

WEST VIRGINIA INVESTMENT MANAGEMENT BOARD  
PARTICIPANT PLAN PERFORMANCE REPORT

OCTOBER 31, 2015

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**West Virginia Investment Management Board**  
 Participant Plans Allocation & Performance Net of Fees  
 As of October 31, 2015

	6/30/2015		10/31/2015		Performance %						
	Asset (\$000)	%	Asset (\$000)	%	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
<b>WVIMB Fund Assets</b>	<b>17,180,853</b>	<b>100.0</b>	<b>16,731,359</b>	<b>100.0</b>							
<b>Pension Assets</b>	<b>13,635,608</b>	<b>79.4</b>	<b>13,257,647</b>	<b>79.2</b>							
Public Employees' Retirement System	5,742,388	33.5	5,610,251	33.5	4.1	(1.8)	(1.5)	2.8	9.1	8.4	6.8
Teachers' Retirement System	6,753,118	39.3	6,535,548	39.1	4.1	(1.8)	(1.5)	2.7	9.1	8.3	6.5
EMS Retirement System	56,547	0.3	56,346	0.3	4.1	(1.8)	(1.5)	2.8	9.1	8.3	
Public Safety Retirement System	607,339	3.5	584,729	3.5	4.2	(1.8)	(1.5)	2.9	9.2	8.4	6.7
Judges' Retirement System	170,727	1.0	166,990	1.0	4.1	(1.8)	(1.5)	2.9	9.2	8.4	6.7
State Police Retirement System	131,954	0.8	131,925	0.8	4.1	(1.8)	(1.5)	2.8	9.1	8.3	6.7
Deputy Sheriffs' Retirement System	170,181	1.0	168,201	1.0	4.1	(1.8)	(1.5)	2.8	9.1	8.3	6.8
Municipal Police & Firefighter Retirement System	1,944	0.0	2,294	0.0	4.0	(1.8)	(1.5)	2.8	8.6	6.8	
Municipal Model A	1,410	0.0	1,363	0.0	4.1	(1.8)	(1.5)	2.7			
<b>Insurance Assets</b>	<b>2,550,823</b>	<b>14.8</b>	<b>2,480,732</b>	<b>14.8</b>							
Workers' Compensation Old Fund	1,290,486	7.5	1,277,587	7.6	2.5	(1.0)	(0.7)	0.4	3.4	4.4	
Workers' Comp. Self-Insured Guaranty Risk Pool	15,756	0.1	15,497	0.1	2.4	(1.5)	(1.3)	0.8	4.4	4.9	
Workers' Comp. Self-Insured Security Risk Pool	9,046	0.0	8,805	0.0	2.4	(1.6)	(1.3)	0.6			
Workers' Comp. Uninsured Employers' Fund	10,889	0.1	10,750	0.1	2.3	(1.5)	(1.3)	0.7	4.3	4.8	
Pneumoconiosis	261,369	1.5	253,822	1.5	2.3	(1.6)	(1.3)	0.7	4.4	4.9	5.0
Board of Risk & Insurance Management	137,824	0.8	130,966	0.8	2.3	(1.6)	(1.4)	0.6	4.3	4.9	5.5
Public Employees' Insurance Agency	218,202	1.3	185,132	1.1	2.4	(1.6)	(1.3)	0.8	4.4	4.9	5.1
WV Retiree Health Benefit Trust Fund	607,251	3.5	598,173	3.6	4.2	(1.8)	(1.5)	2.8	8.9	7.8	
<b>Endowment Assets</b>	<b>994,422</b>	<b>5.8</b>	<b>992,980</b>	<b>6.0</b>							
Berkeley County Development Authority	-	0.0	6,000	0.0							
Wildlife Fund	54,655	0.3	53,989	0.3	4.2	(1.8)	(1.5)	2.8	9.1	8.3	6.7
Prepaid Tuition Trust	66,440	0.4	59,126	0.4	3.8	(0.2)	0.5	2.9	7.3	7.2	6.6
Revenue Shortfall Reserve Fund	376,714	2.2	375,663	2.2	0.5	(0.6)	(0.3)	(0.2)	0.1	2.8	
Revenue Shortfall Reserve Fund - Part B	384,146	2.2	381,223	2.3	2.6	(1.0)	(0.8)	0.3	3.3	4.6	
WV DEP Trust	8,254	0.1	8,071	0.1	4.6	(2.5)	(2.2)	1.1	8.4		
WV DEP Agency	104,213	0.6	108,908	0.7	3.1	(1.6)	(1.5)	0.6			

