>Last 3 Quarters</u>	<u>Last Year</u>	<u>Last 3 Years</u>	<u>Last 5 Years</u>	<u>Since 1st Qtr 94</u>
Total Return	9.63	7.44	10.82	12.15	13.31	13.71	11.21
Policy Index Return	8.19	6.85	9.88	11.74	14.57	14.52	11.79
Domestic Equity Return	13.01	4.07	11.60	14.64	22.01	22.15	17.52
Wilshire 5000	18.27	10.45	19.06	23.56	26.04	27.06	22.08
Int'l Equity Return	27.72	32.66	40.40	44.85	16.36		
MSCI EAFE (Net)	16.99	22.13	25.23	26.97	15.73	12.83	11.97
Domestic Fixed Return	0.04	0.73	-0.17	-0.50	5.60	8.17	6.41
LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88
Real Estate Return	3.33	1.96	6.40	7.19	8.93	9.68	10.08
NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70

OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
■ PERS	11.21	6.73	6.03	0.90
1 Policy Index	11.79	6.02	6.60	1.10
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

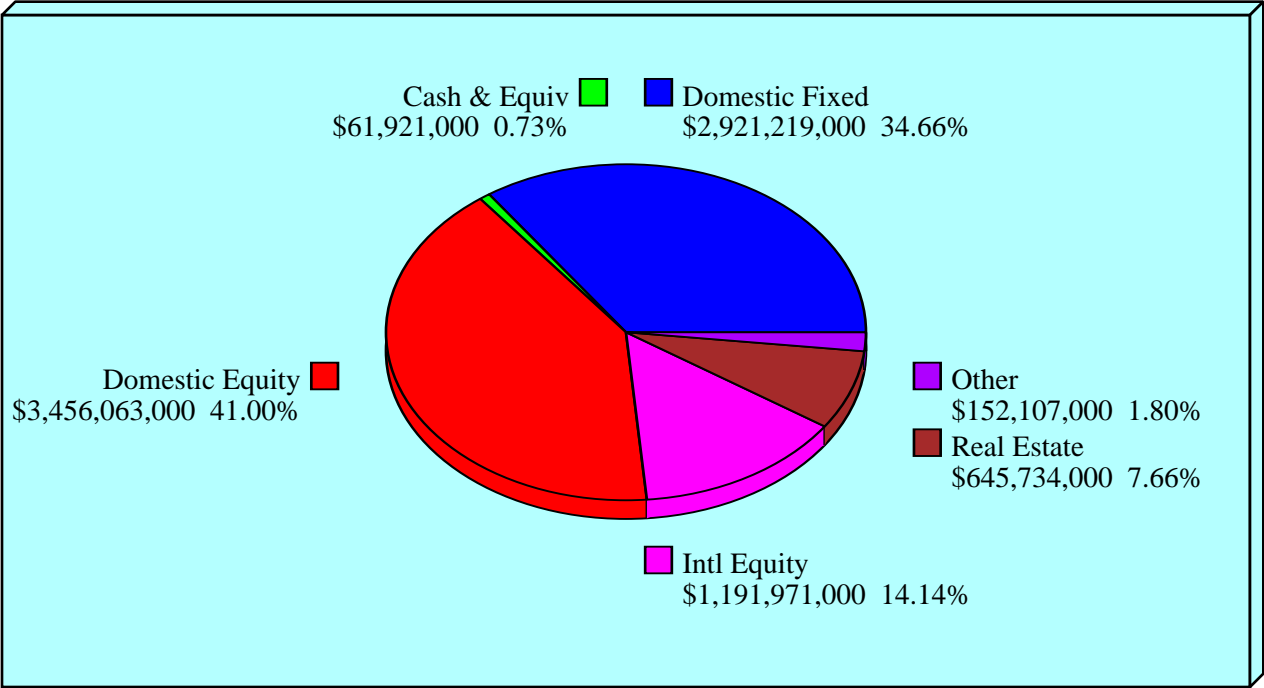
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

