



# Monroe County Employees Retirement System

## Defined Benefit Plan Analysis

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*Independent, Professional Investment Consultants Since 1992.*

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**Asset Strategies Portfolio Services** was selected by a panel comprised of both County Commissioners and Board Members of the Monroe County Employees Retirement System to perform a detailed professional analysis of the Monroe County Employees Retirement System Defined Benefit Plan, hereafter referred to as “MCERS”.

### **SCOPE OF SERVICES**

1. Plan and Manager Performance: Analyze the historical returns of the assets, and compare the returns to similar Michigan Public Act 314 governed Retirement Systems of similar asset size and demographics. The analysis shall include a review of cash flows, asset allocation, and manager performance over the most recent 15-year historical period.
2. Calculate asset weighted fees versus alternate managers or peer groups
3. Performance comparison gross-of-fees (GoF) and net-of-fees (NoF).
4. Compare investment consulting and money manager fees versus alternative managers or peers
5. Travel Fees: Compare travel fees and budgets of other public plans.

### **BACKGROUND**

Data received for this analysis was obtained from multiple sources as noted below<sup>1</sup>:

#### **A. MCERS Data**

1. Morgan Stanley, investment consultant for MCERS, for the past 15 years, provided the Total Plan historical data for MCERS from 1998 to 2013 and included the following:
  - a) Quarterly Plan returns were provided gross-of-fees (GoF). Net-of-fees (NoF) numbers were provided, but not used in this report because the data was deemed unreliable.
  - b) Quarterly Total Plan market values and net cash flows
  - c) Manager cash flow history, fee schedules, length of service, existing and terminated managers from 1999 through the first quarter of 2014.
  - d) Benchmarks for each manager
  - e) Quarterly Manager (GoF) results and quarterly market values
  - f) Total Plan Policy index for each year

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<sup>1</sup> Asset Strategies does not warrant the accuracy of data provided to us by others, but has attempted to obtain and utilize reliable information.

2. MCERS Audited Financial Statements – Rehmann Robson, Certified Public Accountant Reports, 2003 through 2012
3. MCERS Actuarial Reports – Gabriel Roeder Smith & Company Reports for 2013 and prior years back to 2003
4. Board minutes and other data as provided on the MCERS web site
5. Data provided by the MCERS’ plan administrator

**B. Other Michigan County Plans’ Information**

Data was obtained from multiple sources as noted below:

1. Plan administrators, consultants, and others;
2. County websites; including meeting minutes;
3. Audited financial statements;
4. Actuarial reports

Table 1: Michigan County Plans Participating:

County Plan	12/31/2013 \$MV	Funded Status (as of 4Q12)	Actuary Rate	Plan Status
Bay	\$ 295,503,588	105%	7.5%	Closed
Macomb	\$ 907,346,000	101%	7.5%	Closed
Oakland	\$ 800,084,000	100% (3Q13)	7.25%	Closed
Kent	\$ 757,005,057	97%	7.0%	Open
Midland	\$ 55,047,402	90%	7.5%	Closed
St Clair	\$ 218,758,173	82%	7.5%	Closed
<b>Monroe</b>	<b>\$ 189,403,009</b>	<b>79%</b>	<b>7.0%</b>	<b>Partial Close</b>
Jackson	\$ 144,151,959	76%	7.5%	Open
Genesee	\$ 443,638,758	75%	8.0%	Partial Close
Berrien	\$ 163,203,528	69% (4Q13)	8.0%	Open
Washtenaw	\$ 245,896,945	59%	7.25%	Open

## PLAN INVESTMENT PERFORMANCE SUMMARY

### Analysis of MCERS' Investment Performance Analysis – 15 Years through 12/31/2013

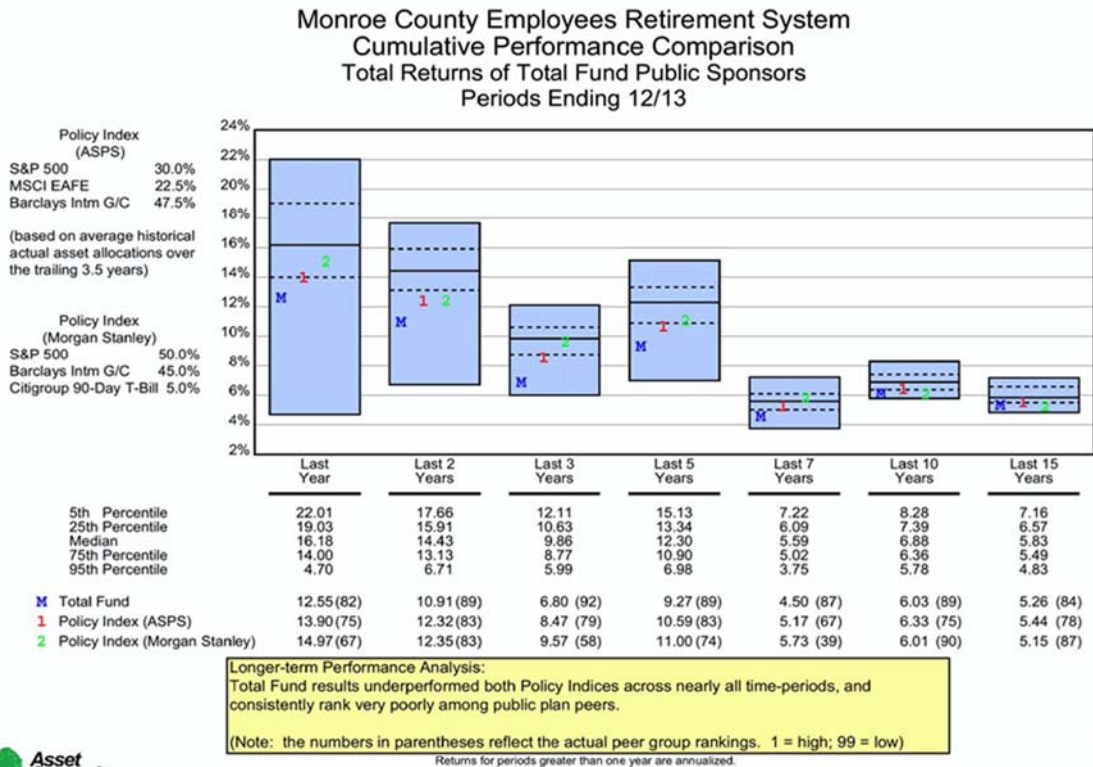
(see Tab 1) Total Plan performance and each investment manager's performance was evaluated using the Wilshire Cooperative Universe of Public Employees Retirement Plans.<sup>2</sup> The Wilshire Universe (a.k.a. peer group) consists of local and state government defined benefit plans. It is important to note the Universe provided a common denominator to further evaluate investment results. There are numerous Michigan Public plans in this Universe. Even though different plans in the Universe are subject to different investment guidelines, Monroe County's relative standing would not change much, in any creditable universe. The Universe allows us to compare and rank MCERS' investment results, the Consultant's Policy Index and the performance of each investment manager, among the respective peer group.

Total Plan Performance (GoF) results for MCERS are shown below and in Tab 1, page 3. Results are for 1-, 2-, 3-, 5-, 7-, 10-, and 15-year time-periods. One-year performance numbers and rankings are 12.55%, and rank in the 82nd percentile (one is the highest rank/highest performance and 100/lowest). MCERS' results are generally poor in comparison to two Policy Indexes; ASPS' 13.90% and Morgan Stanley's 14.97% results. Very long-term results for 10-years and 15-years are in-line with the Consultants' Policy Index, but fail to meet the 7.0% actuarial rate of return assumption. Results for 7-years and forward to the trailing 1-year, consistently underperform the Consultants' Policy Index and rank poorly among other public plans' results.

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<sup>2</sup> Number of Plans:	282
Median Size:	\$332.1 million
Total Assets:	\$2.8 trillion
Total Plan assets over \$1 billion:	102
Total Plans between \$100 million and \$1,000 million:	102
Total Plans between \$20 million and \$100 million:	49
Total Plans under \$20 million	29

Table 2: Investment Performance Summary, (Tab 1, page 3)



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Attention should be directed to composition and ranking of Morgan Stanley’s Policy Index.

Consultant, Morgan Stanley’s Policy Index has remained the same since 1999. There is a disconnect between the index and the investments as the Policy Index does not reflect past or present asset allocation strategy. The Policy Index used by Morgan Stanley ranks poorly, (ranging from 58<sup>th</sup> to 90<sup>th</sup> percentile) for all periods except one; trailing 7-years ranked at 39<sup>th</sup> percentile.

To accurately compare returns, Asset Strategies created an appropriate and proper fitting “Policy Index (ASPS)” using the actual, average asset allocation over the trailing 3.5 years period. This period includes an allocation to international equities. Despite using an appropriate Policy Index, MCERS’ performance still ranks unfavorably.

Peer group rankings for the Consultant’s Policy Index, versus the S&P 500 Index and a 60/40 blended equity/fixed index for 1-, 2-, 3-, and 5-year periods are shown below and a more detailed summary is provided in **Tab 2, Exhibit 1**. The low peer group rankings can be explained by the more conservative asset allocation of MCERS versus the typical public pension plans’ allocation.

Table 3: Investment Policy Peer Group Rankings

	<b>Morgan Stanley's Policy Index 50% S&amp;P 45% Barc Intm G/C 5% T-Bills</b>	<b>S&amp;P 500 Index</b>	<b>Normal Policy Index 60% S&amp;P 40% Barc Intm G/C</b>
<b>Calendar Year 2013</b>	67	1	32
<b>Trailing 2 years</b>	83	1	46
<b>Trailing 3 years</b>	58	1	16
<b>Trailing 5 years</b>	74	1	42

For the last five years, the S&P 500 ranked “1” (first quartile, best performance). A policy index with a larger allocation to equities (60/40) compared to MCERS’ allocation ranks superior in the same peer group, as well...

Looking at longer periods **Tab 1, page 5**, “Up Markets Capture”<sup>3</sup> for the last 15-year time period is 91%, versus “Down Markets Capture”<sup>4</sup> at 87%. However, for the three time periods (3-, 5-, and 10-years), “Up Markets Capture” has fallen and “Down Markets Capture” has increased. For the 3-year period, “Up Markets Capture” is 96% versus “Down Markets Capture at 133% (equates to the Plan returning 33% less than the policy benchmark when the benchmark performance decreases). For the 3- and 5-year periods, both the “Worst Quarter” and the “Best Quarter” have underperformed the benchmark return. Reasons why MCERS underperforms the benchmarks:

- 1) There is significant underperformance by all U.S. equity managers, and
- 2) Underperformance by two of the four international equity managers (refer to the “Manager Performance Summary” section).

MCERS’ results (both Gross of Fees (GoF) and Net of Fees (NoF) from 12/1998 through 12/2013 are shown in **Tab 1, page 4** in the MCERS 2013 Investment Analysis Performance Report. Current annual fees were calculated at 0.82% or 82 basis points (82 basis points = \$82 per \$10,000 or \$1,553,080 annual fees on \$189,400,000 in total plan assets), based on actual investment manager and consulting fees (**Tab 2, Exhibit 3**). Asset Strategies calculated yearly Total Plan NoF performance results using actual investment and consulting fees for 2003 through 2012.<sup>5</sup> Total Plan NoF result for the last 15 years is 4.66% (**Tab 1, page 4**) and trails expectations versus the Consultant’s Policy Index (Morgan Stanley) return of 5.15%.

<sup>3</sup> Up Market Capture Ratio: the percentage of the total market movement achieved by the plan during a period in which the benchmark performance increases

<sup>4</sup> Down Market Capture Ratio: the percentage of the total market movement achieved by the plan during a period in which the benchmark performance decreases

<sup>5</sup> Investment Management fees obtained from Rehmann Robson, Certified Public Account Reports, 2003 through 2012.

## MCERS' PERFORMANCE VERSUS OTHER MICHIGAN COUNTY PLANS'

Our evaluation compared MCERS performance in a universe composed of Michigan county plans. The data is shown in Table 4 below and in [Tab 2, Exhibit 11](#) along with their respective rankings in the U.S. public funds peer group (1 = the highest rank; 100 = lowest rank).

Table 4: Total Fund (Gross of Fees) Results & (Public Plan) Peer Group Rankings;  
Period ending 12/31/2013

County Plan	Trailing 1-Year		Trailing 2-Years		Trailing 3-Years		Trailing 5-Years	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank
<b>MONROE</b>	<b>12.55</b>	<b>82</b>	<b>10.91</b>	<b>89</b>	<b>6.80</b>	<b>92</b>	<b>9.27</b>	<b>89</b>
Bay	23.5	3	18.3	3	11.7	11	16.0	3
Genesee	13.78	76	13.27	71	9.04	70	12.51	45
Jackson	20.34	16	15.72	28	8.91	72	13.67	21
Kent	18.2	32	16.0	24	11.4	15	12.9	36
Macomb	21.47	9	16.61	17	10.07	43	12.87	36
Midland	12.78	81	13.32	70	8.64	77	15.30	4
Oakland	16.3	49	14.4	49	10.1	42	12.9	36
St Clair	14.85	68	14.33	52	9.28	64	14.19	10
Washtenaw	16.58	46	n/a	n/a	10.09	43	12.04	55
County Plan	Trailing 7-Years		Trailing 10-Years		Trailing 15-Years			
	Result	Rank	Result	Rank	Result	Rank		
<b>MONROE</b>	<b>4.50</b>	<b>87</b>	<b>6.03</b>	<b>89</b>	<b>5.26</b>	<b>84</b>		
Bay	6.7	14	7.4	25	n/a	n/a		
Genesee	4.70	80	6.19	82	5.78	55		
Jackson	5.57	51	6.77	55	n/a	n/a		
Kent	n/a	n/a	7.4	25	n/a	n/a		
Macomb	5.45	56	7.24	32	n/a	n/a		
Midland	6.72	11	7.39	25	6.98	10		
Oakland	n/a	n/a	n/a	n/a	n/a	n/a		
St Clair	5.56	51	6.48	70	4.95	90		
Washtenaw	n/a	n/a	6.14	83	4.95	90		

\* Results for periods greater than 1 year are annualized

MCERS' NoF results were also evaluated ([Tab 2, Exhibit 12](#)). For all time periods (1-, 2-, 3-, 5-, 7-, 10-, and 15-years periods), MCERS ranked (1 is the highest and 100 is the lowest ranking) in the bottom quartile, the lowest ranking relative to the other Michigan county retirement plans<sup>6</sup>. For example, trailing one-year performance numbers and rankings are 12.55% (82nd percentile); 5 years are 9.27% (89th percentile). Compare this to the highest Michigan county one year performance at 21.47% (9th percentile rankings) and the best trailing five-year performance at 16.0% (3rd percentile ranking).

<sup>6</sup>Rankings are relative to the Wilshire Cooperative Universe of Public Employees Retirement Plans



## INVESTMENT MANAGER PERFORMANCE SUMMARY

**Performance of existing plan managers** (as of 12/31/2013) is summarized in the MCERS 2013 Performance Report (Tab 1, pages 8-11). Individual manager evaluations include GoF and NoF results since inception. As noted above, all current U.S. equity managers, for the trailing 5-year period underperformed their benchmark index (as defined by Morgan Stanley).

Key observation: two of the four U.S. equity managers, both retained for more than 10 years, NWQ Investment Management, (U.S. Equity, large cap value) and Anchor Capital, (U.S. Equity, large cap core) underperformed their benchmark for the trailing 5-year period and rank poorly among their peer group. Two of the four international equity managers, Templeton and Eagle Global (total return international equity), also underperformed for the trailing 5-year period and rank poorly among their peer group.

MCERS recently (9/2013 - 1/30/2014) added allocations to hedge fund of funds and real estate funds. Investment managers are listed on Tab 2, Exhibit 4. The Plan has 16 portfolios and 15 investment managers at present.

**Performance for terminated managers** is summarized on Tab 2, Exhibit 6. Over the course of 15 years, 15 investment managers /16 portfolios were terminated. Performance evaluation includes the manager's results versus their benchmark index and peer group rankings for the calendar year periods indicated. The eVestment Alliance<sup>7</sup> database was utilized to evaluate and rank the terminated managers. The manager tenure ranged from 0.75 to 8.75 years. The length of tenure for most managers was under 5 years, an unusually short period.

## INVESTMENT MANAGER FEES SUMMARY

Investment manager fees are paid by the Plan to the manager of each portfolio.

This part of the evaluation was completed using the eVestment database. A summary of current investment managers and their fee schedule is provided in Tab 2, Exhibit 4, as well as a summary of terminated managers and their fee schedule Tab 2, Exhibit 5.

Morgan Stanley provided manager fees for each of the current and most of the terminated managers.

- ▶ U.S. Equity Managers: It is interesting that all fees are 47 bps (.47% or 47 basis points = \$47 in annual fees per \$10,000 invested; a \$10 million equity portfolio would cost \$47,000 per year). If correct, these fees are less than average.

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<sup>7</sup>eVestment Alliance Data Base is a non-proprietary, independently maintained database for traditional asset classes licensed. This robust and comprehensive database provides virtual access to both qualitative and quantitative information on thousands of investment products and management firms. Using a non-proprietary database helps ensure the integrity, reliability, and accuracy of the manager evaluation process (no pay-to-play, no manipulation of data, no insider selection).

- ▶ Non U.S. Equity Managers: All of the non-U.S. equity manager fees are 47 bps. They all rank in the top percentiles of their respective universe. These are the most competitive (lowest) fees among their respective universe.
- ▶ U.S. Fixed income – the U.S. Fixed Income manager fee is 32 bps. This ranks above the 50<sup>th</sup> percentile, within the intermediate fixed income and short term fixed income universes, the average of the universe.
- ▶ Global Fixed Income – the Global Fixed Income manager fee is 45 bps and this ranks near median (or the 50 percentile), within the global government fixed income universe.
- ▶ Hedge Funds of Funds – the Hedge Fund of Funds management fees rank very well (25<sup>th</sup> and 15<sup>th</sup> percentiles. These fees are very competitive within their peer universe.
- ▶ Global Real Estate – the Global Real Estate management fees for each manager were in-line with their respective peer group.

### CONSULTING FEES SUMMARY

Consulting fees paid by MCERS were compared to other Michigan county plans. (Tab 2, Exhibit 8) The data used in our analysis includes the market value of the plans, total fees in dollar amounts and basis points. Fees paid by various county plans range from 2.2 (.022%) basis points to a high of 12 basis points (.12%) for MCERS. It is important to note that consultant fees cannot be compared on the number of basis points or plan assets, alone. Some consulting contracts may be discounted. Others may include services or products outside the scope of the traditional consulting contract.

### TRAVEL BUDGET SUMMARY

A comparison of MCERS' travel budget and expenditures versus three other Michigan county plans is provided in (Tab 2, Exhibit 9). The recent amendments to Michigan Public Act 314<sup>8</sup> have brought travel to the attention of public plan trustees. St. Clair County reported the lowest travel budget at \$10,000 per year. Jackson County budgets \$12,000 per year, per trustee. The Monroe County Board of Commissioners passed a reduction in the travel budget from 2012 to 2013. This policy limits total travel costs to \$30,000 per year and \$3,000 per trustee, a sharp reduction from prior years.

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<sup>8</sup> Amendments to PA Act 314, enacted under PA 347 of 2012, effective 3/28/2013, Adoption of an annual training and education budget. Travel is capped at the lesser of \$150,000 or an amount equal to \$12,000 multiplied by the number of board members, not to exceed \$30,000 for any one board member.

## PLAN ADMINISTRATION AND COST SUMMARY

A “Comparison of Plan Administration and Costs” for various County plans is included in **Tab 2, Exhibit 13**. The size of the plan, the number of active and retired participants has a direct impact on the level of work involved. Staffing is also affected by the level of services provided. For example, many plans outsource their payroll activities, while Washtenaw County processes retiree payroll in house, requiring additional staff. County plans with full time administrators, may have additional responsibilities including administration of a Retiree Health Care or Defined Contribution Plans.

Other notable observations include the “Supervising Department”. The Monroe County plan has a single Retirement Administrator, who reports directly to the Retirement Board Chairperson. Many County plans’ administrators report directly to Human Resources, with costs allocated based on work directly related to the Retirement Plan.

## CONCLUSIONS

MCERS has consistently underperformed the Policy Index established by its consultant, Morgan Stanley in the last five years. Performance ranks at the bottom quartile (lowest performance) relative to an independent peer group of public employee retirement plans **(Tab 1, page 3)**. MCERS also underperformed a peer group of Michigan county plans **(Tab 2, Exhibit 11)**, and ranks among the bottom quartile. MCERS Policy Index benchmark has not been updated since 1999. The Policy Index, or hypothetical investment policy ranks at the bottom quartile relative to these peer groups.

