



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: OCTOBER 31, 2016

Participant Plan Performance Review for

West Virginia Investment Management Board

Participant Plans Allocation & Performance Net of Fees

Period Ending: October 31, 2016

	6/30/2016		10/31/2016		Performance %						
	Asset (\$000)	%	Asset (\$000)	%	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
WVIMB Fund Assets	16,747,244	100.0	16,883,335	100.0							
Pension Assets	13,230,134	79.0	13,488,651	80.0							
Public Employees' Retirement System	5,597,558	33.4	5,750,615	34.1	(0.3)	0.5	3.4	5.0	5.5	8.3	5.8
Teachers' Retirement System	6,513,312	38.9	6,591,743	39.0	(0.3)	0.5	3.4	4.9	5.5	8.3	5.5
EMS Retirement System	58,844	0.4	61,623	0.4	(0.3)	0.5	3.4	4.9	5.5	8.3	
Public Safety Retirement System	578,762	3.5	584,673	3.5	(0.3)	0.5	3.4	4.9	5.5	8.4	5.8
Judges' Retirement System	167,178	1.0	171,839	1.0	(0.3)	0.5	3.5	5.0	5.5	8.3	5.8
State Police Retirement System	138,127	0.8	144,682	0.9	(0.3)	0.5	3.4	5.0	5.5	8.3	5.8
Deputy Sheriffs' Retirement System	171,949	1.0	178,480	1.1	(0.3)	0.5	3.5	4.9	5.5	8.3	5.8
Municipal Police & Firefighter Retirement System	3,080	0.0	3,646	0.0	(0.3)	0.5	3.4	4.7	5.3	7.8	
Municipal Model A	1,324	0.0	1,350	0.0	(0.3)	0.5	3.4	4.8	5.4		
Insurance Assets	2,545,860	15.2	2,550,063	15.1							
Workers' Compensation Old Fund	1,284,843	7.7	1,288,600	7.6	(0.3)	0.4	2.5	4.9	3.4	4.5	4.0
Workers' Comp. Self-Insured Guaranty Risk Pool	33,418	0.2	33,548	0.2	(0.2)	0.7	2.8	4.1	3.4	4.9	3.9
Workers' Comp. Self-Insured Security Risk Pool	53,881	0.3	54,110	0.3	(0.2)	0.7	2.9	4.2			
Workers' Comp. Uninsured Employers' Fund	10,841	0.1	11,130	0.1	(0.2)	0.6	2.7	3.5	3.1	4.7	3.6
Pneumoconiosis	246,635	1.5	248,345	1.5	(0.2)	0.7	2.8	3.8	3.3	4.8	4.5
Board of Risk & Insurance Management	132,322	0.8	135,965	0.8	(0.2)	0.7	2.8	3.8	3.3	4.8	4.9
Public Employees' Insurance Agency	176,829	1.0	145,151	0.9	(0.2)	0.6	2.6	3.9	3.4	4.8	4.6
WV Retiree Health Benefit Trust Fund	607,091	3.6	633,214	3.7	(0.3)	0.5	3.5	5.0	5.5	8.0	
Endowment Assets	971,250	5.8	844,621	4.9							
Berkeley County Development Authority	6,089	0.0	6,299	0.0	(0.3)	0.5	3.5	5.0			
Wildlife Fund	54,571	0.3	56,638	0.3	(0.3)	0.6	3.5	5.0	5.5	8.3	5.8
Prepaid Tuition Trust	54,948	0.3	49,920	0.3	(0.7)	0.1	2.8	4.5	4.9	7.0	5.6
Revenue Shortfall Reserve Fund	336,013	2.0	193,758	1.1	(0.2)	0.1	1.0	4.7	2.6	2.5	2.4
Revenue Shortfall Reserve Fund - Part B	390,670	2.4	400,636	2.4	(0.4)	0.4	2.6	5.1	3.4	4.6	3.4
WV DEP Trust	7,808	0.1	8,131	0.0	(0.4)	0.7	4.1	3.6	4.2	7.7	
WV DEP Agency	121,151	0.7	129,239	0.8	(0.2)	0.8	3.3	4.1	3.7		

