

# West Virginia Consolidated Public Retirement Board

*Pension Trust Funds of the State of West Virginia*  
(A Component Unit of the State of West Virginia)



## Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2024



*Serving Those Who  
Serve West Virginia*



# West Virginia Consolidated Public Retirement Board

Pension Trust Funds of the State of West Virginia

## ANNUAL COMPREHENSIVE FINANCIAL REPORT

*For the Fiscal Year Ended June 30, 2024*

Prepared by:

Elizabeth J. Cooper, CPA  
Chief Financial Officer

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### **The West Virginia Consolidated Public Retirement Board Administers the Following Retirement Systems:**

Public Employees' Retirement System  
Teachers' Retirement System  
State Police Death, Disability, and Retirement System  
State Police Retirement System  
Deputy Sheriff Retirement System  
Judges' Retirement System  
Emergency Medical Services Retirement System  
Municipal Police Officers & Firefighters Retirement System  
Natural Resources Police Officers Retirement System  
Teachers' Defined Contribution Retirement System

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### **Contact Information:**

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# West Virginia Consolidated Public Retirement Board

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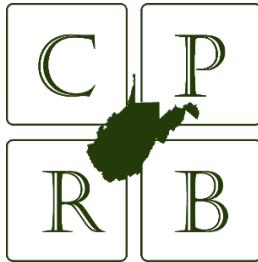
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# Introductory Section



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**Consolidated Public Retirement Board**  
***Pension Trust Funds of the State of West Virginia***







EXECUTIVE DIRECTOR  
Jeffrey E. Fleck

## Consolidated Public Retirement Board

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[www.wvretirement.com](http://www.wvretirement.com)



BOARD CHAIRMAN  
Joseph G. Bunn

December 16, 2024

To the Citizens of West Virginia and the West Virginia Consolidated Public Retirement Board Members:

It is with great pleasure that we submit our Annual Comprehensive Financial Report (ACFR) of the West Virginia Consolidated Public Retirement Board (WVCPRB) for the fiscal year ended June 30, 2024. This report provides detail information on the performance of the ten retirement systems (the Systems) administered by WVCPRB, including:

- Public Employees Retirement System (PERS)
- Teachers Retirement System (TRS)
- Teachers Defined Contribution Retirement System (TDCRS)
- State Police Death, Disability Retirement System (SPDDRS)
- State Police Retirement System (SPRS)
- Deputy Sheriffs Retirement System (DSRS)
- Judges Retirement System (JRS)
- Emergency Medical Service Retirement System (EMSRS)
- Municipal Police Officers & Firefighters Retirement System (MPFRS)
- Natural Resources Police Officers Retirement System (NRPORS)

Each system is considered a component unit of the State of West Virginia for financial reporting purposes, and, as such, the financial information contained in this report is also included in the State of West Virginia's Annual Comprehensive Financial Report. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation including all disclosures, rests with the management of the Systems. Sufficient internal controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements, supporting schedules, and statistical tables. We trust that you and the respective members of the Systems will find this report helpful in understanding your retirement systems.

### **Administration and Plan History**

The PERS, TRS, TDCRS, SPDDRS, SPRS, DSRS, JRS, EMSRS, MPFRS, and NRPORS operate under common management and are collectively referred to as The West Virginia Consolidated Public Retirement Board. In addition to executive management, these plans share accounting and information services, the costs of which are allocated to the funds on an equitable basis. The plans were established under various provisions of the Legislature to provide benefits to qualified persons employed by State-supported institutions, entities, and components. Additional information regarding the administration and history of each system, including laws establishing the plan and services provided, can be found in the *Financial Section-Notes to the Financial Statements* portion of this report.

## **Financial Information**

*Accounting Method* - As required by Accounting Principles Generally Accepted in the United States of America (GAAP), the financial information of the PERS, TRS, TDCRS, SPDDRS, SPRS, DSRS, JRS, EMSRS, MPFRS, and NRPORS is reported on the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when the corresponding liability is incurred. Investments are reported at fair value.

*Internal Controls* – The WVCPRB maintains a system of internal controls designed to provide reasonable assurance that assets are properly safeguarded, transactions are properly executed, and financial statements are reliable. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

*Summary Comparative Data* - Management’s Discussion and Analysis (MD&A) includes a narrative introduction, an overview of the financial statements, including the notes and required supplementary information, and summary comparative data for fiscal years 2024 and 2023.

## **Plan Funded Position**

The funding objective of the WVCPRB pension trust funds is to meet long-term benefit requirements through contributions, which remain relatively level as a percentage of member payroll over time, and through investment earnings. During the year ended June 30, 2024, the funded ratios for the retirement systems increased for 4 of the 9 defined benefit systems, while 5 of the systems experienced a decrease, and this measure was not applicable to the new system (based on actuarial valuations completed as of July 1, 2023). The funded ratios of the defined benefit systems are as follows:

	July 1, 2023	July 1, 2022	Increase (Decrease)
PERS	97.60%	98.24%	-0.64%
TRS	79.95%	78.43%	1.52%
SPDDRS	95.90%	95.14%	0.76%
SPRS	84.80%	86.40%	-1.60%
DSRS	87.70%	88.41%	-0.71%
JRS	228.80%	239.48%	-10.68%
EMSRS	103.90%	102.72%	1.18%
MPFRS	133.10%	140.05%	-6.95%
NRPORS	81.60%	90.32%	-8.72%

Historical information concerning funding progress is presented in the *actuarial section* for each system.

## **Investment Activity**

Total investments for the WVCPRB increased in fiscal year 2024, primarily due to both an increase in the fair value of the investments and the income they produced. The total investment assets at June 30, 2024 and 2023 were (in thousands):

	June 30, 2024	June 30, 2023	Increase (Decrease)
PERS	\$ 9,060,046	\$ 8,398,436	\$ 661,610
TRS	10,042,974	9,319,702	723,272
SPDDRS	820,831	778,440	42,391
SPRS	365,544	320,096	45,448
DSRS	352,093	316,039	36,054
JRS	306,539	278,545	27,994
EMSRS	142,607	125,180	17,427
MPFRS	46,198	34,945	11,253
NRPORS	32,082	27,642	4,440
TDCRS	741,177	663,300	77,877
	<b>\$ 21,910,091</b>	<b>\$ 20,262,325</b>	<b>\$ 1,647,766</b>

### **Investment Activity (Continued)**

Interest and dividend income and the associated investment yields for fiscal years ended June 30, 2024 and 2023, were (dollars in thousands):

	Fiscal Year Ended June 30, 2024			Fiscal Year Ended June 30, 2023			Increase (Decrease)		
	Interest & Dividends	Change in Fair Market Value	Yield	Interest & Dividends	Change in Fair Market Value	Yield	Interest & Dividends	Change in Fair Market Value	Yield
PERS	\$ 1,429	\$ 945,162	11.75%	\$ 672	\$ 669,885	8.33%	\$ 757	\$ 275,277	3.42%
TRS	1,954	1,039,146	11.57%	1,166	741,051	8.25%	788	298,095	3.32%
SPDDRS	156	85,901	11.19%	80	63,030	8.21%	76	22,871	2.98%
SPRS	75	37,363	12.91%	20	24,953	8.62%	55	12,410	4.29%
DSRS	86	36,250	12.36%	19	24,945	8.50%	67	11,305	3.86%
JRS	25	31,738	12.24%	16	22,047	8.50%	9	9,691	3.74%
EMSRS	47	14,498	12.90%	14	9,632	8.57%	33	4,866	4.33%
MPFRS	32	4,455	16.63%	14	2,549	9.51%	18	1,906	7.12%
NRPORS	16	3,259	13.32%	5	2,133	8.72%	11	1,126	4.60%
TDCRS	15,896	99,427	16.47%	49,285	70,638	11.70%	(33,389)	28,789	4.77%

Additional information concerning investments, including investment policies and procedures, is located in the investment section of this Annual Comprehensive Financial Report.

### **Management's Discussion and Analysis**

GASB Statement No. 34 requires that management provide a narrative introduction, overview, and analysis to accompany the Financial Statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report.

### **Professional Services**

Professional consultants are engaged by the Board to perform certain professional services that are essential to the effective operation of the respective plans. The Certification letters from the independent actuary, in conjunction with our internal actuary, are included in this report. The professional consultants engaged by the Board are listed in the Introductory Section of this report.

### **Financial Statement Audit**

Eide Bailly, LLP, issued an unmodified ("clean") opinion on the West Virginia Consolidated Public Retirement Board's financial statements for the fiscal year ended June 30, 2024. The independent auditor's report is located at the front of the Financial Section of this report.

### **Highlights and Initiatives**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the West Virginia Consolidated Public Retirement Board for its annual comprehensive financial report for the fiscal year ended June 30, 2023. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current annual comprehensive financial report continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

**Acknowledgments**

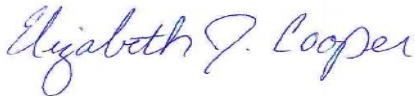
The compilation of this report reflects the combined effort of the staff of the West Virginia Consolidated Public Retirement Board under the leadership of its Executive Director and the Guidance of the Board Members. It is intended to provide extensive and reliable information as a basis for making management decisions, determining compliance with legal provisions, and determining responsible stewardship of the funds of the PERS, TRS, SPDDRS, SPRS, DSRS, JRS, EMSRS, MPFRS, NRPORS, and TDCRS.

We would like to take this opportunity to express our gratitude to the staff, the Governor, the Board of Trustees, the legislature, the consultants, and the many people who have worked so diligently through continued cooperative efforts to assure the successful operation and financial soundness of the PERS, TRS, SPDDRS, SPRS, DSRS, JRS, EMSRS, MPFRS, NRPORS, and TDCRS systems.

Sincerely,



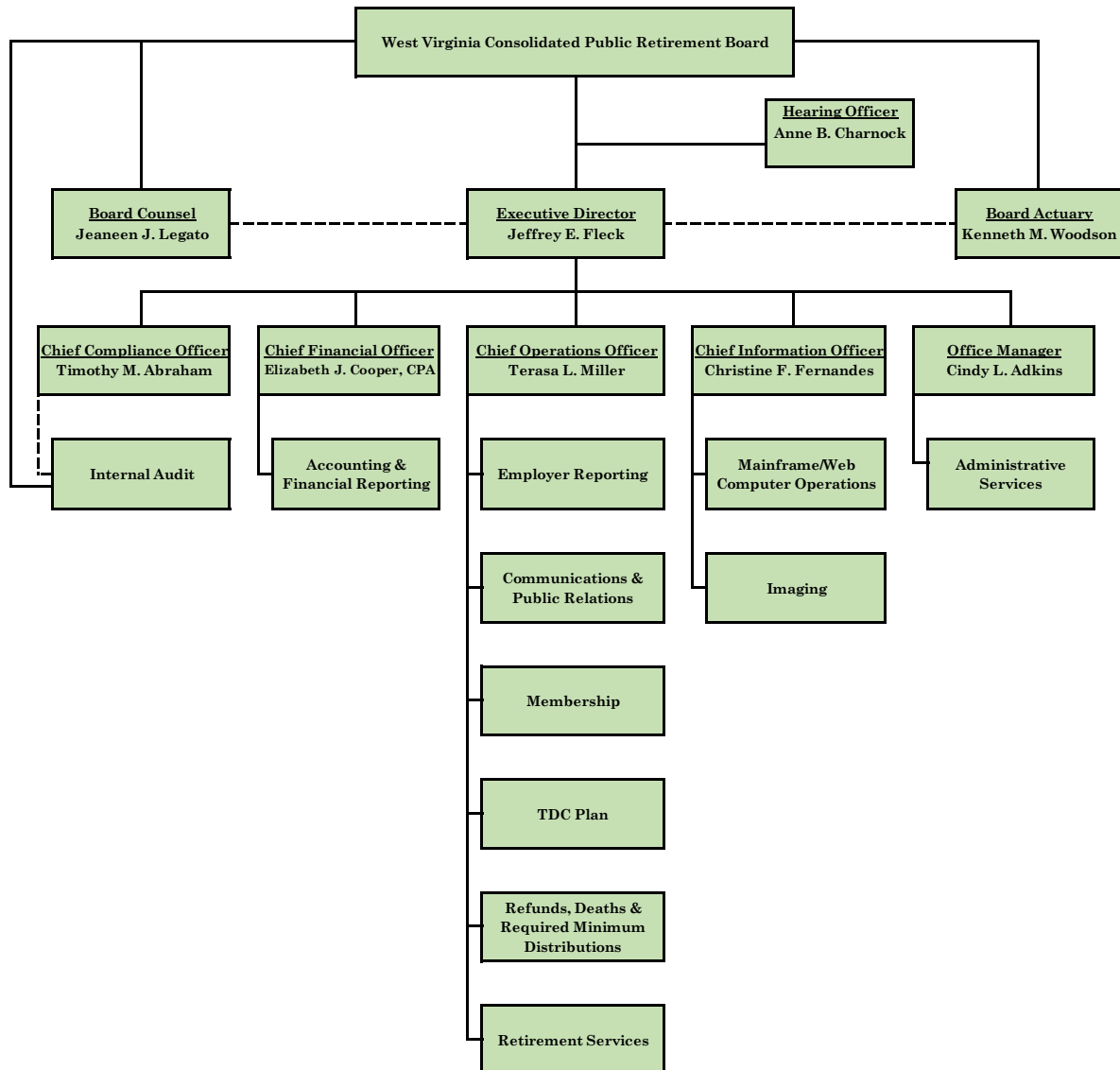
Jeffrey E. Fleck  
Executive Director



Elizabeth J. Cooper  
Chief Financial Officer

**West Virginia Consolidated Public Retirement Board**  
*Introductory Section*  
**Organization Chart**

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# West Virginia Consolidated Public Retirement Board

## *Introductory Section*

### *Board of Trustees, Administrative Staff, & Advisors*

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#### **Board of Trustees:**

Chair	Joseph G. Bunn, Esquire
Vice-Chair	Michael McKown
Statutory Board Member	Governor James C. Justice, III
Statutory Board Member	State Auditor John B. McCuskey
Statutory Board Member	State Treasurer Riley Moore
Statutory Board Member	Administration Cabinet Secretary – Mark D. Scott
Board Member	William A. Barker, Jr.
Board Member	Rhonda Bolyard
Board Member	Woodrow W. Brogan, III
Board Member	Daniel Cart
Board Member	Larry W. Cole
Board Member	Michael Corsaro
Board Member	Brad Mankins
Board Member	Beth K. Morgan
Board Member	D. Todd Murray
Board Member	Dominique N. Ranieri
Board Member	C. Jeffrey Vallet, CPA

#### **Administrative Staff:**

Executive Director	Jeffrey E. Fleck
Executive Assistant	Kimberly K. Pauley
Chief Operating Officer/Deputy Director	Terasa L. Miller
Chief Financial Officer	Elizabeth J. Cooper, CPA
Chief IT/Information Officer	Christine Fernandes
Contract Legal Counsel	J. Jeaneen Legato
Administrative Services Manager	Cindy L. Adkins
Accounting Manager	Lori A. Cottrill
Membership Manager	Vicki L. Sutton
Retirement Services Manager	Lisa M. Trump
Employer Reporting Manager	Caroline R. Brady
TDCRS Manager	Paula M. Vanhorn
Refunds/Deaths/RMDs Manager	Sharon L. Whittaker
Compliance Officer	Timothy M. Abraham

#### **Advisors:**

External Legal Counsel	Bowles Rice, LLP
Consulting Actuary	Buck Global, LLC
Investment Manager	West Virginia Investment Management Board (1)
Independent Certified Public Accountants	Eide Bailly, LLP

- (1) A schedule of investment fees and commissions by investment pool is presented in the Investment Section on pages 100, 102, 105, 107, 110 and 112.

# West Virginia Consolidated Public Retirement Board

## *Introductory Section*

### *Awards and Recognition*

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#### **Certificate of Achievement for Excellence in Financial Reporting, Annual Comprehensive Financial Report (ACFR)**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the West Virginia Consolidated Public Retirement (WVCPRB) for its Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2022. This was the 11th consecutive year that WVCPRB achieved this prestigious recognition.

To be awarded the certificate, a government unit must publish an easily readable and efficiently organized comprehensive annual report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. The certificate is valid for a period of one year.

The WVCPRB ACFR for fiscal year 2023 continues to conform to the Certificate of Achievement Program requirements and will be submitted to GFOA to determine its eligibility for another certificate.



Government Finance Officers Association

### **Certificate of Achievement for Excellence in Financial Reporting**

Presented to

### **West Virginia Consolidated Public Retirement Board**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2023

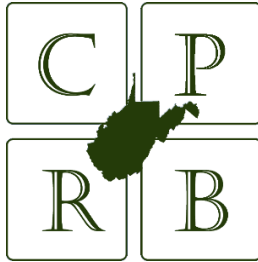
*Christopher P. Morrill*

Executive Director/CEO





# Financial Section



2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT  
*For the Fiscal Years Ended June 30, 2024*

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## Independent Auditor's Report

To the Members of the  
West Virginia Consolidated Public Retirement Board  
Charleston, West Virginia

### Report on the Audit of the Financial Statements

#### Opinion

We have audited the accompanying financial statements of the fiduciary activities of the WV Consolidated Public Retirement Board (the Board), a component unit of the State of West Virginia, which comprise the statement of fiduciary net position as of the year ended June 30, 2024, and the related statements of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the fiduciary activities of the Board, as of June 30, 2024, and the respective changes in financial position, for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### *Basis for Opinion*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Board and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Emphasis of Matter*

#### *Reporting Entity*

As discussed in Note 1, the financial statements of the WV Consolidated Public Retirement Board are intended to present the financial position and then changes in financial position of the Board. They do not purport to, and not present fairly the financial position of the State of West Virginia, as of June 30, 2024, the changes in its financial position, for the year then ended in accordance with accounting principles generally in the United States of America. Our opinion is not modified with respect to this matter.

### ***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Board's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Board's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedules of Net Pension Liability and Changes in Net Pension Liability, Schedule of Contributions, Schedules of Investment Returns and respective notes to the required supplementary information as listed in the table of contents to be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Supplementary Information***

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Board's basic financial statements. The supplemental information as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the supplementary information listed is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

### ***Other Information***

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.



Boise, Idaho  
October 11, 2024



# West Virginia Consolidated Public Retirement Board

## *Financial Section*

### *Management's Discussion and Analysis*

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This section presents management's discussion and analysis of the West Virginia Consolidated Public Retirement Board's (WV CPRB) financial status and performance for the year ended June 30, 2024.

WV CPRB is responsible for administering retirement benefits for nine defined benefit pension systems and one defined contribution system. These retirement systems are:

#### ***Defined Benefit Systems:***

- Public Employees Retirement System (PERS)
- Teachers' Retirement System (TRS)
- State Police Death, Disability and Retirement System (SPDDRS)
- State Police Retirement System (SPRS)
- Deputy Sheriff Retirement System (DSRS)
- Judges' Retirement System (JRS)
- Emergency Medical Service Retirement System (EMSRS)
- Municipal Police Officers & Firefighters Retirement System (MPFRS)
- Natural Resources Police Officers Retirement System (NRPORS)

#### ***Defined Contribution System:***

- Teachers' Defined Contribution Retirement System (TDCRS)

## **OVERVIEW OF THE FINANCIAL STATEMENTS**

This discussion and analysis is intended to serve as an introduction to the WV CPRB's financial reporting, which is comprised of the following components:

1. Financial Statements, including Notes to the Financial Statements
2. Required Supplementary Information

Collectively, this information presents the net position held in trust for pension benefits for each of the systems administered by WV CPRB as of June 30, 2024. This financial information also summarizes the changes in net position held in trust for pension and defined contribution benefits for the year then ended. The information in each of these components is briefly summarized as follows:

1. **Financial Statements.** For the fiscal year ended June 30, 2024, financial statements are presented for the retirement systems administered by WV CPRB. Fiduciary funds are used to account for resources held for the benefit of parties outside WV CPRB. These fiduciary funds are comprised of nine defined benefit retirement systems and one defined contribution retirement system.
  - The Statement of Fiduciary Net Position – Pension Funds is presented for the pension funds at June 30, 2024. This financial statement reflects the resources available to pay benefits to members, including retirees and beneficiaries.
  - The Statement of Changes in Fiduciary Net Position – Pension Funds is presented for the pension funds for the year ended June 30, 2024. This financial statement reflects the changes in the resources available to pay benefits to members, including retirees and beneficiaries during the fiscal year.
  - Notes to the Financial Statements. The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.
2. **Required Supplementary Information.** The required supplementary information consists of management discussion and analysis of schedules concerning the net pension liability and changes therein, schedule of investment returns and actuarially determined contribution requirements for the defined benefit retirement systems.



**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

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**OVERVIEW OF THE FINANCIAL STATEMENTS (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS**

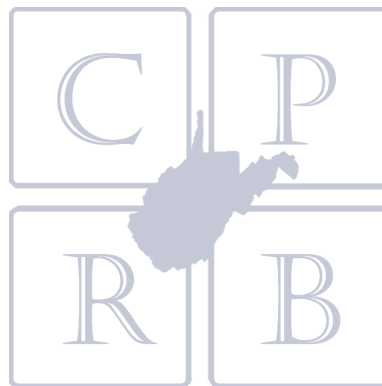
**Investment Management**

Investments held by the defined benefit retirement systems administered by the WV CPRB are managed, as required by West Virginia Code § 12-6-1, by the West Virginia Investment Management Board (WV IMB). The WV IMB maintains nine commingled investment pools by investment type in which the defined benefit systems are invested. Each defined benefit system owns an equity position in each pool and receives proportionate investment income from each pool in accordance with the system's respective ownership percentage in each pool. The value of each system's investments in each of these investment pools is presented in the Statement of Fiduciary Net Position. Investment gains or losses are reported in the Statement of Changes in Fiduciary Net Position for each system.

At June 30, 2024, the nine defined benefit retirement systems and the defined contribution system had total investments of approximately \$21.91 billion. The defined benefit retirement systems experienced annual investment returns ranging from 9.3% to 25.5%, net of fees, compared to the actuarial assumed rate of return of 7.25%, net of fees. Fixed income returns ranged from 3.4 to 5.8%, net of fees.

**Administrative Costs**

Administrative expenses are allocated to the retirement systems monthly based on each retirement system's proportionate share of the total invested assets at the beginning of the fiscal year.



**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (continued)**

**Public Employees' Retirement System (PERS)**

The Public Employees' Retirement System (PERS) provides retirement benefits to covered employees of the State of West Virginia and other political subdivisions. Employee and employer contributions and earnings on investments fund benefits of the system.

The net position restricted for pensions (total assets minus liabilities) of PERS on June 30, 2024, was approximately \$9.06 billion, an increase of \$661.7 million [+7.88%] from the plan net position restricted for pensions at June 30, 2023.

Additions to PERS' net position restricted for pensions includes employer and employee contributions, and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$262.46 million, an increase of \$20.59 million [8.55%] compared to fiscal year 2023. The increase in contributions can be attributed to an increase in participating employees. PERS reported net investment income of approximately \$945.16 million for fiscal year 2024, which was an increase of \$276 million [41.23%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from PERS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$527.38 million, an increase of approximately \$20.17 million [3.98%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$4.1 million, an increase of \$0.35 million [+9.33%], from \$3.7 million in fiscal year 2023. The increase in investments creates higher administrative fees.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed, plus interest, into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds and Transfers were approximately \$15.25 million in fiscal year 2024, a decrease of approximately \$2.8 million [-15.5%], from the approximately \$18.05 million in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. In the most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability (asset) increased from 100.05% on June 30, 2023, to 101.85% on June 30, 2024. The net pension (asset) liability as a percentage of covered payroll was (0.27%) and (8.79) % as of June 30, 2023, and 2024, respectively. The net pension asset was \$164.62 million as of June 30, 2024, compared to an asset of \$4.48 million as of June 30, 2023.

Public Employees Retirement System		
Net position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 1,804	\$ 1,416
Investments at Fair Value	9,060,046	8,398,436
Receivables	5,198	5,129
<b>Total Assets</b>	<b>9,067,048</b>	<b>8,404,981</b>
<b>Liabilities:</b>		
Accrued Expenses	4,245	3,882
<b>Total Liabilities</b>	<b>4,245</b>	<b>3,882</b>
<b>Total Net Position</b>	<b>\$ 9,062,803</b>	<b>\$ 8,401,099</b>

Public Employees Retirement System		
Change in Net position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 95,542	\$ 89,160
Employer Contributions	166,916	152,675
Investment Income	945,162	669,213
Other Income and Transfers In	831	11,682
<b>Total Additions</b>	<b>1,208,451</b>	<b>922,730</b>
<b>Deductions:</b>		
Benefits	527,375	507,209
Refunds and Transfers Out	15,248	18,045
Administrative Expenses	4,124	3,736
<b>Total Deductions</b>	<b>546,747</b>	<b>528,990</b>
Change in Net Position	661,704	393,770
<b>Total Beginning Net Position</b>	<b>8,401,099</b>	<b>8,007,329</b>
<b>Total Ending Net Position</b>	<b>\$ 9,062,803</b>	<b>\$ 8,401,099</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (continued)**

**Teachers' Retirement System (TRS)**

The Teachers' Retirement System (TRS) provides retirement benefits to covered teachers and school service personnel in the State of West Virginia. Employee and employer contributions and earnings on investments fund benefits of the system.

The net position restricted for pensions (total assets minus liabilities) of TRS on June 30, 2024, was approximately \$10.08 billion, an increase of \$683.77 million [7.27%] from the plan net position restricted for pensions at June 30, 2023.

Additions to TRS' net position restricted for pensions include employer and employee contributions appropriations and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$557.65 million, an increase of \$700 thousand [0.13%] compared to fiscal year 2023. The increase in contributions is related to the increase in participant wages. TRS reported net investment income of approximately \$1.039 billion for fiscal year 2024, which was an increase of \$299.26 million [40.45%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from TRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$899.32 million, an increase of approximately \$14.04 million [1.59%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$4.58 million, an increase of \$0.39 million [9.31%], from \$4.19 million in fiscal year 2023. The increase in investments creates higher administrative fees.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds and Transfers Out were approximately \$13.27 million in fiscal year 2024, an increase of approximately \$523 thousand [4.1%], from the approximately \$12.75 million in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 80.42% on June 30, 2023, to 84.24% on June 30, 2024. The net pension liability as a percentage of covered payroll changed from 135.74% to 102.01% as of June 30, 2023, and 2024, respectively. The net pension liability was \$1.89 billion as of June 30, 2024, compared to a liability of \$2.29 billion as of June 30, 2023.

Teachers' Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 23,102	\$ 62,784
Investments at Fair Value	10,042,974	9,319,702
Receivables	22,719	22,233
<b>Total Assets</b>	<b>10,088,795</b>	<b>9,404,719</b>
<b>Liabilities:</b>		
Accrued Expenses	4,626	4,315
<b>Total Liabilities</b>	<b>4,626</b>	<b>4,315</b>
<b>Total Net Position</b>	<b>\$ 10,084,169</b>	<b>\$ 9,400,404</b>

Teachers' Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 111,006	\$ 104,429
Employer Contributions	142,561	135,050
Other Contributions	304,083	317,471
Investment Income	1,039,146	739,885
Other Income and Transfers In	4,132	3,925
<b>Total Additions</b>	<b>1,600,928</b>	<b>1,300,760</b>
<b>Deductions:</b>		
Benefits	899,316	885,273
Refunds and Transfers Out	13,271	12,748
Administrative Expenses	4,576	4,192
<b>Total Deductions</b>	<b>917,163</b>	<b>902,213</b>
Change in Net Position	683,765	398,547
<b>Total Beginning Net Position</b>	<b>9,400,404</b>	<b>9,001,857</b>
<b>Total Ending Net Position</b>	<b>\$ 10,084,169</b>	<b>\$ 9,400,404</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**State Police Death, Disability, and Retirement System (SPDDRS)**

The West Virginia State Police Death, Disability and Retirement System (SPDDRS) was established to provide retirement, disability, and death benefits for all state troopers hired before March 12, 1994. Employee and employer contributions, state appropriations and earnings on investments fund benefits of the system. Civilian employees of the West Virginia State Police are members of the Public Employees Retirement System (PERS).

The net position restricted for pensions (total assets minus liabilities) of SPDDRS on June 30, 2024, was approximately \$820.61 million, an increase of \$42.47 million [5.46%] from the plan net position restricted for pensions on June 30, 2023.

Additions to SPDDRS' net position restricted for pensions include employer and employee contributions, state appropriations and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$11 thousand, a decrease of \$50 thousand [81.97%] compared to fiscal year 2023. The West Virginia Legislature appropriated \$10.031 million to the plan. SPDDRS reported net investment income of approximately \$85.9 million for fiscal year 2024, which was an increase of \$22.95 million [36.46%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from SPDDRS' net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$53.75 million, an increase of approximately \$1.35 million [2.58%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$382 thousand, which was an increase of \$24 thousand [6.70%] from fiscal year 2023. The increase in investments creates higher administrative fees.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 96.00% on June 30, 2023, to 100.78% on June 30, 2024. The net pension liability as a percentage of covered payroll changed from 11,180.69% to (5,878.70%) as of June 30, 2023, and 2024, respectively. The net pension asset was \$6.35 million as of June 30, 2024, compared to a net pension liability of \$32.42 million as of June 30, 2023.

State Police Death, Disability and Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 58	\$ 49
Investments at Fair Value	820,831	778,440
Receivables	13	3
<b>Total Assets</b>	<b>820,902</b>	<b>778,492</b>
<b>Liabilities:</b>		
Accrued Expenses	296	358
<b>Total Liabilities</b>	<b>296</b>	<b>358</b>
<b>Total Net Position</b>	<b>\$ 820,606</b>	<b>\$ 778,134</b>

State Police Death, Disability and Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 4	\$ 22
Employer Contributions	7	40
Other Contributions	10,031	-
Investment Income	85,901	62,950
Other Income	665	704
<b>Total Additions</b>	<b>96,608</b>	<b>63,716</b>
<b>Deductions:</b>		
Benefits	53,754	52,429
Administrative Expenses	382	358
<b>Total Deductions</b>	<b>54,136</b>	<b>52,787</b>
Change in Net Position	42,472	10,929
<b>Total Beginning Net Position</b>	<b>778,134</b>	<b>767,205</b>
<b>Total Ending Net Position</b>	<b>\$ 820,606</b>	<b>\$ 778,134</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**State Police Retirement System (SPRS)**

The West Virginia State Police Retirement System (SPRS) was established to provide retirement, disability, and death benefits for all state troopers hired on or after March 12, 1994. Employee and employer contributions and earnings on investments fund benefits of the system. Civilian employees of the West Virginia State Police are members of the Public Employees Retirement System (PERS).

The net position restricted for pensions (total assets minus liabilities) of SPRS on June 30, 2024, was approximately \$365.47 million, an increase of \$45.42 million [14.19%] from the plan net position restricted for pensions at June 30, 2023.

Additions to SPRS' net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$18.45 million, an increase of \$5.49 million [42.33%] compared to fiscal year 2023. The increase is due to the increase in the number employed by the State Police. SPRS reported net investment income of approximately \$37.36 million for fiscal year 2024, which was an increase of \$12.43 million [49.85%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from SPRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$9.6 million, an increase of approximately \$2.8 million [41.18%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$157 thousand, which is an increase of \$22 thousand [6.30%] from fiscal year 2023. The increase in investments creates higher administrative fees.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds and Transfers were approximately \$654 thousand in fiscal year 2024, an increase of approximately \$334 thousand [104.38%], from approximately \$320 thousand in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 88.30% on June 30, 2023, to 90.09% on June 30, 2024. The net pension (asset) liability as a percentage of covered employee payroll changed from 109.25% to 93.01% as of June 30, 2023, and 2024, respectively. The net pension liability was \$40.21 million as of June 30, 2024, compared to a liability of \$42.4 million as of June 30, 2023.

State Police Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 55	\$ 64
Investments at Fair Value	565,544	320,096
Receivables	26	26
<b>Total Assets</b>	<b>565,625</b>	<b>320,186</b>
Liabilities:		
Accrued Expenses	157	142
<b>Total Liabilities</b>	<b>157</b>	<b>142</b>
<b>Total Net Position</b>	<b>\$ 565,468</b>	<b>\$ 320,044</b>

State Police Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 5,150	\$ 4,860
Employer Contributions	13,296	8,100
Other Income	37,363	24,933
Investment Income	35	129
<b>Total Additions</b>	<b>55,844</b>	<b>38,022</b>
Deductions:		
Benefits	9,609	6,826
Refunds and Transfers	654	320
Administrative Expenses	157	135
<b>Total Deductions</b>	<b>10,420</b>	<b>7,281</b>
Change in Net Position	45,424	30,741
<b>Total Beginning Net Position</b>	<b>320,044</b>	<b>289,303</b>
<b>Total Ending Net Position</b>	<b>\$ 365,468</b>	<b>\$ 320,044</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**Deputy Sheriff Retirement System (DSRS)**

The Deputy Sheriff Retirement System (DSRS) provides retirement benefits for all deputy sheriffs hired by all 55 county governments in West Virginia on or after July 1, 1998. Employee and employer contributions and earnings on investments fund benefits of the system.

The net position restricted for pensions (total assets minus liabilities) of DSRS on June 30, 2024, was approximately \$353.35 million, an increase of \$36.32 million [10.28%] from the plan net position restricted for pensions at June 30, 2023.

Additions to DSRS' net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$18.13 million, an increase of \$3.5 million [24.27%] compared to fiscal year 2023. The increase in contributions is directly related to the increase in wages reported by the participating employers for covered employees. DSRS reported net investment income of approximately \$36.25 million for fiscal year 2024, which was an increase of \$11.32 million [45.43%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from DSRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$17.11 million, an increase of approximately \$1.37 million [8.67%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$155 thousand, an increase of \$18 thousand [13.14%], from \$137 thousand in fiscal year 2023. The increase in investments creates higher administrative fees.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned. Refunds and Transfers Out were approximately \$1.24 million in fiscal year 2024, an increase of approximately \$10 thousand [0.82%], from approximately \$1.23 million in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 89.39% on June 30, 2023, to 92.09% on June 30, 2024. The net pension (asset) liability as a percentage of covered payroll changed from 57.34% to 43.48% as of June 30, 2023, and 2024, respectively. The net pension liability was \$30.37 million as of June 30, 2024, compared to a liability of \$37.64 million as of June 30, 2023.

Deputy Sheriff Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 220	\$ 170
Investments at Fair Value	352,093	316,039
Receivables	1,191	957
<b>Total Assets</b>	<b>353,504</b>	<b>317,166</b>
<b>Liabilities:</b>		
Accrued Expenses	157	143
<b>Total Liabilities</b>	<b>157</b>	<b>143</b>
<b>Total Net Position</b>	<b>\$ 353,347</b>	<b>\$ 317,023</b>

Deputy Sheriff Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 6,294	\$ 5,777
Employer Contributions	11,834	8,811
Investment Income	36,250	24,926
Other Income and Transfers In	441	322
<b>Total Additions</b>	<b>54,819</b>	<b>39,836</b>
<b>Deductions:</b>		
Benefits	17,105	15,740
Refunds and Transfers Out	1,235	1,225
Administrative Expenses	155	137
<b>Total Deductions</b>	<b>18,495</b>	<b>17,102</b>
Change in Net Position	36,324	22,734
<b>Total Beginning Net Position</b>	<b>317,023</b>	<b>294,289</b>
<b>Total Ending Net Position</b>	<b>\$ 353,347</b>	<b>\$ 317,023</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**Judges' Retirement System (JRS)**

The Judges' Retirement System (JRS) provides retirement benefits for judges and justices of the State of West Virginia who elect to participate in the retirement system. Employee and employer contributions and earnings on investments fund benefits of the system.

The net position restricted for pensions (total assets minus liabilities) of JRS at June 30, 2024, was approximately \$306.37 million, an increase of \$27.88 million [10.01%] from the plan net position restricted for pensions at June 30, 2023.

Additions to JRS' net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$1.26 million, a decrease of \$90 thousand [7.72%] compared to fiscal year 2023. JRS reported net investment income of approximately \$31.74 million for fiscal year 2024, which was an increase of \$9.71 million [44.06%] from the fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from JRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$5.38 million, an increase of approximately \$250 thousand [4.87%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$137 thousand compared to \$121 thousand from fiscal year 2023.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned or transferring their service credit to/from another retirement system in which they are eligible. Refunds and Transfers were \$82 thousand in fiscal year 2024 compared to no refunds or transfers in 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability (asset) is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 244.63% on June 30, 2023, to 236.82% on June 30, 2024. The net pension asset as a percentage of covered payroll changed from (1458.46%) to (1130.62%) as of June 30, 2023, and 2024, respectively. The net pension asset was \$176.99 million as of June 30, 2024, compared to an asset of \$164.65 million as of June 30, 2023.

Judges' Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 52	\$ 63
Investments at Fair Value	306,539	278,545
<b>Total Assets</b>	<b>306,591</b>	<b>278,608</b>
<b>Liabilities:</b>		
Accrued Expenses	223	121
<b>Total Liabilities</b>	<b>223</b>	<b>121</b>
<b>Total Net Position</b>	<b>\$ 306,368</b>	<b>\$ 278,487</b>

Judges' Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 402	\$ 369
Employer Contributions	854	797
Investment Income	31,738	22,031
Other Income and Transfers In	490	1,303
<b>Total Additions</b>	<b>33,484</b>	<b>24,500</b>
<b>Deductions:</b>		
Benefits	5,384	5,134
Refunds and Transfers	82	-
Administrative Expenses	137	121
<b>Total Deductions</b>	<b>5,603</b>	<b>5,255</b>
Change in Net Position	27,881	19,245
<b>Total Beginning Net Position</b>	<b>278,487</b>	<b>259,242</b>
<b>Total Ending Net Position</b>	<b>\$ 306,368</b>	<b>\$ 278,487</b>

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**Emergency Medical Services Retirement System (EMSRS)**

The Emergency Medical Services Retirement System (EMSRS) was established to provide retirement benefits for emergency medical services officers employed by participating public employers who voluntarily elected to participate as of December 31, 2007, and to all emergency medical services officers hired into covered employment by participating public employers of EMSRS on or after January 1, 2008.

Employee and employer contributions and earnings on investments fund benefits of the system. The WV Legislature passed Senate Bill 439 in 2024, allowing certain 911 personnel to transfer to EMSRS from PERS if 75% or more of eligible members would elect to transfer plans. The 75% threshold was met, but the financial impact of the transfers will not be available until fiscal year 2025.

The net position restricted for pensions (total assets minus liabilities) of EMSRS on June 30, 2024 was approximately \$143.66 million, an increase of \$17.73 million [13.82%] from fiscal year 2023.

Additions to EMSRS' net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$9.02 million, an increase of \$2.08 million [30.05%] compared to fiscal year 2023. The increase in contributions is directly related to the increase in wages reported by the participating employers for covered employees. EMSRS reported net investment income of approximately \$14.5 million for fiscal year 2024, which was an increase of \$4.88 million [50.74%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from EMSRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$5.1 million, an increase of approximately \$429 thousand [8.51%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$62 thousand, an increase of \$9 thousand [16.98%], from \$53 thousand in fiscal year 2023.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds were approximately \$0.93 million in fiscal year 2024, a decrease of approximately \$144 thousand [13.4%] from approximately \$1.08 million in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability (asset) is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability increased from 106% on June 30, 2023, to 111.03% on June 30, 2024. The net pension asset as a percentage of covered payroll changed from (21.18%) to (33.86%) as of June 30, 2023, and 2024, respectively. The net pension asset was \$14.24 million as of June 30, 2024, compared to an asset of \$7.12 million as of June 30, 2023.

Emergency Medical Services Retirement System			
Net Position			
June 30, (Dollars in Thousands)			
Assets:	2024	2023	
Cash	\$ 86	\$	101
Investments at Fair Value	142,607		125,180
Receivables	708		703
<b>Total Assets</b>	<b>143,401</b>		<b>125,984</b>
Liabilities:			
Accrued Expenses	62		53
<b>Total Liabilities</b>	<b>62</b>		<b>53</b>
<b>Total Net Position</b>	<b>\$ 143,339</b>	<b>\$</b>	<b>125,931</b>

Emergency Medical Services Retirement System			
Change in Net Position			
Fiscal Year Ended June 30, (Dollars in Thousands)			
Additions:	2024	2023	
Employee Contributions	\$ 4,290	\$	3,272
Employer Contributions	4,768		3,662
Investment Income	14,498		9,618
Other Income and Transfers In	2,232		2,232
<b>Total Additions</b>	<b>25,788</b>		<b>18,784</b>
Deductions:			
Benefits	5,115		4,686
Refunds	931		1,075
Administrative Expenses	62		53
<b>Total Deductions</b>	<b>6,108</b>		<b>5,814</b>
Change in Net Position	17,408		12,970
<b>Total Beginning Net Position</b>	<b>125,931</b>		<b>112,961</b>
<b>Total Ending Net Position</b>	<b>\$ 143,339</b>	<b>\$</b>	<b>125,931</b>



**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**Municipal Police Officers and Firefighters Retirement System (MPFRS)**

The Municipal Police Officers and Firefighters Retirement System (MPFRS) was established to provide retirement benefits for all paid police officers and firefighters first employed in covered employment by a participating municipality or municipal subdivision after the date the municipality or municipal subdivision elected to join MPFRS and are required to be members of MPFRS as a condition of employment.