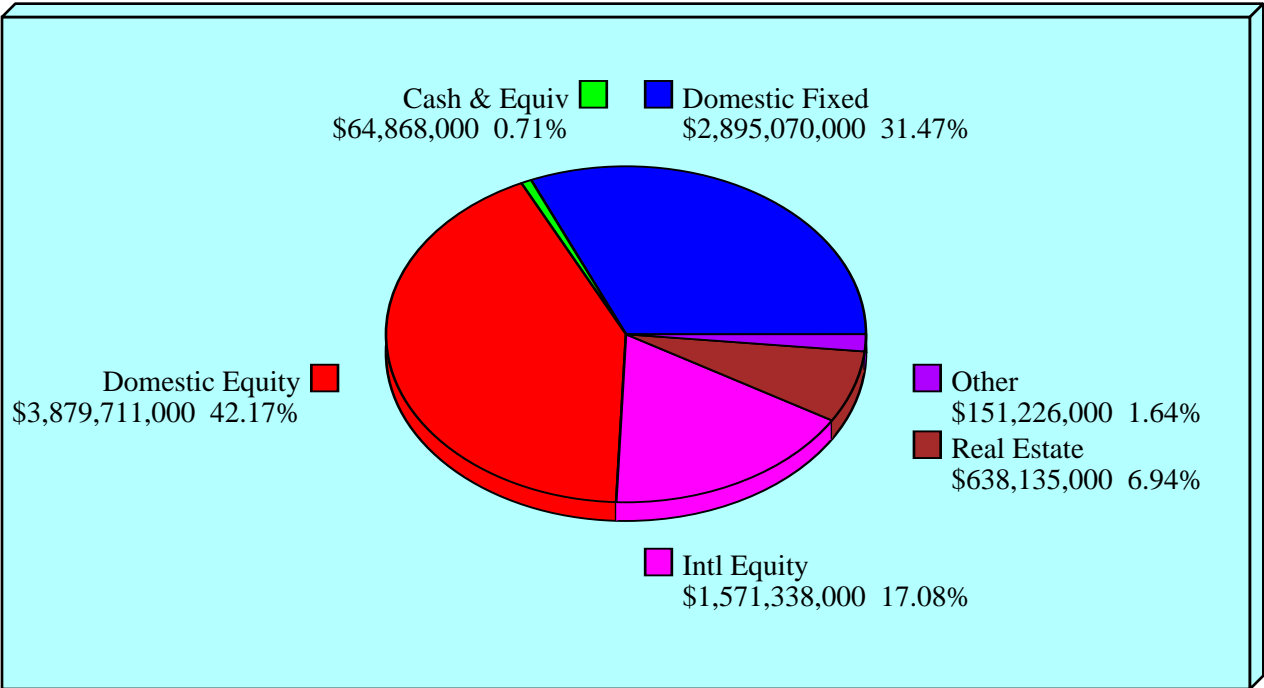
Asset Allocation

OP&F

September 30, 1999 \$8,429,015,000



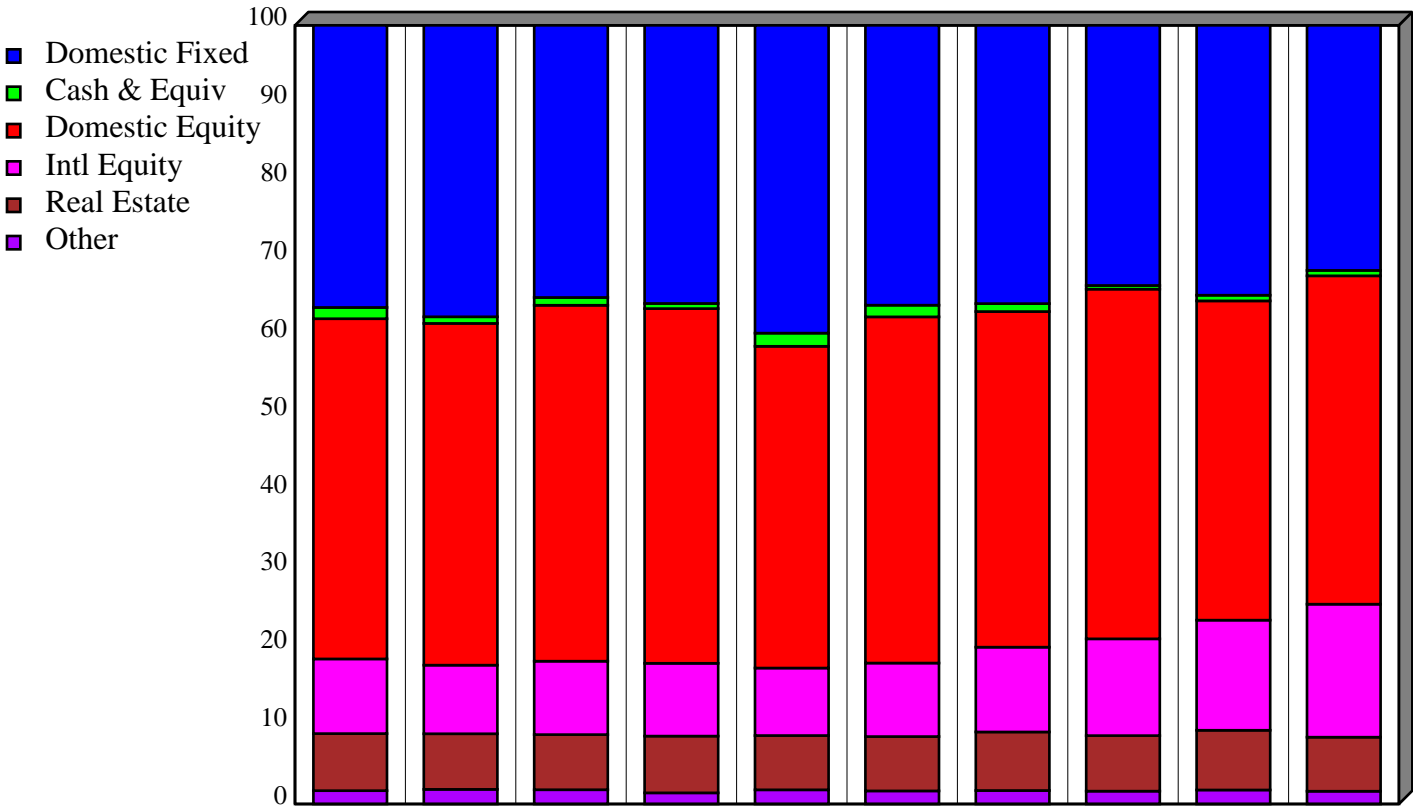
December 31, 1999 \$9,200,348,000



OHIO RETIREMENT STUDY COUNCIL

Asset Allocation

OP&F



	9/97	12/97	3/98	6/98	9/98	12/98	3/99	6/99	9/99	12/99
Domestic Fixed %	36.2	37.4	34.9	35.7	39.5	35.9	35.7	33.4	34.7	31.5
Cash & Equiv %	1.5	0.8	1.0	0.7	1.7	1.5	1.0	0.5	0.7	0.7
Domestic Equity %	43.7	43.9	45.7	45.5	41.3	44.5	43.1	44.9	41.0	42.2
Intl Equity %	9.6	8.8	9.4	9.3	8.7	9.4	10.9	12.4	14.1	17.1
Real Estate %	7.3	7.1	7.1	7.3	7.0	7.0	7.5	7.1	7.7	6.9
Other %	1.7	1.9	1.8	1.4	1.8	1.7	1.7	1.7	1.8	1.6

Total Value (\$mil)	7,351.7	7,303.3	7,924.2	8,006.9	7,394.5	8,193.0	8,221.4	8,685.1	8,429.0	9,200.3
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OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 OP&F
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	3/94	9/97	41.50	Wilshire 5000
			39.50	LB Aggregate
			10.00	MSCI EAFE (Net)
			9.00	Wilshire RE Funds
	12/97	12/99	42.00	Wilshire 5000
			35.00	LB Aggregate
			10.00	MSCI EAFE (Net)
			5.00	MSCI Em Mkts Free (Gross)
		8.00	Wilshire RE Funds	

OHIO RETIREMENT STUDY COUNCIL
Performance Overview
OP&F
Returns for Periods Ending December 31, 1999

