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## **Introduction**

## OHIO RETIREMENT STUDY COUNCIL

### COMPARATIVE PERFORMANCE STUDY PERIOD ENDING DECEMBER 31, 2010

#### Introduction

Evaluation Associates is pleased to present to the Council the most recent results of our ongoing, semi-annual comparative study of the performance of the six Ohio Statewide funds pursuant to Section 171.04 of the Revised Code. This is the twenty-fourth report we have prepared pursuant to this authority. The purpose of this comparative report is to provide the framework for dialogue with the retirement systems and to assist the Council in meeting its oversight responsibilities. As is our practice, this report reflects investment performance for all of the retirement systems over the ten-year period beginning January 1, 2001 and ending December 31, 2010.

An important value of this type of report is its ability to provide an “apples to apples” comparison of the systems’ investment results. Such a comparison is possible, since all of the systems are subject to the same investment standards and restrictions and have been so from their inception. In light of the fact that rate of return calculations are extremely sensitive to time period differences, it is critical that any comparative study be done with a consistent time frame, as was done in this report.

As is common practice when examining pension fund results we make reference, throughout the report, to such things as quartile rankings and universe comparisons. The universes used for comparative purposes in the body of the report are those of the BNY Mellon Trust Universe Service. The comparisons are formulated by pooling data from a wide range of investment consulting firms and they provide a statistically valid measure of results relative to a large sample.

While the entire measurement period for this report, as mentioned above, is ten years, certain exhibits contained within the report reference shorter periods. When a shorter period is used for comparison purposes it is because that particular exhibit refers to a standard comparative reference period such as the past three or five years.

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 March 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. This allows for responses to changes in the economy and investment markets and reliance on professional investment managers and economic advisors to guide the decision-making

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process. Along with this expansion of investment authority, 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 majority of pension assets, in both the public and private sector, are managed with “prudent person” guidelines, which is to say largely without minimums or maximums placed on individual asset classes or securities. This approach, currently in place in the Ohio systems, is the optimal way to manage fund assets. It gives each fund the ability to develop an asset allocation strategy that is likely to maximize expected return while minimizing risk, all relative to the need to fund future obligations. Such an approach is fully consistent with the primary mandate of any pension fund – management that is in the best interest of plan participants.

Each of the Ohio systems has established separate investment policies and investment programs for their plans. The Ohio State Teachers Retirement System (STRS) manages approximately 80% of total assets internally, Ohio Public Employees Retirement System (PERS) manages approximately 60% of total assets internally, while the OP&F, SERS, and HPRS investment programs employ external managers for 100% of their assets.

As of January 1, 2005, the Public Employees Retirement System (PERS) implemented a new structure for their assets. Approximately \$11 billion was segregated into a new fund (with a separate asset allocation policy) solely for the purpose of funding health care obligations. The policy target (asset allocation) for the remaining pension assets was also modified, reflecting the different risk and return objectives of the newly segregated health care fund. Our report reflects these changes by separating the two PERS asset pools whenever appropriate.

Our findings may be summarized as follows:

- During the third and fourth quarters of 2010, the financial markets rallied with a strong rebound. As a gauge of the marketplace, the Wilshire 5000 finished +24.42% and the MSCI EAFE returned +24.18% for the last two quarters of 2010. The global economic recovery appears to be underway fueled by better-than-expected corporate earnings, mostly favorable economic data and an increase in M&A activity. Clouding the global economic picture was the worsening financial condition of peripheral European countries including Ireland, Portugal and Spain. Despite persistently high U.S. unemployment, investor sentiment also improved. The second round of quantitative easing combined with the passage of the \$858 billion Bush-era tax-cut extension led to an increase in consumer and business spending. Global and domestic equity markets showed strength despite the continuing sovereign debt crisis in Europe. Most segments of the bond market fell but investor interest in higher yielding debt remained strong.

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- The Ohio Statewide fund returns for the six-month period ranged from 18.66% (OP&F) to 15.19% (SERS). Five of six systems outperformed their respective policy index for the six-month period. The best relative performers were SERS (15.19%) and OP&F (18.66%), outperforming their benchmarks by 295 and 211 basis points, respectively. OP&F was the best absolute performer, increasing 18.66% over the last two quarters, and outpacing its benchmark by 211 basis points. SERS rose 15.19% and outperformed its benchmark by 2.95%, PERS DB increased 16.94% and outperformed its benchmark by 90 basis points, PERS HC gained 16.76% and outpaced its benchmark by 25 basis points, STRS increased 16.17% and outperformed its benchmark by three basis points, and HPRS gained 15.82% and trailed its benchmark by 16 basis points.
- In comparison to a broad universe of other public retirement systems (the BNY Mellon All Public Total Fund Universe), OP&F and PERS DB plans ranked in the first quartile for the six-month period ending December 31, 2010. PERS HC, STRS and HPRS ranked in the second quartile, and SERS ranked in the third quartile. OP&F ranked in the 4<sup>th</sup> percentile, PERS DB ranked in the 25<sup>th</sup> percentile, PERS HC ranked in the 26<sup>th</sup> percentile, STRS ranked in the 33<sup>rd</sup> percentile, HPRS ranked in the 41<sup>st</sup> percentile and SERS ranked in the 52<sup>nd</sup> percentile.
- For the one-year period ending December 31, 2010, OP&F (+15.83%) outperformed its benchmark by 322 basis points. SERS (+12.35%) outperformed its benchmark by 197 basis points. PERS DB (+14.01%) outperformed its benchmark by 95 basis points, PERS HC (+13.51%) outperformed its benchmark by 63 basis points, HPRS (+13.60%) outperformed its benchmark by 20 basis points, and STRS (+13.49%) underperformed its benchmark by 10 basis points. Against their peers in the BNY Mellon All Public Total Fund Universe, five of six plans placed above the median, with OP&F placing in the 9<sup>th</sup> percentile among its peers. The remaining five funds placed in the 35<sup>th</sup>, 44<sup>th</sup>, 45<sup>th</sup>, 46<sup>th</sup>, and 62<sup>nd</sup> percentiles (PERS DB, HPRS, PERS HC, STRS and SERS, respectively).
- On a three-year basis, OP&F and PERS DB were the best relative performers, with OP&F leading its benchmark by 53 basis points, and PERS DB lagging its benchmark by one basis point. PERS HC, STRS, SERS and HPRS lagged their benchmarks by 35, 35, 87, and 108 basis points, respectively. Comparing the three-year returns of the systems to the BNY Mellon All Public Total Fund Universe, only one plan ranked above the median. PERS HC ranked in the 20<sup>th</sup> percentile, followed by OP&F, HPRS, PERS DB, STRS and SERS, which ranked in the 61<sup>st</sup>, 65<sup>th</sup>, 69<sup>th</sup>, 83<sup>rd</sup> and 91<sup>st</sup> percentiles, respectively.
- For the five-year period, two of the six systems outpaced their respective policy benchmarks, with OP&F and STRS outperforming their benchmark by 63 and 15 basis points, respectively. In comparison to the BNY Mellon All Public Total Fund Universe, OP&F (+5.24%) ranked in the top quartile, while PERS HC (+4.86%) ranked in the second quartile. PERS DB (+4.39%), STRS (+4.34%) and HPRS (+4.30%) all ranked in the third quartile. SERS (+3.62%) ranked in the fourth quartile of the peer universe.

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- Over the three, five and ten-year periods, all five plans trailed their actuarial interest rate. When compared to each system's respective policy benchmark, all of the five plans outperformed their individual benchmarks. Over the ten-year period, OP&F (+5.60%), STRS (+5.03%), PERS DB (+4.99%), HPRS (+5.09%) and SERS (+4.26%) outperformed their benchmarks by 45, 36, 18, five and two basis points, respectively. Relative to the peer group universe, OP&F, HPRS, STRS, PERS DB and SERS placed in the 17<sup>th</sup>, 42<sup>nd</sup>, 45<sup>th</sup>, 47<sup>th</sup>, and 83<sup>rd</sup> percentiles, respectively over the ten-year period.
- Please note that comparing investment performance relative to the plans' actuarial interest rate and policy benchmark are of primary importance, while peer group comparisons, although useful, should be of secondary importance in the performance evaluation process. In addition, since the plans have long-term funding schedules and investment time horizons, more emphasis should be placed on evaluating performance over longer holding periods.
- During the ten-plus years that we have been reviewing the results of the systems on behalf of the Council, the asset allocation targets have become more similar and are reasonably close to each other. The obvious exception is PERS HC. It is important to note that they have a lower actuarial interest rate target than the others, at 6.7%. The retirement plans all have actuarial return assumptions of 8.00% to 8.25%. As a result, PERS HC has a lower equity and higher fixed income allocation than the retirement plans. This similarity in policy makes comparing one system's results to the other a more meaningful exercise over the more recent time periods. Changes to asset allocation policy during the most recent six-month period by all six plans will likely cause some comparison differences in the near future.
- Appendix 1.1 and 1.2 at the end of this report compares the current and target asset allocation of each of the systems to two public fund universes, the total universe of public funds and the universe of public funds in excess of \$1 billion. The following observations are based on a review of the systems' asset allocation in comparison to those peer universes:
  1. The actual and target asset allocation of HPRS domestic equity ranked above the median plan's allocation to domestic equity (43.34%) in the BNY Mellon All Public Total Fund Universe. For OP&F, the actual domestic (38.94%) and target allocation (36.90%) were below the median. The actual (25.88%) and target (22.50%) allocation of SERS, the actual (35.70%) and target (35.45%) allocation of PERS DB, the actual (30.12%) and target (30.15%) allocation of PERS HC, as well as the actual (38.41%) and target (39.00%) allocation of STRS to domestic equity were all below that of the median plan.
  2. Three of the six systems' actual and target asset allocations to fixed income were well below the median plan (27.25%) of the BNY Mellon All Public Total Fund Universe. PERS HC was the exception with a target (34.00%) and actual allocation

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(32.59%) above the median. The OP&F actual (25.71%) and target (26.10%) allocation, and PERS DB actual (23.76%) and target (25.00%) allocation, were slightly below the median.

3. The median plan allocation of the BNY Mellon All Public Total Fund Universe to non-U.S. equity as of December 31, 2010 was 17.24%. The target allocation for HPRS was slightly below the median at 15.00%, as was its actual allocation of 15.00%. The target allocations for the remaining plans were significantly above the median, with the actual allocations following suit.
  4. The universe median allocation to real estate of the BNY Mellon All Public Total Fund Universe was 5.57% as of December 31, 2010. The target allocation of each of the systems, with the exception of HPRS (5.00%), is above the median allocation. In addition, the HPRS actual allocation (2.74%) was below the median, while the actual allocations for the remaining systems were above.
  5. SERS has actual (22.02%) and target (25.00%) allocations to alternatives well above the peer median of 9.66%. HPRS has actual (18.49%) and target (15.00%) allocations to alternatives also above the median. The remaining plans have lower target allocations to alternative assets.
- Overall, we believe this report provides the ORSC with a consolidated source of valuable information to assist in its oversight of the six Ohio Statewide funds and ensure that investment policies are effectively implemented. While the report does not provide very specific underlying portfolio detail, it does provide the necessary information to allow the ORSC to ask the right questions and act as an early indicator of potential issues that should be delved into in more detail. Any modifications to the report will only serve to enhance that ability.
  - For performance reporting purposes, the asset allocation benchmarks in this report are generally consistent with investment policy asset allocations for all plans. As we previously stated, one of the primary purposes of this report is to provide an accurate representation of plan performance of the Ohio Retirement Systems and to provide an “apples to apples” comparison of the Retirement Systems’ investment results. In order for this performance report to fulfill this purpose, it is necessary that each plan provide accurate information. In light of the increased complexity of the plans’ portfolios, we have divided the “alternative investment” performance table into separate and distinct categories including private equity, hedge funds, and “other.” Footnotes have been added to provide clarity. We will continue to review current performance benchmarking practices and make recommendations to ensure consistent and transparent reporting for all plans in subsequent performance reports.

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- In light of the low investment returns experienced over the past three, five and ten-year year periods, the Systems should continue to re-evaluate investment, funding, and benefits policies. Potential changes to the Boards' long-term investment policies may include further diversification into alternative investments including hedge funds, private equity, commodities, and infrastructure. Changes to funding policies may include raising the contribution rates. Changes to benefits policies may include changes in plan eligibility or plan design. (Please see page 12 for investment returns and actuarial interest rate assumptions.)
- The Systems' investment policies are changing and we will, of course, continue to review any changes and proposed changes to the Systems' investment policies and report them to the ORSC in subsequent performance reports.

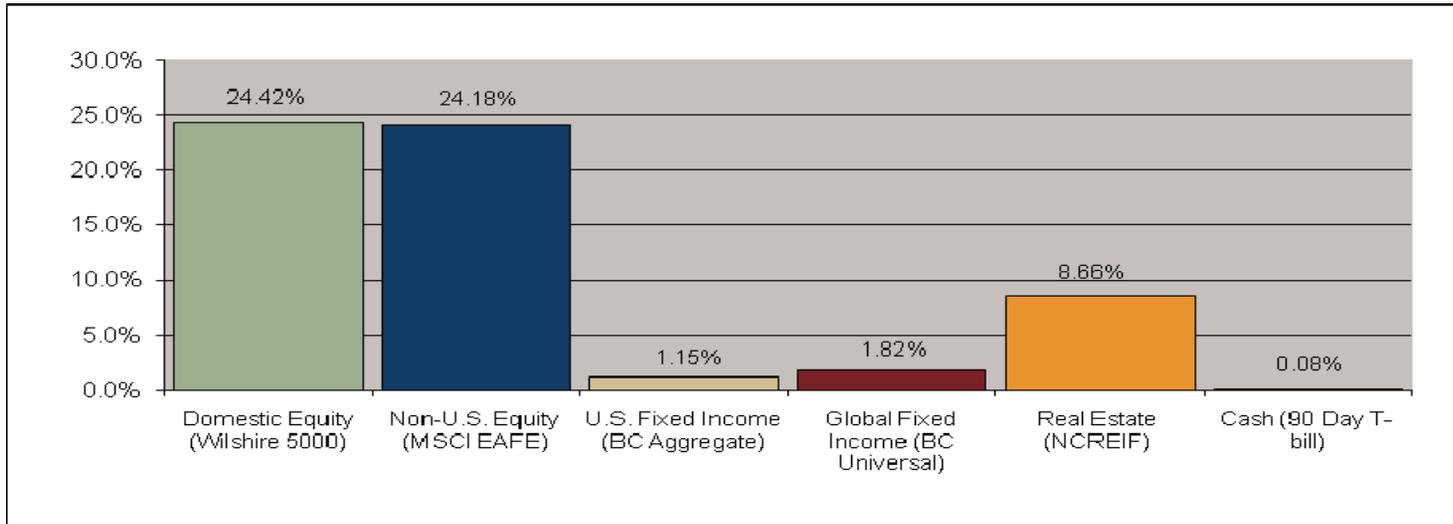


## **Executive Summary**

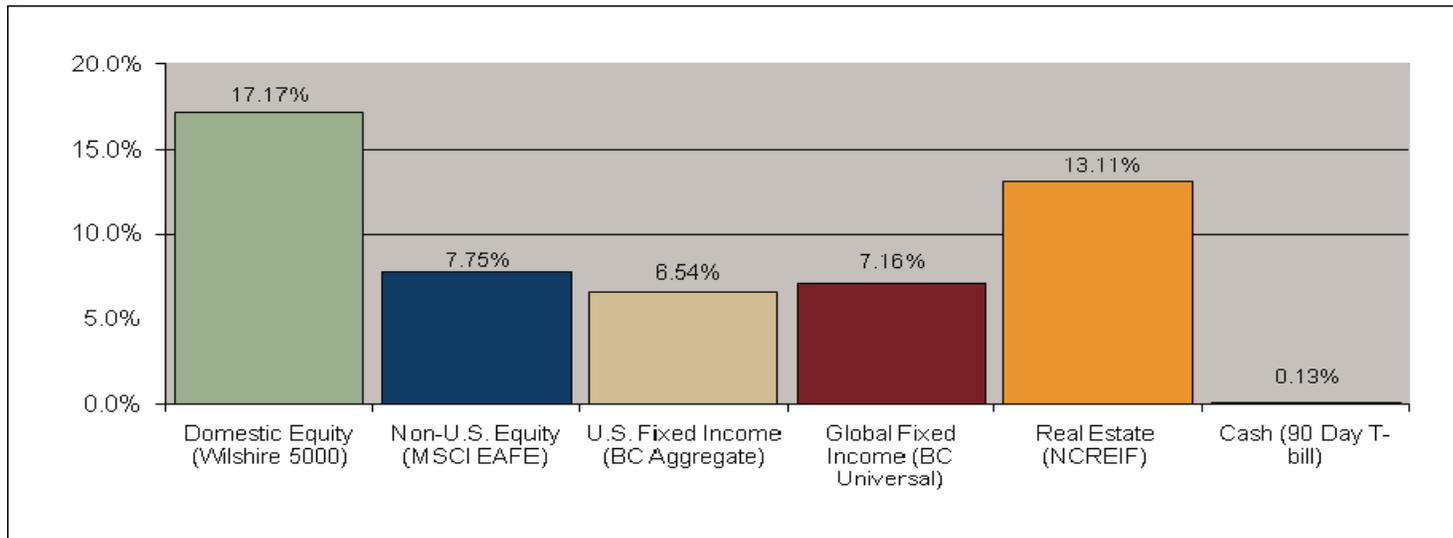
## Market Environment

The past two quarters produced positive investment results for the six major asset classes. The highest return was achieved by US equity (+24.42%), followed by non-US equity (+24.18%), real estate (+8.66%), global fixed income (+1.82%), US fixed income (+1.15%) and cash (+0.08%).

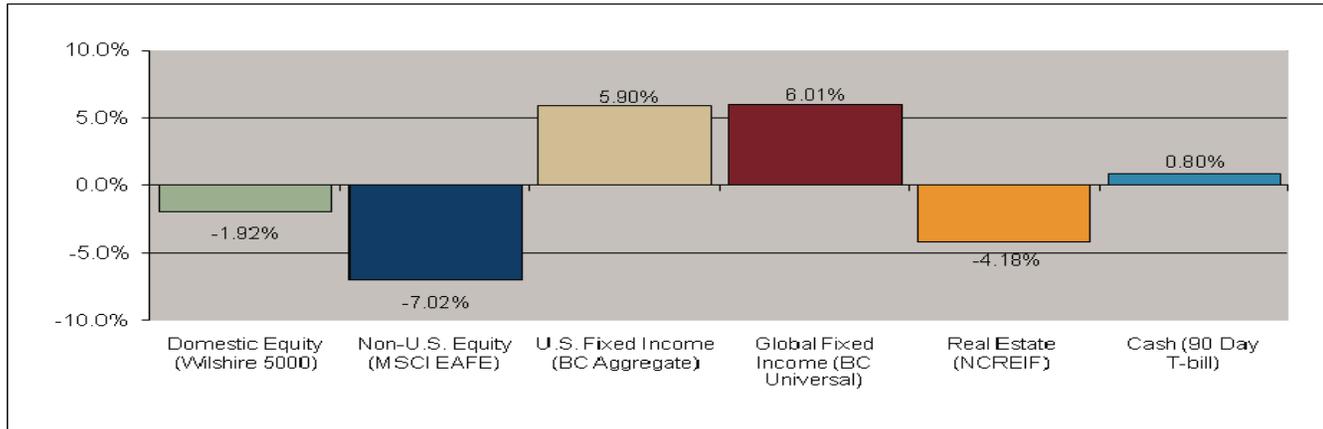
6 Month Chart



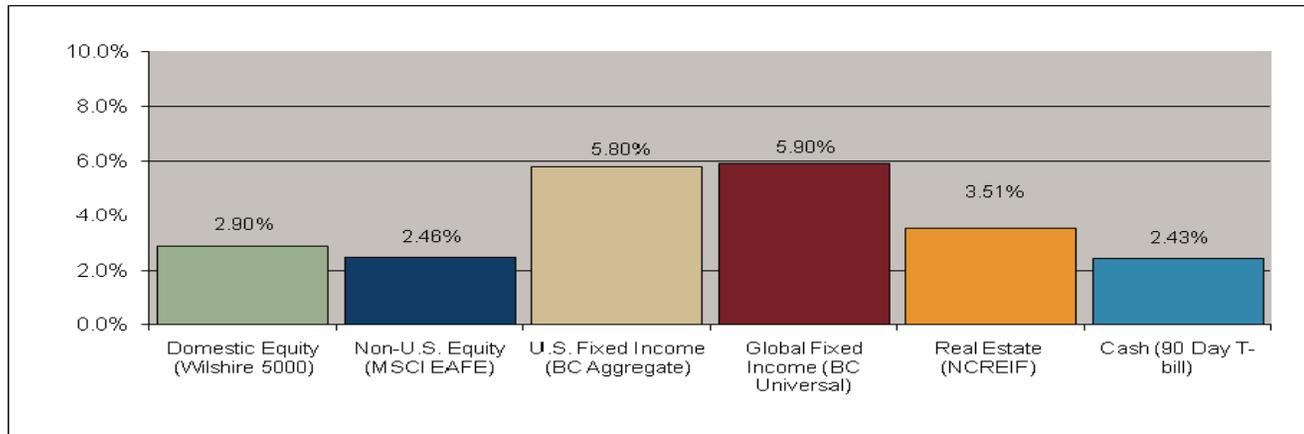
1 Year Chart



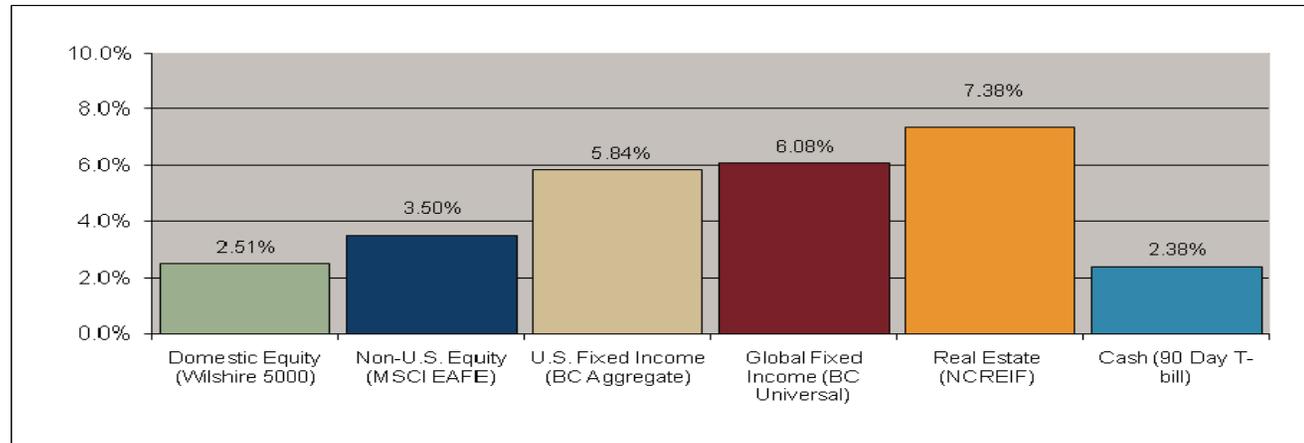
### 3 Year Chart



### 5 Year Chart



### 10 Year Chart



## Median Fund Returns

The median fund in the BNY Mellon public fund database returned 15.28% for the two quarters ending December 31, 2010. A hypothetical fund with a 60% allocation to the Wilshire 5000 and a 40% allocation to the Barclays Capital U.S. Aggregate Index would have returned 14.83% for the two quarters ending December 31, 2010, underperforming the median fund return in the BNY Mellon public fund database.

### Universe Median Performance Summary Periods Ending December 31, 2010

	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>
Fund Sponsor Type					
All Public Fund Universe	15.28%	13.17%	0.47%	4.44%	4.90%
Corporate DB Universe	14.54%	13.54%	0.76%	4.82%	5.01%
Endowment Universe	13.64%	12.59%	-0.36%	4.97%	5.22%
Taft-Hartley Universe	15.03%	12.78%	-0.04%	3.64%	4.17%
All Fund Universe	14.58%	13.12%	0.43%	4.59%	4.87%
60% Wilshire 5000 / 40% BC Aggregate	14.83%	13.37%	1.76%	4.47%	4.22%

## Asset Allocation

- **Comparison of Policy Asset Allocation:**  
A well-diversified asset allocation is the key investment decision that retirement fund Boards make based on risk tolerance, the pension liability structure and the funding policies of each fund. Asset allocation policy varies across funds for this reason.
- **Long-Term Return:**  
The primary objective of investment performance for each fund is to meet or exceed the actuarial interest rate and the respective policy benchmarks over a long-term time period.
- **Total Fund Return vs. Policy Benchmark:**  
Investment returns and the variation or volatility of returns are primarily determined by the policy asset allocation.
- **Peer Rankings:**  
In comparing rankings of fund performance in peer universes, asset allocation differences need to be considered.

### Comparison of Policy Asset Allocation

	US Equity	Intl Equity	Fixed Income	Private / Public Real Estate	Alternative Investment	Cash
PERS (DB)	35.40%	24.50%	25.00%	8.50%	6.50%	0.00%
PERS (HC)	30.20%	27.30%	34.00%	6.00%	2.50%	0.00%
STRS	39.00%	23.00%	19.00%	10.00%	8.00%	1.00%
OP&F	36.90%	23.00%	26.10%	10.00%	4.00%	0.00%
SERS	22.50%	22.50%	19.00%	10.00%	25.00%	1.00%
HPRS	45.00%	15.00%	20.00%	5.00%	15.00%	0.00%
<b>BNYMellon All Public Funds</b>	43.34%	17.24%	27.25%	5.57%	9.66%	2.10%

Note: OP&F has 7.1% allocated to a portable alpha strategy, which includes Hedge Funds, in the U.S. Equity allocation.

- As seen in the table above, the asset allocation targets for the various systems are fairly similar. All plans are equity-oriented, with exposure to this asset class ranging from 62.0% (STRS) to 45.0% (SERS).

### Asset Allocation – Alternatives

As of December 31<sup>st</sup>, the Ohio plans had the following allocations to alternative investments:

- PERS DB: 5.3% Private Equity, 1.3% Hedge Funds, 0.0% Tactical Asset Allocation strategy.
- PERS HC: 0.2% Private Equity, 1.3% Hedge Funds, 0.9% Commodities.
- STRS: 5.7% Private Equity, 1.8% Opportunistic – includes PPIP, Distressed Debt, Energy Funds, FDIC-Assisted Bank Investments and Hedge Funds (0.6% of total assets).
- OP&F: 3.4% Private Equity. There is 7.1% allocated to a portable alpha strategy, which includes Hedge Funds, in the U.S. Equity allocation.
- SERS: 9.2% Private Equity, 12.8% Hedge Funds.
- HPRS: 10.4% Private Equity (including 5.6% Timberland), 8.0% Hedge Funds.

## Evaluating Funds

- The most appropriate benchmark for evaluating the performance of each of the Ohio funds is the blended index contained in their respective investment policy statements. The investment policy statement contains information about the investment objectives and investment constraints that are specific to each fund.
- There are two investment objectives: (1) a return that meets the actuarial rate of return assumption, and (2) the amount of risk the fund is willing and able to tolerate. These objectives are constrained by time horizon, liquidity needs, and government regulations.
- Performance of each of the Ohio funds should first be measured against each fund's own policy benchmark return (the return of the specified target policy mix), and secondarily, against the peer group.
- The investment policy statement guides the funds' asset allocation decisions. Asset allocation is very important because some studies show that, on average, over 90% of the variance in returns is explained by this decision alone. Therefore, Ohio fund returns should be compared against returns from organizations with similar asset allocations.
- A comparison of the returns of the Ohio funds against one another is a valid exercise. It must be done, however, while keeping in mind any differences in the individual funds' policy allocations and the level of risk tolerance implied by those allocations.

## Total Fund Returns

The table below displays total fund results for all of the systems, comparing each fund's return to its own benchmark return. The tables that follow repeat the same comparison on an individual asset class basis.

<b>Total Fund Return vs. Policy Benchmark</b>											
<u>Fund</u>	<u>Two Quarters</u>	<u>Rank</u>	<u>One Year</u>	<u>Rank</u>	<u>Three Years</u>	<u>Rank</u>	<u>Five Years</u>	<u>Rank Rank</u>	<u>Ten Years</u>	<u>Rank</u>	<u>Actuarial Interest Rate</u>
<b>PERS (DB)</b>											
Actual	16.94%	25	14.01%	35	-0.35%	69	4.39%	53	4.99%	47	8.00%
Policy	16.04%		13.06%		-0.34%		4.40%		4.81%		
Difference	0.90%		0.95%		-0.01%		-0.01%		0.18%		
<b>PERS (HC)</b>											
Actual	16.76%	26	13.51%	45	1.69%	20	4.86%	31	N/A	N/A	6.70%
Policy	16.51%		12.88%		2.04%		5.16%		N/A		
Difference	0.25%		0.63%		-0.35%		-0.30%		N/A		
<b>STRS</b>											
Actual	16.17%	33	13.49%	46	-1.31%	83	4.34%	55	5.03%	45	8.00%
Policy	16.14%		13.59%		-0.96%		4.19%		4.67%		
Difference	0.03%		-0.10%		-0.35%		0.15%		0.36%		
<b>OP&amp;F</b>											
Actual	18.66%	4	15.83%	9	0.21%	61	5.24%	18	5.60%	17	8.25%
Policy	16.55%		12.61%		-0.32%		4.61%		5.15%		
Difference	2.11%		3.22%		0.53%		0.63%		0.45%		
<b>SERS</b>											
Actual	15.19%	52	12.35%	62	-1.88%	91	3.62%	84	4.26%	83	8.00%
Policy	12.24%		10.38%		-1.01%		4.07%		4.24%		
Difference	2.95%		1.97%		-0.87%		-0.45%		0.02%		
<b>HPRS</b>											
Actual	15.82%	41	13.60%	44	-0.09%	65	4.30%	57	5.09%	42	8.00%
Policy	15.98%		13.40%		0.99%		5.09%		5.04%		
Difference	-0.16%		0.20%		-1.08%		-0.79%		0.05%		

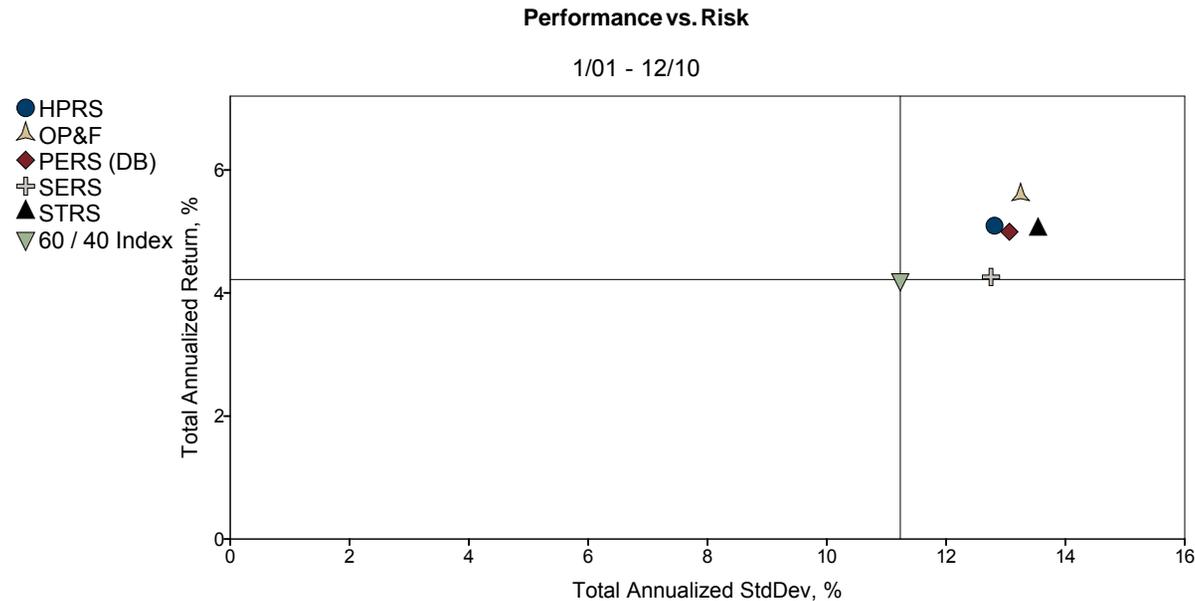
All total fund returns are reported gross of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Rankings are derived from placement in the BNY Mellon All Public Total Fund Universe.

Differences may exist due to rounding.

- PERS (DB): The return for the total fund for the two quarters ending December 31, 2010 outperformed its policy index by 90 basis points, and exceeded its benchmark by 95 basis points for the one-year period. Over both the trailing three- and 5-year periods, the total fund trailed its policy index by one basis point.
- PERS (HC): The total fund outperformed its policy index by 0.25% for the two quarters ending December 31, 2010, and outpaced its policy index by 63 basis points for the past year. Over the trailing five-year period, the total fund underperformed its policy index by 30 basis points.
- STRS: The return for the total fund for the two quarters ending December 31, 2010 outperformed its policy index by 0.03%, but lagged its policy index by 0.10% for the one-year period. Over the trailing five-year period, the fund outperformed its policy index by 15 basis points.
- OP&F: OP&F outperformed its policy index by 2.11% for the two quarters ending December 31, 2010 and exceeded its policy benchmark by 3.22% for the trailing one-year period. The total fund also outperformed its policy index over the five-year period, by 63 basis points.
- SERS: The total fund outperformed its policy index by 2.95% for the two quarters ending December 31, 2010, and exceeded the benchmark by 1.97% for the past 12 months. The fund underperformed its policy index over the five-year period by 45 basis points.
- HPRS: The total fund underperformed its policy index for the two quarters ending December 31, 2010 by 0.16%. For the trailing one-year period, the total fund outperformed its policy index by 20 basis points. For the trailing five-year period, the total fund underperformed its policy index by 79 basis points.

## Total Plans Risk Analysis - Last 10 Years Performance Overview For Period Ending 12/31/10



	Annualized Return, %	Annualized StdDev, %	MPT Statistics
	Total	Total	Sharpe Ratio
HPRS	5.09	12.81	0.27
OP&F	5.60	13.25	0.30
PERS (DB)	4.99	13.06	0.26
SERS	4.26	12.75	0.20
STRS	5.03	13.54	0.25
60 / 40 Index	4.22	11.23	0.21

The graph above provides a risk analysis. The ten-year results are displayed in the risk return space. The vertical axis shows the fund's return and the horizontal axis shows the fund's risk (defined as annualized quarterly standard deviation of returns) for the period. This analysis allows us to measure performance on a risk return basis. OP&F generated the highest risk-adjusted annualized returns over the ten-year period (as measured by the Sharpe Ratio), followed by HPRS, PERS DB, STRS and SERS. STRS and OP&F exhibited marginally higher risk (volatility) while SERS had the lowest risk among all plans. The Sharpe Ratio provides a good tool for analysis. The number alone is not particularly meaningful, but when comparing two or more funds as is the case in this study, the higher Sharpe Ratio is the better risk-adjusted return.