## West Virginia Investment Management Board

Composite Asset Allocation & Performance Net of Fees

As of October 31, 2015

	Asset (\$000)	%	Performance %							
			1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year	
Investment Pools Composite	16,742,772	100.00								
Total Equity Composite	8,409,629	50.23	7.20	(3.07)	(2.74)	0.39	11.63	9.65	6.98	
+/- Total Equity Policy Index (b)			(0.37)	0.21	(0.04)	(0.11)	0.95	1.04	1.15	
US Equity Composite	4,272,053	25.52	7.33	(1.61)	0.36	4.75	16.54	14.70	8.16	
+/- Russell 3000 Index			(0.57)	(0.04)	0.28	0.26	0.45	0.56	0.22	
Large Cap Composite	3,496,530	20.89	7.63	(0.75)	1.72	5.93	16.66	14.78	7.96	
+/- S&P 500 Index			(0.81)	(0.12)	0.27	0.73	0.46	0.45	0.11	
Non-Large Cap Composite	775,523	4.63	5.95	(5.33)	(5.37)	(0.20)	15.34	14.15	8.74	
+/- Russell 2500 Index			0.36	(0.22)	(0.09)	(1.70)	0.49	1.08	0.41	
International Equity Composite	4,137,576	24.71	7.07	(4.56)	(5.83)	(4.12)	6.72	4.61	6.28	
+/- MSCI AC World ex US IMI Index (c)			(0.18)	0.41	(0.41)	(0.64)	1.37	1.42	1.59	
Fixed Income Composite	3,395,576	20.28	0.80	(0.03)	0.35	0.96	2.25	3.65	4.81	
+/- Barclays Capital Universal (d)			0.48	(0.45)	(0.65)	(0.71)	0.36	0.33	(0.13)	
Core Fixed Income	1,027,663	6.14	(0.09)	0.60	1.23	2.78	2.26	3.71		
+/- Barclays Capital Aggregate			(0.11)	0.05	(0.02)	0.82	0.61	0.68		
Total Return Fixed Income	2,367,913	14.14	1.20	(0.33)	(0.06)	0.13	2.28	3.64	5.14	
+/- Barclays Capital Universal			0.88	(0.75)	(1.06)	(1.54)	0.39	0.32	0.22	
TIPS Composite	429,642	2.57	0.25	(1.13)	(0.89)	(1.43)	(2.05)	2.03		
+/- Barclays Capital U.S. TIPS			0.00	(0.03)	0.00	(0.01)	(0.02)	(0.03)		
Cash Composite	130,726	0.78	0.01	0.04	0.04	0.11	0.13	0.12	1.44	
+/- Citigroup 90 Day T-Bill (e)			0.01	0.03	0.03	0.09	0.04	(0.03)	0.01	
Private Equity Composite	1,357,878	8.11	1.06	(0.77)	(0.84)	11.52	12.41	12.59		
+/- Russell 3000 + 3% (f, g)								(5.62)		
Real Estate Composite	1,418,089	8.47	0.88	1.67	2.24	10.71	10.79	10.09		
+/- NCREIF + 1% (f)								(3.57)		
Hedge Fund Composite	1,601,232	9.56	(0.08)	(2.62)	(2.41)	2.65	6.44	5.19		
+/- HFRI FOF + 1% (h)			(0.99)	0.07	0.01	0.19	3.11	1.44		