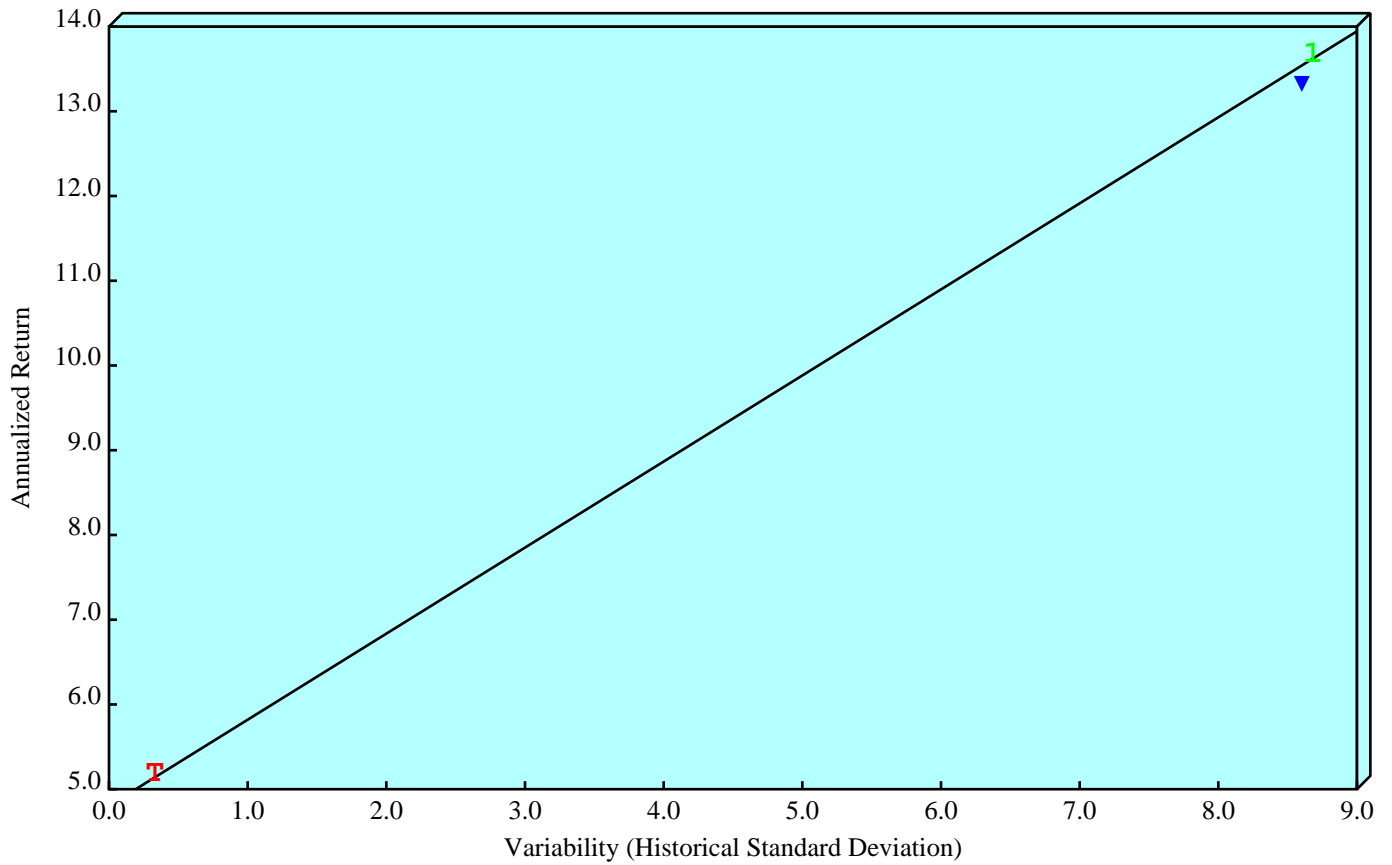
	<u>Last Quarter</u>	<u>Last 2 Quarters</u>	<u>Last 3 Quarters</u>	<u>Last Year</u>	<u>Last 3 Years</u>	<u>Last 5 Years</u>	<u>Since 1st Qtr 94</u>
Total Return	9.81	7.12	12.65	13.84	14.89	16.59	13.31
Policy Index Return	10.94	8.57	13.60	16.26	16.24	16.62	13.66
Domestic Equity Return	13.86	5.98	16.66	17.41	21.15	23.41	18.97
Wilshire 5000	18.27	10.45	19.06	23.56	26.04	27.06	22.08
Int'l Equity Return	27.08	31.13	38.19	42.10	20.83	17.11	
MSCI EAFE (Net)	16.99	22.13	25.23	26.97	15.73	12.83	11.97
Domestic Fixed Return	0.13	0.80	0.40	0.35	5.64	7.75	5.85
LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88
Real Estate Return	1.94	4.12	6.32	13.71	14.49	12.23	11.12
NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70



OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
▼ OP&F	13.31	8.65	8.13	0.94
1 Policy Index	13.66	8.72	8.47	0.97
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

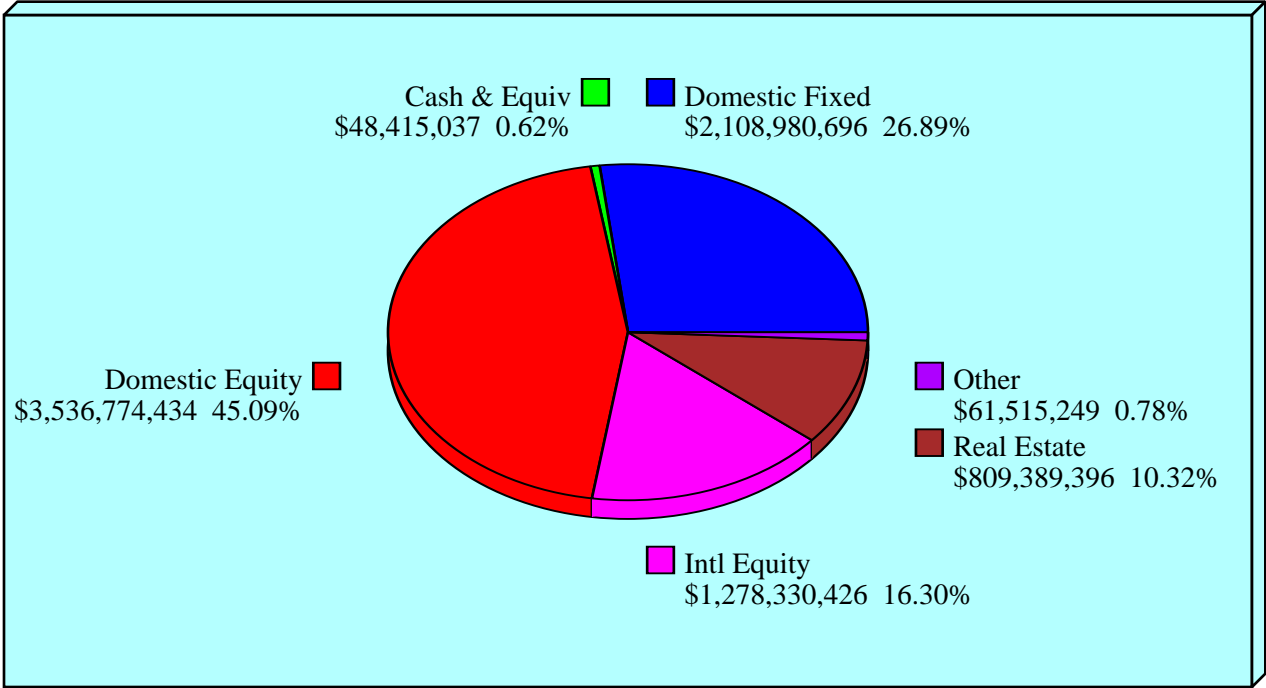
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

