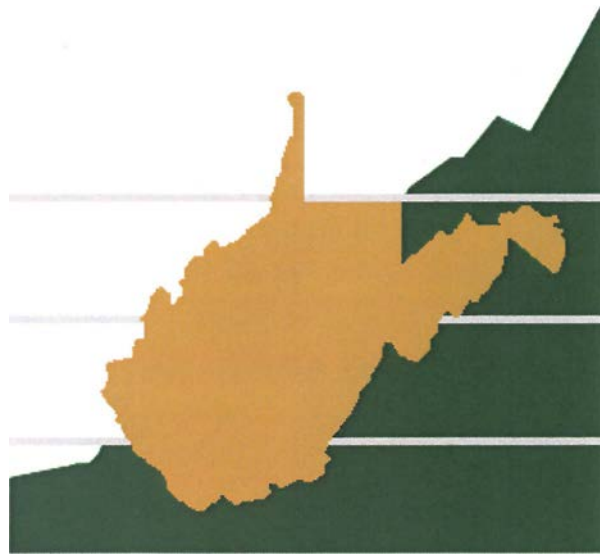


West Virginia Investment Management Board



2018 Schedule of Investment Performance

October 11, 2018

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, 2018.

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, 2018, 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, 2017 to June 30, 2018**

Trust Accounts

| | Total Rate of Return* |
|---|----------------------------------|
| Public Employees' Retirement System | 9.7% |
| Teachers' Retirement System | 9.7 |
| Emergency Medical Services Retirement System | 9.7 |
| State Police Death, Disability and Retirement Fund | 9.7 |
| Judges' Retirement System | 9.7 |
| State Police Retirement System | 9.7 |
| Deputy Sheriff's Retirement System | 9.7 |
| Municipal Police Officers' and Firefighters' Retirement System | 9.4 |
| Municipal Policemen's or Firemen's Pension and Relief Funds – Model A | 9.7 |
| Municipal Policemen's or Firemen's Pension and Relief Funds – Model C | N/A |
| Workers' Compensation Old Fund | 4.8 |
| Workers' Compensation Self-Insured Employer Guaranty Risk Pool | 5.0 |
| Workers' Compensation Self-Insured Employer Security Risk Pool | 5.0 |
| Workers' Compensation Uninsured Employers' Fund | 5.1 |
| Coal Workers' Pneumoconiosis Fund | 5.0 |
| Board of Risk and Insurance Management | 5.0 |
| Public Employees Insurance Agency | 4.6 |
| West Virginia Retiree Health Benefit Trust Fund | 9.6 |
| Berkeley County Development Authority | 9.7 |
| Wildlife Endowment Fund | 9.7 |
| Prepaid Tuition Trust Fund | 4.7 |
| Revenue Shortfall Reserve Fund | 1.2 |
| Revenue Shortfall Reserve Fund – Part B | 3.2 |
| West Virginia Department of Environmental Protection Trust | 8.4 |
| West Virginia Department of Environmental Protection Agency | 5.6 |

The Municipal Policemen's or Firemen's Pension and Relief Funds – Model C plan was not invested for the full fiscal year. Returns are not reported for periods shorter than one year.

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

**Schedule of Investment Performance - Final
West Virginia Investment Management Board
For the Period July 1, 2017 to June 30, 2018**

Investment Pools

| | Total Rates of Return | | |
|---|------------------------------|--------------------------------|----------------------------|
| | <u>Gross of all fees</u> | <u>Net of manager fees</u> | <u>Net of all fees</u> |
| Domestic Equity Pool | 15.1% | 15.0% | 15.0% |
| International Qualified Equity Pool | 7.4 | 6.9 | 6.9 |
| International Non-Qualified Equity Pool | 7.4 | 6.8 | 6.7 |
| International Equity Pool | 7.3 | 6.7 | 6.6 |
| Total Return Fixed Income Pool | 1.1 | 0.9 | 0.9 |
| Core Fixed Income Pool | - | (0.1) | (0.2) |
| TIPS Pool | 2.2 | 2.2 | 2.1 |
| Short-Term Fixed Income Pool | 1.4 | 1.3 | 1.3 |
| Private Markets Pool | 14.0 | 14.0 | 13.9 |
| Hedge Fund Pool | 6.4 | 6.4 | 6.4 |

Monthly Money Market Yield (annualized %)
(See Note 3)

| | <u>Short-Term Fixed Income Pool</u> |
|----------------|-------------------------------------|
| July 2017 | 0.93% |
| August 2017 | 1.01 |
| September 2017 | 1.03 |
| October 2017 | 1.01 |
| November 2017 | 1.02 |
| December 2017 | 1.18 |
| January 2018 | 1.27 |
| February 2018 | 1.32 |
| March 2018 | 1.47 |
| April 2018 | 1.63 |
| May 2018 | 1.61 |
| June 2018 | 1.85 |

**Schedule of Investment Performance - Final
West Virginia Investment Management Board
For the Period July 1, 2017 to June 30, 2018**

Note 1

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:

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

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.