The net position restricted for pensions (total assets minus liabilities) of MPFRS on June 30, 2024, was approximately \$46.76 million, an increase of \$11.28 million [31.80%] from the plan net position restricted for pensions at June 30, 2023.

Additions to MPFRS' net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$7.18 million, an increase of \$846 thousand [13.35%] compared to fiscal year 2023. The increase in contributions is directly related to the increase in wages reported by the participating employers for covered employees. MPFRS reported net investment income of approximately \$4.46 million for fiscal year 2024, which was an increase of \$1.96 million [77.32%] from fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from MPFRS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024 benefits were approximately \$39 thousand. For fiscal 2024, the administrative costs of administering the retirement system totaled approximately \$17 thousand, an increase of \$5 thousand, from \$12 thousand in fiscal year 2023. The increase in the administrative expenses charged is due to an increase in invested assets.

Refunds are the result of employees leaving public service and requesting the money they contributed plus interest into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds were approximately \$572 thousand in fiscal year 2024, an increase of approximately \$12 thousand [2.14%], from approximately \$560 thousand in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability (asset) is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension asset decreased from 144.88% on June 30, 2023, to 138.69% on June 30, 2024. The net pension asset as a percentage of covered payroll changed from (32.10%) to (32.60%) as of June 30, 2023, and 2024, respectively. The net pension asset was \$13.05 million as of June 30, 2024, compared to an asset of \$10.99 million as of June 30, 2023.

<b>Municipal Police Officers &amp; Firefighters Retirement System</b>			
<b>Net Position</b>			
<b>June 30, (Dollars in Thousands)</b>			
<b>Assets:</b>	<b>2024</b>	<b>2023</b>	
Cash	\$ 293	\$ 148	
Investments at Fair Value	46,198	34,945	
Receivables	286	397	
<b>Total Assets</b>	<b>46,777</b>	<b>35,490</b>	
<b>Liabilities:</b>			
Accrued Expenses	17	12	
<b>Total Liabilities</b>	<b>17</b>	<b>12</b>	
<b>Total Net Position</b>	<b>\$ 46,760</b>	<b>\$ 35,478</b>	

<b>Municipal Police Officers &amp; Firefighters Retirement System</b>			
<b>Change in Net Position</b>			
<b>Fiscal Year Ended June 30, (Dollars in Thousands)</b>			
<b>Additions:</b>	<b>2024</b>	<b>2023</b>	
Employee Contributions	\$ 3,592	\$ 3,169	
Employer Contributions	3,592	3,169	
Investment Income	4,455	2,535	
Other Income	271	19	
<b>Total Additions</b>	<b>11,910</b>	<b>8,892</b>	
<b>Deductions:</b>			
Benefits	39	39	
Refunds	572	560	
Administrative Expenses	17	12	
<b>Total Deductions</b>	<b>628</b>	<b>611</b>	
Change in Net Position	11,282	8,281	
<b>Total Beginning Net Position</b>	<b>35,478</b>	<b>27,197</b>	
<b>Total Ending Net Position</b>	<b>\$ 46,760</b>	<b>\$ 35,478</b>	

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS - DEFINED BENEFIT SYSTEMS (Continued)**

**Natural Resources Police Officers Retirement System (NRPORS)**

The Natural Resources Police Officers Retirement System (NRPORS) was established to provide retirement and disability benefits for the Natural Resources Police Officers, who voluntarily elected to participate (i.e., transfer from PERS to NRPORS) as of January 2, 2021, and for all Natural Resources Police Officers hired into covered employment by the State of West Virginia on or after January 2, 2021. Employee and employer contributions and earnings on investments fund the benefits of the system. Approximately 116 Natural Resources Police Officers elected to transfer from PERS and as a result, approximately \$21.43 million of accumulated member and employer contributions and interest were transferred from PERS to NRPORS during fiscal year 2021.

The net position restricted for pensions (total assets minus liabilities) of NRPORS on June 30, 2024, was approximately \$32.12 million, an increase of \$4.47 million [16.17%] from the plan net position restricted for pensions at June 30, 2023.

Additions to NRPORS' net position restricted for pensions include employer and employee contributions, and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$1.74 million, an increase of \$210 thousand [13.69%] compared to fiscal year 2023. The increase in contributions is directly related to the increase in wages reported by the participating employers for covered employees. NRPORS reported net investment income of approximately \$3.26 million for fiscal year 2023, which was an increase of \$1.16 million [55.24%] from fiscal year 2022. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from NRPORS net position restricted for pensions resulted from retirement and beneficiary benefits, administrative expenses, services transfers, and refunds to members terminating service. For fiscal year 2024, benefits were approximately \$568 thousand, an increase of \$119 thousand [26.5%] from the prior year. The increase in benefits is due to the number of members retiring exceeding the number of those who became deceased. For fiscal 2024, the administrative costs of administering the retirement system were approximately \$14 thousand, an increase of \$3 thousand [27.27%] from fiscal year 2023.

Refunds and Transfers are the result of employees leaving public service and requesting the money they contributed, plus interest, into the system to be returned or transferring their service credit to another retirement system in which they are eligible. Refunds and Transfers were approximately \$45 thousand in fiscal year 2024, an increase of approximately \$14 thousand, from approximately \$31 thousand in fiscal year 2023.

Annually, an actuarial valuation of the system's assets and the net pension liability is performed. The most recent actuarial valuation, the fiduciary net position as a percentage of total pension liability decreased from 83.73% on June 30, 2023, to 80.60% on June 30, 2024. The net pension (asset) liability as a percentage of covered payroll was 81.51% and 103.38% as of June 30, 2023, and 2024, respectively. The net pension liability was \$7.73 million as of June 30, 2024, compared to a liability of \$5.37 million as of June 30, 2023.

Natural Resources Police Officers Retirement System			
Net Position			
June 30, (Dollars in Thousands)			
Assets:	2024	2023	
Cash	\$ 51	\$ 16	
Investments at Fair Value	32,082	27,642	
Receivables	-	-	
<b>Total Assets</b>	<b>32,133</b>	<b>27,658</b>	
<b>Liabilities:</b>			
Accrued Expenses	14	10	
<b>Total Liabilities</b>	<b>14</b>	<b>10</b>	
<b>Total Net Position</b>	<b>\$ 32,119</b>	<b>\$ 27,648</b>	

Natural Resources Police Officers Retirement System			
Change in Net Position			
Fiscal Year Ended June 30, (Dollars in Thousands)			
Additions:	2024	2023	
Employee Contributions	\$ 771	\$ 678	
Employer Contributions	973	856	
Investment Income	3,259	2,128	
Other Income and Transfers In	95	-	
<b>Total Additions</b>	<b>5,098</b>	<b>3,662</b>	
<b>Deductions:</b>			
Benefits	568	449	
Refunds and Transfers Out	45	31	
Administrative Expenses	14	11	
<b>Total Deductions</b>	<b>627</b>	<b>491</b>	
Change in Net Position	4,471	3,171	
<b>Total Beginning Net Position</b>	<b>27,648</b>	<b>24,477</b>	
<b>Total Ending Net Position</b>	<b>\$ 32,119</b>	<b>\$ 27,648</b>	

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Management's Discussion and Analysis (Continued)**

**PENSION TRUST FUNDS – TEACHERS DEFINED CONTRIBUTION RETIREMENT SYSTEM**

The Teachers' Defined Contribution Retirement System (TDC Plan) is a multiple employer governmental defined contribution money purchase pension plan, qualified under section 401(a) and made tax-deferred under section 414(h) of the Internal Revenue Code. The TDC Plan provides retirement benefits to full time employees of the State's 55 county public school systems, the State Department of Education, certain Higher Education employees and the Schools for the Deaf and Blind who were hired between July 1, 1991, and June 30, 2005, when the Plan closed for new membership. TDC Plan members may also include former TRS members, including Higher Education employees, who elected to transfer membership to the TDC Plan.

The net position restricted for pensions (total assets minus liabilities) of the TDC Plan on June 30, 2024, was approximately \$742.55 million, an increase of \$78.02 million [11.74%] from the plan net position restricted for pensions at June 30, 2023.

Additions to TDC Plan's net position restricted for pensions include employer and employee contributions and investments gains or losses. Contribution revenue for fiscal year 2024 totaled approximately \$14.92 million, a decrease of \$7 thousand [0.07%] compared to fiscal year 2023. The TDC Plan reported net investment income of approximately \$99.43 million for fiscal year 2024, which was an increase of \$28.79 million [40.76%] from the fiscal year 2023. The system's investment returns were consistent with the overall market returns during the fiscal year.

Deductions from the TDC Plan net position restricted for pensions resulted from distributions to plan participants and administrative expenses. For fiscal year 2024, withdrawals, distributions, and forfeitures were approximately \$36.07 million, an increase of approximately \$9.73 million [36.95%] from the prior year. For fiscal 2024, the administrative costs of the TDC Plan totaled approximately \$335 thousand, an increase of \$53 thousand [18.79%], from \$282 thousand in fiscal year 2023. The increase in the administrative expenses charged is due to an increase in invested assets.

The administrative costs of the TDC Plan are paid primarily from an administrative fee charged quarterly to each participant's account and revenue sharing from some investment funds. In addition to administrative fees, participants also pay investment fund operating expenses to the investment fund managers depending on the investment options selected by the participant. The TDC Plan's recordkeeper maintains an individual account for each TDC Plan participant to which employer contributions, employee deferrals, and other changes in value are credited.

Teachers' Defined Contribution Retirement System		
Net Position		
June 30, (Dollars in Thousands)		
Assets:	2024	2023
Cash	\$ 4,015	\$ 5,556
Investments at Fair Value	741,177	663,300
Receivables	1,170	1,061
<b>Total Assets</b>	<b>746,362</b>	<b>669,917</b>
<b>Liabilities:</b>		
Accrued Expenses	3,811	5,381
<b>Total Liabilities</b>	<b>3,811</b>	<b>5,381</b>
<b>Total Net Position</b>	<b>\$ 742,551</b>	<b>\$ 664,536</b>

Teachers' Defined Contribution Retirement System		
Change in Net Position		
Fiscal Year Ended June 30, (Dollars in Thousands)		
Additions:	2024	2023
Employee Contributions	\$ 5,578	\$ 5,597
Employer Contributions	9,341	9,329
Investment Income	99,427	70,638
Other Income	71	471
<b>Total Additions</b>	<b>114,417</b>	<b>86,035</b>
<b>Deductions:</b>		
Forfeitures	594	740
Withdrawals and Distributions	35,473	25,595
Administrative Expenses	335	282
<b>Total Deductions</b>	<b>36,402</b>	<b>26,617</b>
Change in Net Position	78,015	59,418
<b>Total Beginning Net Position</b>	<b>664,536</b>	<b>605,118</b>
<b>Total Ending Net Position</b>	<b>\$ 742,551</b>	<b>\$ 664,536</b>

**West Virginia Consolidated Public Retirement Board**  
*Financial Section*  
*Management's Discussion and Analysis (Continued)*

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**ECONOMIC FACTORS, FUTURE FUNDING PROVISIONS, OVERALL OUTLOOK**

The defined benefit retirement systems are funded with the expectation that they will return 7.25% on the invested assets. When that return is not achieved, there is an increase in the net pension liability.

**CONTACTING THE WV CPRB**

This report is designed to provide a financial overview of the WV CPRB to state legislators, members of the Board of Trustees of the WV CPRB, state officials, participating employers, and any other interested parties. Questions or requests for additional information regarding the financial information presented in this report may be addressed in writing to the West Virginia Consolidated Public Retirement Board, 601 57<sup>th</sup> Street, SE, Suite 5, Charleston, West Virginia 25304.



West Virginia Consolidated Public Retirement Board  
*Financial Section*  
*Management's Discussion and Analysis (Continued)*

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West Virginia Consolidated Public Retirement Board  
 Financial Section  
 Basic Financial Statements

Statements of Fiduciary Net Position - Pension Funds  
 (In Thousands)  
 June 30, 2024

	Public Employees' Retirement System	Teachers' Retirement System	State Police Death, Disability and Retirement System	State Police Retirement System	Deputy Sheriff Retirement System	Judges' Retirement System	Emergency Medical Services Retirement System	Municipal Police Officers & Firefighters Retirement System	Natural Resources Police Officers Retirement System	Teachers' Defined Contribution Retirement System	Total
<b>ASSETS</b>											
Cash	\$ 1,804	\$ 23,102	\$ 58	\$ 55	\$ 220	\$ 52	\$ 86	\$ 293	\$ 51	\$ 4,015	\$ 29,736
Investments at fair value:											
Mutual funds	-	-	-	-	-	-	-	-	-	422,572	422,572
Collective investment trusts	-	-	-	-	-	-	-	-	-	133,118	133,118
Guaranteed investment contract (contract value)	-	-	-	-	-	-	-	-	-	185,487	185,487
Core fixed income	678,518	744,062	60,869	27,646	26,294	23,357	10,587	3,387	2,336	-	1,577,056
Hedge Fund	997,264	1,096,275	90,690	40,036	38,662	33,695	15,621	5,005	3,507	-	2,320,755
International Equity	1,142,068	1,256,842	104,061	45,920	44,262	38,598	17,917	5,738	4,022	-	2,659,428
International Qualified	482,719	530,657	43,888	19,375	18,712	16,309	7,559	2,421	1,698	-	1,123,338
Portable Alpha	2,258,356	2,482,175	205,425	90,614	87,544	76,297	35,368	11,330	7,940	-	5,255,049
Private Markets	2,375,505	2,611,396	216,048	95,369	92,096	80,263	37,212	11,924	8,355	-	5,528,168
Short-Term fixed Income	26,602	115,303	983	2,151	1,958	444	1,185	900	413	-	149,939
Total investments at fair value	9,060,046	10,042,974	820,831	365,544	352,093	306,539	142,607	46,198	32,082	741,177	21,910,091
Contributions receivable	5,041	22,446	-	-	1,047	-	702	286	-	1,039	30,561
Participants loans receivable	-	273	-	-	142	-	-	-	-	-	415
Miscellaneous revenue receivable	-	-	13	26	2	-	6	-	-	131	335
Due from State of West Virginia	-	-	-	-	-	-	-	-	-	-	-
<b>LIABILITIES AND PLAN NET POSITION</b>											
Total assets	9,067,048	10,088,795	820,902	365,625	353,504	306,591	143,401	46,777	32,133	746,362	21,971,138
<b>LIABILITIES:</b>											
Annuities payable	121	50	-	-	2	-	-	-	-	-	173
Accrued expenses and other payables	4,124	4,576	296	157	155	223	62	17	14	1,071	10,695
Forfeitures payable	-	-	-	-	-	-	-	-	-	2,740	2,740
Total liabilities	4,245	4,626	296	157	157	223	62	17	14	3,811	13,608
Net position restricted for pensions	\$ 9,062,803	\$ 10,084,169	\$ 820,606	\$ 365,468	\$ 353,347	\$ 306,368	\$ 143,339	\$ 46,760	\$ 32,119	\$ 742,551	\$ 21,957,530

The Accompanying Notes Are An Integral Part Of These Financial Statements

West Virginia Consolidated Public Retirement Board  
 Financial Section  
 Basic Financial Statements

Statements of Changes in Fiduciary Net Position - Pension Funds  
 (In Thousands)  
 Year Ended June 30, 2024

	Public Employees' Retirement System	Teachers' Retirement System	State Police Disability and Retirement System	State Police Retirement System	Deputy Sheriff Retirement System	Judges' Retirement System	Emergency Medical Services Retirement System	Municipal Police Officers & Firefighters Retirement System	Natural Resources Police Officers Retirement System	Teachers' Defined Contribution Retirement System	Total
<b>Additions:</b>											
Contributions:											
Member contributions	\$ 95,542	\$ 111,006	\$ 4	\$ 5,150	\$ 6,294	\$ 402	\$ 4,260	\$ 3,592	\$ 771	\$ 5,578	\$ 232,599
Employer contributions	166,916	142,561	7	13,296	11,834	854	4,758	3,592	973	9,341	354,132
Other statutorily required contributions	-	246,540	-	-	-	-	-	-	-	-	246,540
Other contributions - appropriations	-	57,543	10,031	-	-	-	-	-	-	-	67,574
Total contributions	262,458	557,650	10,042	18,446	18,128	1,256	9,018	7,184	1,744	14,919	900,845
Investment income:											
Net increase in fair value of investments	943,733	1,037,192	85,745	37,288	36,164	31,713	14,451	4,423	3,243	83,531	2,277,483
Net investment income	1,429	1,954	136	75	86	25	47	32	16	15,896	19,716
Net investment income	945,162	1,039,146	85,901	37,363	36,250	31,738	14,498	4,455	3,259	99,427	2,297,199
Transfers from plans	158	-	-	-	-	257	-	178	95	-	688
Other income	673	4,132	665	35	441	233	-	83	-	71	6,343
Total additions	1,208,451	1,600,928	96,608	55,844	54,819	33,484	23,516	11,910	5,098	114,417	3,205,075
Deductions and transfers:											
Benefit expenses	527,375	899,316	53,754	9,609	17,105	5,384	5,115	39	568	-	1,518,265
Forfeitures	-	-	-	-	-	-	-	-	-	594	594
Refunds of contributions/withdrawals	14,718	13,113	-	654	1,235	82	931	572	45	35,473	66,823
Transfers to plans	530	158	-	-	-	-	-	-	-	-	688
Administrative expenses	4,124	4,576	382	157	155	137	62	17	14	335	9,959
Total deductions and transfers	546,747	917,163	54,136	10,420	18,495	5,603	6,108	628	627	36,402	1,596,329
Net increase (decrease) in plan net position	661,704	683,765	42,472	45,424	36,324	27,881	17,408	11,282	4,471	78,015	1,608,746
Net position restricted for pensions:											
Beginning of year	8,401,099	9,400,404	778,134	320,044	317,023	278,487	125,931	35,478	27,648	664,536	20,348,784
End of year	\$ 9,062,803	\$ 10,084,169	\$ 820,606	\$ 365,468	\$ 353,347	\$ 306,368	\$ 143,339	\$ 46,760	\$ 32,119	\$ 742,551	\$ 21,957,530

The Accompanying Notes Are An Integral Part Of These Financial Statements

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements*

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### 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity - During fiscal year 1991, the West Virginia State Legislature created the Consolidated Public Retirement Board (the Board) to administer ten of the State of West Virginia's eleven retirement systems. The ten retirement systems included within these financial statements are: the Public Employees' Retirement System (PERS), the Teachers' Retirement System (TRS), the State Police Death, Disability and Retirement System (SPDDRS), the State Police Retirement System (SPRS), the Deputy Sheriff Retirement System (DSRS), the Judges' Retirement System (JRS), the Emergency Medical Services Retirement System (EMSRS), Municipal Police Officers and Firefighters Retirement System (MPFRS), Natural Resources Police Officers' Retirement System (NRPORS), and the Teachers' Defined Contribution Retirement System (TDCRS).

The Total Pension Funds column included in the statement of fiduciary net position and statement of changes in fiduciary net position is for informational purposes only. The assets of each system are only available to satisfy the obligations of that system. The Board's retirement plans are reported as pension trust funds by the State of West Virginia (the State). The Governmental Employees Deferred Compensation Plan is administered by the West Virginia State Treasurer's Office and has been excluded from these financial statements in accordance with Governmental Accounting Standards Board (GASB) Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans*.

The Internal Service Fund (the Fund) is used for the administration of all systems administered by the Board. The Fund receives a service fee from each system based on each retirement system's total proportionate share of the total invested assets at the beginning of the fiscal year. These fees are reported as administrative expenses in the financial statements of each retirement system and are reported as fees received for administrative services in the Fund. The service fees are established to recover costs such that revenues of the Fund match expenses over time. These fees are legally restricted for the purpose of administering the plans and are not available for any other purpose. All administrative costs of the Board are paid from the Fund. The Fund is not subject to satisfaction of any judgment or award against any of the retirement plans, and the judgment or award shall be satisfied from assets of the particular retirement system against which it is levied.

The Board is managed by a Board of Trustees, which consists of, by virtue of their position, the Governor, State Auditor, State Treasurer, and Secretary of the Department of Administration, together with the following gubernatorial appointments that are subject to the advice and consent of the State Senate: four residents of the State who are not participants in the retirement systems, one State and one non-State employee participant in PERS, and one participant each from TRS, SPDDRS, SPRS, DSRS, EMSRS, MPFRS, NRPORS and TDCRS.

Pursuant to the West Virginia Code, the Board submits a detailed budgetary schedule of administrative expenses to the Secretary of the Department of Administration prior to the beginning of each fiscal year. The fundamental purpose of budgetary control is to plan for the expected level of operations and to provide management with a tool to control deviation from such plan but does not constitute a legally adopted budget.

Basis of Accounting - The financial statements of the Board have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing governmental accounting and financial reporting principles for governmental units. The accompanying pension fund financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting. System member contributions are recognized in the period when contributions are due. Employer contributions to the system are recognized when due and the employer has made a formal commitment to provide contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each system. The Internal Service Fund financial statements have also been prepared using the economic resources measurement focus and the accrual basis of accounting. Operating revenues and expenses generally result from fees charged in connection with the operation of the plans. The principal operating revenue of the internal service fund is the administrative fee charged to the Systems based on invested assets. Operating expenses include the cost of administrative services and depreciation of capital assets. The Board's assets are held primarily in accounts maintained by the State Treasurer, the West Virginia Investment Management Board (the WVIMB), and the third-party administrator of its defined contribution system (EMPOWER Retirement).

Cash - The State Treasurer has statutory responsibility for the daily cash management activities of the state's agencies, departments, boards, and commissions. The amounts on deposit with the State Treasurer are available for immediate withdrawal and, accordingly, are presented as cash in the accompanying financial statements.



# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investments - All defined benefit system funds not required to meet disbursement needs are invested in accordance with the West Virginia Code, as well as policies established by the WVIMB. The WVIMB has established various investment pools to provide for the investment of the defined benefit system's assets. These investment pools are structured as multiparticipant variable net asset funds.

Investments in the WVIMB Pools are carried at fair value using the net asset value per share (or its equivalent) as a practical method.

The TDCRS investments are held by an investment company which also serves as the third-party administrator for the system. As prescribed by West Virginia Code, the TDCRS investments are allocated to participant accounts and the participants direct the investment of their individual account balances by selecting from a list of system mutual funds or a long-term fixed investment option.

The TDCRS investments are carried at fair value (except for fully benefit-responsive investment contracts, which are reported at contract value) as determined by a third-party pricing service utilized by an investment management company. For fully benefit-responsive investment contracts, contract value is the relevant measure for the portion of investments attributable to fully benefit-responsive investment contracts because contract value is the amount participants normally would receive if they were to initiate permitted transactions under the terms of the system. Investment income for the TDCRS is determined monthly and distributed to the individual participant accounts.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for further discussion regarding the fair value of the Board's investments.

Contributions Receivable - Contributions receivable represent funds owed to the Board from other government employer or non-government employer entities participating in the various retirement systems.

Participant Loans Receivable - TRS and DSRS allow loans to its members, hired prior to July 1, 2005, up to the lesser of one-half of a member's accumulated contributions or \$8,000, at an interest rate indexed to the interest rate used by the Board for determining actuarial contribution levels. TRS and DSRS loans require repayment over varying terms, with a maximum term of five years and a minimum period of six months.

Allowance for Doubtful Accounts - The Board evaluates all receivables for collectability based on historical collectability experience, the ability of payee to perform, and such other factors which, in the Board's judgment, require consideration in estimating doubtful accounts.

Accrued Expenses and Other Payables - For the retirement systems, accrued expenses and other payables primarily represent retirement annuity amounts due to new retirees. For the internal service fund, accrued expenses and other payables represent administrative expenses incurred and due to vendors and employees.

Investment Related Expenses - Investments are invested in multiparticipant pools and investment-related expenses are not readily separable by participant in each pool. Investment income from the pools is reported net of investment expenses.

Accounting Estimates - The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and disclosure of actuarial accrued liabilities, contingent assets, and contingent liabilities as of the financial statement date, and the reported amounts of additions and deductions for the reporting period. Actual amounts could differ from those estimates.

The various retirement systems utilize various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statement of fiduciary net position. Changes in the value of investment securities could affect the future funding status of the systems or require additional contributions to maintain the current funding status.

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

Membership in the systems consisted of the following as of July 1, 2023, the date of the annual actuarial valuation:

As of July 1, 2023:

	PERS	TRS	SPDDRS	SPRS	DSRS	JRS	EMSRS	MPFRS	NRPORS
Retirees and beneficiaries currently receiving benefits	29,867	37,113	728	155	556	58	167	1	10
Terminated members entitled to benefits but not yet receiving them	5,116	3,491	2	29	145	2	93	23	3
Terminated nonvested members	25,514	7,414	1	160	372	-	485	279	5
Active members	35,003	35,069	1	596	1,073	124	775	649	113
<b>Total</b>	<b>95,500</b>	<b>83,087</b>	<b>732</b>	<b>940</b>	<b>2,146</b>	<b>184</b>	<b>1,520</b>	<b>952</b>	<b>131</b>

Funding policies for all systems have been established by and are changed from time-to-time by action of the State Legislature. While contribution rates are legislatively determined, actuarial valuations are performed to assist the Board and the West Virginia Legislature in determining contribution rates. The following information is provided for general information purposes only. System participants should refer to the respective West Virginia State Code section for more complete information.

#### Defined Benefit Plans

##### Public Employees' Retirement System (PERS)

*Plan Description* - PERS is a multiple employer defined benefit cost sharing public employee retirement system covering substantially all employees of the State and its component units, as well as employees of participating non-State governmental entities who are not participants of another state or municipal retirement system. The numbers of participating employers are as follows:

	June 30, 2024
West Virginia state agencies	133
Cities and towns	153
Counties	55
Special districts	346
<b>Total</b>	<b>687</b>

PERS provides retirement benefits as well as death and disability benefits. The qualification for normal retirement is age 60 with five years of service or at least age 55 with age and service equal to 80 or greater. For all employees hired after July 1, 2015, qualification for normal retirement is age 62 with 10 years of service. The straight life annuity retirement benefit is equivalent to 2% of the final average salary multiplied by years of service. Final average salary is the average annual salary from the highest 36 consecutive months within the last fifteen years of employment. For all employees hired after July 1, 2015, final average salary is the average annual salary of the highest 60 consecutive months within the last fifteen years of employment. Terminated members with at least five years of contributory service who do not withdraw their accumulated contributions may elect to receive their retirement annuity beginning at age 62. For all employees hired after July 1, 2015, this age increases to 64 with 10 years of service.

Chapter 5, Article 10 of the West Virginia State Code assigns the authority to establish and amend the provisions of the system to the West Virginia Legislature. In certain circumstances, this Article also permits members of TRS to transfer accumulated service credit and member contributions into PERS.

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

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**2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)**

Public Employees' Retirement System (PERS) (continued)

*Contributions* - Per Chapter 5, Article 10, for periods prior to July 1, 2015, the members contribute 4.5% of annual earnings. Effective July 1, 2016, newly hired members contribute 6% of annual earnings. State and non-state governmental employers' contribution rate was 9% of covered employees' annual earnings for fiscal years ending June 30, 2024. Contributions as a percentage of payroll for members are established by statutes, subject to legislative limitations and are not actuarially determined. Contributions as a percentage of payroll for employers are established by the Board. Employer contributions from State and non-State agencies for the fiscal years ended June 30, 2024, were (in thousands):

	2024
State	\$ 111,501
Non-State	55,415
<b>Total</b>	<b>\$ 166,916</b>

Teachers' Retirement System (TRS)

*Plan Description* - TRS is a multiple employer defined benefit cost sharing public employee retirement system covering all full-time employees of the 55 county public school systems in the State and certain personnel of the 13 State-supported institutions of higher education, State Department of Education and the Higher Education Policy Commission hired prior to July 1, 1991. Employees of the State-supported institutions of higher education and the Higher Education Policy Commission hired after June 30, 1991, are required to participate in the Higher Education Retirement System. TRS closed membership to new hires effective July 1, 1991. However, effective July 1, 2005, all new employees hired for the first time are required to participate in TRS. There were 80 employers and one non-employer contributing entity, the State of West Virginia, participating in TRS as of June 30, 2024.

During the 2008 First Special Session, the West Virginia Legislature passed House Bill 101 regarding retirement benefits for teachers and educational service personnel which became effective March 16, 2008. The legislation provided an opportunity for members of TDCRS to elect to transfer to TRS. The transfer occurred on July 1, 2008, and a total of 15,152 TDCRS members transferred to TRS.

TRS provides retirement benefits as well as death and disability benefits. All employees hired before July 1, 2015, are eligible for normal retirement at age 60 with five or more years of service, age 55 with 30 or more years of service or any age with 35 or more years of service, or with reduced benefits before age 55 with at least 30 but less than 35 years of service. For all employees hired after July 1, 2015, qualification for normal retirement is age 62 with 10 or more years of service. All members hired after July 1, 2015, may retire with reduced benefits at age 62 with 10 or more years of service, age 57 with 20 or more years of service or age 55 with at least 30 years of service. Terminated members, who were hired before July 1, 2015, with at least five, but less than 20, years of credited service who do not withdraw their accumulated contributions are entitled to a deferred retirement commencing at age 62 or at age 60 with more than 20 years of service. For all employees hired after July 1, 2015, this requirement increases to age 64 with 10 years of service. Retirement benefits are equivalent to 2% of final average annual salary multiplied by years of service. Final average salary is the average of the 5 highest fiscal years of salaries during the last 15 fiscal years of contributing service.

Chapter 18, Article 7A of the West Virginia State Code assigns the authority to establish and amend the provisions of the plan to the West Virginia Legislature.

*Contributions* - A member who withdraws from service for any cause other than death or retirement may request that the accumulated employee contributions plus interest be refunded.

TRS funding policy provides for member contributions based on 6% of members' gross salary. Contributions as a percentage of payroll for members and employers are established by State law and are not actuarially determined. Employers make the following contributions.

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### **2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)**

#### Teachers' Retirement System (TRS) (continued)

The State, county boards of education, and other employers contribute 15% of gross salary of their TRS members hired prior to July 1, 1991. The State, county boards of education, and other employers contribute 7.5% of the gross salary of their TRS covered employees hired for the first time after July 1, 2005, and for those TDCRS members who elected to transfer to TRS effective July 1, 2008. The State contributes a certain percentage of fire insurance premiums paid by State residents to assist in extinguishing the TRS unfunded liability within 40 years of June 30, 1994. Other statutorily required contributions of \$108.49 million were made through the State's school aid formula during the year ended June 30, 2024. Certain additional contributions of approximately \$246.54 million were made during the year ended June 30, 2024, representing extra appropriations to reduce the unfunded liability.

#### State Police Death, Disability and Retirement System (SPDDRS)

*Plan Description* - SPDDRS is a single employer defined benefit public employee retirement system covering all West Virginia State Police (State Police) hired on or before March 11, 1994. This plan is closed to new entrants.

SPDDRS provides retirement benefits as well as death and disability benefits. A member is eligible for normal retirement at age 50 after 20 years of contributory service, or at any age upon completion of 25 years of service. There is no vesting in the State's contributions prior to ten years of service. Benefits payable to members retiring prior to age 50 are deferred until the normal retirement date. The annual retirement benefit is 5.5% of the members' aggregate salary, but not less than \$6,000 per year. Total duty-related disability benefits are equal to 8.5% of the member's aggregate salary, but not less than \$15,000 per year. Aggregate salary is the total salary paid to a member during his or her period of service, which may include up to 5 years of active military service credited at the average departmental salary. Aggregate salary for purposes of determining disability benefits may include salary that would have been earned had the participant served at least 25 years notwithstanding the disability. An annual cost-of-living adjustment of 3.75% is granted to retirees and beneficiaries. For service-connected total disability retirees, the adjustment begins at age 65. A member who terminates employment is entitled to a refund of his or her contributions plus interest.

*Contributions* - SPDDRS funding policy provides for member contributions based on 9% of their annual earnings. The State makes contributions based on 15% of the annual payroll of State Police, as well as contributing all revenue generated by the sale of traffic accident reports, criminal investigation reports and other fees. Contributions, as a percentage of payroll for members and the employer, are established by State law and are not actuarially determined.

#### State Police Retirement System (SPRS)

*Plan Description* - SPRS is a single employer defined benefit public employee retirement system that was established for all State Police hired on or after March 12, 1994. SPRS provides retirement, death, and disability benefits. A member is eligible for normal retirement at age 50 with 25 years of service or age 52 with 20 years of credited service. A member is eligible for a reduced benefit with 20 years of credited service and retiring before age 52. The annual regular retirement benefit, paid monthly, is equal to 3% of the final average salary multiplied by the years of service. Final average salary is the average of the five highest calendar years of earnings during the last ten years of earnings. Annual retirement annuity adjustments are 1.0% for regular retirement and are payable on July 1 of each year after the member reaches 63 years of age.

*Contributions* - Members contribute 13% of annual base salary. The employer contribution rate was 34% of covered employees' annual base salary for fiscal years ending June 30, 2024.

Chapter 15, Article 2 and Article 2A of the West Virginia State Code assigns the authority to establish and amend the provisions of the SPDDRS and SPRS systems to the West Virginia Legislature.

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### **2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)**

#### Deputy Sheriff Retirement System (DSRS)

Plan Description - DSRS, a multiple employer defined benefit cost sharing public employee retirement system, was established for all deputy sheriffs hired by all 55 county governments on or after July 1, 1998. The DSRS was also made available to any deputy sheriff employed in covered employment participating in PERS on the effective date so long as he/she made notification in writing before January 31, 1999, to both the County Commission in the county in which he/she was employed and the Board of his/her desire to transfer to the DSRS. Approximately 600 deputy sheriffs elected such transfer and as a result, approximately \$28,638,000 of accumulated member and employer contributions and interest were transferred from PERS to DSRS in fiscal year 1999, in accordance with Chapter 7, Article 14D of the West Virginia State Code. There were 55 employers participating in DSRS as of June 30, 2024.

DSRS provides retirement as well as death and disability benefits. A member is eligible for normal retirement under the following circumstances:

1. Member in covered employment, with attainment of at least age 50 with age plus service equal to 70 or greater
2. Member in covered employment, has attained the age of 60 years, and has completed five or more years of service
3. Member has ceased covered employment has attained the age of 50 and completion of 20 or more years of service
4. Member has ceased covered employment has attained the age of 62 years and has completed five or more years of service

The annual regular retirement benefit is equal to 2.50% of a member's final average salary multiplied by the member's years of credited service. Final average salary refers to the average of the highest annual compensation received for covered employment by the member during any five consecutive plan years within the member's last ten years of service. A member may elect to receive retirement income payments equal to his/her accrued benefit in the normal form or in a variety of annuity options. The normal form signifies a monthly annuity which is 1/12 of the amount of a member's annual retirement benefit which is payable for the member's life.

Benefit payments did not begin prior to January 1, 2000, except benefit payments resulting from disability.

Chapter 7, Article 14D of the West Virginia State Code assigns the authority to establish and amend the provisions of the system to the West Virginia Legislature.

*Contributions* - Members contribute 8.5% of monthly base salary, and the Sheriff's Office/County Commission of the County in which the member is employed contributed an additional 16% of the member's monthly base salary during the year ended June 30, 2024. In addition, the Sheriff's Office/County Commissions contribute certain fees charged for reports and other services provided by the sheriff's offices.

#### Judges' Retirement System (JRS)

*Plan Description* - JRS is a single employer defined benefit public employee retirement system covering State judges and justices who elect to participate. JRS provides retirement as well as death and disability benefits. A member who was appointed or elected to the bench prior to July 2, 2005, is eligible for normal retirement upon the attainment of 24 years of service of which at least 12 years is as a sitting judge or justice, 16 years of service at age 65 of which at least 12 years is as a sitting judge or justice, or 8 full years of service after age 65. A member who was appointed or elected to the bench on or after July 2, 2005, is eligible for normal retirement upon the attainment of 24 years of service of which at least 14 years is as a sitting judge or justice, or 16 years of service at age 65 of which 14 years is as a sitting judge or justice. A member on the bench prior to July 2, 2005, is eligible for a deferred benefit upon termination of service prior to normal retirement provided the member completes 16 years of service of which 12 years of service is as a sitting judge or justice. A member of the bench on or after July 2, 2005, is eligible for a deferred benefit upon termination of service prior to normal retirement provided the member completes 16 years of service of which 14 years of service are as a sitting judge or justice.

The annual benefit paid to judges and justices on the bench prior to July 2, 2005, is 75% of the current annual salary of the office from which the participant retires, with surviving spouse and dependent child benefits. This benefit is proportionally increased upon increase in salary for active sitting judges and justices.

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### 2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)

#### Judges' Retirement System (JRS) (continued)

The annual benefit paid to judges and justices on the bench on or after July 2, 2005, is 75% of the member's final average salary. Final average salary means the average of the highest thirty-six consecutive months' compensation received as a judge or justice. No increases in benefits are given by virtue of an increase in salary of active sitting judges or justices.

Chapter 51, Article 9 of the West Virginia State Code assigns the authority to establish and amend the provisions of the system to the West Virginia Legislature.

*Contributions* - JRS funding policy provides for member contributions based on 7% of their annual earnings. This policy also provides for periodic employer contributions at varying amounts appropriated annually by the West Virginia Legislature. However, annual appropriations are determined in consideration of the most recent actuarial valuation. Any participant who terminates before becoming eligible for benefits may elect to withdraw his or her contributions without interest.

#### Emergency Medical Services Retirement System (EMSRS)

Plan Description - EMSRS is a multiple employer defined benefit cost sharing retirement system. The EMSRS Act was passed by the West Virginia Legislature in March 2007. The legislation provided for a voluntary participation election of eligible emergency medical service officers and mandated that certain participation levels be reached by December 31, 2007, in order for the provisions of the Emergency Medical Services Retirement System to become effective. At the close of the election period, fifteen licensed EMS public employers, consisting of twelve eligible Public Employees Retirement System (PERS) political subdivisions and three eligible non-PERS political subdivisions, passed corporate resolutions to become participating public employers of this retirement system. Statewide, over five hundred eligible Emergency Medical Services Officers elected to opt into this new retirement plan. The Emergency Medical Services Retirement System (EMSRS) became effective January 1, 2008. There were 47 employers participating in EMSRS as of June 30, 2024.

The statute prohibited any payout of benefits from the EMSRS fund prior to January 1, 2011, with the exception of duty disability retirement. An EMSRS member is eligible for "normal" retirement when one of the following occurs:

- Attainment of age 50 and the completion of 20 years of contributory service; or
- Attainment of age 50 when age plus contributory service equals 70 while still in covered employment; or
- Attainment of age 60 and completion of 10 years contributory service while still in covered employment; or
- Attainment of age 62 and completion of 5 years of contributory service.

An EMSRS member is eligible for "early retirement" when they reach age 45 and have completed 20 years of service.

Final Average Salary (FAS) is the average of the highest annual compensation received by the member during covered employment for any 5 consecutive plan years (Jan. 1- Dec. 31) within the last 10 years of service. The accrued benefit on behalf of any member is calculated as follows:

Final Average Salary x Years of Credited Service x Benefit Percentage

*Annual Retirement Benefit Formula:*

2.75% x FAS x Years of Service for years 1 - 20

2.0% x FAS x Years of Service for years 21 - 25

1.0% x FAS x Years of Service for years 26 - 30

Chapter 16, Article 5V of the West Virginia State Code assigns the authority to establish and amend the provisions of the plan to the West Virginia Legislature.

*Contributions* - Currently, the EMSRS employee contribution rate is 8.5% of gross monthly salary and the employer contribution rate is 9.5% of gross monthly salary.

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### 2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)

#### Municipal Police Officers and Firefighters Retirement System (MPFRS)

Plan Description - MPFRS is a multiple employer defined benefit cost sharing system. The West Virginia Municipal Police Officers and Firefighters Retirement System Act was passed by the West Virginia Legislature in November 2009 and became effective January 1, 2010. The legislation provided for any municipality or municipal subdivision employing municipal police officers or firefighters to elect to become a participating employer. All police officers and firefighters first employed in covered employment after the date the municipality or municipal subdivision elected to join MPFRS are required to be members of MPFRS. There were 38 employers participating in MPFRS as of June 30, 2024.

A MPFRS member is eligible for "normal" retirement when one of the following occurs:

- Attainment of age 50 and the completion of 20 years of contributory service; or
- Attainment of age 50 when age plus contributory service equals 70 while still in covered employment;  
or
- Attainment of age 60 and completion of 10 years contributory service while still in covered employment; or
- Attainment of age 62 and completion of 5 years of contributory service.