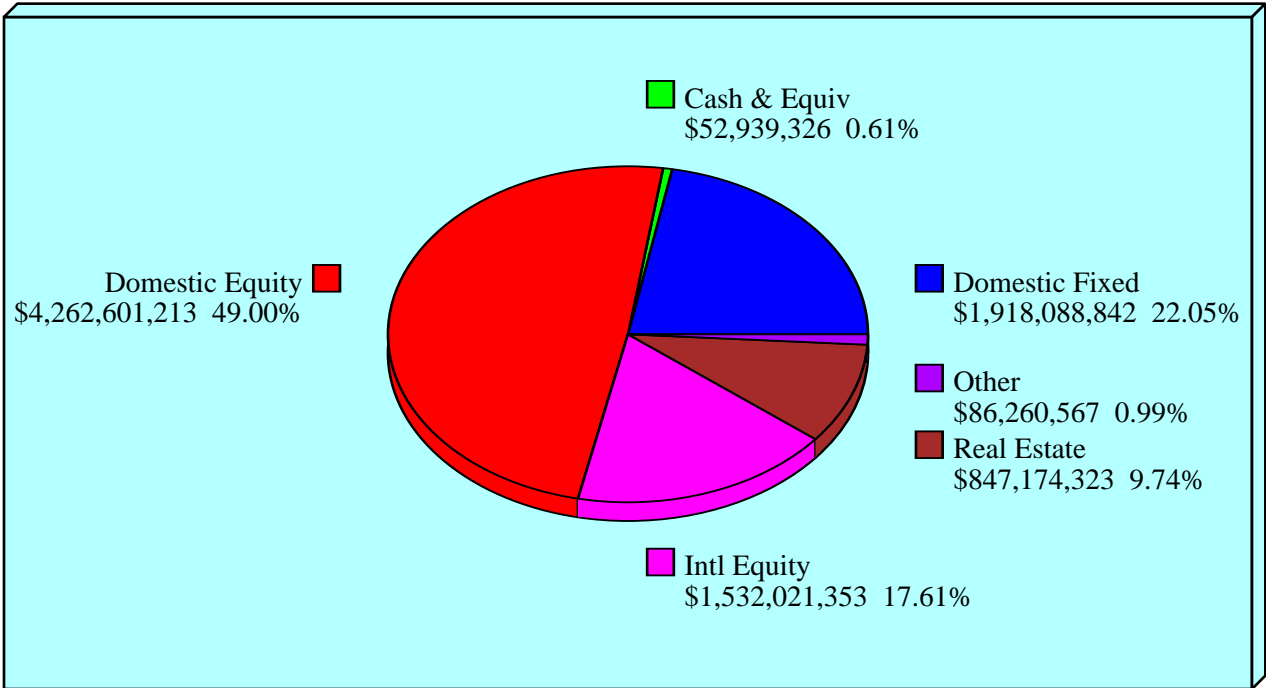
Asset Allocation

SERS

September 30, 1999 \$7,843,405,238



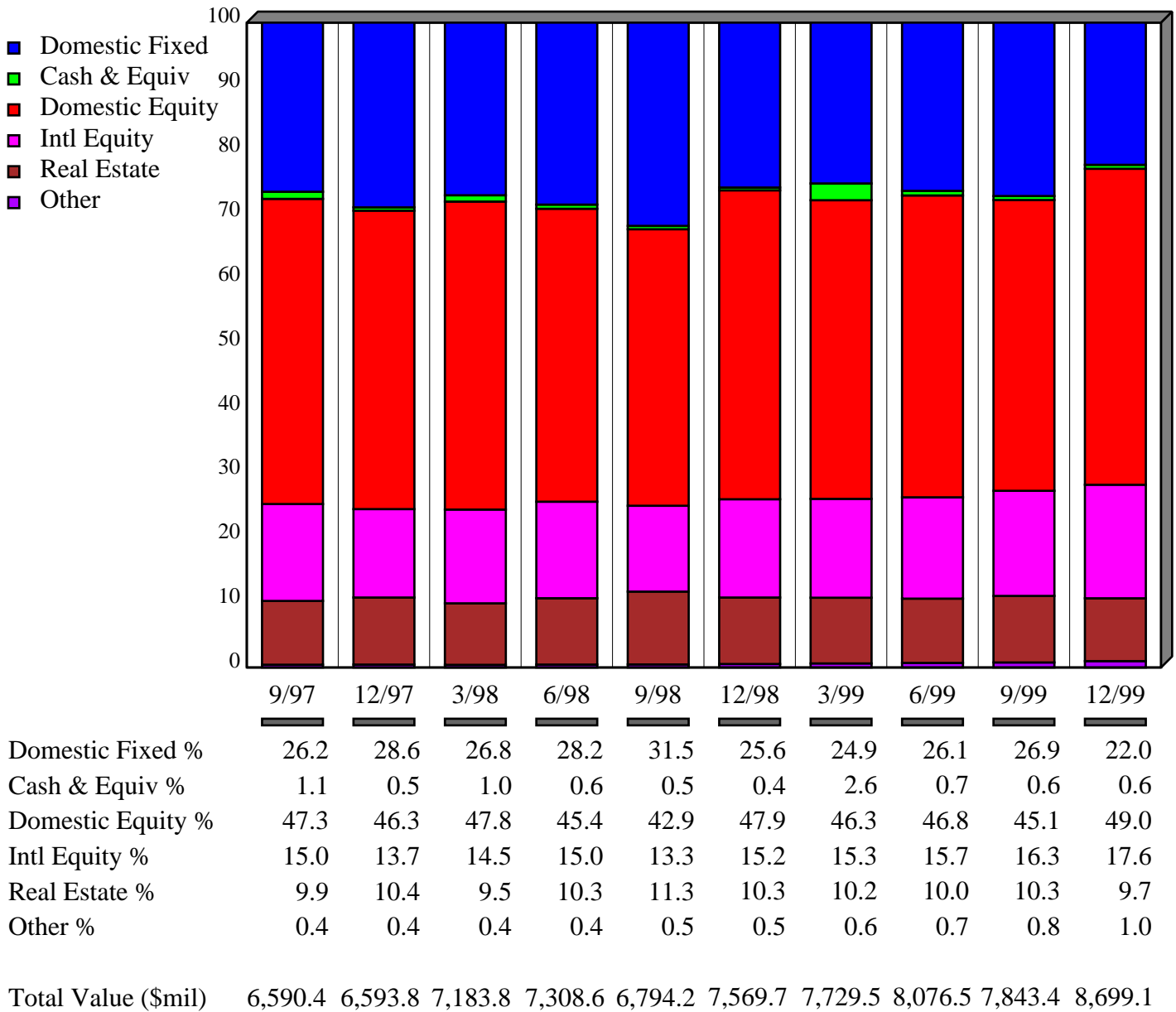
December 31, 1999 \$8,699,085,624



OHIO RETIREMENT STUDY COUNCIL

Asset Allocation

SERS



OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 SERS
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	3/94	9/94	47.00	Standard & Poors 500
			28.00	LB Aggregate
			10.00	MSCI EAFE (Net)
			10.00	NCREIF
			5.00	US Treasury Bills (30-Day)
	12/94	12/94	47.00	Standard & Poors 500
			28.00	LB Aggregate
			5.00	MSCI EAFE (Net)
			5.00	MSCI EAFE Hedged