\*Benchmark shown above may not be specific to the Plan's current policy.

## Domestic Equity Returns

Domestic Equity Return vs. Policy Benchmark						
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>	
<b>PERS (DB)</b>						
Actual	24.53%	16.68%	-2.27%	2.42%	2.24%	
Policy	24.46%	16.92%	-2.01%	2.76%	2.27%	
Difference	0.07%	-0.24%	-0.26%	-0.34%	-0.03%	
<b>PERS (HC)</b>						
Actual	24.53%	16.68%	-2.27%	2.42%	N/A	
Policy	24.46%	16.92%	-2.01%	2.76%	N/A	
Difference	0.07%	-0.24%	-0.26%	-0.34%	N/A	
<b>STRS</b>						
Actual	24.73%	16.64%	-2.40%	2.45%	1.98%	
Policy	24.46%	16.93%	-2.01%	2.74%	2.21%	
Difference	0.27%	-0.29%	-0.39%	-0.29%	-0.23%	
<b>OP&amp;F*</b>						
Actual	27.08%	22.43%	0.26%	4.04%	3.64%	
Policy	24.42%	17.17%	-1.91%	2.90%	2.50%	
Difference	2.66%	5.26%	2.17%	1.14%	1.14%	
<b>SERS</b>						
Actual	25.82%	18.69%	-1.79%	2.41%	2.05%	
Policy	24.46%	16.93%	-2.02%	2.74%	2.16%	
Difference	1.36%	1.76%	0.23%	-0.33%	-0.11%	
<b>HPRS</b>						
Actual	24.96%	20.87%	-0.25%	3.73%	4.11%	
Policy	25.13%	18.83%	-1.11%	3.17%	3.29%	
Difference	-0.17%	2.04%	0.86%	0.56%	0.82%	

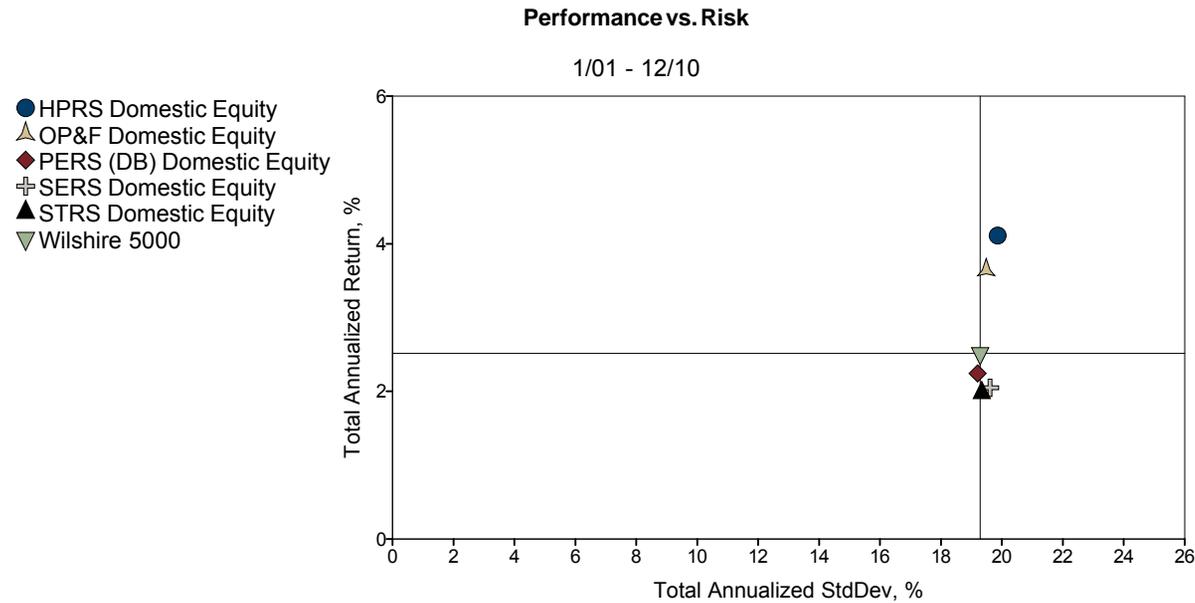
All domestic equity returns are reported gross of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

\* A portable alpha strategy, which includes Hedge Funds, is incorporated in the U.S. Equity composite.

Domestic equity returns were positive for the two quarters ending December 31, 2010. OP&F (+27.08%) generated the highest absolute return for the period, followed by SERS (+25.82%). Over the trailing year, OP&F led performance (+22.43%) on an both absolute basis and a relative basis. Over the three-year period, OP&F (+0.26%) also generated the highest absolute and relative return.

## Domestic Equity Risk Analysis - Last 10 Years Performance Overview For Period Ending 12/31/10



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
HPRS Domestic Equity	4.11	19.86	0.18	1.60	2.29	0.70
OP&F Domestic Equity	3.64	19.48	0.16	1.13	1.91	0.59
PERS (DB) Domestic Equity	2.24	19.21	0.09	-0.27	0.73	-0.37
SERS Domestic Equity	2.05	19.61	0.08	-0.46	0.99	-0.47
STRS Domestic Equity	1.98	19.34	0.08	-0.53	0.89	-0.60
Wilshire 5000	2.51	19.29	0.10	0.00	0.00	NA

The analysis above represents a risk/return of the domestic equity portfolios for all of the plans. HPRS experienced the highest risk-adjusted equity results over the annualized ten-year period (as measured by the Sharpe Ratio), followed by OP&F, PERS DB, SERS and STRS.

\*Benchmark shown above may not be specific to the Plan's current policy.

## Fixed Income Returns

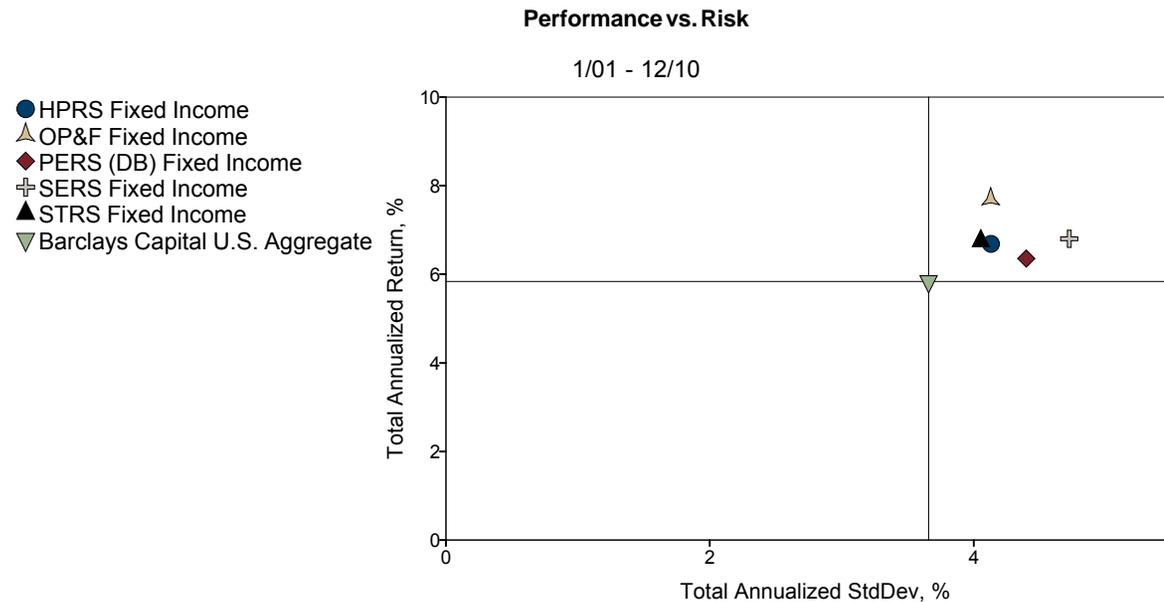
Fixed Income Return vs. Policy Benchmark					
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>
<b>PERS (DB)</b>					
Actual	2.94%	10.83%	6.27%	6.04%	6.35%
Policy	2.79%	10.36%	7.12%	6.62%	6.50%
Difference	0.15%	0.47%	-0.85%	-0.58%	-0.15%
<b>PERS (HC)</b>					
Actual	3.48%	8.90%	4.53%	4.85%	N/A
Policy	3.11%	8.03%	5.82%	5.82%	N/A
Difference	0.37%	0.87%	-1.29%	-0.97%	N/A
<b>STRS</b>					
Actual	2.30%	7.70%	7.17%	6.74%	6.75%
Policy	1.82%	7.16%	6.01%	5.90%	6.08%
Difference	0.48%	0.54%	1.16%	0.84%	0.67%
<b>OP&amp;F</b>					
Actual	6.87%	12.76%	8.94%	7.73%	7.70%
Policy	1.15%	6.54%	5.90%	5.80%	5.83%
Difference	5.72%	6.22%	3.04%	1.93%	1.87%
<b>SERS</b>					
Actual	3.93%	10.07%	8.05%	7.02%	6.80%
Policy	1.15%	6.54%	5.90%	5.80%	5.83%
Difference	2.78%	3.53%	2.15%	1.22%	0.97%
<b>HPRS</b>					
Actual	2.45%	7.70%	6.42%	6.30%	6.69%
Policy	1.17%	6.56%	5.91%	5.79%	5.83%
Difference	1.28%	1.14%	0.51%	0.51%	0.86%

All fixed income returns are reported gross of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

For two quarters ending December 31, 2010, OP&F (+6.87%) had the highest returns for fixed income. Over the trailing year, OP&F (+12.76%) and PERS DB (+10.83%) experienced the highest absolute returns. Over the trailing three-year period, OP&F (+8.94%) and SERS (+8.05%) led all plans on an absolute basis.

## Fixed Income Risk Analysis - Last 10 Years Performance Overview For Period Ending 12/31/10



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
HPRS Fixed Income	6.69	4.13	0.99	0.85	2.40	0.36
OP&F Fixed Income	7.70	4.13	1.19	1.86	3.58	0.52
PERS (DB) Fixed Income	6.35	4.40	0.87	0.52	2.13	0.24
SERS Fixed Income	6.80	4.73	0.88	0.97	3.40	0.28
STRS Fixed Income	6.75	4.05	1.02	0.91	2.92	0.31
Barclays Capital U.S. Aggregate	5.84	3.66	0.92	0.00	0.00	NA

The analysis above represents the risk return comparison of the domestic fixed income portfolios for all of the plans. OP&F experienced the highest risk-adjusted fixed income results over the annualized ten-year period (as measured by the Sharpe Ratio), followed by STRS, HPRS, SERS and PERS DB.

\*Benchmark shown above may not be specific to the Plan's current policy.

## International Equity Returns

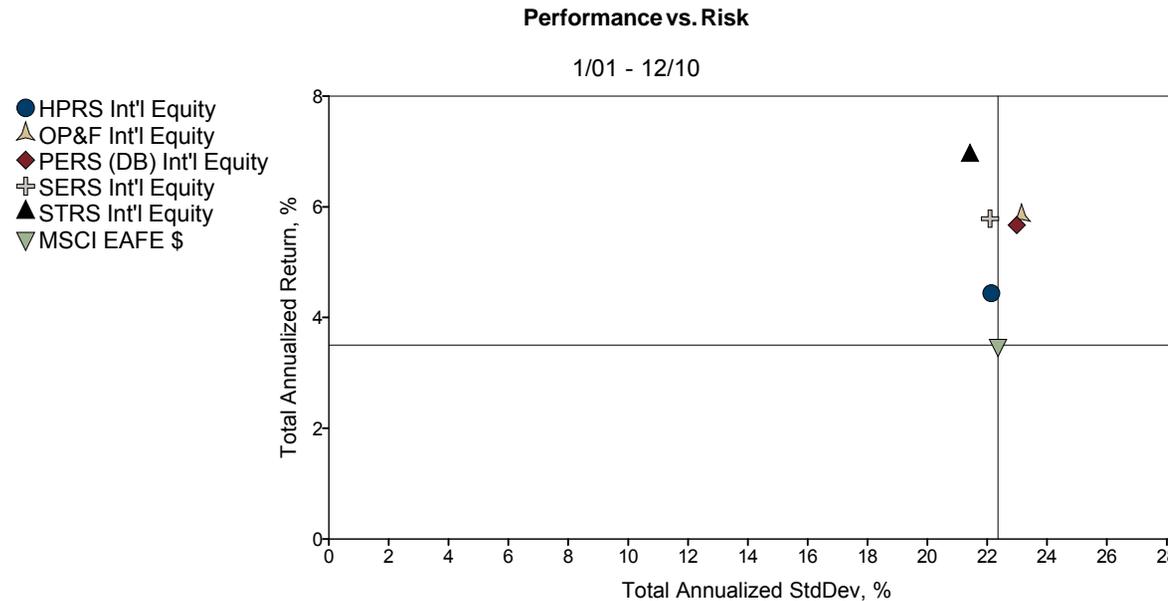
International Equity Return vs. Policy Benchmark					
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>
<b>PERS (DB)</b>					
Actual	24.77%	12.33%	-5.01%	4.86%	5.67%
Policy	24.97%	11.14%	-5.03%	4.84%	5.56%
Difference	-0.20%	1.19%	0.02%	0.02%	0.11%
<b>PERS (HC)</b>					
Actual	24.76%	12.34%	-5.01%	4.88%	N/A
Policy	24.97%	11.14%	-5.03%	4.84%	N/A
Difference	-0.21%	1.20%	0.02%	0.04%	N/A
<b>STRS</b>					
Actual	21.74%	12.17%	-4.05%	4.91%	6.92%
Policy	20.79%	10.04%	-4.90%	4.23%	5.61%
Difference	0.95%	2.13%	0.85%	0.68%	1.31%
<b>OP&amp;F</b>					
Actual	26.19%	15.11%	-4.46%	6.17%	5.84%
Policy	24.97%	11.15%	-5.03%	4.82%	5.55%
Difference	1.22%	3.96%	0.57%	1.35%	0.29%
<b>SERS</b>					
Actual	22.13%	13.75%	-4.08%	5.32%	5.78%
Policy	21.17%	10.81%	-4.41%	4.40%	4.71%
Difference	0.96%	2.94%	0.33%	0.92%	1.07%
<b>HPRS</b>					
Actual	25.49%	11.21%	-5.29%	4.59%	4.44%
Policy	25.13%	11.61%	-4.58%	5.17%	4.86%
Difference	0.36%	-0.40%	-0.71%	-0.58%	-0.42%

All international equity returns are reported gross of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

On an absolute basis, as of December 31, 2010, OP&F (+26.19%) had the highest absolute return for the two quarters for international equity, and highest relative performance as well, gaining 1.22% against its benchmark. Over the one-year period also, OP&F (+15.11%) led the group, and had the best absolute and relative performance. Over the three-year period, STRS (-4.05%) had the highest absolute returns, as well as the best relative performance, gaining 0.85% against its benchmark.

## International Equity Risk Analysis - Last 10 Years Performance Overview For Period Ending 12/31/10



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
HPRS Int'l Equity	4.44	22.14	0.20	0.94	2.78	0.34
OP&F Int'l Equity	5.84	23.14	0.26	2.34	3.50	0.67
PERS (DB) Int'l Equity	5.67	22.99	0.25	2.17	2.47	0.88
SERS Int'l Equity	5.78	22.09	0.26	2.28	4.73	0.48
STRS Int'l Equity	6.92	21.43	0.31	3.42	4.74	0.72
MSCI EAFE \$	3.50	22.36	0.16	0.00	0.00	NA

The analysis above represents a risk/return comparison of the international equity portfolios for all of the plans. All plans have demonstrated risk-adjusted results (as measured by their Sharpe Ratios) greater than the non-U.S. equity market as defined by the MSCI EAFE index, over the annualized ten-year period. Over this period, STRS had the highest risk-adjusted returns, followed by OP&F, SERS, PERS DB and HPRS, as measured by their Sharpe Ratios.

\*Benchmark shown above may not be specific to the Plan's current policy.

## Real Estate Returns

Real Estate Return vs. Policy Benchmark						
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>	
<b>PERS (DB)</b>						
Actual	8.20%	6.59%	-7.16%	1.75%	N/A	
Policy	7.30%	5.83%	-5.62%	2.57%	N/A	
Difference	0.90%	0.76%	-1.54%	-0.82%	N/A	
<b>PERS (DB) "Public Markets Only"</b>						
Actual	22.48%	29.51%	0.25%	2.47%	N/A	
Policy	21.88%	28.47%	-0.09%	2.16%	N/A	
Difference	0.60%	1.04%	0.34%	0.31%	N/A	
<b>PERS (HC) "Public Markets Only"</b>						
Actual	22.48%	29.51%	0.25%	2.48%	N/A	
Policy	21.88%	28.47%	-0.09%	2.16%	N/A	
Difference	0.60%	1.04%	0.34%	0.32%	N/A	
<b>STRS</b>						
Actual	8.23%	9.98%	-6.69%	5.69%	9.73%	
Policy	10.66%	15.47%	-2.41%	4.03%	7.85%	
Difference	-2.43%	-5.49%	-4.28%	1.66%	1.88%	
<b>OP&amp;F</b>						
Actual	10.28%	4.86%	-12.43%	0.51%	6.99%	
Policy	7.30%	5.83%	-4.62%	3.67%	6.26%	
Difference	2.98%	-0.97%	-7.81%	-3.16%	0.73%	
<b>SERS</b>						
Actual	15.22%	8.20%	-12.69%	-1.90%	4.10%	
Policy	7.30%	5.31%	-3.60%	3.63%	7.76%	
Difference	7.92%	2.89%	-9.09%	-5.53%	-3.66%	
<b>HPRS</b>						
Actual	3.02%	-3.40%	-14.66%	-4.28%	2.15%	
Policy	8.66%	13.11%	-4.18%	3.51%	7.38%	
Difference	-5.64%	-16.51%	-10.48%	-7.79%	-5.23%	

All real estate returns are reported gross of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

For the real estate returns for the two quarters ending December 31, 2010, SERS had the highest returns, gaining 15.22% and OP&F (+10.28%) had the second highest performance. STRS (+9.98%) outperformed all other plans for the one-year period, followed by SERS (+8.20%). STRS and PERS DB had the highest absolute performance over a three-year period, falling -6.69% and -7.16%, respectively.

For the two quarters ending December 31, 2010, the REIT portfolios for the PERS DB and PERS HC plans gained 22.48%, and 29.51% for the year.

## Private Equity Returns

Private Equity Return vs. Policy Benchmark						
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>	
<b>PERS (DB)</b>						
Actual	11.54%	21.20%	0.66%	9.05%	8.94%	
Policy	0.32%	14.21%	-3.79%	3.96%	2.25%	
Difference	11.22%	6.99%	4.45%	5.09%	6.69%	
<b>PERS (HC)</b>						
Actual	1.02%	-5.39%	N/A	N/A	N/A	
Policy	0.32%	14.21%	N/A	N/A	N/A	
Difference	0.70%	-19.60%	N/A	N/A	N/A	
<b>STRS</b>						
Actual	6.55%	17.84%	-0.62%	7.67%	4.97%	
Policy	26.27%	20.44%	0.98%	5.86%	5.26%	
Difference	-19.72%	-2.60%	-1.60%	1.81%	-0.29%	
<b>OP&amp;F</b>						
Actual	4.86%	12.57%	-0.94%	8.52%	0.27%	
Policy	0.53%	14.44%	-3.58%	4.50%	4.45%	
Difference	4.33%	-1.87%	2.64%	4.02%	-4.18%	
<b>SERS</b>						
Actual	5.42%	12.32%	-0.07%	6.03%	-3.13%	
Policy	0.95%	13.16%	-4.13%	3.67%	3.36%	
Difference	4.47%	-0.84%	4.06%	2.36%	-6.49%	
<b>HPRS</b>						
Actual	3.95%	7.41%	1.17%	N/A	N/A	
Policy	0.64%	4.09%	5.69%	N/A	N/A	
Difference	3.31%	3.32%	-4.52%	N/A	N/A	

All private equity returns are reported net of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

For the two quarters ending December 31, 2010, PERS DB (+11.54%) had the highest absolute and relative return for private equity. For the one-year period PERS DB also had the highest absolute and relative return (+21.20%), significantly exceeding its benchmark. For the trailing three-year period, HPRS (+1.17) had the highest absolute performance, while PERS DB had the highest relative performance (+0.66%).

## Hedge Fund Returns

Hedge Fund Returns vs. Policy Benchmark						
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>	
<b>PERS (DB)</b>						
Actual	10.94%	26.08%	6.50%	N/A	N/A	
Policy	2.15%	4.30%	6.41%	N/A	N/A	
Difference	8.79%	21.78%	0.09%	N/A	N/A	
<b>PERS (HC)</b>						
Actual	10.93%	26.07%	N/A	N/A	N/A	
Policy	2.15%	4.30%	N/A	N/A	N/A	
Difference	8.78%	21.77%	N/A	N/A	N/A	
<b>STRS*</b>						
Actual	8.35%	3.96%	-0.44%	9.23%	N/A	
Policy	6.98%	5.67%	-2.53%	2.42%	N/A	
Difference	1.37%	-1.71%	2.09%	6.81%	N/A	
<b>SERS</b>						
Actual	6.40%	8.40%	N/A	N/A	N/A	
Policy	6.87%	6.54%	N/A	N/A	N/A	
Difference	-0.47%	1.86%	N/A	N/A	N/A	
<b>HPRS</b>						
Actual	6.65%	7.43%	1.55%	N/A	N/A	
Policy	6.98%	5.70%	-2.53%	N/A	N/A	
Difference	-0.33%	1.73%	4.08%	N/A	N/A	

All hedge fund returns are reported net of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

\* STRS Hedge fund allocation is included in the opportunistic composite as well. As on 12/31/2010, hedge funds accounted for 0.6% of total plan assets.

For the two quarters ending December 31, 2010, PERS DB (+10.94%) had the highest absolute and relative return, followed by PERS HC (+10.93), and STRS (+8.35%). For the one-year period, PERS DB had the highest absolute and relative return (+26.08%).

## Opportunistic Returns

Opportunistic Returns vs. Policy Benchmark						
<u>Fund</u>	<u>Two Quarters</u>	<u>One Year</u>	<u>Three Years</u>	<u>Five Years</u>	<u>Ten Years</u>	
<b>PERS (DB)*</b>						
Actual	40.17%	23.76%	N/A	N/A	N/A	
Policy	0.08%	-4.01%	N/A	N/A	N/A	
Difference	40.09%	27.77%	N/A	N/A	N/A	
<b>PERS (HC)**</b>						
Actual	18.64%	6.81%	N/A	N/A	N/A	
Policy	22.79%	9.03%	N/A	N/A	N/A	
Difference	-4.15%	-2.22%	N/A	N/A	N/A	
<b>STRS***</b>						
Actual	7.06%	16.01%	N/A	N/A	N/A	
Policy	23.86%	15.78%	N/A	N/A	N/A	
Difference	-16.80%	0.23%	N/A	N/A	N/A	

All opportunistic returns are reported net of fees.

All returns are for periods ending 12/31/2010. Returns for periods longer than one year are annualized. Differences may exist due to rounding.

\* PERS DB: Tactical Asset Allocation; underlying managers are utilized for asset allocation and alpha generation.

\*\* PERS HC: Commodities allocation.

\*\*\* STRS: Includes PPIP, Distressed Debt, Energy Funds, FDIC-Assisted Bank Investments and Hedge Funds (Hedge Funds account for 0.6% of total assets in the Plan).

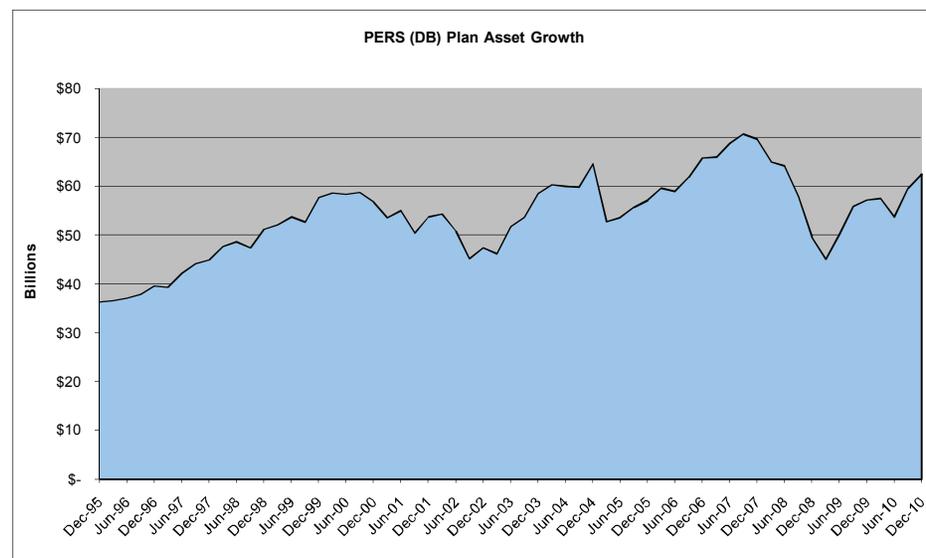


**Public Employees Retirement System (PERS)  
Defined Benefit Plan & Health Care Plan (DB & HC)**

# Public Employees Retirement System

## Defined Benefit Plan

PERS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	24.53%	16.68%	-2.27%	2.42%	2.24%
Benchmark	24.46%	16.92%	-2.01%	2.76%	2.27%
Difference	0.07%	-0.24%	-0.26%	-0.34%	-0.03%
<b>Fixed Income</b>					
Actual	2.94%	10.83%	6.27%	6.04%	6.35%
Benchmark	2.79%	10.36%	7.12%	6.62%	6.50%
Difference	0.15%	0.47%	-0.85%	-0.58%	-0.15%
<b>Intl. Equity</b>					
Actual	24.77%	12.33%	-5.01%	4.86%	5.67%
Benchmark	24.97%	11.14%	-5.03%	4.84%	5.56%
Difference	-0.20%	1.19%	0.02%	0.02%	0.11%
<b>Real Estate</b>					
Actual	8.20%	6.59%	-7.16%	1.75%	N/A
Benchmark	7.30%	5.83%	-5.62%	2.57%	N/A
Difference	0.90%	0.76%	-1.54%	-0.82%	N/A
<b>REITS (Public)</b>					
Actual	22.48%	29.51%	0.25%	2.47%	N/A
Benchmark	21.88%	28.47%	-0.09%	2.16%	N/A
Difference	0.60%	1.04%	0.34%	0.31%	N/A
<b>Private Equity</b>					
Actual	11.54%	21.20%	0.66%	9.05%	8.94%
Benchmark	0.32%	14.21%	-3.79%	3.96%	2.25%
Difference	11.22%	6.99%	4.45%	5.09%	6.69%
<b>Hedge Funds</b>					
Actual	10.94%	26.08%	6.50%	N/A	N/A
Benchmark	2.15%	4.30%	6.41%	N/A	N/A
Difference	8.79%	21.78%	0.09%	N/A	N/A



Note: Defined Benefit and Health Care plan assets were segregated on January 1, 2005.

### Asset Mix

	Actual December 31, 2010	Target	Difference
US Equity	35.7%	35.5%	0.2%
Intl. Equity	25.4%	24.5%	0.9%
Alternative Assets*	6.7%	6.5%	0.2%
Total Equity	67.8%	66.5%	1.3%
Fixed Income	23.8%	25.0%	-1.2%
Real Estate	8.3%	8.5%	-0.2%
Short Term Investments	0.2%	0.0%	0.2%
Total Debt	32.2%	33.5%	-1.3%
	100.0%	100.0%	0.0%

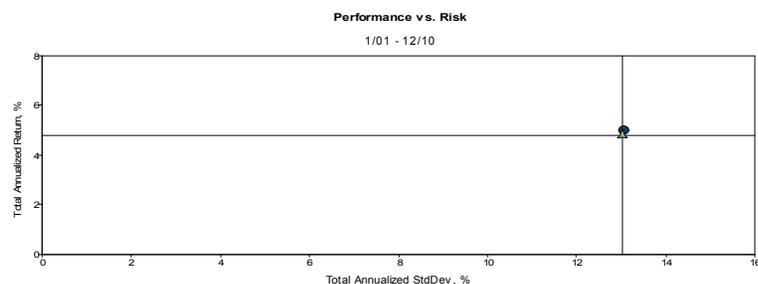
\*Alternative assets include Private Equity, Hedge Funds and Tactical Asset Allocation segments.

An allocation of 23.8% to total fixed income consists of 12.6% (core fixed income), 5.1% (high yield), and 6.1% (long duration).

An allocation of 8.3% to real estate consists of 8.2% (private real estate) and 0.1% (REITs).

### Characteristic Data

Assets at	12/31/2010	\$	62,546,872,015
Actuarial Interest Rate:			8.00%
Investment Staff Size:			56



● PERS (DB) ▲ PERS (DB) Policy Index

	Annualized Return, %	Annualized StdDev, %	MPT Statistics Sharpe Ratio	Annualized Return, % Excess	Annualized StdDev, % Excess	Information Ratio
PERS (DB)	4.99	13.06	0.26	0.19	0.73	0.26
PERS (DB) Policy Index	4.81	13.04	0.24	0.00	0.00	NA

# Public Employees Retirement System

## Defined Benefit Plan - Performance Overview

Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	16.94	14.01	-0.35	4.39	4.99
Policy Index	16.04	13.06	-0.34	4.40	4.81
Domestic Equity	24.53	16.68	-2.27	2.42	2.24
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71	2.88
Wilshire 5000	24.42	17.17	-1.92	2.90	2.51
International Equity	24.77	12.33	-5.01	4.86	5.67
International Equity Segment Median	25.20	12.33	-5.16	4.64	5.81
MSCI EAFE	24.18	7.75	-7.02	2.46	3.50
Fixed Income	2.94	10.83	6.27	6.04	6.35
Fixed Income Segment Median	2.26	8.11	6.15	5.88	6.01
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80	5.84
Cash	0.15	0.97	1.32	2.90	2.61
Real Estate	8.20	6.59	-7.16	1.75	NA
NCREIF	8.66	13.11	-4.18	3.51	NA
Public Real Estate	22.48	29.51	0.25	2.47	NA
Wilshire Resi Full Cap	22.51	29.12	0.13	2.32	10.34
Private Equity	11.54	21.20	0.66	9.05	8.94
Hedge Funds	10.94	26.08	6.50	NA	NA
Tactical Asset Allocation**	40.17	23.76	NA	NA	NA

Over the past ten-year period, the PERS Defined Benefit Plan outperformed its policy index by 18 basis points. Strong performance in non-U.S. equity aided relative results. For the more recent one-year period, the plan outperformed the policy benchmark by 95 basis points.

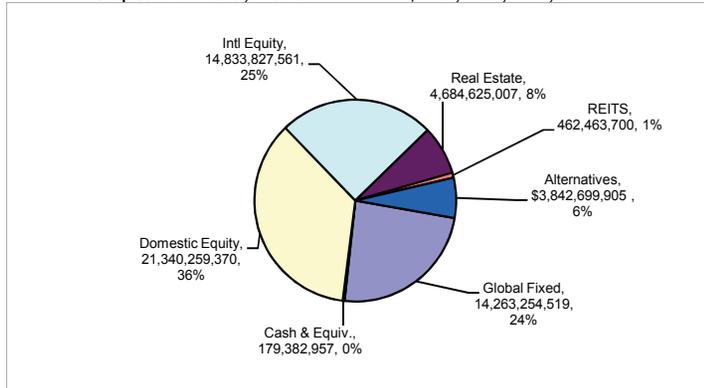
\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

\*\* Tactical Asset Allocation: underlying managers are utilized for asset allocation and alpha generation.

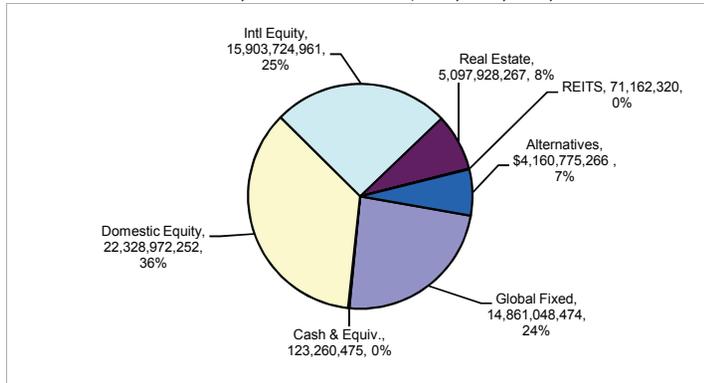
# Public Employees Retirement System

**Asset Allocation  
PERS Defined Benefit Plan**

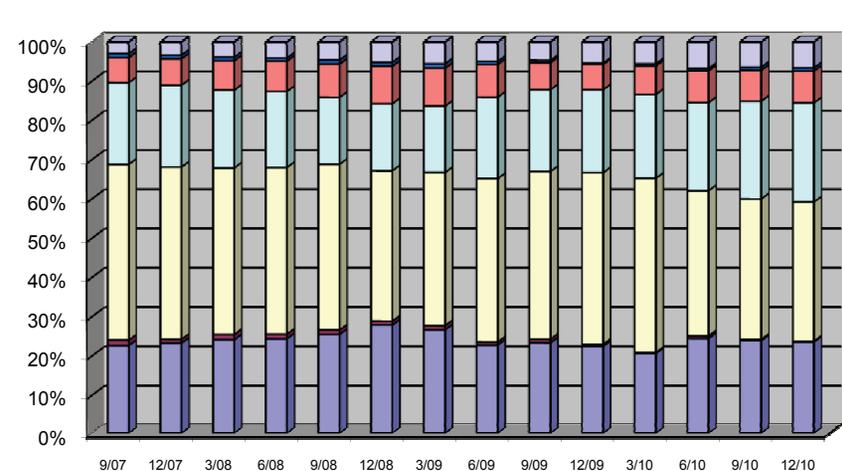
September 30, 2010 \$ 59,606,513,019



December 31, 2010 \$ 62,546,872,015



**Asset Allocation  
PERS Defined Benefit Plan**



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Global Fixed %	22.7	23.3	24.1	24.3	25.5	28.0	26.8	22.9	23.4	22.4	20.6	24.4	23.9	23.8
Cash & Equiv. %	1.4	1.0	1.3	1.2	1.2	1.0	1.1	0.8	0.9	0.5	0.3	0.7	0.3	0.2
Domestic Equity %	44.8	43.9	42.4	42.4	42.1	38.4	39.2	41.8	42.7	43.6	44.3	36.9	35.8	35.7
Intl Equity %	20.8	20.9	19.8	19.3	17.0	17.1	17.0	20.8	20.8	21.0	21.3	22.3	24.9	25.4
Real Estate %	6.4	6.7	7.5	7.7	8.5	9.6	9.7	8.4	6.9	6.5	7.3	8.1	7.9	8.2
REITS %	0.9	0.8	1.1	1.0	1.2	0.8	0.6	0.3	0.6	0.6	0.8	0.8	0.8	0.1
Other %	3.0	3.4	3.8	4.1	4.6	5.2	5.6	5.0	4.7	5.4	5.6	6.8	6.4	6.7
Total Value (\$bil)	70.7	69.7	65.1	64.2	57.9	49.6	45.1	50.3	55.9	57.2	55.9	53.7	59.6	62.5

Note: Defined benefit and health care plan assets were segregated in January 2005. An allocation of 23.8% to total fixed income consists of 12.6% (core fixed income), 5.1% (high yield) and 6.1% (long duration) as of December 31, 2010.