Final Average Salary (FAS) is the average of the highest annual compensation received by the member during covered employment for any 5 consecutive plan years (Jan. 1 - Dec. 31) within the last 10 years of service. The accrued benefit on behalf of any member is calculated as follows, not to exceed 90% of final average salary:

Final Average Salary x Years of Credited Service x Benefit Percentage

*Annual Retirement Benefit Formula:*

- 2.75% x FAS x Years of Credited Service for years 1 - 20
- 2.0% x FAS x Years of Credited Service for years 21 - 25
- 1.0% x FAS x Years of Credited Service for years 26 - 30

Chapter 8, Article 22A of the West Virginia State Code assigns the authority to establish and amend the provisions of the plan to the West Virginia Legislature.

*Contributions* - Currently, the MPFRS employee and employer contribution rates are both 8.5% of gross monthly salary.

#### Natural Resources Police Officers Retirement System (NRPORS)

*Plan Description* - NRPORS, a single employer defined benefit public employee retirement system, was established for all natural resources police officers hired by the West Virginia Division of Natural Resources (DNR) on or after January 2, 2021. The NRPORS was also made available to any natural resources police officers employed in covered employment participating in PERS on the effective date so long as he/she made notification in writing before September 30, 2020, to both the DNR and the Board of his/her desire to transfer to the NRPORS. Approximately 115 natural resources police officers elected such transfer and as a result, approximately \$21,432,000 of accumulated member and employer contributions and interest were transferred from PERS to NRPORS during the fiscal year ended June 30, 2021, in accordance with Chapter 20, Article 18 of the West Virginia State Code.

NRPORS provides retirement as well as death and disability benefits. A member is eligible for normal retirement under the following circumstances:

- Member has attained at least age 55 and completion of 15 years of service; or
- Member in covered employment, has attained the age of 55 years with age plus service equal to 70 or greater;  
or
- Member has attained the age of 62 and completion of 10 or more years of service.

All members must have a minimum of 10 years of contributory service to qualify for a retirement benefit.

## West Virginia Consolidated Public Retirement Board

### *Notes to the Financial Statements (Continued)*

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#### **2 - PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION (Continued)**

##### Natural Resources Police Officers Retirement System (NRPORS) (continued)

The annual regular retirement benefit is equal to 2.25% of a member's final average salary multiplied by the member's years of credited service. Final average salary refers to the average of the highest annual compensation received for covered employment by the member during any five consecutive plan years within the member's last ten years of service. A member may elect to receive retirement income payments equal to his/her accrued benefit in the normal form or in a variety of annuity options. The normal form signifies a monthly annuity which is 1/12 of the amount of a member's accrued benefit which is payable for the member's life.

Chapter 20, Article 18 of the West Virginia State Code assigns the authority to establish and amend the provisions of the system to the West Virginia Legislature.

*Contributions* - Members contribute 9.5% of monthly base salary, and the DNR as the employer, contribute an additional 12% of the member's monthly base salary during the year ended June 30, 2024.

##### Teachers' Defined Contribution Retirement System (TDCRS)

*Plan Description* - TDCRS is a multiple employer defined contribution retirement system, which is a money purchase pension plan covering primarily full-time employees of the State's 55 county public school systems, the State Department of Education, the Schools for the Deaf and Blind, and the Marshall University Research Corporation who were hired between July 1, 1991, and June 30, 2005. TDCRS members also include former TRS plan members, including higher education employees, who have elected to transfer into or participate in TDCRS. TDCRS' benefits depend solely on amounts contributed to the plan plus investment earnings. Employees are eligible to participate from the date of employment. TDCRS closed participation to new members effective June 30, 2005.

The TDCRS provides members with a choice of 20 separate investment options made up of fixed income, balanced, large cap, mid cap, small cap, and international mutual funds, a money market fund, and a fixed annuity.

*Contributions* - State law requires employees to contribute 4.5% of their gross compensation and the employers to contribute 7.5% of covered members' gross compensation. Employer contributions are comprised from amounts allocated to the employers through the State's School Aid Formula, forfeitures allotted from the TDCRS and county contributions. Employer contributions for each employee (and interest allocated to the employee's account) become partially vested after six years and fully vested after 12 complete years of service. If a terminated employee does not return to active participant status within five years, the nonvested employer contributions and earnings thereon are forfeited to reduce the employer's current period contribution requirement. Any such forfeitures arising from contributions, plus earnings thereon, will be used to reduce future employer contributions.



**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**3 - ACTUARIAL INFORMATION - DEFINED BENEFIT PLANS**

The total pension liabilities for financial reporting purposes were determined by actuarial valuations as of July 1, 2023, and rolled forward to June 30, 2024, using the actuarial assumptions and methods described in the *Actuarial Assumptions and Methods* section of this note.

Schedule of Net Pension Liability (Asset)

The schedules of net pension liability (asset) and changes in net pension liability (asset), presented as required supplemental information (RSI) following the notes to the financial statements, present trend information about whether the actuarial values of plan fiduciary net position are increasing or decreasing over time relative to the actuarial values of the total pension liability (asset). Selected information for each plan as of June 30, 2024, were as follows (in thousands):

As of June 30, 2024:	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability (Asset)	Net Position as a Percentage of the Total Pension Liability
PERS	\$ 8,898,189	\$ 9,062,803	\$ (164,614)	101.85%
TRS	11,971,136	10,084,169	1,886,967	84.24%
SPDDRS	814,257	820,606	(6,349)	100.78%
SPRS	405,676	365,468	40,208	90.09%
DSRS	383,715	353,347	30,368	92.09%
JRS	129,369	306,368	(176,999)	236.82%
EMSRS	129,098	143,339	(14,241)	111.03%
MPFRS	33,715	46,760	(13,045)	138.69%
NRPORS	39,848	32,119	7,729	80.60%

Long-Term Expected Rates of Return

The long-term rates of return on pension plan investments were determined using the building block method in which estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentages and by adding expected inflation. Best estimates of long-term geometric rates of return are summarized in the following tables and were used for all defined benefit plans for the year ended June 30, 2024:

Asset Class	Target Allocation	Long-term Expected Rate of Return	Weighted Average Expected Real Rate of Return
Domestic Equity	22.50%	6.5%	1.46%
International Equity	22.50%	9.1%	2.05%
Fixed Income	15.00%	4.3%	0.65%
Real Estate	12.00%	5.8%	0.70%
Private Equity	12.00%	9.2%	1.10%
Private Credit	6.00%	9.8%	0.59%
Hedge Funds	10.00%	4.6%	0.46%
Total	100.00%		7.01%
Inflation (CPI)			2.50%
			9.51%

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**3 - ACTUARIAL INFORMATION - DEFINED BENEFIT PLANS (Continued)**

Discount Rate

The discount rate used to measure the total pension liability (asset) was 7.25% for all defined benefit plans for fiscal years 2024. The projections of cash flows used to determine the discount rates assumed that employer contributions will continue to follow the current funding policies. Based on these assumptions, the fiduciary net position of each defined benefit pension plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rates of return on pension plan investments were applied to all periods of projected benefit payments to determine the total pension liabilities of each plan.

Regarding the sensitivity of the net pension liability (asset) to changes in the discount rate, the following table presents the plans' net pension liabilities calculated using the current discount rate of 7.25% as well as the plans' net pension liabilities if they were calculated using a discount rate that is one percentage point lower or one percentage point higher as of June 30, 2024 (in thousands):

	Total Net Pension Liability (Asset)		
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
As of June 30, 2024:			
PERS	\$ (162,316)	\$ (164,617)	\$ (189,131)
TRS	3,173,093	1,886,967	811,630
SPDDRS	89,927	(6,349)	(85,046)
SPRS	105,290	40,208	(11,620)
DSRS	84,062	30,368	(13,317)
JRS	(162,316)	(176,999)	(189,131)
EMSRS	4,551	(14,241)	(29,237)
MPFRS	(3,967)	(13,045)	(19,844)
NRPORS	13,155	7,729	3,250

Annual Money-Weighted Rates of Return

The following table provides the annual money-weighted rates of return, net of investment expenses, for the year ending June 30, 2024, for each defined benefit pension system:

System	
PERS	11.34%
TRS	11.27%
SPDDRS	11.29%
SPRS	11.42%
DSRS	11.36%
JRS	11.36%
EMSRS	11.35%
MPFRS	11.65%
NRPORS	11.45%

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**3 - ACTUARIAL INFORMATION - DEFINED BENEFIT PLANS (Continued)**

Actuarial Assumptions and Methods

Significant assumptions used in the actuarial valuations are as follows:

	<u>PERS</u>	<u>TRS</u>	<u>SPDDRS</u>
Actuarial cost method	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll
Asset valuation method	Fair value	Fair value	Fair value
Amortization method	Level dollar, fixed period	Level dollar, fixed period	Level dollar, fixed period
Amortization period	Through Fiscal Year 2035	Through Fiscal Year 2034	Through Fiscal Year 2025
Actuarial assumptions:			
Investment rate of return	7.25%	7.25%	7.25%
Projected salary increases:			
State	2.75% - 6.86%	n/a	4.00%
Nonstate	3.57% - 7.37%	n/a	n/a
Educators	n/a	2.75% - 5.90%	n/a
Non-Educators	n/a	2.75% - 6.50%	n/a
Inflation rate	2.75%	2.75%	2.75%
Discount rate	7.25%	7.25%	7.25%
Mortality rates:			
Actives	100% of Pub-2010 General Employees table, below-median, headcount weighted, projected generationally with scale MP-2021	100% of Pub-2010 General Employees table, headcount weighted, projected generationally with scale MP-2019	100% of Pub-2010 Safety Employee table, amount-weighted, Scale MP-2020 fully generational
Retired healthy males	111% of Pub-2010 General Retiree Male table, below-median, headcount weighted, projected generationally with scale MP-2021	100% of Pub-2010 General Retiree Male table, headcount weighted, projected generationally with scale MP-2019	98% of Pub-2010 Safety Retiree Male table, amount weighted, Projected generationally with Scale MP-2020
Retired healthy females	118% of Pub-2010 General Retiree Female table, below-median, headcount weighted, projected generationally with scale MP-2021	112% of Pub-2010 General Retiree Female table, headcount weighted, projected generationally with scale MP-2019	98% of Pub-2010 Safety Retiree Female table, amount weighted, Projected generationally with Scale MP-2020
Disabled males	119% of Pub-2010 General / Teachers Disabled Male table, headcount weighted, projected generationally with scale MP-2021	107% of Pub-2010 General / Teacher Disabled Male table, headcount weighted, projected generationally with scale MP-2019	124% of Pub-2010 Safety Disabled Male table, amount weighted, Projected generationally with Scale MP-2020
Disabled females	124% of Pub-2010 General / Teachers Disabled Female table, headcount weighted, projected generationally with scale MP-2021	113% of Pub-2010 General / Teacher Disabled Female table, headcount weighted, projected generationally with scale MP-2019	100% of Pub-2010 Safety Disabled Female table, amount weighted, Projected generationally with Scale MP-2020
Withdrawal rates:			
State	3.12% - 41.07%	n/a	0.08% - 2.67%
Nonstate	3.25% - 35.88%	n/a	n/a
Educators	n/a	7.00% - 35.00%	n/a
Non-Educators	n/a	2.30% - 18.00%	n/a
Disability rates	0.005% - 0.540%	0.004% - 0.563%	0.03% - 0.40%
Retirement rates	12% - 100%	15% - 100%	25% - 100%
Date range in most recent experience study	2018-2023	2015-2020	2015 - 2020

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**3 - ACTUARIAL INFORMATION - DEFINED BENEFIT PLANS (Continued)**

Actuarial Assumptions and Methods (continued)

	SPRS	DSRS	JRS
Actuarial cost method	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll
Asset valuation method	Fair value	Fair value	Fair value
Amortization method	Level dollar, fixed period	Level dollar, fixed period	Level dollar, fixed period
Amortization period	Through Fiscal Year 2029	Through Fiscal Year 2029	n/a
Actuarial assumptions:			
Investment rate of return	7.25%	7.25%	7.25%
Projected salary increases:			
State	4.00%	n/a	4.25%
Nonstate	n/a	3.75% - 5.25%	n/a
Educators	n/a	n/a	n/a
Non-Educators	n/a	n/a	n/a
Inflation rate	2.75%	2.75%	2.75%
Discount rate	7.25%	7.25%	7.25%
Mortality rates:			
Actives	100% of Pub-2010 Safety Employee Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Employee Table, Amount-weighted, projected generationally with Scale MP-2020	n/a
Retired healthy males	98% of Pub-2010 Safety Retiree Male Table, Amount-weighted, projected generationally with Scale MP-2020	98% of Pub-2010 Safety Retiree Male Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 General Retiree Table, Above-median, amount weighted, Projected generationally with Scale MP-2020
Retired healthy females	99% of Pub-2010 Safety Retiree Female Table, Amount-weighted, projected generationally with Scale MP-2020	99% of Pub-2010 Safety Retiree Female Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 General Retiree Table, Above-median, amount weighted, Projected generationally with Scale MP-2020
Disabled males	124% of Pub-2010 Safety Disabled Male Table, Amount-weighted, projected generationally with Scale MP-2020	124% of Pub-2010 Safety Disabled Male Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 General / Teachers Disabled Table, Amount weighted, Projected generationally with Scale MP-2020
Disabled females	100% of Pub-2010 Safety Disabled Female Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Disabled Female Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 General / Teachers Disabled Table, Amount weighted, Projected generationally with Scale MP-2020
Withdrawal rates:			
State	0.28% - 6.84%	n/a	n/a
Nonstate	n/a	4.93% - 12.32%	n/a
Educators	n/a	n/a	n/a
Non-Educators	n/a	n/a	n/a
Disability rates	0.03% - 0.40%	0.03% - 0.40%	n/a
Retirement rates	20% - 100%	16% - 100%	5% - 100%
Date range in most recent experience study	2015 - 2020	2015 - 2020	2015 - 2020

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**3 - ACTUARIAL INFORMATION - DEFINED BENEFIT PLANS (Continued)**

Actuarial Assumptions and Methods (continued)

	<u>EMSRS</u>	<u>MPFRS</u>	<u>NRPORS</u>
Actuarial cost method	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll	Individual entry age normal cost with level percentage of payroll
Asset valuation method	Fair value	Fair value	Fair value
Amortization method	Level dollar, fixed period	Level dollar, fixed period	Level dollar, fixed period
Amortization period	Through Fiscal Year 2038	n/a	30 years from July 1, 2021
Actuarial assumptions:			
Investment rate of return	7.25%	7.25%	7.25%
Projected salary increases:			
State	n/a	n/a	4.25% - 5.75%
Nonstate	3.00% - 5.00%	3.25% - 4.75%	n/a
Educators	n/a	n/a	n/a
Non-Educators	n/a	n/a	n/a
Inflation rate	2.75%	2.75%	2.75%
Discount rate	7.25%	7.25%	7.25%
Mortality rates:			
Actives	100% of Pub-2010 Safety Employee Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Employee Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Employee Table, Amount-weighted, projected generationally with Scale MP-2020
Retired healthy males	98% of Pub-2010 Safety Retiree Male Table, Amount-weighted, projected generationally with Scale MP-2020	98% of Pub-2010 Safety Retiree Male Table, Amount-weighted, projected generationally with Scale MP-2020	98% of Pub-2010 Safety Retiree Male Table, Amount-weighted, projected generationally with Scale MP-2020
Retired healthy females	99% of Pub-2010 Safety Retiree Female Table, Amount-weighted, projected generationally with Scale MP-2020	99% of Pub-2010 Safety Retiree Female Table, Amount-weighted, projected generationally with Scale MP-2020	99% of Pub-2010 Safety Retiree Female Table, Amount-weighted, projected generationally with Scale MP-2020
Disabled males	124% of Pub-2010 Safety Disabled Male Table, Amount-weighted, projected generationally with Scale MP-2020	124% of Pub-2010 Safety Disabled Male Table, Amount-weighted, projected generationally with Scale MP-2020	124% of Pub-2010 Safety Disabled Male Table, Amount-weighted, projected generationally with Scale MP-2020
Disabled females	100% of Pub-2010 Safety Disabled Female Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Disabled Female Table, Amount-weighted, projected generationally with Scale MP-2020	100% of Pub-2010 Safety Disabled Female Table, Amount-weighted, projected generationally with Scale MP-2020
Withdrawal rates:			
State	n/a	n/a	2.00% - 6.16%
Nonstate	6.00% - 28.00%	3.00% - 21.00%	n/a
Educators	n/a	n/a	n/a
Non-Educators	n/a	n/a	n/a
Disability rates	0.03% - 0.40%	0.03% - 0.40%	0.03% - 0.40%
Retirement rates	25% - 100%	25% - 100%	20% - 100%
Date range in most recent experience study	2015 - 2020	2015 - 2020	2015 - 2020

## West Virginia Consolidated Public Retirement Board

### *Notes to the Financial Statements (Continued)*

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#### 4 - FAIR VALUE MEASUREMENTS

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy under are described as follows:

Level 1	Inputs to the valuation methodology are unadjusted quoted prices in active markets for identical assets or liabilities that the Board can access at the measurement date.
Level 2	Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as: quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; inputs other than quoted prices that are observable for the asset or liability; inputs that are derived principally from or corroborated by observable market data by correlation or other means.
Level 3	Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liabilities fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of observable inputs and minimize the use of unobservable inputs.

The investment risks for the pooled investments in which the Board participates are described in Note 5. Investments are administered by the WVIMB, for the Board administered defined benefit retirement systems, and the WVIMB is responsible for setting investment risk policies.

Following is a description of the valuation methodologies used for assets measured at fair value.

*Mutual funds:* Valued at the daily closing price as reported by the fund. Mutual funds held by the System are open-end mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price. The mutual funds held by the System are deemed to be actively traded.

*Collective investment trusts:* Valued at the NAV of units of a collective trust. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV. Participant transactions (purchases and sales) may occur daily. Were the Plan to initiate a full redemption of the collective trust, the investment adviser reserves the right to temporarily delay withdrawal from the trust in order to ensure that securities liquidations will be carried out in an orderly business manner.

*WVIMB Investment Pools:* Valued at the NAV of units of an investment pool. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV. Participant transactions (purchases and sales) may occur daily. Refer to the fair value measurement not disclosures within the WVIMB's annual financial statements for the underlying investments within the fair value hierarchy.

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 4 - FAIR VALUE MEASUREMENTS (Continued)

The following is a summary of the investments held by WVIMB for each plan as of June 30, 2024 (in thousands) which are all measured at NAV and not within the fair value hierarchy:

	PERS	TRS	SPDDRS	SPRS	DSRS	JRS	EMSRs	MPFRS	NRPORS	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Portable Alpha	\$ 2,258,356	\$ 2,482,175	\$ 205,425	\$ 90,614	\$ 87,544	\$ 76,297	\$ 35,368	\$ 11,330	\$ 7,940	N/A	Daily	Daily
Non-Large Cap	\$ -	-	-	-	-	-	-	-	-	-	-	-
Domestic equity	418,286	459,759	37,940	16,768	16,233	14,155	6,555	2,098	1,472	N/A	Daily	Daily
International qualified	482,719	530,657	43,888	19,375	18,712	16,309	7,559	2,421	1,698	N/A	Daily	Daily
International equity	1,142,068	1,256,842	104,061	45,920	44,262	38,598	17,917	5,738	4,022	N/A	Daily	Daily
Private markets	2,375,505	2,611,396	216,048	95,369	92,096	80,263	37,212	11,924	8,355	N/A	Daily	Daily
Total return	-	-	-	-	-	-	-	-	-	-	-	-
fixed income	680,728	746,505	60,927	27,665	26,332	23,421	10,603	3,395	2,339	N/A	Daily	Daily
Core fixed income	678,518	744,062	60,869	27,646	26,294	23,357	10,587	3,387	2,336	N/A	Daily	Daily
Hedge fund	997,264	1,096,275	90,690	40,036	38,662	33,695	15,621	5,005	3,507	N/A	Daily	Daily
Short-term	-	-	-	-	-	-	-	-	-	-	-	-
fixed income	26,602	115,303	983	2,151	1,958	444	1,185	900	413	N/A	Daily	Daily
<b>Total investments (a)</b>	<b>\$ 9,060,046</b>	<b>\$10,042,974</b>	<b>\$ 820,831</b>	<b>\$ 365,544</b>	<b>\$ 352,093</b>	<b>\$ 306,539</b>	<b>\$ 142,607</b>	<b>\$ 46,198</b>	<b>\$ 32,082</b>			

(a) - see note 5 for additional information regarding the objective of each pool, commitments, and relevant risks.

The following table sets forth by level, within the fair value hierarchy, the TDC plan's assets at fair value as of June 30, 2024. Classification within the fair value hierarchy table is based on the lowest level of any input that is significant to the fair value measurement (in thousands).

	Fair Value at June 30, 2024			
	Total	Level 1	Level 2	Level 3
Investments in the fair value hierarchy:				
Mutual funds	\$ 422,572	\$ 422,572	\$ -	\$ -
<b>Total assets in the fair value hierarchy</b>	<b>\$ 422,572</b>	<b>\$ 422,572</b>	<b>\$ -</b>	<b>\$ -</b>
Investments measured at net asset value:				
Collective investment trusts	133,118			
<b>Investments at fair value</b>	<b>\$ 555,690</b>			

### INVESTMENTS MEASURED USING NAV PER SHARE AS PRACTICAL EXPEDIENT

The following table summarizes investments for which fair value is measured using the net asset value per share practical expedient as of June 30, 2024 (in thousands). There are no participant redemption restrictions for these investments.

	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Collective investment trusts funds(b)	\$ 133,118	n/a	Daily	Daily

(b) The object of each fund is to seek capital appreciation and income.

### 5 - INVESTMENTS

The Board has adopted investment guidelines that are consistent with those specified in the West Virginia Code. Those guidelines authorize the Board to invest with WVIMB in obligations of the United States and certain of its agencies, certificates of deposit, direct and general obligations of states, repurchase agreements relating to certain securities, equity securities, real estate, and guaranteed investment contracts. Plan assets of the defined benefit plans are invested by the WVIMB. The WVIMB invests plan assets in accordance with West Virginia Code and policies established by the WVIMB. Individual defined benefit plan assets are invested by the WVIMB in the various WVIMB pools. Investments are managed by a third-party administrator as the trustee for the TDCRS.

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 5 - INVESTMENTS (Continued)

The following information presents the disclosures for each pool as of June 30, 2024. For more information see WVIMB's website at [www.wvimb.org](http://www.wvimb.org). The investment risks for the various investments in which the plans participate are described below:

#### Portable Alpha

The Pool's objective is to exceed, net of external investment management fees, the S&P 500 Index over three- to five-year periods. The Pool has three main components: 1) a domestic large capitalization equity beta replication manager and the related margin account, 2) a portfolio of alternative risk premia funds, and 3) a domestic large capitalization equity index manager. Russell Investments Implementation Services, LLC (Russell) is the equity beta replication manager. Russell primarily trades S&P 500 futures contracts and invests the margin account in fixed income securities and a money market mutual fund. Albourne America, LLC has been retained by the IMB to provide consulting services for the portfolio of alternative risk premia funds. The remainder of the Pool's assets are invested in the BlackRock Equity Index Fund B (BlackRock). BlackRock uses a replication indexing approach to achieve investment results that correspond generally to the price and yield performance, before fees and expenses, of the S&P 500 Stock Index.

#### Credit Risk

The Pool is exposed to credit risk from its fixed income investments and money market mutual fund investment. The WVIMB limits the exposure to credit risk in the Pool by requiring securities purchased to have a minimum long-term rating of BBB (investment grade) and/or a short-term rating of A-2 (Tier-II) as defined by a nationally recognized statistical rating organization. The WVIMB reviews available ratings from Standard & Poor's, Moody's, and Fitch, and reports the rating indicative of the greatest degree of risk. The Pool holds some securities that have not received a rating from the aforementioned rating organizations. These securities have been listed as not rated in the table below. The absence or lack of a rating does not necessarily indicate a greater degree of risk. The money market mutual fund has the highest credit rating. The following table provides credit ratings for the Pool's fixed income investments as of June 30, 2024:

Rating	Fair Value
<i>Long-term</i>	
AAA	\$ 508,240
AA	9,237
A	20,999
BBB	10,659
<i>Short-term</i>	
A-1	265,183
A-2	4,495
Not rated	39,589
<b>Total fixed income investments</b>	<b>\$ 858,402</b>

#### Concentration of Credit Risk

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one company. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

#### Custodial Credit Risk

At June 30, 2024, the Pool held no securities that were subject to custodial credit risk. Investments in the commingled equity fund and money market mutual fund are not subject to custodial credit risk. All remaining securities are held by the WVIMB's custodian in the name of the WVIMB.

#### Interest Rate Risk

The Pool is exposed to interest rate risk from its fixed income investments and money market mutual fund investment. As of June 30, 2024, the money market mutual fund has a weighted average maturity (WAM) of 35 days.



**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**5 - INVESTMENTS (Continued)**

Portable Alpha (Continued)

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 2,258,356	38.73%
Teachers' Retirement System	2,482,176	42.57%
State Police Death, Disability, and Retirement System	205,425	3.52%
State Police Retirement System	90,614	1.55%
Deputy Sheriff's Retirement System	87,544	1.50%
Judges' Retirement System	76,297	1.31%
Emergency Medical Services Retirement System	35,368	0.61%
Municipal Police Officers' and Firefighters' Retirement System	11,330	0.19%
Natural Resources Police Officers's Retirement System	7,940	0.14%
Total of Retirement Systems	5,255,050	90.12%
Other Participants	576,369	9.88%
<b>Total</b>	<b>\$ 5,831,419</b>	<b>100.00%</b>

Non-Large Cap Domestic Equity

The Pool's objective is to exceed, net of external investment management fees, the Russell 2500 Index over three- to five-year periods. Assets were managed by Cooper Creek Partners Management, LLC and Westfield Capital Management, LLC.

*Credit Risk*

The Pool's money market mutual fund investment and the Cash Collateral Account are exposed to credit risk. The money market mutual fund has the highest credit rating. The Cash Collateral Account is not rated.

*Concentration of Credit Risk*

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one company. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

*Custodial Credit Risk*

At June 30, 2024, \$49 of the pool's cash balance was exposed to custodial credit risk. Securities on loan are collateralized to a minimum of 102 percent, and the collateral is held by the WVIMB's custodian in the name of the WVIMB. The money market mutual fund, the Cash Collateral Account, and the comingled equity fund are not subject to custodial credit risk. All remaining securities are held by the WVIMB's custodian in the name of the WVIMB.

*Interest Rate Risk*

The Pool is exposed to interest rate risk from its money market mutual fund investment and from the Cash Collateral Account. As of June 30, 2024, the money market mutual fund's weighted average maturity (WAM) was 12 days. Except for repurchase agreements that can have up to 95 days to maturity, investments in the Cash Collateral Account are limited to overnight investments. As of June 30, 2024, the WAM for the Cash Collateral Account was 3 days.

*Foreign Currency Risk*

At times during the year the Pool held securities and cash denominated in foreign currencies, but at June 30, 2024, there was no exposure to foreign currency risk.

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 5 - INVESTMENTS (Continued)

#### Non-Large Cap Domestic Equity (Continued)

##### Participation Schedule

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 418,286	36.70%
Teachers' Retirement System	459,759	40.33%
State Police Death, Disability, and Retirement System	37,940	3.33%
State Police Retirement System	16,768	1.47%
Deputy Sheriff's Retirement System	16,233	1.42%
Judges' Retirement System	14,155	1.24%
Emergency Medical Services Retirement System	6,555	0.58%
Municipal Police Officers' and Firefighters' Retirement System	2,098	0.18%
Natural Resources Police Officers's Retirement System	1,472	0.13%
Total of Retirement Systems	973,266	85.38%
Other Participants	166,597	14.62%
Total	\$ 1,139,863	100.00%

#### International Qualified

The Pool invests in The Silchester International Investors International Value Equity Group Trust (Silchester). The Pool's objective is to produce investment returns that exceed the Morgan Stanley Capital International's Europe Australasia Far East Index (MSCI EAFE) by 200 basis points on an annualized basis over three- to five-year periods, net of external investment management fees. Only "qualified participants" (as defined by the *Internal Revenue Code*) may invest in the Pool. Silchester invests in a diversified portfolio of equity securities of companies incorporated in any country other than the United States, with limited exposure to emerging markets and no unreasonable concentration exposure to any single issuer or country.

The Pool invests in a commingled equity fund that invests in equities denominated in foreign currencies. The value of this investment at June 30, 2024, was \$1,136,613. This investment, although denominated in U.S. dollars, is exposed to foreign currency risk through the underlying investments. The Pool is not exposed to credit risk, interest rate risk, custodial credit risk, or concentration of credit risk.

##### Participation Schedule

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 482,719	42.47%
Teachers' Retirement System	530,656	46.69%
State Police Death, Disability, and Retirement System	43,888	3.86%
State Police Retirement System	19,375	1.70%
Deputy Sheriff's Retirement System	18,712	1.65%
Judges' Retirement System	16,309	1.43%
Emergency Medical Services Retirement System	7,560	0.67%
Municipal Police Officers' and Firefighters' Retirement System	2,421	0.21%
Natural Resources Police Officers's Retirement System	1,698	0.15%
Total of Retirement Systems	1,123,338	98.83%
Other Participants	13,275	1.17%
Total	\$ 1,136,613	100.00%

#### International Equity

The Pool invests in the equities of international companies. The objective of the Pool is to outperform the international equity market as measured by the Morgan Stanley Capital International's All Country World Free Ex US Index over a full market cycle (three- to five-years), net of external investment management fees. Assets were managed by Acadian Asset Management, LLC, Axiom International Investors, LLC (Axiom), LSV Asset Management, and Oberweis Asset Management, Inc. for the entire fiscal year.

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 5 - INVESTMENTS (Continued)

#### International Equity (Continued)

##### Credit Risk

The Pool's money market mutual fund investment and the Cash Collateral Account are exposed to credit risk. The money market mutual fund has the highest credit rating. The Cash Collateral Account is not rated.

##### Concentration of Credit Risk

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one company. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

##### Custodial Credit Risk

At June 30, 2024, \$11,382 of the pool's cash balance was exposed to custodial credit risk. Securities on loan are collateralized to a minimum of 102 percent for U.S. Dollar denominated loans and 105 percent for foreign denominated loans, and the collateral is held by the WVIMB's custodian in the name of the WVIMB. The money market mutual fund and the Cash Collateral Account are not subject to custodial credit risk. All remaining securities are held by the WVIMB's custodian in the name of the WVIMB.

##### Interest Rate Risk

The Pool is exposed to interest rate risk from its money market mutual fund investment and from the Cash Collateral Account. As of June 30, 2024, the money market mutual fund's weighted average maturity (WAM) was 35 days. Except for repurchase agreements that can have up to 95 days to maturity, investments in the Cash Collateral Account are limited to overnight investments. As of June 30, 2024, the WAM for the Cash Collateral Account was 3 days.

##### Foreign Currency Risk

The Pool has equity investments, cash, and foreign currency spot contracts that are exposed to foreign currency risks. The amounts at fair value (in U.S. dollars) of equity investments, cash, and foreign currency spot contracts as of June 30, 2024, are as follows (in thousands):

Currency	Equity Investments	Cash	Foreign Currency Spot Contracts	Total
Australian Dollar	\$ 72,518	\$ 110	\$ -	\$ 72,628
Brazil Real	79,546	354	(1)	79,899
British Pound	196,772	515	-	197,287
Canadian Dollar	104,643	53	-	104,696
Chilean Peso	-	1	-	1
Chinese Yuan Onshore	-	17	-	17
Chinese Yuan Offshore	56,400	317	-	56,717
Danish Krone	29,388	7	-	29,395
Egyptian Pound	27	-	-	27
Emirati Dirham	34,887	7	-	34,894
Euro Currency Unit	430,287	654	-	430,941
Hong Kong Dollar	244,357	396	-	244,753
Hungarian Forint	4,850	217	-	5,067
Indian Rupee	292,048	39	-	292,087
Indonesian Rupiah	22,583	234	-	22,817
Israeli Shekel	7,326	3	-	7,329
Japanese Yen	320,699	1,469	-	322,168
Kuwaiti Dinar	2,454	134	-	2,588
Malaysian Ringgit	12,913	14	-	12,927
Mexican Peso	18,532	140	-	18,672
New Taiwan Dollar	309,283	243	(8)	309,518
New Zealand Dollar	56	-	-	56
Norwegian Krone	34,106	154	-	34,260
Philippine Peso	7,715	24	-	7,739
Polish Zloty	19,042	-	-	19,042
Russian Ruble	-	5,253	-	5,253
Qatari Riyal	1,248	-	-	1,248
Saudi Arabian Riyal	36,742	212	-	36,954
Singapore Dollar	16,778	10	-	16,788
South African Rand	15,479	2	-	15,481
South Korean Won	259,245	24	(1)	259,268
Swedish Krona	50,838	54	-	50,892
Swiss Franc	85,261	582	-	85,843
Thailand Baht	35,154	4	-	35,158
Turkish Lira	19,140	130	-	19,270
<b>Total</b>	<b>\$ 2,820,317</b>	<b>\$ 11,373</b>	<b>\$ (10)</b>	<b>\$ 2,831,680</b>

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**5 - INVESTMENTS (Continued)**

International Equity (continued)

This table excludes investments and cash held by the Pool that are denominated in U.S. dollars. The fair value of the U.S. dollar denominated investments and cash is \$216,427.

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 1,142,068	36.79%
Teachers' Retirement System	1,256,842	40.49%
State Police Death, Disability, and Retirement System	104,061	3.35%
State Police Retirement System	45,920	1.48%
Deputy Sheriff's Retirement System	44,262	1.43%
Judges' Retirement System	38,598	1.24%
Emergency Medical Services Retirement System	17,917	0.58%
Municipal Police Officers' and Firefighters' Retirement System	5,738	0.18%
Natural Resources Police Officers's Retirement System	4,022	0.13%
Total of Retirement Systems	2,659,428	85.67%
Other Participants	444,610	14.33%
Total	\$ 3,104,038	100.00%

Short-Term Fixed Income

The main objective of the Pool is to maintain sufficient liquidity to meet the daily disbursements requested by participants and to invest any contributions until the time the money is transferred to other WVIMB operated investment pools without sustaining capital losses while earning a small return above inflation. The Pool's benchmark, net of external investment management fees, is the FTSE 3 Month US T-Bill Index. JP Morgan Investment Advisors, Inc. manages the Pool.

*Credit Risk*

The WVIMB limits the exposure to credit risk in the Pool by requiring all corporate bonds to be rated AA or higher. Commercial paper must be rated A-1 by Standard & Poor's and P-1 by Moody's. Additionally, the Pool must have at least 10 percent of its assets in United States Treasury issues. Repurchase agreements are collateralized by United States Treasury bonds. The WVIMB reviews available ratings from Standard & Poor's, Moody's, and Fitch, and reports the rating indicative of the greatest degree of risk. All of the Pool's investments had the highest credit rating as of June 30, 2024.

*Concentration of Credit Risk*

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one corporate name. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

*Custodial Credit Risk*

At June 30, 2024, \$16 of the Pool's cash balance was exposed to credit risk. Repurchase agreements are collateralized at 102 percent and the collateral is held in the name of the WVIMB. All remaining investments are held by the WVIMB's custodian in the name of the WVIMB.

## West Virginia Consolidated Public Retirement Board

### Notes to the Financial Statements (Continued)

#### 5 - INVESTMENTS (Continued)

##### Short-Term Fixed Income (continued)

###### *Interest Rate Risk*

The Pool is exposed to interest rate risk from its fixed income investments. The WVIMB monitors interest rate risk of the Pool by limiting the weighted average maturity (WAM) of the investments of the Pool to 60 days. The maturity of floating rate notes is assumed to be the next interest rate reset date. The following table provides the WAM for the different asset types in the Pool as of June 30, 2024:

Investment Type	WAM (days)	Carrying Value
Repurchase agreements	3	\$ 31,730
U.S. Government agency bonds	8	149,920
U.S. Treasury bills	13	81,814
<b>Total investments</b>	<b>9</b>	<b>\$ 263,464</b>

###### *Foreign currency risk*

The Pool has no investments that are subject to foreign currency risk.

###### *Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 26,602	10.10%
Teachers' Retirement System	115,303	43.76%
State Police Death, Disability, and Retirement System	983	0.37%
State Police Retirement System	2,151	0.82%
Deputy Sheriff's Retirement System	1,958	0.74%
Judges' Retirement System	444	0.17%
Emergency Medical Services Retirement System	1,185	0.45%
Municipal Police Officers' and Firefighters' Retirement System	900	0.34%
Natural Resources Police Officers's Retirement System	412	0.16%
<b>Total of Retirement Systems</b>	<b>149,938</b>	<b>56.91%</b>
<b>Other Participants</b>	<b>113,535</b>	<b>43.09%</b>
<b>Total</b>	<b>\$ 263,473</b>	<b>100.00%</b>

##### Total Return Fixed Income

The main objective of the Pool is to generate investment income, provide stability, and enhance diversification, but not at the expense of total return. The Pool's investment objective, net of external investment management fees, is to outperform the Bloomberg Barclays U.S. Universal Bond Index over three- to five- year periods. Dodge & Cox, Franklin Templeton Investments, and Western Asset Management Company manage the Pool.

## West Virginia Consolidated Public Retirement Board

### Notes to the Financial Statements (Continued)

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#### INVESTMENTS (Continued)

##### Total Return Fixed Income (continued)

###### *Credit Risk*

The Pool is exposed to credit risk from its fixed income investments, money market mutual fund investment, and Cash Collateral Account investment. The WVIMB limits the exposure to credit risk in the Pool by maintaining at least an average rating of BBB (investment grade) and/or a short-term rating of A-2 (Tier II) as defined by a nationally recognized statistical rating organization. The WVIMB reviews available ratings from Standard & Poor's, Moody's, and Fitch, and reports the rating indicative of the greatest degree of risk. The Pool holds some securities that have not received a rating from the aforementioned rating organizations. These securities have been listed as not rated in the table below. The absence or lack of a rating does not necessarily indicate a greater degree of risk. The money market mutual fund has the highest credit rating. The Cash Collateral Account is not rated. The following table provides credit ratings for the Pool's fixed income investments as of June 30, 2024 (in thousands):

Rating	Fair Value
<i>Long-term</i>	
AAA	\$ 58,419
AA	1,278,656
A	111,303
BBB	491,247
BB	325,290
B	119,098
CCC	27,439
CC	9,868
D	3,080
<i>Short-term</i>	
A-1	149,038
Not rated	69,460
Withdrawn	6,949
<b>Total fixed income investments</b>	<b>\$ 2,649,847</b>

###### *Concentration of Credit Risk*

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one corporate name. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

###### *Custodial Credit Risk*

At June 30, 2024, \$29,139 of the pools' cash balance was exposed to custodial credit risk. Repurchase agreements, when held, are collateralized to a minimum of 102 percent and the collateral is held in the name of the WVIMB. Securities on loan are collateralized to a minimum of 102 percent for U.S. Dollar denominated loans and 105 percent for foreign denominated loans, and the collateral is held by the WVIMB's custodian in the name of the WVIMB. Investments in commingled debt funds, money market mutual funds, and the Cash Collateral Account are not subject to custodial credit risk. All remaining securities are held by the WVIMB's custodian in the name of the WVIMB.

###### *Interest Rate Risk*

The Pool is exposed to interest rate risk from its fixed income investments, money market mutual fund investment, and Cash Collateral Account investment. As of June 30, 2024, the money market mutual fund has a weighted average maturity (WAM) of 35 days. Except for repurchase agreements that can have up to 95 days to maturity, investments in the Cash Collateral Account are limited to overnight investments. As of June 30, 2024, the WAM for the Cash Collateral Account was 3 days.