Composite Asset Allocation & Performance Net of Fees

Period Ending: October 31, 2016

	Asset (\$000)	%	Performance %							
			1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year	
Investment Pools Composite	16,894,404	100.00								
Total Equity Composite	8,494,850	50.28	(0.79)	0.37	5.11	4.25	4.45	9.86	5.49	
+/- Total Equity Policy Index (b)			1.09	1.07	1.33	1.48	0.75	1.02	1.33	
US Equity Composite	3,929,421	23.26	(2.30)	(2.13)	1.34	2.48	7.74	13.18	6.79	
+/- Russell 3000 Index			(0.14)	(0.37)	(0.80)	(1.76)	(0.39)	(0.17)	0.03	
Large Cap Composite	3,229,018	19.11	(1.95)	(2.05)	0.97	3.38	8.89	13.54	6.75	
+/- S&P 500 Index			(0.13)	(0.38)	(0.99)	(1.13)	0.05	(0.03)	0.05	
Non-Large Cap Composite	700,403	4.15	(3.89)	(2.65)	2.68	(1.76)	3.21	11.29	6.86	
+/- Russell 2500 Index			0.17	0.18	0.44	(5.74)	(1.96)	(0.93)	(0.14)	
International Equity Composite	4,565,429	27.02	0.55	2.63	8.61	5.67	0.95	6.35	4.38	
+/- MSCI AC World ex US IMI Index (c)			2.15	2.27	3.18	4.44	1.62	2.01	2.19	
Fixed Income Composite	3,311,866	19.60	(0.07)	0.54	1.67	5.13	3.62	3.87	4.65	
+/- Barclays Capital Universal (d)			0.59	1.07	1.38	0.06	(0.08)	0.51	(0.28)	
Core Fixed Income	1,008,783	5.97	(0.74)	(0.87)	(0.25)	4.56	3.91	3.54		
+/- Barclays Capital Aggregate			0.02	0.07	0.06	0.19	0.43	0.64		
Total Return Fixed Income	2,303,083	13.63	0.22	1.16	2.54	5.38	3.48	4.05	4.88	
+/- Barclays Capital Universal			0.88	1.69	2.25	0.31	(0.22)	0.69	0.03	
TIPS Composite	351,228	2.08	(0.41)	(0.30)	0.56	5.88	2.05	1.45		
+/- Barclays Capital U.S. TIPS			(0.01)	0.00	0.00	(0.01)	(0.03)	(0.02)		
Cash Composite	124,657	0.74	0.03	0.08	0.11	0.30	0.17	0.16	0.99	
+/- Citigroup 90 Day T-Bill (e)			0.00	0.01	0.01	0.05	0.07	0.01	0.01	
Private Equity Composite	1,433,627	8.49	0.53	0.64	1.32	9.70	12.91	11.98		
+/- Russell 3000 + 3% (f, g)								(5.01)		
Real Estate Composite	1,547,396	9.16	0.44	0.10	0.43	8.85	10.22	9.95		
+/- NCREIF + 1% (f)								(2.45)		
Hedge Fund Composite	1,630,780	9.65	0.64	1.87	2.88	0.52	3.00	4.87		
+/- HFRI FOF + 1% (h)			0.74	0.89	0.29	0.02	0.93	1.89		

Participant Plans Allocation vs. Strategy

Period Ending: October 31, 2016

	Domestic Equity		Int'l Equity		Fixed Income		Private Equity		Real Estate		Hedge Funds		Cash	
	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %	Actual %	Strategy %

Pension Assets

Public Employees' Retirement System	25.2	27.5	29.2	27.5	14.0	15.0	10.1	10.0	10.8	10.0	10.4	10.0	0.3	0.0
Teachers' Retirement System	25.1	27.5	29.2	27.5	13.9	15.0	10.1	10.0	11.1	10.0	10.3	10.0	0.3	0.0
EMS Retirement System	25.4	27.5	29.0	27.5	14.4	15.0	10.0	10.0	10.0	10.0	10.5	10.0	0.7	0.0
Public Safety Retirement System	25.3	27.5	29.3	27.5	13.9	15.0	10.1	10.0	11.0	10.0	10.2	10.0	0.2	0.0
Judges' Retirement System	25.2	27.5	29.3	27.5	14.3	15.0	10.1	10.0	10.1	10.0	10.8	10.0	0.2	0.0
State Police Retirement System	25.1	27.5	29.0	27.5	14.7	15.0	10.0	10.0	10.0	10.0	10.5	10.0	0.7	0.0
Deputy Sheriffs' Retirement System	24.9	27.5	29.2	27.5	14.6	15.0	10.1	10.0	10.3	10.0	10.7	10.0	0.2	0.0
Municipal Police & Firefighter Retirement System	24.1	27.5	27.6	27.5	14.3	15.0	9.6	10.0	9.6	10.0	9.6	10.0	5.2	0.0
Municipal Model A	25.4	27.5	28.8	27.5	14.0	15.0	10.0	10.0	9.9	10.0	10.0	10.0	1.9	0.0