			10.00	NCREIF
	3/95	3/97	47.00	Russell 3000
			28.00	LB Aggregate
			5.00	MSCI EAFE (Net)
			5.00	MSCI EAFE Hedged
			10.00	NCREIF
	6/97	6/97	46.00	Russell 3000
			28.00	LB Aggregate
			7.50	MSCI EAFE (Net)
			7.50	MSCI EAFE Hedged
			10.00	NCREIF
9/97	12/99	46.00	Russell 3000	
		28.00	LB Aggregate	
		7.25	MSCI EAFE (Net)	
		7.25	MSCI EAFE Hedged	
		0.50	MSCI Em Mkts Free (Gross)	
		10.00	NCREIF	
		1.00	US Treasury Bills (30-Day)	

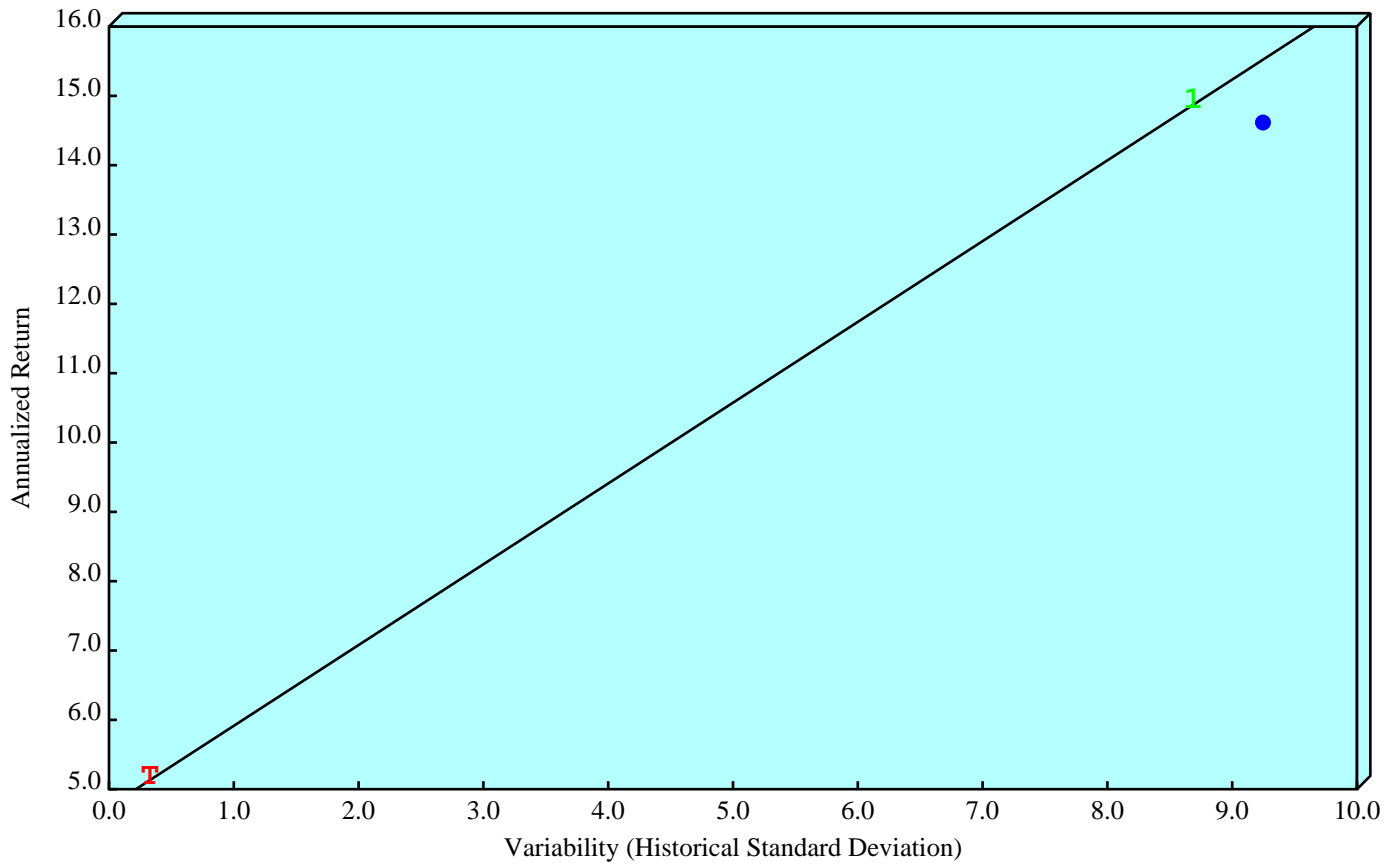
OHIO RETIREMENT STUDY COUNCIL
Performance Overview
SERS
Returns for Periods Ending December 31, 1999