\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio Public Employees Retirement System's (Defined Benefit) asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-94	Jun-95	68.0	SB Broad Inv Grade
			17.0	Standard & Poors 500
			8.0	91-Day Treasury Bill
			7.0	NCREIF
	Sep-95	Dec-95	59.0	SB Broad Inv Grade
			26.0	Standard & Poors 500
			8.0	NCREIF
			6.0	91-Day Treasury Bill
			1.0	MSCI EAFE (Net)
	Mar-96	Dec-96	62.5	SB Broad Inv Grade
			23.0	Standard & Poors 500
			8.0	NCREIF
			4.5	91-Day Treasury Bill
			2.0	MSCI EAFE (Net)
	Mar-97	Dec-97	56.5	SB Broad Inv Grade
			27.0	Standard & Poors 500
			8.0	NCREIF
			4.5	91-Day Treasury Bill
			4.0	MSCI EAFE (Net)
Mar-98	Dec-98	51.0	SB Broad Inv Grade	
		30.5	Standard & Poors 500	
		8.0	NCREIF	
		6.0	MSCI EAFE (Net)	
		4.5	91-Day Treasury Bill	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Dec-98	Dec-98	51.0	SB Broad Inv Grade
			30.5	Russell 3000
			6.0	MSCI World Ex-US (Net)
			4.8	NCREIF
			4.5	91-Day Treasury Bill
	Mar-99	Mar-99	1.6	NAREIT
			1.6	Giliberto-Levy Mortgage
			45.4	SB Broad Inv Grade
			35.0	Standard & Poors 500
			7.6	MSCI World Ex-US (Net)
	Jun-99	Jun-99	6.6	NCREIF
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
			1.0	91-Day Treasury Bill
			40.1	SB Broad Inv Grade
	Jun-99	Jun-99	35.0	Standard & Poors 500
			12.9	MSCI World Ex-US (Net)
			6.6	NCREIF
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
Jun-99	Jun-99	1.0	91-Day Treasury Bill	

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-99	Mar-02	36.1	SB Broad Inv Grade
			35.0	Standard & Poors 500
			16.9	MSCI World Ex-US (Net)
			6.6	NCREIF
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
			1.0	BC Bellweather 3Mth T-Bill
	Mar-02	Mar-02	34.3	S&P 1500
			31.8	SB Broad Inv Grade
			18.9	MSCI World Ex-US (Net)
			5.7	NCREIF
			3.0	Russell 3000
			2.3	BC Bellweather 3Mth T-Bill
			1.9	NAREIT
	Jun-02	Sep-02	1.9	Giliberto-Levy Mortgage
			0.2	Standard & Poors 500
			34.7	S&P 1500
			29.2	SB Broad Inv Grade
			19.3	MSCI World Ex-US (Net)
			5.8	Russell 3000
			5.6	NCREIF
1.9	NAREIT			
1.9	Giliberto-Levy Mortgage			
1.5	BC Bellweather 3Mth T-Bill			
0.2	Standard & Poors 500			

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-02	Sep-02	44.7	Russell 3000
			25.6	SB Broad Inv Grade
			19.7	MSCI World Ex-US (Net)
			5.5	NCREIF
			1.8	NAREIT
			1.8	Giliberto-Levy Mortgage
			0.7	BC Bellweather 3Mth T-Bill
	Dec-02	Dec-02	0.2	Standard & Poors 500
			47.0	Russell 3000
			23.0	SB Broad Inv Grade
			20.0	MSCI World Ex-US (Net)
			5.4	NCREIF
			1.8	NAREIT
			1.8	Giliberto-Levy Mortgage
	Mar-03	Dec-04	0.6	BC Bellweather 3Mth T-Bill
			0.4	Standard & Poors 500
			46.0	Russell 3000
			23.0	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
			8.1	NCREIF
			0.9	Wilshire Real Estate Securities
1.0	BC Bellweather 3Mth T-Bill			
1.0	Russell 3000 + 3% (1 Qtr arrears)			

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Dec-04	Mar-05	46.3	Russell 3000
			26.2	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
	5.8	Custom Real Estate		
	0.7	Russell 3000 + 3% (1 Qtr arrears)		
	1.0	BC Bellweather 3Mth T-Bill		
	Mar-05	Jun-05	46.1	Russell 3000
			26.0	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
6.0	Custom Real Estate			
0.9	Russell 3000 + 3% (1 Qtr arrears)			
1.0	BC Bellweather 3Mth T-Bill			
Jun-05	Sep-05	46.1	Russell 3000	
		25.8	Barclays Universal	
		20.0	MSCI AC World Ex-US (Net)	
6.2	Custom Real Estate			
0.9	Russell 3000 + 3% (1 Qtr arrears)			
1.0	BC Bellweather 3Mth T-Bill			

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-05	Dec-05	46.0	Russell 3000
			25.6	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
	6.4	Custom Real Estate		
	1.0	Russell 3000 + 3% (1 Qtr arrears)		
	1.0	BC Bellweather 3Mth T-Bill		
	Dec-05	Mar-06	45.7	Russell 3000
			24.4	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
7.6	Custom Real Estate			
1.3	Russell 3000 + 3% (1 Qtr arrears)			
1.0	BC Bellweather 3Mth T-Bill			
Mar-06	Jun-06	45.6	Russell 3000	
		24.7	Barclays Universal	
		20.0	MSCI AC World Ex-US (Net)	
7.3	Custom Real Estate			
1.4	Russell 3000 + 3% (1 Qtr arrears)			
1.0	BC Bellweather 3Mth T-Bill			

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Jun-06	Sep-06	45.4	Russell 3000
			24.8	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
			6.3	Real Estate
			1.0	Wilshire Resi Full Cap
			1.6	Russell 3000 + 3% (1 Qtr arrears)
	1.0	BC Bellweather 3Mth T-Bill		
	Sep-06	Dec-06	45.2	Russell 3000
			25.4	Barclays Universal
			20.0	MSCI AC World Ex-US (Net)
			5.6	Real Estate
			1.0	Wilshire Resi Full Cap
1.8			Russell 3000 + 3% (1 Qtr arrears)	
Dec-06	Mar-07	46.0	Russell 3000	
		25.3	BC Universal/BC Long G/C	
		20.0	MSCI AC World Ex-US (Net)	
		5.7	Real Estate	
		1.0	Wilshire Resi Full Cap	
		0.1	Russell 3000 + 3% (1 Qtr arrears)	
2.0	BC Bellweather 3Mth T-Bill			

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Mar-07	Jun-07	45.7	Russell 3000
			25.2	BC Universal/BC Long G/C
			20.0	MSCI AC World Ex-US (Net)
			5.8	Real Estate
			1.0	Wilshire Resi Full Cap
			0.1	Russell 3000 + 3% (1 Qtr arrears)
	2.3	BC Bellweather 3Mth T-Bill		
	Jun-07	Sep-07	45.6	Russell 3000
			25.2	BC Universal/BC Long G/C
			20.0	MSCI AC World Ex-US (Net)
			6.8	Real Estate
			2.3	Wilshire Resi Full Cap
0.1			Russell 3000 + 3% (1 Qtr arrears)	
0.0	BC Bellweather 3Mth T-Bill			
Sep-07	Dec-07	45.1	Russell 3000	
		24.6	BC Universal/BC Long G/C	
		20.0	MSCI AC World Ex-US (Net)	
		7.4	Real Estate	
		2.8	Wilshire Resi Full Cap	
		0.2	Russell 3000 + 3% (1 Qtr arrears)	
0.0	BC Bellweather 3Mth T-Bill			

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Dec-07	Mar-08	44.9	Russell 3000
			24.0	BC Universal/BC Long G/C
			20.0	MSCI AC World Ex-US (Net)
			6.7	Real Estate
			1.0	Wilshire Resi Full Cap
			3.2	Russell 3000 + 3% (1 Qtr arrears)
	0.2	BC Bellweather 3Mth T-Bill		
	Mar-08	Jun-08	44.9	Russell 3000
			24.0	BC Universal/BC Long G/C
20.0			MSCI AC World Ex-US (Net)	
6.7			Real Estate	
1.0			Wilshire Resi Full Cap	
3.2			Russell 3000 + 3% (1 Qtr arrears)	
0.2	BC Bellweather 3Mth T-Bill			
Jun-08	Sep-08	43.9	Russell 3000	
		24.0	BC Universal/BC Long G/C	
		20.0	MSCI AC World Ex-US (Net)	
		7.0	Real Estate	
		1.0	Wilshire Resi Full Cap	
		3.8	Russell 3000 + 3% (1 Qtr arrears)	
0.3	BC Bellweather 3Mth T-Bill			

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-08	Dec-08	43.4	Russell 3000
			24.0	BC Universal/BC Long G/C
			20.0	MSCI AC World Ex-US (Net)
			7.0	Real Estate
			1.0	Wilshire Resi Full Cap
			4.4	Russell 3000 + 3% (1 Qtr arrears)
	0.2	BC Bellweather 3Mth T-Bill		
	Mar-09	Mar-09	42.4	Russell 3000
			24.0	BC Universal/BC Long G/C
20.0			MSCI AC World Ex-US (Net)	
7.0			Real Estate	
1.0			Wilshire Resi Full Cap	
5.0			Russell 3000 + 3% (1 Qtr arrears)	
0.6	BC Bellweather 3Mth T-Bill			
Jun-09	Jun-09	42.3	Russell 3000	
		24.0	BC Universal/BC Long G/C	
		20.0	MSCI AC World Ex-US (Net)	
		7.0	Real Estate	
		1.0	Wilshire Resi Full Cap	
		5.0	Russell 3000 + 3% (1 Qtr arrears)	
0.7	BC Bellweather 3Mth T-Bill			

# Public Employees Retirement System

## Defined Benefit Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-09	Dec-09	42.4	Russell 3000
			24.0	BC Universal/BC Long G/C
			20.0	MSCI AC World Ex-US (Net)
			7.0	Real Estate
			1.0	Wilshire Resi Full Cap
			5.0	Russell 3000 + 3% (1 Qtr arrears)
	0.6	BC Bellweather 3Mth T-Bill		
	Jan-10	Mar-10	42.2	Russell 3000
			12.3	Barclays Capital U.S. Aggregate
			9.4	Barclays Capital Long Gov/Credit
			0.8	Barclays Capital High Yield
			2.0	91-Day Treasury Bill
20.5			MSCI AC World Ex-US (Net)	
4.2	Russell 3000 + 3% (1 Qtr arrears)			
8.0	NCREIF Property (Quarter Lag)			
0.6	3 mo. LIBOR + 4% bps (2 mo. Lag)			
Apr-10	Jun-10	39.6	Russell 3000	
		12.6	Barclays Capital U.S. Aggregate	
		9.0	Barclays Capital Long Gov/Credit	
		1.6	Barclays Capital High Yield	
		2.0	91-Day Treasury Bill	
		22.0	MSCI AC World Ex-US (Net)	
		4.3	Russell 3000 + 3% (1 Qtr arrears)	
		7.9	NCREIF Property (Quarter Lag)	
		1.0	3 mo. LIBOR + 4% bps (2 mo. Lag)	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	--	Sep-10	36.3	Russell 3000
			11.5	Barclays Capital U.S. Aggregate
			9.0	Barclays Capital Long Gov/Credit
			2.5	Barclays Capital High Yield
			2.0	91-Day Treasury Bill
			23.5	MSCI AC World Ex-US (Net)
	5.1	Russell 3000 + 3% (1 Qtr arrears)		
	9.0	NCREIF Property (Quarter Lag)		
	1.1	3 mo. LIBOR + 4% bps (2 mo. Lag)		
	--	Dec-10	35.4	Russell 3000
			12.4	Barclays Capital U.S. Aggregate
			5.6	Barclays Capital Long Gov/Credit
5.0			Barclays Capital High Yield	
2.0			91-Day Treasury Bill	
24.5			MSCI AC World Ex-US (Net)	
5.2	Russell 3000 + 3% (1 Qtr arrears)			
8.5	NCREIF Property (Quarter Lag)			
1.3	3 mo. LIBOR + 4% bps (2 mo. Lag)			

The current PERS policy index is listed in the table on the right. PERS instituted separate floating policy indexes for their defined benefit and health care plans in January 2005.

Listed below are conditions that apply to the movement of the defined benefit policy index:

- (1) To the extent that actual real estate investments are below the long run target, the difference will be carried in global bonds.
- (2) To the extent that actual private equity investments are below the long run target, the difference will be carried in U.S. equities.
- (3) Real estate custom benchmark are calculated at 90% NCREIF minus 100 bps annually plus 10% Wilshire RESI minus 20 bps annually.

# Public Employees Retirement System

## Defined Benefit Plan - Asset Allocation Actual vs. Benchmark September 30, 2010

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	35.8%	Russell 3000	36.3%	-0.5%
Fixed Income	23.9%	PERS Custom Index	25.0%	-1.1%
Intl. Equity	24.9%	MSCI AC World ex US	23.5%	1.4%
Real Estate	8.7%	NCREIF Property Qtr Lag	9.0%	-0.3%
Alternative Investments	6.4%	Custom Index	6.2%	0.2%
Short Term	0.3%	---	0.0%	0.3%

## December 31, 2010

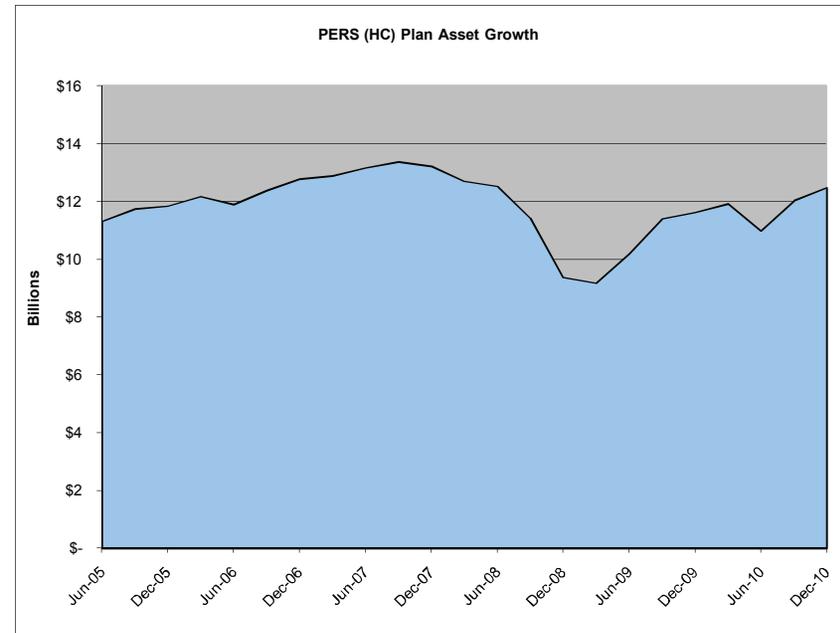
Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	35.7%	Russell 3000	35.4%	0.3%
Fixed Income	23.8%	PERS Custom Index	25.0%	-1.2%
Intl. Equity	25.4%	MSCI AC World ex US	24.5%	0.9%
Real Estate	8.3%	NCREIF Property Qtr Lag	8.5%	-0.2%
Alternative Investments	6.7%	Custom Index	6.5%	0.2%
Short Term	0.2%	---	0.0%	0.2%

\*Alternative investments include Private Equity, Hedge Funds and TAA.

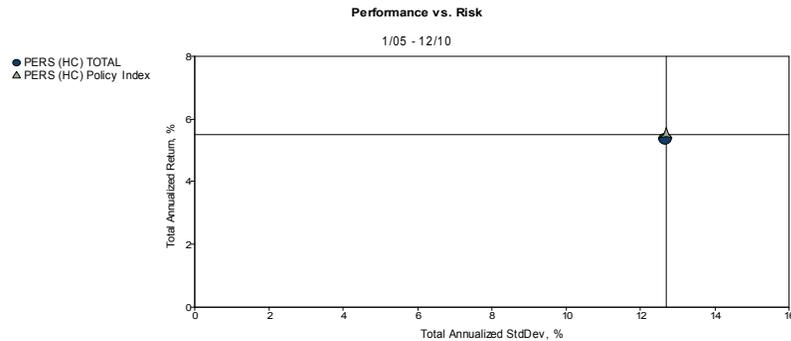
As of the end of the fourth quarter, the PERS Defined Benefit Plan is overweight in domestic equity, real estate, alternatives and cash, while being underweight in fixed income. PERS Defined Benefit plan is in line with international equity.

# Public Employees Retirement System Health Care Plan

PERS (HC) Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	24.53%	16.68%	-2.27%	2.42%	N/A
Benchmark	24.46%	16.92%	-2.01%	2.76%	N/A
Difference	0.07%	-0.24%	-0.26%	-0.34%	N/A
<b>Fixed Income</b>					
Actual	3.48%	8.90%	4.53%	4.85%	N/A
Benchmark	3.11%	8.03%	5.82%	5.82%	N/A
Difference	0.37%	0.87%	-1.29%	-0.97%	N/A
<b>Intl. Equity</b>					
Actual	24.76%	12.34%	-5.01%	4.88%	N/A
Benchmark	24.97%	11.14%	-5.03%	4.84%	N/A
Difference	-0.21%	1.20%	0.02%	0.04%	N/A
<b>REITS</b>					
Actual	22.48%	29.51%	0.25%	2.48%	N/A
Benchmark	21.88%	28.47%	-0.09%	2.16%	N/A
Difference	0.60%	1.04%	0.34%	0.32%	N/A
<b>Private Equity</b>					
Actual	1.02%	-5.39%	N/A	N/A	N/A
Benchmark	0.32%	14.21%	N/A	N/A	N/A
Difference	0.70%	-19.60%	N/A	N/A	N/A
<b>Hedge Funds</b>					
Actual	10.93%	26.07%	N/A	N/A	N/A
Benchmark	2.15%	4.30%	N/A	N/A	N/A
Difference	8.78%	21.77%	N/A	N/A	N/A



Note: Defined Benefit and Health Care plan assets were segregated on January 1, 2005.



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
PERS (HC) TOTAL	5.37	12.66	0.28	-0.14	0.98	-0.14
PERS (HC) Policy Index	5.51	12.70	0.29	0.00	0.00	NA

Asset Mix			
	Actual	Target	Difference
	December 31, 2010		
US Equity	30.1%	29.4%	0.7%
Intl. Equity	28.7%	28.2%	0.5%
REITS	6.0%	6.0%	0.0%
Alternative Assets*	2.4%	2.4%	0.0%
Total Equity	67.2%	66.0%	1.2%
Fixed Income	32.6%	34.0%	-1.4%
HC Cash	0.2%	0.0%	0.2%
Total Debt	32.8%	34.0%	-1.2%
	100.0%	100.0%	0.0%

\* Alternative assets include Private Equity, Hedge Funds and Commodities allocations.

### Characteristic Data

Assets at 12/31/2010 \$ 12,480,440,560  
 Actuarial Interest Rate: 6.70%  
 Investment Staff Size: 56

# Public Employees Retirement System

## Health Care Plan - Performance Overview Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>
Total Fund	16.76	13.51	1.69	4.86
Policy Index	16.51	12.88	2.04	5.16
Domestic Equity	24.53	16.68	-2.27	2.42
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71
Wilshire 5000	24.42	17.17	-1.92	2.90
International Equity	24.76	12.34	-5.01	4.88
International Equity Segment Median	25.20	12.33	-5.16	4.64
MSCI EAFE	24.18	7.75	-7.02	2.46
Fixed Income	3.48	8.90	4.53	4.85
Fixed Income Segment Median	2.26	8.11	6.15	5.88
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80
Cash	0.20	0.57	1.17	2.83
Public Real Estate	22.48	29.51	0.25	2.48
Wilshire Resi Full Cap	22.51	29.12	0.13	2.32
Private Equity	1.02	-5.39	NA	NA
Hedge Funds	10.93	26.07	NA	NA
Commodities	18.64	6.81	NA	NA

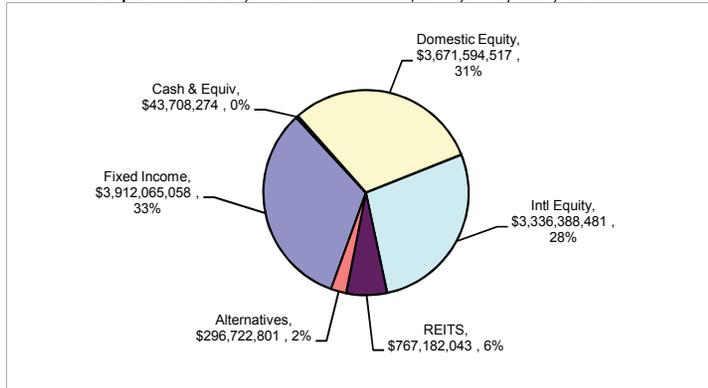
For the trailing five-year period, the PERS Health Care Plan underperformed its policy index by 30 basis points. Performance in domestic equity and fixed income detracted from results the most. For the more recent one-year period, the plan outperformed the policy benchmark by 63 basis points.

\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

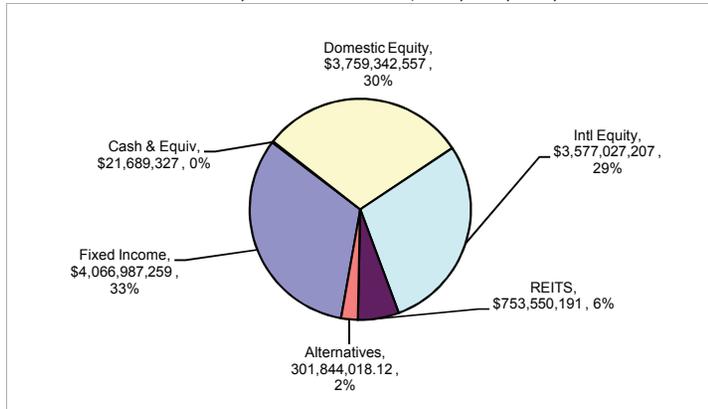
# Public Employees Retirement System

**Asset Allocation  
PERS Health Care Plan**

September 30, 2010 \$ 12,027,661,175

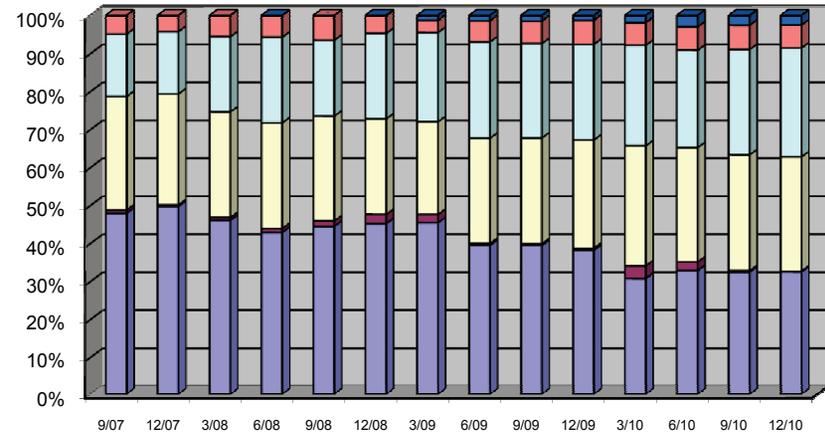


December 31, 2010 \$ 12,480,440,560



**Asset Allocation  
PERS Health Care Plan**

- Alternatives
- REITS
- Intl Equity
- Domestic Equity
- Cash & Equiv
- Fixed Income



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Global Fixed %	48.0	49.8	46.2	43.0	44.5	45.3	45.5	39.6	39.6	38.3	30.9	32.9	32.5	32.6
Cash & Equiv. %	0.9	0.4	0.8	1.0	1.5	2.5	2.2	0.5	0.4	0.5	3.3	2.3	0.4	0.2
Domestic Equity %	29.9	29.2	27.8	27.8	27.6	25.1	24.4	27.7	27.9	28.5	31.6	30.1	30.5	30.1
Intl Equity %	16.4	16.4	19.8	22.6	20.0	22.5	23.5	25.4	24.9	25.2	26.5	25.6	27.7	28.7
REITS %	4.8	4.1	5.5	5.6	6.4	4.5	3.2	5.5	5.9	6.3	5.9	6.1	6.4	6.0
Alternatives	0.0	0.0	0.0	0.0	0.0	0.1	1.2	1.3	1.4	1.2	1.8	2.9	2.5	2.4
Total Value (\$bil)	13.4	13.2	12.7	12.5	11.4	9.7	9.2	10.2	11.4	11.6	11.9	11.1	12.0	12.5

Note: Defined benefit and health care plan assets were segregated in January 2005.

\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio Public Employees Retirement System's (Health Care) asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

# Public Employees Retirement System

## Health Care Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Dec-04	Jun-05	47.5	Russell 3000
			22.0	Barclays Universal
			22.0	MSCI ACWI Ex-US (Net)
			4.0	Wilshire Resi Full Cap
			2.5	Barclays US Tips
			2.0	Barclays 1-3 Yr Gov't
	Jun-05	Dec-05	42.5	Russell 3000
			20.0	Barclays Universal
			20.0	MSCI ACWI Ex-US (Net)
			4.2	Wilshire Resi Full Cap
			7.5	Barclays US Tips
			5.8	Barclays 1-3 Yr Gov't
	Dec-05	Jun-06	37.5	Russell 3000
			18.0	Barclays Universal
			18.0	MSCI ACWI Ex-US (Net)
			4.5	Wilshire Resi Full Cap
12.5			Barclays US Tips	
9.5			Barclays 1-3 Yr Gov't	
Jun-06	Dec-06	32.5	Russell 3000	
		16.0	Barclays Universal	
		16.0	MSCI ACWI Ex-US (Net)	
		4.8	Wilshire Resi Full Cap	
		17.5	Barclays US Tips	
		13.2	Barclays 1-3 Yr Gov't	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Dec-06	Dec-07	30.0	Russell 3000
			15.0	Barclays Universal
			15.0	MSCI ACWI Ex-US (Net)
			5.0	Wilshire Resi Full Cap
			20.0	Barclays US Tips
			15.0	Barclays 1-3 Yr Gov't
	Dec-07	Jun-08	29.6	Russell 3000
			14.8	Barclays Universal
			16.4	MSCI ACWI Ex-US (Net)
			4.1	Wilshire Resi Full Cap
			20.8	Barclays US Tips
			14.3	Barclays 1-3 Yr Gov't
	Jun-08	Sep-08	28.8	Russell 3000
			9.7	Barclays Universal
			22.6	MSCI ACWI Ex-US (Net)
			5.6	Wilshire Resi Full Cap
21.0			Barclays US Tips	
12.3			Barclays 1-3 Yr Gov't	
Sep-08	Dec-08	28.8	Russell 3000	
		9.7	Barclays Universal	
		22.6	MSCI ACWI Ex-US (Net)	
		5.6	Wilshire Resi Full Cap	
		21.0	Barclays US Tips	
		12.3	Barclays 1-3 Yr Gov't	

# Public Employees Retirement System

## Health Care Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Dec-08	Mar-09	29.0	Russell 3000
			10.3	Barclays Universal
			20.2	Barclays U.S. TIPS
			11.5	Barclays 1-3 Yr Gov't
			23.0	MSCI ACWI Ex-US (Net)
			6.0	Wilshire Resi Full Cap
	Mar-09	Dec-09	28.4	Russell 3000
			10.0	Barclays Universal
			20.0	Barclays U.S. TIPS
			10.0	Barclays 1-3 Yr Gov't
			24.5	MSCI ACWI Ex-US (Net)
			6.0	Wilshire Resi Full Cap
	Jan-10	Mar-10	0.1	Russell 3000 + 3% (1 Qtr arrears)
			1.0	BC Bellweather 3 Mth T-Bill
			30.3	Russell 3000
			17.6	Barclays Capital U.S. Aggregate
			13.3	Barclays Capital U.S. TIPS
			0.5	Barclays High Yield
		2.0	91-Day Treasury Bill	
		3.1	Custom Emerging Markets Debt	
		25.0	MSCI ACWI Ex-US (Net)	
		0.1	Custom Private Equity	
		6.0	DJ Wilshire Resi Full Cap	
		1.1	LIBOR + 400 bps (2 mo. lag)	
		1.0	S&P GS Commodity Total Return	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Apr-10	Jun-10	31.9	Russell 3000
			18.2	Barclays Capital U.S. Aggregate
			8.2	Barclays Capital U.S. TIPS
			0.6	Barclays High Yield
			2.0	91-Day Treasury Bill
			5.0	Custom Emerging Markets Debt
			26.0	MSCI ACWI Ex-US (Net)
			0.1	Custom Private Equity
			6.0	DJ Wilshire Resi Full Cap
			1.0	LIBOR + 400 bps (2 mo. lag)
			1.0	S&P GS Commodity Total Return
			--	Sep-10
	20.5	Barclays Capital U.S. Aggregate		
	5.5	Barclays Capital U.S. TIPS		
	1.0	Barclays High Yield		
	2.0	91-Day Treasury Bill		
	5.0	Custom Emerging Markets Debt		
			26.7	MSCI ACWI Ex-US (Net)
		0.2	Custom Private Equity	
		6.0	DJ Wilshire Resi Full Cap	
		1.2	LIBOR + 400 bps (2 mo. lag)	
		1.0	S&P GS Commodity Total Return	

# Public Employees Retirement System

## Health Care Plan

### Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	--	Dec-10	30.2	Russell 3000
			21.5	Barclays Capital U.S. Aggregate
			3.5	Barclays Capital U.S. TIPS
			2.0	Barclays High Yield
			2.0	91-Day Treasury Bill
			5.0	Custom Emerging Markets Debt
			27.3	MSCI ACWI Ex-US (Net)
			0.2	Custom Private Equity
			6.0	DJ Wilshire Resi Full Cap
			1.3	LIBOR + 400 bps (2 mo. lag)
			1.0	S&P GS Commodity Total Return

PERS Health Care Plans' policy index is shown above.

# Public Employees Retirement System

## Health Care Plan - Asset Allocation Actual vs. Benchmark September 30, 2010

---

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	30.5%	Russell 3000	31.0%	-0.5%
Fixed Income	32.5%	Custom Index	34.0%	-1.5%
Intl. Equity	27.7%	MSCI AC World ex US	26.7%	1.0%
REITS	6.4%	Wilshire Resi full cap	6.0%	0.4%
Alternative Investments	2.5%	Russell 3000 + 3% (1 Qtr arrears)	2.3%	0.2%
HC Cash	0.4%	---	0.0%	0.4%

## December 31, 2010

---

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	30.1%	Russell 3000	30.2%	0.0%
Fixed Income	32.6%	Barclays Universal	34.0%	-1.4%
Intl. Equity	28.7%	MSCI AC World ex US	27.3%	1.4%
REITS	6.0%	Wilshire Resi full cap	6.0%	0.0%
Alternative Investments	2.4%	Russell 3000 + 3% (1 Qtr arrears)	2.5%	-0.1%
HC Cash	0.2%	---	0.0%	0.2%

\*Alternative investments include Private Equity, Hedge Funds and Commodities

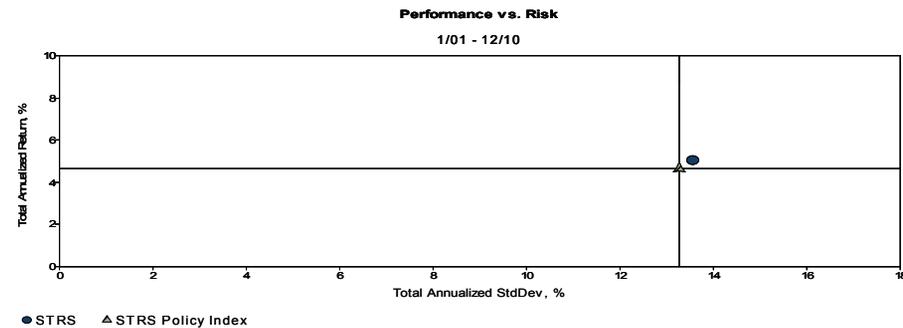
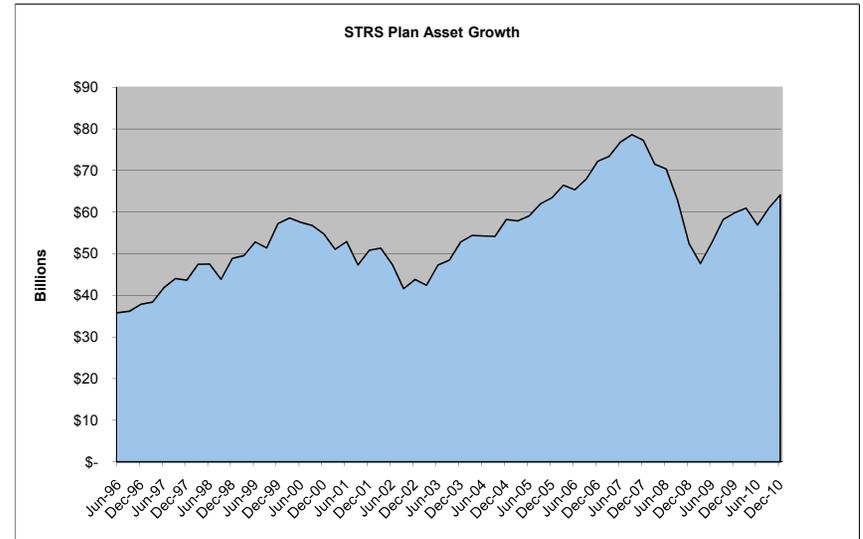
As of the end of the fourth quarter, the PERS Health Care Plan is overweight in domestic equity, international equity, and cash, while being underweight in fixed income, and in line with REITS and alternatives.



