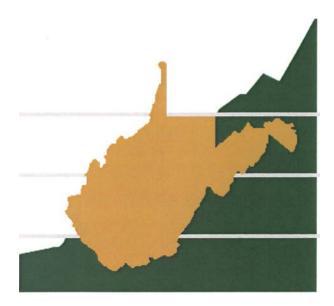
## West Virginia Investment Management Board



### 2017 Schedule of Investment Performance

# Verus<sup>77</sup>

October 24, 2017

Board of Trustees West Virginia Investment Management Board

We have conducted a performance audit of the accompanying Schedule of Investment Performance (the, "Schedule") of the individual investment pools operated by the West Virginia Investment Management Board (WVIMB). The audit was conducted in accordance with Article 6 of the West Virginia State Board of Investments (Section 12-6-6 (d)) for the year ending June 30, 2017.

Our examination included such testing, as we believed adequate, to verify that the performance information provided in the Schedule has been prepared and fairly presented in accordance with the Performance Presentation Standards as detailed in the footnotes to the Schedule.

This Schedule is the responsibility of WVIMB's management. Our responsibility is to express an opinion on the Schedule based on our audit.

In our opinion, the Schedule referred to above presents fairly, in all material respects, the performance of the individual investment pools as of June 30, 2017, in conformity with the Performance Presentation Standards as detailed in the footnotes to the Schedule.

Yours Sincerely,

Justin Hatley

Director | Portfolio Analytics Verus

#### Schedule of Investment Performance - Final West Virginia Investment Management Board For the Period July 1, 2016 to June 30, 2017

#### **Trust Accounts**

	Total Rate of Return*
Public Employees' Retirement System	15.8%
Teachers' Retirement System	15.7
Emergency Medical Services Retirement System	15.8
State Police Death, Disability and Retirement Fund	15.8
Judges' Retirement System	15.9
State Police Retirement System	15.8
Deputy Sheriff's Retirement System	15.8
Municipal Police Officers' and Firefighters' Retirement System	15.5
Municipal Policemen's or Firemen's Pension and Relief Funds	15.8
Workers' Compensation Old Fund	8.5
Workers' Compensation Self-Insured Employer Guaranty Risk Pool	9.1
Workers' Compensation Self-Insured Employer Security Risk Pool	9.2
Workers' Compensation Uninsured Employers' Fund	8.8
Coal Workers' Pneumoconiosis Fund	9.1
Board of Risk and Insurance Management	9.1
Public Employees Insurance Agency	8.8
West Virginia Retiree Health Benefit Trust Fund	15.8
Berkeley County Development Authority	15.9
Wildlife Endowment Fund	15.9
Prepaid Tuition Trust Fund	12.0
Revenue Shortfall Reserve Fund	1.8
Revenue Shortfall Reserve Fund – Part B	8.8
West Virginia Department of Environmental Protection Trust	15.8
West Virginia Department of Environmental Protection Agency	11.5

\* - Returns are net of all fees. See Note 2.

#### Schedule of Investment Performance - Final West Virginia Investment Management Board For the Period July 1, 2016 to June 30, 2017

#### **Investment Pools**

	<b>Total Rates of Return</b>		
	Gross of	Net of	Net of
	all fees	manager fees	all fees
Large Cap Domestic Equity Pool	17.1%	17.1%	17.0%
Non-Large Cap Domestic Equity Pool	22.1	22.1	22.0
International Qualified Equity Pool	25.3	24.6	24.6
International Non-Qualified Equity Pool	25.1	24.4	24.3
International Equity Pool	27.0	26.3	26.2
Total Return Fixed Income Pool	7.0	6.7	6.7
Core Fixed Income Pool	0.2	0.1	0.1
TIPS Pool	(0.6)	(0.6)	(0.7)
Short-Term Fixed Income Pool	0.6	0.5	0.5
Private Equity Pool	19.7	19.7	19.6
Real Estate Pool	8.4	8.4	8.3
Hedge Fund Pool	5.7	5.7	5.7
Opportunistic Income Pool	4.9	4.9	4.8

#### Monthly Money Market Yield (annualized %)

(See Note 3)

	Short-Term Fixed Income Pool
July 2016	0.24%
August 2016	0.28
September 2016	0.30
October 2016	0.30
November 2016	0.31
December 2016	0.39
January 2017	0.46
February 2017	0.49
March 2017	0.57
April 2017	0.68
May 2017	0.72
June 2017	0.82

#### Schedule of Investment Performance - Final West Virginia Investment Management Board For the Period July 1, 2016 to June 30, 2017

#### <u>Note 1</u>

This report represents the performance returns of the West Virginia Investment Management Board (IMB). It is prepared to comply with *West Virginia Code § 12-6-6(d)*, and is intended solely as an attestation of the returns for the periods indicated. For a more in depth discussion of the investment pools and participant plans, including returns for additional time periods, please refer to the IMB's annual report which may be requested directly from the IMB at 500 Virginia Street East, Suite 200, Charleston, WV 25301 or on the web at www.wvimb.org.

#### Note 2

The Total Rate of Return for the trust accounts and the investment pools is calculated using the Modified Dietz time weighted rate of return method. The Modified Dietz method weights each cash flow by the amount of time it is held in the portfolio. The formula for the Modified Dietz method is:

$$RDIETZ = \frac{MVE - MVB - F}{MVB + FW}$$

#### Note 3

The monthly money market yield represents the rate of income, net of expenses, earned during the respective month. The return is annualized over a 365-day or 366-day year, assuming no reinvestment of earnings.