Contributions, investment results, demographics, and benefit promises, are some key drivers of funded status, which has fallen from 116.9% in 2003 to 76.6% at the end of 2013. The Plan’s funded status is shown in Table 5; The County continues to fund the ARC, (annual required contribution), however, poor investment results and changing demographics continue to impact funded status.

Table 5: MCERS Funded Status – Calendar Year Periods

Year	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Funded Status	76.6%	79.3%	79.7%	83.2%	89.3%	92.5%	97.0%	97.3%	99.7%	108.1%	116.9%
Investment/Gains*	\$20.4	\$14.6	(\$3.6)	\$15.8	\$21.2	(\$35.9)	\$13.7	\$18.3	\$12.5	\$11.8	\$19.3
Contr./Employer*	\$7.2	\$7.2	\$6.0	\$5.9	\$5.5	\$5.4	\$4.9	\$3.2	\$2.0	\$1.4	\$0.2
Contr./Employee*	\$0.7	\$0.7	\$0.6	\$1.8	\$0.2	\$0.2	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3
Payments*	\$14.1	\$13.6	\$13.5	\$12.5	\$10.0	\$8.7	\$8.7	\$7.6	\$7.2	\$6.4	\$5.8
Net Plan Assets*	\$189.6	\$175.3	\$166.3	\$176.7	\$165.6	\$148.8	\$187.8	\$177.5	\$163.3	\$155.5	\$148.4

\*\$ in millions. Data is from the audited financial statements and Actuarial Reports

A reduction in the actuarial return assumption in 2003, from 7.5% to 7.0%, contributed to a reduction in the funded status from 116.9% to 108.1% and increased employer contributions from \$191,979 in 2003, to \$1,411, 037 in 2004. Employer contributions continued to increase and rose to \$7.2 million in 2012. Funded status continued to drop due to poor investment results, especially in the last five years. Plan liquidity needs (benefit payments and expenses) are over \$14 million per year, and expected to increase each year.

The Plan's purpose is to provide retirement benefit payments to its members and beneficiaries through both contributions and long-term asset growth. We believe the plan participant's interests are best served once the Board addresses the plan's underfunded status, and then develops an appropriate investment policy.

### **RECOMMENDATIONS**

1. The Investment Policy must be re-positioned for long-term, consistent, risk-adjusted results. The Board of Trustees is responsible for developing, implementing, and overseeing the investment policy, in conjunction with the actuary and investment consultant.
2. Review your investment policies, procedures and objectives with your Actuary. Discuss their concerns, assumptions, future contribution patterns, other sources of funding risk, liquidity needs, and expected change in funded status, if investment results don't improve soon.
3. Determine the risk tolerance of the Board relative to the required rate-of-return. While some regard 'risk' as losing investment principal/capital, there is also the risk of not attaining the asset growth necessary to meet the Plan's future obligations. The appropriate trade-off can be measured and addressed.
4. Ask your consultant to evaluate the Plan's financial condition, investment cash flows and plan liquidity needs, and then provide recommendations for policy changes.
5. Ask your consultant to evaluate the asset allocation policy relative to the Plan's financial condition, liability horizon, asset growth and liquidity needs, and then recommend policy changes.
6. Ask your consultant to explain the high turnover of investment managers (15 changes) over the past 15 years.
7. Ask your consultant to explain the 'disconnects' and inconsistency in their performance reporting.
8. Ask your consultant to explain why investment management fees are lower than average. Then, ask them to explain why the managers' performance is also below average.

9. Consulting fees, at 12 basis points (0.12% times \$189.4 million = \$227,280), are the highest among the 11 Counties responding. (Tab 2, Exhibit 8) The Board should address this significant disparity.

*According to the Consultant's reply to the Committee's 9/10/14 request for fee disclosure, "the real fee" for their advisory services is 7 basis points. This causes confusion because Morgan Stanley charged the plan 15 basis points (25% more) through September 2012, and then suddenly reduced the fee to 10 basis points for a period of 8 months. Then they jumped the fee (20%) more, back to the 12 basis points of today.*

10. The consultant states "their fee" includes other services, which is the 5 basis points higher cost between their current 12 basis points and "the real advisory fee" of 7 basis points. It appears the Plan might be due a refund from Morgan Stanley because it was charged for services they did not deliver.
11. Review the asset allocation policy whenever a significant change occurs. Changes in asset classes, investment managers, liabilities, liquidity needs, or statutory requirements, such as the 2012 amendment to Michigan Public Act 314 of 1965, are all proper reasons to conduct an asset allocation study.

Monroe County Employees Retirement System  
Investment Performance Analysis - Gross of Fees

December 31, 2013



*Independent, Professional Investment Consultants Since 1992.*

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# Monroe County Employees Retirement System

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# GLOBAL CAPITAL MARKETS REVIEW

Periods Ending - 12/31/2013

## Quarterly Market Review

U.S. economic strength improved, as the final GDP number for the third quarter came in at a 4.1% annual rate. This compares to solid first quarter growth of 2.5%. Inflation remained mild at 1.50% for 2013 with prices actually falling in the fourth quarter. The Federal Reserve announced, beginning in January 2014, a plan to reduce its monthly U.S. treasury and mortgage bond buying program by \$10 billion or just 12%. The Fed cited lower unemployment, lack of inflation and stable economic growth as reasons to reduce its extended economic stimulus program.

U.S. equities continued their advance in the fourth quarter with all market capitalizations posting unusually strong gains. Growth stocks outperformed value stocks in the large capitalization range, while value stocks outperformed in the mid- and small-capitalization ranges. Micro cap stocks (Wilshire U.S. Micro Cap, +10.51%) were the best performing capitalization size for the quarter. All economic sectors of the S&P 500 posted positive returns for the quarter. The best performing sectors were Information Technology (+12.34%) and Industrials (+12.95%). The interest-rate-sensitive Utilities sector posted the weakest return (+3.1%).

Bond yields moved lower in October, then rose in November and December with the 10-Year U.S. Treasury yield ending 2013 at 3.04%. This is 1.26% higher than year-end 2012. Short-term bonds (Barclays U.S. Treasury 1-3 Years, +.06%) outperformed longer-term bonds by a wide margin (Barclays U.S. Treasury Long, -3.08%). High yield bonds (Barclays U.S. High Yield Corporate, +3.58%) continued to outperform investment-grade bonds (Barclays U.S. Aggregate, -.14%).

Non-U.S. stocks (MSCI ACWI x-U.S., +4.81%) posted positive returns despite sluggish economic growth in several countries. European stocks (MSCI Europe, net, +7.88%) outperformed Pacific region stocks (MSCI Pacific, net, +1.56%). Emerging Markets (MSCI EM net, +1.83%) posted gains on improving economic indicators from China, but continued to underperform developed markets (MSCI EAFE net, +5.71%).

## U.S. Equity Market Indices

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Standard & Poor's 500	10.52	32.41	16.18	17.93	7.40
Russell 2500	8.67	36.82	16.28	21.77	9.81
Russell 1000 Growth	10.44	33.49	16.45	20.39	7.83
Russell 1000 Value	10.01	32.54	16.06	16.67	7.58
Russell Mid Cap Growth	8.23	35.76	15.63	23.38	9.77
Russell Mid Cap Value	8.55	33.45	15.96	21.16	10.25
Russell 2000 Growth	8.18	43.29	16.81	22.57	9.40
Russell 2000 Value	9.29	34.50	14.48	17.63	8.60

## International Equity Market Indices

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
MSCI EAFE (net)	5.71	22.78	8.16	12.43	6.91
MSCI EAFE x-Japan (net)	6.65	21.69	8.81	13.89	7.70
MSCI Europe (net)	7.88	25.24	9.89	13.36	7.28
MSCI ACWI x-US	4.81	15.68	5.59	13.31	8.03
IFC Inv. Global Comp.	2.14	-0.58	-1.45	15.89	12.47

## Global Fixed Income Indices

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
Barclays Aggregate	-0.14	-2.02	3.26	4.44	4.55
Barclays. Gov't/Credit	-0.03	-2.35	3.63	4.40	4.52
SB High Yield Cash Pay	3.43	7.12	9.18	17.89	8.21
SB Non-U.S. Gov't Bond	-1.24	-4.56	0.62	2.27	4.10

## Other Indices

	<u>Quarter</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
NAREIT - Composite	0.31	3.20	9.98	16.69	7.77
NCREIF Property Index	2.53	10.99	11.92	5.68	8.63
ML Convertible Bond	6.02	24.96	10.84	18.85	7.12
Broad Consumer Price	-0.47	1.50	2.06	2.08	2.37
U.S. 91 Day Treasury Bill	0.02	0.07	0.10	0.12	1.67
HFRI Fund Composite	3.57	9.24	3.25	7.81	5.72

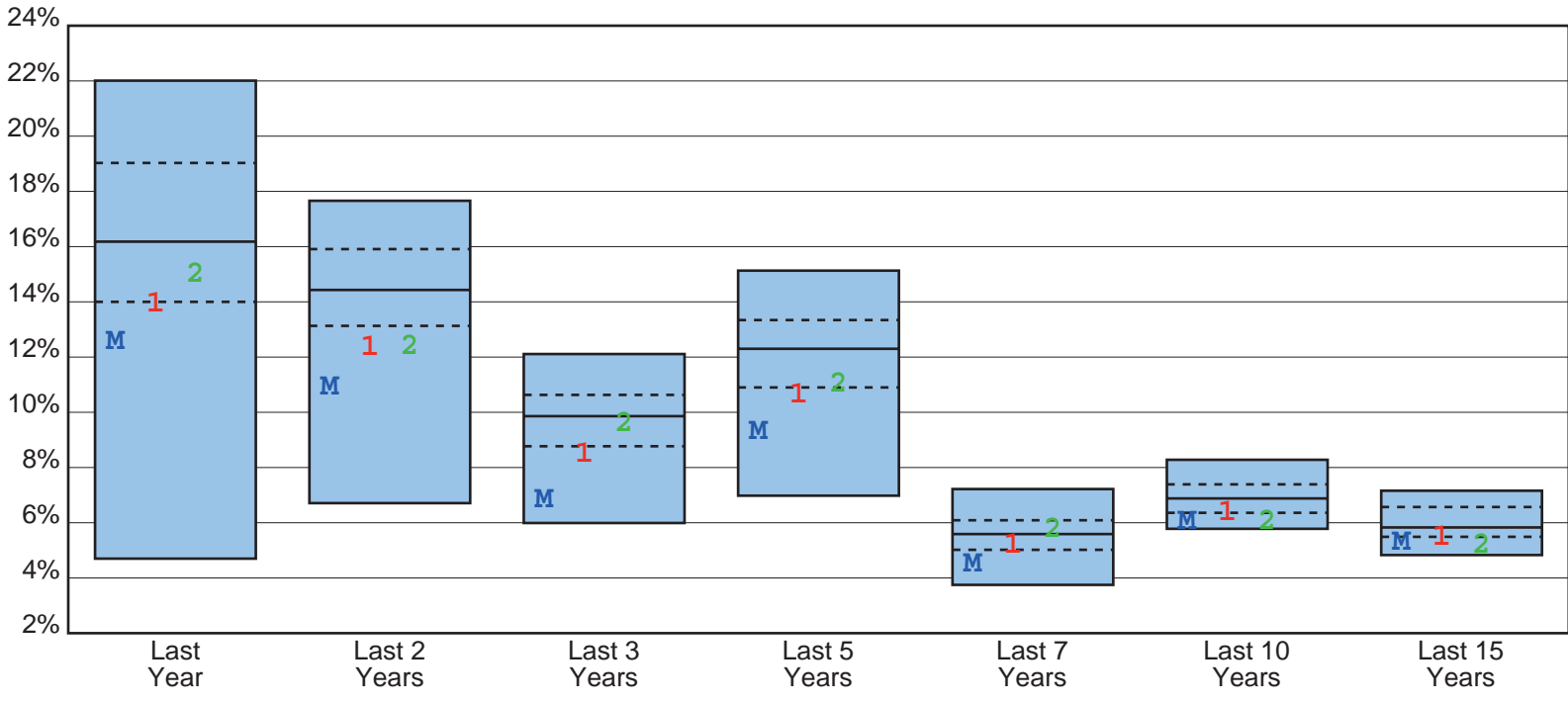


# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of Total Fund Public Sponsors Periods Ending 12/13

Policy Index (ASPS)  
S&P 500 30.0%  
MSCI EAFE 22.5%  
Barclays Intm G/C 47.5%

(based on average historical actual asset allocations over the trailing 3.5 years)

Policy Index (Morgan Stanley)  
S&P 500 50.0%  
Barclays Intm G/C 45.0%  
Citigroup 90-Day T-Bill 5.0%



	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
5th Percentile	22.01	17.66	12.11	15.13	7.22	8.28	7.16
25th Percentile	19.03	15.91	10.63	13.34	6.09	7.39	6.57
Median	16.18	14.43	9.86	12.30	5.59	6.88	5.83
75th Percentile	14.00	13.13	8.77	10.90	5.02	6.36	5.49
95th Percentile	4.70	6.71	5.99	6.98	3.75	5.78	4.83
<b>M</b> Total Fund	12.55 (82)	10.91 (89)	6.80 (92)	9.27 (89)	4.50 (87)	6.03 (89)	5.26 (84)
<b>1</b> Policy Index (ASPS)	13.90 (75)	12.32 (83)	8.47 (79)	10.59 (83)	5.17 (67)	6.33 (75)	5.44 (78)
<b>2</b> Policy Index (Morgan Stanley)	14.97 (67)	12.35 (83)	9.57 (58)	11.00 (74)	5.73 (39)	6.01 (90)	5.15 (87)

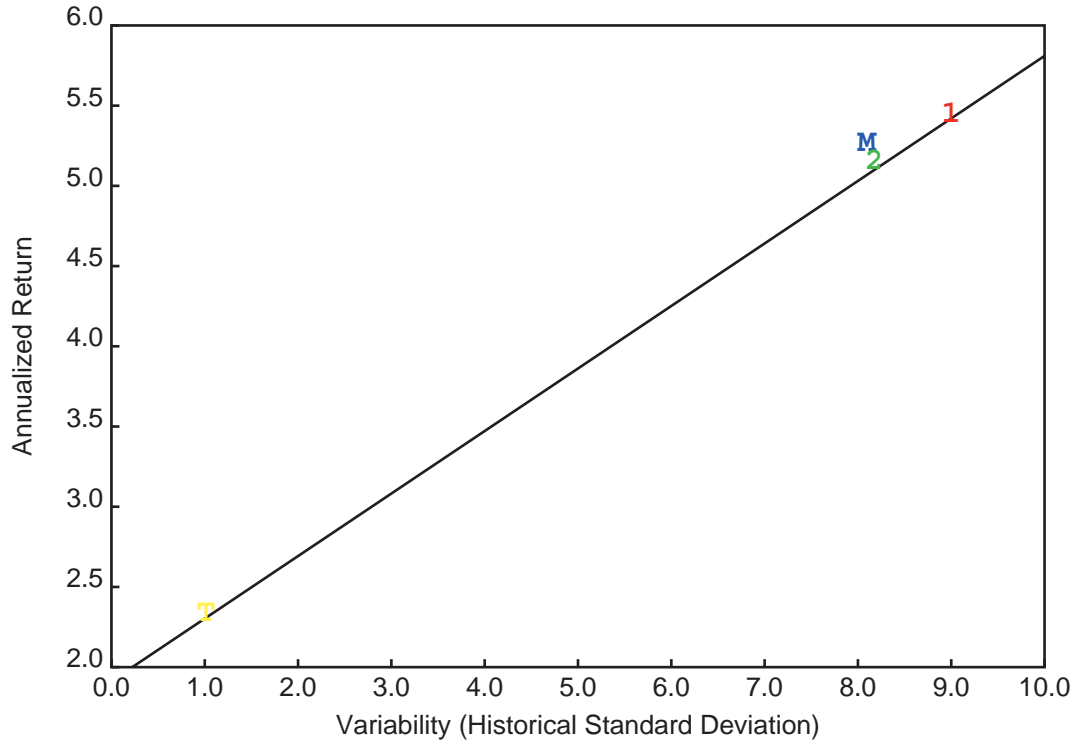
**Longer-term Performance Analysis:**  
Total Fund results underperformed both Policy Indices across nearly all time-periods, and consistently rank very poorly among public plan peers.  
  
(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/98 to 12/13

Total Fund Annual Return: +5.26  
 Less: (10yr Avg) Annual Fee -0.60  
 -----  
 Total Fund Net-of-Fees Result +4.66

(Note: Annual Fee is an \*estimate\* that reflects the average of the trailing 10-year investment manager and investment consulting fees charged by Morgan Stanley.  
 \* See Tab 2, Exhibit 3)



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>M</b> Total Fund	5.26	8.15	2.93	0.36
<b>1</b> Policy Index (ASPS)	5.44	9.05	3.10	0.34
<b>2</b> Policy Index (Morgan Stanley)	5.15	8.23	2.82	0.34
<b>T</b> 91-Day Treasury Bill	2.33	1.07	0.00	0.00

Total Fund Performance vs. Objectives.  
 Results trail expectations after 15 years.

Sharpe Ratio = Reward / Variability

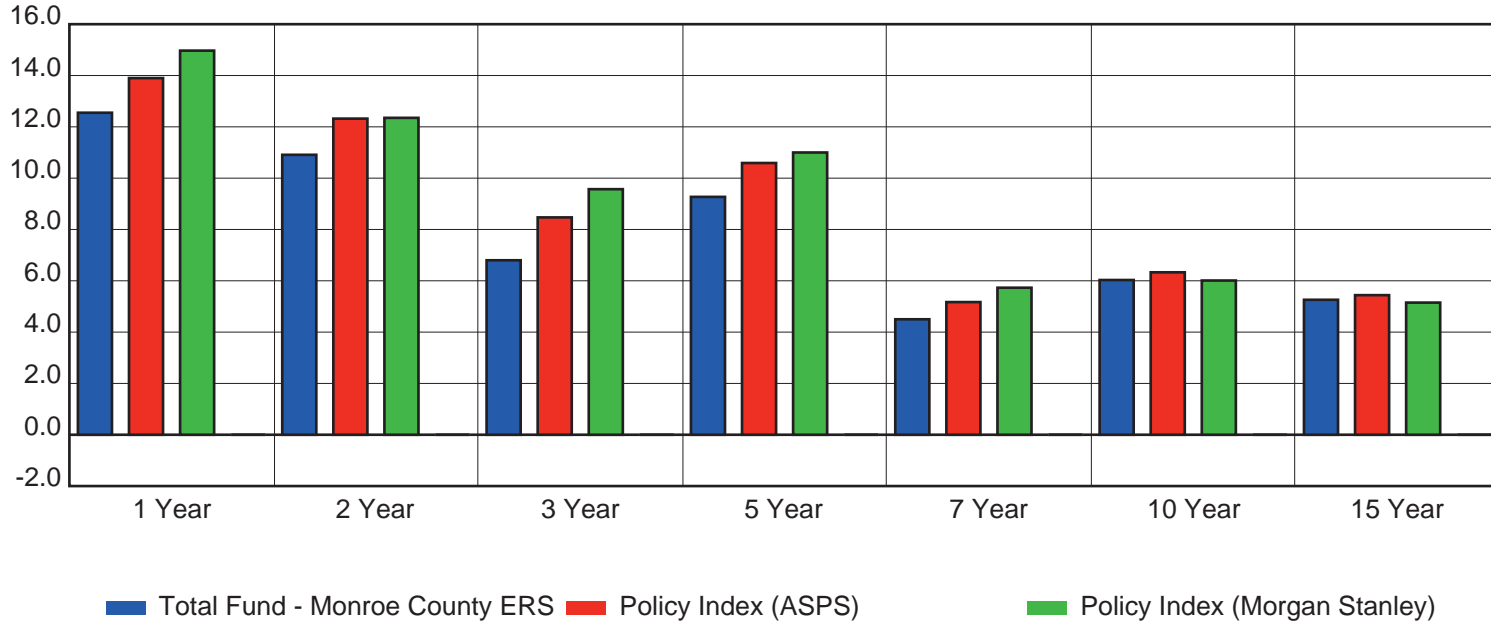
**Monroe County Employees Retirement System**  
**Risk Measure Summary**  
**Total Fund - Monroe County ERS**  
**Quarterly Periods Ending 12/31/13**