## **State Teachers Retirement System (STRS)**

# State Teachers Retirement System

STRS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	24.73%	16.64%	-2.40%	2.45%	1.98%
Benchmark	24.46%	16.93%	-2.01%	2.74%	2.21%
Difference	0.27%	-0.29%	-0.39%	-0.29%	-0.23%
<b>Fixed Income</b>					
Actual	2.30%	7.70%	7.17%	6.74%	6.75%
Benchmark	1.82%	7.16%	6.01%	5.90%	6.08%
Difference	0.48%	0.54%	1.16%	0.84%	0.67%
<b>Intl. Equity</b>					
Actual	21.74%	12.17%	-4.05%	4.91%	6.92%
Benchmark	20.79%	10.04%	-4.90%	4.23%	5.61%
Difference	0.95%	2.13%	0.85%	0.68%	1.31%
<b>Real Estate</b>					
Actual	8.23%	9.98%	-6.69%	5.69%	9.73%
Benchmark	10.66%	15.47%	-2.41%	4.03%	7.85%
Difference	-2.43%	-5.49%	-4.28%	1.66%	1.88%
<b>Private Equity</b>					
Actual	6.55%	17.84%	-0.62%	7.67%	4.97%
Benchmark	26.27%	20.44%	0.98%	5.86%	5.26%
Difference	-19.72%	-2.60%	-1.60%	1.81%	-0.29%
<b>Hedge Funds</b>					
Actual	8.35%	3.96%	-0.44%	9.23%	N/A
Benchmark	6.98%	5.67%	-2.53%	2.42%	4.14%
Difference	1.37%	-1.71%	2.09%	6.81%	N/A



	Annualized Return, %	Annualized StdDev, %	MPT Statistics Sharpe Ratio	Annualized Return, % Excess	Annualized StdDev, % Excess	Information Ratio Excess
STRS	5.03	13.54	0.25	0.36	0.71	0.50
STRS Policy Index	4.67	13.26	0.23	0.00	0.00	NA

	Asset Mix		
	Actual December 31, 2010	Target	Difference
US Equity	38.4%	39.0%	-0.6%
Intl. Equity	22.9%	23.0%	-0.1%
Alternative Assets*	7.5%	8.0%	-0.5%
<b>Total Equity</b>	<b>68.8%</b>	<b>70.0%</b>	<b>-1.2%</b>
Fixed Income	17.1%	19.0%	-1.9%
Real Estate	7.7%	10.0%	-2.3%
Short Term Investments	6.4%	1.0%	5.4%
<b>Total Debt</b>	<b>31.2%</b>	<b>30.0%</b>	<b>1.2%</b>
	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>

\* Alternative assets includes Private Equity and Opportunistic strategies (which includes Hedge Funds)

## Characteristic Data

Assets at	12/31/2010 \$	64,160,246,579
Actuarial Interest Rate:		8.00%
Investment Staff Size:		106

# State Teachers Retirement System

## Performance Overview

Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	16.17	13.49	-1.31	4.34	5.03
Policy Index	16.14	13.59	-0.96	4.19	4.67
Domestic Equity	24.73	16.64	-2.40	2.45	1.98
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71	2.88
Wilshire 5000	24.42	17.17	-1.92	2.90	2.51
International Equity	21.74	12.17	-4.05	4.91	6.92
International Equity Segment Median	25.20	12.33	-5.16	4.64	5.81
MSCI EAFE	24.18	7.75	-7.02	2.46	3.50
Fixed Income	2.30	7.70	7.17	6.74	6.75
Fixed Income Segment Median	2.26	8.11	6.15	5.88	6.01
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80	5.84
Cash	0.10	0.21	1.17	2.72	2.52
Real Estate	8.23	9.98	-6.69	5.69	9.73
NCREIF	8.66	13.11	-4.18	3.51	7.38
Private Equity	6.55	17.84	-0.62	7.67	4.97
Hedge Funds	8.35	3.96	-0.44	9.23	NA
Opportunistic/Other**	7.06	16.01	NA	NA	NA

Over the trailing ten-year period, the fund outperformed its policy index by 36 basis points. Strong absolute performance in real estate, coupled with relative outperformance in international equity and fixed income contributed to overall returns. Over the more recent one-year period, the fund underperformed its policy index by 10 basis points.

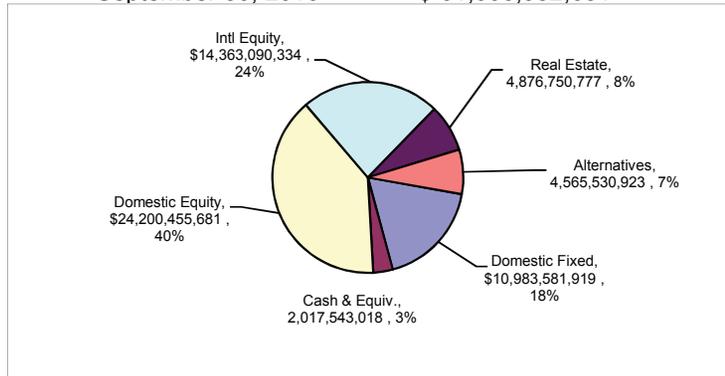
\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

\*\* Includes Includes PPIP, Distressed Debt, Energy Funds, FDIC-Assisted Bank Investments and Hedge Funds (Hedge Funds account for 0.6% of total assets in the Plan).

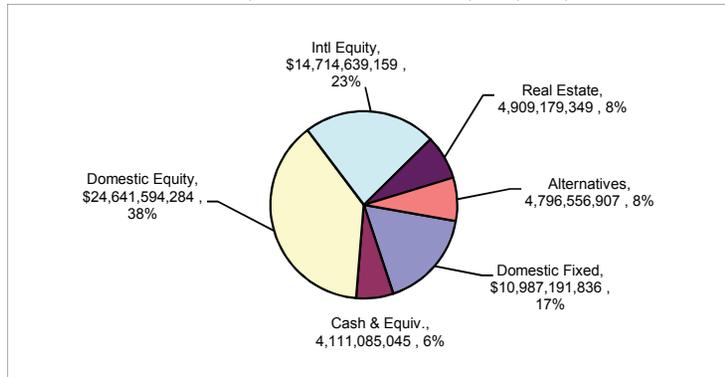
# State Teachers Retirement System

**Asset Allocation  
STRS**

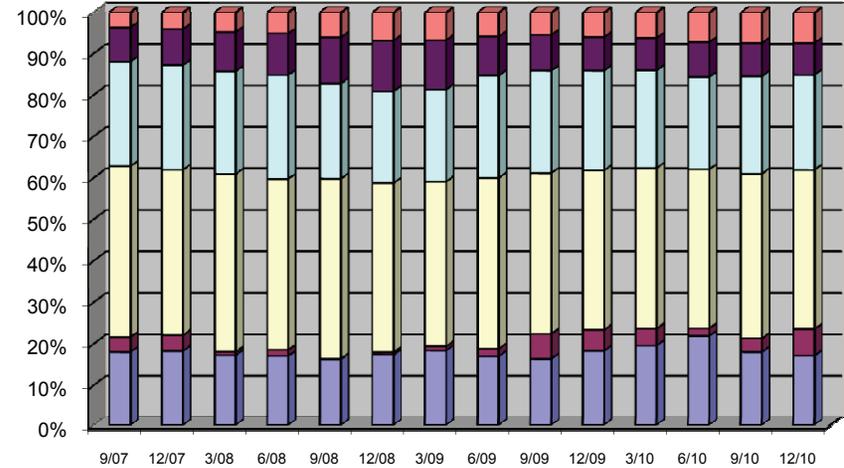
September 30, 2010 \$ 61,006,952,651



December 31, 2010 \$ 64,160,246,579



**Asset Allocation  
STRS**



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Domestic Fixed %	18.0	18.2	17.2	17.1	16.3	17.4	18.4	17.0	16.4	18.3	19.6	21.9	18.0	17.1
Cash & Equiv. %	3.6	3.8	0.8	1.5	0.1	0.6	1.0	1.8	6.0	5.1	4.1	1.9	3.3	6.4
Domestic Equity %	41.2	39.9	42.9	41.2	43.5	40.8	39.7	41.2	38.8	38.4	38.7	38.3	39.7	38.4
Intl Equity %	25.2	25.2	24.8	25.1	23.0	22.1	22.2	24.7	24.7	24.1	23.6	22.3	23.5	22.9
Real Estate %	8.3	8.7	9.5	10.0	11.2	12.2	11.9	9.4	8.6	8.1	7.8	8.4	8.0	7.7
Alternatives %	3.7	4.1	4.8	5.1	6.1	6.9	6.8	5.9	5.5	6.0	6.3	7.2	7.5	7.5
Total Value (\$bil)	78.6	77.3	71.5	70.4	62.9	52.5	47.6	52.7	58.2	59.8	61.0	56.9	61.0	64.1

\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio State Teachers Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

# State Teachers Retirement System

## Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-94	Dec-94	40.0	Standard & Poors 500
			45.0	Barclays Govt./Corp.
			9.0	Real Estate Blended Benchmark
			3.0	MSCI EAFE (Net)
			3.0	91-Day Treasury Bill
	Mar-95	Dec-95	46.0	Standard & Poors 500
			35.0	BC Aggregate
			9.0	Real Estate Blended Benchmark
			6.0	MSCI EAFE (Net)
			2.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Mar-96	Dec-96	45.0	Standard & Poors 500
			35.0	BC Aggregate
			9.0	Real Estate Blended Benchmark
			6.8	MSCI EAFE (Net)
			2.3	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Mar-97	Jun-97	45.0	Standard & Poors 500
			34.0	BC Aggregate
			9.0	Real Estate Blended Benchmark
			6.0	MSCI EAFE (Net)
			4.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (Cont.)	Sep-97	Dec-97	45.0	Standard & Poors 500
			24.0	BC Aggregate
			12.0	MSCI EAFE (Net)
			9.0	Real Estate Blended Benchmark
			8.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Mar-98	Sep-98	45.0	S&P 1500
			24.0	BC Aggregate
			12.0	MSCI EAFE 50% Hedged
			9.0	Real Estate Blended Benchmark
			8.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Dec-98	Sep-00	45.0	S&P 1500
			24.0	BC Aggregate
			14.0	MSCI EAFE 50% Hedged
			9.0	Real Estate Blended Benchmark
			6.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Dec-00	Jun-02	45.0	S&P 1500
			25.0	Barclays Universal
			15.0	MSCI EAFE 50% Hedged
			9.0	Real Estate Blended Benchmark
			5.0	MSCI Em Mkts Free (Gross)
			1.0	91-Day Treasury Bill

# State Teachers Retirement System

Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-02	Dec-02	45.0	S&P 1500
			23.0	Barclays Universal
			15.0	MSCI EAFE 50% Hedged
			9.0	Real Estate Blended Benchmark
			5.0	MSCI Em Mkts Free (Gross)
			2.0	Alt. Investment Actual Return
			1.0	91-Day Treasury Bill
			45.0	S&P/Russell Hybrid
	23.0	Barclays Universal		
	15.0	MSCI EAFE 50% Hedged		
	9.0	Real Estate Blended Benchmark		
	5.0	MSCI Em Mkts Free (Gross)		
	2.0	Alt. Investment Actual Return		
	1.0	91-Day Treasury Bill		
	Sep-03	Dec-05	45.0	Russell 3000
			23.0	Barclays Universal
15.0			MSCI World ex US 50% Hedged	
9.0			Real Estate Blended Benchmark	
5.0			MSCI Em Mkts Free (Gross)	
2.0			Alt. Investment Actual Return	
1.0			91-Day Treasury Bill	
Mar-06			Jun-06	42.0
	21.0	Barclays Universal		
	20.0	MSCI World ex US 50% Hedged		
	9.0	Real Estate Blended Benchmark		
	5.0	MSCI Em Mkts Free (Gross)		
	3.0	Alt. Investment Actual Return		
	0.0	91-Day Treasury Bill		

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-06	Jun-07	42.0	Russell 3000
			20.5	Barclays Universal
			20.0	MSCI World ex US 50% Hedged
			9.5	Real Estate Blended Benchmark
			5.0	MSCI Em Mkts Free (Gross)
			3.0	Alt. Investment Actual Return
			0.0	91-Day Treasury Bill
			Sep-07	Sep-07
	20.0	Barclays Universal		
	20.0	MSCI World ex US 50% Hedged		
	10.0	Real Estate Blended Benchmark		
	5.0	MSCI Em Mkts Free (Gross)		
	3.0	Alt. Investment Actual Return		
	0.0	91-Day Treasury Bill		
	Dec-07	Mar-09		
			20.0	Barclays Universal
20.0			MSCI World ex US 50% Hedged	
9.5			Real Estate Blended Benchmark	
5.0			MSCI Em Mkts Free (Gross)	
3.5			Alt. Investment Actual Return	
0.0			91-Day Treasury Bill	
Mar-09			Jun-09	40.0
	20.0	Barclays Universal		
	19.2	MSCI World ex US 50% Hedged		
	10.0	Real Estate Blended Benchmark		
	4.8	MSCI Em Mkts Free (Gross)		
	6.0	Alt. Investment Actual Return		
	0.0	91-Day Treasury Bill		

# State Teachers Retirement System

Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Jun-09	Jun-10	39.0	Russell 3000
			20.0	Barclays Universal
			18.4	MSCI EAFE ex US 50% Hedged
			10.0	Real Estate Blended Benchmark
			4.6	MSCI Em Mkts Free (Gross)
			7.0	Alt. Investment Actual Return
			1.0	91-Day Treasury Bill
	Jul-10	Dec-10	39.0	Russell 3000
			19.0	Barclays Universal
			18.4	MSCI EAFE ex US 50% Hedged
			10.0	Real Estate Blended Benchmark
			4.6	MSCI Em Mkts Free (Gross)
			8.0	Alt. Investment Actual Return*
			1.0	91-Day Treasury Bill

The current STRS policy index is shown above on the left.

\*For calculating the Total Fund Blended Benchmark, the actual Alternative Investment asset class return is used. The benchmark used for the asset class relative performance, however, is the Russell 3000 plus 300 bps for Private Equity and the Russell 3000 minus 100 bps for Opportunistic/Diversified. At the total AI asset class, a blended benchmark is used.

# State Teachers Retirement System

## Asset Allocation Actual vs. Benchmark September 30, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	39.7%	Russell 3000	39.0%	0.7%
Fixed Income	18.0%	Barclays Universal	19.0%	-1.0%
Intl. Equity	23.5%	International Blended Benchmark	23.0%	0.5%
Real Estate	8.0%	NCREIF Hybrid	10.0%	-2.0%
Alternative Investments	7.5%	Alt. Inv. Blended Benchmark	8.0%	-0.5%
Short Term	3.3%	3 Month T-Bill	1.0%	2.3%

## December 31, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	38.4%	Russell 3000	39.0%	-0.6%
Fixed Income	17.1%	Barclays Universal	19.0%	-1.9%
Intl. Equity	22.9%	International Blended Benchmark	23.0%	-0.1%
Real Estate	7.7%	NCREIF Hybrid	10.0%	-2.3%
Alternative Investments	7.5%	Alt. Inv. Blended Benchmark	8.0%	-0.5%
Short Term	6.4%	3 Month T-Bill	1.0%	5.4%

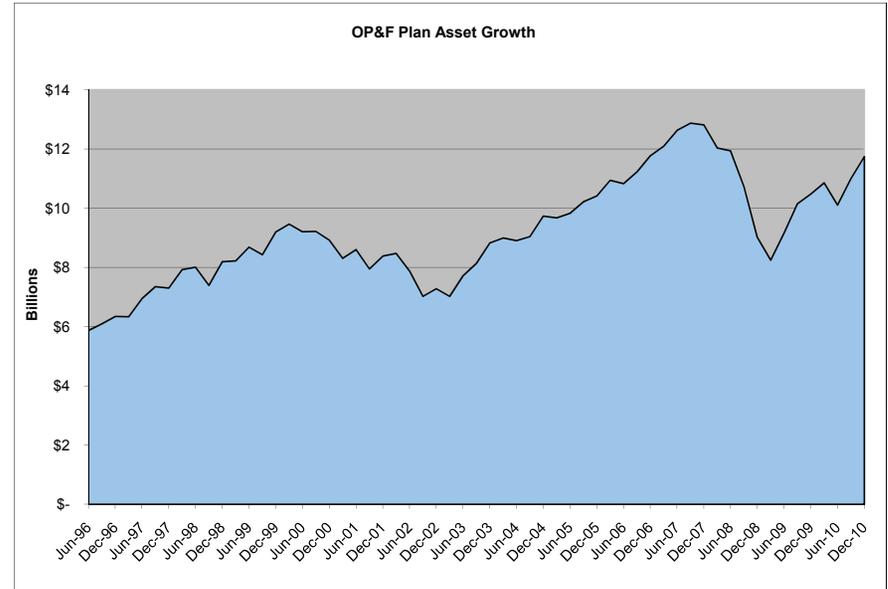
As of the end of the fourth quarter, STRS was overweight in cash, and underweight in domestic equity, international equity, fixed income, alternatives and real estate.



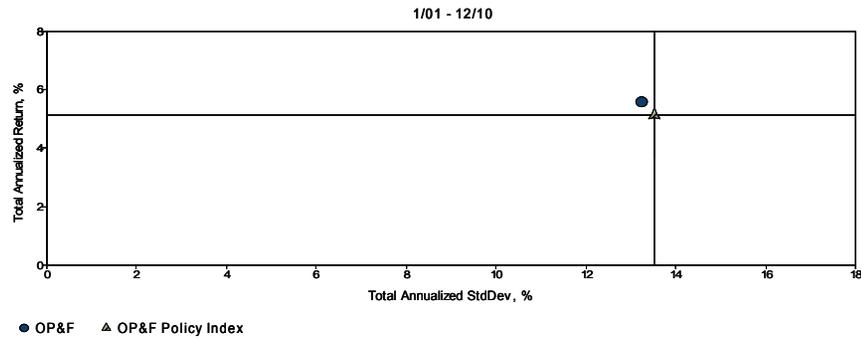
**Ohio Police & Fire  
(OP&F)**

# Police & Fire Pension Fund

OP&F Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	27.08%	22.43%	0.26%	4.04%	3.64%
Benchmark	24.42%	17.17%	-1.91%	2.90%	2.50%
Difference	2.66%	5.26%	2.17%	1.14%	1.14%
<b>Fixed Income</b>					
Actual	6.87%	12.76%	8.94%	7.73%	7.70%
Benchmark	1.15%	6.54%	5.90%	5.80%	5.83%
Difference	5.72%	6.22%	3.04%	1.93%	1.87%
<b>Intl. Equity</b>					
Actual	26.19%	15.11%	-4.46%	6.17%	5.84%
Benchmark	24.97%	11.15%	-5.03%	4.82%	5.55%
Difference	1.22%	3.96%	0.57%	1.35%	0.29%
<b>Real Estate</b>					
Actual	10.28%	4.86%	-12.43%	0.51%	6.99%
Benchmark	7.30%	5.83%	-4.62%	3.67%	6.26%
Difference	2.98%	-0.97%	-7.81%	-3.16%	0.73%
<b>Private Equity</b>					
Actual	4.86%	12.57%	-0.94%	8.52%	0.27%
Benchmark	0.53%	14.44%	-3.58%	4.50%	4.45%
Difference	4.33%	-1.87%	2.64%	4.02%	-4.18%



## Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
OP&F	5.60	13.25	0.30	0.45	1.15	0.39
OP&F Policy Index	5.15	13.51	0.26	0.00	0.00	NA

	Asset Mix		
	Actual December 31, 2010	Target	Difference
US Equity	38.9%	36.9%	2.0%
Intl. Equity	24.1%	23.0%	1.1%
Alternative Assets*	3.4%	4.0%	-0.6%
Total Equity	66.4%	63.9%	2.5%
Fixed Income	25.7%	26.1%	-0.4%
Real Estate	6.1%	10.0%	-3.9%
Short Term Investments	1.8%	0.0%	1.8%
Total Debt	33.6%	36.1%	-2.5%
	100.0%	100.0%	0.0%

\*Alternative assets denotes Private Equity allocation.

## Characteristic Data

Assets at	12/31/2010	\$	11,744,057,278
Actuarial Interest Rate:			8.25%
Investment Staff Size:			15

# Police & Fire Pension Fund

## Performance Overview

### Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	18.66	15.83	0.21	5.24	5.60
Policy Index	16.55	12.61	-0.32	4.61	5.15
Domestic Equity**	27.08	22.43	0.26	4.04	3.64
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71	2.88
Wilshire 5000	24.42	17.17	-1.92	2.90	2.51
International Equity	26.19	15.11	-4.46	6.17	5.84
International Equity Segment Median	25.20	12.33	-5.16	4.64	5.81
MSCI EAFE	24.18	7.75	-7.02	2.46	3.50
Fixed Income	6.87	12.76	8.94	7.73	7.70
Fixed Income Segment Median	2.26	8.11	6.15	5.88	6.01
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80	5.83
Cash	0.11	0.22	0.95	2.52	2.43
Real Estate	10.28	4.86	-12.43	0.51	6.99
NCREIF	8.66	13.11	-4.18	3.51	7.38
Private Equity	4.86	12.57	-0.94	8.52	0.27

For the trailing ten-year period, the fund outperformed its policy index by 45 basis points. Strong absolute performance fixed income and real estate, together with strong relative results in domestic equity and non-U.S. equity continued to contribute to overall performance. Over the more recent one-year period, OP&F outpaced its custom benchmark by 3.2%.

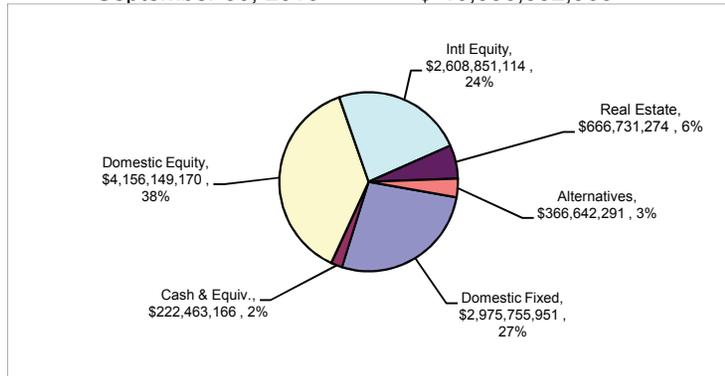
\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

\*\* OP&F has 7.1% allocated to a portable alpha strategy, which includes Hedge Funds, in the U.S. Equity allocation.

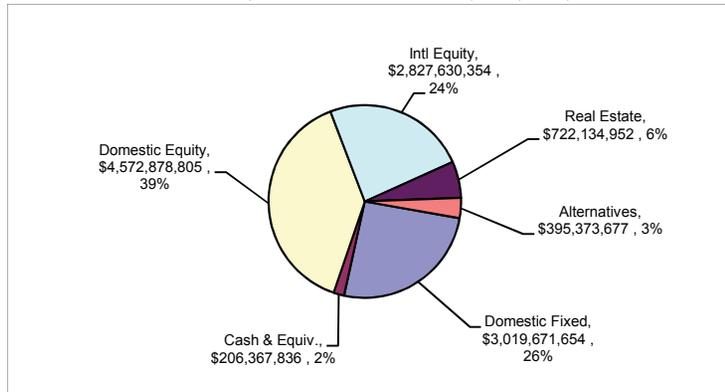
# Police & Fire Pension Fund

**Asset Allocation  
OP&F**

September 30, 2010      \$ 10,996,592,966



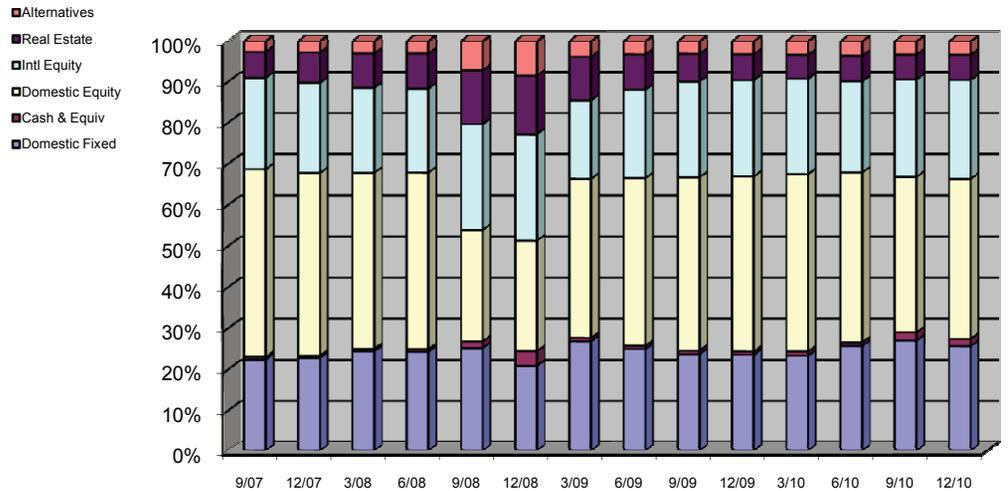
December 31, 2010      \$ 11,744,057,278



\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio Police & Fire Pension Fund's asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

**Asset Allocation  
OP&F**



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Domestic Fixed %	22.4	22.9	24.4	24.3	25.2	20.9	26.9	25.0	23.8	23.6	23.4	25.8	27.1	25.7
Cash & Equiv. %	0.6	0.6	0.6	0.6	1.6	3.5	0.8	0.8	0.9	0.8	1.0	0.9	2.0	1.8
Domestic Equity %	45.7	44.4	42.8	42.9	27.1	26.9	38.7	40.8	42.1	42.6	43.1	41.3	37.8	38.9
Intl Equity %	22.2	21.9	20.7	20.4	25.7	25.9	19.1	21.5	23.3	23.4	23.2	22.2	23.7	24.1
Real Estate %	6.3	7.4	8.4	8.6	13.1	14.3	10.6	8.6	6.8	6.3	5.9	6.3	6.1	6.2
Alternatives %	2.7	2.8	3.1	3.1	7.2	8.5	3.9	3.3	3.2	3.3	3.4	3.6	3.3	3.4
Total Value (\$bil)	12.9	12.8	12.0	11.9	10.7	9.0	8.2	9.1	10.1	10.5	10.8	10.1	11.0	11.7

# Police & Fire Pension Fund

Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Jun-88	Sep-97	41.0	Wilshire 5000
			39.0	BC Aggregate
			10.0	MSCI EAFE Index (Net)
			9.0	Wilshire Real Estate Fund
			1.0	S&P 500 + 5%
	Dec-97	Mar-01	41.0	Wilshire 5000
			35.0	BC Aggregate
			10.0	MSCI EAFE Index (Net)
			8.0	Wilshire Real Estate Fund
			5.0	MSCI Em Mkts Index (Gross)
	Jun-01	Jun-01	41.0	Wilshire 5000
			35.0	BC Aggregate
			10.0	MSCI EAFE Index (Net)
			8.0	Wilshire Real Estate Fund
			5.0	MSCI Em Mkts Index (Gross)
	Sep-01	Mar-02	41.0	S&P 500 (lagged) + 5%
46.0			Wilshire 5000	
18.0			BC Aggregate	
17.0			MSCI EAFE Index (Net)	
8.0			Wilshire Real Estate Fund	
		5.0	CS Developed Countries HY	
		3.0	MSCI Em Mkts Index (Gross)	
		3.0	Wilshire 5000 (lagged) + 5%	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Jun-02	Sep-04	48.0	Wilshire 5000
			18.0	BC Aggregate
			17.0	MSCI EAFE Index (Net)
			8.0	NCREIF Property Index (lagged)
			5.0	CS Developed Countries HY
	Dec-04	Dec-04	3.0	MSCI Em Mkts Index (Gross)
			1.0	Wilshire 5000 (lagged) + 5%
			46.0	Wilshire 5000
			18.0	BC Aggregate
			17.0	MSCI EAFE Index (Net)
	Mar-05	Dec-06	8.0	NCREIF Property Index (lagged)
			5.0	CS Developed Countries HY
			3.0	MSCI Em Mkts Index (Gross)
			3.0	Wilshire 5000 (lagged) + 5%
			46.0	Wilshire 5000
18.0			BC Aggregate	
20.0			MSCI ACWI ex-U.S. (Net)	
8.0			NCREIF Property Index (lagged)	
5.0			CS Developed Countries HY	
		3.0	Wilshire 5000 (lagged) + 5%	

# Police & Fire Pension Fund

## Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-07	Sep-08	46.0	Wilshire 5000
			18.0	BC Aggregate
			20.0	MSCI ACWI ex-U.S. (Net)
			8.0	NCREIF Property Index (lagged)
			5.0	CS Developed Countries HY
			3.0	Wilshire 5000 + 3% Qtr Lagged
	Dec-08	Dec-08	45.0	Wilshire 5000
			12.0	BC Aggregate
			21.0	MSCI ACWI ex-U.S. (Net)
			8.0	NCREIF Property Index (lagged)
			6.0	Bridgewater Custom GIPS
			5.0	CS Developed Countries HY
	Mar-09	Mar-09	43.0	Wilshire 5000
			11.0	BC Aggregate
			22.0	MSCI ACWI ex-U.S. (Net)
			9.0	NCREIF Property Index (lagged)
6.0			Bridgewater Custom GIPS	
6.0			CS Developed Countries HY	
Jun-09	Jun-09	42.0	Wilshire 5000	
		11.0	BC Aggregate	
		22.0	MSCI ACWI ex-U.S. (Net)	
		9.0	NCREIF Property Index (lagged)	
		6.0	Bridgewater Custom GIPS	
		6.0	CS Developed Countries HY	
		4.0	Wilshire 5000 + 3% Qtr Lagged	

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Sep-09	Sep-09	40.0	Wilshire 5000
			10.0	BC Aggregate
			23.0	MSCI ACWI ex-U.S. (Net)
			10.0	NCREIF Property Index (lagged)
			6.0	Bridgewater Custom GIPS
			7.0	CS Developed Countries HY
	Dec-09	Jun-10	4.0	Wilshire 5000 + 3% Qtr Lagged
			39.0	Wilshire 5000
			10.0	BC Aggregate
			24.0	MSCI ACWI ex-U.S. (Net)
			10.0	NCREIF Property Index (lagged)
			6.0	Bridgewater Custom GIPS
	Sep-10	Dec-10	7.0	CS Developed Countries HY
			4.0	Wilshire 5000 + 3% Qtr Lagged
			36.9	Wilshire 5000
			10.0	BC Aggregate
23.0			MSCI ACWI ex-U.S. (Net)	
10.0			NCREIF Property Index (lagged)	
		6.5	Bridgewater Custom GIPS	
		9.7	CS Developed Countries HY	
		4.0	Wilshire 5000 + 3% Qtr Lagged	

OP&F's custom policy index is shown above.

# Police & Fire Pension Fund

## Asset Allocation Actual vs. Benchmark September 30, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	37.8%	Wilshire 5000	36.9%	0.9%
Fixed Income	27.1%	Barclays Aggregate	26.1%	1.0%
Intl. Equity Comp.	23.7%	MSCI ACWI ex- U.S. (Net)	23.0%	0.7%
Real Estate	6.1%	NCREIF Property Index (lagged)	10.0%	-3.9%
Private Equity	3.3%	Wilshire 5000 + 3% Qtr Lagged	4.0%	-0.7%
Short Term	2.0%	3 Month T-Bill	0.0%	2.0%

## December 31, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	38.9%	Wilshire 5000	36.9%	2.0%
Fixed Income	25.7%	Barclays Aggregate	26.1%	-0.4%
Intl. Equity Comp.	24.1%	MSCI ACWI ex- U.S. (Net)	23.0%	1.1%
Real Estate	6.1%	NCREIF Property Index (lagged)	10.0%	-3.9%
Private Equity	3.4%	Wilshire 5000 + 3% Qtr Lagged	4.0%	-0.6%
Short Term	1.8%	3 Month T-Bill	0.0%	1.8%

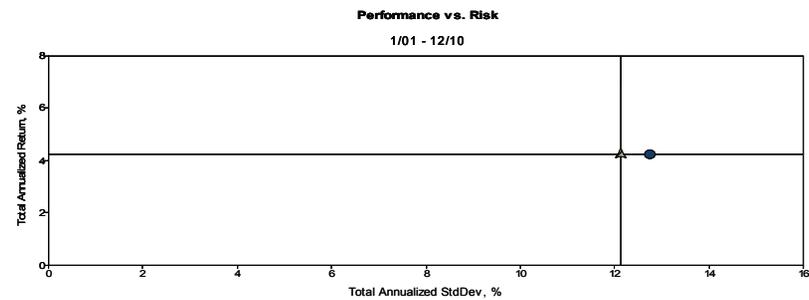
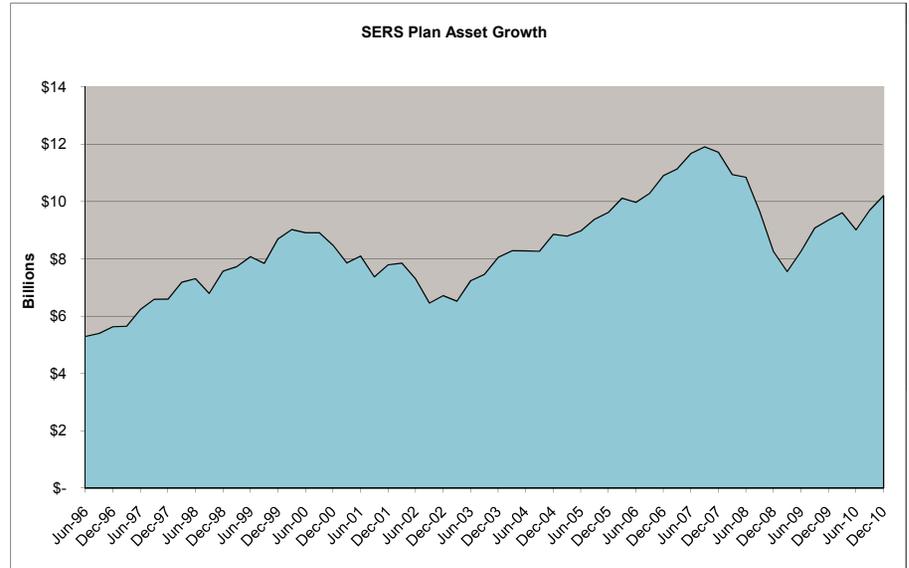
As of the end of the fourth quarter, OP&F is overweight in domestic equity, international equity and cash, while being underweight in fixed income, real estate and private equity.