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**INVESTMENTS (Continued)**

Total Return Fixed Income (continued)

The WVIMB monitors interest rate risk of the Pool by evaluating the effective duration of the investments in the Pool. Effective duration is a method of disclosing interest rate risk that measures the expected change in the price of a fixed income security for a 1 percent change in interest rates. The effective duration calculation takes into account the most likely timing of variable cash flows, which is particularly useful for measuring interest rate risk of callable bonds, commercial and residential mortgage-backed securities, asset-backed securities, and collateralized mortgage obligations. The following table provides the weighted average effective duration for the various asset types in the Pool as of June 30, 2024 (in thousands):

Investment Type	Fair Value	Effective Duration (years)
Bank loans	\$ 3,120	1.8
Commingled debt funds	165,991	2.9
Corporate asset-backed issues	53,932	1.9
Corporate CMO	71,968	1.5
Foreign asset-backed issues	112,946	(0.1)
Foreign corporate bonds	273,674	4.5
Foreign government bonds	233,006	5.1
Municipal bonds	12,057	6.5
Repurchase Agreement	21,000	0.0*
U.S. corporate bonds	306,350	4.6
U.S. Government agency bonds	2,035	0.0*
U.S. Government agency CMO	93,028	1.2
U.S. Government agency CMO interest-only	9,974	2.7
U.S. Government agency MBS	543,408	5.7
U. S. Government agency TBAs	216,730	6.5
U.S. Treasury issues	518,814	9.4
U.S. Treasury inflation protected securities	11,814	12.6
<b>Total fixed income investments</b>	<b>\$ 2,649,847</b>	

\*Rounds to less than .05

The Pool invests in commercial and residential mortgage-backed securities, asset-backed securities, and collateralized mortgage obligations. The cash flows from these securities are based on the payment of the underlying collateral. The effective duration and yield to maturity of these securities are dependent on estimated prepayment assumptions that consider historical experience, market conditions and other criteria. Actual prepayments may vary with changes in interest rates. Rising interest rates often result in a slower rate of prepayments while declining rates tend to lead to faster prepayments. As a result, the fair values of these securities are highly sensitive to interest rate changes. At June 30, 2024, the Pool held \$1,101,986 of these securities. This represents approximately 42 percent of the value of the Pool's fixed income securities.

*Foreign Currency Risk*

The Pool has foreign fixed income investments, foreign equity investments, and cash that is denominated in foreign currencies and exposed to foreign currency risk. Foreign denominated derivative investments are disclosed in Note 4. Additionally, the Pool has indirect exposure to foreign currency risk through its ownership interests in certain of the commingled debt funds. Approximately \$37,134, or 22 percent, of the commingled debt funds hold substantially all of their investments in securities denominated in foreign currencies. This represents approximately 1 percent of the value of the Pool's fixed income securities.

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**INVESTMENTS (Continued)**

Total Return Fixed Income (continued)

The amounts at fair value (in U.S. dollars) of investments and cash denominated in foreign currencies as of June 30, 2024, are as follows (in thousands):

Currency	Foreign Fixed Income	Common Stock	Cash	Cash Due To/From Broker	Total
Argentine Peso	\$ -	\$ -	\$ 6	\$ -	\$ 6
Australian Dollar	-	-	1,536	431	1,967
Brazilian Real	55,230	-	-	-	55,230
British Pound	-	369	1,726	298	2,393
Canadian Dollar	-	-	1,080	-	1,080
Colombian Peso	3,421	-	-	-	3,421
Dominican Peso	4,372	-	-	-	4,372
Egyptian Pound	2,130	-	-	-	2,130
Euro Currency Unit	30,842	-	2,005	253	33,100
Georgia Lari	720	-	-	-	720
Hungarian Forint	1,795	-	-	-	1,795
Indonesian Rupiah	1,615	-	-	-	1,615
Jamaican Dollar	2,189	-	-	-	2,189
Japanese Yen	4,339	-	1,219	2,048	7,606
Kazakhstani Tenge	4,498	-	-	-	4,498
Mexican Peso	36,585	-	2,305	-	38,890
New Zealand Dollar	-	-	742	3,881	4,623
Peruvian Nuevo Sol	2,343	-	-	-	2,343
Polish Zioty	3,047	-	-	-	3,047
Russian Ruble	-	-	767	-	767
South African Rand	10,324	-	3	-	10,327
Swedish Krona	-	-	420	-	420
Uruguayan Peso	2,629	-	-	-	2,629
Uzbekistan Som	3,681	-	-	-	3,681
<b>Total foreign denominated investments</b>	<b>\$ 169,760</b>	<b>\$ 369</b>	<b>\$ 11,809</b>	<b>\$ 6,911</b>	<b>\$ 188,849</b>

This table excludes investments and cash held by the Pool that are denominated in U.S. dollars. The fair value of the U.S. dollar denominated investments and cash was \$463,251,000.

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 680,728	26.93%
Teachers' Retirement System	746,505	29.54%
State Police Death, Disability, and Retirement System	60,927	2.41%
State Police Retirement System	27,665	1.09%
Deputy Sheriff's Retirement System	26,332	1.04%
Judges' Retirement System	23,421	0.93%
Emergency Medical Services Retirement System	10,603	0.42%
Municipal Police Officers' and Firefighters' Retirement System	3,395	0.13%
Natural Resources Police Officers's Retirement System	2,339	0.09%
<b>Total of Retirement Systems</b>	<b>1,581,915</b>	<b>62.58%</b>
<b>Other Participants</b>	<b>945,451</b>	<b>37.42%</b>
<b>Total</b>	<b>\$ 2,527,366</b>	<b>100.00%</b>



# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### INVESTMENTS (Continued)

#### Core Fixed Income

The main objective of the Pool is to generate investment income, provide stability, and enhance diversification but not at the expense of total return. The Pool's investment objective is to outperform the Bloomberg Barclays U.S. Aggregate Bond Index over three- to five-year periods, net of external investment management fees. JP Morgan Investment Advisors, Inc. manages this Pool.

#### *Credit Risk*

The Pool is exposed to credit risk from its fixed income investments, money market mutual fund investment, and Cash Collateral Account investment. The WVIMB limits the exposure to credit risk in the Pool by maintaining at least an average rating of BBB (investment grade) as defined by a nationally recognized statistical rating organization. The WVIMB reviews available ratings from Standard & Poor's, Moody's, and Fitch, and reports the rating indicative of the greatest degree of risk. The Pool holds some securities that have not received a rating from the aforementioned rating organizations. These securities have been listed as not rated in the table below. The absence or lack of a rating does not necessarily indicate a greater degree of risk. The money market mutual fund has the highest credit rating. The Cash Collateral Account is not rated. The following table provides credit ratings for the Pool's fixed income investments as of June 30, 2024 (in thousands):

Rating	Fair Value
AAA	\$ 76,420
AA	1,265,263
A	219,003
BBB	383,552
BB	8,036
B	1,037
CCC	114
C	646
Withdrawn	1,497
Not rated	125,305
<b>Total fixed income investments</b>	<b>\$ 2,080,873</b>

#### *Concentration of Credit Risk*

The Pool is restricted from investing more than 5 percent of the value of the Pool in any one corporate name. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

#### *Custodial Credit Risk*

At June 30, 2024, the Pool held no securities that were subject to custodial credit risk. Securities on loan are collateralized to a minimum of 102 percent, and the collateral is held by the WVIMB's custodian in the name of the WVIMB. The money market mutual fund and the Cash Collateral Account are not subject to custodial credit risk. All remaining securities are held by the WVIMB's custodian in the name of the WVIMB.

#### *Interest Rate Risk*

The Pool is exposed to interest rate risk from its fixed income investments, money market mutual fund investment, and Cash Collateral Account investment. As of June 30, 2024, the money market mutual fund has a weighted average maturity (WAM) of 35 days. Except for repurchase agreements that can have up to 95 days to maturity, investments in the Cash Collateral Account are limited to overnight investments. As of June 30, 2024, the WAM for the Cash Collateral Account was 3 days.

The WVIMB monitors interest rate risk of the Pool by evaluating the effective duration of the investments in the Pool. Effective duration is a method of disclosing interest rate risk that measures the expected change in the price of a fixed income security for a 1 percent change in interest rates. The effective duration calculation considers the most likely timing of variable cash flows, which is particularly useful for measuring interest rate risk of callable bonds, commercial and residential mortgage-backed securities, asset-backed securities, and collateralized mortgage obligations. The following table provides the weighted average effective duration for the Pool's fixed income investments as of June 30, 2024 (in thousands):

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**5 - INVESTMENTS (Continued)**

Core Fixed Income (continued)

Investment Type	Fair Value	Effective Duration (years)
Corporate asset-backed issues	\$ 234,021	2.1
Corporate CMO	87,553	2.2
Corporate CMO interest-only	105	1.6
Corporate CMO principal-only	5,380	0.5
Foreign asset-backed issues	2,346	0.0*
Foreign corporate bonds	166,741	4.1
Foreign government bonds	5,786	9.3
Municipal bonds	8,480	9.0
U.S. corporate bonds	365,052	7.3
U.S. Government agency CMO	116,733	5.1
U.S. Government agency CMO interest-only	1,173	8.5
U.S. Government agency CMO principal-only	1,746	5.2
U.S. Government agency MBS	480,710	6.1
U.S. Treasury bonds	605,047	8.2
<b>Total fixed income investments</b>	<b>\$ 2,080,873</b>	

\*Rounds to less than .05

The Pool invests in commercial and residential mortgage-backed securities, asset-backed securities, and collateralized mortgage obligations. The cash flows from these securities are based on the payment of the underlying collateral. The effective duration and yield to maturity of these securities are dependent on estimated prepayment assumptions that consider historical experience, market conditions and other criteria. Actual prepayments may vary with changes in interest rates. Rising interest rates often result in a slower rate of prepayments while declining rates tend to lead to faster prepayments. As a result, the fair values of these securities are highly sensitive to interest rate changes. At June 30, 2024, the Pool held \$929,767 of these securities. This represents approximately 45 percent of the value of the Pool's fixed income securities.

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 678,518	32.53%
Teachers' Retirement System	744,061	35.67%
State Police Death, Disability, and Retirement System	60,869	2.92%
State Police Retirement System	27,646	1.33%
Deputy Sheriff's Retirement System	26,294	1.26%
Judges' Retirement System	23,357	1.12%
Emergency Medical Services Retirement System	10,587	0.51%
Municipal Police Officers' and Firefighters' Retirement System	3,387	0.16%
Natural Resources Police Officers's Retirement System	2,336	0.11%
Total of Retirement Systems	1,577,055	75.61%
Other Participants	508,657	24.39%
<b>Total</b>	<b>\$ 2,085,712</b>	<b>100.00%</b>

# West Virginia Consolidated Public Retirement Board

## Notes to the Financial Statements (Continued)

### 5 - INVESTMENTS (Continued)

#### Private Markets Pool

The objective of the Pool is to enhance the diversification and stability of the portfolio, while generating a higher level of income than generally available in the public fixed income markets and to provide for long-term growth of participants' assets and risk-reduction through diversification. The Pool primarily holds the WVIMB's investments in private credit & income funds, private equity funds, real estate investment trusts (REITs), and real estate limited partnerships and funds. Franklin Park, StepStone Group LP, and Verus have been retained by the WVIMB to provide consulting services related to the selection of limited partnerships and funds. Publicly traded assets are managed by CBRE Clarion Securities LLC and Security Capital Research & Management Inc.

#### *Credit Risk*

The Pool is exposed to credit risk from its fixed income investments, money market mutual fund investment, investments in unrated private credit & income funds, and the Cash Collateral Account. The WVIMB limits the exposure to credit risk in the Pool by maintaining at least an average rating of investment grade as defined by a nationally recognized statistical rating organization. The WVIMB reviews available ratings from Standard & Poor's and Moody's and reports the rating indicative of the greatest degree of risk. The money market mutual fund has the highest credit rating. The Cash Collateral Account is not rated. Credit risk associated with the unrated private credit & income funds are limited by requiring that underlying fund holdings are at least 90 percent collateralized by one or more assets of the borrower.

The following table provides credit ratings for the Pool's fixed income investments as of June 30, 2024:

Rating	Fair Value
A	\$ 509
BBB	8,042
BB	2,667
B	97
<b>Total fixed income investments</b>	<b>\$ 11,315</b>

#### *Concentration of Credit Risk*

The Pool's investments in alternative investment funds might be indirectly exposed to concentration of credit risk.

#### *Custodial Credit Risk*

At June 30, 2024, \$16,645 of the pool's cash balance was exposed to custodial credit risk. Securities on loan are collateralized to a minimum of 102 percent for U.S. Dollar denominated loans and 105 percent for foreign denominated loans, and the collateral is held by the WVIMB's custodian in the name of the WVIMB. All remaining securities, except for the alternative investments, are held by the WVIMB's custodian in the name of the WVIMB.

#### *Interest Rate Risk*

The Pool is exposed to interest rate risk through its investments in U.S. corporate bonds, opportunistic income funds and a money market mutual fund. The WVIMB monitors interest rate risk of U.S. corporate bonds by evaluating the effective duration. Effective duration is a method of disclosing interest rate risk that measures the expected change in the price of a fixed income security for a 1 percent change in interest rates. The effective duration calculation takes into account the most likely timing of variable cash flows, which is particularly useful for measuring interest rate risk of callable bonds. As of June 30, 2024, the effective duration for U.S. corporate bonds was 3.6 years. The WVIMB manages interest rate risk of the private credit & income funds by investing primarily in funds that originate or invest in loans that have a variable or floating interest rates, most of these investments have relatively short durations, and final maturities within three to five years. As of June 30, 2024, the money market mutual fund has a weighted average maturity (WAM) of 35 days. Except for repurchase agreements that can have up to 95 days to maturity, investments in the Cash Collateral Account are limited to overnight investments. As of June 30, 2024, the WAM for securities lending collateral was 3 days.

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**5 - INVESTMENTS (Continued)**

Private Markets Pool (continued)

*Foreign Currency Risk*

The Pool holds foreign common stock, real estate limited partnerships and funds, and cash that is denominated in foreign currencies and exposed to foreign currency risks. Investments in private credit & income funds and private equity partnerships might be indirectly exposed to foreign currency risk.

The amounts at fair value (in U.S. dollars) of investments and cash denominated in foreign currencies as of June 30, 2024, are as follows:

Currency	Foreign Common Stock	Real Estate Limited Partnerships and Funds	Cash	Total
Australian Dollar	\$ 5,164	\$ -	\$ -	\$ 5,164
British Pound	3,813	-	-	3,813
Canadian Dollar	3,170	68,949	-	72,119
Euro Currency Unit	6,388	88,207	-	94,595
Hong Kong Dollar	3,802	-	-	3,802
Japanese Yen	8,368	-	12	8,380
Singapore Dollar	3,544	-	-	3,544
Swedish Krona	1,187	-	-	1,187
Swiss Franc	517	-	-	517
Total foreign denominated investments	35,953	157,156	-	193,121
U.S. Dollar	-	2,062,172	16,633	2,078,805
<b>Total</b>	<b>\$ 35,953</b>	<b>\$ 2,219,328</b>	<b>\$ 16,645</b>	<b>\$ 2,271,926</b>

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024:

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 2,375,504	37.78%
Teachers' Retirement System	2,611,397	41.53%
State Police Death, Disability, and Retirement System	216,048	3.44%
State Police Retirement System	95,369	1.52%
Deputy Sheriff's Retirement System	92,096	1.46%
Judges' Retirement System	80,263	1.28%
Emergency Medical Services Retirement System	37,212	0.59%
Municipal Police Officers' and Firefighters' Retirement System	11,924	0.19%
Natural Resources Police Officers's Retirement System	8,356	0.13%
Total of Retirement Systems	5,528,169	87.93%
Other Participants	759,078	12.07%
<b>Total</b>	<b>\$ 6,287,247</b>	<b>100.00%</b>

**West Virginia Consolidated Public Retirement Board**  
**Notes to the Financial Statements (Continued)**

**5 - INVESTMENTS (Continued)**

Hedge Fund

The Pool was established to hold the WVIMB's investments in hedge funds. The objective of the Pool is to reduce risk through diversification of participants' assets. The primary performance benchmark is the Hedge Funds Research, Inc. Fund of Funds Composite Index plus 100 Basis points. The secondary benchmark is the FTSE 3 Month US T-Bill Index plus 500 basis points. Albourne America, LLC has been retained by the WVIMB to provide consulting services for this investment strategy.

The Pool holds shares in hedge funds and shares of a money market mutual fund. As of June 30, 2024, the money market mutual fund has the highest credit rating and has a weighted average maturity of 35 days. Investments in hedge funds might be indirectly exposed to foreign currency risk, credit risk, interest rate risk, and/or custodial credit risk. The Pool is restricted from investing more than 10 percent of the value of the Pool with any single manager. At June 30, 2024, the Pool was in compliance with this restriction and is not exposed to concentration of credit risk.

*Participation Schedule*

This pool is participated in by entities other than the retirement systems administered by the WVCPRB. The disclosures for this pool represent the pool, as a whole. The following schedule provides the values of the WVCPRB's administered retirement systems' participation in the Pool at June 30, 2024 (in thousands):

Participant	Account Value	Percentage of Total
Public Employees' Retirement System	\$ 997,263	34.37%
Teachers' Retirement System	1,096,275	37.78%
State Police Death, Disability, and Retirement System	90,690	3.13%
State Police Retirement System	40,036	1.38%
Deputy Sheriff's Retirement System	38,662	1.33%
Judges' Retirement System	33,695	1.16%
Emergency Medical Services Retirement System	15,621	0.54%
Municipal Police Officers' and Firefighters' Retirement System	5,005	0.17%
Natural Resources Police Officers's Retirement System	3,507	0.12%
Total of Retirement Systems	2,320,754	79.98%
Other Participants	581,151	20.02%
Total	\$ 2,901,905	100.00%

Investments and Deposits - TDCRS

*Concentration of Credit Risk*

As of June 30, 2024, the TDCRS has investment balances with the following issuers which were greater than 5% of the total investment balance of the TDCRS (in thousands):

Large Cap Growth/JP Morgan Inv. Mgmt.	\$ 119,842
Vanguard Large Cap Index	87,538
Putnam Large Cap Value Y	66,741
VALIC Fixed Annuity Option	185,487
Empower Lifetime 2035 Trust	41,088
Other (less than 5% individually)	240,481
	\$ 741,177

# West Virginia Consolidated Public Retirement Board

## *Notes to the Financial Statements (Continued)*

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### **5 - INVESTMENTS (Continued)**

#### Investments and Deposits – TDCRS (continued)

##### *Concentration of Credit Risk - Cash Deposits*

At June 30, 2024, TDCRS had \$3,880,225 on deposit with the West Virginia State Treasurer's Office and \$134,411 in depository accounts with financial institutions. The deposits with financial institutions, which had a bank balance of \$134,411 are either insured by the Federal Deposit Insurance Corporation or collateralized with securities held in TDCRS' name by its agent.

##### *Interest Rate Risk*

As of June 30, 2024, all of TDCRS' investments had a maturity date of less than one year.

### **6 - INVESTMENT CONTRACT WITH INSURANCE COMPANY**

The TDCRS maintains an investment contract with Variable Annuity Life Insurance Company (VALIC) which is a benefit-responsive individually allocated investment contract with a guaranteed rate of return. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The guaranteed investment contract issuer is contractually obligated to repay the principal and a specified interest rate that is guaranteed to the TDCRS. There are no reserves against contract value for credit risk of the contract issuer or otherwise. The crediting interest rate is based on a formula agreed upon with the issuer, but it may not be less than 4.5%. Such interest rates are reviewed quarterly for resetting.

This contract meets the fully-benefit responsive investment contract criteria and is therefore reported at contract value. Contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the guaranteed investment contract because that is the amount received by participants if they were to initiate permitted transactions under the terms of the TDCRS. Contract value, as reported to the Board by VALIC, represents contributions made under the contract, plus earnings, less participant withdrawals, and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

The value of the contract on June 30, 2024, was \$185,486,602.

### **7 - CONTINGENCIES**

The Board is engaged in various legal actions that it considers to be in the ordinary course of business. Some of these cases involve potentially significant amounts for which legal counsel is unable to render an opinion on the outcome. Further, the financial impact of some cases is dependent upon judicial rulings in favor of petitioners and would have to be actuarially determined, inasmuch as the relief sought is an increase in the petitioners' annuity benefit. Accordingly, the financial statement impact of such cases cannot be determined at the present time. As legal actions are resolved, the Board recognizes the liability in its financial statements in the period the amount can be estimated.

### **8 - RISK MANAGEMENT**

The Board is exposed to various risks of loss related to torts; theft or damage to, and destruction of assets; errors and omissions; injuries to, and illnesses of employees; medical liabilities; and natural disasters.

Health insurance coverage for the Board's employees is obtained through its participation in the West Virginia Public Employees Insurance Agency (PEIA). PEIA provides the following basic employee benefit coverage to all participants: hospital, surgical, group major medical, basic group life, accidental death, and prescription drug coverage for active and retired employees of the State of West Virginia and various related State and non-State agencies. Additionally, the Board has obtained coverage for job-related injuries through the purchase of a policy through a commercial carrier. In exchange for the payment of premiums to PEIA and a commercial carrier, the Board has transferred its risks related to health coverage for employees and job-related injuries of employees. Furthermore, the Board is a participant in the self-insured public entity risk pool administered by the Board of Risk and Insurance Management. Coverage is in the amount of \$1,000,000 per occurrence for general liability and property damage.

**West Virginia Consolidated Public Retirement Board**  
***Notes to the Financial Statements (Continued)***

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**9 - NEW ACCOUNTING PRONOUNCEMENTS**

Recent Statements Issued by the Governmental Accounting Standards Board

The GASB issued Statement No. 99, *Omnibus 2022*, to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees. This statement is effective through fiscal year 2024, and management has not yet determined the financial statement impact of the pronouncement.

The GASB issued Statement No. 100, *Accounting Changes and Error Corrections—An Amendment of GASB Statement No. 62*, to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. This statement is effective for fiscal year 2024, and management has not yet determined the financial statement impact of the pronouncement.

The GASB issued Statement No. 101, *Compensated Absences*, to better meet the information needs of financial statement users by updating the recognition and measurement guidance for compensated absences. That objective is achieved by aligning the recognition and measurement guidance under a unified model and by amending certain previously required disclosures. This statement is effective for fiscal year 2025, and management has not yet determined the financial statement impact of the pronouncement.

**REQUIRED SUPPLEMENT INFORMATION**



West Virginia Consolidated Public Retirement Board  
*Financial Section*  
*Required Supplemental Information*

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# West Virginia Consolidated Public Retirement Board

## Financial Section

### Required Supplemental Information

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30

	PERS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total pension liability:</b>										
Service cost	\$ 159,370	\$ 145,632	\$ 142,897	\$ 130,480	\$ 123,401	\$ 121,228	\$ 124,019	\$ 124,129	\$ 123,073	\$ 137,207
Interest	600,658	582,525	566,913	549,214	527,407	519,350	504,275	490,075	475,335	456,022
Differences between actual and expected experience	305,589	31,603	15,330	80,207	104,199	(26,020)	16,954	(1,271)	674	152,277
Change in benefit terms	-	8,828	-	(20,850)	-	2,500	-	-	-	-
Assumption changes	(21,955)	-	-	236,067	-	(55,650)	-	-	-	(89,556)
Benefit payments	(542,093)	(522,340)	(502,719)	(479,094)	(463,550)	(448,747)	(434,184)	(412,779)	(394,454)	(374,164)
<b>Net change in total pension liability</b>	<b>501,569</b>	<b>246,248</b>	<b>222,421</b>	<b>496,024</b>	<b>291,457</b>	<b>112,661</b>	<b>211,064</b>	<b>200,154</b>	<b>204,628</b>	<b>281,786</b>
<b>Total pension liability, beginning</b>	<b>8,396,617</b>	<b>8,150,369</b>	<b>7,927,948</b>	<b>7,431,924</b>	<b>7,140,467</b>	<b>7,027,806</b>	<b>6,816,742</b>	<b>6,616,588</b>	<b>6,411,960</b>	<b>6,130,174</b>
<b>Total pension liability, ending (a)</b>	<b>8,898,186</b>	<b>8,396,617</b>	<b>8,150,369</b>	<b>7,927,948</b>	<b>7,431,924</b>	<b>7,140,467</b>	<b>7,027,806</b>	<b>6,816,742</b>	<b>6,616,588</b>	<b>6,411,960</b>
<b>Plan fiduciary net position:</b>										
Contributions - employer	166,916	163,475	167,761	159,259	155,230	147,031	152,541	165,676	186,867	189,947
Contributions - member	95,542	89,190	81,165	78,762	75,857	70,357	65,150	64,599	62,982	61,838
Net investment income	945,162	669,213	(542,500)	2,170,293	215,355	393,179	606,303	875,090	(6,827)	219,329
Benefit payments	(542,093)	(522,340)	(502,719)	(479,094)	(463,550)	(448,747)	(434,184)	(412,779)	(394,454)	(374,164)
Administrative expense	(4,124)	(3,736)	(3,520)	(6,311)	(6,186)	(6,915)	(6,850)	(4,989)	(4,887)	(4,785)
Other	301	(2,032)	1,258	(20,278)	1,093	995	1,497	120	142	282
<b>Net change in plan fiduciary net position</b>	<b>661,704</b>	<b>393,770</b>	<b>(798,555)</b>	<b>1,902,631</b>	<b>(22,201)</b>	<b>155,900</b>	<b>384,457</b>	<b>687,717</b>	<b>(156,177)</b>	<b>92,447</b>
<b>Plan fiduciary net position, beginning</b>	<b>8,401,099</b>	<b>8,007,329</b>	<b>8,805,884</b>	<b>6,903,253</b>	<b>6,925,454</b>	<b>6,769,554</b>	<b>6,385,097</b>	<b>5,697,470</b>	<b>5,853,556</b>	<b>5,761,109</b>
Prior period adjustment	-	-	-	-	-	-	-	(90)	91	-
<b>Plan fiduciary net position, beginning, as restated</b>	<b>8,401,099</b>	<b>8,007,329</b>	<b>8,805,884</b>	<b>6,903,253</b>	<b>6,925,454</b>	<b>6,769,554</b>	<b>6,385,097</b>	<b>5,697,380</b>	<b>5,853,647</b>	<b>5,761,109</b>
<b>Plan fiduciary net position, ending (b)</b>	<b>9,062,803</b>	<b>8,401,099</b>	<b>8,007,329</b>	<b>8,805,884</b>	<b>6,903,253</b>	<b>6,925,454</b>	<b>6,769,554</b>	<b>6,385,097</b>	<b>5,697,470</b>	<b>5,853,556</b>
<b>Net pension liability (asset), ending (a) - (b)</b>	<b>\$ (164,617)</b>	<b>\$ (4,482)</b>	<b>\$ 143,040</b>	<b>\$ (877,936)</b>	<b>\$ 528,671</b>	<b>\$ 215,013</b>	<b>\$ 258,252</b>	<b>\$ 431,645</b>	<b>\$ 919,118</b>	<b>\$ 558,404</b>
<b>Plan fiduciary net position as a percentage of total pension liability</b>	<b>101.85%</b>	<b>100.05%</b>	<b>98.24%</b>	<b>111.07%</b>	<b>92.89%</b>	<b>96.99%</b>	<b>96.33%</b>	<b>93.67%</b>	<b>86.11%</b>	<b>91.29%</b>
<b>Covered payroll</b>	<b>1,872,492</b>	<b>1,655,199</b>	<b>1,611,398</b>	<b>1,574,183</b>	<b>1,497,636</b>	<b>1,388,662</b>	<b>1,430,577</b>	<b>1,414,584</b>	<b>1,392,113</b>	<b>1,373,129</b>
<b>Net pension liability (asset) as a percentage of covered payroll</b>	<b>-8.79%</b>	<b>-0.27%</b>	<b>8.88%</b>	<b>-55.77%</b>	<b>35.30%</b>	<b>15.48%</b>	<b>18.05%</b>	<b>30.51%</b>	<b>66.02%</b>	<b>40.67%</b>

See Independent Auditor's Report and Notes to Required Supplementary Information

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Required Supplemental Information**

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	TRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 172,841	\$ 160,164	\$ 156,772	\$ 150,254	\$ 149,759	\$ 141,472	\$ 146,797	\$ 153,006	\$ 149,857	\$ 146,798
Interest	826,967	818,175	811,208	808,482	794,751	792,389	786,313	780,855	753,418	744,455
Differences between actual and expected experience	193,947	20,180	18,895	96,300	83,412	(69,708)	(19,576)	(52,290)	45,210	(36,005)
Change in benefit terms	-	15,200	-	-	-	5,200	-	-	-	-
Assumption changes	-	-	-	228,777	17,404	-	-	-	195,343	-
Benefit payments	(912,429)	(897,831)	(890,519)	(871,516)	(853,967)	(838,309)	(816,102)	(789,058)	(759,503)	(718,838)
Net change in total pension liability	281,326	115,888	96,356	412,297	191,359	31,044	97,432	92,513	384,325	136,410
Total pension liability, beginning	11,689,810	11,573,922	11,477,566	11,065,269	10,873,910	10,842,866	10,745,434	10,652,921	10,268,596	10,132,186
Total pension liability, ending (a)	11,971,136	11,689,810	11,573,922	11,477,566	11,065,269	10,873,910	10,842,866	10,745,434	10,652,921	10,268,596
Plan fiduciary net position:										
Contributions - employer	446,644	452,521	483,005	417,334	463,840	481,986	471,837	451,447	426,678	490,640
Contributions - member	111,006	104,432	95,694	97,258	96,511	92,759	89,128	91,503	95,177	94,694
Other statutorily required contributions	-	-	-	-	-	-	-	-	-	-
Other contributions - appropriations	-	-	-	-	-	-	-	-	-	-
Net investment income	1,039,146	739,885	(600,544)	2,429,811	241,591	444,661	688,273	994,989	(18,402)	255,988
Benefit payments	(912,429)	(897,831)	(890,519)	(871,516)	(853,967)	(838,309)	(816,102)	(789,058)	(759,503)	(718,838)
Administrative expense	(4,576)	(4,192)	(3,951)	(5,221)	(5,525)	(6,239)	(6,035)	(4,582)	(4,507)	(4,432)
Other	3,974	3,732	3,385	2,793	3,139	3,272	3,046	3,077	302	3,197
Net change in plan fiduciary net position	683,765	398,547	(912,930)	2,070,459	(54,411)	178,130	430,147	747,376	(260,255)	121,249
Plan fiduciary net position, beginning	9,400,404	9,001,857	9,914,787	7,844,328	7,898,739	7,720,609	7,290,462	6,543,087	6,803,342	6,682,093
Prior period adjustment	-	-	-	-	-	-	-	(1)	-	-
Plan fiduciary net position, beginning, as restated	9,400,404	9,001,857	9,914,787	7,844,328	7,898,739	7,720,609	7,290,462	6,543,086	6,803,342	6,682,093
Plan fiduciary net position, ending (b)	10,084,169	9,400,404	9,001,857	9,914,787	7,844,328	7,898,739	7,720,609	7,290,462	6,543,087	6,803,342
Net pension liability (asset), ending (a) - (b)	\$ 1,886,967	\$ 2,289,406	\$ 2,572,065	\$ 1,562,779	\$ 3,220,941	\$ 2,975,171	\$ 3,122,257	\$ 3,454,972	\$ 4,109,834	\$ 3,465,254
Plan fiduciary net position as a percentage of total pension liability	84.24%	80.42%	77.78%	86.38%	70.89%	72.64%	71.20%	67.85%	61.42%	66.25%
Covered payroll	1,849,874	1,686,598	1,636,411	1,604,576	1,509,477	1,404,586	1,457,143	1,505,080	1,511,271	1,481,786
Net pension liability (asset) as a percentage of covered payroll	102.01%	135.74%	157.18%	97.40%	213.38%	211.82%	214.27%	229.55%	271.95%	233.86%

See Independent Auditor's Report and Notes to Required Supplementary Information

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Required Supplemental Information**

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	SPDDRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 35	\$ 66	\$ 98	\$ 89	\$ 153	\$ 540	\$ 931	\$ 1,071	\$ 1,263	\$ 1,774
Interest	56,819	56,660	56,238	56,154	55,378	54,438	54,004	53,131	51,913	50,748
Differences between actual and expected experience	599	(1,405)	1,458	(672)	4,601	6,331	(2,218)	47	6,283	4,344
Assumption changes	-	-	-	22,231	-	-	-	1,961	-	-
Benefit payments	(53,754)	(52,429)	(51,447)	(50,228)	(49,225)	(47,551)	(45,529)	(43,325)	(41,969)	(39,708)
Net change in total pension liability	3,699	2,892	6,347	27,574	10,907	13,758	7,188	12,885	17,490	17,158
Total pension liability, beginning	810,558	807,666	801,319	773,745	762,838	749,080	741,892	729,007	711,517	694,359
Total pension liability, ending (a)	814,257	810,558	807,666	801,319	773,745	762,838	749,080	741,892	729,007	711,517
Plan fiduciary net position:										
Contributions - employer	10,038	40	17,842	16,699	13,246	15,595	24,829	17,155	13,977	21,668
Contributions - member	4	21	26	34	35	110	186	362	320	445
Net investment income	85,901	62,950	(51,130)	208,656	21,252	38,174	60,939	87,793	(1,230)	22,866
Benefit payments	(53,754)	(52,429)	(51,447)	(50,228)	(49,225)	(47,551)	(45,529)	(43,325)	(41,969)	(39,708)
Administrative expense	(382)	(358)	(340)	(54)	(54)	(63)	(61)	(45)	(48)	(51)
Other	665	705	721	822	530	752	691	847	590	861
Net change in plan fiduciary net position	42,472	10,929	(84,328)	175,929	(14,216)	7,017	41,055	62,787	(28,360)	6,081
Plan fiduciary net position, beginning	778,134	767,205	851,533	675,604	689,820	682,803	641,585	578,798	607,158	601,077
Prior period adjustment	-	-	-	-	-	-	163	-	-	-
Plan fiduciary net position, beginning, as restated	778,134	767,205	851,533	675,604	689,820	682,803	641,748	578,798	607,158	601,077
Plan fiduciary net position, ending (b)	820,606	778,134	767,205	851,533	675,604	689,820	682,803	641,585	578,798	607,158
Net pension liability (asset), ending (a) - (b)	\$ (6,349)	\$ 32,424	\$ 40,461	\$ (50,214)	\$ 98,141	\$ 73,018	\$ 66,277	\$ 100,307	\$ 150,209	\$ 104,359
Plan fiduciary net position as a percentage of total pension liability	100.78%	96.00%	94.99%	106.27%	87.32%	90.43%	91.15%	86.48%	79.40%	85.33%
Covered payroll	108	290	353	349	514	1,527	2,963	3,181	3,713	5,120
Net pension liability (asset) as a percentage of covered payroll	-5878.70%	11180.69%	11462.04%	-14387.97%	19093.58%	4781.79%	2236.82%	3153.32%	4045.49%	2038.26%

See Independent Auditor's Report and Notes to Required Supplementary Information

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Required Supplemental Information**

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	SPRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 10,734	\$ 10,019	\$ 9,258	\$ 8,794	\$ 8,533	\$ 7,456	\$ 7,617	\$ 6,827	\$ 6,750	\$ 6,337
Interest	26,683	24,431	21,236	19,210	16,918	14,654	13,496	11,410	10,113	9,024
Differences between actual and expected experience	16,079	4,600	3,451	513	7,888	(3,513)	(3,610)	(765)	1,636	(201)
Change in benefit terms	-	-	15,809	-	-	12,731	-	-	-	-
Assumption changes	-	-	-	12,476	-	-	-	11,192	-	-
Benefit payments	(10,263)	(7,146)	(5,743)	(3,599)	(2,498)	(1,944)	(1,842)	(1,454)	(1,071)	(1,051)
Net change in total pension liability	43,233	31,904	44,011	37,394	30,841	29,384	15,661	27,210	17,428	14,109
Total pension liability, beginning	362,443	330,539	286,528	249,134	218,293	188,909	173,248	146,038	128,610	114,501
Total pension liability, ending (a)	405,676	362,443	330,539	286,528	249,134	218,293	188,909	173,248	146,038	128,610
Plan fiduciary net position:										
Contributions - employer	13,296	8,100	9,428	7,928	4,850	4,556	4,205	3,657	3,887	4,060
Contributions - member	5,150	4,860	4,395	4,185	4,168	3,905	3,621	3,634	3,755	3,609
Net investment income	37,363	24,933	(19,815)	72,138	7,010	11,730	16,303	22,346	91	4,972
Benefit payments	(10,263)	(7,146)	(5,743)	(3,599)	(2,498)	(1,944)	(1,842)	(1,454)	(1,071)	(1,051)
Administrative expense	(157)	(135)	(120)	(59)	(67)	(60)	(60)	(64)	(47)	(45)
Other	35	129	-	-	-	-	-	-	(163)	-
Net change in plan fiduciary net position	45,424	30,741	(11,855)	80,593	13,463	18,187	22,227	28,119	6,452	11,545
Plan fiduciary net position, beginning	320,044	289,303	301,158	220,565	207,102	188,915	166,688	138,569	132,117	120,572
Plan fiduciary net position, ending (b)	365,468	320,044	289,303	301,158	220,565	207,102	188,915	166,688	138,569	132,117
Net pension liability (asset), ending (a) - (b)	\$ 40,208	\$ 42,399	\$ 41,236	\$ (14,630)	\$ 28,569	\$ 11,191	\$ (6)	\$ 6,560	\$ 7,469	\$ (3,507)
Plan fiduciary net position as a percentage of total pension liability	90.09%	88.30%	87.52%	105.11%	88.53%	94.87%	100.00%	96.21%	94.89%	102.73%
Covered payroll	43,230	38,809	35,120	34,946	33,904	30,938	32,291	31,582	31,792	29,574
Net pension liability (asset) as a percentage of covered payroll	93.01%	109.25%	117.41%	-41.86%	84.26%	36.17%	-0.02%	20.77%	23.49%	-11.86%

See Independent Auditor's Report and Notes to Required Supplementary Information

# West Virginia Consolidated Public Retirement Board

## Financial Section

### Required Supplemental Information

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)

(In Thousands)

Fiscal years Ending June 30

(Continued)

	DSRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 10,369	\$ 10,010	\$ 9,516	\$ 8,825	\$ 8,569	\$ 7,436	\$ 7,084	\$ 7,386	\$ 5,979	\$ 5,887
Interest	25,800	24,326	22,578	20,845	19,188	16,246	15,476	15,556	14,509	13,612
Differences between actual and expected experience	11,228	3,282	7,741	(42)	7,520	2,697	(1,370)	(10,162)	1,530	946
Change in benefit terms	-	-	-	1,935	-	24,170	-	-	-	-
Assumption changes	-	-	-	15,917	-	-	-	(3,174)	-	-
Benefit payments	(18,340)	(16,965)	(15,472)	(13,894)	(12,976)	(11,940)	(10,611)	(10,143)	(8,785)	(8,371)
Net change in total pension liability	29,057	20,653	24,363	33,586	22,301	38,609	10,579	(537)	13,233	12,074
Total pension liability, beginning	354,658	334,005	309,642	276,056	253,755	215,146	204,567	205,104	191,871	179,797
Total pension liability, ending (a)	383,715	354,658	334,005	309,642	276,056	253,755	215,146	204,567	205,104	191,871
Plan fiduciary net position:										
Contributions - employer	11,834	8,811	8,258	7,213	6,861	6,705	6,194	5,922	6,071	5,972
Contributions - member	6,294	5,776	5,531	5,177	4,860	4,846	4,416	4,163	4,306	4,068
Net investment income	36,250	24,926	(19,974)	76,547	7,528	13,200	19,361	27,282	(44)	6,534
Benefit payments	(18,340)	(16,965)	(15,472)	(13,894)	(12,976)	(11,940)	(10,611)	(10,143)	(8,785)	(8,371)
Administrative expense	(155)	(137)	(126)	(136)	(133)	(145)	(137)	(102)	(102)	(95)
Other	441	323	404	558	404	479	471	431	463	505
Net change in plan fiduciary net position	36,324	22,734	(21,379)	75,465	6,544	13,145	19,694	27,553	1,909	8,613
Plan fiduciary net position, beginning	317,023	294,289	315,668	240,203	233,659	220,514	200,820	173,268	171,359	162,746
Prior period adjustment	-	-	-	-	-	-	-	(1)	-	-
Plan fiduciary net position, beginning, as restated	317,023	294,289	315,668	240,203	233,659	220,514	200,820	173,267	171,359	162,746
Plan fiduciary net position, ending (b)	353,347	317,023	294,289	315,668	240,203	233,659	220,514	200,820	173,268	171,359
Net pension liability (asset), ending (a) - (b)	\$ 30,368	\$ 37,635	\$ 39,716	\$ (6,026)	\$ 35,853	\$ 20,096	\$ (5,368)	\$ 3,747	\$ 31,836	\$ 20,512
Plan fiduciary net position as a percentage of total pension liability	92.09%	89.39%	88.11%	101.95%	87.01%	92.08%	102.50%	98.17%	84.48%	89.31%
Covered payroll	69,844	65,637	62,284	59,289	57,698	53,676	49,915	51,004	49,081	46,634
Net pension liability (asset) as a percentage of covered payroll	43.48%	57.34%	63.77%	-10.16%	62.14%	37.44%	-10.75%	7.35%	64.86%	43.99%

