

MPSERS
TIME-WEIGHTED RATES OF RETURN
PERIODS ENDING SEPTEMBER 30, 2016

	Assets % of portfolio 9/30/16	Ten Years* Rate	Seven Years* Rate	Five Years* Rate	Three Years* Rate	One Year Rate	Current Quarter Rate
TOTAL PLAN	100.0%	6.2	9.5	10.2	8.5	7.6	3.4
Median**		5.8	8.8	9.7	6.5	9.6	3.6
EQUITIES							
Domestic	25.7%	7.2	12.7	16.2	10.3	12.2	3.6
International	15.9%	2.0	4.9	7.7	2.1	9.9	7.5
Private Equity	15.3%	11.2	15.2	11.6	13.2	3.6	2.6
BONDS	13.2%	5.7	5.1	4.2	5.0	7.3	1.8
REAL ESTATE & INFRASTRUCTURE	10.6%	5.2	7.8	11.7	13.9	10.4	2.4
CASH EQUIVALENTS	4.0%	0.9	0.5	0.4	0.5	0.7	0.2
ABSOLUTE RETURN	6.5%		5.0	4.9	3.2	-1.7	0.8
REAL RETURN & OPPORTUNISTIC	8.8%			9.8	12.1	5.4	3.4

* Annualized Returns

**Comparison universe is the State Street Universe comprised of Public Funds greater than \$10 Billion on the total plan level and greater than \$1 Billion for asset classes.

Source: State Street Analytics.

MPSERS		
Risk		
<i>STANDARD DEVIATIONS</i>		
	Value	Rank
<i>Five Years</i>		
MPSERS	4.2 %	10
Median	5.4 %	
<i>Ten Years</i>		
MPSERS	9.2 %	87
Median	3.9 %	