## **School Employees Retirement System (SERS)**

# School Employees Retirement System

SERS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	25.82%	18.69%	-1.79%	2.41%	2.05%
Benchmark	24.46%	16.93%	-2.02%	2.74%	2.16%
Difference	1.36%	1.76%	0.23%	-0.33%	-0.11%
<b>Fixed Income</b>					
Actual	3.93%	10.07%	8.05%	7.02%	6.80%
Benchmark	1.15%	6.54%	5.90%	5.80%	5.83%
Difference	2.78%	3.53%	2.15%	1.22%	0.97%
<b>Intl. Equity</b>					
Actual	22.13%	13.75%	-4.08%	5.32%	5.78%
Benchmark	21.17%	10.81%	-4.41%	4.40%	4.71%
Difference	0.96%	2.94%	0.33%	0.92%	1.07%
<b>Real Estate</b>					
Actual	15.22%	8.20%	-12.69%	-1.90%	4.10%
Benchmark	7.30%	5.31%	-3.60%	3.63%	7.76%
Difference	7.92%	2.89%	-9.09%	-5.53%	-3.66%
<b>Private Equity</b>					
Actual	5.42%	12.32%	-0.07%	6.03%	-3.13%
Benchmark	0.95%	13.16%	-4.13%	3.67%	3.36%
Difference	4.47%	-0.84%	4.06%	2.36%	-6.49%
<b>Hedge Funds</b>					
Actual	6.40%	8.40%	N/A	N/A	N/A
Benchmark	6.87%	6.54%	N/A	N/A	N/A
Difference	-0.47%	1.86%	N/A	N/A	N/A



● SERS ▲ SERS Policy Index

	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
SERS	4.26	12.75	0.20	0.02	1.50	0.02
SERS Policy Index	4.24	12.13	0.21	0.00	0.00	NA

	Asset Mix		
	Actual December 31, 2010	Target	Difference
US Equity	25.9%	22.5%	3.4%
Intl. Equity	24.6%	22.5%	2.1%
Alternative Assets*	22.0%	25.0%	-3.0%
Total Equity	72.5%	70.0%	2.5%
Fixed Income	17.3%	19.0%	-1.7%
Real Estate	8.8%	10.0%	-1.2%
Short Term Investments	1.3%	1.0%	0.3%
Total Debt	27.5%	30.0%	-2.5%
	100.0%	100.0%	0.0%

\*Alternative assets includes Private Equity and Hedge Funds

## Characteristic Data

Assets at 12/31/2010 \$ 10,206,679,241  
 Actuarial Interest Rate: 8.00%  
 Investment Staff Size: 14

# School Employees Retirement System

## Performance Overview

Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	15.19	12.35	-1.88	3.62	4.26
Policy Index	12.24	10.38	-1.01	4.07	4.24
Domestic Equity	25.82	18.69	-1.79	2.41	2.05
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71	2.88
Wilshire 5000	24.42	17.17	-1.92	2.90	2.51
International Equity	22.13	13.75	-4.08	5.32	5.78
International Equity Segment Median	25.20	12.33	-5.16	4.64	5.81
MSCI EAFE	24.18	7.75	-7.02	2.46	3.50
Fixed Income	3.93	10.07	8.05	7.02	6.80
Fixed Income Segment Median	2.26	8.11	6.15	5.88	6.01
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80	5.84
Cash	0.12	0.23	1.67	3.10	2.89
Real Estate	15.22	8.20	-12.69	-1.90	4.10
NCREIF	8.66	13.11	-4.18	3.51	7.38
Private Equity	5.42	12.32	-0.07	6.03	-3.13
Hedge Funds	6.40	8.40	NA	NA	NA

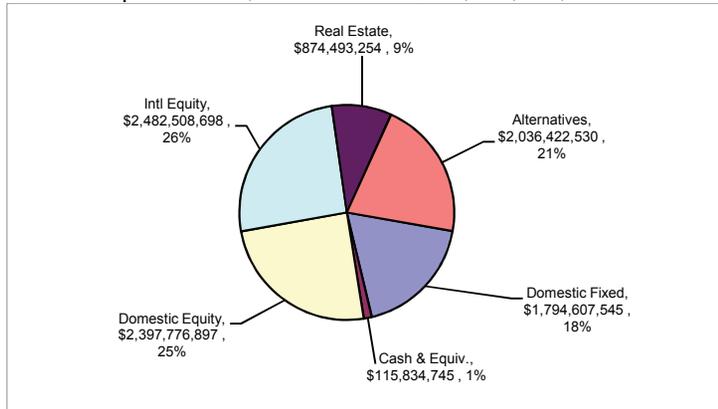
For the trailing ten-year period, the fund outperformed its policy index by 2 basis points. The more recent one-year period shows that the fund outperformed its policy index by 197 basis points. Strong performance in domestic equity, international equity and fixed income contributed to relative results over the one-year period despite weak relative performance in real estate.

\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

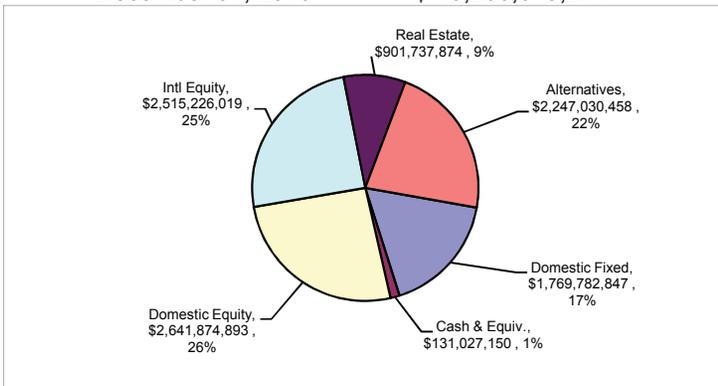
# School Employees Retirement System

**Asset Allocation  
SERS**

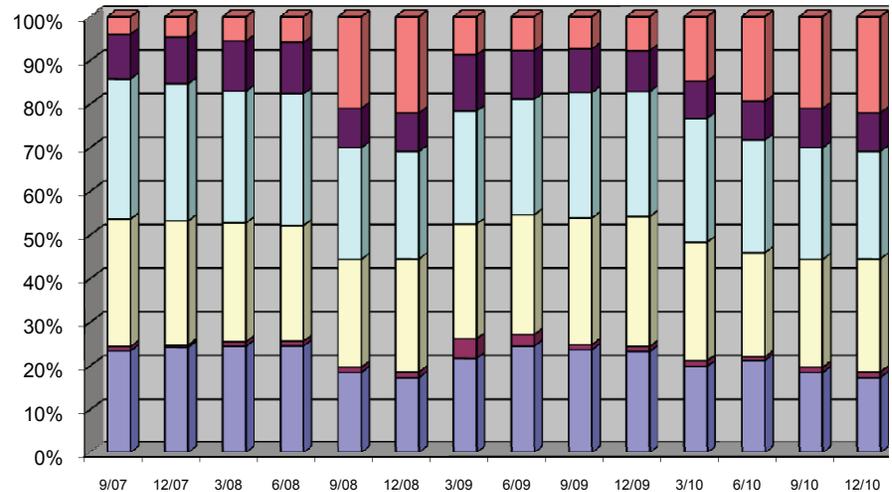
September 30, 2010 \$ 9,701,643,669



December 31, 2010 \$ 10,206,679,241



**Asset Allocation  
SERS**



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Fixed Income %	23.5	24.3	24.5	24.5	25.3	21.0	21.7	24.5	23.7	23.3	19.9	21.3	18.5	17.3
Cash & Equiv. %	1.0	0.5	1.0	1.1	1.6	3.6	4.5	2.7	1.2	1.2	1.3	0.8	1.2	1.3
Domestic Equity %	29.2	28.5	27.3	26.5	27.1	26.9	26.3	27.4	29.0	29.8	27.2	23.9	24.7	25.9
Intl Equity %	32.1	31.4	30.1	30.2	25.7	25.9	25.9	26.5	28.8	28.6	28.4	25.9	25.6	24.6
Real Estate %	10.2	10.6	11.5	11.8	13.1	14.2	12.9	11.2	10.0	9.4	8.5	8.9	9.0	8.8
Alternatives %	4.0	4.7	5.6	5.9	7.2	8.4	8.7	7.7	7.3	7.7	14.7	19.3	21.0	22.0
Total Value (\$bil)	11.9	11.7	10.9	10.8	9.7	8.3	7.6	8.3	9.1	9.4	9.6	9.0	9.7	10.2

\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio School Employees Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

# School Employees Retirement System

## Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-94	Sep-94	45.0	Standard & Poors 500
			28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE (Net)
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
Policy Index	Dec-94	Dec-94	45.0	Standard & Poors 500
			28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
Policy Index	Mar-95	Jun-95	45.0	Russell 3000
			28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
Policy Index	Sep-95	Mar-97	45.0	Russell 3000
			28.0	BC Aggregate
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
Policy Index	Jun-97	Jun-97	45.0	Russell 3000
			28.0	BC Aggregate
			15.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			1.0	Citigroup 30 Day T-Bill
			1.0	S&P 500 + 5%

Label	Quarter Start	Quarter End	Percent	Description			
Policy Index (cont.)	Sep-97	Jun-99	45.0	Russell 3000			
			28.0	BC Aggregate			
			14.5	MSCI EAFE 50% Hedged			
			0.5	MSCI Em Mkts Free			
			10.0	NCREIF			
			1.0	Citigroup 30 Day T-Bill			
			1.0	S&P 500 +5%			
			Policy Index (cont.)	Sep-99	Dec-99	45.0	Russell 3000
						28.0	BC Aggregate
						14.0	MSCI EAFE 50% Hedged
						1.0	MSCI Em Mkts Free
						10.0	NCREIF
1.0	Citigroup 30 Day T-Bill						
Policy Index (cont.)	Mar-00	Jun-01	48.0	Russell 3000			
			23.0	BC Aggregate			
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)			
			10.0	NCREIF			
			1.0	S&P 500 +5%			
			2.0	Citigroup 30 Day T-Bill			
Policy Index (cont.)	Sep-01	Jun-02	47.0	Russell 3000			
			23.0	BC Aggregate			
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)			
			10.0	NCREIF			
			2.0	Private Equity (0% return arrears switch)			
			2.0	Citigroup 30 Day T-Bill			
Policy Index (cont.)	Sep-02	Mar-07	46.0	Russell 3000			
			23.0	BC Aggregate			
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)			
			10.0	80% NCREIF (arrears), 20% NAREIT			
			3.0	S&P 500 (1Qtr arrears) + 3%			
			2.0	Citigroup 30 Day T-Bill			

# School Employees Retirement System

Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Mar-07*	Dec-07	30.0	Russell 3000
			24.0	BC Aggregate
			30.0	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			5.0	S&P 500 (1Qtr arrears) + 3%
			1.0	Citigroup 30 Day T-Bill
	Dec-07	Jan-09	29.8	Russell 3000
			24.0	BC Aggregate
			29.8	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			5.4	S&P 500 (1Qtr arrears) + 3%
			1.0	Citigroup 30 Day T-Bill
	Feb-09	Jun-10	27.5	Russell 3000
			24.0	BC Aggregate
			27.5	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			10.0	S&P 500 (1Qtr arrears) + 3%
			1.0	Citigroup 30 Day T-Bill
	Jul-10	Dec-10	22.5	Russell 3000
			22.5	MSCI ACWI ex US (Developed - 50% Hdg)
19.0			Barclays Capital U.S. Aggregate Bond	
10.0			NCREIF Property Index (one quarter in arrears)	
10.0			S&P 500 (1Qtr arrears) + 3%	
15.0			HFRI Fund of Funds Composite	

\*The SERS custom policy index calculation was implemented on May 31, 2007.

SERS' custom policy index is shown above.

# School Employees Retirement System

## Asset Allocation Actual vs. Benchmark September 30, 2010

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	24.7%	Russell 3000	22.5%	2.2%
Fixed Income	18.5%	BC Aggregate	19.0%	-0.5%
Intl. Equity	25.6%	MSCI ACWI ex US (Developed - 50% Hdg)	22.5%	3.1%
Real Estate	9.0%	Custom RE (1 Qtr arrears)	10.0%	-1.0%
Alternative Investments	21.0%	S&P 500 (1 Qtr arrears) + 3%	25.0%	-4.0%
Short Term	1.2%	Citigroup 30 Day T-Bill	1.0%	0.2%

## December 31, 2010

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	25.9%	Russell 3000	22.5%	3.4%
Fixed Income	17.3%	BC Aggregate	19.0%	-1.7%
Intl. Equity	24.7%	MSCI ACWI ex US (Developed - 50% Hdg)	22.5%	2.2%
Real Estate	8.8%	Custom RE (1 Qtr arrears)	10.0%	-1.2%
Alternative Investments	22.0%	S&P 500 (1 Qtr arrears) + 3%	25.0%	-3.0%
Short Term	1.3%	Citigroup 30 Day T-Bill	1.0%	0.3%

\*Alternative investments include Private Equity and Hedge Funds

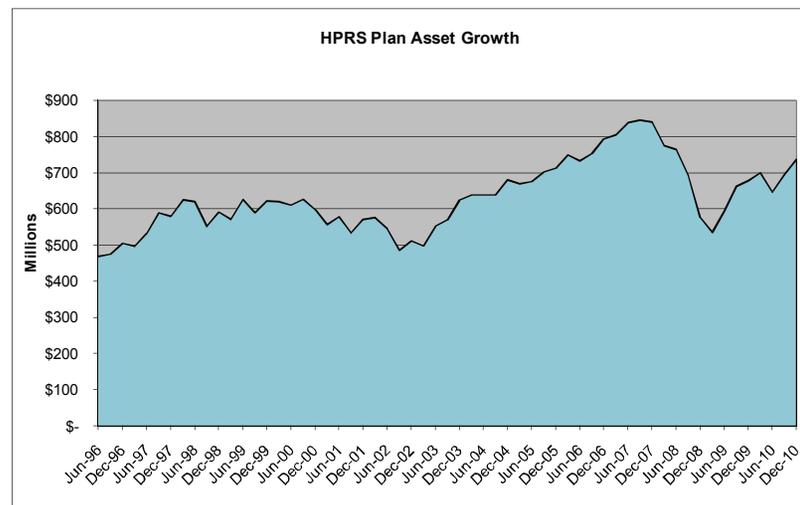
As of the end of the fourth quarter, SERS is overweight in domestic equity, international equity, and cash; while being underweight in fixed income, real estate and alternatives.



## **Highway Patrol Retirement System (HPRS)**

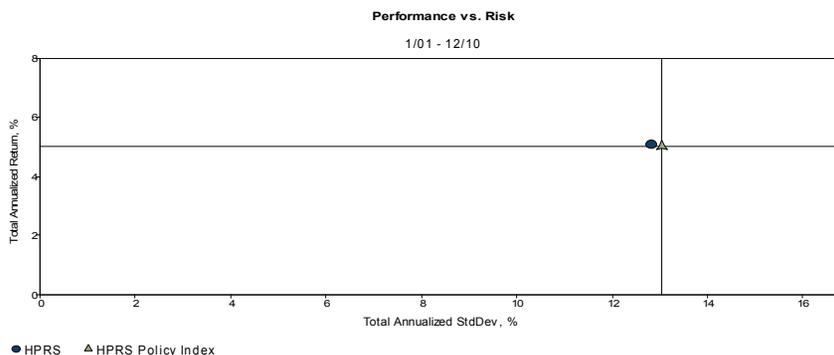
# Highway Patrol Retirement System

HPRS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	Ten Years
<b>US Equity</b>					
Actual	24.96%	20.87%	-0.25%	3.73%	4.11%
Benchmark	25.13%	18.83%	-1.11%	3.17%	3.29%
Difference	-0.17%	2.04%	0.86%	0.56%	0.82%
<b>Fixed Income</b>					
Actual	2.45%	7.70%	6.42%	6.30%	6.69%
Benchmark	1.17%	6.56%	5.91%	5.79%	5.83%
Difference	1.28%	1.14%	0.51%	0.51%	0.86%
<b>Intl. Equity</b>					
Actual	25.49%	11.21%	-5.29%	4.59%	4.44%
Benchmark	25.13%	11.61%	-4.58%	5.17%	4.86%
Difference	0.36%	-0.40%	-0.71%	-0.58%	-0.42%
<b>Real Estate</b>					
Actual	3.02%	-3.40%	-14.66%	-4.28%	2.15%
Benchmark	8.66%	13.11%	-4.18%	3.51%	7.38%
Difference	-5.64%	-16.51%	-10.48%	-7.79%	-5.23%
<b>Private Equity</b>					
Actual	3.95%	7.41%	1.17%	N/A	NA
Benchmark	0.64%	4.09%	5.69%	N/A	N/A
Difference	3.31%	3.32%	-4.52%	N/A	N/A
<b>Hedge Funds</b>					
Actual	6.65%	7.43%	1.55%	NA	NA
Benchmark	6.98%	5.70%	-2.53%	N/A	N/A
Difference	-0.33%	1.73%	4.08%	N/A	N/A



Asset Mix			
	Actual	Target	Difference
	December 31, 2010		
US Equity	46.0%	45.0%	1.0%
Intl. Equity	15.0%	15.0%	0.0%
Alternative Assets*	18.5%	15.0%	3.5%
<b>Total Equity</b>	<b>79.5%</b>	<b>75.0%</b>	<b>4.5%</b>
Fixed Income	16.7%	20.0%	-3.3%
Real Estate	2.7%	5.0%	-2.3%
Short Term Investments	1.0%	0.0%	1.0%
<b>Total Debt</b>	<b>20.5%</b>	<b>25.0%</b>	<b>-4.5%</b>
	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>

\*Alternative assets includes Private Equity and Hedge Funds.



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	Annualized Return, %	Annualized StdDev, %	Information Ratio
	Total	Total	Sharpe Ratio	Excess	Excess	Excess
HPRS	5.09	12.81	0.27	0.05	2.06	0.02
HPRS Policy Index	5.04	13.04	0.26	0.00	0.00	NA

## Characteristic Data

Assets at 12/31/2010 \$ 738,343,616  
 Actuarial Interest Rate: 8.00%  
 Investment Staff Size: 1

# Highway Patrol Retirement System

## Performance Overview

Returns for Period Ending December 31, 2010

	<u>2 Qtrs</u>	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	15.82	13.60	-0.09	4.30	5.09
Policy Index	15.98	13.40	0.99	5.09	5.04
Domestic Equity	24.96	20.87	-0.25	3.73	4.11
Domestic Equity Segment Median	24.94	18.13	-1.95	2.71	2.88
Wilshire 5000	24.42	17.17	-1.92	2.90	2.51
International Equity	25.49	11.21	-5.29	4.59	4.44
International Equity Segment Median	25.20	12.33	-5.16	4.64	5.81
MSCI EAFE	24.18	7.75	-7.02	2.46	3.50
Fixed Income	2.45	7.70	6.42	6.30	6.69
Fixed Income Segment Median	2.26	8.11	6.15	5.88	6.01
Barclays Capital U.S. Aggregate Index	1.15	6.54	5.90	5.80	5.84
Cash	0.01	0.06	1.00	2.89	2.87
Real Estate	3.02	-3.40	-14.66	-4.28	2.15
NCREIF	8.66	13.11	-4.18	3.51	7.38
Private Equity	3.95	7.41	1.17	NA	NA
Hedge Funds	6.65	7.43	1.55	NA	NA

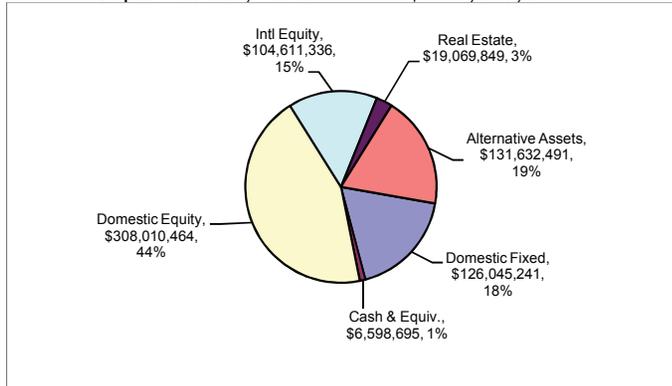
Over the ten-year period, the fund's total return outperformed its policy index by 5 basis points. Strong performance in fixed income drove absolute results while domestic equity aided relative performance. The more recent one-year period shows that HPRS outperformed the index by 20 basis points.

\* Benchmarks shown above for individual asset classes are not specific to the Plan's policy. Differences may exist due to rounding.

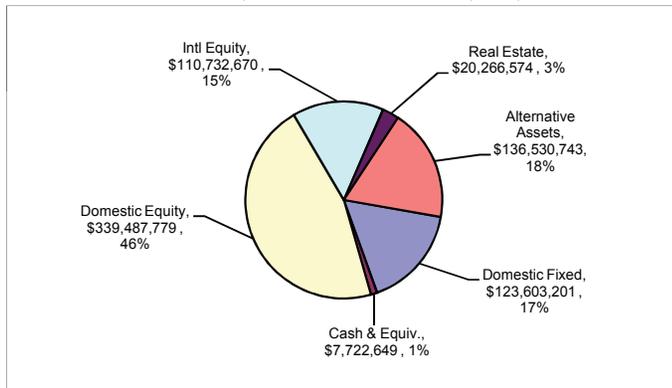
# Highway Patrol Retirement System

**Asset Allocation  
HPRS**

September 30, 2010 \$ 695,968,076

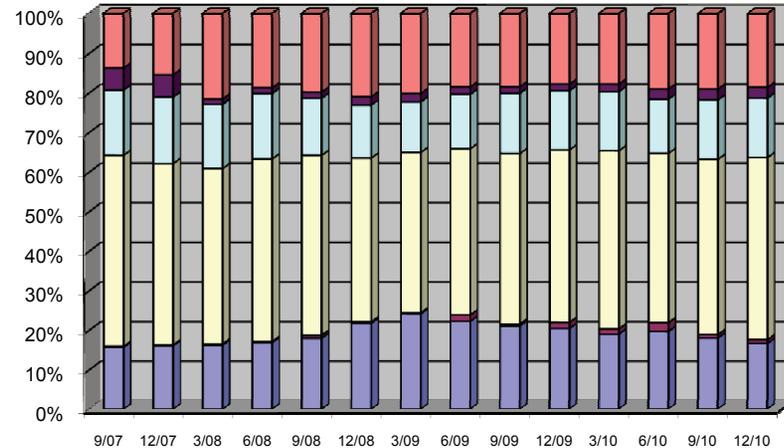


December 31, 2010 \$ 738,343,616



**Asset Allocation  
HPRS**

- Alternatives
- Real Estate
- Intl Equity
- Domestic Equity
- Cash & Equiv
- Domestic Fixed



	9/07	12/07	3/08	6/08	9/08	12/08	3/09	6/09	9/09	12/09	3/10	6/10	9/10	12/10
Domestic Fixed %	15.8	15.2	16.4	16.9	18.2	22.1	23.9	22.7	20.9	20.6	18.9	20.0	18.1	16.7
Cash & Equiv. %	0.2	0.3	0.2	0.7	0.4	0.2	1.6	0.5	1.6	1.3	2.3	0.9	1.0	1.1
Domestic Equity %	48.3	46.1	44.5	46.0	45.7	41.7	40.0	42.6	42.6	43.7	44.6	43.4	44.3	46.0
Intl Equity %	16.5	16.9	16.3	16.5	14.5	13.5	12.6	14.0	15.1	15.0	14.8	13.9	15.0	15.0
Real Estate %	5.6	6.0	1.1	1.2	1.6	2.1	2.1	1.9	1.6	1.7	1.9	2.6	2.7	2.7
Alternatives %	13.7	15.4	21.5	18.6	19.6	20.4	19.8	18.4	18.2	17.7	17.5	19.2	18.9	18.5
Total Value (\$mil)	845.9	835.2	773.8	763.0	691.1	572.9	535.3	593.0	663.3	679.1	700.9	651.4	695.9	738.3

\*Differences may occur due to rounding

This is the first page devoted to the analysis of the Ohio Highway Patrol Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the last two quarters of 2010. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

# Highway Patrol Retirement System

## Quarter Ending 12/31/2010

Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-94	Dec-95	50.0	BC Aggregate
			50.0	Standard & Poors 500
	Mar-96	Dec-97	50.0	Standard & Poors 500
			40.0	BC Aggregate
			5.0	MSCI EAFE (Net)
			5.0	NCREIF
	Mar-98	Sep-99	40.0	Standard & Poors 500
			25.0	BC Aggregate
			15.0	Russell 2000
			10.0	MSCI EAFE (Net)
	Dec-99	Dec-01	10.0	NCREIF
			40.0	Standard & Poors 500
			20.0	Russell 2000
			20.0	BC Aggregate
Mar-02	Dec-02	10.0	MSCI EAFE (Net)	
		10.0	NCREIF	
		40.0	Standard & Poors 500	
		20.0	Russell 2500	
Mar-03	Dec-06	20.0	BC Aggregate	
		10.0	MSCI EAFE (Net)	
		10.0	NCREIF	
		32.0	Standard & Poors 500	
			16.0	Russell 2500
			25.0	BC Aggregate
			15.0	MSCI EAFE (Net)
			12.0	NCREIF

Label	Quarter Start	Quarter End	Percent	Description	
Policy Index	Mar-07	Jun-07	32.0	Standard & Poors 500	
			18.0	Russell 2500	
			15.0	MSCI ACWI ex US	
			5.0	NCREIF	
			10.0	CPI + 5%	
			5.0	HFRI Fund of Funds	
	Sep-07	Jun-10	15.0	BC Aggregate	
			30.0	Standard & Poors 500	
			15.0	Russell 2500	
			20.0	BC Aggregate	
	Sep-10	Dec-10	15.0	MSCI ACWI ex US	
			5.0	NCREIF	
			10.0	CPI + 5%	
			5.0	HFRI Fund of Funds	
				30.0	Standard & Poors 500
				15.0	Russell 2500
				20.0	BC Aggregate
			15.0	MSCI ACWI ex US	
			5.0	NCREIF	
			10.0	Wilshire 5000 +3% (one qtr. In arrears)	
			5.0	HFRI Fund of Funds	

HPRS' custom policy index is shown above.

# Highway Patrol Retirement System

## Asset Allocation Actual vs. Benchmark September 30, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	44.3%	S&P 500 / Russell 2500 Blend	45.0%	-0.7%
Fixed Income	18.1%	BC Aggregate	20.0%	-1.9%
Intl. Equity	15.0%	MSCI AC World Index ex US	15.0%	0.0%
Real Estate	2.7%	NCREIF	5.0%	-2.3%
Alternative Investments	18.9%	HFRI Fund of Funds / Wilshire 5000 +3%	15.0%	3.9%
Short Term	1.0%	N/A	0.0%	1.0%

## December 31, 2010

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Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	46.0%	S&P 500 / Russell 2500 Blend	45.0%	1.0%
Fixed Income	16.8%	BC Aggregate	20.0%	-3.2%
Intl. Equity	15.0%	MSCI AC World Index ex US	15.0%	0.0%
Real Estate	2.7%	NCREIF	5.0%	-2.3%
Alternative Investments	18.5%	HFRI Fund of Funds / Wilshire 5000 +3%	15.0%	3.5%
Short Term	1.0%	N/A	0.0%	1.0%

\*Alternatives include Private Equity and Hedge Funds

As of the end of the fourth quarter, HPRS is overweight in domestic equity, alternative investments, and cash while being underweight in fixed income, and real estate. HPRS is in line with international equity.



**Index Definitions**  
**and**  
**Modern Portfolio Theory Definitions**

# Ohio Retirement Study Council

## INDEX DEFINITIONS

**Russell 1000** – Made up of the 1000 largest companies within the Russell 3000 index. It is also known as the Market-Oriented Index because it represents the group of stocks from which most active money managers choose.

**Russell 2000** – A small-cap index consisting of the smallest 2000 companies in the Russell 3000 index, representing approximately 8% of the Russell 3000 total market capitalization.

**Russell 2500** – A small-cap index consisting of the smallest 2500 companies in the Russell 3000 index, representing approximately 20% of the Russell 3000 total market capitalization.

**Russell 3000** – An index composed of 3000 large U.S. companies, as determined by market capitalization. This portfolio of securities represents approximately 98% of the investable U.S. equity market.

**S&P 500** – The Standard & Poors 500 is a commonly used benchmark of the U.S. equities market. This market capitalization-weighted index includes 500 leading companies in leading industries of the U.S. economy.

**S&P 500 Equal Weighted** – An index of the same stocks as those in the S&P 500, but with equal dollar investments in each issue.

**S&P 600 Small Cap** – An index designed to measure the performance of the small capitalization sector of the U.S. equities market. This index consists of 600 domestic stocks chosen for market size, liquidity, (bid-asked spread, ownership, share turnover and number of no trade days) and industry group representation.

**S&P MidCap 400** – An index designed to measure the performance of the middle capitalization sector of the U.S. equities market. This market capitalization weighted index was created in June of 1991 and consists of 400 domestic stocks from the NYSE, NASDAQ and AMEX chosen for market size, liquidity and industry group representation. Each stock added to the index must represent a viable enterprise and must be representative of the industry group to which it is assigned. The market price of each security in the index must be responsive to changes in industry affairs. Aggregate market value of the stock and its trading activity are important considerations in the selection process.

**DJ Wilshire 5000** – Measures the performance of all U.S. common equity securities, and so serves as an index of all stock trades in the United States.

# Ohio Retirement Study Council

**MSCI EAFE** – The index is listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE index is an aggregate of 21 individual country indexes that collectively represent many of the major markets of the world.

**MSCI Emerging Markets** – A capitalization-weighted index of stocks from 25 emerging markets that only includes issues that may be traded by foreign investors. Consists of equities from emerging markets in Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Turkey and Thailand.

**MSCI World Ex-US** – An index that measures the performance of the developed stock markets of the following developed countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.

**Citigroup Broad Investment Grade** – An index that spans the “available” market for U.S. Treasury/agency securities, investment grade corporate bonds (BBB or better) and mortgage pass-through securities.

**Barclays Capital U.S. Aggregate** – An index that includes fixed rate debt issues rated investment grade or higher by Moody’s Investor’s Service, Standard and Poor’s Corporation, or Fitch Investor’s Service, in that order. (It also includes Commercial Mortgage Backed Securities.) Bonds or securities included must be fixed rate, although they can carry a coupon that steps up or changes according to a predetermined schedule; must be dollar-denominated and nonconvertible; and must be publicly issued. All issues have at least one year to maturity with intermediate indices including bonds

**Barclays Capital Mortgage-Backed** – An index that includes 15 and 30 year fixed rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC), and Federal National Mortgage Association (FNMA).

**Barclays Capital 1-3 Yr US Government** – An index that includes securities issued by the U.S. Government (i.e., Treasury and Agency Securities) with a maturity from one year up to but not including three years.

**Barclays Capital U.S. Tips** – An index that consists of Inflation-Protection securities issued by the U.S. Treasury.

**NCREIF Property** – An index that is also known as the NPI or Combined Index. It consists of both equity and leveraged properties, but the leveraged properties are reported on an unleveraged basis. So, the index is completely unleveraged. The universe of properties includes: Existing properties only – no development projects; only investment-grade, non-agricultural, income-producing properties: apartment, industrial, office and retail; the database increases quarterly as participants execute transactions and as new members join NCREIF and submit data; sold properties are removed from the index in the quarter the sale takes place but the historical information remains in the database; each property’s market value is determined by real estate appraisal methodology, consistently applied.

# Ohio Retirement Study Council

## MODERN PORTFOLIO THEORY DEFINITIONS

**Alpha** – risk-adjusted measure of an investment manager's skill. It measures the difference between a portfolio's actual return and the results one would expect from an average portfolio with the same level of market risk, as measured by beta.

**Beta** – measures a portfolio's sensitivity to changes in the market. Here the market is the benchmark selected for the study. A portfolio's Beta is computed by regressing the portfolio excess returns over the excess returns of the benchmark.

**Down-Market Capture Ratio** – measures what portion of the market performance (benchmark) was captured by the manager over a period where the benchmark posted a negative return.

**Information Ratio** – measure of return per unit of risk. It measures a portfolio's risk-adjusted return by subtracting the *benchmark return* from the portfolio's return, divided by the standard deviation of the excess return (tracking error).

**R-Squared** – calculates how well the variability of returns of a portfolio is explained by movements in the benchmark.

**Returns-Based Style Analysis** – method used to examine the performance of a manager in relation to a number of benchmarks. Style analysis does not show the actual holdings of the portfolio. The return behavior of an account is measured and attributed to any number of style benchmarks.

**Sharpe Ratio** – measure of return per unit of risk. It measures a portfolio's risk-adjusted return by subtracting the *risk-free rate* of return from the portfolio's return, divided by the portfolio's standard deviation of returns.

**Standard Deviation** – measure of total risk. It measures the variability of a portfolio's returns around the portfolio's expected return.

**Tracking Error** – measures the standard deviation of the portfolio's excess return over the benchmark. It indicates the extent to which period-to-period returns vary about the average return of the entire period.

**Up-Market Capture Ratio** – measures what portion of the market performance (benchmark) was captured by the manager over a period where the benchmark posted a positive return.