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**West Virginia Consolidated Public Retirement Board**  
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SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	JRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 4,194	\$ 2,855	\$ 2,590	\$ 2,358	\$ 2,640	\$ 2,406	\$ 2,587	\$ 2,466	\$ 2,681	\$ 2,812
Interest	9,327	8,138	7,905	8,735	8,711	8,608	8,539	8,521	8,478	8,458
Differences between actual and expected experience	(5,872)	(3,984)	(2,457)	(19,046)	(5,885)	(4,959)	(6,054)	(6,101)	(5,813)	(6,506)
Change in benefit terms	13,345	-	-	-	-	-	-	-	-	-
Assumption changes	-	-	-	5,218	-	-	962	-	-	-
Benefit payments	(5,466)	(5,134)	(5,046)	(4,810)	(4,897)	(4,933)	(4,932)	(4,609)	(4,429)	(4,313)
Net change in total pension liability	15,528	1,875	2,992	(7,545)	569	1,122	1,102	277	917	451
Total pension liability, beginning	113,841	111,966	108,974	116,519	115,950	114,828	113,726	113,449	112,532	112,081
Total pension liability, ending (a)	129,369	113,841	111,966	108,974	116,519	115,950	114,828	113,726	113,449	112,532
Plan fiduciary net position:										
Contributions - employer	854	797	1,052	886	791	779	735	739	739	2,845
Contributions - member	402	369	319	295	301	331	364	372	401	413
Net investment income	31,738	22,031	(17,631)	68,611	6,850	12,085	18,373	26,270	(175)	6,525
Benefit payments	(5,466)	(5,134)	(5,046)	(4,810)	(4,897)	(4,933)	(4,932)	(4,609)	(4,429)	(4,313)
Administrative expense	(137)	(121)	(112)	(10)	(10)	(11)	(8)	(6)	(6)	(6)
Other	490	1,303	-	-	-	(86)	-	(4)	(39)	-
Net change in plan fiduciary net position	27,881	19,245	(21,418)	64,972	3,035	8,165	14,532	22,762	(3,509)	5,464
Plan fiduciary net position, beginning	278,487	259,242	280,660	215,688	212,653	204,488	189,956	167,194	170,703	165,239
Plan fiduciary net position, ending (b)	306,368	278,487	259,242	280,660	215,688	212,653	204,488	189,956	167,194	170,703
Net pension liability (asset), ending (a) - (b)	\$ (176,999)	\$ (164,646)	\$ (147,276)	\$ (171,686)	\$ (99,169)	\$ (96,703)	\$ (89,660)	\$ (76,230)	\$ (53,745)	\$ (58,171)
Plan fiduciary net position as a percentage of total pension liability	236.82%	244.63%	231.54%	257.55%	185.11%	183.40%	178.08%	167.03%	147.37%	151.69%
Covered payroll	15,655	11,289	10,504	9,752	9,752	9,374	9,500	9,122	8,870	9,248
Net pension liability (asset) as a percentage of covered payroll	-1130.62%	-1458.46%	-1402.09%	-1760.52%	-1016.91%	-1031.61%	-943.79%	-835.87%	-605.92%	-629.01%

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# West Virginia Consolidated Public Retirement Board

## Financial Section

### Required Supplemental Information

SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	EMSRs									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 5,033	\$ 4,104	\$ 4,012	\$ 3,431	\$ 3,286	\$ 3,272	\$ 3,189	\$ 3,402	\$ 3,187	\$ 2,969
Interest	8,759	8,235	7,437	6,668	6,117	5,911	5,463	5,107	4,649	4,345
Differences between actual and expected experience	2,547	(2,573)	4,887	3,073	2,317	(2,208)	1,147	(1,079)	724	(1,067)
Change in benefit terms	-	2,433	-	-	-	-	-	1,545	-	-
Assumption changes	-	-	-	4,818	-	-	-	(792)	-	-
Benefit payments	(6,046)	(5,761)	(5,075)	(4,714)	(4,317)	(4,176)	(3,653)	(2,776)	(2,558)	(2,266)
Net change in total pension liability	10,293	6,438	11,261	13,276	7,403	2,799	6,146	5,407	6,002	3,981
Total pension liability, beginning	118,805	112,367	101,106	87,830	80,427	77,628	71,482	66,075	60,073	56,092
Total pension liability, ending (a)	129,098	118,805	112,367	101,106	87,830	80,427	77,628	71,482	66,075	60,073
Plan fiduciary net position:										
Contributions - employer	4,758	3,662	3,610	3,523	3,078	2,844	2,765	2,859	2,744	2,607
Contributions - member	4,260	3,272	2,924	2,842	2,531	2,302	2,231	2,314	2,222	2,071
Net investment income	14,498	9,618	(7,672)	28,643	2,817	4,774	6,867	9,506	18	2,144
Benefit payments	(6,046)	(5,761)	(5,075)	(4,714)	(4,317)	(4,176)	(3,653)	(2,776)	(2,558)	(2,266)
Administrative expense	(62)	(53)	(47)	(78)	(73)	(77)	(73)	(53)	(50)	(45)
Other	-	2,232	-	-	-	-	-	-	1	(1)
Net change in plan fiduciary net position	17,408	12,970	(6,260)	30,216	4,036	5,667	8,137	11,850	2,377	4,510
Plan fiduciary net position, beginning	125,931	112,961	119,221	89,005	84,969	79,302	71,165	59,315	56,937	53,646
Prior period adjustment	-	-	-	-	-	-	-	-	1	(1,219)
Plan fiduciary net position, beginning, as restated	125,931	112,961	119,221	89,005	84,969	79,302	71,165	59,315	56,938	52,427
Plan fiduciary net position, ending (b)	143,339	125,931	112,961	119,221	89,005	84,969	79,302	71,165	59,315	56,937
Net pension liability (asset), ending (a) - (b)	\$ (14,241)	\$ (7,126)	\$ (594)	\$ (18,115)	\$ (1,175)	\$ (4,542)	\$ (1,674)	\$ 317	\$ 6,760	\$ 3,136
Plan fiduciary net position as a percentage of total pension liability	111.03%	106.00%	100.53%	117.92%	101.34%	105.65%	102.16%	99.56%	89.77%	94.78%
Covered payroll	42,058	33,642	34,071	29,395	26,536	26,024	27,421	26,992	25,963	24,145
Net pension liability (asset) as a percentage of covered payroll	-33.86%	-21.18%	-1.74%	-61.63%	-4.43%	-17.45%	-6.10%	1.17%	26.04%	12.99%

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SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)  
(In Thousands)  
Fiscal years Ending June 30  
(Continued)

	MPFRS									
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability:										
Service cost	\$ 4,628	\$ 3,744	\$ 3,263	\$ 2,343	\$ 1,907	\$ 1,734	\$ 1,086	\$ 984	\$ 687	\$ 485
Interest	2,089	1,513	1,178	812	637	447	280	214	131	74
Differences between actual and expected experience	1,729	907	206	333	(373)	450	444	12	38	49
Change in benefit terms	1,392	1,497	-	-	-	-	-	-	-	-
Assumption changes	-	-	-	1,375	-	-	-	(320)	-	-
Benefit payments	(611)	(598)	(406)	(314)	(248)	(298)	(145)	(79)	(34)	(49)
Net change in total pension liability	9,227	7,063	4,241	4,549	1,923	2,333	1,665	811	822	559
Total pension liability, beginning	24,488	17,425	13,184	8,635	6,712	4,379	2,714	1,903	1,081	522
Total pension liability, ending (a)	33,715	24,488	17,425	13,184	8,635	6,712	4,379	2,714	1,903	1,081
Plan fiduciary net position:										
Contributions - employer	3,592	3,168	2,672	2,136	1,721	1,438	1,089	846	644	417
Contributions - member	3,592	3,168	2,673	2,158	1,717	1,438	1,087	846	644	417
Net investment income	4,455	2,536	(1,830)	5,202	437	649	547	606	28	66
Benefit payments	(611)	(598)	(406)	(314)	(248)	(298)	(145)	(79)	(34)	(49)
Administrative expense	(17)	(12)	(10)	(41)	(36)	(35)	(23)	(14)	(11)	(7)
Other	271	19	-	68	1	28	-	-	1	-
Net change in plan fiduciary net position	11,282	8,281	3,099	9,209	3,592	3,220	2,555	2,205	1,272	844
Plan fiduciary net position, beginning	35,478	27,197	24,098	14,889	11,297	8,077	5,522	3,317	2,046	1,202
Prior period adjustment	-	-	-	-	-	-	-	-	(1)	-
Plan fiduciary net position, beginning, as restated	35,478	27,197	24,098	14,889	11,297	8,077	5,522	3,317	2,045	1,202
Plan fiduciary net position, ending (b)	46,760	35,478	27,197	24,098	14,889	11,297	8,077	5,522	3,317	2,046
Net pension liability (asset), ending (a) - (b)	\$ (13,045)	\$ (10,990)	\$ (9,772)	\$ (10,914)	\$ (6,254)	\$ (4,585)	\$ (3,698)	\$ (2,808)	\$ (1,414)	\$ (965)
Plan fiduciary net position as a percentage of total pension liability	138.69%	144.86%	156.08%	182.78%	172.43%	168.31%	184.45%	203.46%	174.30%	189.27%
Covered payroll	40,011	34,242	28,785	21,972	17,831	15,132	10,448	7,898	5,483	3,784
Net pension liability (asset) as a percentage of covered payroll	-32.60%	-32.10%	-33.95%	-49.67%	-35.07%	-30.30%	-35.39%	-35.55%	-25.79%	-25.50%

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**West Virginia Consolidated Public Retirement Board**  
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SCHEDULES OF NET PENSION LIABILITY AND CHANGES IN NET PENSION LIABILITY (ASSET)

(In Thousands)

Fiscal years Ending June 30

(Continued)

	NRPORS			
	2024	2023	2022	2021
Total pension liability:				
Service cost	\$ 1,311	\$ 1,223	\$ 1,095	\$ 494
Interest	2,466	2,323	2,126	18
Differences between actual and expected experience	3,204	(1,106)	(622)	-
Change in benefit terms	461	-	441	25,978
Assumption changes	-	-	-	1,960
Benefit payments	(613)	(480)	(421)	(10)
Net change in total pension liability	6,829	1,960	2,619	28,440
Total pension liability, beginning	33,019	31,059	28,440	-
Total pension liability, ending (a)	39,848	33,019	31,059	28,440
Plan fiduciary net position:				
Contributions - employer	973	856	779	332
Contributions - member	771	678	615	263
Net investment income (loss)	3,259	2,128	(1,661)	2,996
Benefit payments	(613)	(480)	(421)	(10)
Administrative expense	(14)	(11)	(10)	-
Other	95	-	162	21,432
Net change in plan fiduciary net position	4,471	3,171	(536)	25,013
Plan fiduciary net position, beginning	27,648	24,477	25,013	-
Prior period adjustment	-	-	-	-
Plan fiduciary net position, beginning, as restated	27,648	24,477	25,013	-
Plan fiduciary net position, ending (b)	32,119	27,648	24,477	25,013
Net pension liability (asset), ending (a) - (b)	\$ 7,729	\$ 5,371	\$ 6,582	\$ 3,427
Plan fiduciary net position as a percentage of total pension liability	80.60%	83.73%	78.81%	87.95%
Covered payroll	7,476	6,589	6,224	6,220
Net pension liability (asset) as a percentage of covered payroll	103.38%	81.51%	105.75%	55.10%

*This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10 the Board will present information for the years for which information is available.*

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**West Virginia Consolidated Public Retirement Board**  
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SCHEDULES OF CONTRIBUTIONS

(In Thousands)

Fiscal Year Ended June 30,

	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contributions as a % of Covered Payroll
<b>PERS</b>					
2024	\$ 105,939	\$ 166,916	\$ (60,977)	\$ 1,872,492	8.91 %
2023	98,415	163,475	(65,060)	1,655,199	9.88
2022	98,477	167,761	(69,284)	1,611,398	10.41
2021	106,467	159,259	(52,792)	1,574,183	10.12
2020	109,904	155,230	(45,326)	1,497,636	10.37
2019	115,775	147,031	(31,256)	1,388,662	10.59
2018	124,363	152,541	(28,178)	1,430,577	10.66
2017	138,663	165,676	(27,013)	1,414,584	11.71
2016	149,481	186,867	(37,386)	1,392,113	13.42
2015	183,658	189,947	(6,289)	1,373,129	13.83
<b>TRS (1)</b>					
2024	\$ 379,228	\$ 446,644	\$ (67,416)	\$ 1,849,874	24.14 %
2023	407,183	452,521	(45,338)	1,686,598	26.83
2022	412,124	483,005	(70,881)	1,636,411	29.52
2021	418,494	417,334	1,160	1,604,576	26.01
2020	413,728	463,840	(50,112)	1,509,477	30.73
2019	433,203	481,986	(48,783)	1,404,586	34.32
2018	443,800	471,837	(28,037)	1,457,143	32.38
2017	413,976	451,447	(37,471)	1,505,080	29.99
2016	387,685	426,678	(38,993)	1,511,271	28.23
2015	454,721	490,640	(35,919)	1,481,786	33.11
<b>SPDDRS (2)</b>					
2024	\$ 9,984	\$ 10,038	\$ (54)	\$ 108	9,294.44 %
2023	47	40	7	290	13.79
2022	17,798	17,842	(44)	353	5,054.39
2021	16,648	16,699	(51)	349	4,784.81
2020	13,187	13,246	(59)	514	2,577.04
2019	15,162	15,595	(433)	1,527	1,021.28
2018	24,675	24,829	(154)	2,963	837.97
2017	16,875	17,155	(280)	3,181	539.30
2016	13,209	13,977	(768)	3,713	376.43
2015	20,860	21,668	(808)	5,120	423.20

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SCHEDULES OF CONTRIBUTIONS

(In Thousands)

Fiscal Year Ended June 30,

	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contributions as a % of Covered Payroll
<b>SPRS</b>					
2024	\$ 14,713	\$ 13,296	\$ 1,417	\$ 43,230	30.76 %
2023	12,937	8,100	4,837	38,809	20.87
2022	7,094	9,428	(2,334)	35,120	26.85
2021	9,778	7,928	1,850	34,946	22.69
2020	7,716	4,850	2,866	33,904	14.31
2019	4,180	4,556	(376)	30,938	14.73
2018	4,726	4,205	521	32,291	13.02
2017	4,427	3,657	770	31,582	11.58
2016	3,402	3,887	(485)	31,792	12.23
2015	3,183	4,060	(877)	29,574	13.73
<b>DSRS (3)</b>					
2024	\$ 12,126	\$ 11,834	\$ 292	\$ 69,844	16.94 %
2023	10,985	8,811	2,174	65,637	13.42
2022	10,185	8,258	1,927	62,284	13.26
2021	7,762	7,213	549	59,289	12.17
2020	6,916	6,861	55	57,698	11.89
2019	5,390	6,705	(1,315)	53,676	12.49
2018	2,681	6,194	(3,513)	49,915	12.41
2017	4,561	5,922	(1,361)	51,004	11.61
2016	3,498	6,071	(2,573)	49,081	12.37
2015	3,681	5,972	(2,291)	46,634	12.81
<b>JRS</b>					
2024	\$ 854	\$ 854	\$ -	\$ 15,655	5.46 %
2023	797	797	\$ -	11,289	7.06
2022	742	1,052	(310)	10,504	10.02
2021	838	886	(48)	9,752	9.09
2020	791	791	-	9,752	8.11
2019	779	779	-	9,374	8.31
2018	735	735	-	9,500	7.74
2017	709	739	(30)	9,122	8.10
2016	739	739	-	8,870	8.33
2015	2,845	2,845	-	9,248	30.76

See Independent Auditor's Report and Notes to Required Supplementary Information

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
**Required Supplemental Information**

SCHEDULES OF CONTRIBUTIONS

(In Thousands)

Fiscal Year Ended June 30,

	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contributions as a % of Covered Payroll
<b>EMSRS</b>					
2024	\$ 1,857	\$ 4,758	\$ (2,901)	\$ 42,058	11.31 %
2023	1,428	3,662	(2,234)	33,642	10.89
2022	1,306	3,610	(2,304)	34,071	10.60
2021	1,310	3,523	(2,213)	29,395	11.99
2020	1,167	3,078	(1,911)	26,536	11.60
2019	1,190	2,844	(1,654)	26,024	10.93
2018	1,053	2,765	(1,712)	27,421	10.08
2017	1,870	2,859	(989)	26,992	10.59
2016	1,311	2,744	(1,433)	25,963	10.57
2015	1,198	2,607	(1,409)	24,145	10.80
<b>MPFRS</b>					
2024	\$ 1,763	\$ 3,592	\$ (1,829)	\$ 40,011	8.98 %
2023	1,294	3,168	(1,874)	34,242	9.25
2022	1,002	2,672	(1,670)	28,785	9.28
2021	706	2,136	(1,430)	21,972	9.72
2020	588	1,721	(1,133)	17,831	9.65
2019	510	1,438	(928)	15,132	9.50
2018	324	1,089	(765)	10,448	10.42
2017	349	846	(497)	7,898	10.71
2016	239	644	(405)	5,483	11.75
2015	178	417	(239)	3,784	11.02
<b>NRPORS</b>					
2024	\$ 1,158	\$ 973	\$ 185	\$ 7,476	13.01 %
2023	829	856	(27)	6,589	12.99
2022	751	779	(28)	6,224	12.52
2021	356	332	24	6,220	5.34

*This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Board should present information for those years for which information is available.*

Notes:

- (1) Contributions for the Teachers Retirement System include employer contributions and interest from out-of-state services and surcharges on fire and casualty insurance policies which specifically identified to fund the plan per West Virginia State Code Section 33-3-14d and 33-33-33.
- (2) Contributions for SPDDRS include employer contributions and other payments designated by WV Code Section 15-2-26 – Payments to members for court attendance and mileage; rewards for apprehending wanted persons; fees for traffic accidents reports and photographs; fees from criminal history record reviews and challenges; or from any other sources designated by the superintendent.
- (3) Contributions for DSRS include employer contributions and various other fees designated for the fund from charges and fees per WV State Code Section 7-14E-2 and 17A-3-17 – Charges for obtaining reports (i.e., accident reports); fees from performing certain services (adult private employer finger printing for federal firearm permits, motor vehicle number identification, adult identification card, and photo-identification card); fees for nongovernmental background investigation reports; and fees for renewal of a Class A or G vehicle registration.

**West Virginia Consolidated Public Retirement Board**  
**Financial Section**  
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SCHEDULES OF INVESTMENT RETURNS (1)  
 Fiscal Years Ended June 30,

Retirement System (2):	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
PERS	11.34%	8.51%	-6.25%	32.02%	3.16%	5.94%	9.75%	15.82%	-0.12%	3.93%
TRS	11.27%	8.47%	-6.20%	31.93%	3.14%	5.93%	9.74%	15.70%	-0.28%	3.92%
SPDDRS	11.29%	8.49%	-6.17%	31.99%	3.18%	5.78%	9.83%	15.71%	-0.21%	3.92%
SPRS	11.42%	8.54%	-6.50%	32.13%	3.32%	6.11%	9.61%	15.86%	-0.07%	4.03%
DSRS	11.36%	8.53%	-6.37%	32.07%	3.22%	6.01%	9.69%	15.83%	-0.04%	3.97%
JRS	11.36%	8.54%	-6.33%	32.09%	3.24%	5.97%	9.77%	15.88%	0.10%	3.97%
EMSRS	11.35%	8.53%	-6.43%	32.05%	3.30%	6.03%	9.64%	15.87%	0.30%	4.04%
MPFRS	11.65%	8.66%	-7.03%	31.86%	3.49%	6.72%	8.86%	15.72%	1.13%	4.37%
NRPORS	11.45%	8.55%	-6.51%	13.91%	n/a	n/a	n/a	n/a	n/a	n/a

(1) This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, WV CPRB will present information for those years for which information is available.

(2) Annual money-weighted rate of return, net of investment expenses

See Independent Auditor's Report

West Virginia Consolidated Public Retirement Board  
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**SUPPLEMENTARY INFORMATION**



West Virginia Consolidated Public Retirement Board  
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**West Virginia Consolidated Public Retirement Board**  
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Schedule of Administrative Expenses  
(In Thousands)  
Year ended June 30, 2024

Salaries	\$ 4,762
Employee Benefits	1,312
Occupancy	120
Computer Services	1,622
Legal	198
External Actuarial Services	241
Accounting, Auditing, and other consultants	382
Third Party Administrator's Fees*	319
Disability Exams	65
Office Expense	359
Depreciation and Amortization	4,259
Postage	123
Insurance	32
Travel	30
Miscellaneous and other	72
<b>Total Administrative Expenses</b>	<b>\$ 13,896</b>

\* Third Party Administrative fees relate to the Teacher's Defined Contribution Retirement System only

**West Virginia Consolidated Public Retirement Board**  
***Financial Section***  
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The following were the payments to consultants for the year ended June 30, 2024:

Legal Services:		
Bowles Rice, LLP	\$	87,836
Actuarial Services:		
Buck Consulting	\$	241,049
Auditing Services:		
Eide Bailly, LLP	\$	211,000

# Investment Section



2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT  
*For the Fiscal Year Ended June 30, 2024*

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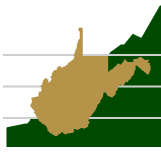
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## West Virginia Investment Management Board

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December 16, 2024

Consolidated Public Retirement Board  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

On behalf of the West Virginia Investment Management Board (WVIMB), it is with great pleasure that I submit the investment section of the West Virginia Consolidated Public Retirement Board's (WV CPRB) annual comprehensive financial report for the fiscal year ended June 30, 2024.

As described in more detail herein, the WVIMB is a public body corporate, an independent organization statutorily charged with the responsibility for investing all long-term assets of the State of West Virginia. Included in these assets are all nine of the defined benefit pension plans administered by the WV CPRB. As an investment fiduciary, the WVIMB's only focus is to invest the assets entrusted to it in the best interest of the beneficiaries. The WVIMB has established investment pools structured by specific asset classes. The WV CPRB's investments in the WVIMB's investment pools are carried at fair value using the net asset value per share as a practical expedient. Note that in this section, the defined benefit pension plans as a group are generally referred to as "Participant Plans." To a large extent, each participant plan's performance is a function of the asset classes in which it invests. As such, a review of asset class performance for the year may be helpful.

As the fiscal year ending June 30, 2024, unfolded, concerns in the U.S. about inflation and the Federal Reserve's efforts to contain it were pervasive. Typically, tightening cycles precipitate recessions as rate increases necessary to tame inflation cause economic activity to slow. As the year progressed, inflation, generally, slowed in line with the Federal Reserve's efforts, yet growth remained resilient, raising hopes that the Federal Reserve might be able to engineer a "soft landing," avoiding a recession. The third quarter of the fiscal year called this narrative into question, as inflation saw a slight uptick and growth rates slowed somewhat, but by the end of the fiscal year, growth again surprised on the upside while inflation showed renewed improvement. U.S. core inflation fell from 4.1 percent in the first quarter to 3.3 percent year over year by the end of the fiscal year. Capital markets were upbeat with the prospect of a Federal Reserve rate cut in the near future. Meanwhile, growth for the year was positive in international developed markets, but only barely, while inflation fell. Emerging markets saw stronger growth, but still muted relative to expectations. China continued to struggle with deflationary pressures resulting from poor economic conditions and a declining population. Regardless, results were positive across capital markets. U.S. stocks were up 23.1 percent (Russell 3000), and international stocks were up 11.6 percent (MSCI ACWI ex U.S. IMI). Fixed income was also up 3.5 percent (Bloomberg U.S. Universal).

The WVIMB's performance relative to respective benchmarks was, generally, as expected or better. The WVIMB large-cap U.S. public stock portfolio returned 25.4 percent, outperforming its benchmark (S&P 500) by 0.8 percent. The non-large cap U.S. stock portfolio returned 13.6 percent, outperforming its benchmark (Russell 2500) by 3.2 percent. The WVIMB's international public stock portfolio returned 15.1 percent, outperforming its benchmark (MSCI ACWI ex U.S. IMI) by 2.9 percent. The fixed income portfolio generated a positive return of 4.8 percent, beating the benchmark (Bloomberg U.S. Universal) by 1.3 percent. Performance measurement of private market assets, which includes private equity, private real estate, and private credit, is fraught with measurement issues, so it is less meaningful over shorter time periods. Private equity returned 5.0 percent and real estate returned (6.0) percent. The private credit portfolio returned 6.4 percent for the year. The hedge fund portfolio, which is intended to be a diversifying component of the entire portfolio, returned 13.7 percent, which bettered its benchmark (HFRI FOF plus 1 percent) by 4.0 percent.

For general comparison purposes, the WVIMB uses the Public Employees' Retirement System (PERS) as a proxy for the other pension plans because of its similarity to other statewide public pension plans across the nation. As of June 30, 2024, the return for PERS was 11.5 percent, net of expenses, for the fiscal year. Of greater significance is the longer-term performance. In that regard, over the ten-year period ended June 30, 2024, the WVIMB's annualized return was 8.0 percent versus the base portfolio benchmark of 6.2 percent. This difference represents millions of dollars in value, added by Trustees and staff. The other defined benefit pension plans' returns for the fiscal year ended June 30, 2024, were essentially identical

**West Virginia Consolidated Public Retirement Board**  
**Investment Section**  
**Investment Pool Objectives, Financial Highlights, and Performance**

to PERS. Since asset allocations are virtually the same for each plan, any differences in the returns for the various pension plans are a function of the differences in the timing of cash flows into and out of each plan and relative levels of cash equivalent securities necessary to make benefit payments.

As an investor, the WVIMB's capacity to generate a return on assets is largely a function of growth in the world capital markets. Diversification helps reduce short-term volatility (commonly referred to as risk), in the capital markets but it is generally at the expense of long-term growth. Growth is the engine of returns. The WVIMB's asset allocation is tilted towards long-term growth for those assets with long time horizons, such as defined benefit pension plans. These plans are structured to spread risk and cost over multiple generations. The ideal target rate of return is one that fairly does this. While the WVIMB does not set that rate, it has an obligation to advise those that do. The WVIMB believes that the current target is attainable over very long time periods. In the meantime, the world can be a difficult, volatile place to navigate. While the U.S. capital markets have remained resilient in the face of inflation and central bank tightening, a recession of some degree is likely at some point. In essence, a tightening of monetary policy is intended to recalibrate excess. Recessions do that. It is all part of the normal economic cycle.

In prior years, I have talked about the changing geopolitical landscape and its potential negative effects on global growth. The tensions these changes generate certainly have not abated. Economic interrelationships can often keep tensions in check, but other factors can predominate. All of this is just another way of saying that investing is fraught with great risk and the risks are greater now than they have been for quite some time.

There is much to be concerned about. Nevertheless, the future is unknowable. The WVIMB's portfolio is built for the long-term, seeking return from risky assets while diversifying to reduce risk. The WVIMB will continue to monitor its portfolio, moderate the structure on the margins to accommodate what we believe the markets are offering, but not so much as to compromise the portfolio's ability to take advantage of long-term growth. The staff looks forward to helping Trustees meet these challenges as fiscal year 2025 unfolds.

Respectfully Submitted,

Craig Slaughter, JD, CFA  
Executive Director/Chief Investment Officer  
West Virginia Investment Management Board

# West Virginia Consolidated Public Retirement Board

## *Investment Section*

### *Investment Background, Philosophy, and Objectives*

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#### **West Virginia Investment Management Board – Organizational History**

The West Virginia Investment Management Board came into existence in the spring of 1997 after years of hard work modernizing the State's investment management structure. This structural modernization was widely acknowledged as a necessary precursor to the passage of a constitutional referendum to allow investment in stocks. The risks were perceived to be too great to be managed by anything but a modern, professional entity.

Although the West Virginia Investment Management Board's predecessors, the West Virginia State Board of Investments and the West Virginia Trust Fund, Inc., brought about vast improvements, each had significant shortcomings. However, with the creation of the West Virginia Investment Management Board, the State achieved a balance between control and independence that helps foster efficient and prudent investment management of long-term assets well into the future.

The beginning of the modern era in investment management by the State goes back to the late 1970s with the consolidation of the investment authority for the State's defined benefit plans, employment security plans, and other assets into a newly created West Virginia State Board of Investments. One of the goals of the legislation was to achieve economies of scale by commingling like assets.

Significantly, this newly created West Virginia Board of Investments was staffed by the State Treasury and the board itself was made up of the State's Governor, Treasurer, and Auditor.

Although a step in the right direction, the initial West Virginia State Board of Investments lacked proper or sufficient control features. After a few problems in the 1980s, principally involving its short-term pool, the Consolidated Fund, the board was expanded to seven members, adding four members from the private sector including an attorney experienced in financial matters and a Certified Public Accountant.

In the fall of 1990, the Legislature took a huge leap forward by creating a staff for the West Virginia State Board of Investments separate from the staff of the Treasury. This provided clear accountability to the Board of Investments – something that did not exist previously. Other very important control features included: (1) a statutory requirement for an Internal Auditor, (2) an annual external audit by a certified public accounting firm, and (3) monthly reporting requirements to government leaders in accordance with generally accepted accounting principles. This last feature dictated that all pools with a weighted average maturity in excess of 90 days must be marked-to-market (carried at fair value), something that had not been done in the 1980s.

At the same time, the West Virginia Board of Investments made its first tepid step towards a diversified portfolio to be invested in stocks domiciled in the United States. Although it made some initial stock purchases in 1993, which were subsequently liquidated at a gain, the statute was challenged and the West Virginia Supreme Court ruled that investing in equities was unconstitutional.

In 1996, in an effort to satisfy the constitutional strictures, the Legislature carved out the pension and employment security funds with long time horizons and placed them in a trust to be managed by a new entity called the West Virginia Trust Fund, Inc. The creation of the trust as a vehicle to allow investment in stocks was also challenged and was struck down, failing to satisfy the constitutional concerns of the Supreme Court. It did, however, bring about three very important changes. The Legislature, demonstrating impeccable managerial foresight, granted the West Virginia Trust Fund, Inc. control over its own budget. With the same foresight, the Legislature imposed personal fiduciary liability on the board and staff of the West Virginia Trust Fund, Inc. Of no less importance was the creation of representative roles for members of the retirement systems and employment security systems.

With the failure of the West Virginia Trust Fund, Inc., it and the West Virginia State Board of Investments were replaced in 1997 by a new entity, the present day West Virginia Investment Management Board. The basic modernization process was complete. All of the improvements made in the Board of Investments and the West Virginia Trust Fund, Inc. were incorporated into the new entity.

The Legislature, for policy reasons, transferred the Consolidated Fund on July 8, 2005 to a newly created West Virginia Board of Treasury Investments, chaired by the State Treasurer. This was widely perceived as a policy move to ensure direct governmental oversight of State general and special revenue funds. The West Virginia Investment Management Board continues to manage the retirement funds, the employment security funds, and other assets with long time horizons.



## West Virginia Consolidated Public Retirement Board

### Investment Section

#### Investment Background, Philosophy, and Objectives

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#### West Virginia Investment Management Board – Organizational History (continued)

In 2007, the Legislature expanded the investable universe of assets, increasing the allowable allocation to public equity and international securities, while also providing for a significant allocation to “alternative investments,” loosely defined as hedge funds and private equity. Then, in 2014, the Legislature eliminated the percentage limitations on allowable asset classes or securities, joining most of its peers in recognizing the prudent investor standard of care is the most effective control on investor behavior for institutions.

#### West Virginia Investment Management Board – Statutory Mandate

The bill creating the West Virginia Investment Management Board passed during the 1997 legislative session and is cited as the *West Virginia Investment Management Board Act* (the Act). The legislative findings of the Act make it clear that the West Virginia Investment Management Board was intended to be a professional, apolitical, financial management organization dedicated to the interests of the State’s teachers, public employees and workers in general. The Act was intended to give the West Virginia Investment Management Board “...the authority to develop, implement and maintain an efficient and modern system for the investment and management of the State’s money.” In order to accomplish this purpose, the Act further stated that the West Virginia Investment Management Board must “...operate as an independent board with its own full-time staff of financial professionals immune to changing political climates...” [West Virginia Code §12-6-1(a)(b)] The Act also mandates that the assets contributed by the public employee and employer to the 401(a) Plans and the assets of the Workers’ Compensation Fund and the Coal Workers’ Pneumoconiosis Fund, are “declared to be irrevocable trusts, available for no use or purpose other than for the benefit of those public employees...workers, miners and their beneficiaries...” [West Virginia Code §12-6-1(c)(d)] The West Virginia Investment Management Board is further “empowered by this Article to act as Trustee of the irrevocable trusts created by this Article, and to manage and invest other state funds.” [West Virginia Code §12-6-1a(f)]

The standard of care mandated by the Statute is that codified in the “Uniform Prudent Investor Act,” Article 6C of Chapter 44 of the *West Virginia Code*. The West Virginia Investment Management Board is further subject to the following requirements:

- (a) Trustees shall discharge their duties with respect to the 401(a) Plans for the exclusive purpose of providing benefits to participants and their beneficiaries;
- (b) Trustees shall diversify fund investments so as to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so;
- (c) Trustees shall defray reasonable expenses of investing and operating the funds under management;
- (d) Trustees shall discharge their duties in accordance with the trust documents and instruments governing the trusts or other funds under the management insofar as the documents and instruments are consistent with provisions of this Article; and
- (e) The duties of the Board apply only with respect to those assets deposited with or otherwise held by it. [West Virginia Code §12-6-11]

#### West Virginia Investment Management Board – Administrative Mandate

Governance of the West Virginia Investment Management Board is vested, by statute, in a thirteen-member Board of Trustees. Three members of the Board serve by virtue of their office: the Governor, the Auditor, and the Treasurer. The other ten are appointed by the Governor and confirmed by the Senate. All appointees must have experience in pension management, institutional management or financial markets. In addition, one must be an attorney experienced in finance and investment matters and another must be a Certified Public Accountant. Only six of the ten appointed Trustees may be from the same political party. The Governor serves as Chairman of the Board. A Vice-Chairman is elected by the Trustees. A Secretary, who need not be a member of the Board, is also elected by the Trustees to keep a record of the proceedings of the Board.

A member of each defined benefit retirement plan is designated by the Consolidated Public Retirement Board to represent the Participant Plans’ interests. Likewise, the West Virginia Insurance Commission designates a representative for the Coal Workers’ Pneumoconiosis Fund and the Workers’ Compensation Old Fund. Each of the Representatives may designate up to three persons to comprise a committee representing their respective plan’s beneficiaries. The Representatives and Committee Members do not have a vote but have the right to be heard at the annual meetings of the Board and are subject to the same code of conduct and requirements of confidentiality that apply to the Trustees.

## **West Virginia Consolidated Public Retirement Board**

### *Investment Section*

### *Investment Background, Philosophy, and Objectives*

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#### **West Virginia Investment Management Board – Administrative Mandate (continued)**

The day-to-day management of the West Virginia Investment Management Board is delegated to the Executive Director who is appointed by the Board and serves at its will and pleasure. The Executive Director acts as an advisor to the Board on all matters.

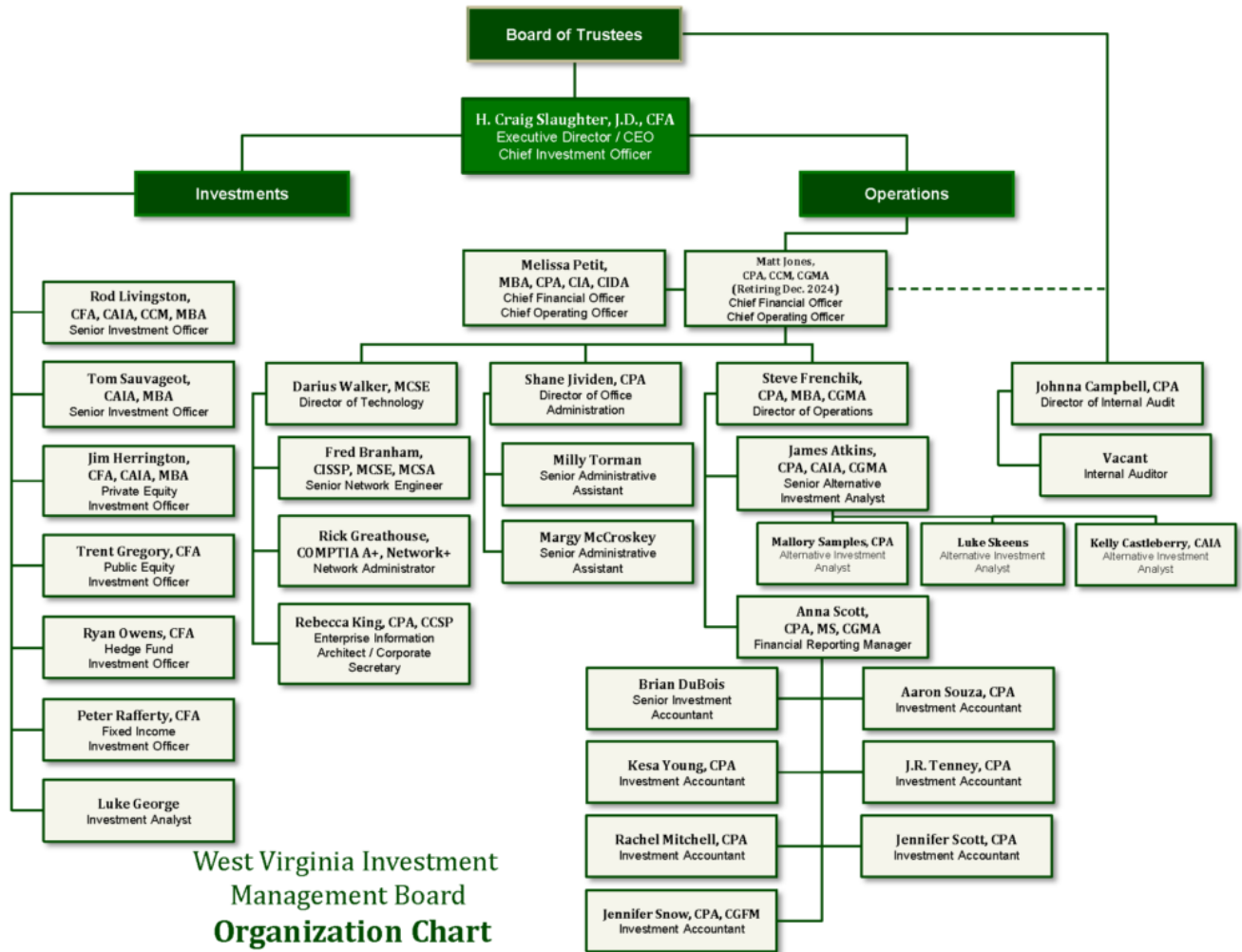
The staff of the West Virginia Investment Management Board is divided into two principal divisions—Investments and Operations.

The Operations Division is focused on providing the back office support necessary for the organization to function on a day-to-day basis. The Investments Division is structured to devote its time and resources to staying current with new developments and research in the investment field and being prepared to apply this knowledge to the investment of assets for the West Virginia Investment Management Board. See the organization chart on the following page.

# West Virginia Consolidated Public Retirement Board

## Investment Section

### Investment Background, Philosophy, and Objectives



West Virginia Investment Management Board Organization Chart

# West Virginia Consolidated Public Retirement Board

## Investment Section

### Investment Background, Philosophy, and Objectives

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#### West Virginia Investment Management Board – Investment Philosophy

The primary objective of the investment pools is to provide benefits to its participants and beneficiaries. Based on general beliefs about the investment return available from a well-diversified, prudently invested portfolio, the Board has adopted specific investment objectives for each Participant Plan.

In order to achieve the investment objectives for each Participant Plan, the WVIMB relies on prevailing financial theory. This is a philosophy that is generally characterized by prudent diversification across different asset classes (stocks, bonds, cash, non-traditional, etc.) to reduce risk, taking into account each Participant Plan’s time horizon, liquidity needs, financial condition (funded status), and return objectives in determining each Participant Plan’s appropriate allocation to various assets. Diversification is not just limited to asset classes although it is, generally, considered the most significant factor. Other factors, including, but not limited to, geography/country, industry, maturity, and cash flow projections, are also considered from the Participant Plan’s perspective. These factors may also dictate the extent to which the Participant Plan may be impacted by general business conditions. Importantly, the factors mentioned here are not intended to be limiting; rather, they are outlined as a general indication of the importance of diversification and customization to proper asset allocation. The Board determines the proper allocation among asset classes and managers, based on advice and analysis provided by the WVIMB and an external general investment consultant.

The Board recognizes that even though its investments may be subject to short-term volatility, it is critical that the WVIMB maintain a focus on longer time horizons for most Participant Plans, during which time the impact of short-term market volatility generally averages out. Impulsive reactions to short-term market events are not conducive to achieving long-term investment objectives. The strategies employed for each Participant Plan factor in an acceptable level of expected volatility given the relevant time horizon and liquidity needs for that Participant Plan. This prevents ad-hoc revisions to its philosophy and policies in reaction to either speculation or short-term market fluctuations. It is important to note that the Board recognizes that markets may become dislocated due to behavioral or other factors. When major dislocations occur, the Board has allowed for minor adjustments to the asset allocation for each Participant Plan through its Allocation Committee. In order to preserve a longer-term perspective generally, however, the Board of Trustees has adopted the following formal review schedule:

<b>Agenda Item</b>	<b>Review Schedule</b>
Investment Performance	Quarterly
Investment Policy	Every Year
Allocation Ranges	Every Three Years
Asset Allocation Review for Each Participant Plan	At Least Every Three Years

The Board may hire investment managers to implement its objectives. These managers will be given specific tactical roles within the overall strategic investment plan. Depending on their assignments, the managers may be judged on some or all of the following: (1) consistency of philosophy, style and key personnel, (2) performance relative to an appropriate index or proxy group, and (3) ability to add incremental value after costs. The Board and staff shall monitor performance and supervise all fund managers.