Risk Measures	3 Years		5 Years		10 Years		15 Years	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	3	3	5	5	10	13	17	22
Positive Periods	9	9	15	15	30	27	43	38
Up Market Capture	0.96		0.91		0.94		0.91	
Down Market Capture	1.33		0.99		0.93		0.87	
Batting Average	0.25		0.25		0.43		0.43	
Worst Quarter	-8.66	-7.28	-8.66	-7.28	-8.66	-8.76	-8.66	-8.76
Best Quarter	6.22	6.53	9.20	11.39	9.20	11.39	9.20	11.39
Worst 4 Quarters	-1.45	1.16	-1.45	0.51	-19.76	-22.75	-19.76	-22.75
Best 4 Quarters	12.64	14.23	24.12	29.46	24.12	29.46	24.12	29.46
Standard Deviation	8.32	7.52	9.21	10.02	8.40	9.06	8.15	9.05
Beta	1.09		0.90		0.91		0.87	
Alpha	-0.58		-0.07		0.03		0.05	
R-Squared	0.99		0.97		0.96		0.93	
Sharpe Ratio	0.81	1.11	0.99	1.05	0.52	0.51	0.36	0.34
Treynor Ratio	6.13		10.11		4.79		3.38	
Tracking Error	1.05		1.88		1.79		2.47	
Information Ratio	-1.44		-0.70		-0.20		-0.11	

**Monroe County Employees Retirement System**  
**Asset Allocation vs Target & Policy**  
**Total Fund - Monroe County ERS**  
**As of 12/31/13**

Manager	Market Value	Actual %
Anchor Capital - MidCap Value	16,215,431.00	8.56
Federated - LargeCap Core	8,821,983.00	4.66
NWQ Investment Mgmt - LargeCap Value	14,658,299.00	7.74
Winslow - LargeCap Growth	24,422,633.00	12.89
<b>Total Domestic Equity</b>	<b>64,118,346.00</b>	<b>33.85</b>
Eagle Global - International Equity	9,237,194.00	4.88
Lazard - Emerging Markets	9,746,845.00	5.15
Renaissance - International Equity	11,782,601.00	6.22
Templeton - International Equity	13,764,977.00	7.27
<b>Total International Equity</b>	<b>44,531,617.00</b>	<b>23.51</b>
Boyd Watterson Asset Mgmt - Fixed	41,048,155.00	21.67
Brandywine - World Gov't Bond	25,712,635.00	13.58
Boyd Watterson - Limited Duration	3,005,176.00	1.59
<b>Total Domestic Fixed Income</b>	<b>69,765,966.00</b>	<b>36.83</b>
Cash Account	2,273,571.00	1.20
<b>Total Short Term</b>	<b>2,273,571.00</b>	<b>1.20</b>
Titanium GSA Fund	3,500,000.00	1.85
<b>Total Real Estate</b>	<b>3,500,000.00</b>	<b>1.85</b>
Corbin - Hedge Fund of Funds	3,118,386.00	1.65
Mesirow - Hedge Fund of Funds	2,095,123.00	1.11
<b>Total Hedge Fund</b>	<b>5,213,509.00</b>	<b>2.75</b>
<b>Total Fund - Monroe County ERS</b>	<b>189,403,009.00</b>	<b>100.00</b>

# Monroe County Employees Retirement System Performance Bar Chart Total Fund - Monroe County ERS Periods Ending 12/31/13



	1 Year	2 Year	3 Year	5 Year	7 Year	10 Year	15 Year
Total Return	12.55	10.91	6.80	9.27	4.50	6.03	5.26
Policy Index (ASPS)	13.90	12.32	8.47	10.59	5.17	6.33	5.44
Policy Index (Morgan Stanley)	14.97	12.35	9.57	11.00	5.73	6.01	5.15
Asset Growth (\$000)							
Beginning Market Value	175,133	166,306	172,307	147,829	175,799	148,554	145,148
Net Contributions & Withdrawals	-12,504	-18,031	-20,892	-35,571	-40,474	-57,691	-80,926
Gain/Loss + Income	26,774	41,128	37,988	77,145	54,077	98,539	125,181
Ending Market Value	189,403	189,403	189,403	189,403	189,403	189,403	189,403

NOTE: the (Net Contributions & Withdrawals) and (Gain/Loss + Income) were calculated from the historical performance data (which includes Beginning/Ending Market Values provided by Morgan Stanley).

## Monroe County Employees Retirement System Performance Summary Table Periods Ending 12/31/13

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Federated - LargeCap Core</b>									
Total Return	6.71	21.42						12/31/12	21.42
DJ Select Dividend	8.46	29.05						12/31/12	29.05
Variance	-1.75	-7.63						12/31/12	-7.63
Rank	91	94							94
<b>Winslow - LargeCap Growth</b>									
Total Return	10.98	36.82	24.34					3/31/11	13.87
Russell 1000 Growth	10.44	33.49	24.04					3/31/11	15.59
Variance	0.54	3.33	0.30					3/31/11	-1.72
(MS) 95/5 Russell LCG & T-Bill	9.91	31.66	22.79					3/31/11	14.84
Rank	31	29	52						
<b>NWQ Investment Mgmt - LC Value</b>									
Total Return	8.66	30.70	20.68	10.73	15.28	7.95	10.55	6/30/03	11.66
Russell 1000 Value	10.01	32.54	24.80	16.06	16.67	4.52	7.58	6/30/03	8.78
Variance	-1.35	-1.85	-4.12	-5.33	-1.38	3.43	2.97	6/30/03	2.88
(MS) 95/5 Russell LCV & T-Bill	9.51	30.77	23.48	15.29	15.90	4.45	7.36	6/30/03	8.50
Rank	68	67	68	93	85	5	2		
<b>Anchor Capital - MidCap Value</b>									
Total Return	6.41	22.98	16.73	11.13	14.58	7.87	10.39	12/31/01	11.20
Russell MidCap Value	8.55	33.45	25.75	15.96	21.16	6.79	10.25	12/31/01	10.49
Variance	-2.14	-10.48	-9.02	-4.83	-6.58	1.08	0.14	12/31/01	0.71
(MS) 95/5 Russ MCV & T-Bill	8.13	31.63	24.38	15.21	20.16	6.64	9.92	12/31/01	10.14
Rank	69	85	89	92	100	78			

## Monroe County Employees Retirement System Performance Summary Table Periods Ending 12/31/13

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Templeton - International Equity</b>									
Total Return	6.40	22.25	21.48	9.24	12.00	3.59	8.26	12/31/98	6.27
MSCI EAFE	5.75	23.29	20.56	8.66	12.96	2.25	7.41	12/31/98	4.97
Variance	0.65	-1.04	0.91	0.58	-0.96	1.34	0.85	12/31/98	1.29
(MS) 95/5 MSCI EAFE & T-Bill	5.46	22.06	19.51	8.29	12.41	2.32	7.22	12/31/98	4.94
Rank	39	46	38	42	88	59	57		70
<b>Eagle Global - International Equity</b>									
Total Return	8.13	22.88	20.51	7.92	10.70			12/31/08	10.70
MSCI EAFE	5.75	23.29	20.56	8.66	12.96			12/31/08	12.96
Variance	2.38	-0.42	-0.05	-0.74	-2.26			12/31/08	-2.26
(MS) 95/5 MSCI EAFE & T-Bill	5.46	22.06	19.51	8.29	12.41			12/31/08	12.41
Rank	14	44	45	60	94				94
<b>Renaissance - International Equity</b>									
Total Return	10.67	33.28	21.44	9.73	14.45			12/31/08	14.45
MSCI EAFE	5.75	23.29	20.56	8.66	12.96			12/31/08	12.96
Variance	4.92	9.99	0.88	1.07	1.49			12/31/08	1.49
(MS) 95/5 MSCI EAFE & T-Bill	5.46	22.06	19.51	8.29	12.41			12/31/08	12.41
Rank	2	6	38	36	56				56
<b>Lazard - Emerging Markets</b>									
Total Return	3.78	4.51	11.70	2.59				12/31/10	2.59
MSCI Emerging Mkts (Net)	1.83	-2.60	7.31	-2.06				12/31/10	-2.06
Variance	1.95	7.11	4.40	4.65				12/31/10	4.65
(MS) 95/5 MSCI Emerg & T-Bill	1.74	-2.44	6.99	-1.87				12/31/10	-1.87
Rank	78	93	93	91					91

## Monroe County Employees Retirement System Performance Summary Table Periods Ending 12/31/13

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Boyd Watterson Asset Mgmt - Fixed</b>									
Total Return	0.14	-0.41	1.99	3.16	4.53	5.11	4.54	12/31/98	5.18
Barclays Intm Govt/Credit	-0.02	-0.86	1.49	2.91	3.96	4.61	4.09	12/31/98	4.94
Variance	0.16	0.45	0.51	0.25	0.57	0.51	0.45	12/31/98	0.24
(MS) 95/5 Intm G/C & T-Bill	-0.02	-0.81	1.42	2.77	3.77	4.43	3.97	12/31/98	4.81
Rank	53	30	48	70	70	60	61		66
<b>Brandywine - World Gov't Bond</b>									
Total Return	-0.45	-2.57	4.44	7.11	10.10	7.74		6/30/04	7.28
World Gov't Bond	-1.09	-4.00	-1.22	1.25	2.28	4.68		6/30/04	4.54
Variance	0.64	1.43	5.66	5.86	7.82	3.06		6/30/04	2.73
(MS) 95/5 World Gov't / T-Bill	-1.04	-3.79	-1.15	1.19	2.18	4.50		6/30/04	4.41
Rank	73	43	40	11	25	10			
<b>Corbin - Hedge Fund of Funds</b>									
Total Return	2.70							9/30/13	2.70
HFRI Diversified FoF Index	3.94							9/30/13	3.94
Variance	-1.24							9/30/13	-1.24
(MS) HFRI Fund of Funds	3.67							9/30/13	3.67
Rank	79								79
<b>Mesirow - Hedge Fund of Funds</b>									
Total Return	4.03							9/30/13	4.03
HFRI Diversified FoF Index	3.94							9/30/13	3.94
Variance	0.09							9/30/13	0.09
(MS) HFRI Fund of Funds	3.67							9/30/13	3.67
Rank	38								38



## Monroe County Employees Retirement System Performance Summary Table Periods Ending 12/31/13

Manager	1 Qtr	1 Year	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Incept Date	Incept Ret
<b>Total Fund - Monroe County ERS</b>									
Total Return	4.54	12.55	10.91	6.80	9.27	4.50	6.03	12/31/98	5.26
Policy Index (ASPS)	4.44	13.90	12.32	8.47	10.59	5.17	6.33	12/31/98	5.44
Variance	0.10	-1.35	-1.41	-1.67	-1.32	-0.67	-0.30	12/31/98	-0.17
Policy Index (Morgan Stanley)	5.25	14.97	12.35	9.57	11.00	5.73	6.01	12/31/98	5.15
Rank	75	82	89	92	89	87	89		84

Monroe County Employees Retirement System  
Risk Statistic Summary  
Quarterly 3 Year Ending 12/31/13

Manager	Return	Standard Deviation	Tracking Error	R-Squared	Historical Beta	Historical Alpha	Information Ratio	Sharpe Ratio
<b>Federated - LargeCap Core</b>	NA	NA	NA	NA	NA	NA	NA	NA
DJ Select Dividend	NA	NA						
<b>Winslow - LargeCap Growth</b>	NA	NA	NA	NA	NA	NA	NA	NA
Russell 1000 Growth	NA	NA						
<b>NWQ Investment Mgmt - LargeCap Value</b>	10.73	17.70	4.17	0.95	1.05	-1.37	-1.10	0.60
Russell 1000 Value	16.06	16.23						
<b>Anchor Capital - MidCap Value</b>	11.13	11.95	7.12	0.92	0.65	0.15	-0.75	0.92
Russell MidCap Value	15.96	17.79						
<b>Templeton - International Equity</b>	9.24	18.14	3.62	0.96	1.06	0.04	0.20	0.50
MSCI EAFE	8.66	16.73						
<b>Eagle Global - International Equity</b>	7.92	18.31	3.89	0.96	1.07	-0.27	-0.11	0.43
MSCI EAFE	8.66	16.73						
<b>Renaissance - International Equity</b>	9.73	18.39	5.30	0.92	1.05	0.19	0.22	0.52
MSCI EAFE	8.66	16.73						
<b>Lazard - Emerging Markets</b>	2.59	17.40	3.81	0.96	0.89	1.06	1.12	0.14
MSCI Emerging Mkts (Net)	-2.06	19.13						
<b>Boyd Watterson Asset Mgmt - Fixed</b>	3.16	2.05	0.63	0.92	0.92	0.12	0.39	1.49
Barclays Intm Govt/Credit	2.91	2.15						

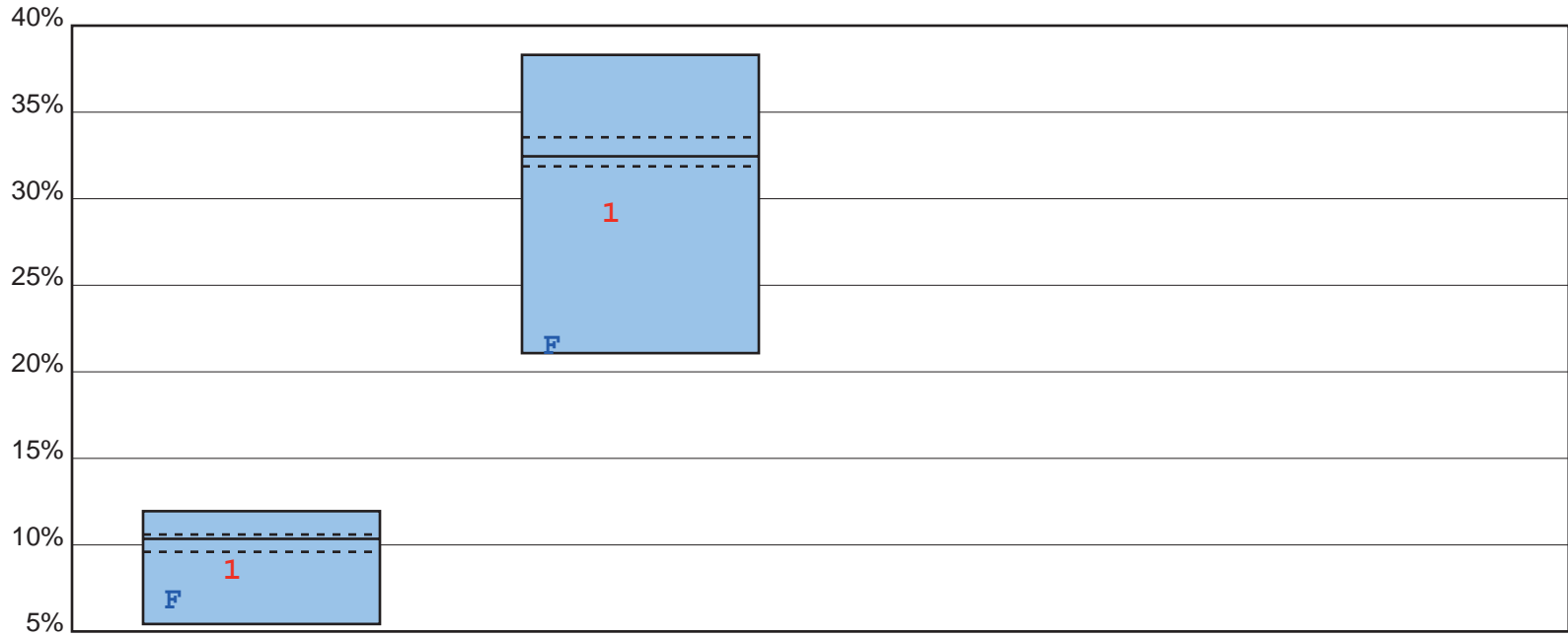
Monroe County Employees Retirement System  
 Risk Statistic Summary  
 Quarterly 3 Year Ending 12/31/13

Manager	Return	Standard Deviation	Tracking Error	R-Squared	Historical Beta	Historical Alpha	Information Ratio	Sharpe Ratio
<b>Brandywine - World Gov't Bond</b>	7.11	5.06	3.61	0.51	0.82	1.48	1.60	1.39
World Gov't Bond	1.25	4.46						
<b>Corbin - Hedge Fund of Funds</b>	NA	NA	NA	NA	NA	NA	NA	NA
HFRI Diversified FoF Index	NA	NA						
<b>Mesirow - Hedge Fund of Funds</b>	NA	NA	NA	NA	NA	NA	NA	NA
HFRI Diversified FoF Index	NA	NA						
<b>Total Fund - Monroe County ERS</b>	6.80	8.32	1.05	0.99	1.09	-0.58	-1.44	0.81
Policy Index (ASPS)	8.47	7.52						

# Monroe County Employees Retirement System Large Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 4Q-2012 with  
funding of approximately  
\$7.6 million.

Fee Schedule: 47 bps.



	Last Qtr	Last Year
5th Percentile	11.95	38.31
25th Percentile	10.60	33.55
Median	10.35	32.45
75th Percentile	9.60	31.87
95th Percentile	5.43	21.08

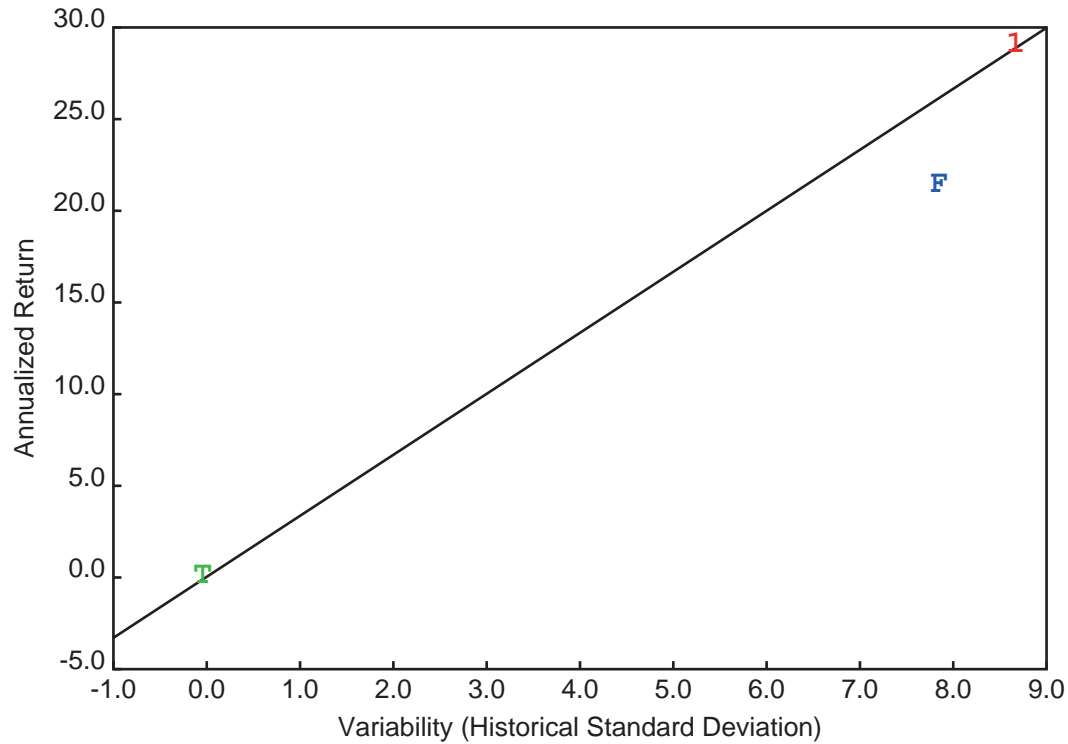
<b>F</b> Federated - LargeCap Core	6.71 (91)	21.42 (94)
<b>1</b> DJ Select Dividend	8.46 (88)	29.05 (87)

Longer-term Performance Analysis:  
Trailing 1-year results significantly lag the benchmark.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

## Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/12 to 12/13

Manager Annual Return: +21.42  
 Less: Annual Fee -0.47  
 -----  
 +20.95  
  
 Less: Benchmark Return -29.05  
 -----  
 Net Value-added Result -8.10



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>F</b> Federated - LargeCap Core	21.42	7.90	21.35	2.70
<b>1</b> DJ Select Dividend	29.05	8.72	28.98	3.32
<b>T</b> 91-Day Treasury Bill	0.07	0.01	0.00	0.00

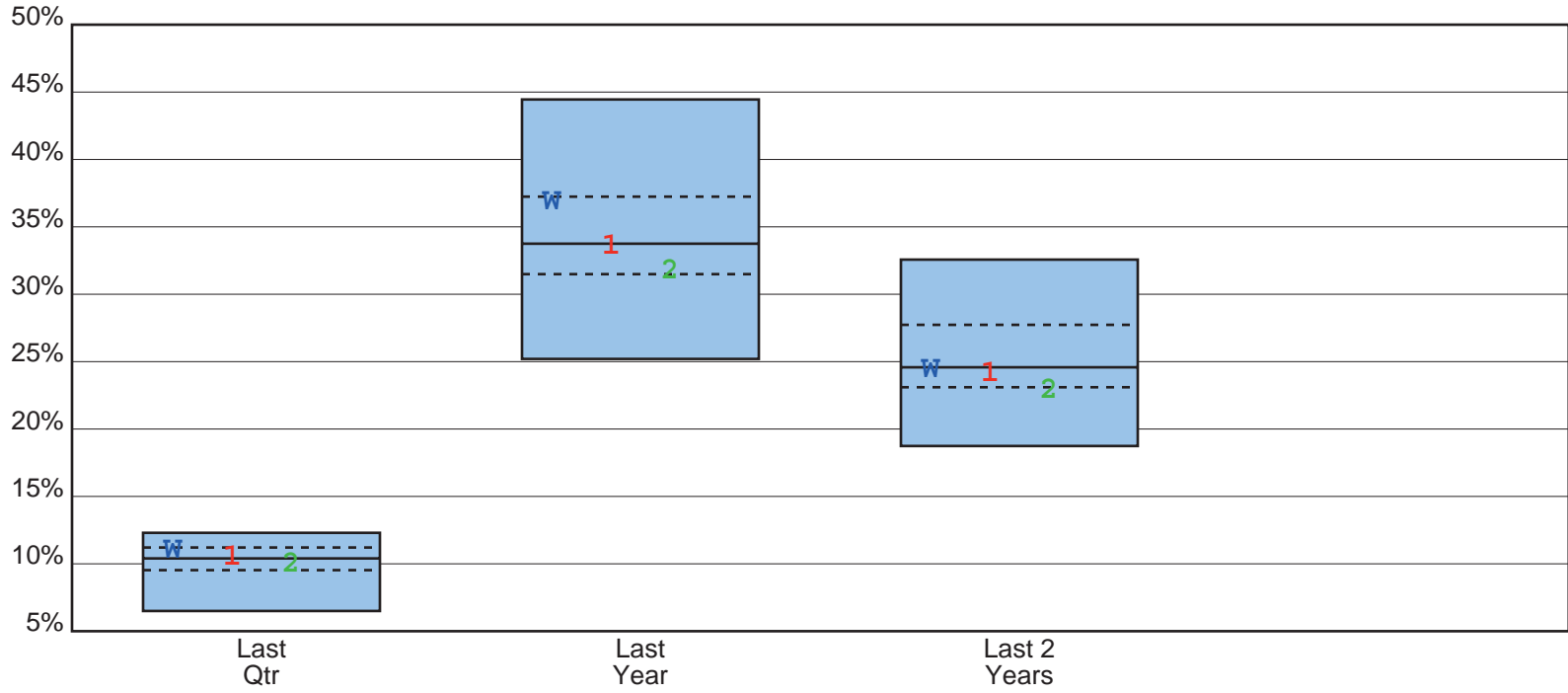
**Manager Performance vs. Objectives:**  
 Portfolio manager significantly trails expectations after 1 year.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Large Growth Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 1Q-2011 with  
funding of approximately  
\$13.4 million.