**West Virginia Investment Management Board**

Participant Plans Allocation vs. Strategy

As of October 31, 2015

	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	27.8	27.5	27.0	27.5	14.3	15.0	9.8	10.0	10.2	10.0	10.5	10.0	0.4	0.0
Teachers' Retirement System	27.9	27.5	27.1	27.5	14.2	15.0	9.8	10.0	10.2	10.0	10.6	10.0	0.2	0.0
EMS Retirement System	27.6	27.5	27.2	27.5	14.6	15.0	9.6	10.0	10.2	10.0	9.8	10.0	1.0	0.0
Public Safety Retirement System	28.1	27.5	27.2	27.5	14.4	15.0	9.8	10.0	10.3	10.0	10.2	10.0	0.0	0.0
Judges' Retirement System	27.8	27.5	27.2	27.5	14.6	15.0	9.7	10.0	10.3	10.0	10.2	10.0	0.2	0.0
State Police Retirement System	27.6	27.5	27.2	27.5	14.9	15.0	9.7	10.0	10.2	10.0	9.9	10.0	0.5	0.0
Deputy Sheriffs' Retirement System	27.8	27.5	26.9	27.5	15.0	15.0	9.7	10.0	10.2	10.0	10.1	10.0	0.3	0.0
Municipal Police & Firefighter Retirement System	26.3	27.5	26.2	27.5	14.3	15.0	9.5	10.0	9.4	10.0	9.3	10.0	5.0	0.0
Municipal Model A	28.0	27.5	27.3	27.5	13.8	15.0	10.0	10.0	10.1	10.0	10.0	10.0	0.8	0.0

**Insurance Assets**

Workers' Compensation Old Fund	15.5	15.0	14.5	15.0	65.8	70.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0
Workers' Comp. Self-Insured Guaranty Risk Pool	15.3	15.0	15.0	15.0	44.8	45.0	0.0	0.0	0.0	0.0	20.0	20.0	4.9	5.0
Workers' Comp. Self-Insured Security Risk Pool	15.3	15.0	14.7	15.0	44.8	45.0	0.0	0.0	0.0	0.0	20.2	20.0	5.0	5.0
Workers' Comp. Uninsured Employers Fund	15.4	15.0	14.6	15.0	40.0	40.0	0.0	0.0	0.0	0.0	19.9	20.0	10.1	10.0
Pneumoconiosis	15.3	15.0	14.7	15.0	45.1	45.0	0.0	0.0	0.0	0.0	20.3	20.0	4.6	5.0
Board of Risk & Insurance Mgmt.	15.2	15.0	14.6	15.0	44.8	45.0	0.0	0.0	0.0	0.0	20.4	20.0	5.0	5.0
Public Employees' Insurance Agency	15.2	15.0	14.6	15.0	49.7	50.0	0.0	0.0	0.0	0.0	20.4	20.0	0.1	0.0
WV Retiree Health Benefit Trust Fund	27.9	27.5	27.4	27.5	14.8	15.0	9.7	10.0	10.3	10.0	9.9	10.0	0.0	0.0

**Endowment Assets**

Berkeley County Development Authority	0.0	27.5	0.0	27.5	0.0	15.0	0.0	10.0	0.0	10.0	0.0	10.0	100.0	0.0
Wildlife Fund	27.7	27.5	27.3	27.5	15.0	15.0	9.7	10.0	10.3	10.0	9.9	10.0	0.1	0.0
Prepaid Tuition Trust	27.9	27.5	22.5	22.5	47.7	50.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	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	15.5	15.0	15.1	15.0	69.4	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WV DEP Trust	33.3	32.5	31.4	32.5	15.0	15.0	0.0	0.0	0.0	0.0	20.1	20.0	0.2	0.0
WV DEP Agency	20.8	20.0	19.2	20.0	38.8	40.0	0.0	0.0	0.0	0.0	19.1	20.0	2.1	0.0

## West Virginia Investment Management Board

### Footnotes

As of October 31, 2015

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- (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.
- (k) Security Capital Benchmark is 40% Wilshire US REIT Index, 30% Wells Fargo Hybrid & Preferred Securities REIT Index, and 30% BC REIT Bond Index.

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