## Performance Comparison

# Ohio Retirement Study Council

Performance Summary Table  
Periods Ending 12/31/2010

	2 Qtrs	1 Yr	3 Yrs	5 Yrs	10 Yrs	Incept Date
<b>HPRS</b>						
Total Return	15.82	13.60	-0.09	4.30	5.09	12/31/93
Domestic Equity	24.96	20.87	-0.25	3.73	4.11	12/31/93
Fixed Income	2.45	7.70	6.42	6.30	6.69	12/31/93
Cash & Equiv	0.01	0.06	1.00	2.89	2.87	3/31/94
Real Estate	3.02	-3.40	-14.66	-4.28	2.15	12/31/93
International Equity	25.49	11.21	-5.29	4.59	4.44	3/31/95
Private Equity	3.95	7.41	1.17	NA	NA	9/30/06
Hedge Funds	6.65	7.43	1.55	NA	NA	12/31/06
<b>PERS (Defined Benefit Plan)</b>						
Total Return	16.94	14.01	-0.35	4.39	4.99	12/31/93
Domestic Equity	24.53	16.68	-2.27	2.42	2.24	12/31/93
Fixed Income	2.94	10.83	6.27	6.04	6.35	12/31/93
Cash & Equiv	0.15	0.97	1.32	2.90	2.61	12/31/93
Real Estate	8.20	6.59	-7.16	1.75	NA	12/31/02
Public Real Estate	22.48	29.51	0.25	2.47	NA	12/31/04
International Equity	24.77	12.33	-5.01	4.86	5.67	12/31/95
Private Equity	11.54	21.20	0.66	9.05	8.94	12/31/95
Hedge Funds	10.94	26.08	6.50	NA	NA	3/31/06
Tactical Asset Allocation**	40.17	23.76	NA	NA	NA	12/31/09
<b>PERS (Health Care Plan)</b>						
Total Return	16.76	13.51	1.69	4.86	NA	12/31/04
Domestic Equity	24.53	16.68	-2.27	2.42	NA	12/31/04
Fixed Income	3.48	8.90	4.53	4.85	NA	12/31/04
Cash & Equiv	0.20	0.57	1.17	2.83	NA	12/31/04
Public Real Estate	22.48	29.51	0.25	2.48	NA	12/31/04
International Equity	24.76	12.34	-5.01	4.88	NA	12/31/04
Private Equity	1.02	-5.39	NA	NA	NA	3/31/08
Hedge Funds	10.93	26.07	NA	NA	NA	2/28/05
Commodities	18.64	6.81	NA	NA	NA	3/31/08
<b>OP&amp;F***</b>						
Total Return	18.66	15.83	0.21	5.24	5.60	3/31/88
Domestic Equity	27.08	22.43	0.26	4.04	3.64	12/31/91
Fixed Income	6.87	12.76	8.94	7.73	7.70	3/31/88
Cash & Equiv	0.11	0.22	0.95	2.52	2.43	12/31/91
Real Estate	10.28	4.86	-12.43	0.51	6.99	3/31/88
International Equity	26.19	15.11	-4.46	6.17	5.84	9/30/94
Private Equity	4.86	12.57	-0.94	8.52	0.27	12/31/88
<b>SERS</b>						
Total Return	15.19	12.35	-1.88	3.62	4.26	12/31/93
Domestic Equity	25.82	18.69	-1.79	2.41	2.05	12/31/93
Fixed Income	3.93	10.07	8.05	7.02	6.80	12/31/93
Cash & Equiv	0.12	0.23	1.67	3.10	2.89	12/31/93
Real Estate	15.22	8.20	-12.69	-1.90	4.10	12/31/93
International Equity	22.13	13.75	-4.08	5.32	5.78	12/31/94
Private Equity	5.42	12.32	-0.07	6.03	-3.13	12/31/93
Hedge Funds	6.40	8.40	NA	NA	NA	3/31/08
<b>STRS</b>						
Total Return	16.17	13.49	-1.31	4.34	5.03	12/31/93
Domestic Equity	24.73	16.64	-2.40	2.45	1.98	12/31/93
Fixed Income	2.30	7.70	7.17	6.74	6.75	12/31/93
Cash & Equiv	0.10	0.21	1.17	2.72	2.52	12/31/93
Real Estate	8.23	9.98	-6.69	5.69	9.73	12/31/93
International Equity	21.74	12.17	-4.05	4.91	6.92	12/31/93
Private Equity	6.55	17.84	-0.62	7.67	4.97	12/31/93
Hedge Funds	8.35	3.96	-0.44	9.23	NA	3/31/03
Opportunistic****	7.06	16.01	NA	NA	NA	3/31/09
<b>Indices</b>						
Russell 1000	24.05	16.10	-2.38	2.59	1.82	
Russell 2000	29.38	26.85	2.22	4.47	6.33	
Russell 2500	28.89	26.70	2.48	4.85	6.97	
Russell 3000	24.46	16.93	-2.02	2.74	2.16	
Standard & Poors 500	23.27	15.06	-2.86	2.29	1.41	
S&P 500 Equal Wtd	26.24	21.91	2.44	4.80	6.26	
S&P 600 Small Cap	27.42	26.31	3.01	4.64	7.66	
S&P 400 Mid Cap	28.39	26.64	3.52	5.74	7.16	
DJ Wilshire 5000	24.42	17.17	-1.92	2.90	2.51	
MSCI EAFE (Net)	24.18	7.75	-7.02	2.46	3.50	
MSCI Em Mkts Free (Gross)	26.86	19.20	-0.03	13.11	16.23	
MSCI World ex-U.S. (Net)	24.46	8.95	-6.33	3.05	3.98	
Citigroup Broad Inv Grade	0.98	6.30	6.12	5.98	5.96	
Barclays Capital Aggregate	1.15	6.54	5.90	5.80	5.84	
BC Mortgage	0.87	5.37	6.52	6.34	5.88	
BC 1-3 Yr US Gov't	0.50	2.40	3.47	4.32	4.07	
BC Long-Term Gov't/Credit	-0.08	10.16	6.78	5.92	7.11	
BC US TIPS	1.82	6.31	4.97	5.33	7.02	
NCREIF Property	8.66	13.11	-4.18	3.51	7.38	
Wilshire Resi Full Cap	22.51	29.12	0.13	2.32	10.34	

The Summary Tables display each of the System's total fund and individual asset class returns as well as the returns for selected broad market indices over the measurement period.

All returns are reported gross of fees, except for alternatives (private equity, hedge funds, commodities, tactical asset allocation, and opportunistic) which are reported net of fees. Real estate returns are reported gross of fees.

\* Differences may exist due to rounding

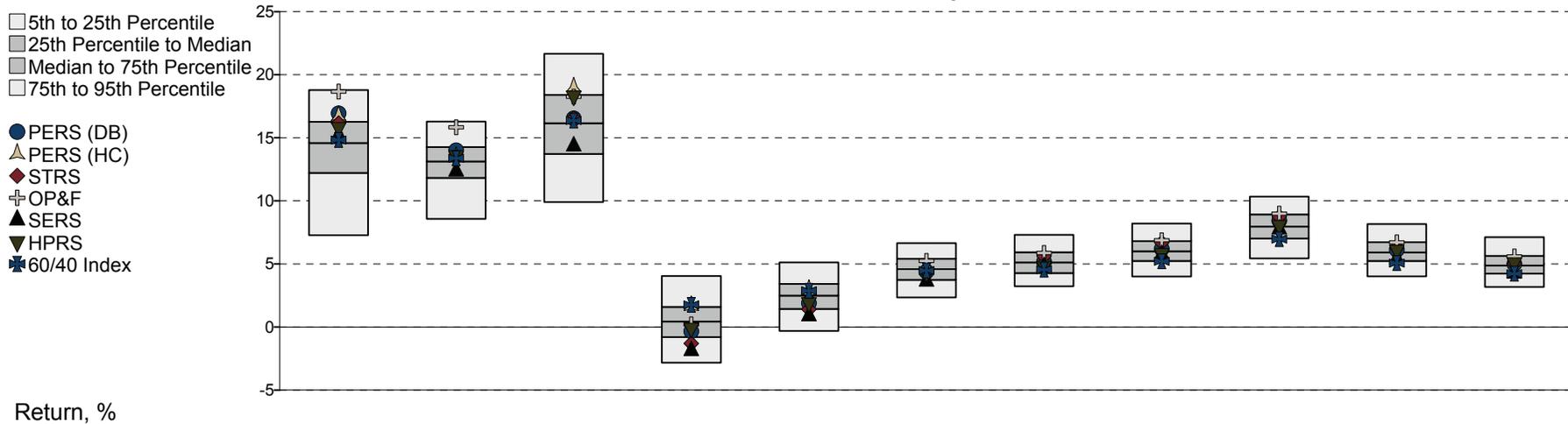
\*\* PERS Tactical Asset Allocation; underlying managers are utilized for asset allocation and alpha generation.

\*\*\* OP&F Portable alpha strategy, which includes Hedge Funds, is embedded in U.S. equity composite.

\*\*\*\* STRS Opportunistic allocation includes PPIP, Distressed Debt, Energy Funds, FDIC-Assisted Bank Investments and Hedge Funds: (0.6% of total assets).

## Total Plans vs. BNYMellon All Total Fund Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	16.94	14.01	16.54	-0.35	1.89	4.39	5.19	6.20	8.43	6.11	4.99
PERS (HC)	16.76	13.51	19.02	1.69	2.97	4.86	5.37	NA	NA	NA	NA
STRS	16.17	13.49	16.55	-1.31	1.40	4.34	5.61	6.68	8.74	6.28	5.03
OP&F	18.66	15.83	18.26	0.21	2.68	5.24	5.87	6.88	8.99	6.71	5.60
SERS	15.19	12.35	14.34	-1.88	0.87	3.62	4.78	5.74	7.75	5.41	4.26
HPRS	15.82	13.60	18.32	-0.09	1.94	4.30	4.81	5.84	8.06	6.09	5.09
60/40 Index	14.83	13.37	16.37	1.76	2.87	4.47	4.54	5.20	6.96	5.06	4.22
Universe(5%)	18.78	16.29	21.67	4.04	5.12	6.65	7.31	8.20	10.34	8.16	7.12
Universe(25%)	16.27	14.26	18.39	1.59	3.41	5.41	5.93	6.81	8.93	6.72	5.64
Universe(Median)	14.58	13.12	16.15	0.43	2.49	4.59	5.12	6.01	7.96	5.92	4.87
Universe(75%)	12.22	11.82	13.72	-0.80	1.43	3.73	4.27	5.24	7.02	5.24	4.23
Universe(95%)	7.27	8.57	9.91	-2.84	-0.31	2.35	3.22	4.01	5.44	4.01	3.17

Percentile Rank

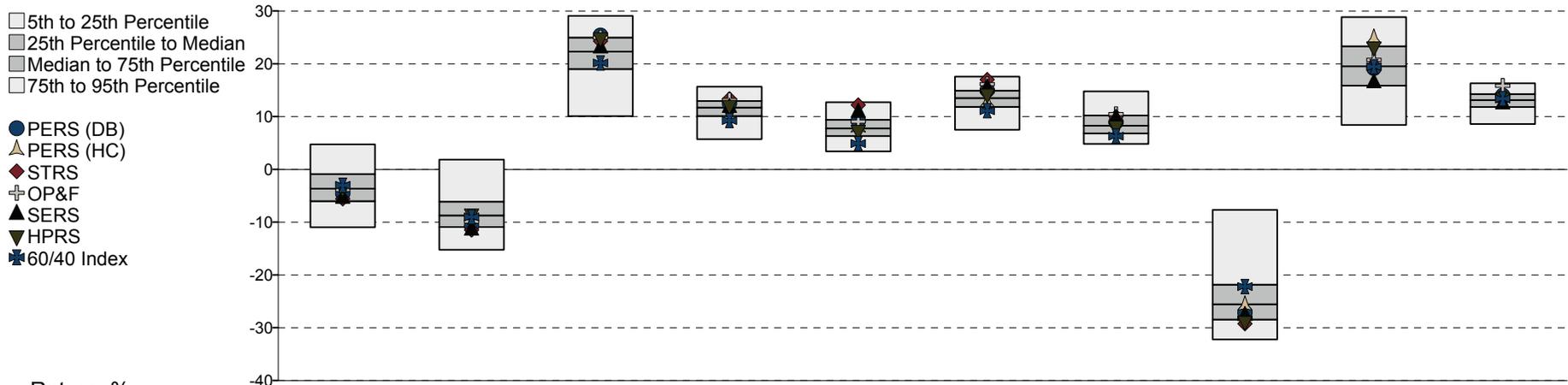
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	20	31	45	64	65	58	47	44	39	45	47
PERS (HC)	21	42	19	23	37	41	42	NA	NA	NA	NA
STRS	26	43	44	80	76	59	33	30	30	39	46
OP&F	6	8	27	56	46	28	27	24	23	26	26
SERS	40	65	71	86	85	78	63	60	56	70	74
HPRS	31	39	26	60	65	61	62	57	48	45	44
60/40 Index	47	45	47	22	41	54	70	76	78	79	75

This page compares the Total Fund results to a broad universe of total funds over a ten-year measurement period. Here and elsewhere in the report, the “floating bars” define the universe against which the performance is being compared. The table just below the graph displays each fund’s return for that period and the table below that defines each fund’s relevant ranking in the universe. The numbers in the “rank” rows are percentile rankings. The 60/40 Index is the composition of a hypothetical portfolio of 60% stocks (DJ Wilshire 5000 Index) and 40% bonds (Barclays Capital U.S. Aggregate Index). The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years ending December 31, 2010. The graph shows that OP&F has demonstrated the highest return for the ten-year period with a 5.60% annualized return, which ranks the fund in the 26th percentile followed by HPRS (44th percentile), STRS (46th percentile), PERS DB (47th percentile), and SERS (74th percentile).

\*Differences may exist due to rounding.

Total Plans vs. BNYMellon All Total Fund Universe as of 12/31/10  
Performance and Rank Data

Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	-4.57	-10.73	25.40	12.51	9.24	15.02	8.94	-27.14	19.13	14.01
PERS (HC)	NA	NA	NA	NA	8.00	12.75	6.91	-25.77	24.80	13.51
STRS	-5.59	-11.49	24.29	13.35	12.19	17.00	9.97	-29.23	19.69	13.49
OP&F	-3.88	-9.89	24.97	13.13	9.06	16.15	10.47	-28.05	20.73	15.83
SERS	-5.52	-11.57	22.93	11.69	10.76	15.37	9.61	-27.74	16.36	12.35
HPRS	-3.46	-8.42	24.96	12.18	7.42	14.32	8.26	-28.76	23.25	13.60
60/40 Index	-3.03	-9.01	20.14	9.25	4.90	11.12	6.30	-22.19	19.44	13.37
Universe(5%)	4.75	1.84	29.08	15.64	12.70	17.55	14.77	-7.67	28.84	16.29
Universe(25%)	-0.88	-6.13	24.96	12.95	9.38	14.91	10.21	-21.83	23.33	14.26
Universe(Median)	-3.64	-8.74	22.30	11.70	7.75	13.52	8.28	-25.55	19.54	13.12
Universe(75%)	-6.02	-10.91	19.01	10.12	6.31	11.84	6.81	-28.45	15.87	11.82
Universe(95%)	-10.96	-15.23	10.07	5.72	3.39	7.49	4.81	-32.20	8.41	8.57

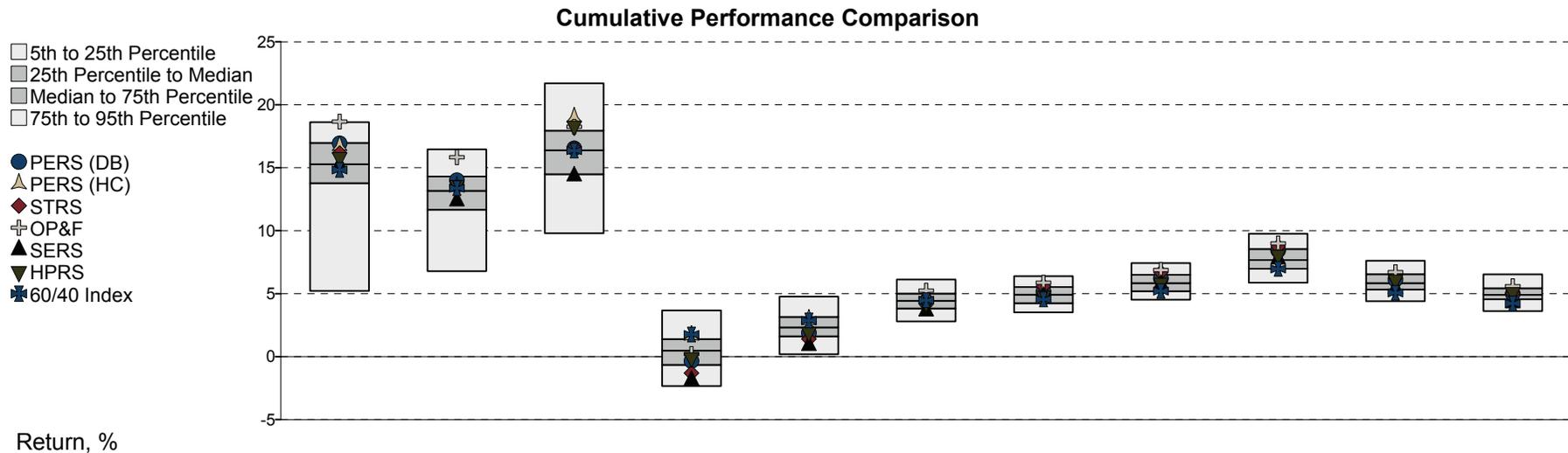
Percentile Rank

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	60	72	21	33	26	24	41	65	52	31
PERS (HC)	NA	NA	NA	NA	46	63	73	52	17	42
STRS	71	80	31	21	6	7	27	79	49	43
OP&F	52	64	25	23	29	12	22	71	41	8
SERS	70	81	44	51	13	19	31	69	73	65
HPRS	48	47	25	41	58	35	50	76	25	39
60/40 Index	45	53	69	82	87	82	81	28	50	45

The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2010. OP&F ranked in the top quartile of the universe while PERS DB, PERS HC, STRS and HPRS ranked in the second quartile. SERS ranked in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Plans vs. BNYMellon All Public Total Fund Universe Performance and Rank Data as of 12/31/10



	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	16.94	14.01	16.54	-0.35	1.89	4.39	5.19	6.20	8.43	6.11	4.99
PERS (HC)	16.76	13.51	19.02	1.69	2.97	4.86	5.37	NA	NA	NA	NA
STRS	16.17	13.49	16.55	-1.31	1.40	4.34	5.61	6.68	8.74	6.28	5.03
OP&F	18.66	15.83	18.26	0.21	2.68	5.24	5.87	6.88	8.99	6.71	5.60
SERS	15.19	12.35	14.34	-1.88	0.87	3.62	4.78	5.74	7.75	5.41	4.26
HPRS	15.82	13.60	18.32	-0.09	1.94	4.30	4.81	5.84	8.06	6.09	5.09
60/40 Index	14.83	13.37	16.37	1.76	2.87	4.47	4.54	5.20	6.96	5.06	4.22
Universe(5%)	18.63	16.46	21.70	3.67	4.76	6.12	6.38	7.43	9.77	7.62	6.53
Universe(25%)	16.97	14.31	17.95	1.39	3.15	5.01	5.53	6.51	8.55	6.55	5.43
Universe(Median)	15.28	13.17	16.39	0.47	2.32	4.44	4.92	5.84	7.67	5.84	4.90
Universe(75%)	13.78	11.66	14.48	-0.65	1.61	3.83	4.25	5.20	6.98	5.33	4.55
Universe(95%)	5.22	6.79	9.80	-2.34	0.19	2.79	3.52	4.53	5.87	4.40	3.61

### Percentile Rank

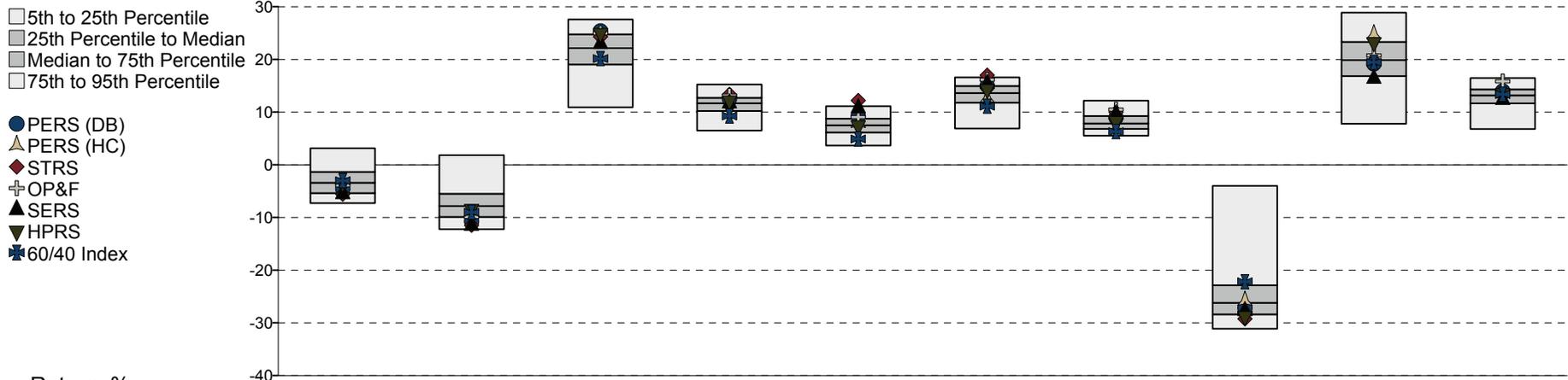
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	25	35	47	69	65	53	40	34	29	43	47
PERS (HC)	26	45	15	20	30	31	33	NA	NA	NA	NA
STRS	33	46	47	83	78	55	21	20	20	37	45
OP&F	4	9	23	61	36	18	17	15	16	20	17
SERS	52	62	78	91	88	84	56	53	44	72	83
HPRS	41	44	23	65	64	57	55	51	37	44	42
60/40 Index	65	46	50	18	32	45	65	74	76	84	85

The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years. The graph above compares the Total Fund results to a universe of all Public Retirement Systems in the Mellon All Public Total Fund Universe. As of December 31, 2010, OP&F ranked in the 17th percentile, HPRS ranked in the 42nd percentile, PERS DB ranked in the 47th percentile, STRS ranked in the 45th percentile and SERS ranked in the 83rd percentile of the universe for the ten-year period.

\*Differences may exist due to rounding.

Total Plans vs. BNYMellon All Public Total Fund Universe as of 12/31/10  
Performance and Rank Data

Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	-4.57	-10.73	25.40	12.51	9.24	15.02	8.94	-27.14	19.13	14.01
PERS (HC)	NA	NA	NA	NA	8.00	12.75	6.91	-25.77	24.80	13.51
STRS	-5.59	-11.49	24.29	13.35	12.19	17.00	9.97	-29.23	19.69	13.49
OP&F	-3.88	-9.89	24.97	13.13	9.06	16.15	10.47	-28.05	20.73	15.83
SERS	-5.52	-11.57	22.93	11.69	10.76	15.37	9.61	-27.74	16.36	12.35
HPRS	-3.46	-8.42	24.96	12.18	7.42	14.32	8.26	-28.76	23.25	13.60
60/40 Index	-3.03	-9.01	20.14	9.25	4.90	11.12	6.30	-22.19	19.44	13.37
Universe(5%)	3.15	1.82	27.58	15.23	11.11	16.58	12.17	-4.00	28.85	16.46
Universe(25%)	-1.35	-5.50	24.76	12.72	8.73	14.97	9.27	-22.87	23.33	14.31
Universe(Median)	-3.41	-7.84	22.12	11.67	7.50	13.62	7.85	-26.18	19.86	13.17
Universe(75%)	-5.38	-9.89	19.05	10.22	6.13	11.79	6.81	-28.38	16.84	11.66
Universe(95%)	-7.28	-12.23	10.90	6.50	3.65	6.88	5.51	-31.14	7.79	6.79

Percentile Rank

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	62	80	17	29	18	24	30	62	55	35
PERS (HC)	NA	NA	NA	NA	37	61	73	48	14	45
STRS	77	88	32	16	2	3	15	82	51	46
OP&F	53	75	22	19	19	7	13	72	42	9
SERS	76	88	45	49	8	17	19	69	78	62
HPRS	50	54	22	36	54	35	39	77	26	44
60/40 Index	46	63	69	82	85	82	83	23	54	46

The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2010. OP&F ranked in the top quartile of the universe while PERS DB, HPRS, PERS HC and STRS ranked in the second quartile. SERS ranked in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

**Total Plans vs. BNYMellon Large Public Total Fund Universe  
Performance and Rank Data as of 12/31/10**

**Cumulative Performance Comparison**



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	16.94	14.01	16.54	-0.35	1.89	4.39	5.19	6.20	8.43	6.11	4.99
PERS (HC)	16.76	13.51	19.02	1.69	2.97	4.86	5.37	NA	NA	NA	NA
STRS	16.17	13.49	16.55	-1.31	1.40	4.34	5.61	6.68	8.74	6.28	5.03
OP&F	18.66	15.83	18.26	0.21	2.68	5.24	5.87	6.88	8.99	6.71	5.60
SERS	15.19	12.35	14.34	-1.88	0.87	3.62	4.78	5.74	7.75	5.41	4.26
HPRS	15.82	13.60	18.32	-0.09	1.94	4.30	4.81	5.84	8.06	6.09	5.09
60/40 Index	14.83	13.37	16.37	1.76	2.87	4.47	4.54	5.20	6.96	5.06	4.22
Universe(5%)	18.53	16.42	21.54	4.20	4.96	6.10	6.34	7.59	10.03	7.94	6.76
Universe(25%)	16.61	14.35	18.42	1.54	3.28	5.18	5.67	6.69	8.66	6.68	5.55
Universe(Median)	15.37	13.57	16.49	0.45	2.37	4.55	5.17	6.01	7.87	6.22	5.11
Universe(75%)	13.77	12.06	14.62	-0.59	1.73	4.10	4.64	5.50	7.09	5.58	4.72
Universe(95%)	7.82	10.12	11.29	-1.97	0.69	3.03	3.93	4.69	6.07	4.56	4.06

Percentile Rank

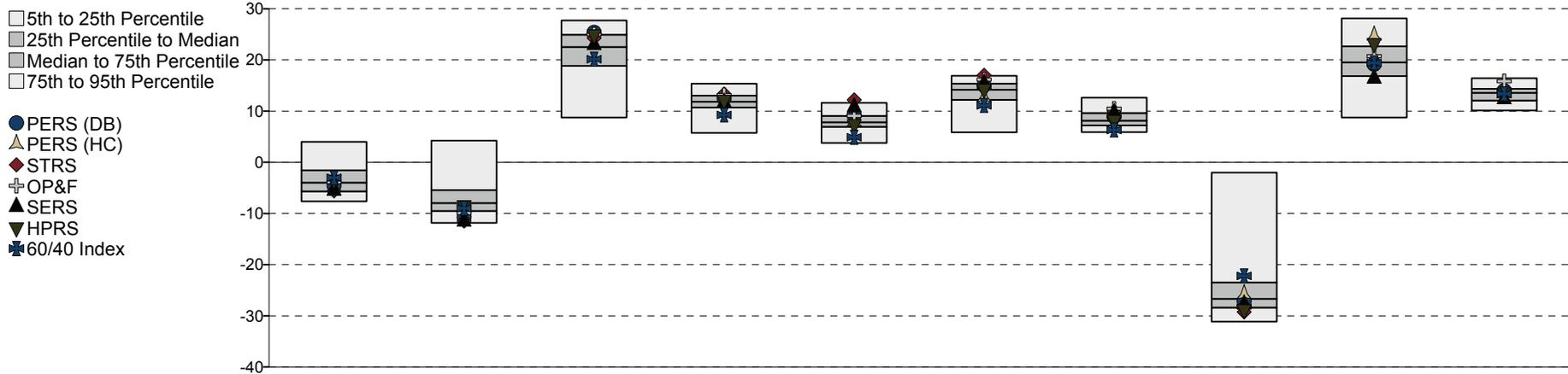
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB)	23	38	49	70	68	62	49	44	34	53	55
PERS (HC)	24	51	15	22	32	35	41	NA	NA	NA	NA
STRS	32	52	49	88	82	64	27	25	23	46	53
OP&F	2	9	26	59	39	23	21	19	18	25	24
SERS	53	72	82	93	92	86	66	65	53	81	89
HPRS	40	49	25	64	67	66	65	62	45	54	51
60/40 Index	62	53	54	20	34	53	76	85	81	89	91

The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years and compares Total Fund results to a universe of Large Public Retirement Systems with total assets over one billion dollars. OP&F placed in the first quartile, while HPRS, STRS and PERS DB placed in the third quartile within the Mellon Large Public Total Fund Universe for the ten-year period. SERS ranked in the bottom quartile for the same period.

\*Differences may exist due to rounding.

Total Plans vs. BNYMellon Large Public Total Fund Universe as of 12/31/10  
Performance and Rank Data

Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	-4.57	-10.73	25.40	12.51	9.24	15.02	8.94	-27.14	19.13	14.01
PERS (HC)	NA	NA	NA	NA	8.00	12.75	6.91	-25.77	24.80	13.51
STRS	-5.59	-11.49	24.29	13.35	12.19	17.00	9.97	-29.23	19.69	13.49
OP&F	-3.88	-9.89	24.97	13.13	9.06	16.15	10.47	-28.05	20.73	15.83
SERS	-5.52	-11.57	22.93	11.69	10.76	15.37	9.61	-27.74	16.36	12.35
HPRS	-3.46	-8.42	24.96	12.18	7.42	14.32	8.26	-28.76	23.25	13.60
60/40 Index	-3.03	-9.01	20.14	9.25	4.90	11.12	6.30	-22.19	19.44	13.37
Universe(5%)	3.99	4.22	27.72	15.37	11.62	16.91	12.62	-2.01	28.11	16.42
Universe(25%)	-1.56	-5.45	24.91	13.03	9.07	15.36	9.63	-23.47	22.66	14.35
Universe(Median)	-3.99	-7.97	22.53	11.82	7.82	14.16	8.13	-26.68	19.53	13.57
Universe(75%)	-5.69	-9.52	18.83	10.71	6.94	12.20	7.22	-28.39	16.85	12.06
Universe(95%)	-7.64	-11.85	8.76	5.75	3.79	5.86	5.90	-31.13	8.74	10.12

Percentile Rank

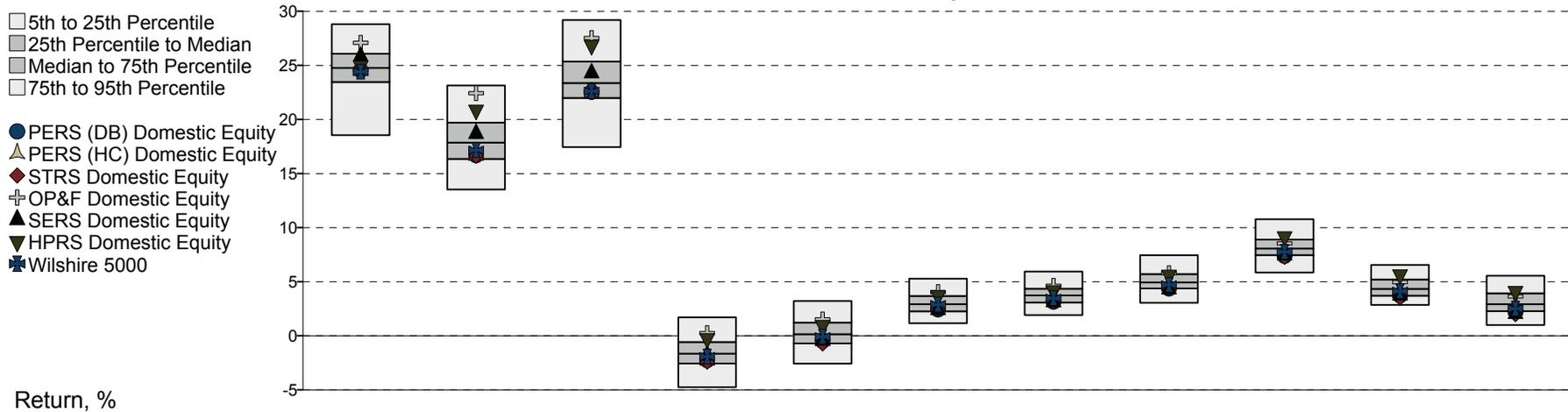
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB)	58	82	21	38	23	31	38	58	55	38
PERS (HC)	NA	NA	NA	NA	43	68	83	44	11	51
STRS	74	91	35	20	3	4	19	81	48	52
OP&F	48	78	24	24	25	11	16	69	39	9
SERS	73	91	49	60	11	25	25	66	77	72
HPRS	45	54	24	45	66	45	46	78	22	49
60/40 Index	40	65	69	88	91	86	89	20	52	53

The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2010. In 2010, OP&F placed in the top quartile, while PERS DB and HPRS placed in the second quartile. PERS HC, STRS and SERS placed in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010 .

**Total Domestic Equities vs. BNYMellon All Domestic Equities Universe  
Performance and Rank Data as of 12/31/10**

**Cumulative Performance Comparison**



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Domestic Equity	24.53	16.68	22.53	-2.27	-0.47	2.42	3.14	4.36	7.38	3.72	2.24
PERS (HC) Domestic Equity	24.53	16.68	22.53	-2.27	-0.47	2.42	3.14	NA	NA	NA	NA
STRS Domestic Equity	24.73	16.64	22.58	-2.40	-0.72	2.45	3.13	4.35	7.28	3.52	1.98
OP&F Domestic Equity	27.08	22.43	27.52	0.26	1.51	4.04	4.63	5.79	8.55	4.96	3.64
SERS Domestic Equity	25.82	18.69	24.28	-1.79	-0.41	2.41	3.14	4.33	7.45	3.75	2.05
HPRS Domestic Equity	24.96	20.87	26.85	-0.25	0.95	3.73	4.18	5.62	9.17	5.64	4.11
Wilshire 5000	24.42	17.17	22.61	-1.92	-0.09	2.90	3.47	4.72	7.76	4.12	2.51
Universe(5%)	28.80	23.14	29.18	1.70	3.22	5.28	5.94	7.45	10.78	6.54	5.56
Universe(25%)	26.08	19.70	25.36	-0.58	1.21	3.68	4.36	5.71	8.89	5.21	3.92
Universe(Median)	24.76	17.87	23.37	-1.64	0.15	2.92	3.73	4.93	8.07	4.35	2.92
Universe(75%)	23.46	16.36	21.99	-2.56	-0.70	2.26	3.07	4.38	7.46	3.71	2.27
Universe(95%)	18.55	13.52	17.45	-4.76	-2.57	1.17	1.91	3.04	5.85	2.86	1.00

**Percentile Rank**

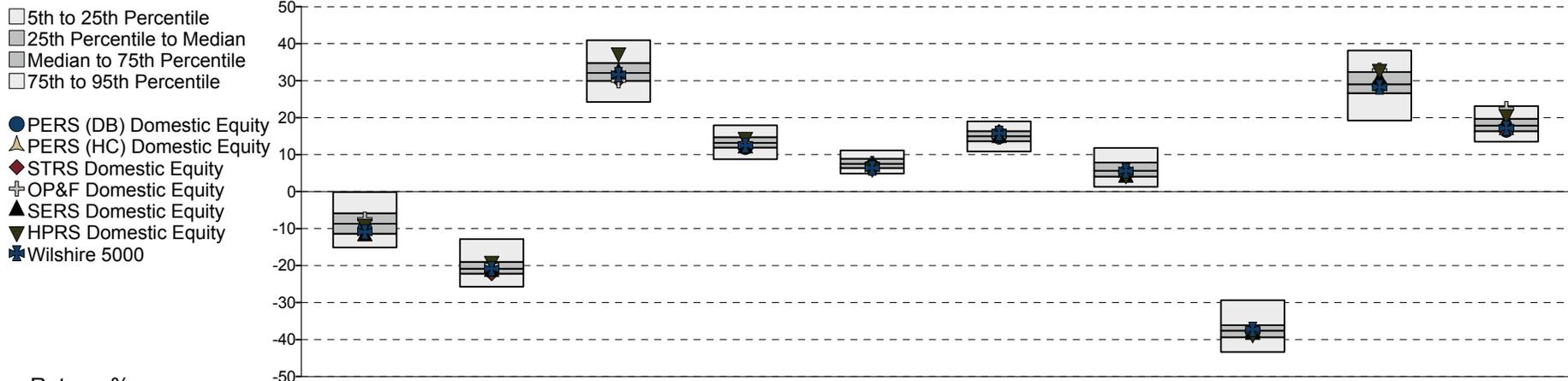
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Domestic Equity	56	71	66	68	68	70	72	76	77	74	77
PERS (HC) Domestic Equity	56	71	66	68	68	70	72	NA	NA	NA	NA
STRS Domestic Equity	51	72	65	71	76	67	72	76	80	81	84
OP&F Domestic Equity	12	6	9	16	21	19	18	22	34	31	31
SERS Domestic Equity	29	38	37	53	65	71	71	76	75	73	82
HPRS Domestic Equity	46	14	12	22	31	23	35	28	17	17	21
Wilshire 5000	60	63	63	57	56	50	56	60	61	63	66

The exhibits above, and on the next three pages, focus on domestic equity results. The analysis is similar to the Total Fund analysis, except that now the comparisons are to a broad equity universe (above) and to the equity returns of Public Funds. When compared to equity portfolios in the broad equity universe, for the past ten years ending December 31, 2010, HPRS placed in the first quartile, while OP&F placed in the second quartile. PERS DB, SERS and STRS ranked in the bottom quartile.

\*Differences may exist due to rounding.