Fee Schedule: 47 bps.



	Last Qtr	Last Year	Last 2 Years
5th Percentile	12.30	44.45	32.57
25th Percentile	11.21	37.24	27.73
Median	10.40	33.75	24.58
75th Percentile	9.53	31.49	23.10
95th Percentile	6.50	25.20	18.74

<b>W</b> Winslow - LargeCap Growth	10.98 (31)	36.82 (29)	24.34 (52)
<b>1</b> Russell 1000 Growth	10.44 (47)	33.49 (53)	24.04 (62)
<b>2</b> (MS) 95/5 Russell LCG & T-Bill	9.91 (66)	31.66 (73)	22.79 (79)

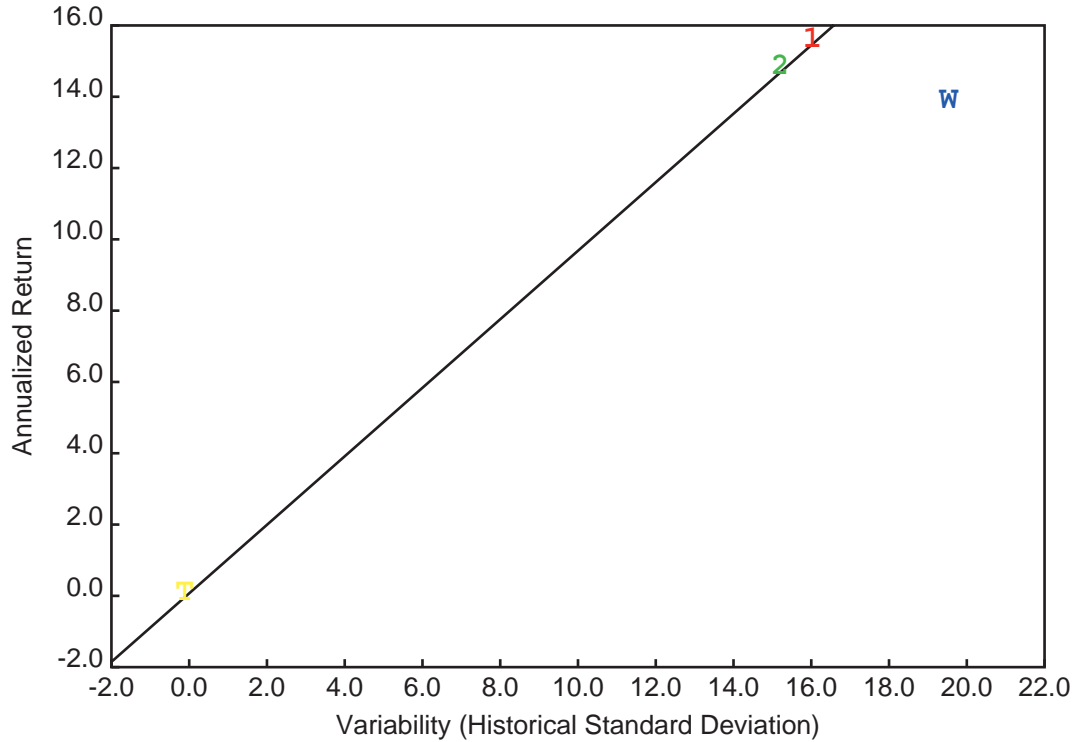
Longer-term Performance Analysis:  
Trailing 2-years results are in-line with the Russell 1000 Growth Index.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 3/11 to 12/13

Manager Annual Return: +13.87  
 Less: Annual Fee        -0.47  
                              -----  
                              +13.40  
  
 Less: Benchmark Return -15.59  
                              -----  
 Net Value-added Result   -2.19



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>W</b> Winslow - LargeCap Growth	13.87	19.67	13.79	0.70
<b>1</b> Russell 1000 Growth	15.59	16.15	15.50	0.96
<b>2</b> (MS) 95/5 Russell LCG & T-Bill	14.84	15.34	14.75	0.96
<b>T</b> 91-Day Treasury Bill	0.09	0.02	0.00	0.00

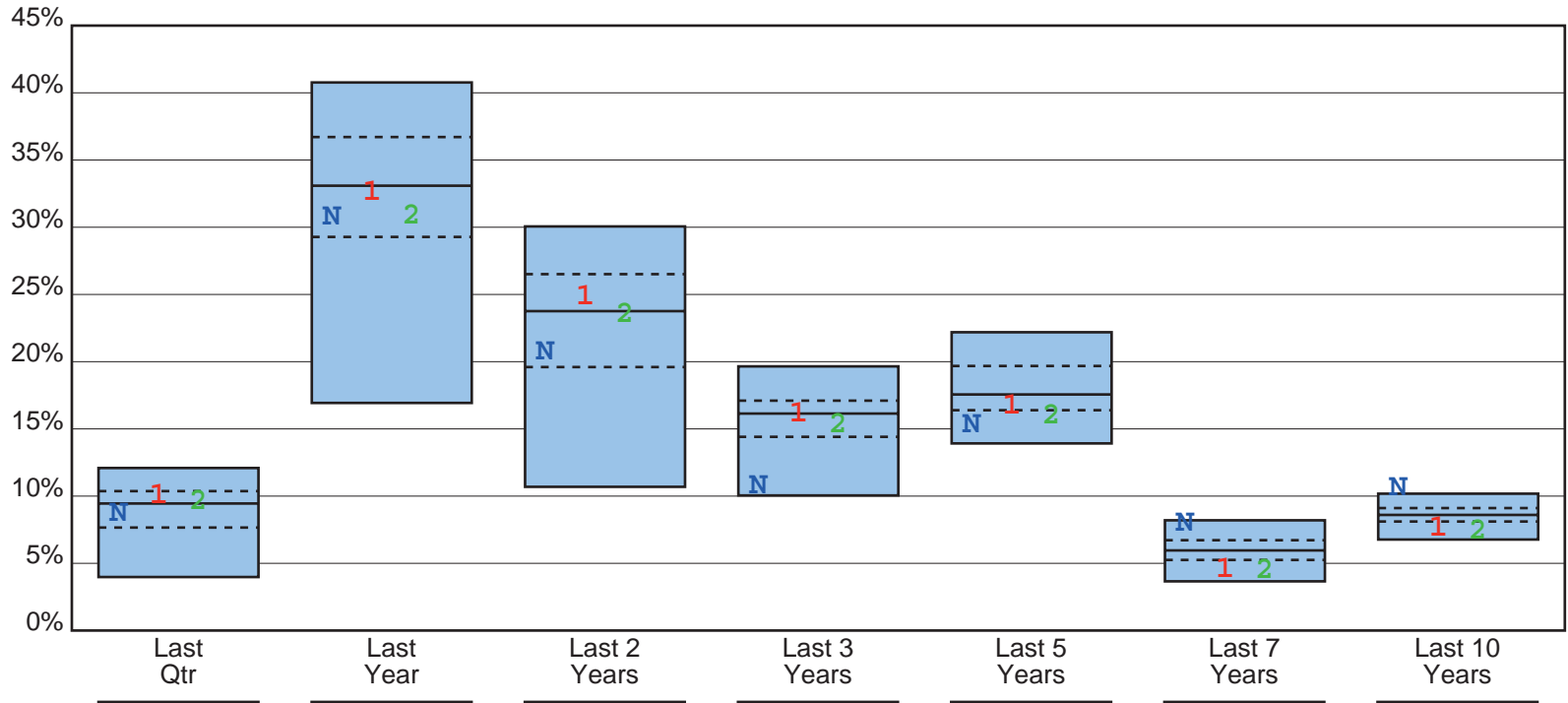
**Manager Performance vs. Objectives:**  
 Portfolio manager trails expectations after 2.75 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Large Value Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 2Q-2003 with  
funding of \$15 million.

Fee Schedule: 47 bps.



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
5th Percentile	12.09	40.77	30.06	19.65	22.19	8.20	10.18
25th Percentile	10.37	36.71	26.51	17.10	19.68	6.72	9.11
Median	9.45	33.09	23.76	16.14	17.56	5.96	8.60
75th Percentile	7.66	29.28	19.60	14.41	16.39	5.25	8.11
95th Percentile	3.98	16.93	10.69	10.05	13.92	3.66	6.77
<b>N</b> NWQ Investment Mgmt - LargeCap	8.66 (68)	30.70 (67)	20.68 (68)	10.73 (93)	15.28 (85)	7.95 (5)	10.55 (2)
<b>1</b> Russell 1000 Value	10.01 (33)	32.54 (54)	24.80 (42)	16.06 (53)	16.67 (71)	4.52 (90)	7.58 (88)
<b>2</b> (MS) 95/5 Russell LCV & T-Bill	9.51 (48)	30.77 (67)	23.48 (53)	15.29 (65)	15.90 (79)	4.45 (90)	7.36 (91)

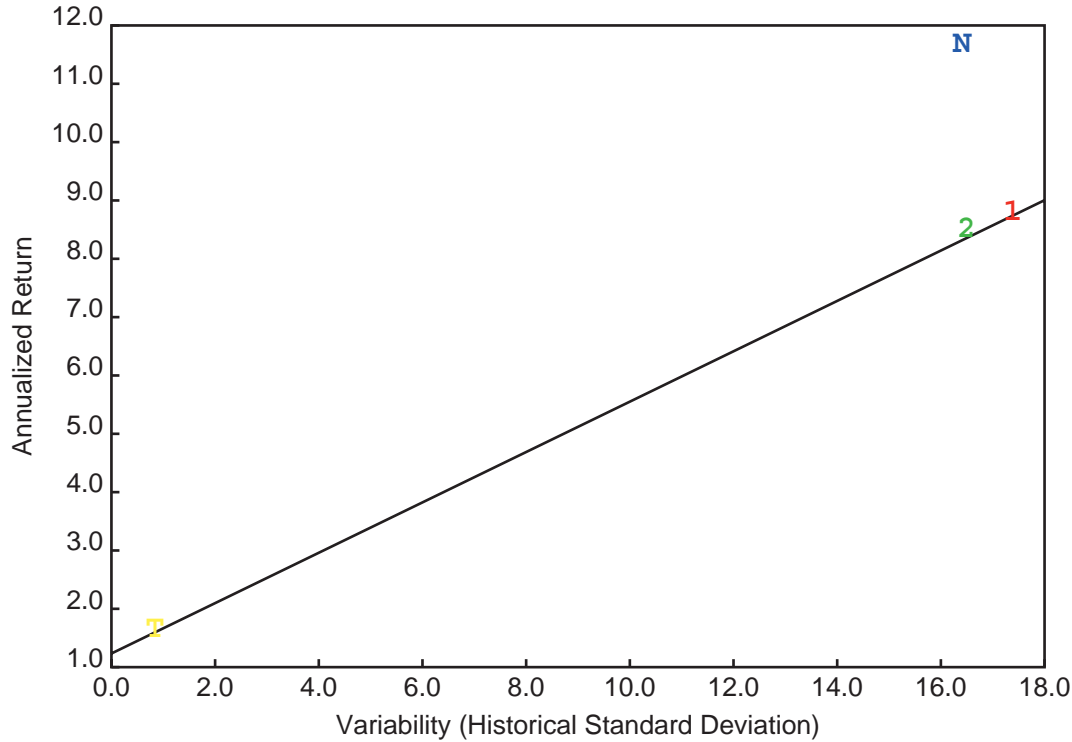
**Longer-term Performance Analysis:**  
 Manager exceeded the Russell 1000 Value Index for the trailing 7- and 10-years time periods, but has underperformed in recent time periods.  
 (Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.



# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 6/03 to 12/13

Manager Annual Return: +11.66  
 Less: Annual Fee        -0.47  
 -----  
                                  +11.19  
  
 Less: Benchmark Return   -8.78  
 -----  
 Net Value-added Result    +2.41



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>N</b> NWQ Investment Mgmt - LC Value	11.66	16.51	10.02	0.61
<b>1</b> Russell 1000 Value	8.78	17.48	7.14	0.41
<b>2</b> (MS) 95/5 Russell LCV & T-Bill	8.50	16.60	6.85	0.41
<b>T</b> 91-Day Treasury Bill	1.64	0.94	0.00	0.00

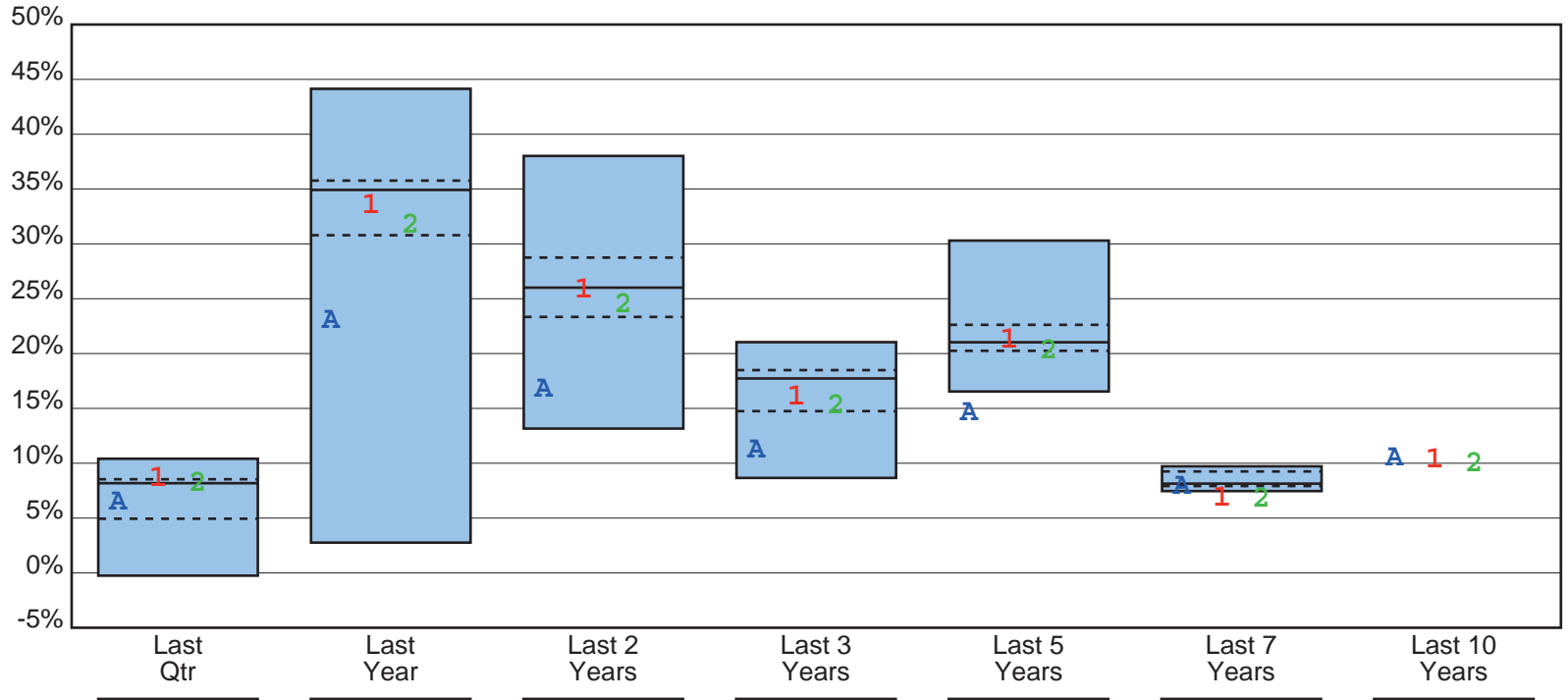
**Manager Performance vs. Objectives:**  
 Portfolio manager meets expectations after 10.5 years, but the significant underperformance for the trailing 3-years time period is problematic.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Midcap Value Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 4Q-2001 with  
funding of \$6 million.

Fee Schedule: 47 bps.