In determining the appropriate level of risk, the Board considers, in addition to its fiduciary obligations and statutory requirements, each entity’s purpose and characteristics, financial condition, liquidity needs, sources and level of contributions, income and general business conditions. Based upon these many factors, the Board identifies where either a more aggressive or more conservative investment approach is warranted, on an individual plan-by-plan basis.

#### INVESTMENT OBJECTIVES

*“Trustees, at the annual meeting...shall review, establish and modify, if necessary, the investment objectives of the individual participant plans, as incorporated in the investment policy statements of the respective trusts so as to provide for the financial security of the trust funds giving consideration to the following: (1) Preservation of Capital; (2) Diversification; (3) Risk Tolerance; (4) Rate of Return; (5) Stability; (6) Turnover; (7) Liquidity; and (8) Reasonable Costs of Fees.” [West Virginia Code §12-6-11(a)(5)]*

## **West Virginia Consolidated Public Retirement Board**

*Investment Section*

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### **PARTICIPANT PLANS**

The Board's objective is to manage the Participant Plans' moneys in an efficient and economical manner, managing risk as it seeks to achieve the specific goals set out in each Participant Plan's investment program.

**West Virginia Consolidated Public Retirement Board**  
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*Investment Pool Objectives, Financial Highlights, and Performance*

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**EQUITY POOL**

**OBJECTIVES**

The main objective for the Equity Pool is to provide for long-term growth for all participants. The Equity Pool is comprised of sub-components that enable adequate diversification when taken in aggregate. Separate investment pools have been established for each investment style or to comply with specific legal and accounting requirements.

Each Participant invested in the Equity Pool has its own Equity Strategic Allocation, set out in each Participant Plan Description within Appendix A of the WVIMB's Investment Policy Statement. The Allocation Committee has the authority to adjust a Participant's Equity Strategic Allocation 10 percent of the approved allocation. As an example, if a Participant has a 50 percent Strategic Allocation to Equity, the Strategic Range would be 45 to 55 percent.

The Allocation Committee also has the authority to adjust strategic asset class sub-components of the Equity Pool, as outlined below:

Strategic Asset Class Sub-Components	Neutral Target*	Allocation Range
Domestic vs. International	Domestic vs. International Percentage in MSCI ACWI (IMI)	0.5 to 2.5 times benchmark weight Sum must equal 100% of Equity allocation
U.S. Large Cap vs. U.S. Non-Large Cap	Large = 1 minus Non-Large Non-Large = Russell 2500/Russell 3000	0.5 to 2.5 times benchmark weight Sum must equal 100% of Domestic Equity allocation
U.S. Non-Large Value vs. U.S. Non-Large Growth	Value vs. Growth Percentage in Russell 2500	0.5 to 2.5 times benchmark weight Sum must equal 100% of Non-Large Cap Domestic Equity allocation
International Large Cap vs. International Small Cap vs. Emerging Markets	Large vs. Small vs. Emerging Percentage in MSCI ACWI ex U.S. (IMI)	0.5 to 2.5 times benchmark weight Sum must equal 100% of International Equity allocation

\* *The Neutral Target is established based on these index weights every June 30.*

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**EQUITY POOL (Continued)**

**MANAGEMENT STRUCTURE**

The equity pools are managed by the following firms, in accordance with a particular investment style.

Manager	Style
<b>Portable Alpha Pool</b>	
<i>U.S. Large Cap</i>	
BlackRock Institutional Trust Company	Index Core
Russell Investments Implementation Services	Equity Beta Replication (including margin accounts)
Hedge Fund Committee/Albourn America (consultant)	Alternative Risk Premia
<b>Large Cap Domestic Equity Pool</b>	
BlackRock Institutional Trust Company	Index Core
<b>Non-Large Cap Domestic Equity Pool</b>	
Cooper Creek Partners Management	Value
Westfield Capital Management Company	Growth
<b>International Qualified and International Nonqualified Pools</b>	
<i>International Large Cap</i>	
Silchester International Investors	All Country, Value
<b>International Equity Pool</b>	
<i>International Large Cap</i>	
LSV Asset Management	All Country, Relative Value
<i>International Small Cap</i>	
Acadian Asset Management	All Country, Quantitative Value
Oberweis Asset Management	All Country, Growth
<i>Emerging Markets</i>	
Axiom International Investors	Emerging Market, Growth
Numeric Investors	Emerging Market, Quantitative Value

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements are prepared for each of the equity pools and are available at [www.wvimb.org](http://www.wvimb.org). Financial Highlights for each pool are presented below:

**Condensed Statement of Net Position**

	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity
Investments	\$ 5,831,792	\$ 335,087	\$ 1,194,529
Investment derivatives	5,010	-	-
Payable upon return of securities loaned	-	-	(67,121)
Advance on investments in ARP funds	75,000	-	-
Cash	-	-	49
Cash due to broker for futures contracts	(21,012)	-	-
Receivable for investments sold	12,521	-	31,037
Payable for investments purchased	(79,024)	-	(16,912)
Other assets and liabilities, net	7,132	(14)	(1,719)
Net position - June 30, 2024	\$ 5,831,419	\$ 335,073	\$ 1,139,863

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**EQUITY POOL (Continued)**

**FINANCIAL HIGHLIGHTS (continued in \$000s)**

<b>Condensed Statement of Net Position</b>	<b>International Qualified</b>	<b>International Nonqualified</b>	<b>International Equity</b>
Investments	\$ 1,136,655	\$ 188,940	\$ 3,131,911
Payable upon return of securities loaned	-	-	(47,221)
Cash	-	-	11,382
Receivable for investments sold	-	-	9,771
Payable for investments purchased	-	-	(9,949)
Other assets and liabilities, net	(42)	(7)	8,144
Net position - June 30, 2024	<u>\$ 1,136,613</u>	<u>\$ 188,933</u>	<u>\$ 3,104,038</u>

**Investments**

**Portable Alpha**

	<b>Fair Value</b>	<b>Percent of Securities</b>
Notional value of S&P 500 derivatives	\$ 3,609,405	61.8%
S&P 500 index fund	2,283,854	39.2
Total S&P 500 exposure	<u>5,893,259</u>	<u>101.0</u>
Margin accounts:		
Money market mutual fund	644,285	11.0
Enhanced cash collateral	357,767	6.1
Downside protection (U.S. Treasuries)	500,635	8.6
Total available margin	<u>1,502,687</u>	<u>25.7</u>
Alternative risk premia funds	2,036,656	34.9
Money market mutual fund	8,595	0.1
Total investment exposure	<u>9,441,197</u>	<u>161.7</u>
Reconciliation to total investments:		
Less: Notional value of S&P 500 derivatives	(3,609,405)	(61.8)
Add: Unrealized appreciation of S&P 500 derivatives	5,010	0.1
Total	<u>\$ 5,836,802</u>	<u>100.0%</u>

**Investments**

**Large Cap Domestic Equity**

	<b>Fair Value</b>	<b>Percent of Securities</b>
S&P 500 index fund	\$ 327,287	97.7%
Money market mutual fund	7,800	2.3
	<u>335,087</u>	<u>100.0%</u>



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**EQUITY POOL (Continued)**  
**FINANCIAL HIGHLIGHTS (continued in \$000s)**

<b>Investments</b>	<b>Non-Large Cap Domestic Equity</b>	
	<b>Fair Value</b>	<b>Percent of Securities</b>
Equity sector exposure:		
Basic Materials	\$ 55,810	4.7%
Communications Services	18,393	1.5
Consumer Discretionary	310,154	26.0
Consumer Staples	25,862	2.2
Energy	62,411	5.2
Financial Services	71,898	6.0
Health Care	115,789	9.7
Industrials	251,841	21.1
Real Estate	10,035	0.8
Technology	157,670	13.2
Utilities	3,250	0.3
Total equities	1,083,113	90.7
Money market mutual funds	44,295	3.7
Investments made with cash collateral for securities loaned	67,121	5.6
<b>Total</b>	<b>\$ 1,194,529</b>	<b>100.0%</b>

<b>Investments</b>	<b>International Qualified</b>		<b>International Nonqualified</b>	
	<b>Fair Value</b>	<b>Percent of Securities</b>	<b>Fair Value</b>	<b>Percent of Securities</b>
MSCI EAFE commingled fund	\$ 1,136,655	100.0%	\$ 188,940	100.0%

<b>Investments</b>	<b>International Equity</b>	
	<b>Fair Value</b>	<b>Percent of Securities</b>
Equity exposure by country:		
Australia	\$ 72,518	2.3%
Brazil	96,084	3.1
Canada	108,405	3.5
China	298,719	9.5
France	128,864	4.1
Germany	71,155	2.3
India	304,264	9.7
Japan	320,712	10.2
Korea	259,486	8.3
Netherlands	67,867	2.2
Switzerland	85,262	2.7
Taiwan	325,625	10.4
United Kingdom	198,942	6.4
United States	65,808	2.1
All others (none greater than 2%)	633,024	20.2
Total equities	3,036,735	97.0
Money market mutual fund	47,955	1.5
Securities lending collateral	47,221	1.5
<b>Total</b>	<b>\$ 3,131,911</b>	<b>100.0%</b>

**EQUITY POOL (Continued)**

**West Virginia Consolidated Public Retirement Board**  
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**FINANCIAL HIGHLIGHTS (continued in \$000s)**

**Progression of Net Position**

	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity
Net position - June 30, 2023	\$ 5,295,636	\$ 317,013	\$ 1,040,128
Net investment income	1,245,771	70,504	146,921
Net decrease from unit transactions	(709,988)	(52,444)	(47,186)
Net position - June 30, 2024	<u>\$ 5,831,419</u>	<u>\$ 335,073</u>	<u>\$ 1,139,863</u>

**Progression of Net Position**

	International Qualified	International Nonqualified	International Equity
Net position - June 30, 2023	\$ 1,263,171	\$ 203,142	\$ 2,741,331
Net investment income	103,095	15,734	474,924
Net decrease from unit transactions	(229,653)	(29,943)	(112,217)
Net position - June 30, 2024	<u>\$ 1,136,613</u>	<u>\$ 188,933</u>	<u>\$ 3,104,038</u>

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Portable Alpha		Large Cap Domestic Equity		Non-Large Cap Domestic Equity	
	Actual	S&P 500	Actual	S&P 500	Actual	Russell 2500
One-year	25.5%	24.6%	24.6%	24.6%	13.6%	10.5%
Three-year	9.6%	10.0%	9.9%	10.0%	4.0%	(0.3%)
Five-year	N/A	N/A	15.0%	15.0%	10.7%	8.3%
Ten-year	N/A	N/A	12.8%	12.9%	8.6%	8.0%
Twenty-year	N/A	N/A	10.3%	10.3%	9.6%	8.9%

Period	International Qualified		International Nonqualified		International Equity	
	Actual	MSCI EAFE	Actual	MSCI EAFE	Actual	MSCI ACWI ex U.S.(IMI)*
One-year	9.5%	12.1%	9.4%	12.1%	17.5%	12.1%
Three-year	4.3%	3.4%	4.1%	3.4%	(0.2%)	0.7%
Five-year	6.7%	7.0%	6.4%	7.0%	7.2%	6.1%
Ten-year	5.2%	4.8%	5.0%	4.8%	4.8%	4.4%
Twenty-year	8.2%	6.1%	7.9%	6.1%	6.8%	6.3%

\*Prior to January 2014, the International Equity Pool index was the MSCI ACWI ex U.S. (Standard).

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**EQUITY POOL (Continued)**

**EXPENSES**

The WVIMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Equity Pool's expenses for the year, divided by the average net position, are as follows:

<b>Expense Ratios (in basis points)</b>	<b>Portable Alpha</b>	<b>Large Cap Domestic Equity</b>	<b>Non-Large Cap Domestic Equity</b>	<b>International Qualified</b>	<b>International Nonqualified</b>	<b>International Equity</b>
Investment advisor fees	2.1	0.8	97.6	51.5	59.1	49.4
Trustee fees	0.0*	0.0*	0.0*	0.0*	0.0*	0.0*
Custodian bank fees	0.0*	0.0*	0.5	N/A	N/A	4.6
Management fees	2.5	2.4	2.4	2.5	2.5	2.4
Fiduciary bond fees	0.0*	0.0*	0.0*	0.0*	0.0*	0.0*
Professional service fees	0.9	0.5	0.5	0.5	0.5	0.5
<b>Total</b>	<b>5.5</b>	<b>3.7</b>	<b>101.0</b>	<b>54.5</b>	<b>62.1</b>	<b>56.9</b>

\* Expense Ratio rounds to less than 0.1 basis points.

<b>Trading Costs (in \$000s)</b>	<b>Portable Alpha</b>	<b>Large Cap Domestic Equity</b>	<b>Non-Large Cap Domestic Equity</b>	<b>International Qualified</b>	<b>International Nonqualified</b>	<b>International Equity</b>
Net commission costs	\$ 259	N/A	\$ 1,955	N/A	N/A	\$ 2,950

**West Virginia Consolidated Public Retirement Board**  
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**Short-Term Fixed Income Pool**

**OBJECTIVES**

The Short-Term Fixed Income Pool was created to maintain sufficient liquidity to meet the daily disbursements requested by the Participants and to invest any contributions until the time the money is transferred to other asset classes without sustaining capital losses and while earning a small return above inflation. The Short-Term Fixed Income Pool is structured as a money market fund where the goal is a stable dollar value per share, thus preserving principal. The pool's risk factor is low and managed through numerous maturity restrictions, diversification guidelines, and credit limits. The participants are paid on an income basis that includes interest income net of expenses.

**MANAGEMENT STRUCTURE**

The Short-Term Fixed Income Pool is managed by JPMorgan Investment Advisors.

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements for the Short-Term Fixed Income Pool are available at [www.wvimb.org](http://www.wvimb.org). Financial Highlights are presented below.

**Condensed Statement of Net Position**

Investments	\$ 263,464
Other assets and liabilities, net	9
Net position - June 30, 2024	\$ 263,473

**Investments**

	Fair Value	Percent of Securities
Repurchase agreement	\$ 31,730	12.0%
U.S. Government agency bonds	149,920	56.9
U.S. Treasury bonds	81,814	31.1
Total	\$ 263,464	100.0%

**Progression of Net Position**

Net position - June 30, 2023	\$ 186,598
Net investment income	10,257
Distributions to unitholders	(10,257)
Net increase from unit transactions	76,875
Net position - June 30, 2024	\$ 263,473

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**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Actual	FTSE 3 Month T-Bill*
One-year	5.4%	5.6%
Three-year	3.0%	3.2%
Five-year	2.1%	2.2%
Ten-year	1.5%	1.5%
Twenty-year	1.6%	1.6%

**\*Prior to January 2014, the Short-Term Fixed Income Pool index was the FTSE 3 Month T-Bill plus 15 basis points.**

**EXPENSES**

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees and custodian bank fees. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Short-Term Fixed Income Pool's expenses for the year, divided by the average net position, are as follows:

**Expense Ratios (in basis points)**

Investment advisor fees	5.0
Custodian bank fees	0.4
<b>Total</b>	<b>5.4</b>

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**FIXED INCOME POOL**

**OBJECTIVES**

The main objectives for the Fixed Income Pool are to generate investment income, provide stability, and enhance diversification but not at the expense of total return. Separate investment pools have been established for particular investment styles or to comply with specific accounting requirements. The strategic asset class, the Neutral Target allocation to the sub-component of the strategic asset class, as well as the approved Allocation Ranges within which the Allocation Committee can operate, are outlined below:

Category	Strategic Allocation	Allocation Range
Core Fixed Income	--	--
Total Return Fixed Income	--	--
Fixed Income Pool	20.0%	+/- 5% (15% to 25%)

*Note: Each Participant has its own unique Strategic Allocation. The above example is for clarification purposes only.*

Neutral Target	Allocation Range
30% Core Fixed Income	Minimum 20% to Maximum 70%
70% Total Return Fixed Income	Minimum 30% to Maximum 80%
	Sum must equal 100% of the Fixed Income allocation

**MANAGEMENT STRUCTURE**

The fixed income pools are managed by the following firms, in accordance with a particular investment style.

Manager	Style
<b>Total Return Fixed Income Pool</b>	
Western Asset Management Company	Core Plus Fixed Income
Dodge & Cox	Core Plus Fixed Income
Franklin Templeton Investments	Emerging Markets Fixed Income
<b>Core Fixed Income Pool</b>	
JPMorgan Investment Advisors	Core Fixed Income

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements are prepared for each of the fixed income pools and are available at [www.wvimbo.org](http://www.wvimbo.org). Financial Highlights for each pool are presented below.

Condensed Statement of Net Position	Total Return Fixed Income	Core Fixed Income
Investments	\$ 2,743,298	\$ 2,191,023
Derivatives	6,217	-
Payable upon return of securities loaned	(48,614)	(93,136)
Cash	11,115	-
Cash due from brokers for derivatives, net	17,870	-
Receivable for investments sold	31,727	318
Payable for investments purchased	(246,715)	(27,517)
Other assets and liabilities, net	12,468	15,024
Net position – June 30, 2024	<u>\$ 2,527,366</u>	<u>\$ 2,085,712</u>

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**FINANCIAL HIGHLIGHTS (continued in \$000s)**

Investments	Total Return Fixed Income		Core Fixed Income	
	Fair Value	Percentage of Securities	Fair Value	Percentage of Securities
Bank loan	\$ 3,120	0.1%	\$ -	0.0%
Commingled debt funds	165,991	6.0	-	0.0
Corporate ABS	55,026	2.0	234,021	10.7
Corporate CMO	71,968	2.6	93,038	4.2
Corporate preferred security	11,384	0.4	-	0.0
Foreign ABS	112,946	4.1	2,346	0.1
Foreign corporate bonds	273,674	10.0	166,741	7.6
Foreign currency forward contracts	4,581	0.2	-	0.0
Foreign equity investments	369	0.0*	-	0.0
Foreign government bonds	233,006	8.5	5,786	0.3
Futures contracts	(333)	0.0*	-	0.0
Money market mutual fund	58,044	2.1	17,014	0.8
Municipal bonds	12,057	0.4	8,480	0.4
Option contracts purchased	1,990	0.1	-	0.0
Option contracts written	(2,999)	(0.1)	-	0.0
Repurchase agreement	21,000	0.8	-	0.0
Securities lending collateral	48,614	1.8	93,136	4.3
Swaps	2,978	0.1	-	0.0
U.S. corporate bonds	306,350	11.1	365,052	16.7
U.S. government agency bonds	2,035	0.1	-	0.0
U.S. government agency CMO	103,002	3.7	119,652	5.5
U.S. government agency MBS	734,084	26.7	480,710	21.8
U.S. Treasury issues	530,628	19.3	605,047	27.6
<b>Total</b>	<b>\$ 2,749,515</b>	<b>100.0%</b>	<b>\$ 2,191,023</b>	<b>100.0%</b>

\*Rounds to less than 0.05 percent

**Progression of Net Position**

	Total Return Fixed Income	Core Fixed Income
Net position - June 30, 2023	\$ 2,286,128	\$ 1,795,057
Net investment income	131,454	63,175
Net increase from unit transactions	109,784	227,480
<b>Net position - June 30, 2024</b>	<b>\$ 2,527,366</b>	<b>\$ 2,085,712</b>

**West Virginia Consolidated Public Retirement Board**  
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**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Total Return Fixed Income		Core Fixed Income	
	Actual	Bloomberg U.S. Universal Bond*	Actual	Bloomberg U.S. Aggregate Bond
One-year	5.8%	3.5%	3.5%	2.6%
Three-year	(1.2)%	(2.7)%	(2.1)%	(3.0)%
Five-year	1.5%	0.1%	0.7%	(0.2)%
Ten-year	2.6%	1.6%	2.0%	1.3%
Twenty-year	4.3%	3.6%	N/A	N/A

\* Prior to April 2008, the Total Return Fixed Income Pool index was a custom index.

**EXPENSES**

The WVIMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Fixed Income Pools' expenses for the operating period, divided by the average net position, are as follows:

Expense Ratios (in basis points)	Total Return Fixed Income	Core Fixed Income
Investment advisor fees	21.9	14.7
Trustee fees	0.0*	0.0*
Custodian bank fees	0.6	0.2
Management fees	2.5	2.5
Fiduciary bond fees	0.0*	0.0*
Professional service fees	0.5	0.5
<b>Total</b>	<b>25.5</b>	<b>17.9</b>

\* Expense Ratio rounds to less than 0.1 basis points.

Trading Costs (in \$000s)	Total Return Fixed Income	Core Fixed Income
Commission costs	\$ 1,443	N/A



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**TIPS POOL**

**OBJECTIVES**

The TIPS Pool was established to offer an additional level of diversification over and above nominal fixed income securities in an attempt to mitigate the risk of inflation. The main objective for the pool is to generate a return that exceeds the rate of inflation over a market cycle, to provide investment income and stability of principal, and to diversify interest rate exposure.

**MANAGEMENT STRUCTURE**

The TIPS Pool is managed by Northern Trust Investments.

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements for the TIPS Pool are available at [www.wvimb.org](http://www.wvimb.org). Financial Highlights are presented below.

**Condensed Statement of Net Position**

Investments	\$ 512,059
Receivable for investments sold	9,679
Payable for investments purchased	(9,678)
Other assets and liabilities, net	1,633
Net position - June 30, 2024	<u>\$ 513,693</u>

**Investments**

	Fair Value	Percent of Securities
Money market mutual fund	\$ 83	0.0%*
U.S. Treasury inflation protected securities	511,976	100.0
Total	<u>\$ 512,059</u>	<u>100.0%</u>

\*Rounds to less than 0.05 percent

**Progression of Net Position**

Net position - June 30, 2023	\$ 401,788
Net investment income	20,750
Net increase from unit transactions	91,155
Net position - June 30, 2024	<u>\$ 513,693</u>

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Actual	Bloomberg 1-10 Year U.S. TIPS*
One-year	4.3%	2.7%
Three-year	(0.8)%	(1.3)%
Five-year	2.4%	2.1%
Ten-year	2.1%	1.9%

\*Prior to June 2023, the TIPS index was the Bloomberg U.S. TIPS Index.

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**TIPS POOL (Continued)**

**EXPENSES**

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The TIPS Pool's expenses for the operating period, divided by the average net position, are as follows:

**Expense Ratios (in basis points)**

Investment advisor fees	1.2
Trustee fees	0.0*
Custodian bank fees	0.1
Management fees	2.5
Fiduciary bond fees	0.0*
Professional service fees	0.5
Total	<u>4.3</u>

\* Expense Ratio rounds to less than 0.1 basis points.

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**PRIVATE MARKETS POOL**

The objective of the Private Markets Pool is to enhance the diversification and stability of the portfolio, while generating a higher level of income than generally available in the public fixed income markets and to provide for long-term growth of participants' assets and risk-reduction through diversification. The Private Markets Pool is comprised of the private credit & income, private equity, and real estate strategies. Prior to July 1, 2017, each of these strategies were operated as individual investment pools. For operational efficiencies, the three pools were combined on July 1, 2017 to form the Private Markets Pool. Investment performance for the Private Markets Pool and each of these strategies is presented on the following page.

The private credit & income strategy is comprised of the following categories and target range allocations:

Category	Target	Target Range
Core Private Credit	55%	Minimum 45% to Maximum 75%
Specialty Credit	35%	Minimum 25% to Maximum 45%
Opportunistic	10%	Minimum 0% to Maximum 20%

The private equity strategy is comprised of the following categories, long-term target range allocations, and annual commitments:

Category	Target Range	Annual Commitments
Corporate Finance	80-100%	90-100%
Venture Capital	0-20%	0-10%

The real estate strategy is comprised of the following categories and target range allocations:

Category	Target	Target Range
Core	50%	+/- 20% (30% to 70%)
Value-Added	30%	+/- 20% (10% to 50%)
Opportunistic	20%	+/- 10% (10% to 30%)

**MANAGEMENT STRUCTURE**

Franklin Park, StepStone Group, and Verus provide consulting services related to the selection of limited partnerships and funds. The selection of investments are approved by the Private Equity or Real Estate Committees.

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements for the Private Markets Pool are available at [www.wvimb.org](http://www.wvimb.org). Financial Highlights are presented below.

**Condensed Statement of Net Position**

Investments	\$ 6,274,311
Payable upon return of securities loaned	(19,117)
Fund distributions receivable	13,960
Other assets and liabilities, net	18,093
Net position - June 30, 2024	<u>\$ 6,287,247</u>

**PRIVATE MARKETS POOL (Continued)**

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**FINANCIAL HIGHLIGHTS (in \$000s) (continued)**

<b>Investments</b>	<b>Fair Value</b>	<b>Percent of Securities</b>
Corporate bonds	\$ 11,315	0.2%
Equity investments	206,981	3.3
Money market mutual fund	124,369	2.0
Private credit & income funds	1,038,589	16.6
Private equity partnerships	2,654,612	42.2
Private real estate partnerships and funds	2,219,328	35.4
Securities lending collateral	19,117	0.3
<b>Total</b>	<b>\$ 6,274,311</b>	<b>100.0%</b>

**Progression of Net Position**

Net position - June 30, 2023	\$ 6,208,230
Net investment income	44,747
Net increase from unit transactions	34,270
<b>Net position - June 30, 2024</b>	<b>\$ 6,287,247</b>

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of external investment management and/or partnership fees and expenses.

Period	Private Credit & Income		Private Equity	
	Actual	SOFR plus 400 basis points*	Actual	Russell 3000 plus 300 basis points
One-year	6.4%	9.5%	5.0%	26.1%
Three-year	5.7%	6.3%	6.3%	11.1%
Five-year	6.2%	6.4%	17.5%	17.1%
Ten-year	N/A	N/A	17.0%	15.2%

*\*Prior to June 2023, the Private Credit & Income index was the Credit Suisse Leveraged Loan plus 200 basis points. Prior to April 2017, it was the Credit Suisse Leveraged Loan plus 250 basis points.*

Period	Real Estate		Private Markets Pool*
	Actual	NCREIF plus 100 basis points	Actual
One-year	(6.0)%	(6.2)%	0.8%
Three-year	1.2%	4.6%	4.2%
Five-year	3.0%	4.8%	9.9%
Ten-year	6.1%	7.4%	N/A

*\*The Private Markets Pool does not have a benchmark.*

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**PRIVATE MARKETS POOL (Continued)**

**EXPENSES**

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. Commission trading costs were \$123,000 for the year ended June 30, 2024. The Private Market Pool's expenses for the year, divided by the average net position, are as follows:

**Expense Ratio (in basis points)**

Investment advisor fees	1.4
Trustee fees	0.0*
Custodian bank fees	0.0*
Management fees	2.5
Fiduciary bond fees	0.0*
External fees/Fund closing costs	15.4
Professional service fees	3.2
Total	<u>22.5</u>

\* *Expense Ratio rounds to less than 0.1 basis points.*

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**HEDGE FUND POOL**

**OBJECTIVES**

The main objective for the Hedge Fund Pool is to reduce risk through diversification of participants' assets. Secondly, the Hedge Fund Pool should provide for long-term growth.

The Hedge Funds are comprised of the following strategic categories and target range allocations:

Category	Target Range	Allocation Range
<b>Core</b>		
Relative Value	25-35%	20-50%
Event Driven	20-30%	15-35%
Long-Short Equity	20-30%	15-35%
Directional	10-20%	5-25%
<b>Supplemental</b>		
Long Biased	3-15%	0-20%
Private Equity	0-3%	0-5%
Private Credit	0-3%	0-5%
Real Assets	0-3%	0-5%

**MANAGEMENT STRUCTURE**

Albourne America has been retained by the WVIMB to provide consulting services for this investment strategy. The selection of investments are approved by the Hedge Fund Committee.

**FINANCIAL HIGHLIGHTS (in \$000s)**

Audited financial statements for the Hedge Fund Pool are available at [www.wvimb.org](http://www.wvimb.org). Financial Highlights are presented below.

**Condensed Statement of Net Position**

Investments	\$ 2,847,924
Advance on investments in hedge funds	50,000
Investment funds redeemed	4,056
Other assets and liabilities, net	(75)
Net position - June 30, 2024	\$ 2,901,905

**Investments**

	Fair Value	Percent of Securities
Hedge funds	\$ 2,846,583	100.0%
Money market mutual fund	1,341	0.0*
Total	\$ 2,847,924	100.0%

\*Rounds to less than 0.05 percent

**Progression of Net Position**

Net position - June 30, 2023	\$ 2,481,083
Net investment income	339,820
Net increase from unit transactions	81,002
Net position - June 30, 2024	\$ 2,901,905

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**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of external investment management and/or partnership fees and expenses.

Period	Actual	HFRI FOF plus 100 basis points
One-year	13.7%	9.7%
Three-year	6.7%	3.1%
Five-year	7.6%	5.8%
Ten-year	5.3%	4.5%

**EXPENSES**

The WVIMB charges the pool for its direct investment-related expenses, such as custodian bank fees and certain professional service fees, and an allocated share of other expenses. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Hedge Fund Pool's expenses for the year, divided by the average net position, are as follows:

<b>Expense Ratio (in basis points)</b>	
Trustee fees	0.0*
Custodian bank fees	0.0*
Management fees	2.4
Fiduciary bond fees	0.0*
Professional service fees	2.7
<b>Total</b>	<b>5.1</b>

\* *Expense Ratio rounds to less than 0.1 basis points.*

## **PUBLIC EMPLOYEES’ RETIREMENT SYSTEM**

### **HISTORY**

The Public Employees’ Retirement System (PERS) was created in 1961.

### **LIQUIDITY NEEDS**

PERS is expected to have modest liquidity needs of approximately 1 to 2 percent per year for the foreseeable future.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Preserve the current well-funded position while maintaining adequate liquidity to satisfy benefit payments and not subjecting PERS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for PERS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from PERS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%



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**PUBLIC EMPLOYEES' RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$ 8,398,434
Contributions	121,884
Withdrawals	(405,435)
Net	(283,551)
Investment income	1,429
Net appreciation	943,732
June 30, 2024	\$ 9,060,044

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 2,258,356	25.0%
Non-Large Cap Domestic Equity	418,286	4.6
International Qualified	482,719	5.3
International Equity	1,142,068	12.6
Short-Term Fixed Income	26,602	0.3
Total Return Fixed Income	680,728	7.5
Core Fixed Income	678,518	7.5
Private Markets	2,375,504	26.2
Hedge Fund	997,263	11.0
Total	\$ 9,060,044	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.3%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.9%	7.25%

## **TEACHERS’ RETIREMENT SYSTEM**

### **HISTORY**

The Teachers’ Retirement System (TRS) was created in 1941. It was closed to new members in 1991, but reopened to first-time hires as of July 1, 2005. Employees hired from 1991 through June 30, 2005, joined the Teachers’ Defined Contribution Plan (TDC). In the spring of 2008, more than 78 percent of the participants in the Teachers’ Defined Contribution Plan elected to transfer their TDC account balance to TRS and become participants in TRS. This transfer occurred in July 2008.

### **LIQUIDITY NEEDS**

TRS has a net negative cash flow position and will likely continue to have substantial liquidity needs of at least 10 percent per year.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting TRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for TRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from TRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

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**TEACHERS' RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$ 9,319,703
Contributions	342,901
Withdrawals	(658,776)
Net	<u>(315,875)</u>
Investment income	1,954
Net appreciation	1,037,192
June 30, 2024	<u><u>\$ 10,042,974</u></u>

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 2,482,176	24.8%
Non-Large Cap Domestic Equity	459,759	4.6
International Qualified	530,656	5.3
International Equity	1,256,842	12.5
Short-Term Fixed Income	115,303	1.1
Total Return Fixed Income	746,505	7.4
Core Fixed Income	744,061	7.4
Private Markets	2,611,397	26.0
Hedge Fund	1,096,275	10.9
Total	<u><u>\$ 10,042,974</u></u>	<u>100.0%</u>

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.3%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.7%	7.25%

## **STATE POLICE DEATH, DISABILITY AND RETIREMENT FUND**

### **HISTORY**

The State Police Death, Disability and Retirement Fund (SPDDRF) was created in 1925.

### **LIQUIDITY NEEDS**

SPDDRF is now a closed plan and is expected to experience an increasingly negative cash flow position in the near future.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Preserve the current well-funded position while maintaining adequate liquidity to satisfy benefit payments and not subjecting SPDDRF to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for SPDDRF. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from SPDDRF will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

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**STATE POLICE DEATH, DISABILITY AND RETIREMENT FUND (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	778,439
Contributions		10,485
Withdrawals		(53,995)
Net		(43,510)
Investment income		156
Net appreciation		85,746
June 30, 2024	\$	820,831

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 205,425	25.2%
Non-Large Cap Domestic Equity	37,940	4.6
International Qualified	43,888	5.3
International Equity	104,061	12.7
Short-Term Fixed Income	983	0.1
Total Return Fixed Income	60,927	7.4
Core Fixed Income	60,869	7.4
Private Markets	216,048	26.3
Hedge Fund	90,690	11.0
Total	\$ 820,831	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.3%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.9%	7.25%

## **STATE POLICE RETIREMENT SYSTEM**

### **HISTORY**

The State Police Retirement System (SPRS) was created in 1994.

### **LIQUIDITY NEEDS**

SPRS is expected to be in a positive net cash flow position for the foreseeable future.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting SPRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for SPRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from SPRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

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**STATE POLICE RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$ 320,094
Contributions	11,105
Withdrawals	(3,019)
Net	8,086
Investment income	75
Net appreciation	37,289
June 30, 2024	\$ 365,544

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 90,614	24.6%
Non-Large Cap Domestic Equity	16,768	4.6
International Qualified	19,375	5.3
International Equity	45,920	12.6
Short-Term Fixed Income	2,151	0.6
Total Return Fixed Income	27,665	7.6
Core Fixed Income	27,646	7.6
Private Markets	95,369	26.1
Hedge Fund	40,036	11.0
Total	\$ 365,544	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.2%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.9%	7.25%

## **DEPUTY SHERIFFS’ RETIREMENT SYSTEM**

### **HISTORY**

The Deputy Sheriff’s Retirement System (DSRS) was created in 1998.

### **LIQUIDITY NEEDS**

DSRS currently has positive net cash flows.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting DSRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for DSRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from DSRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%



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**DEPUTY SHERIFFS' RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	316,039
Contributions		6,880
Withdrawals		(7,076)
Net		(196)
Investment income		86
Net appreciation		36,164
June 30, 2024	\$	352,093

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 87,544	24.7%
Non-Large Cap Domestic Equity	16,233	4.6
International Qualified	18,712	5.3
International Equity	44,262	12.6
Short-Term Fixed Income	1,958	0.6
Total Return Fixed Income	26,332	7.5
Core Fixed Income	26,294	7.5
Private Markets	92,096	26.2
Hedge Fund	38,662	11.0
Total	\$ 352,093	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.2%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.9%	7.25%

## **JUDGES’ RETIREMENT SYSYTEM**

### **HISTORY**

The Judges’ Retirement System (JRS) was created in 1949.

### **LIQUIDITY NEEDS**

JRS currently has slightly negative net cash flows.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject JRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for JRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from JRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

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**JUDGES' RETIREMENT SYSYTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	278,545
Contributions		795
Withdrawals		(4,538)
Net		(3,743)
Investment income		25
Net appreciation		31,712
June 30, 2024	\$	306,539

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 76,297	25.0%
Non-Large Cap Domestic Equity	14,155	4.6
International Qualified	16,309	5.3
International Equity	38,598	12.6
Short-Term Fixed Income	444	0.1
Total Return Fixed Income	23,421	7.6
Core Fixed Income	23,357	7.6
Private Markets	80,263	26.2
Hedge Fund	33,695	11.0
Total	\$ 306,539	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.3%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%
Twenty-year	7.9%	7.25%

## **EMERGENCY MEDICAL SERVICES RETIREMENT SYSTEM**

### **HISTORY**

The Emergency Medical Services Retirement System (EMSRS) was created by the *Emergency Medical Services Retirement System Act* effective January 1, 2008, under *West Virginia Code §16-5V-4*. EMSRS members with benefits earned in the Public Employees' Retirement System (PERS) transferred their full membership and benefits under PERS to EMSRS on the effective date.

### **LIQUIDITY NEEDS**

EMSRS is expected to be in a positive net cash flow position for the foreseeable future.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject EMSRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for EMSRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from EMSRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

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**EMERGENCY MEDICAL SERVICES RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	125,180
Contributions		4,365
Withdrawals		(1,435)
Net		<u>2,930</u>
Investment income		47
Net appreciation		14,451
June 30, 2024	\$	<u><u>142,608</u></u>

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 35,368	24.8%
Non-Large Cap Domestic Equity	6,555	4.6
International Qualified	7,560	5.3
International Equity	17,917	12.6
Short-Term Fixed Income	1,185	0.8
Total Return Fixed Income	10,603	7.4
Core Fixed Income	10,587	7.4
Private Markets	37,212	26.1
Hedge Fund	15,621	11.0
Total	\$ 142,608	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.4%	7.25%
Three-year	4.2%	7.25%
Five-year	9.1%	7.25%
Ten-year	8.0%	7.25%

## **MUNICIPAL POLICE OFFICERS’ AND FIREFIGHTERS’ RETIREMENT SYSTEM**

### **HISTORY**

Municipal Police Officers’ and Firefighters’ Retirement System (MPFRS) was created in 2010.

### **LIQUIDITY NEEDS**

There are no anticipated liquidity needs at this time.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject MPFRS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for MPFRS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from MPFRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%

**West Virginia Consolidated Public Retirement Board**  
*Investment Section*  
*Investment Pool Objectives, Financial Highlights, and Performance*

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**MUNICIPAL POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT SYSTEM (Continued)**

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	34,945
Contributions		6,810
Withdrawals		(13)
Net		6,797
Investment income		33
Net appreciation		4,423
June 30, 2024	\$	46,198

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 11,330	24.5%
Non-Large Cap Domestic Equity	2,098	4.5
International Qualified	2,421	5.2
International Equity	5,738	12.4
Short-Term Fixed Income	900	2.2
Total Return Fixed Income	3,395	7.3
Core Fixed Income	3,387	7.3
Private Markets	11,924	25.8
Hedge Fund	5,005	10.8
Total	\$ 46,198	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.2%	7.25%
Five-year	9.0%	7.25%
Ten-year	7.9%	7.25%

## **NATURAL RESOURCES POLICE OFFICERS’ RETIREMENT SYSTEM**

### **HISTORY**

The Natural Resources Police Officers’ Retirement System (NRPORS) was created under the Natural Resources Police Officers’ Retirement System Act effective January 2, 2021, under West Virginia Code §20-18-4. NRPORS members with benefits earned in the Public Employees’ Retirement System (PERS) transferred their full membership and benefits under PERS to NRPORS on the effective date January 2, 2021.

### **LIQUIDITY NEEDS**

NRPORS is expected to be in a positive net cash flow position through fiscal year 2025.

### **INVESTMENT OBJECTIVES**

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting NRPORS to an undue level of risk.

### **ASSET ALLOCATION**

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for NRPORS. Base and Strategic Allocations are established on a fair value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from NRPORS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	45.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	6.0%
Private Equity	0.0%	12.0%
Real Estate	0.0%	12.0%
Hedge Funds	0.0%	10.0%



**NATURAL RESOURCES POLICE OFFICERS' RETIREMENT SYSTEM**  
(Continued)

**FINANCIAL HIGHLIGHTS (in \$000s)**

**Progression of Plan Balance**

June 30, 2023	\$	27,643
Contributions		1,305
Withdrawals		(125)
Net		<u>1,180</u>
Investment income		16
Net appreciation		3,243
June 30, 2024	\$	<u><u>32,082</u></u>

**Asset Allocation**

	Amount	Percent of Total
Portable Alpha	\$ 7,940	24.7%
Non-Large Cap Domestic Equity	1,472	4.6
International Qualified	1,698	5.3
International Equity	4,022	12.5
Short-Term Fixed Income	412	1.4
Total Return Fixed Income	2,339	7.3
Core Fixed Income	2,336	7.3
Private Markets	8,356	26.0
Hedge Fund	3,507	10.9
Total	\$ 32,082	100.0%

**INVESTMENT PERFORMANCE**

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	11.5%	7.25%
Three-year	4.2%	7.25%

# Actuarial Section



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## West Virginia Consolidated Public Retirement Board Actuarial Section

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### OVERVIEW

The Actuarial Section of the annual comprehensive financial report provides information related to the actuarial valuations prepared for each of the pension plans for funding purposes. Other schedules provide information regarding the required contributions, benefits, and funded status of the plans.