	Last Quarter	Last 2 Quarters	Last 3 Quarters	Last Year	Last 3 Years	Last 5 Years	Since 1st Qtr 94
Total Return	11.50	8.71	13.82	16.33	17.07	17.98	14.60
Policy Index Return	9.65	7.07	11.65	14.30	17.32	17.82	14.92
Domestic Equity Return	17.00	9.40	18.15	21.69	24.69	26.31	21.61
Wilshire 5000	18.27	10.45	19.06	23.56	26.04	27.06	22.08
Int'l Equity Return	17.70	20.41	27.99	32.86	18.90	15.35	
MSCI EAFE (Net)	21.23	22.62	35.00	37.50	16.41	16.38	
Domestic Fixed Return	0.00	0.60	-0.31	-0.70	5.69	7.91	5.63
LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88
Real Estate Return	3.80	5.46	8.52	10.58	11.48	11.36	10.77
NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70

OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
● SERS	14.60	9.30	9.42	1.01
1 Policy Index	14.92	8.73	9.73	1.11
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

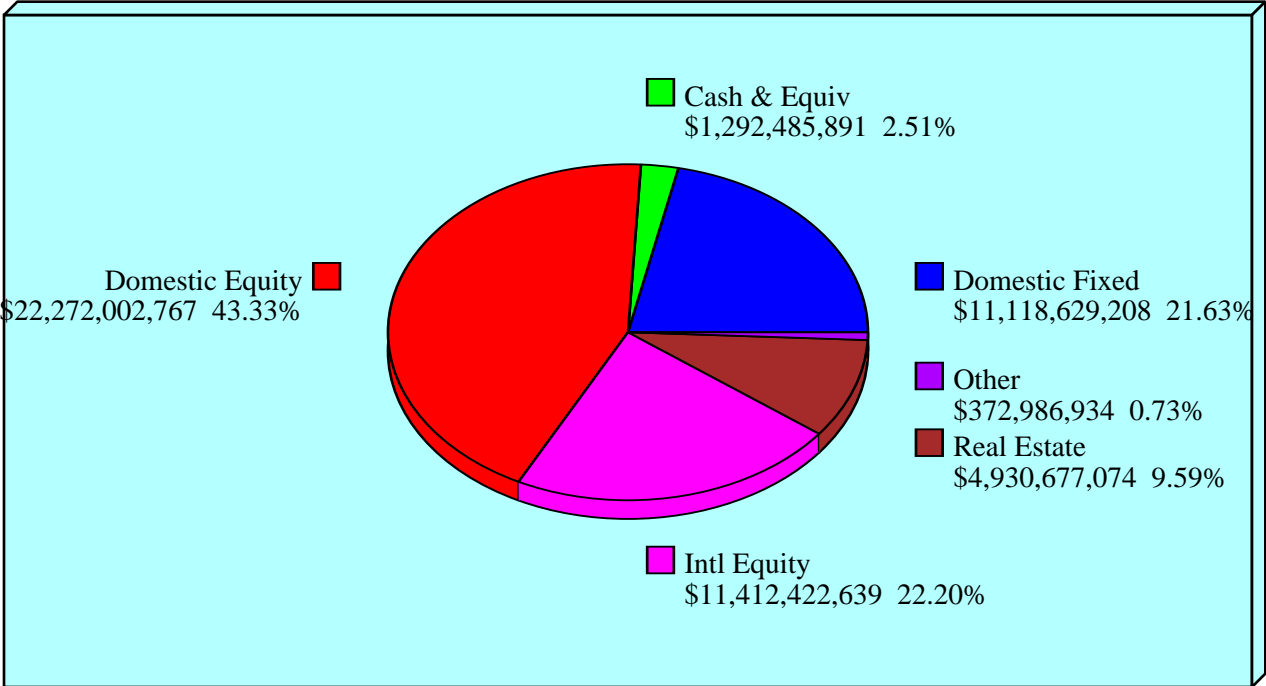
Sharpe Ratio = Reward / Variability

OHIO RETIREMENT STUDY COUNCIL

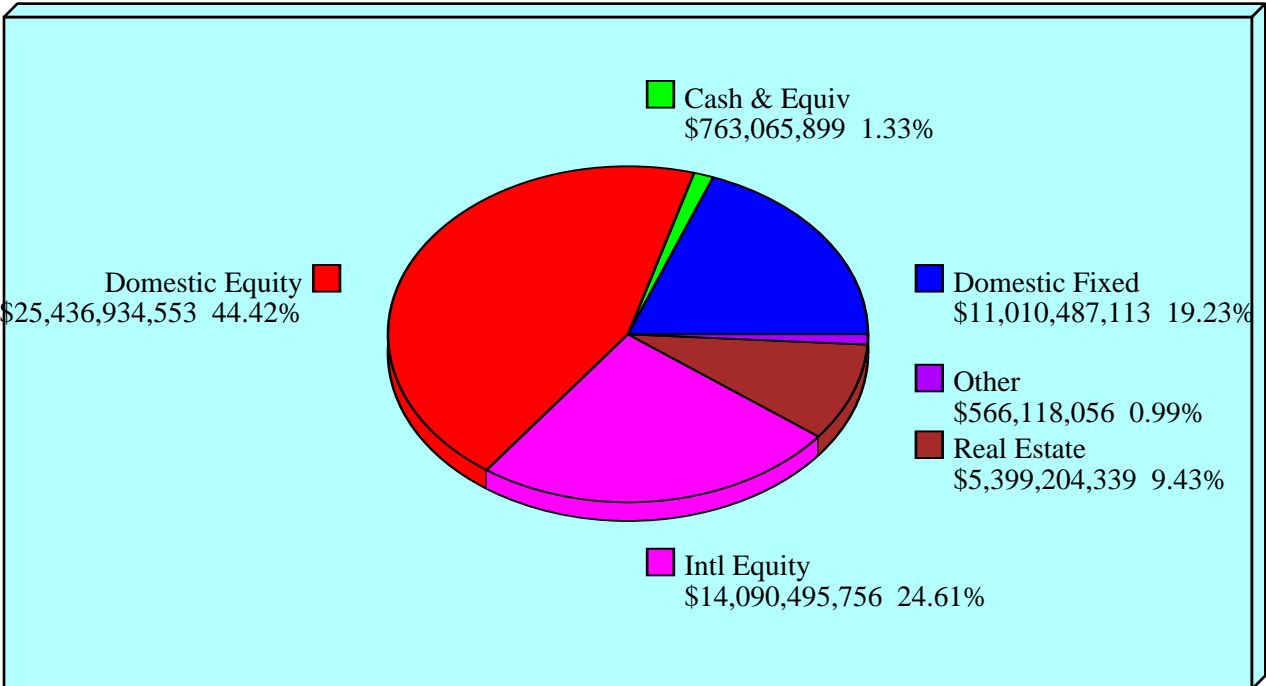
Asset Allocation

STRS

September 30, 1999 \$51,399,204,513

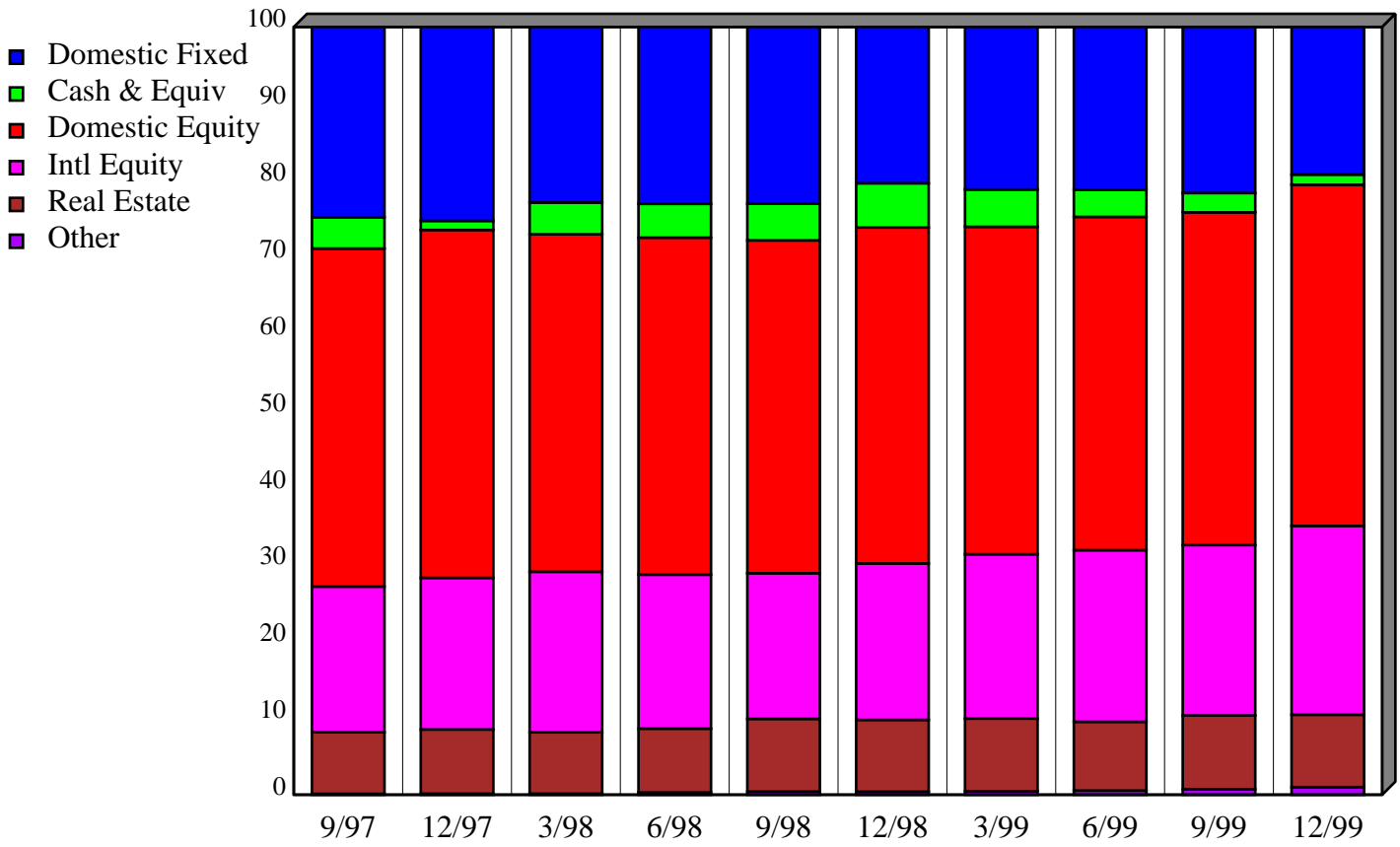


December 31, 1999 \$57,266,305,716



OHIO RETIREMENT STUDY COUNCIL

Asset Allocation STRS



	9/97	12/97	3/98	6/98	9/98	12/98	3/99	6/99	9/99	12/99
Domestic Fixed %	24.8	25.3	22.9	23.0	23.0	20.4	21.2	21.2	21.6	19.2
Cash & Equiv %	4.1	1.2	4.1	4.4	4.8	5.8	4.9	3.5	2.5	1.3