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
5th Percentile	10.41	44.14	38.02	21.04	30.30	9.72	
25th Percentile	8.54	35.77	28.75	18.49	22.62	9.25	
Median	8.18	34.92	26.01	17.73	21.03	8.14	
75th Percentile	4.94	30.79	23.34	14.75	20.25	7.92	
95th Percentile	-0.25	2.76	13.16	8.66	16.54	7.46	

<b>A</b> Anchor Capital - MidCap Value	6.41 (69)	22.98 (85)	16.73 (89)	11.13 (92)	14.58 (100)	7.87 (78)	10.39
<b>1</b> Russell MidCap Value	8.55 (22)	33.45 (59)	25.75 (50)	15.96 (65)	21.16 (48)	6.79 (99)	10.25
<b>2</b> (MS) 95/5 Russ MCV & T-Bill	8.13 (55)	31.63 (68)	24.38 (62)	15.21 (69)	20.16 (79)	6.64 (99)	9.92

### Longer-term Performance Analysis:

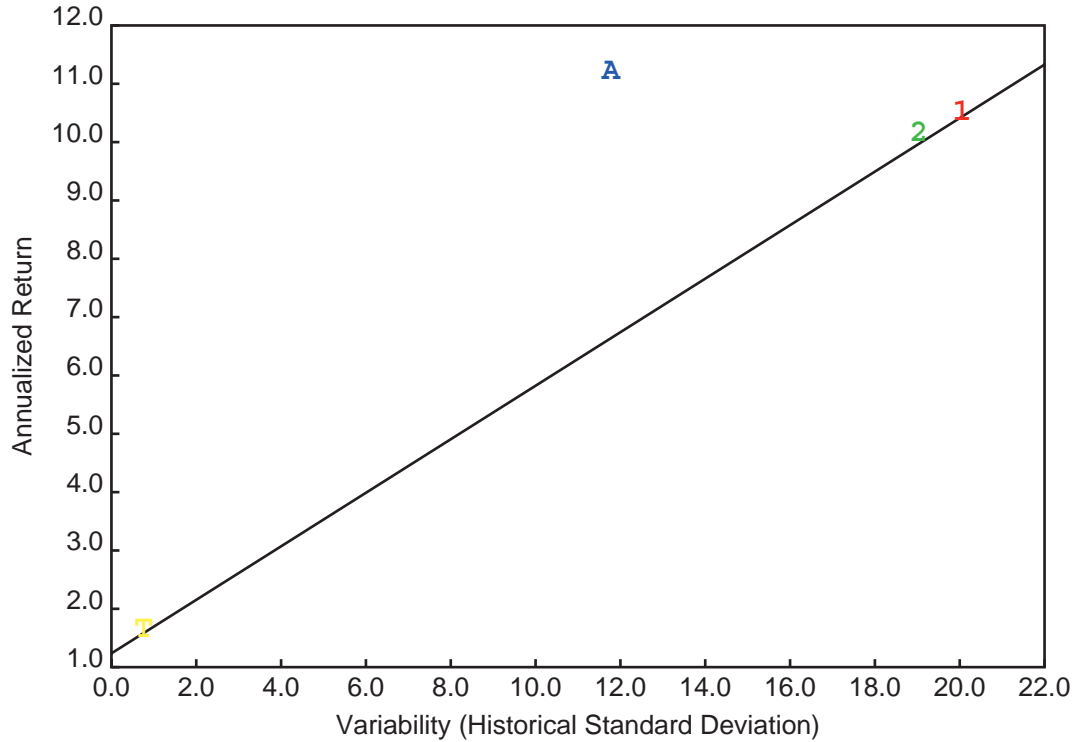
Manager exceeded the Russell MidCap Value Index for the trailing 7- and 10-years time periods, but has underperformed in recent time periods.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/01 to 12/13

Manager Annual Return: +11.20  
 Less: Annual Fee        -0.47  
                           -----  
                           +10.73  
  
 Less: Benchmark Return -10.49  
                           -----  
 Net Value-added Result +0.26



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>A</b> Anchor Capital - MidCap Value	11.20	11.90	9.56	0.80
<b>1</b> Russell MidCap Value	10.49	20.17	8.85	0.44
<b>2</b> (MS) 95/5 Russ MCV & T-Bill	10.14	19.16	8.50	0.44
<b>T</b> 91-Day Treasury Bill	1.64	0.88	0.00	0.00

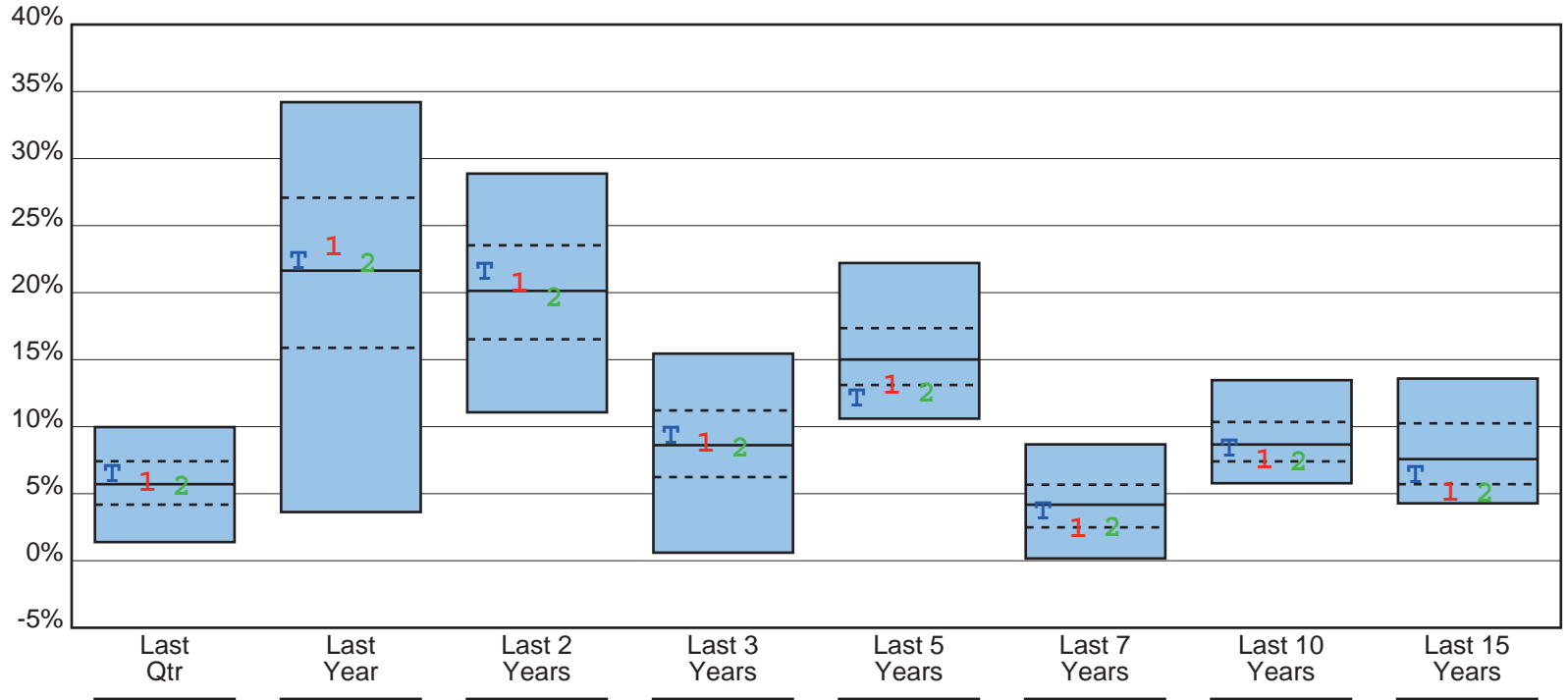
Manager Performance vs. Objectives:  
 Portfolio manager meets expectations after 12 years, but the significant underperformance for the trailing 5-years time period is problematic.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 3Q-1997 with  
funding of approximately  
\$3.5 million.

Fee Schedule: 47 bps.



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
5th Percentile	9.97	34.21	28.88	15.45	22.21	8.68	13.47	13.59
25th Percentile	7.42	27.08	23.53	11.21	17.35	5.67	10.35	10.25
Median	5.71	21.64	20.13	8.62	15.01	4.18	8.67	7.58
75th Percentile	4.18	15.88	16.52	6.24	13.11	2.49	7.41	5.71
95th Percentile	1.39	3.63	11.07	0.60	10.60	0.17	5.78	4.28

<b>T</b> Templeton - International Equity	6.40 (39)	22.25 (46)	21.48 (38)	9.24 (42)	12.00 (88)	3.59 (59)	8.26 (57)	6.27 (70)
<b>1</b> MSCI EAFE	5.75 (48)	23.29 (41)	20.56 (45)	8.66 (49)	12.96 (77)	2.25 (78)	7.41 (75)	4.97 (85)
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	5.46 (54)	22.06 (47)	19.51 (57)	8.29 (54)	12.41 (84)	2.32 (78)	7.22 (81)	4.94 (86)

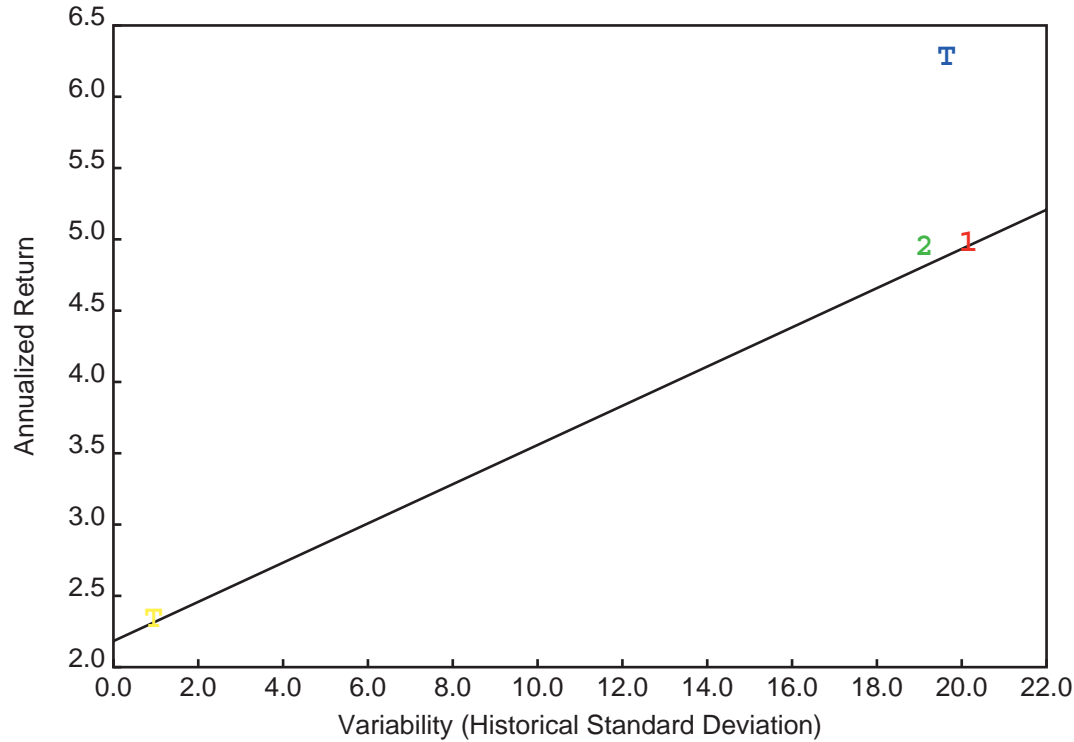
**Longer-term Performance Analysis:**  
 Manager outperforms the MSCI EAFE Index across most time periods.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/98 to 12/13

Manager Annual Return: +6.27  
 Less: Annual Fee -0.47  
 -----  
 +5.80  
  
 Less: Benchmark Return -4.97  
 -----  
 Net Value-added Result +0.83

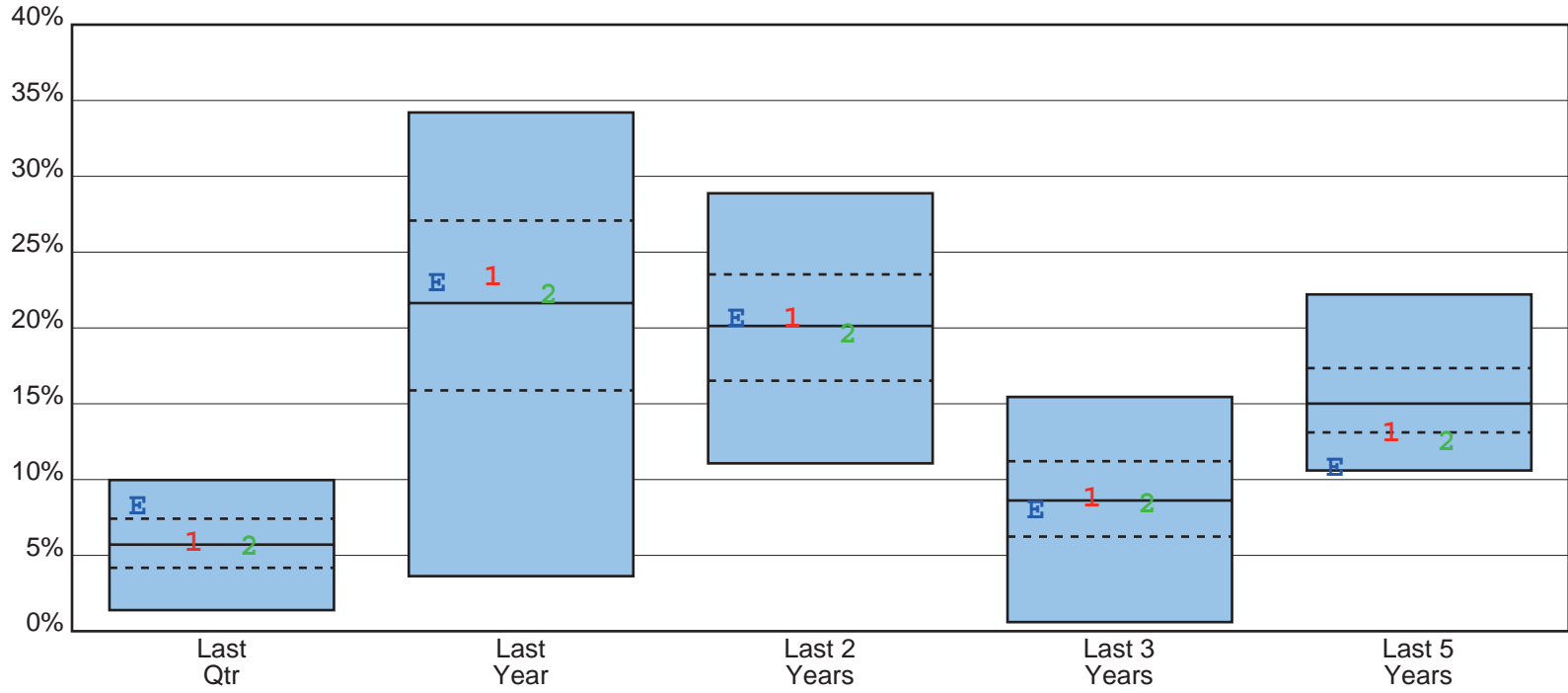


	Annualized Return	Variability	Reward	Sharpe Ratio
<b>T</b> Templeton - International Equity	6.27	19.77	3.93	0.20
<b>1</b> MSCI EAFE	4.97	20.27	2.64	0.13
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	4.94	19.25	2.61	0.14
<b>T</b> 91-Day Treasury Bill	2.33	1.07	0.00	0.00

Manager Performance vs. Objectives:  
 Portfolio manager exceeds expectations after 15 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/13



Biography:  
Hired in 4Q-2008 with  
funding of \$6 million.

Fee Schedule: 47 bps.

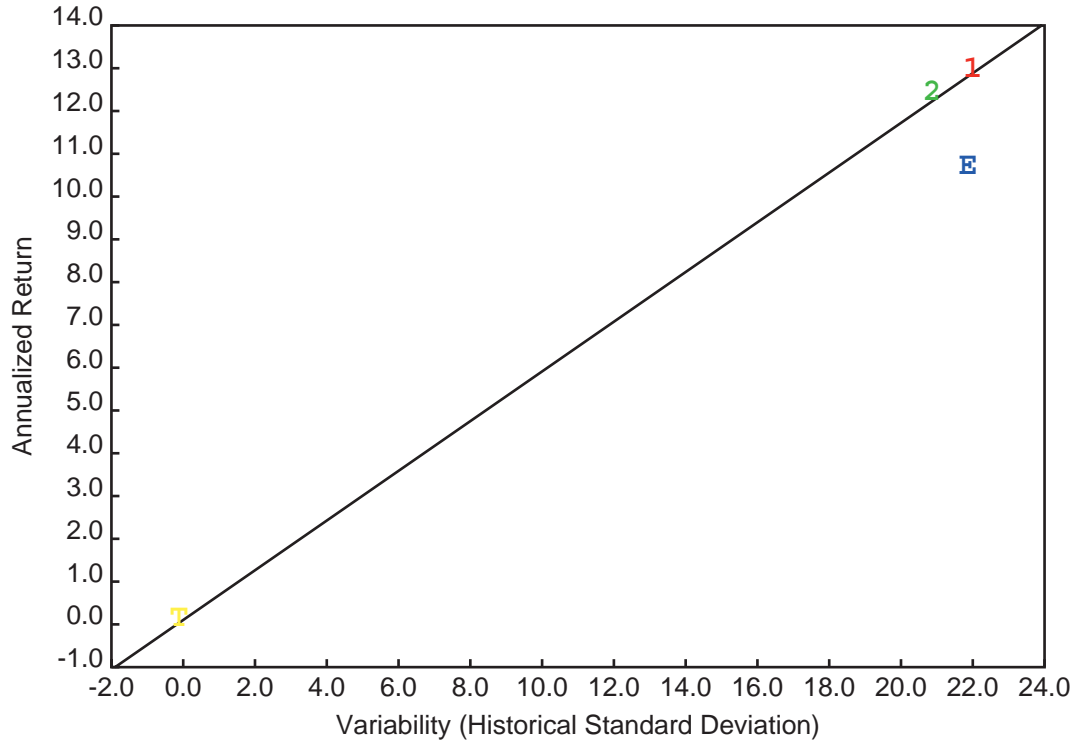
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
5th Percentile	9.97	34.21	28.88	15.45	22.21
25th Percentile	7.42	27.08	23.53	11.21	17.35
Median	5.71	21.64	20.13	8.62	15.01
75th Percentile	4.18	15.88	16.52	6.24	13.11
95th Percentile	1.39	3.63	11.07	0.60	10.60
<b>E</b> Eagle Global - International Equity	8.13 (14)	22.88 (44)	20.51 (45)	7.92 (60)	10.70 (94)
<b>1</b> MSCI EAFE	5.75 (48)	23.29 (41)	20.56 (45)	8.66 (49)	12.96 (77)
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	5.46 (54)	22.06 (47)	19.51 (57)	8.29 (54)	12.41 (84)

**Longer-term Performance Analysis:**  
 Manager trailed the MSCI EAFE Index for the trailing 5-year time period, but has outperformed in recent time periods.  
 (Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/08 to 12/13

Manager Annual Return: +10.70  
 Less: Annual Fee -0.47  
 -----  
 +10.23  
  
 Less: Benchmark Return -12.96  
 -----  
 Net Value-added Result -2.73



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>E</b> Eagle Global - International Equity	10.70	22.00	10.58	0.48
<b>1</b> MSCI EAFE	12.96	22.13	12.83	0.58
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	12.41	21.02	12.28	0.58
<b>T</b> 91-Day Treasury Bill	0.12	0.03	0.00	0.00

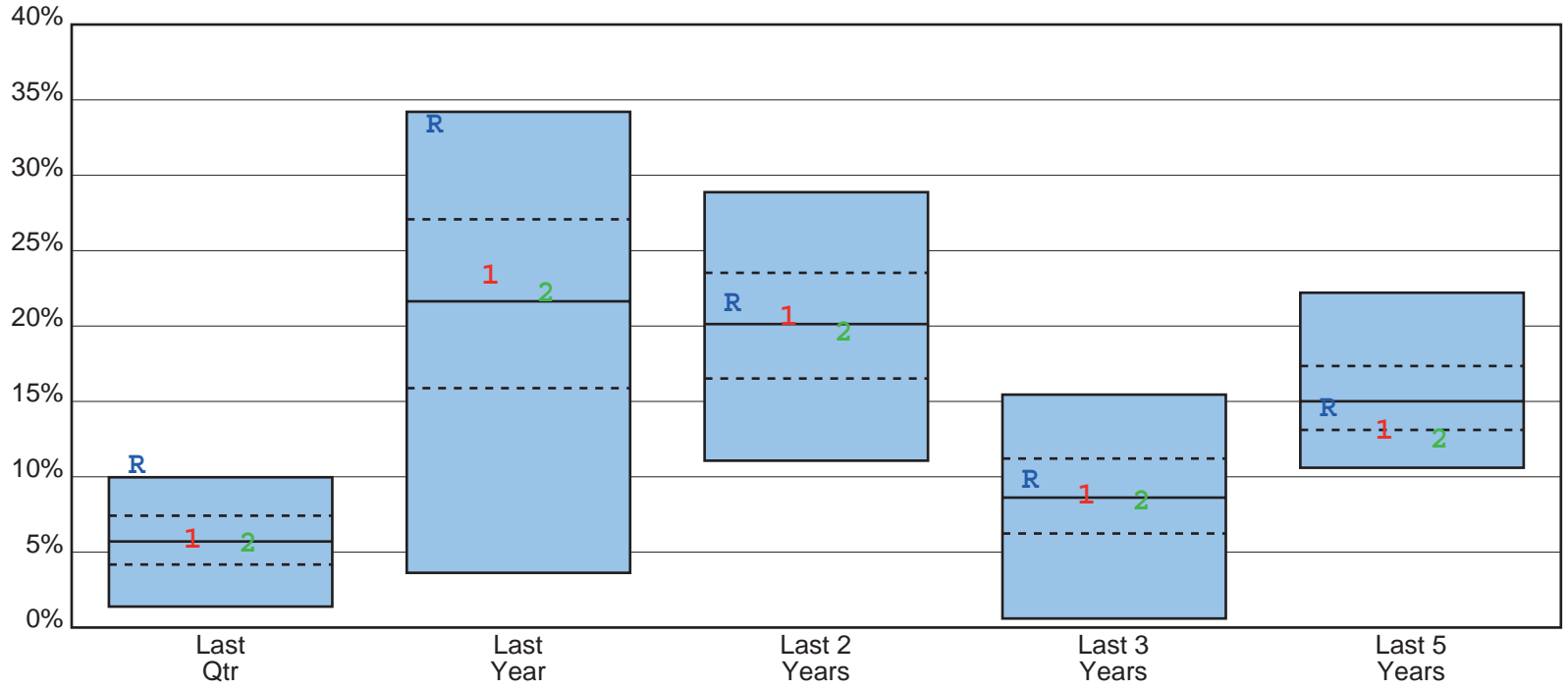
**Manager Performance vs. Objectives:**  
 Portfolio manager trails expectations after 5 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 3Q-2008 with  
funding of approximately  
\$8.0 million.