Total Domestic Equities vs. BNYMellon All Domestic Equities Universe as of 12/31/10  
Performance and Rank Data

Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Domestic Equity	-10.14	-21.37	31.09	11.99	6.79	14.86	5.12	-37.83	28.68	16.68
PERS (HC) Domestic Equity	NA	NA	NA	NA	6.79	14.86	5.12	-37.83	28.68	16.68
STRS Domestic Equity	-10.90	-22.16	30.20	11.95	6.59	16.21	4.48	-38.12	28.81	16.64
OP&F Domestic Equity	-7.47	-19.81	30.00	13.05	7.59	14.81	5.37	-38.03	32.82	22.43
SERS Domestic Equity	-12.04	-21.66	32.12	11.73	6.88	14.55	3.83	-38.68	30.14	18.69
HPRS Domestic Equity	-8.74	-18.76	37.58	14.74	6.45	15.59	4.66	-38.32	33.12	20.87
Wilshire 5000	-10.90	-20.86	31.65	12.49	6.39	15.77	5.62	-37.23	28.30	17.17
Universe(5%)	-0.14	-12.86	40.93	17.93	11.15	19.00	11.82	-29.35	38.18	23.14
Universe(25%)	-5.83	-18.99	34.78	14.71	8.91	16.34	7.87	-36.11	32.33	19.70
Universe(Median)	-8.69	-20.85	32.10	13.17	7.54	14.98	5.67	-37.57	29.02	17.87
Universe(75%)	-11.37	-22.17	29.94	11.93	6.40	13.63	4.07	-39.39	26.64	16.36
Universe(95%)	-15.09	-25.70	24.22	8.74	4.90	10.86	1.32	-43.37	19.24	13.52

Percentile Rank

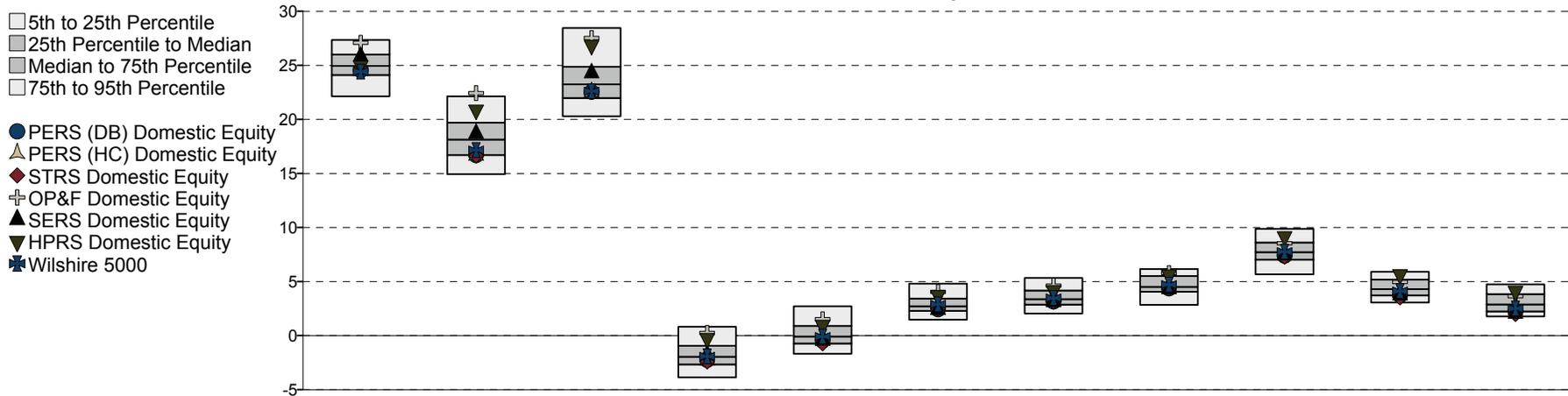
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Domestic Equity	62	62	64	74	65	53	61	54	55	71
PERS (HC) Domestic Equity	NA	NA	NA	NA	66	53	61	54	55	71
STRS Domestic Equity	72	74	73	75	71	27	70	58	52	72
OP&F Domestic Equity	38	35	75	53	49	55	58	57	22	6
SERS Domestic Equity	81	68	49	78	65	60	77	66	39	38
HPRS Domestic Equity	50	23	13	25	73	38	69	61	20	14
Wilshire 5000	72	50	56	64	75	35	53	43	60	63

The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2010 within the Mellon All Domestic Equities Universe. OP&F and HPRS ranked in the first quartile, while SERS ranked in the second quartile. PERS DB and HC, and STRS ranked in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Domestic Equities vs. BNYMellon All Public Domestic Equity Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Domestic Equity	24.53	16.68	22.53	-2.27	-0.47	2.42	3.14	4.36	7.38	3.72	2.24
PERS (HC) Domestic Equity	24.53	16.68	22.53	-2.27	-0.47	2.42	3.14	NA	NA	NA	NA
STRS Domestic Equity	24.73	16.64	22.58	-2.40	-0.72	2.45	3.13	4.35	7.28	3.52	1.98
OP&F Domestic Equity	27.08	22.43	27.52	0.26	1.51	4.04	4.63	5.79	8.55	4.96	3.64
SERS Domestic Equity	25.82	18.69	24.28	-1.79	-0.41	2.41	3.14	4.33	7.45	3.75	2.05
HPRS Domestic Equity	24.96	20.87	26.85	-0.25	0.95	3.73	4.18	5.62	9.17	5.64	4.11
Wilshire 5000	24.42	17.17	22.61	-1.92	-0.09	2.90	3.47	4.72	7.76	4.12	2.51
Universe(5%)	27.34	22.14	28.46	0.82	2.72	4.81	5.34	6.15	9.88	5.91	4.74
Universe(25%)	26.01	19.69	24.86	-0.93	0.89	3.42	4.18	5.51	8.61	5.17	3.83
Universe(Median)	24.94	18.13	23.24	-1.95	-0.08	2.71	3.37	4.50	7.72	4.31	2.88
Universe(75%)	24.10	16.70	21.98	-2.66	-0.73	2.29	2.87	4.06	7.02	3.72	2.24
Universe(95%)	22.13	14.94	20.28	-3.86	-1.69	1.47	2.04	2.84	5.67	3.07	1.78

Percentile Rank

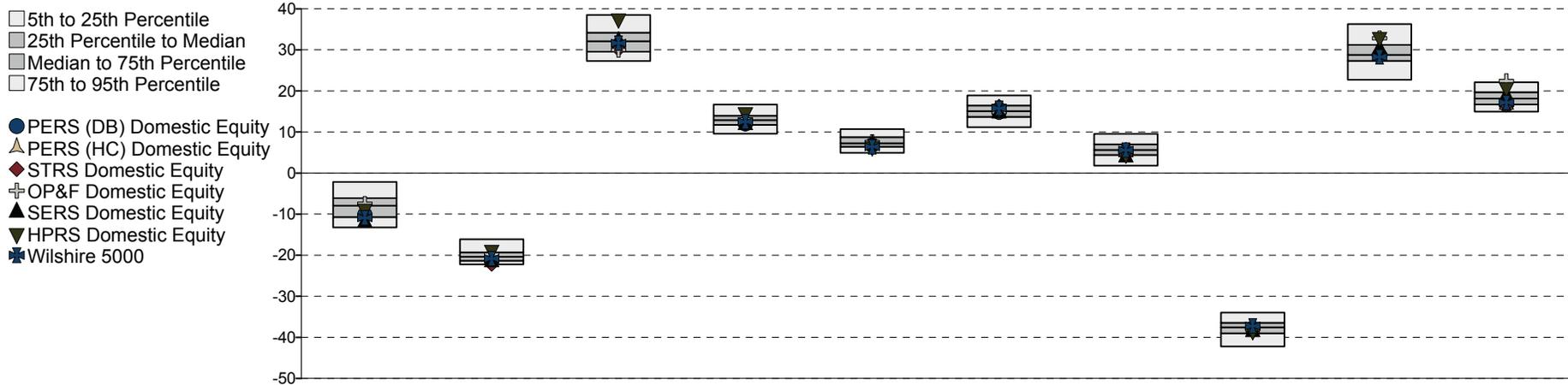
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Domestic Equity	63	76	65	62	64	64	59	59	64	75	73
PERS (HC) Domestic Equity	63	76	65	62	64	64	59	NA	NA	NA	NA
STRS Domestic Equity	60	77	64	69	75	62	59	59	71	78	85
OP&F Domestic Equity	6	4	8	10	16	12	13	15	26	29	32
SERS Domestic Equity	29	45	31	47	59	65	59	60	61	74	81
HPRS Domestic Equity	50	10	11	17	23	15	25	22	9	13	14
Wilshire 5000	66	64	59	48	50	40	43	40	46	63	58

The comparisons above compares the domestic equity returns of the six Ohio public funds to the domestic equity returns of all of the public funds in the Mellon Universe. Over the ten-year period ending December 31, 2010, HPRS placed in the top quartile, O&F placed in the second quartile, PERS DB placed in the third quartile, and STRS and SERS placed in the bottom quartile.

\*Differences may exist due to rounding.

**Total Domestic Equities vs. BNYMellon All Public Domestic Equity Universe as of 12/31/10**  
**Performance and Rank Data**

**Calendar Year Performance**



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Domestic Equity	-10.14	-21.37	31.09	11.99	6.79	14.86	5.12	-37.83	28.68	16.68
PERS (HC) Domestic Equity	NA	NA	NA	NA	6.79	14.86	5.12	-37.83	28.68	16.68
STRS Domestic Equity	-10.90	-22.16	30.20	11.95	6.59	16.21	4.48	-38.12	28.81	16.64
OP&F Domestic Equity	-7.47	-19.81	30.00	13.05	7.59	14.81	5.37	-38.03	32.82	22.43
SERS Domestic Equity	-12.04	-21.66	32.12	11.73	6.88	14.55	3.83	-38.68	30.14	18.69
HPRS Domestic Equity	-8.74	-18.76	37.58	14.74	6.45	15.59	4.66	-38.32	33.12	20.87
Wilshire 5000	-10.90	-20.86	31.65	12.49	6.39	15.77	5.62	-37.23	28.30	17.17
Universe(5%)	-2.17	-16.13	38.52	16.69	10.72	18.91	9.55	-33.99	36.29	22.14
Universe(25%)	-6.12	-19.31	34.20	13.95	8.74	16.45	7.00	-36.46	31.20	19.69
Universe(Median)	-7.93	-20.37	32.10	12.90	7.27	15.08	5.62	-37.55	28.79	18.13
Universe(75%)	-10.71	-21.33	29.54	11.74	6.41	13.71	4.39	-39.03	27.32	16.70
Universe(95%)	-13.23	-22.23	27.31	9.56	4.92	11.17	1.82	-42.22	22.71	14.94

Percentile Rank

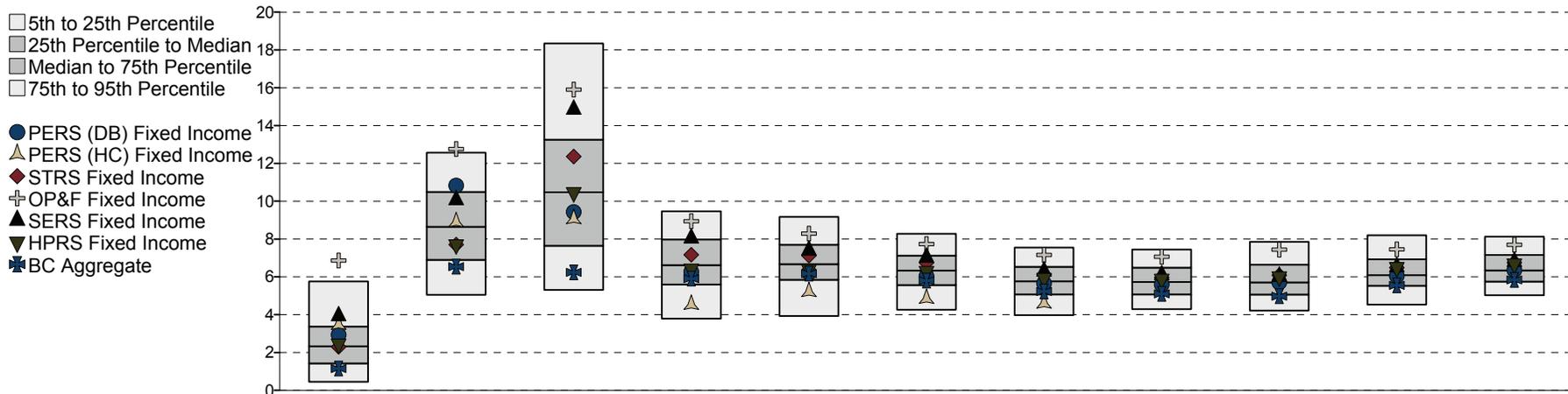
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Domestic Equity	71	75	63	67	63	54	56	58	53	76
PERS (HC) Domestic Equity	NA	NA	NA	NA	63	54	56	58	53	76
STRS Domestic Equity	79	93	74	68	67	28	72	61	48	77
OP&F Domestic Equity	48	37	74	46	45	55	54	59	13	4
SERS Domestic Equity	88	82	49	75	62	65	81	70	33	45
HPRS Domestic Equity	60	22	8	11	73	38	70	67	11	10
Wilshire 5000	79	62	57	56	77	36	50	42	59	64

The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2010 within the Mellon All Public Domestic Equities Universe. In 2010, OP&F and HPRS ranked in the top quartile, and SERS placed in the second quartile. PERS DB & HC, and STRS ranked in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Fixed Income vs. BNYMellon All Domestic Fixed Income Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Fixed Income	2.94	10.83	9.43	6.27	6.21	6.04	5.65	5.60	5.71	6.05	6.35
PERS (HC) Fixed Income	3.48	8.90	9.07	4.53	5.21	4.85	4.60	NA	NA	NA	NA
STRS Fixed Income	2.30	7.70	12.36	7.17	7.12	6.74	6.12	5.96	6.08	6.48	6.75
OP&F Fixed Income	6.87	12.76	15.90	8.94	8.29	7.73	7.16	7.06	7.43	7.46	7.70
SERS Fixed Income	3.93	10.07	14.85	8.05	7.40	7.02	6.30	6.09	6.01	6.52	6.80
HPRS Fixed Income	2.45	7.70	10.46	6.42	6.39	6.30	5.93	5.88	6.01	6.50	6.69
BC Aggregate	1.15	6.54	6.24	5.90	6.17	5.80	5.23	5.10	4.98	5.55	5.84
Universe(5%)	5.76	12.57	18.34	9.46	9.17	8.28	7.55	7.44	7.85	8.20	8.13
Universe(25%)	3.37	10.49	13.26	7.98	7.69	7.12	6.53	6.48	6.64	6.93	7.16
Universe(Median)	2.33	8.65	10.48	6.62	6.67	6.33	5.77	5.73	5.71	6.09	6.34
Universe(75%)	1.42	6.90	7.64	5.59	5.84	5.57	5.07	5.07	5.07	5.53	5.75
Universe(95%)	0.45	5.05	5.30	3.79	3.93	4.26	3.97	4.29	4.22	4.53	5.03

Percentile Rank

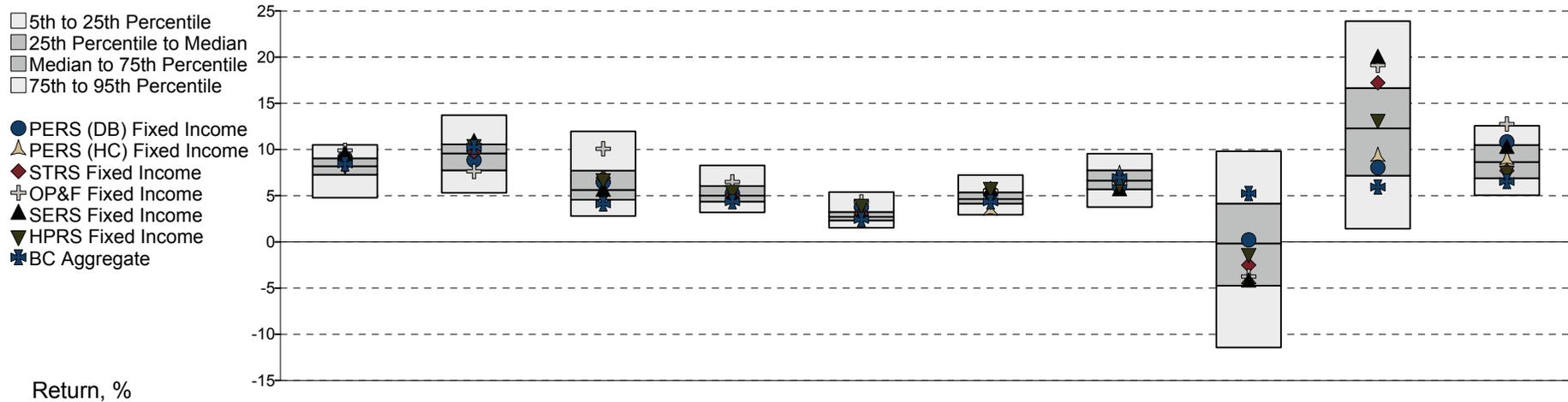
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Fixed Income	34	20	60	60	65	57	54	53	50	51	49
PERS (HC) Fixed Income	24	45	63	90	86	90	89	NA	NA	NA	NA
STRS Fixed Income	51	65	30	40	37	35	38	40	39	40	37
OP&F Fixed Income	2	5	9	11	14	14	11	11	8	11	10
SERS Fixed Income	14	29	16	23	29	27	31	36	41	39	35
HPRS Fixed Income	47	65	50	55	57	50	46	43	41	40	40
BC Aggregate	85	83	89	70	66	65	69	73	81	74	71

The exhibit above, and on the next page, compare the fixed income results of the six funds to that of a broad fixed income universe consisting of all of the domestic fixed income accounts in the Mellon Universe. For the trailing ten-year period ending December 31, 2010, OP&F placed in the 10h quartile, while SERS, STRS and HPRS placed in the 35th, 37th and 40th percentiles, respectively. PERS DB placed in the 49th percentile.

\*Differences may exist due to rounding.

## Total Fixed Income vs. BNYMellon All Domestic Fixed Income Universe as of 12/31/10 Performance and Rank Data

### Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Fixed Income	9.11	8.86	6.48	5.25	3.76	5.34	6.04	0.22	8.05	10.83
PERS (HC) Fixed Income	NA	NA	NA	NA	3.37	3.42	7.27	-3.98	9.24	8.90
STRS Fixed Income	9.17	9.76	6.94	5.03	3.04	5.23	7.00	-2.52	17.22	7.70
OP&F Fixed Income	9.90	7.63	10.08	6.50	4.33	5.54	6.35	-3.75	19.13	12.76
SERS Fixed Income	9.35	10.71	5.44	4.88	2.74	5.52	5.50	-4.39	19.84	10.07
HPRS Fixed Income	8.37	10.56	6.87	5.61	4.11	5.92	6.31	-1.23	13.30	7.70
BC Aggregate	8.44	10.26	4.10	4.34	2.43	4.33	6.97	5.24	5.93	6.54
Universe(5%)	10.51	13.72	11.97	8.28	5.38	7.23	9.55	9.81	23.89	12.57
Universe(25%)	9.05	10.57	7.73	6.06	3.23	5.36	7.75	4.15	16.66	10.49
Universe(Median)	8.20	9.58	5.63	5.01	2.70	4.64	6.65	-0.17	12.29	8.65
Universe(75%)	7.28	7.75	4.57	4.36	2.33	4.15	5.70	-4.73	7.17	6.90
Universe(95%)	4.79	5.32	2.80	3.20	1.52	2.94	3.77	-11.44	1.43	5.05

### Percentile Rank

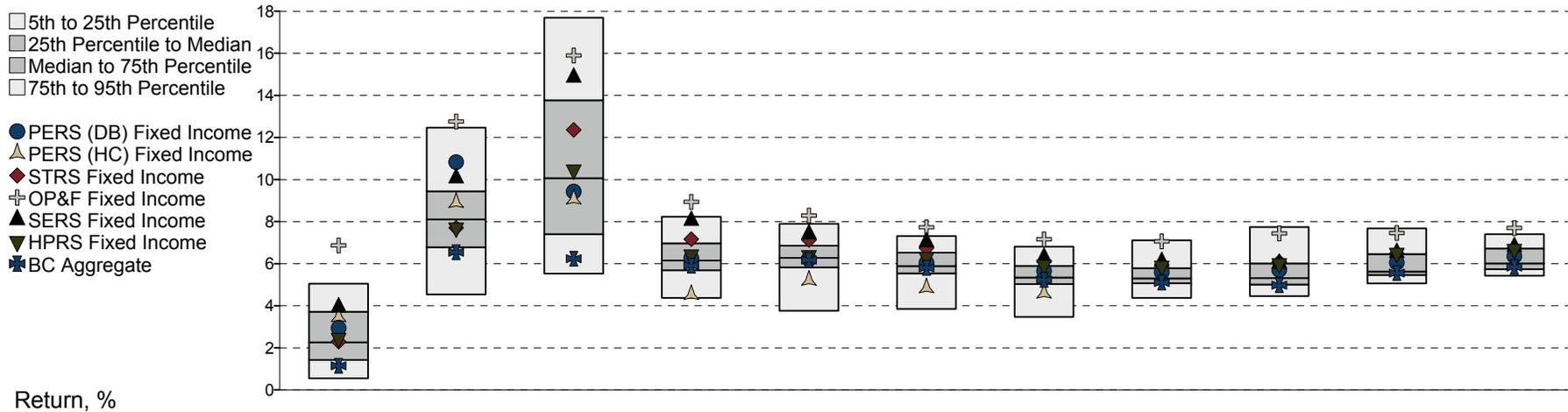
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Fixed Income	24	60	37	43	13	25	68	48	70	20
PERS (HC) Fixed Income	NA	NA	NA	NA	21	90	33	70	65	45
STRS Fixed Income	22	46	32	49	31	29	40	63	22	65
OP&F Fixed Income	10	77	11	19	9	22	59	68	15	5
SERS Fixed Income	19	22	54	55	47	22	79	73	11	29
HPRS Fixed Income	44	26	32	33	11	14	59	56	43	65
BC Aggregate	42	29	83	76	69	69	42	19	84	83

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All Domestic Fixed Income Universe. In 2010, OP&F was the best performer relative to its peers, placing in the 5th percentile, followed by PERS DB (20th percentile) and SERS (29th percentile). PERS HC placed in the 45th percentile, while STRS and HPRS both placed in the 65th percentile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Fixed Income vs. BNYMellon All Public Domestic Fixed Income Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Fixed Income	2.94	10.83	9.43	6.27	6.21	6.04	5.65	5.60	5.71	6.05	6.35
PERS (HC) Fixed Income	3.48	8.90	9.07	4.53	5.21	4.85	4.60	NA	NA	NA	NA
STRS Fixed Income	2.30	7.70	12.36	7.17	7.12	6.74	6.12	5.96	6.08	6.48	6.75
OP&F Fixed Income	6.87	12.76	15.90	8.94	8.29	7.73	7.16	7.06	7.43	7.46	7.70
SERS Fixed Income	3.93	10.07	14.85	8.05	7.40	7.02	6.30	6.09	6.01	6.52	6.80
HPRS Fixed Income	2.45	7.70	10.46	6.42	6.39	6.30	5.93	5.88	6.01	6.50	6.69
BC Aggregate	1.15	6.54	6.24	5.90	6.17	5.80	5.23	5.10	4.98	5.55	5.84
Universe(5%)	5.05	12.46	17.70	8.24	7.89	7.31	6.81	7.11	7.75	7.67	7.41
Universe(25%)	3.71	9.44	13.77	6.97	6.85	6.52	5.89	5.79	6.01	6.46	6.72
Universe(Median)	2.26	8.11	10.06	6.15	6.28	5.88	5.34	5.30	5.31	5.63	6.01
Universe(75%)	1.43	6.78	7.40	5.68	5.83	5.54	5.03	5.07	5.01	5.47	5.74
Universe(95%)	0.55	4.54	5.53	4.37	3.76	3.84	3.47	4.37	4.46	5.06	5.43

### Percentile Rank

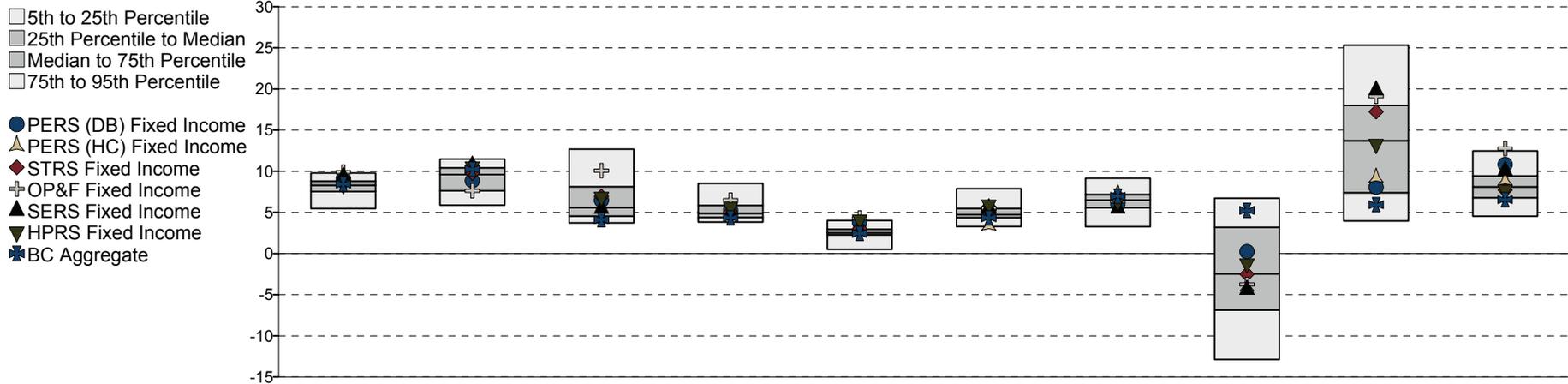
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Fixed Income	38	14	56	44	54	40	35	36	36	38	41
PERS (HC) Fixed Income	32	37	57	92	87	89	88	NA	NA	NA	NA
STRS Fixed Income	50	57	33	21	21	17	18	18	20	24	24
OP&F Fixed Income	0	4	9	2	3	3	4	5	6	6	4
SERS Fixed Income	17	18	17	8	10	8	9	16	25	23	23
HPRS Fixed Income	48	57	49	40	41	34	24	21	25	24	26
BC Aggregate	84	86	89	66	56	57	59	72	83	66	63

The exhibit above compares the fixed income results of the five funds to that of the domestic fixed income returns of the public funds in the Mellon Universe. Over the ten-year period ending December 31, 2010, all five plans outpaced the median return. OP&F, SERS and STRS all ranked in the top quartile, while HPRS and PERS DB placed in the second quartile of the universe.

\*Differences may exist due to rounding.

**Total Fixed Income vs. BNYMellon All Public Domestic Fixed Income Universe as of 12/31/10  
Performance and Rank Data**

**Calendar Year Performance**



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Fixed Income	9.11	8.86	6.48	5.25	3.76	5.34	6.04	0.22	8.05	10.83
PERS (HC) Fixed Income	NA	NA	NA	NA	3.37	3.42	7.27	-3.98	9.24	8.90
STRS Fixed Income	9.17	9.76	6.94	5.03	3.04	5.23	7.00	-2.52	17.22	7.70
OP&F Fixed Income	9.90	7.63	10.08	6.50	4.33	5.54	6.35	-3.75	19.13	12.76
SERS Fixed Income	9.35	10.71	5.44	4.88	2.74	5.52	5.50	-4.39	19.84	10.07
HPRS Fixed Income	8.37	10.56	6.87	5.61	4.11	5.92	6.31	-1.23	13.30	7.70
BC Aggregate	8.44	10.26	4.10	4.34	2.43	4.33	6.97	5.24	5.93	6.54
Universe(5%)	9.78	11.48	12.68	8.53	4.02	7.89	9.14	6.73	25.32	12.46
Universe(25%)	8.80	10.41	8.13	5.85	2.95	5.48	7.18	3.20	18.01	9.44
Universe(Median)	8.31	9.61	5.59	4.89	2.52	4.73	6.49	-2.45	13.71	8.11
Universe(75%)	7.54	7.62	4.56	4.39	2.29	4.37	5.57	-6.88	7.39	6.78
Universe(95%)	5.47	5.88	3.72	3.83	0.51	3.27	3.25	-12.88	3.96	4.54

Percentile Rank

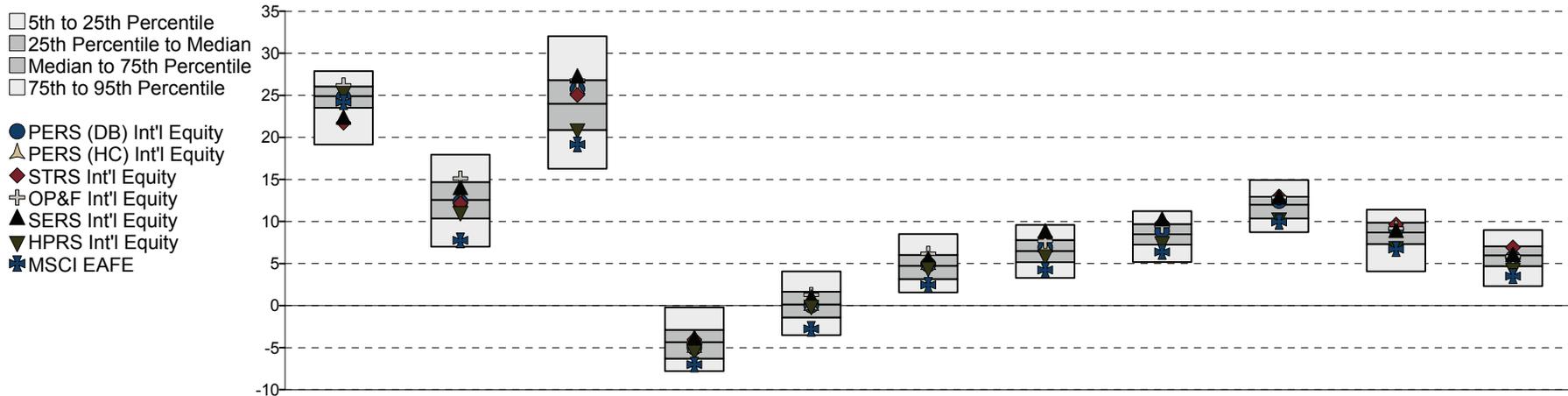
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Fixed Income	15	59	39	38	6	27	65	41	70	14
PERS (HC) Fixed Income	NA	NA	NA	NA	12	94	22	56	64	37
STRS Fixed Income	15	46	32	44	21	32	34	50	26	57
OP&F Fixed Income	4	75	15	20	3	23	57	53	20	4
SERS Fixed Income	14	11	53	52	31	24	78	60	17	18
HPRS Fixed Income	48	21	32	30	5	15	58	44	51	57
BC Aggregate	44	30	84	79	65	79	35	13	88	86

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All Public Domestic Fixed Income Universe. In 2010, OP&F, PERS DB and SERS all ranked in the top quartile of the universe, while PERS HC ranked in the second quartile. STRS and HPRS placed in the third quartile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total International Equities vs. BNYMellon All International Equity Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Int'l Equity	24.77	12.33	25.75	-5.01	0.00	4.86	6.94	8.88	12.43	9.05	5.67
PERS (HC) Int'l Equity	24.76	12.34	25.75	-5.01	0.00	4.88	6.94	NA	NA	NA	NA
STRS Int'l Equity	21.74	12.17	25.05	-4.05	0.41	4.91	8.15	9.81	12.96	9.63	6.92
OP&F Int'l Equity	26.19	15.11	26.75	-4.46	1.27	6.17	7.69	9.46	12.84	9.17	5.84
SERS Int'l Equity	22.13	13.75	27.03	-4.08	0.73	5.32	8.59	10.02	12.66	8.66	5.78
HPRS Int'l Equity	25.49	11.21	21.03	-5.29	0.05	4.59	6.04	7.61	10.45	7.05	4.44
MSCI EAFE	24.18	7.75	19.16	-7.02	-2.77	2.46	4.23	6.38	9.95	6.72	3.50
Universe(5%)	27.88	17.96	32.04	-0.22	4.06	8.51	9.59	11.22	14.94	11.41	8.98
Universe(25%)	26.06	14.69	26.81	-2.88	1.65	6.03	7.80	9.69	12.95	9.86	7.05
Universe(Median)	24.91	12.58	24.00	-4.35	0.13	4.72	6.49	8.47	11.99	8.70	5.97
Universe(75%)	23.52	10.37	20.89	-6.30	-1.40	3.16	5.16	7.25	10.37	7.32	4.69
Universe(95%)	19.15	7.00	16.27	-7.80	-3.51	1.56	3.29	5.17	8.72	4.07	2.31

Percentile Rank

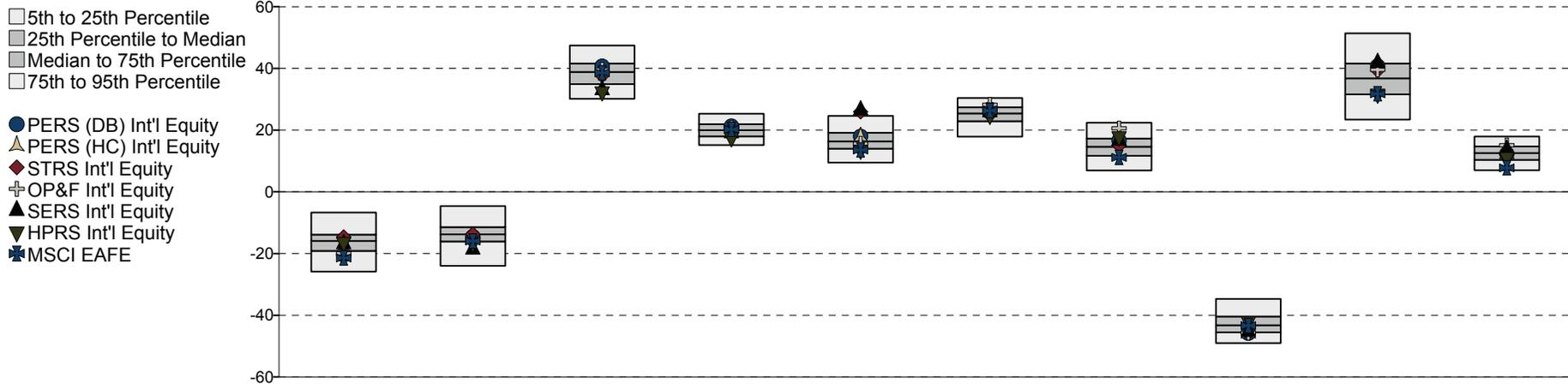
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Int'l Equity	52	53	37	57	53	48	41	40	38	42	56
PERS (HC) Int'l Equity	53	53	37	57	53	47	41	NA	NA	NA	NA
STRS Int'l Equity	89	56	42	44	42	47	21	20	24	29	28
OP&F Int'l Equity	23	22	25	52	32	22	28	28	29	40	53
SERS Int'l Equity	87	36	23	45	39	39	16	17	32	51	54
HPRS Int'l Equity	38	67	74	61	51	52	58	64	74	81	80
MSCI EAFE	66	92	89	87	90	87	89	89	85	84	88

The exhibit above, and on the next page, compare the international equity results of the six funds to that of a broad international equity universe consisting of all of the international equity accounts in the Mellon Universe. For the ten-year period ending December 31, 2010, STRS (28th percentile) was the only plan to rank above median. OP&F ranked in the 53rd percentile while SERS, PERS DB and HPRS ranked in the 54th, 56th and 80th percentiles, respectively.