Domestic Equity %	44.0	45.3	44.0	43.9	43.4	43.8	42.6	43.4	43.3	44.4
Intl Equity %	19.0	19.7	20.9	20.1	19.0	20.4	21.4	22.4	22.2	24.6
Real Estate %	8.0	8.4	8.0	8.3	9.5	9.4	9.5	9.0	9.6	9.4
Other %	0.1	0.1	0.1	0.3	0.4	0.4	0.5	0.5	0.7	1.0
Total Value (\$bil)	44.1	43.7	47.5	47.5	43.9	48.9	49.6	52.8	51.4	57.3

OHIO RETIREMENT STUDY COUNCIL
Custom Benchmark Specification
STRS
Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	3/94	9/94	40.00	Standard & Poors 500
			45.00	LB Aggregate
			3.00	MSCI EAFE (Net)
			9.00	STRS NCREIF hybrid
			3.00	91-Day Treasury Bill
	12/94	12/94	40.00	Standard & Poors 500
			45.00	LB Aggregate
			2.25	MSCI EAFE (Net)
			0.75	MSCI Em Mkts Free (Gross)
			9.00	STRS NCREIF hybrid
	3/95	3/96	46.00	Standard & Poors 500
			35.00	LB Aggregate
			6.00	MSCI EAFE (Net)
			2.00	MSCI Em Mkts Free (Gross)
			9.00	STRS NCREIF hybrid
	6/96	12/96	45.00	Standard & Poors 500
			35.00	LB Aggregate
			6.75	MSCI EAFE (Net)
			2.25	MSCI Em Mkts Free (Gross)
			9.00	STRS NCREIF hybrid
	3/97	6/97	45.00	Standard & Poors 500
			34.00	LB Aggregate
			6.00	MSCI EAFE (Net)
			4.00	MSCI Em Mkts Free (Gross)
9.00			STRS NCREIF hybrid	
9/97	12/97	45.00	Standard & Poors 500	
		24.00	LB Aggregate	
		12.00	MSCI EAFE (Net)	
		8.00	MSCI Em Mkts Free (Gross)	
		9.00	STRS NCREIF hybrid	
		2.00	91-Day Treasury Bill	