Fee Schedule: 47 bps.



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years
5th Percentile	9.97	34.21	28.88	15.45	22.21
25th Percentile	7.42	27.08	23.53	11.21	17.35
Median	5.71	21.64	20.13	8.62	15.01
75th Percentile	4.18	15.88	16.52	6.24	13.11
95th Percentile	1.39	3.63	11.07	0.60	10.60

<b>R</b> Renaissance - International Equity	10.67 (2)	33.28 (6)	21.44 (38)	9.73 (36)	14.45 (56)
<b>1</b> MSCI EAFE	5.75 (48)	23.29 (41)	20.56 (45)	8.66 (49)	12.96 (77)
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	5.46 (54)	22.06 (47)	19.51 (57)	8.29 (54)	12.41 (84)

Longer-term Performance Analysis:  
Manager outperforms the MSCI EAFE Index across all time periods.

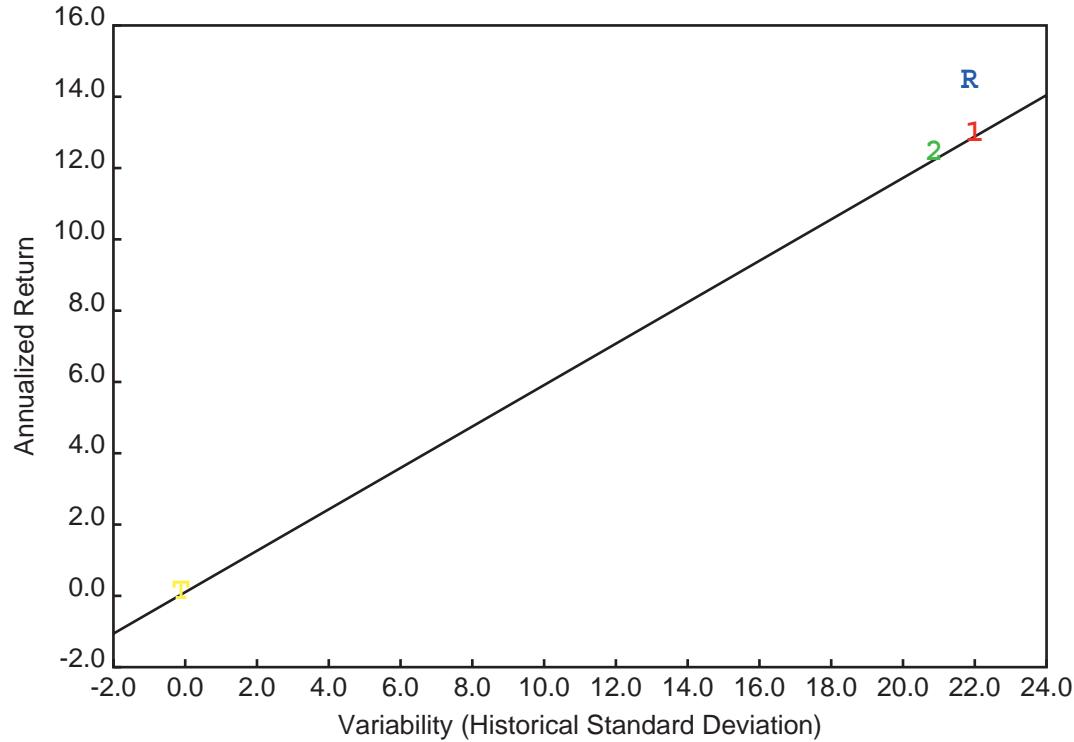
(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.



# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/08 to 12/13

Manager Annual Return: +14.45  
 Less: Annual Fee -0.47  
 -----  
 +13.98  
  
 Less: Benchmark Return -12.96  
 -----  
 Net Value-added Result +1.02



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>R</b> Renaissance - International Equity	14.45	21.99	14.33	0.65
<b>1</b> MSCI EAFE	12.96	22.13	12.83	0.58
<b>2</b> (MS) 95/5 MSCI EAFE & T-Bill	12.41	21.02	12.28	0.58
<b>T</b> 91-Day Treasury Bill	0.12	0.03	0.00	0.00

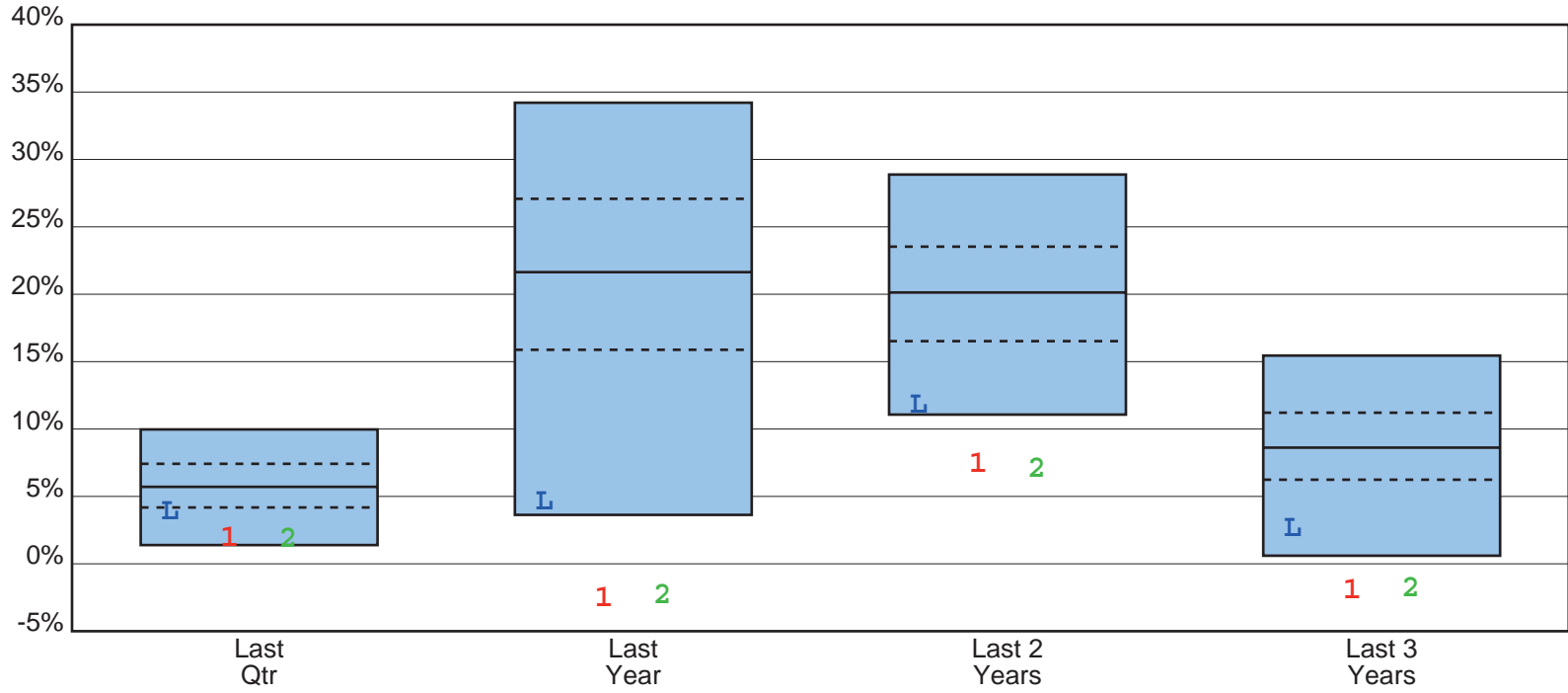
**Manager Performance vs. Objectives:**  
 Portfolio manager exceeds expectations after 5 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/13

Biography:  
Hired in 4Q-2010 with  
funding of approximately  
\$4.0 million.

Fee Schedule: 47 bps.



5th Percentile  
25th Percentile  
Median  
75th Percentile  
95th Percentile

	Last Qtr	Last Year	Last 2 Years	Last 3 Years
Lazard - Emerging Markets	3.78 (78)	4.51 (93)	11.70 (93)	2.59 (91)
MSCI Emerging Mkts (Net)	1.83 (91)	-2.60 (100)	7.31 (98)	-2.06 (98)
(MS) 95/5 MSCI Emerg & T-Bill	1.74 (92)	-2.44 (100)	6.99 (98)	-1.87 (98)

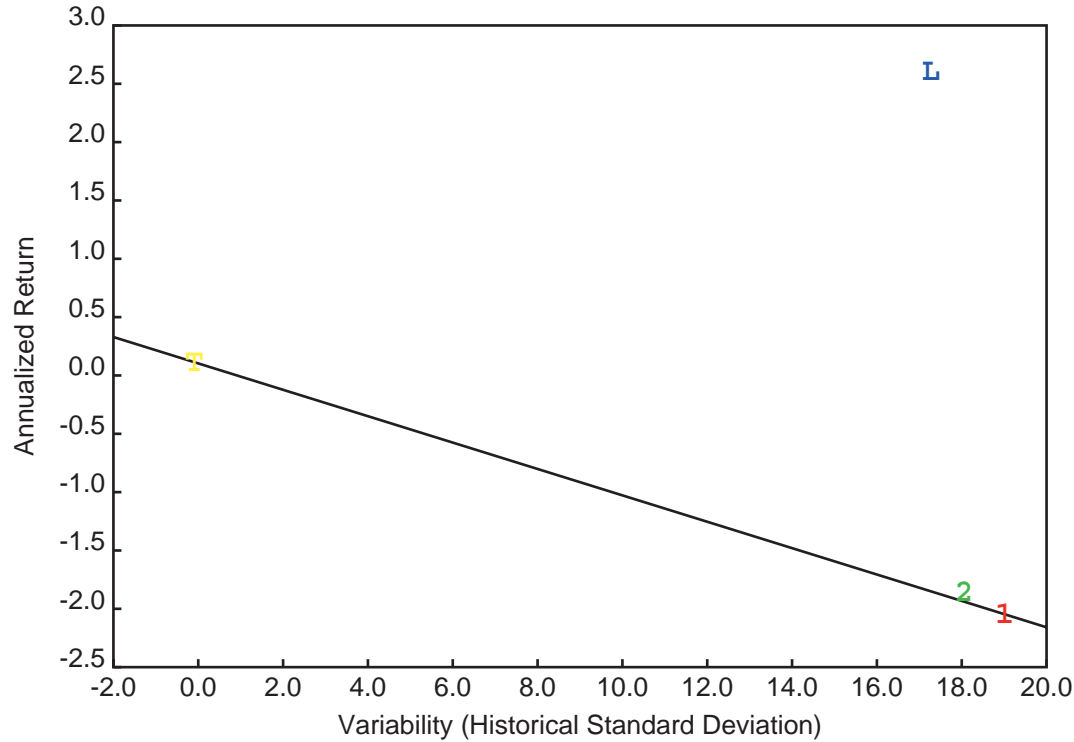
Longer-term Performance Analysis:  
Manager outperforms the MSCI Emerging Markets Index across all time periods, but ranks poorly against other international equity portfolios.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/10 to 12/13

Manager Annual Return: +2.59  
 Less: Annual Fee -0.47  
 -----  
 +2.12  
  
 Less: Benchmark Return +2.06  
 -----  
 Net Value-added Result +4.18



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>L</b> Lazard - Emerging Markets	2.59	17.40	2.49	0.14
<b>1</b> MSCI Emerging Mkts (Net)	-2.06	19.13	-2.16	-0.11
<b>2</b> (MS) 95/5 MSCI Emerg & T-Bill	-1.87	18.18	-1.96	-0.11
<b>T</b> 91-Day Treasury Bill	0.10	0.03	0.00	0.00

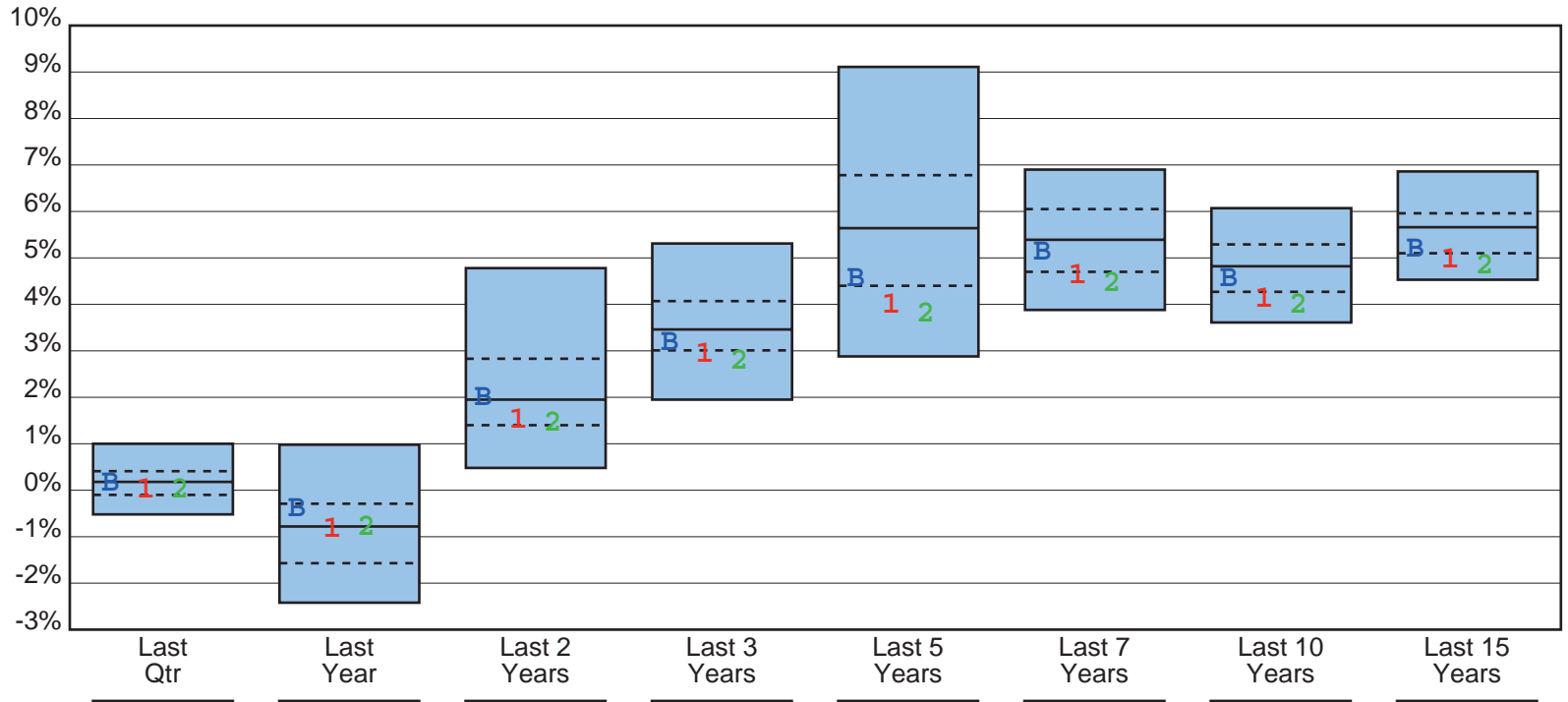
**Manager Performance vs. Objectives:**  
 Portfolio manager exceeds expectations after 3 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Intermediate Gov/Corp Cumulative Performance Comparisons Total Returns of Fixed Income Portfolios Periods Ending 12/13

Biography:  
Hired in 2Q-1990 with  
funding of approximately  
\$19 million.

Fee Schedule: 32 bps.



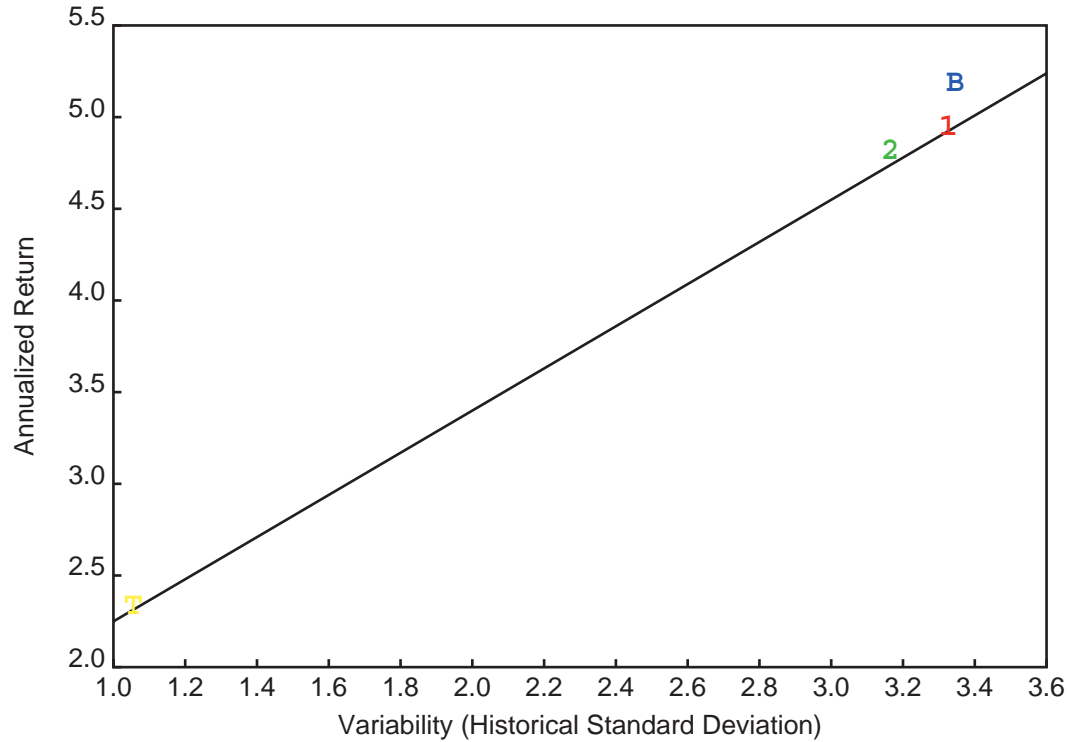
	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
5th Percentile	1.00	0.98	4.78	5.31	9.11	6.90	6.07	6.86
25th Percentile	0.41	-0.29	2.83	4.07	6.78	6.05	5.29	5.96
Median	0.18	-0.78	1.95	3.46	5.64	5.39	4.82	5.66
75th Percentile	-0.10	-1.57	1.40	3.01	4.40	4.70	4.27	5.10
95th Percentile	-0.52	-2.42	0.48	1.95	2.88	3.88	3.61	4.53
<b>B</b> Boyd Watterson Asset Mgmt	0.14 (53)	-0.41 (30)	1.99 (48)	3.16 (70)	4.53 (70)	5.11 (60)	4.54 (61)	5.18 (66)
<b>1</b> Barclays Intm Govt/Credit	-0.02 (68)	-0.86 (53)	1.49 (74)	2.91 (77)	3.96 (84)	4.61 (79)	4.09 (80)	4.94 (83)
<b>2</b> (MS) 95/5 Intm G/C & T-Bill	-0.02 (68)	-0.81 (51)	1.42 (74)	2.77 (82)	3.77 (87)	4.43 (85)	3.97 (87)	4.81 (85)

**Longer-term Performance Analysis:**  
 Manager outperforms the Barclays Intermediate Government/Credit Index across all time periods.  
 (Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 12/98 to 12/13

Manager Annual Return: +5.18  
 Less: Annual Fee -----  
 +4.86  
  
 Less: Benchmark Return -4.94  
 -----  
 Net Value-added Result -0.08



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>B</b> Boyd Watterson Asset Mgmt - Fixed	5.18	3.36	2.85	0.85
<b>1</b> Barclays Intm Govt/Credit	4.94	3.34	2.60	0.78
<b>2</b> (MS) 95/5 Intm G/C & T-Bill	4.81	3.18	2.47	0.78
<b>T</b> 91-Day Treasury Bill	2.33	1.07	0.00	0.00