\*Differences may exist due to rounding.

## Total International Equities vs. BNYMellon All International Equity Universe as of 12/31/10 Performance and Rank Data

### Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Int'l Equity	-20.41	-14.55	40.71	21.30	17.97	26.78	16.67	-45.80	40.78	12.33
PERS (HC) Int'l Equity	NA	NA	NA	NA	17.84	26.91	16.66	-45.80	40.77	12.34
STRS Int'l Equity	-14.63	-13.69	37.71	20.28	25.94	25.01	15.06	-43.51	39.41	12.17
OP&F Int'l Equity	-19.93	-16.17	39.60	20.73	15.62	28.23	20.60	-45.71	39.57	15.11
SERS Int'l Equity	-16.91	-18.64	33.02	19.04	26.49	25.88	16.65	-45.30	41.86	13.75
HPRS Int'l Equity	-16.34	-16.66	32.50	17.59	13.58	24.90	17.96	-42.01	31.72	11.21
MSCI EAFE	-21.44	-15.94	38.59	20.25	13.54	26.34	11.17	-43.38	31.78	7.75
Universe(5%)	-6.71	-4.64	47.44	25.31	24.62	30.41	22.41	-34.71	51.37	17.96
Universe(25%)	-13.88	-11.45	41.59	21.91	19.12	27.41	17.26	-40.39	41.60	14.69
Universe(Median)	-15.91	-13.76	38.87	19.98	16.35	25.42	14.60	-43.24	36.76	12.58
Universe(75%)	-19.15	-16.06	34.93	17.96	14.02	22.88	11.71	-45.55	31.61	10.37
Universe(95%)	-25.83	-23.98	30.14	15.13	9.50	17.88	6.91	-49.03	23.43	7.00

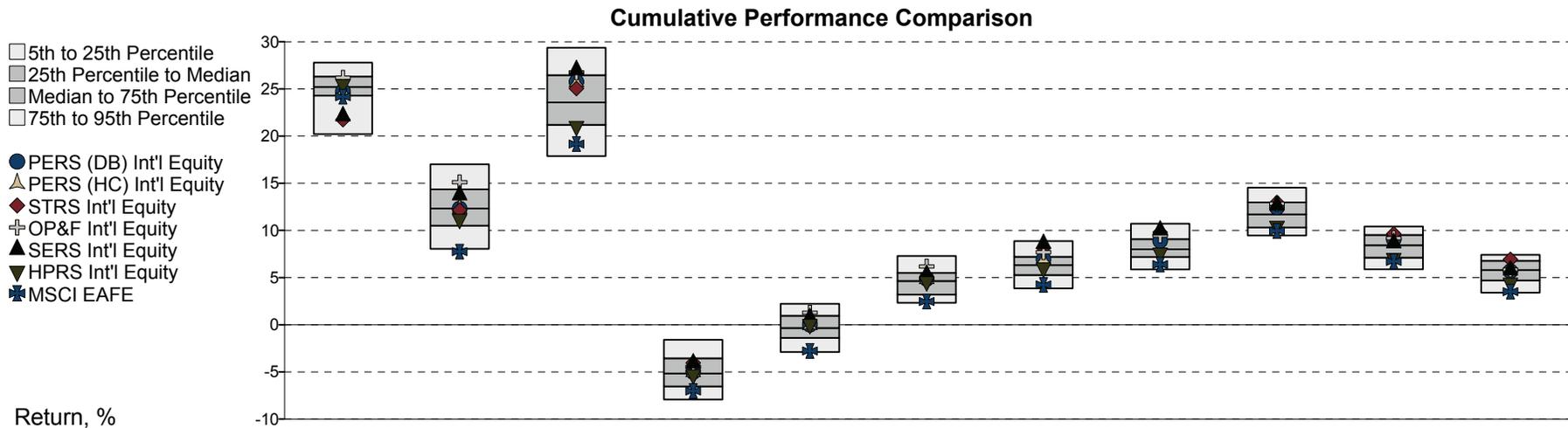
### Percentile Rank

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Int'l Equity	85	58	34	30	33	32	31	77	30	53
PERS (HC) Int'l Equity	NA	NA	NA	NA	35	31	31	77	30	53
STRS Int'l Equity	31	49	57	45	2	56	46	52	38	56
OP&F Int'l Equity	82	77	43	37	58	19	8	76	37	22
SERS Int'l Equity	56	88	85	64	2	45	31	72	24	36
HPRS Int'l Equity	52	79	88	77	79	56	19	39	74	67
MSCI EAFE	89	74	52	46	80	39	79	51	74	92

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All International Equity Universe. In 2010, OP&F ranked in the 22nd percentile and SERS ranked in the 36th percentile, while PERS DB and HC both ranked in the 53rd percentile. STRS ranked in the 56th percentile, and HPRS ranked in the 67th percentile.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total International Equities vs. BNYMellon All Public International Equity Universe Performance and Rank Data as of 12/31/10



	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Int'l Equity	24.77	12.33	25.75	-5.01	0.00	4.86	6.94	8.88	12.43	9.05	5.67
PERS (HC) Int'l Equity	24.76	12.34	25.75	-5.01	0.00	4.88	6.94	NA	NA	NA	NA
STRS Int'l Equity	21.74	12.17	25.05	-4.05	0.41	4.91	8.15	9.81	12.96	9.63	6.92
OP&F Int'l Equity	26.19	15.11	26.75	-4.46	1.27	6.17	7.69	9.46	12.84	9.17	5.84
SERS Int'l Equity	22.13	13.75	27.03	-4.08	0.73	5.32	8.59	10.02	12.66	8.66	5.78
HPRS Int'l Equity	25.49	11.21	21.03	-5.29	0.05	4.59	6.04	7.61	10.45	7.05	4.44
MSCI EAFE	24.18	7.75	19.16	-7.02	-2.77	2.46	4.23	6.38	9.95	6.72	3.50
Universe(5%)	27.78	17.01	29.37	-1.60	2.22	7.29	8.87	10.72	14.54	10.42	7.41
Universe(25%)	26.32	14.35	26.47	-3.56	0.96	5.50	7.21	9.08	12.98	9.52	6.77
Universe(Median)	25.20	12.33	23.58	-5.16	-0.34	4.64	6.32	8.00	11.71	8.43	5.81
Universe(75%)	24.30	10.50	21.20	-6.54	-1.40	3.20	5.27	7.19	10.31	7.11	4.70
Universe(95%)	20.21	8.04	17.88	-7.92	-2.89	2.32	3.86	5.86	9.46	5.88	3.41

### Percentile Rank

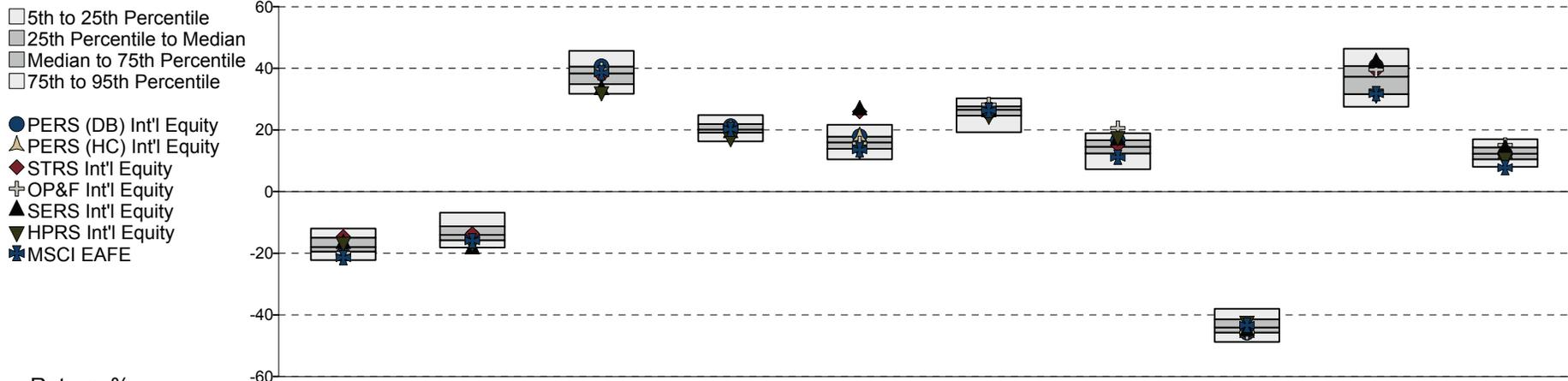
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Int'l Equity	61	50	30	49	44	41	30	34	35	44	53
PERS (HC) Int'l Equity	61	50	30	49	44	39	30	NA	NA	NA	NA
STRS Int'l Equity	91	56	42	34	33	39	12	13	26	21	11
OP&F Int'l Equity	31	18	21	44	22	12	14	16	29	41	49
SERS Int'l Equity	89	38	18	35	26	30	7	10	31	47	50
HPRS Int'l Equity	48	67	75	55	43	51	60	68	71	81	86
MSCI EAFE	77	97	89	89	93	93	92	89	88	86	93

The exhibit above, and on the next page, compare the international equity results of the six funds to that of the Mellon All Public International Equity Universe. For the ten-year period ending December 31, 2010, STRS ranked in the 11th percentile, OP&F ranked in the 49th percentile, SERS ranked in the 50th percentile, PERS DB ranked in the 53rd percentile and HPRS ranked in the 86th percentile.

\*Differences may exist due to rounding.

**Total International Equities vs. BNYMellon All Public International Equity Universe as of 12/31/10  
Performance and Rank Data**

**Calendar Year Performance**



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Int'l Equity	-20.41	-14.55	40.71	21.30	17.97	26.78	16.67	-45.80	40.78	12.33
PERS (HC) Int'l Equity	NA	NA	NA	NA	17.84	26.91	16.66	-45.80	40.77	12.34
STRS Int'l Equity	-14.63	-13.69	37.71	20.28	25.94	25.01	15.06	-43.51	39.41	12.17
OP&F Int'l Equity	-19.93	-16.17	39.60	20.73	15.62	28.23	20.60	-45.71	39.57	15.11
SERS Int'l Equity	-16.91	-18.64	33.02	19.04	26.49	25.88	16.65	-45.30	41.86	13.75
HPRS Int'l Equity	-16.34	-16.66	32.50	17.59	13.58	24.90	17.96	-42.01	31.72	11.21
MSCI EAFE	-21.44	-15.94	38.59	20.25	13.54	26.34	11.17	-43.38	31.78	7.75
Universe(5%)	-11.98	-6.83	45.69	24.83	21.69	30.30	18.97	-38.00	46.37	17.01
Universe(25%)	-14.95	-11.25	40.58	21.93	17.85	27.68	16.70	-41.42	40.76	14.35
Universe(Median)	-17.97	-14.03	38.35	20.14	15.97	26.56	14.59	-44.07	37.33	12.33
Universe(75%)	-19.43	-15.77	34.89	19.12	13.92	24.66	12.42	-45.73	31.65	10.50
Universe(95%)	-22.21	-18.18	31.73	16.31	10.47	19.27	7.27	-48.77	27.55	8.04

Percentile Rank

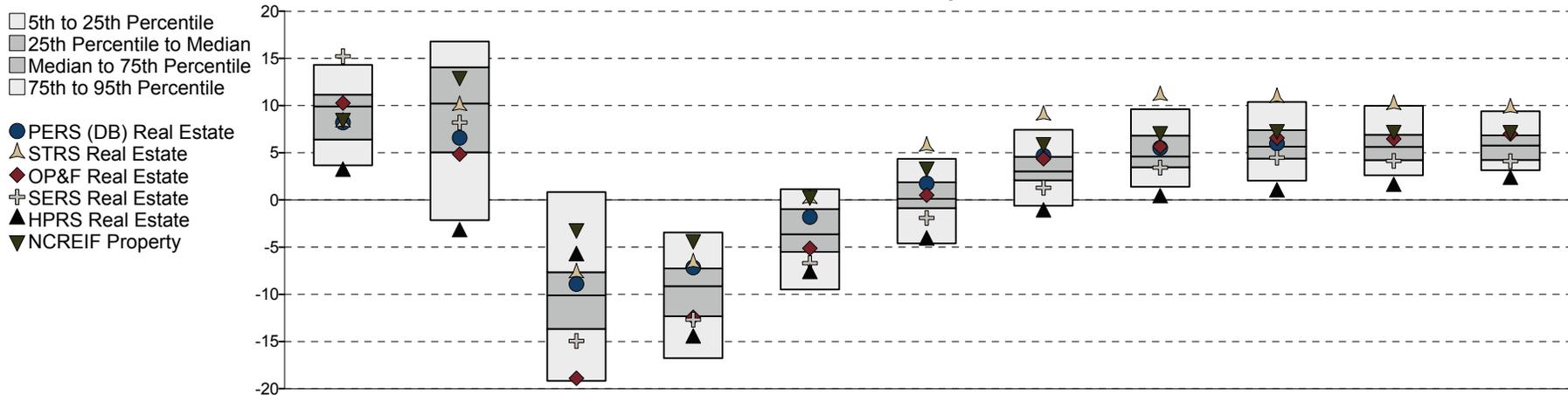
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Int'l Equity	86	53	24	30	23	41	26	75	25	50
PERS (HC) Int'l Equity	NA	NA	NA	NA	25	39	26	75	25	50
STRS Int'l Equity	20	37	60	47	2	69	45	44	37	56
OP&F Int'l Equity	79	79	36	34	52	20	2	74	34	18
SERS Int'l Equity	41	95	85	76	0	60	26	69	18	38
HPRS Int'l Equity	36	80	88	86	82	72	11	29	74	67
MSCI EAFE	91	78	48	48	82	54	84	42	74	97

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All Public International Equity Universe. In 2010, OP&F ranked in the top quartile. SERS, and PERS DB and HC ranked in the second quartile. STRS and HPRS ranked in the third quartile of the universe.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Real Estate vs. BNYMellon All Real Estate Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Real Estate	8.20	6.59	-8.92	-7.16	-1.80	1.75	4.68	5.51	5.99	NA	NA
STRS Real Estate	8.23	9.98	-7.73	-6.69	0.14	5.69	8.97	11.05	10.84	10.09	9.73
OP&F Real Estate	10.28	4.86	-18.90	-12.43	-5.12	0.51	4.38	5.67	6.56	6.47	6.99
SERS Real Estate	15.22	8.20	-14.94	-12.69	-6.69	-1.90	1.29	3.43	4.47	4.14	4.10
HPRS Real Estate	3.02	-3.40	-5.93	-14.66	-7.83	-4.28	-1.31	0.20	0.81	1.41	2.15
NCREIF Property	8.66	13.11	-3.03	-4.18	0.47	3.51	6.10	7.26	7.47	7.39	7.38
Universe(5%)	14.32	16.79	0.83	-3.44	1.14	4.36	7.44	9.62	10.39	9.98	9.40
Universe(25%)	11.16	14.05	-7.66	-7.26	-0.96	1.88	4.58	6.82	7.40	6.91	6.86
Universe(Median)	9.91	10.23	-10.11	-9.14	-3.63	0.13	3.03	4.60	5.66	5.62	5.77
Universe(75%)	6.40	5.05	-13.65	-12.31	-5.51	-0.86	2.09	3.47	4.38	4.22	4.25
Universe(95%)	3.67	-2.15	-19.17	-16.78	-9.48	-4.60	-0.61	1.39	2.04	2.62	3.14

Percentile Rank

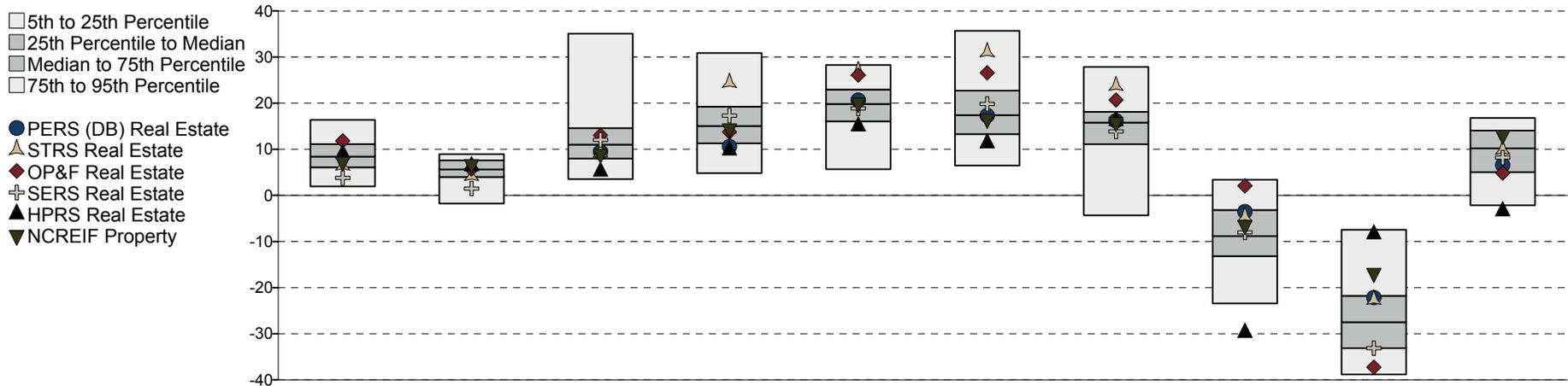
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Real Estate	60	70	38	25	32	26	24	31	37	NA	NA
STRS Real Estate	60	51	25	23	13	0	0	0	0	1	3
OP&F Real Estate	39	76	95	76	70	38	29	30	32	32	21
SERS Real Estate	0	59	84	79	84	88	86	78	67	76	81
HPRS Real Estate	97	97	19	87	90	92	99	100	100	100	100
NCREIF Property	59	29	17	15	11	11	18	23	24	21	17

The exhibit above, and on the next page, compare real estate results of the five funds to that of a broad real estate universe consisting of all of the real estate accounts in the Mellon Universe. Beginning January 1, 2006, PERS viewed REITS and private real estate as separate asset classes, therefore the prior return series is no longer being reported. For the ten-year period ending December 31, 2010, STRS and OP&F exceeded the median return to place in the top quartile. SERS and HPRS ranked in the bottom quartile. 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 judgment, an insignificant number.

\*Differences may exist due to rounding.

Total Real Estate vs. BNYMellon All Real Estate Universe as of 12/31/10  
Performance and Rank Data

Calendar Year Performance



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Real Estate	NA	NA	9.41	10.61	20.65	17.31	16.19	-3.53	-22.16	6.59
STRS Real Estate	6.51	4.25	9.36	24.42	26.98	31.09	23.79	-4.57	-22.59	9.98
OP&F Real Estate	11.84	5.70	13.06	13.74	26.07	26.58	20.67	2.08	-37.27	4.86
SERS Real Estate	3.79	1.49	12.05	17.28	18.87	19.84	13.89	-8.03	-33.12	8.20
HPRS Real Estate	9.00	6.35	5.17	9.78	14.99	11.35	16.14	-29.77	-8.41	-3.40
NCREIF Property	7.29	6.74	8.99	14.48	20.06	16.59	15.84	-6.46	-16.86	13.11
Universe(5%)	16.38	8.94	35.08	30.88	28.28	35.69	27.85	3.40	-7.43	16.79
Universe(25%)	11.12	7.61	14.59	19.24	22.94	22.72	18.11	-3.17	-21.79	14.05
Universe(Median)	8.42	5.65	11.00	15.04	19.83	17.41	15.80	-8.83	-27.50	10.23
Universe(75%)	6.09	3.99	8.00	11.31	16.05	13.27	11.09	-13.15	-33.12	5.05
Universe(95%)	1.96	-1.75	3.54	4.82	5.67	6.47	-4.33	-23.44	-38.81	-2.15

Percentile Rank

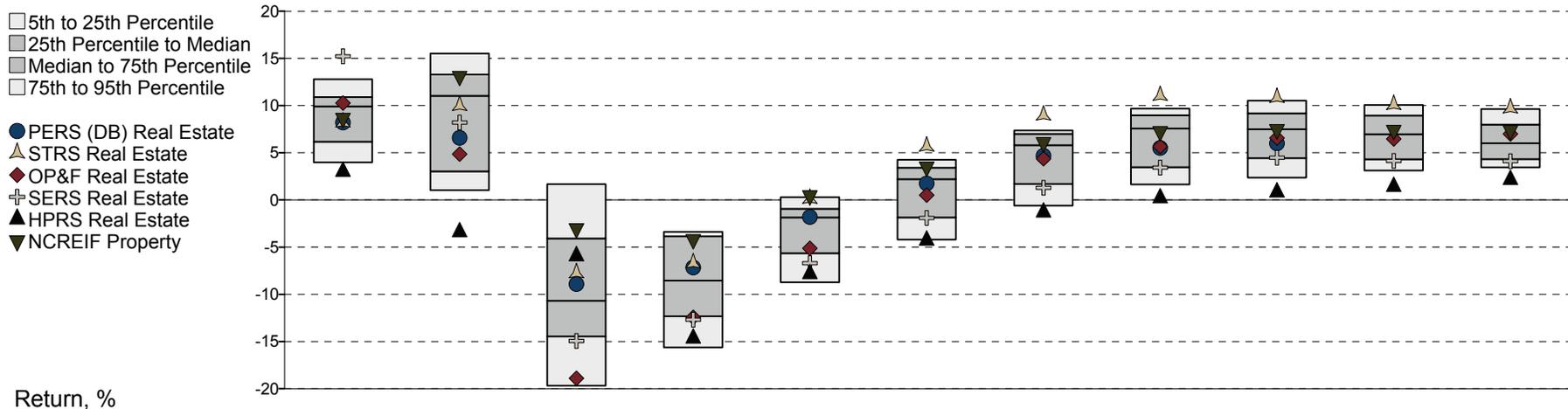
	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Real Estate	NA	NA	62	79	41	51	45	27	28	70
STRS Real Estate	70	73	63	13	6	7	10	30	29	51
OP&F Real Estate	15	50	34	64	8	16	18	8	90	76
SERS Real Estate	86	89	43	35	57	38	59	43	76	59
HPRS Real Estate	45	40	92	83	81	85	45	100	6	97
NCREIF Property	67	37	66	56	48	55	48	39	16	29

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All Real Estate Universe. In 2010, all of the five plans underperformed the median fund with STRS, SERS and PERS DB placing in the 51st, 59th and 70th percentiles, respectively. OP&F and HPRS placed in the fourth quartile among its peers of the Mellon Universe.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.

## Total Real Estate vs. BNYMellon All Public Real Estate Universe Performance and Rank Data as of 12/31/10

### Cumulative Performance Comparison



Return, %

	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Real Estate	8.20	6.59	-8.92	-7.16	-1.80	1.75	4.68	5.51	5.99	NA	NA
STRS Real Estate	8.23	9.98	-7.73	-6.69	0.14	5.69	8.97	11.05	10.84	10.09	9.73
OP&F Real Estate	10.28	4.86	-18.90	-12.43	-5.12	0.51	4.38	5.67	6.56	6.47	6.99
SERS Real Estate	15.22	8.20	-14.94	-12.69	-6.69	-1.90	1.29	3.43	4.47	4.14	4.10
HPRS Real Estate	3.02	-3.40	-5.93	-14.66	-7.83	-4.28	-1.31	0.20	0.81	1.41	2.15
NCREIF Property	8.66	13.11	-3.03	-4.18	0.47	3.51	6.10	7.26	7.47	7.39	7.38
Universe(5%)	12.79	15.52	1.68	-3.38	0.29	4.26	7.37	9.68	10.52	10.06	9.64
Universe(25%)	10.90	13.30	-4.08	-3.86	-0.93	3.41	7.00	8.98	9.17	8.94	7.99
Universe(Median)	9.92	11.04	-10.67	-8.54	-1.85	2.20	5.80	7.57	7.50	6.96	6.01
Universe(75%)	6.17	3.04	-14.46	-12.31	-5.63	-1.85	1.70	3.47	4.43	4.31	4.32
Universe(95%)	3.99	1.04	-19.67	-15.63	-8.72	-4.19	-0.59	1.64	2.36	3.11	3.46

### Percentile Rank

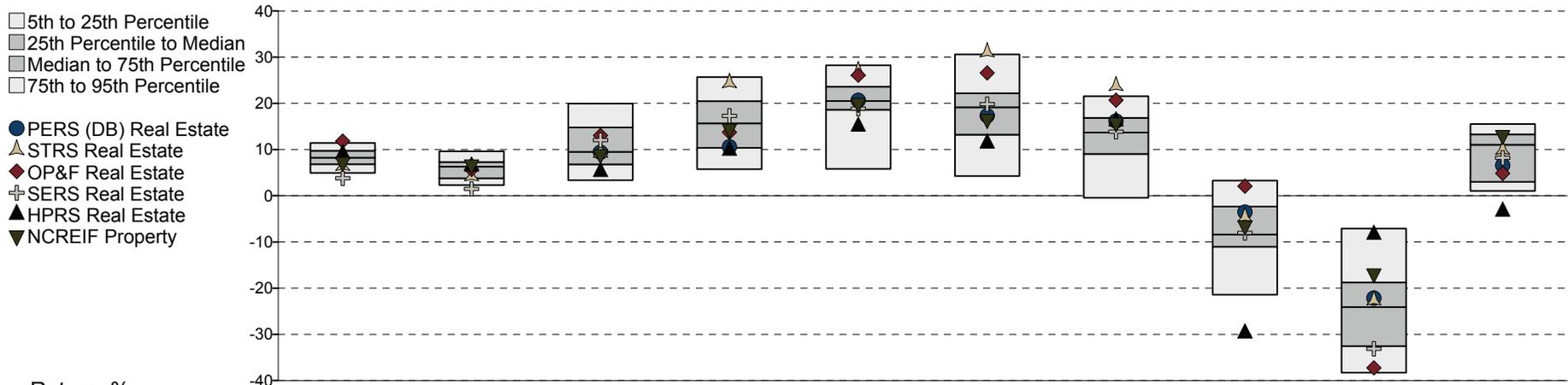
	Two Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	9 Years	10 Years
PERS (DB) Real Estate	59	68	42	37	49	54	55	59	59	NA	NA
STRS Real Estate	59	58	33	35	6	0	0	0	0	2	4
OP&F Real Estate	43	72	94	79	73	61	57	58	56	54	41
SERS Real Estate	0	63	80	88	88	86	83	83	69	83	80
HPRS Real Estate	99	100	28	93	92	96	99	100	100	100	100
NCREIF Property	58	31	24	26	4	23	45	51	50	43	35

The exhibit above, and on the next page, compare real estate results of the five funds to that of a broad real estate universe consisting of all of the real estate accounts in the Mellon Universe. Beginning January 1, 2006, PERS viewed REITs and private real estate as separate asset classes, therefore the prior return series is no longer being reported. For the ten-year period ending December 31, 2010, STRS ranked in the top quartile while OP&F ranked in the second quartile. SERS and HPRS ranked in the bottom quartile. 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 judgment, an insignificant number.

\*Differences may exist due to rounding.

**Total Real Estate vs. BNYMellon All Public Real Estate Universe as of 12/31/10  
Performance and Rank Data**

**Calendar Year Performance**



Return, %

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Real Estate	NA	NA	9.41	10.61	20.65	17.31	16.19	-3.53	-22.16	6.59
STRS Real Estate	6.51	4.25	9.36	24.42	26.98	31.09	23.79	-4.57	-22.59	9.98
OP&F Real Estate	11.84	5.70	13.06	13.74	26.07	26.58	20.67	2.08	-37.27	4.86
SERS Real Estate	3.79	1.49	12.05	17.28	18.87	19.84	13.89	-8.03	-33.12	8.20
HPRS Real Estate	9.00	6.35	5.17	9.78	14.99	11.35	16.14	-29.77	-8.41	-3.40
NCREIF Property	7.29	6.74	8.99	14.48	20.06	16.59	15.84	-6.46	-16.86	13.11
Universe(5%)	11.43	9.62	19.96	25.70	28.22	30.59	21.54	3.29	-7.09	15.52
Universe(25%)	9.74	7.29	14.79	20.49	23.61	22.18	16.85	-2.35	-18.78	13.30
Universe(Median)	8.23	6.30	9.51	15.66	20.50	19.14	13.71	-8.38	-24.12	11.04
Universe(75%)	6.83	3.77	6.80	10.38	18.62	13.22	9.05	-11.03	-32.54	3.04
Universe(95%)	4.94	2.31	3.39	5.75	5.82	4.27	-0.42	-21.42	-38.28	1.04

Percentile Rank

	1/01 - 12/01	1/02 - 12/02	1/03 - 12/03	1/04 - 12/04	1/05 - 12/05	1/06 - 12/06	1/07 - 12/07	1/08 - 12/08	1/09 - 12/09	1/10 - 12/10
PERS (DB) Real Estate	NA	NA	51	71	48	58	34	34	34	68
STRS Real Estate	79	68	51	10	9	3	0	36	38	58
OP&F Real Estate	0	59	29	59	12	12	12	8	93	72
SERS Real Estate	100	100	32	41	70	44	43	48	84	63
HPRS Real Estate	33	46	93	77	82	88	34	100	9	100
NCREIF Property	68	40	55	57	58	59	36	42	20	31

The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2010 within the Mellon All Real Estate Universe. In 2010, STRS, SERS, PERS DB and OP&F ranked in the third quartile, and HPRS ranked in the bottom quartile of the universe.

Note: This page reflects calendar year performance only. The most recent data presented ends 12/31/2010. Universe information is updated through 12/31/2010.



## Appendix

## Appendix 1.1 - Ohio Retirement Systems Asset Allocation Comparison Analysis

### Comparison of Asset Allocation versus BNYMellon All Public Total Fund Universe

	U.S. Equity	Fixed Income	Non-U.S. Equity	Private / Public Real Estate	Alternatives	Cash
PERS (DB) - ACTUAL	35.70%	23.76%	25.43%	8.26%	6.65%	0.20%
PERS (DB) - TARGET	35.45%	25.00%	24.51%	8.52%	6.53%	0.00%
PERS (HC) - ACTUAL	30.12%	32.59%	28.66%	6.04%	2.42%	0.17%
PERS (HC) - TARGET	30.15%	34.00%	27.32%	6.00%	2.53%	0.00%
STRS - ACTUAL	38.41%	17.12%	22.93%	7.65%	7.48%	6.41%
STRS - TARGET	39.00%	19.00%	23.00%	10.00%	8.00%	1.00%
OP&F - ACTUAL	38.94%	25.71%	24.08%	6.15%	3.37%	1.76%
OP&F - TARGET	36.90%	26.10%	23.00%	10.00%	4.00%	0.00%
SERS - ACTUAL	25.88%	17.34%	24.64%	8.83%	22.02%	1.28%
SERS - TARGET	22.50%	19.00%	22.50%	10.00%	25.00%	1.00%
HPRS - ACTUAL	45.98%	16.74%	15.00%	2.74%	18.49%	1.05%
HPRS - TARGET	45.00%	20.00%	15.00%	5.00%	15.00%	0.00%
Maximum	74.68%	91.00%	31.00%	10.55%	31.42%	20.16%
5th	63.24%	72.10%	29.12%	10.22%	30.33%	13.60%
25th	51.56%	31.60%	20.48%	7.80%	14.58%	4.83%
Median	43.34%	27.25%	17.24%	5.57%	9.66%	2.10%
75th	32.74%	24.06%	13.42%	4.91%	6.01%	0.84%
95th	18.02%	13.28%	5.99%	0.83%	2.67%	0.00%
Minimum	14.17%	1.44%	0.00%	0.68%	1.18%	-3.30%

Note:

Report is based upon plans that have submitted asset class data greater than 70% of the total market value.

Seventy-two institutions represented the universe run.

PERS (DB) fixed income allocation is comprised of 12.6% in core fixed income, 5.1% in high yield and 6.1% in long duration fixed income. The real estate allocation is comprised of 8.2% private real estate and 0.1% REITS.

Source: BNYMellon Trust Universe Quarter Ended December 31, 2010.

## Appendix 1.2 - Ohio Retirement Systems Asset Allocation Comparison Analysis

### Comparison of Asset Allocation versus BNYMellon Billion Dollar Public Fund Universe

	U.S. Equity	Fixed Income	Non-U.S. Equity	Private / Public Real Estate	Alternatives	Cash
PERS (DB) - ACTUAL	35.70%	23.76%	25.43%	8.26%	6.65%	0.20%
PERS (DB) - TARGET	35.45%	25.00%	24.51%	8.52%	6.53%	0.00%
PERS (HC) - ACTUAL	30.12%	32.59%	28.66%	6.04%	2.42%	0.17%
PERS (HC) - TARGET	30.15%	34.00%	27.32%	6.00%	2.53%	0.00%
STRS - ACTUAL	38.41%	17.12%	22.93%	7.65%	7.48%	6.41%
STRS - TARGET	39.00%	19.00%	23.00%	10.00%	8.00%	1.00%
OP&F - ACTUAL	38.94%	25.71%	24.08%	6.15%	3.37%	1.76%
OP&F - TARGET	36.90%	26.10%	23.00%	10.00%	4.00%	0.00%
SERS - ACTUAL	25.88%	17.34%	24.64%	8.83%	22.02%	1.28%
SERS - TARGET	22.50%	19.00%	22.50%	10.00%	25.00%	1.00%
HPRS - ACTUAL	45.98%	16.74%	15.00%	2.74%	18.49%	1.05%
HPRS - TARGET	45.00%	20.00%	15.00%	5.00%	15.00%	0.00%
Maximum	74.68%	91.00%	31.00%	10.55%	31.42%	20.16%
5th	56.05%	70.64%	30.30%	9.23%	30.67%	15.53%
25th	45.94%	31.82%	21.65%	7.05%	13.27%	7.94%
Median	38.60%	27.04%	18.79%	5.10%	9.66%	2.29%
75th	30.79%	23.63%	15.27%	4.21%	6.09%	1.11%
95th	20.21%	7.05%	9.27%	0.78%	2.20%	-0.58%
Minimum	15.29%	1.44%	6.60%	0.68%	1.18%	3.30%

Note:

Report is based upon plans that have submitted asset class data greater than 70% of the total market value.

Thirty-six institutions represented the universe run.

PERS (DB) fixed income allocation is comprised of 12.6% in core fixed income, 5.1% in high yield and 6.1% in long duration fixed income. The real estate allocation is comprised of 8.2% private real estate and 0.1% REITs.

Source: BNYMellon Trust Universe Quarter Ended December 31, 2010.

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