OHIO RETIREMENT STUDY COUNCIL
 Custom Benchmark Specification
 STRS
 Quarter Ending 12/31/99

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	3/98	9/98	45.00	Standard & Poors 1500
			24.00	LB Aggregate
			6.00	MSCI EAFE (Net)
			6.00	MSCI EAFE Hedged
			8.00	MSCI Em Mkts Free (Gross)
			9.00	STRS NCREIF hybrid
			2.00	91-Day Treasury Bill
			12/98	12/99
	24.00	LB Aggregate		
	7.00	MSCI EAFE (Net)		
	7.00	MSCI EAFE Hedged		
	6.00	MSCI Em Mkts Free (Gross)		
	9.00	STRS NCREIF hybrid		
	2.00	91-Day Treasury Bill		

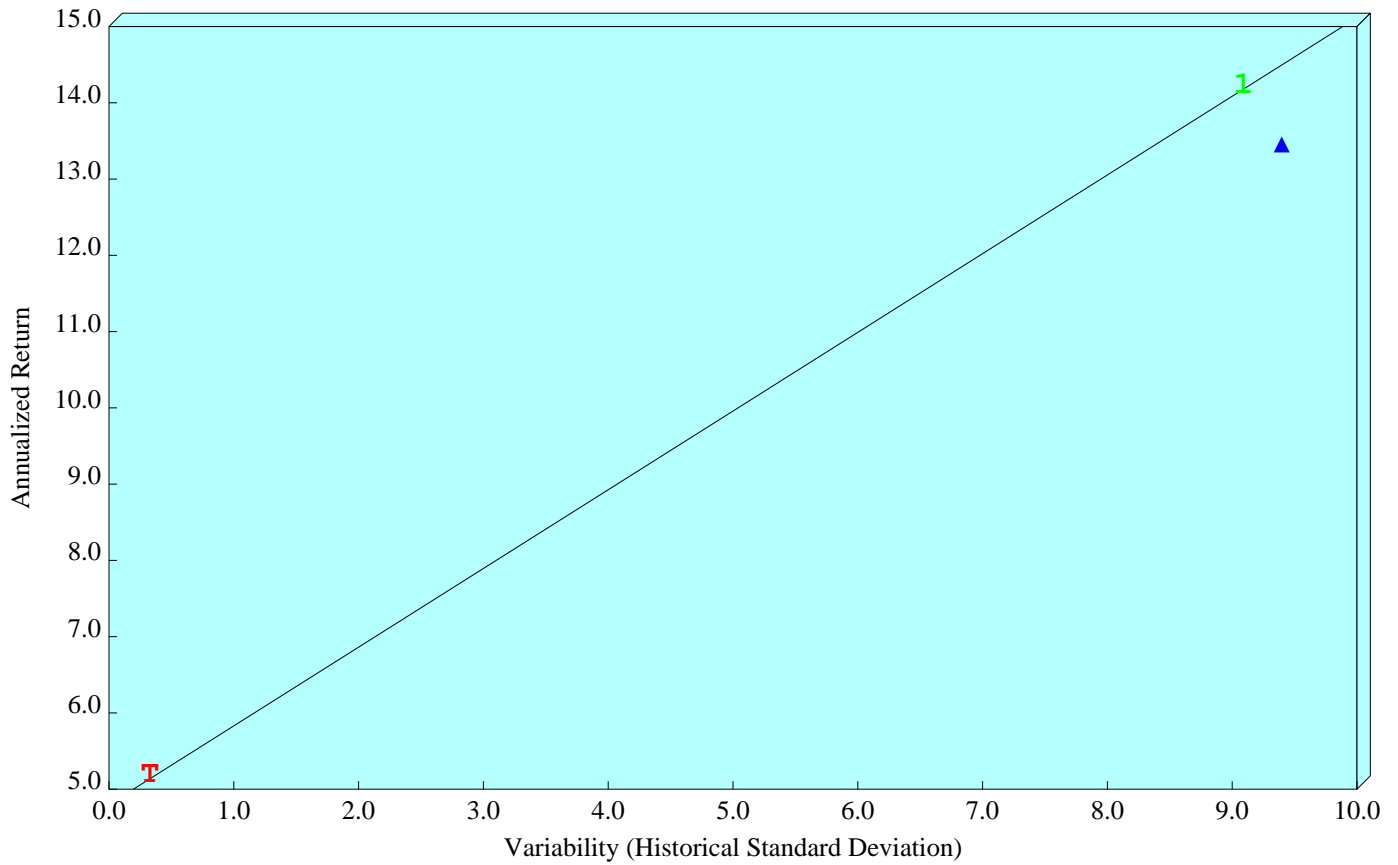
OHIO RETIREMENT STUDY COUNCIL
Performance Overview
STRS
Returns for Periods Ending December 31, 1999

	<u>Last Quarter</u>	<u>Last 2 Quarters</u>	<u>Last 3 Quarters</u>	<u>Last Year</u>	<u>Last 3 Years</u>	<u>Last 5 Years</u>	<u>Since 1st Qtr 94</u>
Total Return	12.22	9.23	16.68	18.87	16.10	16.25	13.44
Policy Index Return	10.95	8.06	14.12	17.63	16.51	17.52	14.38
Domestic Equity Return	13.41	5.81	16.08	17.75	22.89	23.08	19.11
Wilshire 5000	18.27	10.45	19.06	23.56	26.04	27.06	22.08
Int'l Equity Return	26.63	26.26	41.58	49.38	14.12	11.29	10.33
MSCI EAFE (Net)	16.99	22.13	25.23	26.97	15.73	12.83	11.97
Domestic Fixed Return	-0.28	0.28	-0.95	-1.70	6.61	8.48	6.73
LB Aggregate	-0.12	0.56	-0.32	-0.83	5.73	7.73	5.88
Real Estate Return	3.76	5.48	9.24	11.73	13.28	11.51	10.76
NCREIF	2.07	4.82	7.36	10.15	13.40	11.59	10.70

OHIO RETIREMENT STUDY COUNCIL

Quarterly Total Return Market Line Analysis

Periods from 12/93 to 12/99



	Annualized Return	Variability	Reward	Sharpe Ratio
▲ STRS	13.44	9.45	8.25	0.87
1 Policy Index	14.38	9.13	9.20	1.01
T 91-Day Treasury Bill	5.18	0.37	0.00	0.00

Sharpe Ratio = Reward / Variability