Effective with the adoption of GASB 67 for the fiscal year ended June 30, 2014, each of the pension plans has an actuarial valuation prepared for funding purposes and a separate actuarial valuation prepared for financial reporting purposes. The actuarial valuations included in this section of the annual comprehensive financial report have been prepared for funding purposes and have been prepared as of July 1, 2023, the beginning of the plan year. The actuarial valuations prepared for financial reporting purposes have been prepared as of June 30, 2024, the end of the plan year, and were the source of much of the actuarial information in the Financial Section.

The actuarial methods and assumptions used to prepare the actuarial valuations for funding purposes and for financial reporting purposes are nearly identical. The primary difference is in the asset valuation method for the Public Employees Retirement System (PERS), the Teachers' Retirement System (TRS), the Deputy Sheriff Retirement System (DSRS), and the Natural Resources Police Officers Retirement System (NRPORS). For financial reporting purposes, the fair value of the PERS, TRS, DSRS, and NRPORS assets as of the end of the fiscal year is used. For funding purposes, a four year smoothing of the actuarial gain or loss on PERS, TRS, DSRS, and NRPORS asset returns each year is used.





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December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Public Employees' Retirement System  
601 57<sup>th</sup> Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members,

We performed the annual actuarial valuation of the West Virginia Public Employees' Retirement System (PERS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Gallagher reviewed the data for reasonableness and consistency with data provided for prior valuations but did not audit the data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for PERS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated March 22, 2024. These tables include:

#### **Actuarial Section**

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. Gallagher has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

The report fairly presents the actuarial position of PERS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in view of PERS's experience and represent our best estimate of anticipated future experience of PERS. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the "funded status" and "unfunded accrued liability" are typically measured using the actuarial value of assets. Use of the fair value of assets instead would result in different funded status ratios and unfunded accrued liabilities. Moreover, the funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

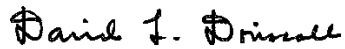
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software to calculate the liabilities associated with the System's provisions using data, assumptions, and funding methods as specified in our report. Gallagher also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

Gallagher maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely for the Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Gallagher does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than the Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Gallagher's prior written consent.

We are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Gallagher Benefit Services, Inc. (Gallagher)



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David L. Driscoll, FSA, EA, MAAA, FCA  
Principal, Consulting Actuary



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Elizabeth A. Wiley, FSA, EA, MAAA, FCA  
Director, Retirement Actuary





**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis for Assumptions**

The valuation is prepared under the Entry Age Normal Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry is based on date of hire.

Experience studies are performed at least once in every 5-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on the experience study covering the period from July 1, 2013, to June 30, 2018. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised demographic assumptions.

The valuation reflects economic assumptions, which include a rate of investment return of 7.25% per annum, as adopted by the Board, and assumed future salary increases, which were based on the findings presented in the July 1, 2015 – June 30, 2020, Experience Study. These assumptions will remain in effect for valuation purposes until the Board adopts revised economic assumptions.

**Interest Rate and Expenses**

The valuation interest assumption is 7.25% per annum, with no loading for system expenses.

**Salary Scales**

Salary scales are used for the assumed increase in salary. Projected salary increases for State employees range from 2.75% to 5.55% per year and Nonstate employees range from 3.60% to 6.75% per year. The Valuation results reflect the \$2,300 annual pay increase effective July 1, 2023 for all active members of PERS. This flat-dollar increase was reflected in addition to the assumed salary scales for fiscal year 2024. Assumed increases in salary for sample ages are as follows:

Salary Scales		
Age	State	Nonstate
30	5.05%	4.85%
40	4.55%	4.35%
50	4.20%	4.10%
60	3.35%	3.60%

**Mortality**

The mortality tables are as follows:

- Pre-retirement males: 100% of Pub-2010 General Employee male table, below-median, headcount-weighted, projected generationally with scale MP-2018
- Pre-retirement females: 100% of Pub-2010 General Employee female table, below-median, headcount-weighted, projected generationally with scale MP-2018
- Post-retirement healthy males: 108% of Pub-2010 General Retiree male table, below-median, headcount-weighted, projected generationally with scale MP-2018
- Post-retirement healthy females: 122% of Pub-2010 General Retiree female table, below-median, headcount-weighted, projected generationally with scale MP-2018
- Disabled males: 118% of Pub-2010 General/Teachers Disabled male table, headcount-weighted, projected generationally with scale MP-2018
- Disabled females: 117% of Pub-2010 General/Teachers Disabled female table, headcount-weighted, projected generationally with scale MP-2018
- Beneficiary males: \* 112% of Pub-2010 Contingent Survivor male table, below-median, headcount-weighted, projected generationally with scale MP-2018
- Beneficiary females: \* 115% of Pub-2010 Contingent Survivor female table, below-median, headcount-weighted, projected generationally with scale MP-2018

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Public Employees Retirement System***

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**Withdrawal from Service**

Specific tables have been created to reflect withdrawal rates. All withdrawals are assumed to result in refund of contributions if non-vested or a deferred annuity if vested. The liability for a refund of contributions for nonactive non-vested members as of the valuation date is assumed to be 60% of the total employee contribution balance of such members. Sample withdrawal rates are as follows:

State (less than 1 year)			State (1 to 2 years)		
Age	Male	Female	Age	Male	Female
30	0.35068	0.29227	30	0.27720	0.24200
40	0.27209	0.23023	40	0.20160	0.18000
50	0.21294	0.19734	50	0.16706	0.15000
60	0.19520	0.16445	60	0.15188	0.13500

State (2 to 3 years)			State (3 to 4 years)		
Age	Male	Female	Age	Male	Female
30	0.20930	0.20016	30	0.17160	0.18144
40	0.14950	0.16046	40	0.11440	0.12600
50	0.11000	0.13750	50	0.08580	0.10584
60	0.08250	0.10313	60	0.05720	0.07560

State (4 to 5 years)			State (greater than 5 years)		
Age	Male	Female	Age	Male	Female
30	0.13230	0.14625	30	0.10080	0.11000
40	0.10500	0.11375	40	0.06000	0.05850
50	0.07700	0.08626	50	0.03900	0.04550
60	0.04025	0.06000	60	0.03000	0.02275

Nonstate (less than 1 year)			Nonstate (1 to 2 years)		
Age	Male	Female	Age	Male	Female
30	0.30360	0.27577	30	0.24480	0.21850
40	0.24840	0.24035	40	0.18720	0.18975
50	0.19320	0.18975	50	0.13200	0.13000
60	0.15180	0.15180	60	0.12000	0.11000

Nonstate (2 to 3 years)			Nonstate (3 to 4 years)		
Age	Male	Female	Age	Male	Female
30	0.19360	0.19542	30	0.16940	0.15500
40	0.15180	0.13965	40	0.11000	0.13000
50	0.10800	0.12564	50	0.08800	0.10000
60	0.09600	0.10379	60	0.06600	0.08000

Nonstate (4 to 5 years)			Nonstate (greater than 5 years)		
Age	Male	Female	Age	Male	Female
30	0.12000	0.14820	30	0.10247	0.09000
40	0.10800	0.10260	40	0.06210	0.06435
50	0.07920	0.07980	50	0.04600	0.04200
60	0.05040	0.05700	60	0.02500	0.02600

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Public Employees Retirement System***

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**Disablement Rates**

Sample rates of disablement are as follows:

State and Nonstate		
Age	Male	Female
30	0.00022	0.00039
40	0.00082	0.00073
50	0.00351	0.00225
60	0.00540	0.00488

**Retirement Rates**

The retirement rates are as follows:

State and Nonstate	
Age	Rates
55	0.30
56	0.18
57	0.15
58	0.15
59	0.15
60	0.12
61	0.15
62	0.22
63	0.15
64	0.18
65	0.25
66	0.20
67	0.20
68	0.20
69	0.20
70+	1.00

**Family Composition**

It is assumed that 85% of males and 80% of females are married, with husbands 3 years older than wives. Remarriage rates are not used.

**Accrual of Future Service**

It is assumed that active members will accrue 1 year of service for each future year of employment.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Public Employees Retirement System***

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**Noncontributory Service Loadings**

Noncontributory service for active members is estimated from member's contributory service by adjusting the present value of benefits projected from contributory service alone. The assumed service loads are as follows:

Group	Tier 1	Tier 2
Male - State	10.10%	0.00%
Male - Nonstate	8.80%	0.00%
Female - State	3.20%	0.00%
Female - Nonstate	2.80%	0.00%

**Asset Valuation Method**

4-year 25% level smoothing of actuarial gain or (loss) on trust fund return:

- Implemented over 4 years, prospectively commencing July 1, 2009 for the experience for the trust year ending June 30, 2009.
- Actuarial gain or (loss) on assets is calculated as the difference between the expected return under valuation assumptions based on the smoothed Actuarial Value of Assets and the actual trust fund return.
- Actuarial gain or (loss) is recognized at 25% of the original amount each year until fully recognized in the fourth year.
- Total accumulated deferred gain or (loss) amounts are used to adjust the reported Fair value of Assets to determine the Actuarial Value of Assets.

**System Contributions**

Both employee and employer contributions to the System are assumed to be paid in the middle of the year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**Public Employees Retirement System**

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	35,003	\$ 1,863,879,000	\$ 53,249	12.3%	553
6/30/2022	34,952	1,656,685,000	47,399	4.6%	520
6/30/2021	35,576	1,611,398,000	45,295	2.8%	517
6/30/2020	35,781	1,577,290,000	44,082	4.5%	516
6/30/2019	35,508	1,497,636,000	42,177	5.6%	517
6/30/2018	34,765	1,388,662,000	39,944	0.8%	519
6/30/2017	36,094	1,430,578,000	39,635	1.3%	523
6/30/2016	36,150	1,414,585,000	39,131	1.5%	513
6/30/2015	36,122	1,392,113,000	38,539	1.0%	512
6/30/2014	36,413	1,389,089,000	38,148	0.6%	513

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
7/1/2023	\$ 8,473,855	\$ 8,681,548	\$ 207,693	97.6%	\$ 1,863,879	11.1%
7/1/2022	8,084,685	8,179,835	95,150	98.8%	1,656,685	5.7%
7/1/2021	7,745,853	7,942,242	196,389	97.5%	1,611,398	12.2%
7/1/2020	7,129,022	7,506,535	377,513	95.0%	1,577,290	23.9%
7/1/2019	6,792,291	7,237,396	445,105	93.9%	1,497,636	29.7%
7/1/2018	6,508,771	7,003,602	494,831	92.9%	1,388,662	35.6%
7/1/2017	6,248,413	6,832,513	584,100	91.5%	1,430,578	40.8%
7/1/2016	5,888,558	6,615,406	726,848	89.0%	1,414,585	51.4%
7/1/2015	5,565,081	6,412,587	847,506	86.8%	1,392,113	60.9%
7/1/2014	5,208,828	6,271,827	1,062,999	83.1%	1,389,089	76.5%

**Solvency Test (in thousands)**

Valuation Date	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	Active Members		% of Accrued Liabilities Covered by Valuation Assets		
			(3) (Employer Financed Portion)	Valuation of Assets	(1)	(2)	(3)
6/30/2023	\$ 859,154	\$ 4,978,997	\$ 2,843,397	\$ 8,473,855	100.0%	100.0%	92.7%
6/30/2022	835,994	4,818,381	2,525,460	8,084,685	100.0%	100.0%	96.2%
6/30/2021	827,629	4,632,247	2,482,366	7,745,853	100.0%	100.0%	92.1%
6/30/2020	810,953	4,381,135	2,314,447	7,129,022	100.0%	100.0%	83.7%
6/30/2019	781,469	4,250,094	2,205,833	6,792,291	100.0%	100.0%	79.8%
6/30/2018	761,779	4,141,930	2,099,893	6,508,771	100.0%	100.0%	76.4%
6/30/2017	782,548	4,003,286	2,046,679	6,248,413	100.0%	100.0%	71.5%
6/30/2016	777,734	3,806,345	2,031,327	5,888,558	100.0%	100.0%	64.2%
6/30/2015	763,823	3,636,257	2,012,507	5,565,081	100.0%	100.0%	57.9%
6/30/2014	759,854	3,299,873	2,212,100	5,208,828	100.0%	100.0%	51.9%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Public Employees Retirement System***

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	1,716	\$ 35,355,857	(1,254)	\$ 15,328,471	29,867	\$ 516,787,558	4.0%	\$ 17,303
2022	1,857	37,875,222	(1,461)	18,635,994	29,405	496,760,172	4.0%	16,894
2021	1,839	34,597,318	(1,280)	15,330,034	29,009	477,520,944	4.2%	16,461
2020	1,533	27,879,912	(1,116)	13,569,720	28,450	458,253,660	3.2%	16,107
2019	1,587	28,494,612	(1,122)	12,812,376	28,033	443,943,468	3.7%	15,836
2018	1,636	28,385,806	(1,121)	13,024,066	27,568	428,261,232	3.7%	15,535
2017	1,758	33,260,748	(998)	11,418,918	27,053	412,899,492	5.6%	15,263
2016	1,687	29,955,504	(1,073)	11,537,634	26,293	391,057,662	4.9%	14,873
2015	1,806	32,084,148	(1,058)	10,899,840	25,679	372,639,792	6.0%	14,511
2014	1,663	28,185,307	(937)	9,490,831	24,931	351,455,484	5.6%	14,097

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, June 30, 2022	\$ 95,150,000
Interest	9,271,000
Normal cost	156,853,000
Contributions	(252,665,000)
Assumption changes	-
Plan changes	8,749,000
Liability (Gain)/Loss	275,470,000
Actuarial Asset (Gain)/Loss	(85,135,000)
<b>Unfunded Actuarial Liability, June 30, 2023</b>	<b>\$ 207,693,000</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.



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December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Teachers' Retirement System  
601 57<sup>th</sup> Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members,

We performed the annual actuarial valuation of the West Virginia Teachers' Retirement System (TRS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Gallagher reviewed the data for reasonableness and consistency with data provided for prior valuations but did not audit the data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for TRS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated March 22, 2024. These tables include:

#### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability



## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. Gallagher has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

The report fairly presents the actuarial position of TRS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in view of TRS's experience and represent our best estimate of anticipated future experience of TRS. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the "funded status" and "unfunded accrued liability" are typically measured using the actuarial value of assets. Use of the fair value of assets instead would result in different funded status ratios and unfunded accrued liabilities. Moreover, the funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

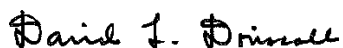
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software to calculate the liabilities associated with the System's provisions using data, assumptions, and funding methods as specified in our report. Gallagher also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

Gallagher maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely for the Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Gallagher does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than the Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Gallagher's prior written consent.

We are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Gallagher Benefit Services, Inc. (Gallagher)



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David L. Driscoll, FSA, EA, MAAA, FCA  
Principal, Consulting Actuary



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Elizabeth A. Wiley, FSA, EA, MAAA, FCA  
Director, Retirement Actuary



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**Teacher's Retirement System**

**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis for Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry is based on adjusted date of hire (i.e. valuation date minus known past service).

Experience studies are performed at least once in every five-year period. The valuation was prepared using demographic assumptions that were recommended to and adopted by the Board based on the experience study covering the period from July 1, 2014, to June 30, 2019. The valuation reflects economic assumptions, which include a rate of investment return of 7.25% per annum, as adopted by the Board, and assumed future salary increases, which were based on the findings presented in the July 1, 2015, to June 30, 2020 Experience Study. These assumptions will remain in effect for valuation purposes until the Board adopts revised assumptions.

**Interest Rate and Expenses**

The valuation interest assumption is 7.25% per annum, with no loading for plan expenses.

**Salary Scales**

Projected salary increases are in the following ranges by group, with an underlying inflation rate of 2.75%:

Group	Range of Projected Salary Increases
Teachers	2.75% - 5.90%
Non-Teachers	2.75% - 6.50%

A sample of salaries from the salary scales is as follows:

Age	Teachers	Non-Teachers and State
30	5.468%	5.580%
40	4.613%	4.844%
50	3.760%	4.110%
60	3.213%	3.373%

The valuation results reflect the \$2,300 annual pay increase effective July 1, 2023, for all active members of TRS. This flat-dollar increase was reflected in addition to the assumed salary scales for fiscal year 2024.

**Pre-Retirement Mortality**

Pub-2010 General Employee table, headcount-weighted, projected generationally with scale MP-2019.

**Post-Retirement Mortality**

The mortality tables used are as follows:

- Retired Males: 100% of Pub-2010 General Retiree male table, headcount-weighted, projected generationally with scale MP-2019
- Retired Females: 112% of Pub-2010 General Retiree female table, headcount-weighted, projected generationally with scale MP-2019
- Disabled Males: 107% of Pub-2010 General/Teachers Disabled male table, headcount-weighted, projected generationally with scale MP-2019
- Disabled Females: 113% of Pub-2010 General/Teachers Disabled female table, headcount-weighted, projected generationally with scale MP-2019
- Beneficiary Males:\* 101% of Pub-2010 Contingent Survivor male table, headcount-weighted, projected generationally with scale MP-2019
- Beneficiary Females:\* 113% of Pub-2010 Contingent Survivor female table, headcount-weighted, projected generationally with scale MP-2019

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Teacher's Retirement System*

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**Withdrawal from Service**

Withdrawal rates are assumed to cease upon eligibility for retirement. All withdrawal is assumed to result in refund of contributions if non-vested or a deferred annuity if vested. Sample withdrawal rates are as follows:

Teachers (less than 1 year)		
Age	Male	Female
30	0.19571	0.19571
40	0.25286	0.24172
50	0.31000	0.27900
60	0.35000	0.35000

Teachers (1 to 2 years)		
Age	Male	Female
30	0.15574	0.11000
40	0.14250	0.11000
50	0.12926	0.11000
60	0.12000	0.11000

Teachers (2 to 3 years)		
Age	Male	Female
30	0.10275	0.10360
40	0.09750	0.07560
50	0.09750	0.07000
60	0.09750	0.07000

Teachers (3 to 4 years)		
Age	Male	Female
30	0.07200	0.07186
40	0.05592	0.07000
50	0.04500	0.07000
60	0.04500	0.07000

Teachers (4 to 5 years)		
Age	Male	Female
30	0.07888	0.08100
40	0.06448	0.05102
50	0.05008	0.04050
60	0.04000	0.04050

Teachers (greater than 5 years)		
Age	Male	Female
30	0.04200	0.04800
40	0.03332	0.03200
50	0.02100	0.01600
60	0.02800	0.02400

Non-Teachers and State (less than 1 year)		
Age	Male	Female
30	0.15600	0.20378
40	0.13200	0.17243
50	0.10800	0.14108
60	0.08400	0.10973

Non-Teachers and State (1 to 2 years)		
Age	Male	Female
30	0.12650	0.12560
40	0.09200	0.08568
50	0.06900	0.06480
60	0.05750	0.05850

Non-Teachers and State (2 to 3 years)		
Age	Male	Female
30	0.12500	0.09520
40	0.09360	0.06160
50	0.06000	0.05242
60	0.06000	0.05600

Non-Teachers and State (3 to 4 years)		
Age	Male	Female
30	0.08000	0.10000
40	0.07000	0.05400
50	0.07000	0.05265
60	0.07000	0.06075

Non-Teachers and State (4 to 5 years)		
Age	Male	Female
30	0.05625	0.08438
40	0.05175	0.05063
50	0.05175	0.03375
60	0.05175	0.02532

Non-Teachers and State (greater than 5 years)		
Age	Male	Female
30	0.05349	0.04728
40	0.03899	0.03063
50	0.02785	0.02303
60	0.02475	0.02450

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Teacher's Retirement System*

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**Disablement Rates**

A sample of disablement rates follows:

Age	Male	Female
30	0.00040	0.00051
40	0.00132	0.00128
50	0.00305	0.00241
60	0.00560	0.00563

**Retirement Rates**

A schedule of retirement rates follows:

Age	Teachers		Non-Teachers & State	
	Male	Female	Male	Female
54	0.000	0.000	0.000	0.000
55	0.175	0.175	0.200	0.150
56	0.175	0.175	0.200	0.175
57	0.200	0.200	0.175	0.150
58	0.200	0.200	0.200	0.150
59	0.200	0.225	0.150	0.175
60	0.200	0.225	0.125	0.150
61	0.225	0.225	0.125	0.150
62	0.325	0.275	0.300	0.225
63	0.225	0.250	0.225	0.175
64	0.250	0.225	0.150	0.175
65	0.325	0.300	0.300	0.275
66	0.275	0.350	0.225	0.275
67	0.225	0.300	0.225	0.225
68	0.250	0.300	0.225	0.225
69	0.250	0.300	0.225	0.225
70+	1.000	1.000	1.000	1.000

**Accrual of Future Service**

It is assumed that all active members will accrue 1 year of service for each future year of employment.

**Non-Contributory Service Loadings**

The load factor assumptions for non-contributory service (military, parochial or out-of-state teaching, transferred PERS service, and unused sick leave) are as follows:

Group	Male		Female	
	Tier 1	Tier 2	Tier 1	Tier 2
Teachers	7.50%	0.00%	4.60%	0.00%
Non-Teachers	6.00%	0.00%	4.00%	0.00%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Teacher's Retirement System*

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**Family Composition**

It is assumed that 85% of males and 80% of females are married, with husbands 3 years older than wives. Remarriage rates are not used.

**Asset Valuation Method**

Four-year 25% level smoothing of actuarial gain or (loss) on trust fund return:

- Implemented over 4 years, prospectively commencing July 1, 2016 for the experience for the trust year ending June 30, 2016.
- Actuarial gain or (loss) on assets is calculated as the difference between the expected return under valuation assumptions based on the smoothed Actuarial Value of Assets and the actual trust fund return.
- Actuarial gain or (loss) is recognized at 25% of the original amount each year until fully recognized in the fourth year.
- Total accumulated deferred gain or (loss) amounts are used to adjust the reported Fair value of Assets to determine the Actuarial Value of Assets.

**Plan Contribution**

Both employee and employer contributions to the plan are assumed to be paid in the middle of the year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**Teacher's Retirement System**

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	35,069	\$ 1,849,874,000	\$ 52,750	9.1%	84
6/30/2022	34,871	1,686,598,000	48,367	3.8%	81
6/30/2021	35,113	1,636,411,000	46,604	0.8%	82
6/30/2020	34,753	1,606,568,000	46,228	4.5%	80
6/30/2019	34,108	1,508,177,000	44,218	4.4%	82
6/30/2018	33,174	1,404,586,000	42,340	-0.3%	79
6/30/2017	34,318	1,457,143,000	42,460	1.0%	80
6/30/2016	35,811	1,505,080,000	42,028	-0.5%	84
6/30/2015	35,788	1,511,271,000	42,228	1.8%	84
6/30/2014	35,724	1,481,786,000	41,479	-1.1%	84

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets		Actuarial Accrued Liability (AAL)		Unfunded AAL (UAAL)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
	(a)	Entry Age (b)	(b)	Entry Age (b)				
7/1/2023	\$ 9,490,169	\$ 11,870,647	\$ 2,380,478		80.0%	\$ 1,849,874	128.7%	
7/1/2022	9,091,948	11,592,440	2,500,492		78.4%	1,686,598	148.3%	
7/1/2021	8,740,204	11,495,184	2,754,980		76.0%	1,636,411	168.4%	
7/1/2020	8,116,332	11,154,850	3,038,518		72.8%	1,606,568	189.1%	
7/1/2019	7,788,482	10,951,502	3,163,020		71.1%	1,508,177	209.7%	
7/1/2018	7,497,885	10,778,022	3,280,137		69.6%	1,404,586	233.5%	
7/1/2017	7,193,080	10,727,223	3,534,143		67.1%	1,457,143	242.5%	
7/1/2016	6,936,281	10,604,279	3,667,998		65.4%	1,505,080	243.7%	
7/1/2015	6,803,089	10,310,652	3,507,563		66.0%	1,511,271	232.1%	
7/1/2014	6,682,093	10,098,693	3,416,600		66.2%	1,481,786	230.6%	

**Solvency Test (in thousands)**

Valuation Date	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation of Assets	% of Accrued Liabilities Covered by Valuation Assets		
					(1)	(2)	(3)
6/30/2023	\$ 1,237,827	\$ 8,221,625	\$ 2,411,195	\$ 9,490,169	100.0%	100.0%	1.3%
6/30/2022	1,203,686	8,209,597	2,179,157	9,091,948	100.0%	96.1%	0.0%
6/30/2021	1,188,606	8,177,589	2,128,989	8,740,204	100.0%	92.4%	0.0%
6/30/2020	1,155,649	7,909,421	2,089,780	8,116,332	100.0%	88.0%	0.0%
6/30/2019	1,113,929	7,854,163	1,983,410	7,788,482	100.0%	85.0%	0.0%
6/30/2018	1,116,650	7,784,459	1,876,913	7,497,885	100.0%	82.0%	0.0%
6/30/2017	1,067,691	7,637,691	2,021,841	7,193,080	100.0%	80.2%	0.0%
6/30/2016	1,394,615	7,333,565	1,876,099	6,936,281	100.0%	75.6%	0.0%
6/30/2015	1,433,224	6,976,345	1,901,083	6,803,089	100.0%	77.0%	0.0%
6/30/2014	1,477,848	6,651,706	1,969,139	6,682,093	100.0%	78.2%	0.0%



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**Teacher's Retirement System**

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	1,397	\$ 32,576,271	(1,381)	\$ 21,794,520	37,113	\$ 897,299,684	1.2%	\$ 24,178
2022	1,511	34,909,787	(1,696)	26,755,541	37,097	886,517,933	0.9%	23,897
2021	1,851	42,958,698	(1,366)	20,569,256	37,282	878,363,687	2.6%	23,560
2020	1,305	30,889,424	(1,160)	17,203,660	36,797	855,974,245	1.6%	23,262
2019	1,478	35,065,626	(1,220)	18,558,818	36,652	842,288,481	2.0%	22,981
2018	1,596	39,292,029	(1,166)	16,850,877	36,394	825,781,673	2.8%	22,690
2017	1,734	45,116,878	(1,210)	17,258,218	35,964	803,340,521	3.6%	22,337
2016	1,800	47,101,566	(1,098)	14,601,924	35,440	775,481,861	4.4%	21,882
2015	1,941	53,133,627	(1,203)	14,817,122	34,738	742,982,219	5.4%	21,388
2014	2,054	57,032,382	(1,061)	13,427,825	34,000	704,665,714	6.6%	20,725

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, June 30, 2022	\$ 2,500,492,000
Interest	173,652,000
Normal cost	168,309,000
Contributions	(556,953,000)
Assumption changes	-
Plan changes	13,304,000
Liability (Gain)/Loss	173,945,000
Actuarial Asset (Gain)/Loss	(92,271,000)
<b>Unfunded Actuarial Liability, June 30, 2023</b>	<b>\$ 2,380,478,000</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.



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December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Department of Public Safety Death, Disability and Retirement  
Fund 601 57<sup>th</sup> Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members,

We performed the annual actuarial valuation of the West Virginia Department of Public Safety Death, Disability and Retirement Fund (Plan A) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Gallagher reviewed the data for reasonableness and consistency with data provided for prior valuations but did not audit the data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for Plan A in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated March 22, 2024. These tables include:

#### **Actuarial Section**

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. Gallagher has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

The report fairly presents the actuarial position of Plan A as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in view of Plan A's experience and represent our best estimate of anticipated future experience of Plan A. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the "funded status" and "unfunded accrued liability" are typically measured using the fair value of assets. The funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

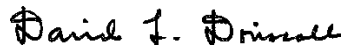
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software to calculate the liabilities associated with the System's provisions using data, assumptions, and funding methods as specified in our report. Gallagher also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

Gallagher maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely for the Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Gallagher does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than the Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Gallagher's prior written consent.

We are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Gallagher Benefit Services, Inc. (Gallagher)



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David L. Driscoll, FSA, EA, MAAA, FCA  
Principal, Consulting Actuary



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Elizabeth A. Wiley, FSA, EA, MAAA, FCA  
Director, Retirement Actuary



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*State Police Death, Disability and Retirement System*

**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis for Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry is based on date of hire.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on the experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Rate and Expenses**

The valuation interest assumption is 7.25% per annum, with no loading for plan expenses.

**Pre-Retirement Mortality**

The Pub-2010 Safety Employee Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

Healthy Male:	98% of Pub-2010 Safety Retiree Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Healthy Female:	99% of Pub-2010 Safety Retiree Female Table, median, amount-weighted, projected generationally with Scale MP-2020.
Disabled Male:	124% of Pub-2010 Safety Disabled Male Table, amount-weighted, projected generationally with Scale MP-2020.
Disabled Female:	100% of Pub-2010 Safety Disabled Female Table, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Male:*	111% of Pub-2010 Contingent Survivor Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Female:*	109% of Pub-2010 Contingent Survivor Female Table, median, amount-weighted, projected generationally with Scale MP-2020.

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

**Salary Scales**

The valuation results reflect the \$2,300 annual pay increase effective July 1, 2023. The flat-dollar increase was reflected in addition to the assumed salary scale for FY 2024. Compensation is assumed to increase 4.00% per year. The inflation rate is 2.75%.

**Withdrawal from Service**

Withdrawal rates cease once an employee is eligible for normal retirement. A sample of withdrawal rates follows:

Age	Rate of Withdrawal
20	0.0267
30	0.0190
40	0.0114
50	0.0038

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***State Police Death, Disability and Retirement System***

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**Disablement Rates**

A sample of disablement rates, which cease once an employee is eligible for normal retirement, are as follows:

Age	Rate of Disablement	Type of Disability	Probability
30	0.0012	Duty-Related Full	0.25
40	0.0031	Duty-Related Partial	0.60
50	0.0040	Nonduty- Related	0.15
60	0.0040		

**Family Composition**

It is assumed that 90% of all members are married, with husbands 3 years older than their wives. Re-marriage rates are not used.

**Accrual of Future Service**

Active members are assumed to accrue 1 year of service for each future year of employment.

**Non-Contributory Service**

At retirement, a member is assumed to be granted 1.25 additional year of service for benefits due to allowable military service, plus three additional years for unused annual leave and/or unused sick leave for a total of 4.25 additional years.

**Retirement Rates**

87.5% of members are assumed to retire when first eligible for unreduced benefits at the earlier of age 50 and 20 years of service or any age and 25 years of service. An active member who has already attained eligibility for normal retirement has a 25% probability of retiring each year thereafter with 100% retiring on or after attainment of age 55.

**Asset Valuation Method**

Assets for valuation purposes are included at Fair value.

**Plan Contributions**

Both employee and employer contributions are assumed to be paid in the middle of the year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*State Police Death, Disability and Retirement System*

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	1	\$ 91,000	\$ 91,000	67.5%	1
6/30/2022	3	163,000	54,333	-2.1%	1
6/30/2021	4	222,000	55,500	1.4%	1
6/30/2020	4	219,000	54,750	-14.0%	1
6/30/2019	6	382,000	63,667	-6.8%	1
6/30/2018	20	1,366,000	68,300	14.6%	1
6/30/2017	39	2,325,000	59,615	-16.1%	1
6/30/2016	42	2,985,000	71,071	8.0%	1
6/30/2015	52	3,422,000	65,808	0.8%	1
6/30/2014	74	4,829,000	65,257	7.9%	1

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of		Actuarial Accrued Liability (AAL)		Unfunded AAL (UAAL)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
	Assets (a)	Entry Age (b)						
7/1/2023	\$ 778,134	\$ 811,116	\$ 32,982	95.9%	\$ 91	36244.0%		
7/1/2022	767,205	806,356	39,151	95.1%	163	24019.0%		
7/1/2021	851,533	802,679	(48,854)	106.1%	222	-22006.3%		
7/1/2020	675,604	773,120	97,516	87.4%	219	44527.9%		
7/1/2019	689,820	767,118	77,298	89.9%	382	20235.1%		
7/1/2018	682,803	754,969	72,166	90.4%	1,366	5283.0%		
7/1/2017	641,748	739,828	98,080	86.7%	2,325	4218.5%		
7/1/2016	578,798	729,051	150,253	79.4%	2,985	5033.6%		
7/1/2015	607,339	717,362	110,023	84.7%	3,422	3215.2%		
7/1/2014	601,077	698,400	97,323	86.1%	4,829	2015.4%		

**Solvency Test**

Valuation Date	(1)			(2)			(3)			% of Accrued Liabilities Covered by Valuation Assets		
	Active Member Contributions	Terms, Retirees, and Beneficiaries	Active Members (Employer Financed Portion)	Valuation of Assets	(1)	(2)	(3)	(1)	(2)	(3)		
6/30/2023	\$ 254,173	\$ 809,297,000	\$ 1,564,827	\$ 778,134,000	100.0%	96.1%	0.0%					
6/30/2022	733,843	801,482,000	4,140,157	767,205,000	100.0%	95.6%	0.0%					
6/30/2021	912,484	796,522,000	5,244,516	851,533,000	100.0%	100.0%	1031.5%					
6/30/2020	847,409	767,477,000	4,795,591	675,604,000	100.0%	87.9%	0.0%					
6/30/2019	1,186,240	759,154,000	6,777,760	689,820,000	100.0%	90.7%	0.0%					
6/30/2018	3,440,152	731,985,000	19,543,848	682,803,000	100.0%	92.8%	0.0%					
6/30/2017	6,305,033	695,522,000	38,000,967	641,748,000	100.0%	91.4%	0.0%					
6/30/2016	6,239,309	687,180,000	35,631,691	578,798,000	100.0%	83.3%	0.0%					
6/30/2015	6,964,607	669,771,000	40,626,393	607,339,000	100.0%	89.6%	0.0%					
6/30/2014	9,379,242	634,008,000	55,012,758	601,077,000	100.0%	93.3%	0.0%					



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*State Police Death, Disability and Retirement System*

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	10	\$ 2,617,057	(25)	\$ 1,534,594	728	\$ 53,960,892	2.0%	\$ 74,122
2022	13	2,587,429	(22)	1,427,368	743	52,878,429	2.2%	71,169
2021	8	2,299,542	(15)	1,098,242	752	51,718,368	2.4%	68,774
2020	13	2,422,137	(19)	1,304,600	759	50,517,068	2.3%	66,557
2019	25	3,217,675	(19)	1,091,676	765	49,399,531	4.5%	64,575
2018	27	3,486,036	(12)	781,375	759	47,273,532	6.1%	62,284
2017	15	2,358,137	(18)	1,176,752	744	44,568,871	2.7%	59,904
2016	23	2,620,323	(22)	1,203,270	747	43,387,486	3.4%	58,082
2015	35	3,259,031	(14)	637,933	746	41,970,433	6.7%	56,261
2014	34	3,408,623	(14)	649,259	725	39,349,335	7.5%	54,275

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, June 30, 2022	\$ 39,151,000
Interest	2,840,000
Normal cost	66,000
Contributions	(61,000)
Assumption changes	-
Plan changes	-
Liability (Gain)/Loss	525,000
Actuarial Asset (Gain)/Loss	(9,539,000)
<b>Unfunded Actuarial Liability, June 30, 2023</b>	<b>\$ 32,982,000</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.



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December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia State Police Retirement System  
601 57<sup>th</sup> Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members,

We performed the annual actuarial valuation of the West Virginia State Police Retirement System (Plan B) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Gallagher reviewed the data for reasonableness and consistency with data provided for prior valuations but did not audit the data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for Plan B in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated March 22, 2024. These tables include:

#### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. Gallagher has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

The report fairly presents the actuarial position of Plan B as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in view of Plan B's experience and represent our best estimate of anticipated future experience of Plan B. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the "funded status" and "unfunded accrued liability" are typically measured using the fair value of assets. The funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software to calculate the liabilities associated with the System's provisions using data, assumptions, and funding methods as specified in our report. Gallagher also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

Gallagher maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely for the Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Gallagher does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than the Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Gallagher's prior written consent.

We are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Gallagher Benefit Services, Inc. (Gallagher)

*David L. Driscoll*

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David L. Driscoll, FSA, EA, MAAA, FCA  
Principal, Consulting Actuary

*Elizabeth A. Wiley*

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Elizabeth A. Wiley, FSA, EA, MAAA, FCA  
Director, Retirement Actuary



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***State Police Retirement System***

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**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis for Assumptions**

The valuation is prepared under the Entry Age Normal Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry age is based on date of hire.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on an experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Rate and Expenses**

The valuation interest assumption is 7.25% per annum, with no loading for plan expenses.

**Pre-Retirement Mortality**

Pub-2010 Safety Employee Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

Healthy Male:	98% of Pub-2010 Safety Retiree Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Healthy Female:	99% of Pub-2010 Safety Retiree Female Table, median, amount-weighted, projected generationally with Scale MP-2020.
Disabled Male:	124% of Pub-2010 Safety Disabled Male Table, amount-weighted, projected generationally with Scale MP-2020.
Disabled Female:	100% of Pub-2010 Safety Disabled Female Table, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Male:*	111% of Pub-2010 Contingent Survivor Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Female:*	109% of Pub-2010 Contingent Survivor Female Table, median, amount-weighted, projected generationally with Scale MP-2020.

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

**Salary Scales**

The valuation results reflect the \$2,300 annual pay increase effective July 1, 2023. The flat-dollar increase was reflected in addition to the assumed salary scale for FY 2024. Compensation is assumed to increase 4.00% per year. The inflation rate is 2.75%.

**Withdrawal from Service**

Withdrawal rates cease once an employee is eligible for normal retirement. A sample of withdrawal rates follows:

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**State Police Retirement System**

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Age	Rate of Withdrawal
20	0.0684
30	0.0488
40	0.0216
50	0.0096

**Disablement Rates**

No disablements are assumed to occur after the later of age 55 and the age first eligible for retirement. A sample of disablement rates follows:

Age	Rate of Disablement	Type of Disability	Probability
30	0.0012	Duty-Related Full	0.25
40	0.0031	Duty-Related Partial	0.60
50	0.0040	Nonduty Related	0.15
60	0.0040		

**Family Composition**

It is assumed that 90% of members are married, with husbands 3 years older than their wives. Remarriage rates are not used.

**Accrual of Future Service**

It is assumed that active members will accrue one year of service for each future year of employment.

**Non-Contributory Service**

At retirement, a member is assumed to be granted 1.25 additional year of service for benefits due to allowable military service. Members hired before July 1, 2015, are also assumed to be granted three additional years for unused annual leave and/or unused sick leave for a total of 4.25 additional years.

**Retirement Rates**

60% of members are assumed to retire when first eligible for unreduced benefits at the earlier of age 50 and 25 years of service or age 52 and 20 years of service. An active member who has already attained eligibility for normal retirement has a 20% probability of retiring each year thereafter with 100% retiring on or after attainment of age 55.

**Asset Valuation Method**

Assets for valuation purposes are included at Fair value.