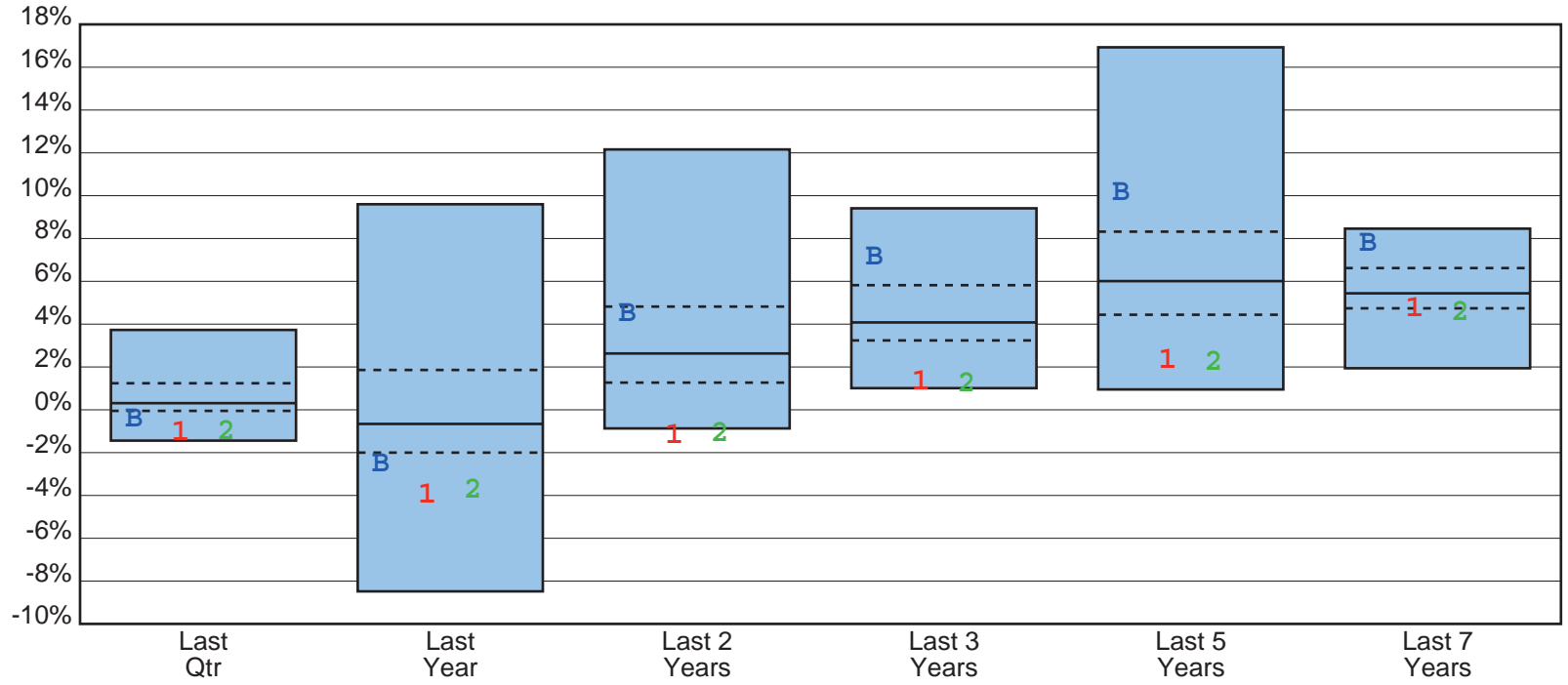
**Manager Performance vs. Objectives:**  
 Portfolio manager is close to expectations after 15 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of Fixed Income Portfolios Periods Ending 12/13

Biography:  
Hired in 2Q-2004 with  
funding of approximately  
\$9.9 million.

Fee Schedule: 45 bps.



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 5 Years	Last 7 Years
5th Percentile	3.73	9.60	12.16	9.41	16.93	8.46
25th Percentile	1.24	1.86	4.82	5.82	8.32	6.62
Median	0.31	-0.66	2.63	4.08	6.01	5.44
75th Percentile	-0.05	-2.00	1.27	3.24	4.44	4.74
95th Percentile	-1.44	-8.48	-0.87	1.01	0.95	1.94
<b>B</b> Brandywine - World Gov't Bond	-0.45 (89)	-2.57 (84)	4.44 (27)	7.11 (18)	10.10 (18)	7.74 (10)
<b>1</b> World Gov't Bond	-1.09 (94)	-4.00 (88)	-1.22 (96)	1.25 (94)	2.28 (91)	4.68 (76)
<b>2</b> (MS) 95/5 World Gov't & T-Bill	-1.04 (94)	-3.79 (88)	-1.15 (96)	1.19 (94)	2.18 (91)	4.50 (78)

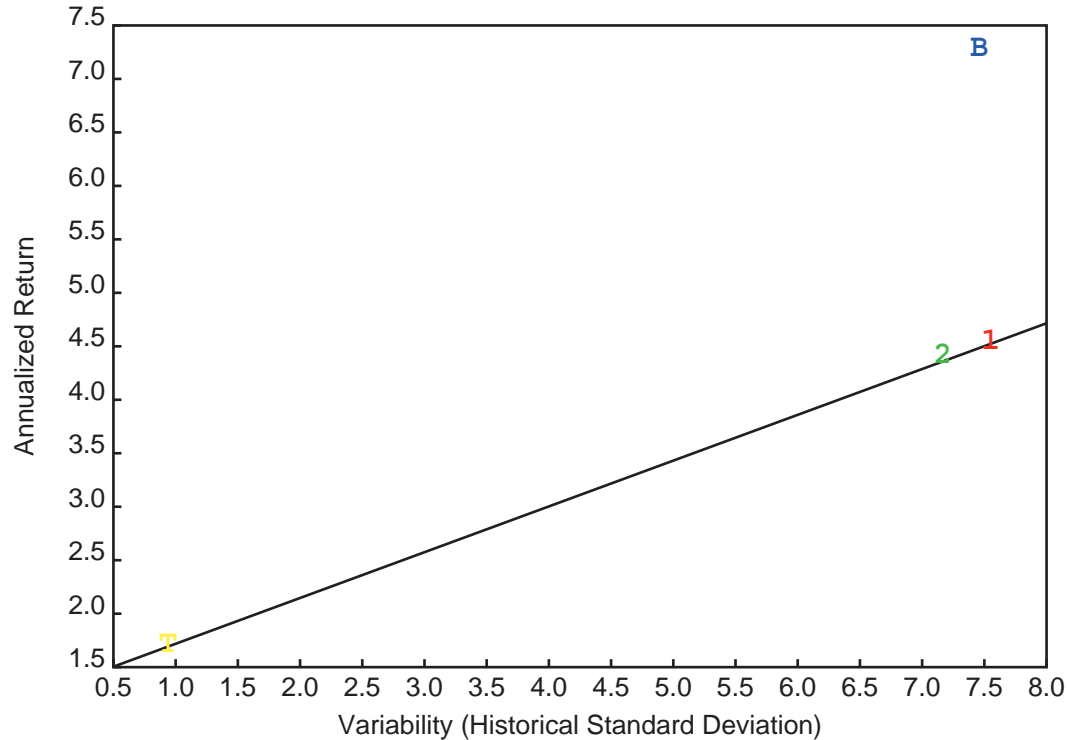
Longer-term Performance Analysis:  
Manager outperforms the World Government Bond Index across all time periods.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

## Monroe County Employees Retirement System Quarterly Total Return Market Line Analysis Periods from 6/04 to 12/13

Manager Annual Return: +7.28  
 Less: Annual Fee -0.45  
 -----  
 +6.83  
  
 Less: Benchmark Return -4.54  
 -----  
 Net Value-added Result +2.29



	Annualized Return	Variability	Reward	Sharpe Ratio
<b>B</b> Brandywine - World Gov't Bond	7.28	7.50	5.57	0.74
<b>1</b> World Gov't Bond	4.54	7.59	2.83	0.37
<b>2</b> (MS) 95/5 World Gov't & T-Bill	4.41	7.21	2.69	0.37
<b>T</b> 91-Day Treasury Bill	1.71	0.98	0.00	0.00

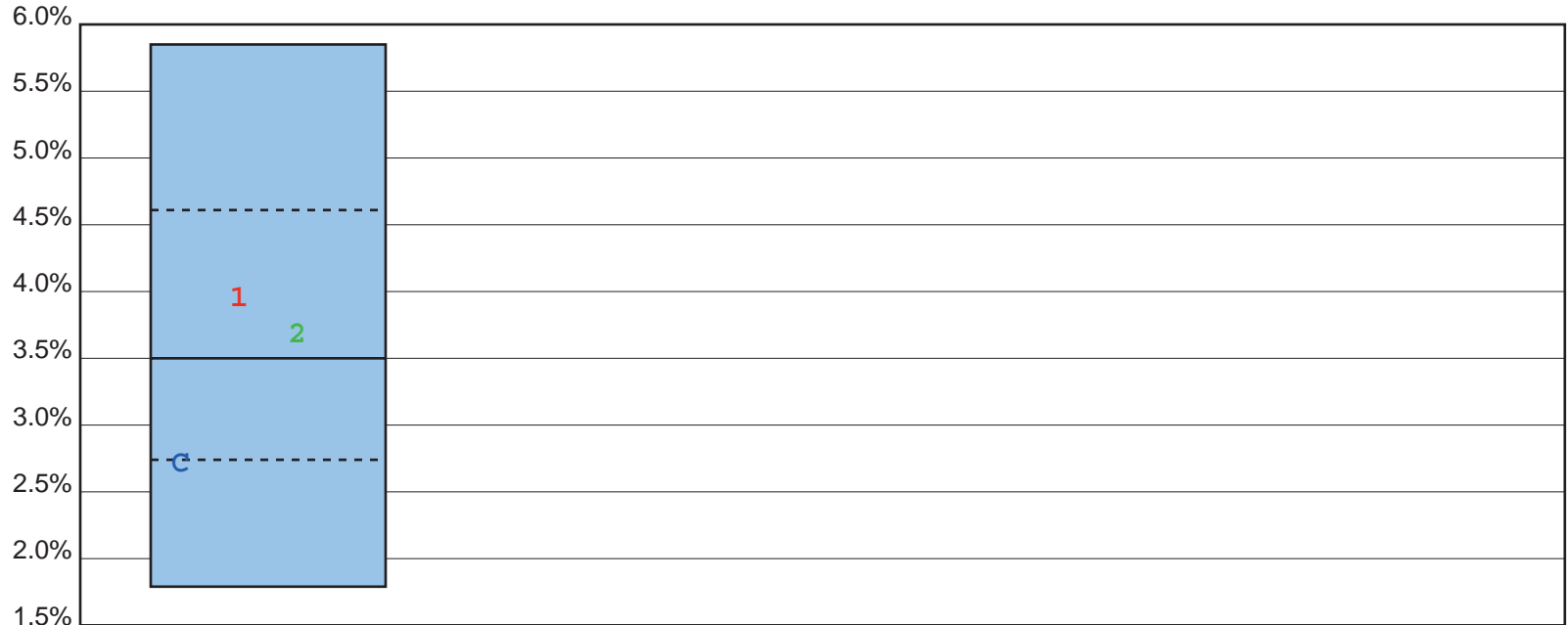
**Manager Performance vs. Objectives:**  
 Portfolio manager exceeds expectations after 9.5 years.

Sharpe Ratio = Reward / Variability

# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of Fund of Funds Hedge Funds Periods Ending 12/13

Biography:  
Hired in 3Q-2013 with  
funding of \$3 million.

Fee Schedule: 100 bps  
plus 5% of profits above 5%



Last  
Qtr

5th Percentile	5.85
25th Percentile	4.61
Median	3.50
75th Percentile	2.74
95th Percentile	1.79

C Corbin - Hedge Fund of Funds	2.70 (79)
1 HFRI Diversified FoF Index	3.94 (43)
2 (MS) HFRI Fund of Funds	3.67 (44)

Longer-term Performance Analysis:  
Manager underperformed both benchmarks in its first full quarter.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

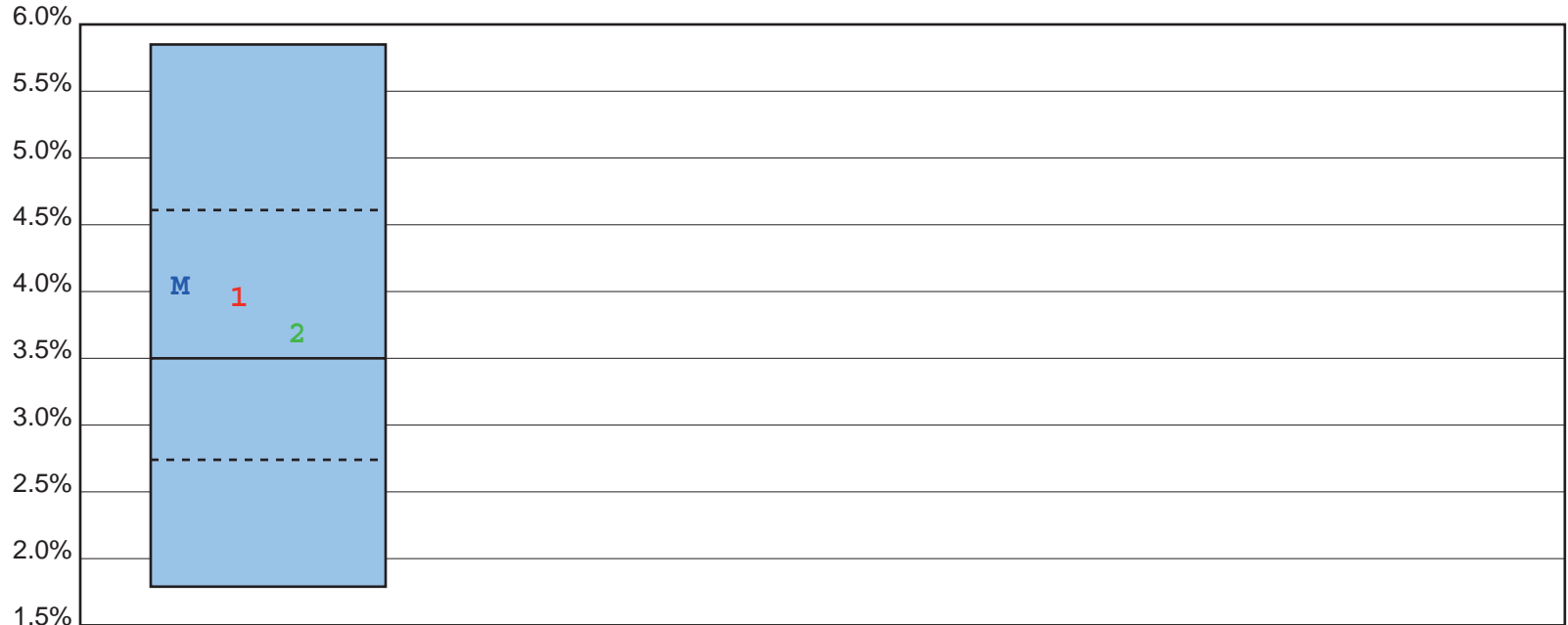
Returns for periods greater than one year are annualized.



# Monroe County Employees Retirement System Cumulative Performance Comparison Total Returns of Fund of Funds Hedge Funds Periods Ending 12/13

Biography:  
Hired in 3Q-2013 with  
funding of \$2 million.

Fee Schedule: 75 bps.



Last  
Qtr

5th Percentile	5.85
25th Percentile	4.61
Median	3.50
75th Percentile	2.74
95th Percentile	1.79

<b>M</b> Mesirow - Hedge Fund of Funds	4.03 (38)
<b>1</b> HFRI Diversified FoF Index	3.94 (43)
<b>2</b> (MS) HFRI Fund of Funds	3.67 (44)

Longer-term Performance Analysis:  
 Manager outperformed both benchmarks in its first full quarter.

(Note: the numbers in parentheses reflect the actual peer group rankings. 1 = high; 99 = low)

Returns for periods greater than one year are annualized.

# Monroe County Employees Retirement System

## About This Report

A panel comprised of County Commissioners and Trustees of the Monroe County Employees Retirement System hired Asset Strategies Portfolio Services, Inc. to evaluate the investment performance of the Plan over the trailing 15 years period ending 12/31/2013.

This report was prepared using data compiled from the historical performance records provided by Morgan Stanley, the Board's investment consultant for the last 15 years. Asset Strategies does not warrant the accuracy of data provided to us by others, but does attempt to obtain and utilize reliable information.

This report contains analysis of both the total fund and the individual managers' performance. The returns calculated by investment managers will occasionally differ (albeit slightly) from the returns calculated by Asset Strategies. This difference is generally explained by any one or a combination of the following: a) managers account for securities purchases, sales, and cash flows on a mid-month basis, while Asset Strategies accounts for transactions on the date of occurrence, b) the pricing sources used by the managers are different from the sources used by the custodian, c) managers report purchases and sales on a trade date basis, while custodial banks generally report on a settlement date basis, and d) managers and custodians differ in their method and timing in accounting for accrued income.

Investment results for periods greater than one year are annualized and gross-of-fees.  
Past investment results are not a guarantee of future performance.



**Total Fund (Gross of Fees) Results & (Public Sponsor) Peer Group Rankings : Cumulative Periods ending 12/31/2013**

	Last 1 Year (2013)		Last 2 Years		Last 3 Years		Last 5 Years	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank
Monroe County ERS	12.55	82	10.91	89	6.80	92	9.27	89
Policy (ASPS)	12.26	84	11.46	87	7.78	87	10.67	82
Policy (MS)	14.97	67	12.35	83	9.57	58	11.00	74
60/40 : SP500/IntmGC	18.27	32	14.68	46	11.05	16	12.60	42
40/60 : SP500/IntmGC	11.62	87	10.20	90	8.39	79	9.80	86
S&P 500	32.41	1	23.92	1	16.18	1	17.93	1
Barclays Intm G/C	-0.86	99	1.49	97	2.91	97	3.96	96
	Last 7 Years		Last 10 Years		Last 15 Years			
	Result	Rank	Result	Rank	Result	Rank		
Monroe County ERS	4.50	87	6.03	89	5.26	84		
Policy (ASPS)	5.28	59	6.48	70	5.64	65		
Policy (MS)	5.73	39	6.01	90	5.15	87		
60/40 : SP500/IntmGC	6.05	26	6.46	70	5.25	84		
40/60 : SP500/IntmGC	5.74	38	5.79	94	5.30	83		
S&P 500	6.13	22	7.40	24	4.67	96		
Barclays Intm G/C	4.61	84	4.09	100	4.94	91		

\* Results for periods greater than 1 year are annualized

**Total Fund (Gross of Fees) Results & (Public Sponsor) Peer Group Rankings : Calendar Year Periods**

	2013		2012		2011		2010		2009	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank	Result	Rank
Monroe County ERS	12.55	82	9.30	90	-0.98	85	10.71	79	15.50	72
Policy (ASPS)	13.90	75	10.77	80	1.16	48	9.76	87	18.10	56
Policy (MS)	14.97	67	9.80	87	4.22	8	10.67	79	15.77	70
60/40 : SP500/IntmGC	18.27	32	11.21	75	4.13	8	11.88	65	18.15	55
40/60 : SP500/IntmGC	11.62	87	8.79	92	4.86	5	10.04	85	13.90	77
S&P 500	32.41	1	15.98	1	2.12	28	15.05	10	26.45	6
Barclays Intm G/C	-0.86	99	3.89	95	5.81	3	5.89	94	5.24	94
	2008		2007		2006		2005		2004	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank	Result	Rank
Monroe County ERS	-19.16	22	8.09	45	12.05	60	8.10	29	8.87	74
Policy (ASPS)	-20.23	24	7.87	51	12.52	54	5.37	77	9.42	66
Policy (MS)	-17.66	21	6.43	78	9.90	81	3.32	95	6.93	90
60/40 : SP500/IntmGC	-21.65	30	6.37	80	11.04	70	3.58	95	7.81	83
40/60 : SP500/IntmGC	-13.25	14	6.75	73	8.69	88	2.91	96	6.24	93
S&P 500	-36.99	99	5.52	88	15.81	7	4.89	84	10.87	44
Barclays Intm G/C	5.08	2	7.40	60	4.07	99	1.57	99	3.04	98
	2003		2002		2001		2000		1999	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank	Result	Rank
Monroe County ERS	15.27	84	-6.55	28	-3.28	53	5.14	17	9.79	66
Policy (ASPS)	19.23	60	-5.62	24	-4.00	62	-1.41	76	12.46	50
Policy (MS)	16.11	79	-6.85	32	-1.27	27	0.05	62	10.87	62
60/40 : SP500/IntmGC	18.73	64	-9.65	71	-3.13	51	-1.67	78	12.71	48
40/60 : SP500/IntmGC	13.85	88	-3.25	12	1.05	14	2.18	41	8.58	74
S&P 500	28.69	3	-22.12	99	-11.88	99	-9.12	99	20.98	8
Barclays Intm G/C	4.30	97	9.83	1	8.98	1	10.10	2	0.39	96