Insurance Assets

Workers' Compensation Old Fund	14.1	15.0	16.5	15.0	65.1	70.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0
Workers' Comp. Self-Insured Guaranty Risk Pool	13.6	15.0	16.2	15.0	43.9	45.0	0.0	0.0	0.0	0.0	22.4	20.0	3.9	5.0
Workers' Comp. Self-Insured Security Risk Pool	13.9	15.0	16.3	15.0	45.3	45.0	0.0	0.0	0.0	0.0	20.7	20.0	3.8	5.0
Workers' Comp. Uninsured Employers Fund	13.5	15.0	15.9	15.0	38.8	40.0	0.0	0.0	0.0	0.0	21.7	20.0	10.1	10.0
Pneumoconiosis	13.9	15.0	16.2	15.0	44.7	45.0	0.0	0.0	0.0	0.0	20.7	20.0	4.5	5.0
Board of Risk & Insurance Mgmt.	13.8	15.0	15.8	15.0	43.9	45.0	0.0	0.0	0.0	0.0	21.5	20.0	5.0	5.0
Public Employees' Insurance Agency	14.0	15.0	15.7	15.0	49.8	50.0	0.0	0.0	0.0	0.0	20.2	20.0	0.3	0.0
WV Retiree Health Benefit Trust Fund	25.0	27.5	28.8	27.5	14.7	15.0	10.0	10.0	10.3	10.0	10.5	10.0	0.7	0.0

Endowment Assets

Berkeley County Development Authority	25.3	27.5	29.3	27.5	14.7	15.0	10.1	10.0	10.5	10.0	10.1	10.0	0.0	0.0
Wildlife Fund	24.9	27.5	29.3	27.5	14.6	15.0	10.1	10.0	10.4	10.0	10.6	10.0	0.1	0.0
Prepaid Tuition Trust	26.7	27.5	23.2	22.5	48.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0
Revenue Shortfall Reserve Fund	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Revenue Shortfall Reserve Fund - Part B	13.8	15.0	16.1	15.0	70.1	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WV DEP Trust	29.6	32.5	34.7	32.5	14.6	15.0	0.0	0.0	0.0	0.0	21.0	20.0	0.1	0.0
WV DEP Agency	17.8	20.0	21.1	20.0	38.7	40.0	0.0	0.0	0.0	0.0	20.6	20.0	1.8	0.0

- (a) As of January 2014, the PERS Policy is 30% Russell 3000, 30% MSCI ACW ex USA (IMI), and 40% Barclays Capital Universal. From April 2008 to December 2013, the PERS Policy was 30% Russell 3000, 30% MSCI ACW ex USA (Standard), and 40% Barclays Capital Universal. Prior periods were 42% Russell 3000, 18% MSCI ACW ex USA, and 40% Barclays Capital Aggregate.
- (b) As of January 2014, the Total Equity Policy Index is 50% Russell 3000 and 50% MSCI ACW ex USA (IMI). From April 2008 to December 2013, the Total Equity Policy Index was 50% Russell 3000 and 50% MSCI ACW ex USA (Standard). Prior periods were 40% S&P 500, 30% Russell 2500, and 30% MSCI ACW ex USA.
- (c) Prior to January 2014, the index was the MSCI ACW ex USA (Standard).
- (d) Prior to April 2008, the index was Barclays Capital Aggregate.
- (e) Prior to January 2014, the index was Citigroup 90 Day T-Bill plus 15 basis points.
- (f) The Private Equity Composite and Real Estate Composite are long-term programs whose benchmarks are only reported for 5 years and beyond.
- (g) Prior to January 2014, the index was S&P 500 plus 500 basis points.
- (h) Prior to January 2014, the index was Libor plus 400 basis points.
- (i) Franklin Benchmark is 50% JPM EMBI Global Diversified and 50% JPM GBI EM Diversified.
- (j) Prior to April 2008, the index was a custom index.

Note: Participant returns are net of fees. Portfolio returns are net of management fees. Returns shorter than one year are unannualized.

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