### Investment Management Fees: Calendar Year Periods

Monroe County ERS	2013	2012	2011	2010	2009
Total Year-End Market Value (Trust)	\$189,403,009	\$175,292,820	\$166,315,177	\$176,702,631	\$165,646,246
Total Investment Management Fees *	(n/a)	\$937,038	\$914,322	\$976,152	\$901,329
Plan Results: Gross of Fees	12.55	9.30	-0.98	10.71	15.50
Investment Mgmt Fee (in Basis Points)	0.82	0.53	0.55	0.55	0.54
Plan Results: Net of Fees	11.73	8.77	-1.53	10.16	14.96
Monroe County ERS	2008	2007	2006	2005	2004
Total Year-End Market Value (Trust)	\$148,763,118	\$187,790,674	\$177,532,251	\$163,292,119	\$155,688,967
Total Investment Management Fees *	\$1,151,662	\$922,963	\$1,061,366	\$958,657	\$901,632
Plan Results: Gross of Fees	-19.16	8.09	12.05	8.10	8.87
Investment Mgmt Fee (in Basis Points)	0.77	0.49	0.60	0.59	0.58
Plan Results: Net of Fees	-19.93	7.60	11.45	7.51	8.29

\* Investment Management Fee of 82 basis points for 2013 was derived from GoF and NoF results provided by Morgan Stanley

\* Total Investment Management Fees for 2012-2004 were obtained from the MCERS audited Financial statements

## Investment Manager Fee Analysis - for Active Managers

Manager	Benchmark	Asset Class	Assets Under Mgmt (as of 12/31/13)	Vehicle Type *	Fee Schedule (bps)	Rank
<i>U.S. Equities</i>						
Winslow	95% Russell LCG; 5% T-Bill	Large Cap Growth	\$24,422,633	CF	47	2
Federated	100% DJ Select Dividend	Large Cap Value	\$8,821,983	SA	47	7
NWQ Invest Mgmt	95% Russell LCV; 5% T-Bill	Large Cap Value	\$14,658,299	SA	47	7
Seizert	95% Russell Mid Cap; 5% T-Bill	Mid Cap Core	Funded 1Q14	SA	65	20
Anchor Capital	95% Russell MCV; 5% T-Bill	Mid Cap Value	\$16,215,431	SA	47	1
<i>Global Equities</i>						
Eagle Global	95% MSCI EAFE; 5% T-Bill	EAFE	\$9,237,194	SA	47	5
Renaissance	95% MSCI EAFE; 5% T-Bill	EAFE	\$11,782,601	SA	47	5
Templeton	95% MSCI EAFE; 5% T-Bill	EAFE	\$13,764,977	SA	47	6
Lazard	95% MSCI Emerg Mkts; 5% T-Bill	Emerging Markets	\$9,746,845	SA	47	2
<i>U.S. Fixed Income</i>						
Boyd Waterson	95% Barclays Intm G/C; 5% T-Bill	Intm Gov't/Credit	\$41,048,155	SA	32	58
Boyd Waterson	Short Duration Fixed Income	Short-Term	\$3,005,176	CF	32	70
<i>Global Fixed Income</i>						
Brandywine	100% Citigroup World Gov't Bond	Global Fixed Income	\$25,712,635	CF	45	47
<i>Global Real Estate</i>						
Intercontinental	MSCI World Real Estate	Global Real Estate	Funded 1Q14	CF	110	n/a
Titanium GSA	MSCI World Real Estate	Global Real Estate	\$3,500,000	CF	125	n/a
<i>Hedge Fund of Funds</i>						
Corbin	100% HFRI FoF	Hedge Fund of Funds	\$3,118,386	CF	100	25
Mesirow	100% HFRI FoF	Hedge Fund of Funds	\$2,095,123	CF	75	15
Cash			\$2,273,571			

\* Vehicle Type is as follows:

"CF" = Commingled Fund

"SA" = Separate Account

**Total Assets Under Management: \$189,403,009**

## Investment Manager Fee Analysis - for Terminated Managers

Manager	Benchmark	Asset Class	Time Period of Service		Vehicle Type *	Fee Schedule (bps)
			Inception	Final		
<i>U.S. Equities</i>						
Alliance Capital	95% S&P 500; 5% T-Bill	Large Cap Core	1Q2005	3Q2008	SA	47
Brandywine	95% Russell LCV; 5% T-Bill	Large Cap Value	4Q2004	4Q2008	SA	47
Diamond Hill	100% S&P 500	Large Cap Core	3Q2008	4Q2011	SA	47
Renaissance	95% Russell LCG; 5% T-Bill	Large Cap Growth	3Q2008	4Q2010	SA	47
Rorer Asset Mgmt	95% Russell LCV; 5% T-Bill	Large Cap Value	1Q1999	4Q2004	SA	45
Sirach Capital	95% Russell LCG; 5% T-Bill	Large Cap Growth	2Q1990	1Q1999	SA	47
Smith Barney	95% Russell LCV; 5% T-Bill	Large Cap Value	2Q1990	1Q1999	SA	47
Smith Group	95% Russell LCG; 5% T-Bill	Large Cap Growth	3Q2008	4Q2010	SA	47
Sound Capital	95% S&P 500; 5% T-Bill	Large Cap Core	1Q1999	1Q2005	SA	50
<i>Global Equities</i>						
NWQ Invest Mgmt	95% MSCI EAFE; 5% T-Bill	EAFE	2Q2005	1Q2013	SA	47
<i>U.S. Fixed Income</i>						
Pacific Income Advisors	95% Barclays Intm G/C; 5% T-Bill	Intm Gov't/Credit	2Q2004	4Q2013	SA	32
<i>Global Fixed Income</i>						
Fox Asset	95% Barclays Intm G/C; 5% T-Bill	Global Fixed Income	4Q1996	1Q1999	SA	40
Madison Invest Advisors	95% Barclays Intm G/C; 5% T-Bill	Global Fixed Income	1Q1999	1Q2004	SA	40
<i>Global Real Estate</i>						
Alpine Woods	100% MSCI World Real Estate	Global Real Estate	3Q2007	4Q2011	CF	143 <sup>1</sup>
<i>Other</i>						
Hartford Floating Rate	100% T-Bill	Cash Equivalents	1Q2007	4Q2007	n/a	32
JP Morgan Highbridge	100% T-Bill +3%/yr	Hedge Fund of Funds	1Q2009	2Q2010	CF	309 <sup>2</sup>

\* Vehicle Type is as follows:

"CF" = Commingled Fund      1 Fee shown for Alpine Woods is the net operating expense ratio for the institutional share class of the Alpine Cyclinical Advantage Property Fund

"SA" = Separate Account      2 Fee shown for JP Morgan Highbridge (Market Neutral Fund) represents net operating expenses



## Investment Manager Performance Analysis - for Terminated Managers

Manager	Length of Service	Calendar Year	Result	Rank	Calendar Year	Result	Rank	Calendar Year	Result	Rank	Calendar Year	Result	Rank	Calendar Year	Result	Rank
<i>U.S. Equities</i>																
Alliance Capital	3.5 yrs	2007	15.27	9	2006	4.59	99									
Brandywine	4.0 yrs	2008	-41.11	86	2007	-1.40	84	2006	19.31	44	2005	9.97	30			
Diamond Hill	3.25 yrs	2011	3.18	33	2010	0.03	100	2009	21.76	81						
Renaissance	2.25 yrs	2010	16.72	47	2009	21.64	93									
Rorer Asset Mgmt	5.75 yrs	2004	-0.77	100	2003	24.12	91	2002	-19.97	74	2001	-15.86	99	2000	9.54	59
Sirach Capital	8.75 yrs	1998	27.52	70	1997	26.17	79	1996	31.00	7	1995	23.51	96	1994	-5.89	94
Smith Barney	8.75 yrs	1998	15.43	45	1997	26.26	82	1996	21.35	63	1995	36.76	39	1994	-0.40	68
Smith Group	2.25 yrs	2010	20.18	19	2009	11.86	99									
Sound Capital	6.0 yrs	2004	9.67	76	2003	27.45	58	2002	-26.34	92	2001	-12.58	73	2000	-8.80	85
<i>Global Equities</i>																
NWQ Invest Mgmt	7.75 yrs	2012	6.82	99	2011	-16.58	91	2010	16.39	23	2009	23.91	92	2008	-25.50	1
<i>U.S. Fixed Income</i>																
Pacific Income Advisors	8.5 yrs	2013	-1.24	87	2012	3.98	74	2011	4.42	85	2010	5.27	83	2009	6.05	73
<i>Global Fixed Income</i>																
Fox Asset	2.25 yrs	1998	7.94	80	1997	7.67	93									
Madison Invest Advisors	5.0 yrs	2003	4.16	50	2002	3.84	100	2001	8.71	58	2000	6.57	99			
<i>Global Real Estate</i>																
Alpine Woods	4.25 yrs	2011	-28.82	100	2010	17.24	91	2009	109.28	1	2008	-71.31	100			
<i>Other</i>																
Hartford Floating Rate	0.75 yrs															
JP Morgan Highbridge	1.25 yrs															

\* Results and Ranks were only available for full calendar year periods

\* This exhibit is limited to showing the last 5 full calendar year periods active

**Comparison of County Plans: \$MV, Funded Status, Actuary Rate, Open/Closed**

County Plan	12/31/2013 \$MV	Funded Status (as of 4Q12)	Actuary Rate	Plan Status
Bay	\$ 295,503,588	105%	7.5%	Closed
Macomb	\$ 907,346,000	101%	7.5%	Closed
Oakland	\$ 800,084,000	100% (3Q13)	7.25%	Closed
Kent	\$ 757,005,057	97%	7.0%	Open
Midland	\$ 55,047,402	90%	7.5%	Closed
St Clair	\$ 218,758,173	82%	7.5%	Closed
<b>Monroe</b>	<b>\$ 189,403,009</b>	<b>79%</b>	<b>7.0%</b>	<b>Partial Close</b>
Jackson	\$ 144,151,959	76%	7.5%	Open
Genesee	\$ 443,638,758	75%	8.0%	Partial Close
Berrien	\$ 163,203,528	69% (4Q13)	8.0%	Open
Washtenaw	\$ 245,896,945	59%	7.25%	Open

### Comparison of County Plans: Consulting Fees

County Plan	12/31/2013 \$MV	Total Consulting Fee (2013)	
		\$amount	basis points
Monroe	\$ 189,403,009	\$214,657	12 <sup>1</sup>
Bay	\$ 295,503,588	\$140,000	4.7
Berrien	\$ 163,203,528	\$50,000	3.1
Genesee	\$ 443,638,758	\$148,860	3.4
Jackson	\$ 144,151,959	\$56,250	3.9
Kent	\$ 757,005,057	n/a	n/a
Macomb	\$ 907,346,000	\$200,000	2.2 <sup>2</sup>
Midland	\$ 55,047,402	\$32,000	5.8
Oakland	\$ 800,084,000	\$240,000	3.0 <sup>2</sup>
St Clair	\$ 218,758,173	\$74,304	3.4
Washtenaw	\$ 245,896,945	\$80,000	3.3

\* Consulting Fees for Kent County were unavailable

\* Berrien's 2013 calculated bps fee is based on actual 2012 consulting fees

Monroe	Avg \$MV for <sup>3</sup> Calendar Year	Total Consulting Fee (by Year)	
		\$amount	basis points
2012	\$ 173,332,272	\$225,332	13.0
2011	\$ 169,750,142	\$254,625	15.0
2010	\$ 167,040,488	\$250,561	15.0
2009	\$ 153,129,417	\$229,694	15.0

1) Morgan Stanley (MS) Consulting Fee Schedule:

15 bps pre Sept 2012; 10 bps Sept 2012 thru April 2013; **12 bps thereafter**. MS disclosed to the Committee on 9/25/2014 that their 'true consulting' fee is 7 bps, while the above number contains non-consulting services.

2) estimated using meeting records and interviews

3) Average \$MV calculated using quarter-end \$MVs provided by Morgan Stanley

**Comparison of County Plans: Travel Expenditures (Budget/Actual)**

County Plan	Plan Size and # of Trustees		2013	2012	2011	2010	2009
<b>Monroe</b>	\$ 189,403,009	Actual	\$12,871	\$41,152	\$28,008	\$26,926	\$26,748
	9	Budget*	\$30,000	n/a	n/a	n/a	n/a
<b>Genesee</b>	\$ 443,638,758	Actual	\$11,200	\$16,677	\$20,369	\$6,949	\$29,250
	9	Budget	\$25,000	\$25,000	\$25,000	\$50,000	\$50,000
<b>Jackson</b>	\$ 144,151,959	Actual	n/a	n/a	n/a	n/a	n/a
	7	Budget**	\$84,000	\$84,000	\$84,000	\$84,000	\$84,000
<b>St. Clair</b>	\$ 218,758,173	Actual	\$6,310	\$6,833	\$4,407	\$2,555	n/a
	9	Budget	\$10,000	\$10,000	n/a	n/a	n/a

\* Monroe budgets \$3,000 per trustee

\*\*Jackson travel budget is \$12,000 per Trustee

## Comparison of County Plans: Policy Allocations as of 12/31/2013

County Plan	12/31/2013 : Policy Allocation
Monroe	50% S&P 500; 45% Barclays Intermediate Gov't/Credit; 5% Citigroup 90-Day T-Bill
Bay City	55% S&P 500; 14% MSCI EAFE; 31% Barclays Aggregate
Berrien *	30% Russell 3000; 18% S&P 1500; 9% MSCI ACWI x-US; 6% MSCI EAFE; 20% Barclays Intm Gov't/Credit; 12% Barclays Global Aggregate; 5% 90-Day T-Bill
Genesee	10% S&P 500; 5% S&P MC-400; 15% S&P SC-600; 15% MSCI ACWI x-US; 5% MSCI Emerg Mkts; 30% Barclays Agg; 10% HFRI Macro; 10% NFI-ODCE
Jackson	65% S&P 500; 35% Barclays Intermediate Gov't/Credit
Kent	30% S&P 500; 10% Russell 2500; 20% MSCI ACWI x-US; 32.5% Barclays Universal; 5% NCREIF; 2.5% CPI+7%
Macomb	52% Russell 3000; 15% MSCI EAFE; 12% Barclays Aggregate; 10% NCREIF; 5% HFRI FoF; 5% Private Equity; 1% 90-Day T-Bill
Midland	15% S&P 500; 10% Russell 1000 Value; 15% Russell 2500; 20% MSCI ACWI x-US; 25% Barclays Aggregate; 10% HFRI Macro; 5% NFI-ODCE
Oakland	25% S&P 500; 7.5% Russell Mid-Cap; 7.5% Russell 2000; 15% MSCI ACWI x-US; 30% Barclays Aggregate; 5% JPM Global Gov't Bond; 10% NCREIF
St Clair	10% S&P 500; 10% Russell 1000 Value; 15% Russell 2500; 20% MSCI ACWI x-US; 25% Barclays Aggregate; 7.5% HFRI Macro; 12.5% NFI-ODCE
Washtenaw	25% S&P 500; 10% Russell Mid-Cap; 10% Russell 2000; 10% MSCI EAFE; 30% Barclays Aggregate; 10% NCREIF; 5% HFRI EMN

\* Berrien's Policy Index is as of 12/31/2012

**Total Fund (Gross of Fees) Results & (Public Sponsor) Peer Group Rankings : Periods ending 12/31/2013**

County Plan	Trailing 1-Year		Trailing 2-Years		Trailing 3-Years		Trailing 5-Years	
	Result	Rank	Result	Rank	Result	Rank	Result	Rank
Monroe	12.55	82	10.91	89	6.80	92	9.27	89
Bay	23.5	3	18.3	3	11.7	11	16.0	3
Genesee	13.78	76	13.27	71	9.04	70	12.51	45
Jackson	20.34	16	15.72	28	8.91	72	13.67	21
Kent	18.2	32	16.0	24	11.4	15	12.9	36
Macomb	21.47	9	16.61	17	10.07	43	12.87	36
Midland	12.78	81	13.32	70	8.64	77	15.30	4
Oakland	16.3	49	14.4	49	10.1	42	12.9	36
St Clair	14.85	68	14.33	52	9.28	64	14.19	10
Washtenaw	16.58	46	n/a	n/a	10.09	43	12.04	55
County Plan	Trailing 7-Years		Trailing 10-Years		Trailing 15-Years			
	Result	Rank	Result	Rank	Result	Rank		
Monroe	4.50	87	6.03	89	5.26	84		
Bay	6.7	14	7.4	25	n/a	n/a		
Genesee	4.70	80	6.19	82	5.78	55		
Jackson	5.57	51	6.77	55	n/a	n/a		
Kent	n/a	n/a	7.4	25	n/a	n/a		
Macomb	5.45	56	7.24	32	n/a	n/a		
Midland	6.72	11	7.39	25	6.98	10		
Oakland	n/a	n/a	n/a	n/a	n/a	n/a		
St Clair	5.56	51	6.48	70	4.95	90		
Washtenaw	n/a	n/a	6.14	83	4.95	90		

\* Results for periods greater than 1 year are annualized

**Total Fund (Net of Fees) Results : Periods ending 12/31/2013**

County Plan	Trailing 1-Year	Trailing 2-Years	Trailing 3-Years	Trailing 5-Years	Trailing 7-Years	Trailing 10-Years	Trailing 15-Years
Monroe	11.73	10.24	6.17	8.67	3.88	5.41	
Bay	22.8	17.7	11.2	15.7	6.5	7.3	
Genesee	13.40	12.95	8.75	12.27	4.52	6.05	5.69
Jackson	19.62	15.05	8.30	13.03	4.98	6.23	
Kent	17.7	15.5	11.0	12.4	n/a	6.9	
Macomb	21.22	16.35	9.77	12.55	5.12	6.89	
Midland	11.99	12.50	7.80	14.42	5.95	6.70	6.40
St Clair	14.16	13.85	8.88	13.89	5.32	6.24	4.79

**Total Fund Results : Variance between Gross & Net of Fees : Periods ending 12/31/2013**

County Plan	Trailing 1-Year	Trailing 2-Years	Trailing 3-Years	Trailing 5-Years	Trailing 7-Years	Trailing 10-Years	Trailing 15-Years
Monroe	0.82	0.67	0.63	0.60	0.62	0.62	
Bay	0.7	0.6	0.5	0.3	0.2	0.1	
Genesee	0.38	0.32	0.29	0.24	0.18	0.14	0.09
Jackson	0.72	0.67	0.61	0.64	0.59	0.54	
Kent	0.5	0.5	0.4	0.5	n/a	0.5	
Macomb	0.25	0.26	0.30	0.32	0.33	0.35	
Midland	0.79	0.82	0.84	0.88	0.77	0.69	0.58
St Clair	0.69	0.48	0.40	0.30	0.24	0.24	0.16

\* Results for periods greater than 1 year are annualized

\* Monroe's Net of Fees Total Fund Results were calculated (as per Exhibit 4)

\* Other Counties' Net of Fees Total Fund Results are as published or provided by their Plans

### Comparison of Plan Administration and Costs

County Plan	12/31/2013 Market Value	Plan Administration Staff	Administration Budget	Supervising Department	Number of Plan Beneficiaries	
					Active	Retired/other
Monroe	\$ 189,403,009	1.0	\$60,000	County Library/Reports to Retirement System Chairperson as needed	268	162
Bay	\$ 295,503,588	1.5	N/A	Human Resources	1172	876
Berrien	\$ 163,203,528	*	N/A	County Administrator	834	655
Genesee	\$ 443,638,758	2.0	\$140,000	Controller	793	1657
Jackson	\$ 144,151,959	1.75	N/A	Human Resources	307	801
Kent	\$ 757,005,057	2.0	\$136,000	Human Resources	1605	1417
Macomb	\$ 907,346,000	2.5	N/A	Human Resources	2079	2826
Midland	\$ 55,047,402	*	\$0	County Clerk	131	178
Oakland	\$ 800,084,000	1.0	\$85,000	Personnel Director	461	2083
St Clair	\$ 218,758,173	1.0	\$50,000	Human Resources	803	789
Washtenaw	\$ 245,896,945	2.5**	N/A	Human Resources	1020	939

\* No dedicated full-time or part-time employees. Instead, plan administration duties are shared by various employees in different departments.

\*\* Includes in-house payroll processing/accounting/administration  
Employees work for HR and costs are allocated to the DB based on a recent time study