**Plan Contributions**

Plan Contributions, both employee and employer, are assumed to be paid in the middle of the year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
**State Police Retirement System**

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	596	\$ 43,230,000	\$ 72,534	10.3%	1
6/30/2022	590	38,809,000	65,778	13.5%	1
6/30/2021	606	35,120,000	57,954	3.8%	1
6/30/2020	626	34,946,000	55,824	0.9%	1
6/30/2019	613	33,904,000	55,308	1.9%	1
6/30/2018	570	30,938,000	54,277	0.0%	1
6/30/2017	595	32,291,000	54,271	5.2%	1
6/30/2016	611	31,530,000	51,604	1.4%	1
6/30/2015	625	31,792,000	50,867	2.7%	1
6/30/2014	597	29,574,000	49,538	-0.2%	1

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets		Actuarial Accrued Liability (AAL) Entry Age		Unfunded AAL (UAAL) (b-a)		Funded Ratio (a/b)		Covered Payroll (c)		UAAL as a % of Covered Payroll ((b-a)/c)
	(a)	(b)	(b)	(b)	(b-a)	(a/b)	(c)	(c)	((b-a)/c)		
7/1/2023	\$ 320,044	\$ 377,435	\$ 377,435	\$ 57,391	\$ 57,391	84.8%	\$ 43,230	\$ 43,230	132.8%		
7/1/2022	289,303	334,828	334,828	45,525	45,525	86.4%	38,809	38,809	117.3%		
7/1/2021	301,158	289,745	289,745	(11,413)	(11,413)	103.9%	35,120	35,120	-32.5%		
7/1/2020	220,565	249,612	249,612	29,047	29,047	88.4%	34,946	34,946	83.1%		
7/1/2019	207,102	225,630	225,630	18,528	18,528	91.8%	33,904	33,904	54.6%		
7/1/2018	188,915	185,641	185,641	(3,274)	(3,274)	101.8%	30,938	30,938	-10.6%		
7/1/2017	166,688	169,890	169,890	3,202	3,202	98.1%	32,291	32,291	9.9%		
7/1/2016	138,569	145,326	145,326	6,757	6,757	95.4%	31,530	31,530	21.4%		
7/1/2015	131,678	130,132	130,132	(1,546)	(1,546)	101.2%	31,792	31,792	-4.9%		
7/1/2014	120,572	114,314	114,314	(6,258)	(6,258)	105.5%	29,574	29,574	-21.2%		

**Solvency Test**

Valuation Date	(1)		(2)		(3)		% of Accrued Liabilities Covered by Valuation Assets		
	Active Member Contributions	Terms, Retirees, and Beneficiaries	Active Members (Employer Financed Portion)	Valuation of Assets	(1)	(2)	(3)		
6/30/2023	\$ 62,976,002	\$ 121,118,000	\$ 193,340,998	\$320,044,000	100.0%	100.0%	70.3%		
6/30/2022	64,768,809	85,942,000	184,117,191	289,303,000	100.0%	100.0%	75.3%		
6/30/2021	63,724,695	65,870,000	160,150,305	301,158,000	100.0%	100.0%	107.1%		
6/30/2020	64,167,341	37,282,000	148,162,659	220,565,000	100.0%	100.0%	80.4%		
6/30/2019	60,679,470	26,652,000	138,298,530	207,102,000	100.0%	100.0%	86.6%		
6/30/2018	56,534,849	20,289,000	108,817,151	188,915,000	100.0%	100.0%	103.1%		
6/30/2017	52,882,128	16,048,000	100,959,872	166,688,000	100.0%	100.0%	96.8%		
6/30/2016	48,209,092	13,601,000	83,515,908	138,569,000	100.0%	100.0%	91.9%		
6/30/2015	43,690,814	11,150,000	75,291,186	131,678,000	100.0%	100.0%	102.1%		
6/30/2014	39,362,809	9,763,000	65,188,191	120,572,000	100.0%	100.0%	109.6%		



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*State Police Retirement System*

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	37	\$ 2,510,154	(1)	\$ 60,199	155	\$ 8,444,477	40.9%	\$ 54,480
2022	25	1,447,613	-	-	119	5,994,522	31.8%	50,374
2021	35	1,987,254	-	-	94	4,546,909	77.6%	48,371
2020	19	826,541	-	-	59	2,559,655	47.7%	43,384
2019	7	395,737	-	-	40	1,733,114	29.6%	43,328
2018	6	289,075	-	-	33	1,337,377	27.6%	40,527
2017	4	197,493	(1)	39,509	27	1,048,302	17.7%	38,826
2016	4	176,491	(1)	15,300	24	890,318	22.1%	37,097
2015	2	97,074	-	-	21	729,127	15.4%	34,720
2014	1	52,475	(1)	11,075	19	632,053	7.0%	33,266

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, June 30, 2022	\$ 45,525,000
Interest	3,058,000
Amortization	(6,820,000)
Assumption changes	-
Plan changes	-
Liability (Gain)/Loss	14,403,000
Actuarial Asset (Gain)/Loss	(3,746,000)
Contribution Asset (Gain)/Loss	4,971,000
<b>Unfunded Actuarial Liability, June 30, 2023</b>	<b>\$ 57,391,000</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.



## Consolidated Public Retirement Board

601 57<sup>th</sup> Street SE, Suite 5  
Charleston, West Virginia 25304



### EXECUTIVE DIRECTOR

Jeffrey E. Fleck

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### BOARD CHAIRMAN

Joseph G. Bunn

December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Deputy Sheriffs' Retirement System  
601 57th Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members:

We performed the annual actuarial valuation of the West Virginia Deputy Sheriffs' Retirement System (DSRS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Census and financial data were not audited by the West Virginia Consolidated Public Retirement Board but were reviewed for consistency. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for DSRS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated April 2024. These tables include:

### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. The CPRB has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

This report presents fairly the actuarial position of DSRS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In my opinion, the assumptions used in preparing the liabilities and costs are individually reasonable with respect to DSRS experience and represent my best estimate of anticipated future experience of DSRS. In my professional judgement, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standards of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the “funded status” and “unfunded accrued liability” are typically measured using the actuarial value of assets. It should be noted that use of the fair value of assets would result in different funded status ratios and unfunded accrued liabilities. Moreover, the funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if it were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

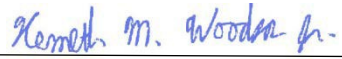
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. The CPRB uses third-party software to calculate the liabilities associated with the provisions of the plan using data, assumptions and funding methods as specified in our report. The CPRB also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

The CPRB maintains an extensive review process in which the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability and consistency with prior results. The CPRB also reviews the third-party model when significant changes are made to the software. The review is performed by the CPRB Board Actuary who is familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely by the West Virginia Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Use of this report for any other purposes or by anyone other than the West Virginia Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without prior written consent of the CPRB Board Actuary.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Respectfully,

Handwritten signature of Kenneth M. Woodson Jr. in blue ink, written over a horizontal line.

Kenneth M. Woodson Jr., FSA, MAAA,  
Ph.D. CPRB Board Actuary



**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Actuarial Valuation Date:** July 1, 2023

**Funding Method and Basis of Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on an experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Return and Expenses**

The interest rate assumption is 7.25% annually, net of investment and administrative expenses. The rate is applied to the interest return on Trust Fund assets as well as the discount rate on future expected benefit payments.

**Salary Scale**

An annual salary increase rate of 5.25% in each of the first two years of service, decreasing to 4.75% for years three through five, 4.25% for years six through ten years and 3.75% for all years of service in excess of the first ten years.

**Pre-Retirement Mortality**

100% of Pub-2010 Safety Employee Mortality Tables, median, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

• Pre-retirement males:	100% of Pub-2010 General Employee male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Pre-retirement females:	100% of Pub-2010 General Employee female table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Post-retirement healthy males:	108% of Pub-2010 General Retiree male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Post-retirement healthy females:	122% of Pub-2010 General Retiree female table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Disabled males:	118% of Pub-2010 General/Teachers Disabled male table, headcount-weighted, projected generationally with scale MP-2018
• Disabled females:	117% of Pub-2010 General/Teachers Disabled female table, headcount-weighted, projected generationally with scale MP-2018
• Beneficiary males: *	112% of Pub-2010 Contingent Survivor male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Beneficiary females: *	115% of Pub-2010 Contingent Survivor female table, below-median, headcount-weighted, projected generationally with scale MP-2018
* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.	

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Deputy Sheriff Retirement System***

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**Withdrawal Rates**

Withdrawal rates predict termination of employment prior to unreduced retirement eligibility. A sample of withdrawal rates by age are:

Age	Rate of Withdrawal
30	0.0880
40	0.0528
50+	0.0500

**Disability Rates**

Disability rates predict an active member becoming disabled prior to unreduced retirement eligibility. A sample of disability rates by age are:

Age	Rate of Disablement
30	0.0012
40	0.0031
50+	0.0040

**Disability Rates - Type of Disability**

It is assumed that members eligible for unreduced retirement will elect retirement prior to becoming disabled. It is also assumed that retired members will not become disabled following retirement due to duty related causes incurred prior to retirement.

Disability retirement benefits vary by type of disability. Disability retirements are assumed to break down in the following types:

Duty Related Full Disability	50%
Duty Related Partial Disability	25%
Non-Duty Full Disability	20%
Non-Duty Partial Disability	5%

**Family Composition**

Remarriage rates are not used, and no dependent children are assumed.

**Accrual of Future Service**

Employment as a deputy sheriff is considered a full-time professional position. All active members are assumed to complete sufficient hours to accrue one year of service in each future year of employment.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Deputy Sheriff Retirement System***

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**Non-Contributory Service Credits for Military Service and Unused Leave at Retirement**

At Normal or Early retirement, a member is assumed to be granted 1 additional year of service for benefits due to allowable military service, plus 2 additional years for unused annual leave and/or unused sick leave for a total of 3 additional years.

**Retirement Rates**

Members who become eligible for unreduced retirement benefits are assumed to have a 16% probability of retiring each year through age 59, with 20% assumed to retire each year through age 64. On or after age at 65, 100% of members are assumed to retire.

**Asset Valuation Method**

Four-year 25% level smoothing of actuarial gain or (loss) on trust fund return:

- Implemented over 4 years, prospectively commencing July 1, 2020 for the experience for the trust year ending June 30, 2020.
- Actuarial gain or (loss) on assets is calculated as the difference between the expected return under valuation assumptions based on the smoothed Actuarial Value of Assets and the actual trust fund return.
- Actuarial gain or (loss) is recognized at 25% of the original amount each year until fully recognized in the fourth year.
- Total accumulated deferred gain or (loss) amounts are used to adjust the reported Fair value of Assets to determine the Actuarial Value of Assets.

**Plan Contributions**

Member and employer contributions are calculated as a percentage of total members' payroll. For interest calculation purposes, all amounts are treated as being deposited on an average of half-way through the Plan year.

**Fee Contributions under Section 7-14E-2**

A portion of fees generated by each sheriff department for reports are contributed to the DSRS Trust Fund. Fees are deposited throughout the year. For interest calculation purposes they are treated as being deposited on an average of half-way through the Plan year.

Fees are estimated based upon historical amounts contributed to the Trust Fund. For the purposes of analyzing the adequacy of total funding for DSRS in meeting the DSRS funding target, an average annual fee income of \$425,000 has been assumed to continue in this and all future years.



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Deputy Sheriff Retirement System***

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	1,073	\$ 69,844,000	\$ 65,092	7.6%	55
6/30/2022	1,085	65,637,000	60,495	5.4%	55
6/30/2021	1,085	62,284,000	57,405	5.1%	55
6/30/2020	1,086	59,289,000	54,594	2.3%	55
6/30/2019	1,081	57,698,000	53,375	4.4%	55
6/30/2018	1,050	53,676,000	51,120	4.3%	55
6/30/2017	1,018	49,915,000	49,032	0.2%	55
6/30/2016	1,042	51,004,000	48,948	2.1%	55
6/30/2015	1,024	49,081,000	47,931	3.0%	55
6/30/2014	1,002	46,634,000	46,541	2.1%	55

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Accrued				Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll (b-a)/c
	Actuarial Value of Assets	Liability (AAL) Entry Age	Unfunded AAL (UAAL)				
	(a)	(b)	(b-a)				
7/1/2023	\$ 320,194	\$ 365,127	\$ 44,933	87.7%	\$ 69,844	64.3%	
7/1/2022	298,002	337,065	39,063	88.4%	65,637	59.5%	
7/1/2021	277,320	316,860	39,540	87.5%	62,284	63.5%	
7/1/2020	247,776	277,817	30,041	89.2%	59,289	50.7%	
7/1/2019	233,659	260,750	27,091	89.6%	57,698	47.0%	
7/1/2018	220,514	239,516	19,002	92.1%	53,676	35.4%	
7/1/2017	200,820	203,293	2,473	98.8%	49,915	5.0%	
7/1/2016	172,626	195,681	23,055	88.2%	51,004	45.2%	
7/1/2015	171,358	188,243	16,885	91.0%	49,081	34.4%	
7/1/2014	162,748	180,677	17,929	90.1%	46,634	38.4%	

**Solvency Test**

Valuation Date	% of Accrued Liabilities Covered by Valuation Assets						
	(1)	(2)	(3)				
	Active Member Contributions	Terms, Retirees, and Beneficiaries	Active Members (Employer Financed Portion)	Valuation of Assets	(1)	(2)	(3)
6/30/2023	\$ 59,579,229	\$ 193,238,000	\$ 112,309,771	\$320,194,000	100.0%	100.0%	60.0%
6/30/2022	58,431,244	175,985,000	102,648,756	298,002,000	100.0%	100.0%	61.9%
6/30/2021	55,903,424	165,153,000	95,803,576	277,320,000	100.0%	100.0%	58.7%
6/30/2020	54,371,378	140,698,000	82,747,622	247,776,000	100.0%	100.0%	63.7%
6/30/2019	50,450,775	132,668,000	77,631,225	233,659,000	100.0%	100.0%	65.1%
6/30/2018	47,847,056	122,551,000	69,117,944	220,514,000	100.0%	100.0%	72.5%
6/30/2017	44,861,806	106,203,000	52,228,194	200,820,000	100.0%	100.0%	95.3%
6/30/2016	42,061,818	96,344,000	57,275,182	172,626,000	100.0%	100.0%	59.7%
6/30/2015	38,786,095	87,709,000	61,747,905	171,358,000	100.0%	100.0%	72.7%
6/30/2014	36,727,472	84,203,000	59,746,528	162,748,000	100.0%	100.0%	70.0%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Deputy Sheriff Retirement System***

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	44	\$ 1,583,215	(5)	\$ 142,941	556	\$ 16,403,078	9.6%	\$ 29,502
2022	37	1,148,078	(14)	325,680	517	14,962,804	5.8%	28,942
2021	48	1,705,181	(10)	256,646	494	14,140,406	11.4%	28,624
2020	30	986,884	(6)	150,420	456	12,691,871	7.1%	27,833
2019	35	1,137,872	(6)	115,315	432	11,855,407	9.4%	27,443
2018	31	1,680,386	(11)	201,938	403	10,832,850	15.8%	26,881
2017	35	1,146,807	(5)	105,105	383	9,354,402	12.5%	24,424
2016	22	573,277	(8)	178,105	353	8,312,700	5.0%	23,549
2015	31	914,923	(9)	165,427	339	7,917,528	10.5%	23,356
2014	26	853,364	(8)	302,180	317	7,168,032	8.3%	22,612

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, June 30, 2022	\$ 39,063,000
Interest	2,581,000
Amortization	(6,635,000)
Assumed Fee Deposits	(425,000)
Assumption changes	-
Plan changes	-
Liability (Gain)/Loss	10,705,000
Actuarial Asset (Gain)/Loss	(2,715,000)
Contribution Asset (Gain)/Loss	2,359,000
Unfunded Actuarial Liability, June 30, 2023	\$ 44,933,000

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.





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December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Judges' Retirement System  
601 57<sup>th</sup> Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members,

We performed the annual actuarial valuation of the West Virginia Judges' Retirement System (JRS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Gallagher reviewed the data for reasonableness and consistency with data provided for prior valuations but did not audit the data. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for JRS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated March 22, 2024. These tables include:

#### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. Gallagher has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

The report fairly presents the actuarial position of JRS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in view of JRS's experience and represent our best estimate of anticipated future experience of JRS. In our professional judgment, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the actuarial assumptions, changes in assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the "funded status" and "unfunded accrued liability" are typically measured using the fair value of assets. The funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

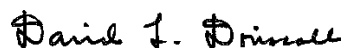
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. Gallagher uses third-party software to calculate the liabilities associated with the System's provisions using data, assumptions, and funding methods as specified in our report. Gallagher also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

Gallagher maintains an extensive review process in which the results of the liability calculations are checked using detailed sample life output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a higher level for accuracy, reasonability, and consistency with prior results. Gallagher also reviews the third-party model when significant changes are made to the software. This review is performed by experts within Gallagher who are familiar with applicable funding methods, as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely for the Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Gallagher does not intend to benefit and assumes no duty or liability to other parties who receive this work. Use of this report for any other purposes or by anyone other than the Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Gallagher's prior written consent.

We are Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

Gallagher Benefit Services, Inc. (Gallagher)



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David L. Driscoll, FSA, EA, MAAA, FCA  
Principal, Consulting Actuary



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Elizabeth A. Wiley, FSA, EA, MAAA, FCA  
Director, Retirement Actuary



**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis for Assumptions**

The valuation is prepared under the Entry Age Normal Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry is based on date of hire. Active liabilities include amounts calculated for judges currently participating in the Public Employees' Retirement System (PERS) who may in the future transfer into the Judges' Retirement System (JRS) with an adjustment for the anticipated transfer of required member contributions.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on the 2021 Assumption Review, which covered the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Rate and Expenses**

The valuation interest assumption is 7.25% per annum, with no loading for plan expenses.

**Salary Scale**

4.25% annually from the current valuation date. Increases are assumed to be delayed, occurring every few years. Missed increases are assumed to be made up at the CPI-U inflation rate for such missed years by not less than 0% but not more than the 4.25% salary scale assumption for each year. The valuation year salary scale increase of 4.25% is adjusted to include the missed inflation increases at the end of the valuation year. The most recent pay increase occurred on July 1, 2022.

**Automatic Cost-of-Living Increases to Pensions**

Pensions for judges appointed or elected prior to July 2, 2005 are assumed to increase at the same time as active salaries increase, and by the same percentage.

**Pre-Retirement Mortality**

No pre-retirement mortality is assumed due to the small number of active members.

**Post-Retirement Mortality**



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Judges' Retirement System***

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Post-retirement mortality tables are as follows:

• Pre-retirement males:	100% of Pub-2010 General Employee male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Pre-retirement females:	100% of Pub-2010 General Employee female table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Post-retirement healthy males:	108% of Pub-2010 General Retiree male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Post-retirement healthy females:	122% of Pub-2010 General Retiree female table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Disabled males:	118% of Pub-2010 General/Teachers Disabled male table, headcount-weighted, projected generationally with scale MP-2018
• Disabled females:	117% of Pub-2010 General/Teachers Disabled female table, headcount-weighted, projected generationally with scale MP-2018
• Beneficiary males: *	112% of Pub-2010 Contingent Survivor male table, below-median, headcount-weighted, projected generationally with scale MP-2018
• Beneficiary females: *	115% of Pub-2010 Contingent Survivor female table, below-median, headcount-weighted, projected generationally with scale MP-2018

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

### **Withdrawal from Service**

No withdrawal is assumed due to the small number of active members.

### **Retirement Rates and Service**

For those eligible to retire prior to age 65, 5% are assumed to retire each year through age 64 with 100% retiring at age 65. For those first eligible at age 65 or later, 100% are assumed to retire when they become eligible.

### **Disability**

No disablement is assumed due to the small number of active members.

### **Transfers from PERS**

It is assumed that all judges in PERS who earn sufficient service to vest under JRS will join JRS. Liabilities for potential transfers from PERS are included in this valuation and are calculated as if the judge had always been a member of JRS. Accumulated member contributions under PERS are treated as an offset to plan liabilities for valuation purposes. The shortfall of PERS accumulated member contributions versus the amount they would have contributed under the plan had they always been a participant under JRS is recognized in the development of the normal cost.

### **Family Composition**

All judges are assumed to be married. Where spousal data is not available, it is assumed that male judges are five years older than their spouses and female judges are five years younger than their spouses. Surviving children's benefits were not explicitly valued.

### **Asset Valuation Method**

Assets for valuation purposes are included at Fair value.

### **Plan Contributions**

Plan contributions, both employee and employer, are assumed to be paid in the middle of the year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Judges' Retirement System*

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	124	\$ 15,655,000	\$ 126,250	-9.4%	1
6/30/2022	81	11,289,000	139,370	4.8%	1
6/30/2021	79	10,504,000	132,962	5.0%	1
6/30/2020	77	9,752,000	126,649	0.0%	1
6/30/2019	77	9,752,000	126,649	0.0%	1
6/30/2018	74	9,374,000	126,676	0.0%	1
6/30/2017	75	9,500,000	126,667	0.0%	1
6/30/2016	72	9,122,000	126,694	0.0%	1
6/30/2015	70	8,870,000	126,714	0.0%	1
6/30/2014	73	9,248,000	126,685	0.0%	1

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
7/1/2023	\$ 278,487	\$ 121,710	\$ (156,777)	228.8%	\$ 15,655	-1001.5%
7/1/2022	259,242	108,251	(150,991)	239.5%	11,289	-1337.5%
7/1/2021	280,660	106,682	(173,978)	263.1%	10,504	-1656.3%
7/1/2020	215,688	98,800	(116,888)	218.3%	9,752	-1198.6%
7/1/2019	212,653	110,476	(102,177)	192.5%	9,752	-1047.8%
7/1/2018	204,488	110,215	(94,273)	185.5%	9,374	-1005.7%
7/1/2017	189,956	108,932	(81,024)	174.4%	9,500	-852.9%
7/1/2016	167,194	107,774	(59,420)	155.1%	9,122	-651.4%
7/1/2015	170,152	107,125	(63,027)	158.8%	8,870	-710.6%
7/1/2014	165,239	106,029	(59,210)	155.8%	9,248	-640.2%

**Solvency Test**

Valuation Date	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	(3) Active Members (Employer) Financed Portion	Valuation of Assets	% of Accrued Liabilities Covered by Valuation Assets		
					(1)	(2)	(3)
6/30/2023	\$ 6,016,350	\$ 69,132,000	\$ 46,561,650	\$ 278,487,000	100.0%	100.0%	436.7%
6/30/2022	5,155,301	64,789,000	38,306,699	259,242,000	100.0%	100.0%	494.2%
6/30/2021	5,194,918	64,581,000	36,906,082	280,660,000	100.0%	100.0%	571.4%
6/30/2020	5,174,080	60,657,000	32,968,920	215,688,000	100.0%	100.0%	454.5%
6/30/2019	5,108,621	68,734,000	36,633,379	212,653,000	100.0%	100.0%	378.9%
6/30/2018	6,302,978	62,968,000	40,944,022	204,488,000	100.0%	100.0%	330.3%
6/30/2017	6,526,575	61,650,000	40,755,425	189,956,000	100.0%	100.0%	298.8%
6/30/2016	7,481,777	53,847,000	46,445,223	167,194,000	100.0%	100.0%	227.9%
6/30/2015	7,485,928	53,805,000	45,834,072	170,152,000	100.0%	100.0%	237.5%
6/30/2014	8,157,052	49,709,000	48,162,948	165,239,000	100.0%	100.0%	222.9%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Judges' Retirement System*

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	5	\$ 444,213	(4)	\$ 329,368	58	\$ 5,299,724	2.2%	\$ 91,375
2022	3	440,655	(5)	403,429	57	5,184,879	0.7%	90,963
2021	4	543,887	(4)	292,539	59	5,147,653	5.1%	87,248
2020	3	195,300	(3)	239,400	59	4,896,305	-0.9%	82,988
2019	6	478,800	(5)	388,300	59	4,940,405	1.9%	83,736
2018	5	428,400	(4)	245,700	58	4,849,905	3.9%	83,619
2017	5	472,500	(2)	144,900	57	4,667,205	7.5%	81,881
2016	3	239,400	(4)	297,300	54	4,339,605	-1.3%	80,363
2015	6	478,800	(4)	277,200	55	4,397,505	4.8%	79,955
2014	2	132,300	(6)	398,100	53	4,195,905	-6.0%	79,168

**Changes in Unfunded Actuarial Liability**

Funded in excess of Actuarial Liability, June 30, 2022	\$ (150,991,000)
Interest	(10,803,000)
Normal cost	2,901,000
Contributions	(1,880,000)
Assumption changes	-
Plan changes	13,345,000
Liability (Gain)/Loss	(5,529,000)
Actuarial Asset (Gain)/Loss	(3,820,000)
<b>Funded in excess of Actuarial Liability, June 30, 2023</b>	<b>\$ (156,777,000)</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.



# Consolidated Public Retirement Board

601 57<sup>th</sup> Street SE, Suite 5  
Charleston, West Virginia 25304



## EXECUTIVE DIRECTOR

Jeffrey E. Fleck

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[www.wvretirement.com](http://www.wvretirement.com)

## BOARD CHAIRMAN

Joseph G. Bunn

December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Emergency Medical Services Retirement System  
601 57th Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members:

We performed the annual actuarial valuation of the West Virginia Emergency Medical Services Retirement System (EMSRS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Census and financial data were not audited by the West Virginia Consolidated Public Retirement Board but were reviewed for consistency. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for EMSRS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated April 2024. These tables include:

### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

### Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. The CPRB has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

This report presents fairly the actuarial position of EMSRS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In my opinion, the assumptions used in preparing the liabilities and costs are individually reasonable with respect to EMSRS experience and represent my best estimate of anticipated future experience of EMSRS. In my professional judgement, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standards of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions, or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the “funded status” and “unfunded accrued liability” are typically measured using the fair value of assets. The funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if it were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

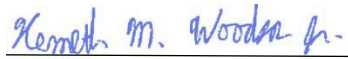
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. The CPRB uses third-party software to calculate the liabilities associated with the provisions of the plan using data, assumptions and funding methods as specified in our report. The CPRB also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

The CPRB maintains an extensive review process in which the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability and consistency with prior results. The CPRB also reviews the third-party model when significant changes are made to the software. The review is performed by the CPRB Board Actuary who is familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely by the West Virginia Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Use of this report for any other purposes or by anyone other than the West Virginia Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without prior written consent of the CPRB Board Actuary.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Respectfully,

Handwritten signature of Kenneth M. Woodson Jr. in blue ink, written over a horizontal line.

Kenneth M. Woodson Jr., FSA, MAAA,  
Ph.D. CPRB Board Actuary



**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis of Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on an experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Return and Expenses**

The interest rate assumption is a net return rate of 7.25% annually, net of investment and administrative expenses.

**Pre-Retirement Mortality**

100% of Pub-2010 Safety Employee Mortality Tables, median, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

Healthy Male:	98% of Pub-2010 Safety Retiree Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Healthy Female:	99% of Pub-2010 Safety Retiree Female Table, median, amount-weighted, projected generationally with Scale MP-2020.
Disabled Male:	124% of Pub-2010 Safety Disabled Male Table, amount-weighted, projected generationally with Scale MP-2020.
Disabled Female:	100% of Pub-2010 Safety Disabled Female Table, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Male:*	111% of Pub-2010 Contingent Survivor Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Female:*	109% of Pub-2010 Contingent Survivor Female Table, median, amount-weighted, projected generationally with Scale MP-2020.

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Emergency Medical Services Retirement System*

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**Salary Scale**

Annual salary increases are assumed by age on a unisex basis. Sample annual salary increases are as follows:

Age	Rate
Under 31	5.00%
40	4.25%
50	3.75%
60	3.25%

**Withdrawal Rates**

Withdrawal rates predict termination of employment prior to unreduced retirement eligibility. A sample of unisex rates by age are:

Age	Rate of Withdrawal
30	0.1960
40	0.1320
50	0.0800
55	0.0000

**Disability Rates**

Disability rates predict an active member becoming disabled prior to unreduced retirement eligibility. A sample of disability rates by age are:

Age	Rate of Disablement
30	0.0012
40	0.0031
50+	0.0040

It is assumed that members eligible for unreduced retirement will elect retirement prior to becoming disabled. It is also assumed that retired members will not become disabled following retirement due to duty related causes incurred prior to retirement.

Disability retirement benefits vary by duty and non-duty causes. Disability retirements are assumed to occur in the following percentages:

Duty Related Disability	50%
Non-Duty Disability	50%

**Family Composition**

In determining the value of pre-retirement spousal death benefits, it is assumed that 80% of all members will be married at death. Males are assumed to be three years older than their female spouse. Remarriage rates are not considered, and no dependent children are assumed.

**Accrual of Future Service**

EMSRS employment is considered a full-time professional position. All active members are assumed to complete sufficient hours to accrue one year of service in each future year of employment.

**West Virginia Consolidated Public Retirement Board**

**Actuarial Section**

***Emergency Medical Services Retirement System***

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**Non-Contributory Service Credits for Military Service and Unused Leave at Retirement**

At retirement, male members are assumed to be credited with one additional year of service for benefits due to allowable military service, plus one additional year for unused annual leave and/or sick leave for a total of two additional years. Female members are assumed to be credited with one additional year of service, which is solely attributed to unused annual leave and/or sick leave.

**Retirement Rates**

Members who are eligible for unreduced retirement benefits are assumed to have a 25% probability of retiring each year prior to age 65. On or after age 65, 100% of remaining members are assumed to retire.

Members who first become eligible for unreduced retirement benefits on or after the attainment of age 65 are assumed to retire in the year they first become eligible.

**Asset Valuation Method**

Assets for valuation purposes are included at Fair value.

**Plan Contributions**

Member and employer contributions are calculated as a percentage of total members' payroll. For interest calculation purposes, all amounts are treated as being deposited on an average of halfway through the Plan year.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Emergency Medical Services Retirement System***

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	775	\$ 42,058,000	\$ 54,268	2.8%	47
6/30/2022	637	33,642,000	52,813	-1.1%	23
6/30/2021	638	34,071,000	53,403	11.0%	17
6/30/2020	611	29,395,000	48,110	6.4%	15
6/30/2019	587	26,536,000	45,206	0.2%	15
6/30/2018	577	26,024,000	45,102	1.6%	15
6/30/2017	608	27,001,000	44,410	-3.6%	14
6/30/2016	586	26,992,000	46,061	0.8%	14
6/30/2015	568	25,963,000	45,710	3.4%	14
6/30/2014	546	24,145,000	44,222	2.6%	14

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)		Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll
		Entry Age (b)					((b-a)/c)
7/1/2023	\$ 125,931	\$ 121,180	\$ (4,751)	103.9%	\$ 42,058	-11.3%	
7/1/2022	112,961	109,968	(2,993)	102.7%	33,642	-8.9%	
7/1/2021	119,221	105,663	(13,558)	112.8%	34,071	-39.8%	
7/1/2020	89,005	90,691	1,686	98.1%	29,395	5.7%	
7/1/2019	84,969	82,582	(2,387)	102.9%	26,536	-9.0%	
7/1/2018	79,302	75,574	(3,728)	104.9%	26,024	-14.3%	
7/1/2017	71,165	71,590	425	99.4%	27,001	1.6%	
7/1/2016	58,868	67,053	8,185	87.8%	26,992	30.3%	
7/1/2015	56,938	60,287	3,349	94.4%	25,963	12.9%	
7/1/2014	53,647	56,459	2,812	95.0%	24,145	11.6%	

**Solvency Test**

Valuation Date	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	(3) Active Members (Employer Financed Portion)		% of Accrued Liabilities Covered by Valuation Assets		
			Valuation of Assets		(1)	(2)	(3)
6/30/2023	\$ 20,801,319	\$ 61,526,000	\$ 38,852,681	\$125,931,000	100.0%	100.0%	112.2%
6/30/2022	18,354,740	57,792,000	33,821,260	112,961,000	100.0%	100.0%	108.8%
6/30/2021	18,804,340	48,636,000	38,222,660	119,221,000	100.0%	100.0%	135.5%
6/30/2020	17,732,945	43,090,000	29,868,055	89,005,000	100.0%	100.0%	94.4%
6/30/2019	16,631,777	38,276,000	27,674,223	84,969,000	100.0%	100.0%	108.6%
6/30/2018	16,378,993	32,802,000	26,393,007	79,302,000	100.0%	100.0%	114.1%
6/30/2017	15,405,406	29,942,000	26,242,594	71,165,000	100.0%	100.0%	98.4%
6/30/2016	14,137,547	26,599,000	26,316,453	58,868,000	100.0%	100.0%	68.9%
6/30/2015	13,099,832	22,687,000	24,500,168	56,938,000	100.0%	100.0%	86.3%
6/30/2014	12,317,472	19,879,000	24,262,528	53,647,000	100.0%	100.0%	88.4%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Emergency Medical Services Retirement System***

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	15	\$ 489,293	(2)	\$ 135,300	167	\$ 4,822,748	7.9%	\$ 28,879
2022	20	741,023	(4)	92,670	154	4,468,755	17.0%	29,018
2021	15	408,997	(7)	119,819	138	3,820,402	8.2%	27,684
2020	10	309,214	-	-	130	3,531,224	9.6%	27,163
2019	18	545,528	-	-	120	3,222,010	20.4%	26,850
2018	13	315,895	-	-	102	2,676,482	13.4%	26,240
2017	9	283,880	(1)	20,329	89	2,360,587	12.6%	26,523
2016	15	356,324	(5)	65,156	81	2,097,036	16.1%	25,889
2015	15	356,700	-	-	71	1,805,868	24.6%	25,435
2014	11	275,164	-	-	56	1,449,168	23.4%	25,878

**Changes in Unfunded Actuarial Liability**

Funded in excess of Actuarial Liability, June 30, 2022	\$ (2,993,000)
Interest	(157,000)
Normal cost	4,239,000
Contributions	(6,934,000)
Assumption changes	-
Plan changes	1,109,000
Liability (Gain)/Loss	1,350,000
Actuarial Asset (Gain)/Loss	(1,365,000)
Funded in excess of Actuarial Liability, June 30, 2023	\$ (4,751,000)

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.





## Consolidated Public Retirement Board

601 57<sup>th</sup> Street SE, Suite 5  
Charleston, West Virginia 25304



### EXECUTIVE DIRECTOR

Jeffrey E. Fleck

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### BOARD CHAIRMAN

Joseph G. Bunn

December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Municipal Police Officers and Firefighters Retirement System  
601 57th Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members:

We performed the annual actuarial valuation of the West Virginia Municipal Police Officers and Firefighters Retirement System (MPFRS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Census and financial data were not audited by the West Virginia Consolidated Public Retirement Board but were reviewed for consistency. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for MPFRS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated April 2024. These tables include:

### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability

## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. The CPRB has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

This report presents fairly the actuarial position of MPFRS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In my opinion, the assumptions used in preparing the liabilities and costs are individually reasonable with respect to MPFRS experience and represent my best estimate of anticipated future experience of MPFRS. In my professional judgement, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standards of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions, or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the “funded status” and “unfunded accrued liability” are typically measured using the fair value of assets. The funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if it were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

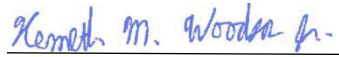
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. The CPRB uses third-party software to calculate the liabilities associated with the provisions of the plan using data, assumptions and funding methods as specified in our report. The CPRB also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

The CPRB maintains an extensive review process in which the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability and consistency with prior results. The CPRB also reviews the third-party model when significant changes are made to the software. The review is performed by the CPRB Board Actuary who is familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely by the West Virginia Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Use of this report for any other purposes or by anyone other than the West Virginia Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without prior written consent of the CPRB Board Actuary.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Respectfully,

Handwritten signature of Kenneth M. Woodson Jr. in blue ink, written over a horizontal line.

Kenneth M. Woodson Jr., FSA, MAAA,  
Ph.D. CPRB Board Actuary





**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Municipal Police Officers and Firefighters Retirement System***

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**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis of Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate.

Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on an experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Return and Expenses**

The interest rate assumption is a net return rate of 7.25% annually, net of investment and administrative expenses.

**Pre-Retirement Mortality**

100% of Pub-2010 Safety Employee Mortality Tables, median, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

- Healthy Male: 98% of Pub-2010 Safety Retiree Male Mortality Table, median, amount-weighted, projected generationally with Scale MP-2020.
- Healthy Female: 99% of Pub-2010 Safety Retiree Female Mortality Table, median, amount-weighted, projected generationally with Scale MP-2020.
- Disabled Male: 124% of Pub-2010 Safety Disabled Male Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.
- Disabled Female: 100% of Pub-2010 Safety Disabled Female Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.
- Beneficiary Male\*: 111% of Pub-2010 Contingent Survivor Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
- Beneficiary Female\*: 109% of Pub-2010 Contingent Survivor Female Table, median, amount-weighted, projected generationally with Scale MP-2020.

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

**Salary Scale**

Annual salary increases are assumed by age on a unisex basis with sample annual salary increases as follows:

Age	Rate
Under 31	4.75%
40	4.00%
50	3.75%
60	3.50%
65	3.25%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Municipal Police Officers and Firefighters Retirement System***

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**Withdrawal Rates**

Withdrawal rates predict termination of employment prior to unreduced retirement eligibility. A sample of unisex rates by age are:

Age	Rate of Withdrawal
30	0.1425
40	0.0768
50	0.0400
55	0.0000

**Disability Rates**

Disability rates predict an active member becoming disabled prior to unreduced retirement eligibility. A sample of disability rates by age are:

Age	Rate of Disablement
30	0.0012
40	0.0031
50+	0.0040

It is assumed that members eligible for unreduced retirement will elect retirement prior to becoming disabled. It is also assumed that retired members will not become disabled following retirement due to duty related causes incurred prior to retirement.

Disability retirement benefits vary by duty and non-duty causes. Disability retirements are assumed to occur in the following percentages:

Duty Related Disability	75%
Non-Duty Disability	25%

**Family Composition**

In determining the value of pre-retirement spousal death benefits, it is assumed that 90% of all members will be married at death. Males are assumed to be three years older than their female spouse. Remarriage rates are not used, and no dependent children are assumed.

**Accrual of Future Service**

MPFRS employment is considered a full-time professional position. All active members are assumed to complete sufficient hours to accrue one year of service in each future year of employment.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Municipal Police Officers and Firefighters Retirement System***

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**Non-Contributory Service Credits for Military Service**

At retirement, male members are assumed to be credited with 1 additional year of service for benefits due to allowable military service, plus 1 additional year for unused annual leave and/or sick leave for a total of 2

additional years. Female members are assumed to be credited with 1 additional year of service, which is solely attributed to unused annual leave and/or sick leave.

**Retirement Rates**

Members who become eligible for unreduced retirement benefits are assumed to have 25% probability of retiring each year prior to age 65. On or after age 65, 100% of members are assumed to retire.

**Asset Valuation Method**

Assets for valuation purposes are included at Fair value.

**Plan Contributions**

Member and employer contributions are calculated as a percentage of total members' payroll. Amounts are deposited to the Trust Fund on a monthly basis. For interest calculation purposes, all amounts are treated as being deposited on an average of half-way through the Plan year.

**Plan Provisions**

During the 2023 West Virginia Regular Legislative Session, HB 3211 became law and allowed MPFRS members to convert unused leave into additional benefit service. Leave credits are converted to service credits at a rate of 1 additional month for each 20 days of credit, rounded to the nearest month. Annual or sick leave converted to service credits may not be additionally used for any other purpose, including conversion to health insurance coverage.

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Municipal Police Officers and Firefighters Retirement System***

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	649	\$ 40,011,000	\$ 61,650	8.4%	38
6/30/2022	602	34,242,000	56,880	6.7%	37
6/30/2021	540	28,785,000	53,306	5.8%	37
6/30/2020	436	21,972,000	50,394	4.6%	37
6/30/2019	370	17,831,000	48,192	5.7%	32
6/30/2018	332	15,132,000	45,578	-2.4%	30
6/30/2017	217	10,136,000	46,710	13.0%	21
6/30/2016	191	7,898,000	41,351	5.6%	16
6/30/2015	140	5,483,000	39,164	0.4%	16
6/30/2014	97	3,784,000	39,010	2.2%	11

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Accrued				Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
	Actuarial Value of Assets (a)	Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)				
7/1/2023	\$ 35,478	\$ 26,650	\$ (8,828)	133.1%	\$ 40,011	-22.1%	
7/1/2022	27,197	19,419	(7,778)	140.1%	34,242	-22.7%	
7/1/2021	24,098	13,376	(10,722)	180.2%	28,785	-37.2%	
7/1/2020	14,889	8,945	(5,944)	166.5%	21,972	-27.1%	
7/1/2019	11,297	6,365	(4,932)	177.5%	17,831	-27.7%	
7/1/2018	8,077	4,798	(3,279)	168.3%	15,132	-21.7%	
7/1/2017	5,522	2,957	(2,565)	186.7%	10,136	-25.3%	
7/1/2016	3,082	2,015	(1,067)	153.0%	7,898	-13.5%	
7/1/2015	2,046	1,116	(930)	183.3%	5,483	-17.0%	
7/1/2014	1,201	568	(633)	211.4%	3,784	-16.7%	

**Solvency Test**

Valuation Date					% of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation of Assets	(1)	(2)	(3)
6/30/2023	\$ 12,745,194	\$ 2,263,000	\$ 11,641,806	\$ 35,478,000	100.0%	100.0%	175.8%
6/30/2022	10,207,460	1,634,000	7,577,540	27,197,000	100.0%	100.0%	202.6%
6/30/2021	7,867,560	1,304,000	4,204,440	24,098,000	100.0%	100.0%	355.0%
6/30/2020	5,952,221	1,021,000	1,971,779	14,889,000	100.0%	100.0%	401.5%
6/30/2019	4,215,858	981,000	1,168,142	11,297,000	100.0%	100.0%	522.2%
6/30/2018	3,159,458	770,000	868,542	8,077,000	100.0%	100.0%	477.5%
6/30/2017	2,173,360	283,000	500,640	5,522,000	100.0%	100.0%	612.3%
6/30/2016	1,484,433	106,000	424,567	3,082,000	100.0%	100.0%	351.3%
6/30/2015	871,797	61,000	183,203	2,046,000	100.0%	100.0%	607.6%
6/30/2014	502,241	35,000	30,759	1,201,000	100.0%	100.0%	2157.9%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Municipal Police Officers and Firefighters Retirement System***

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	-	-	-	-	1	\$ 38,736	0.0%	\$ 38,736
2022	-	-	-	-	1	38,736	0.0%	38,736
2021	-	-	-	-	1	38,736	0.0%	38,736
2020	-	-	-	-	1	38,736	0.0%	38,736
2019	-	-	-	-	1	38,736	0.0%	38,736
2018	1	38,736	-	-	1	38,736	-	38,736
2017	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-

**Changes in Unfunded Actuarial Liability**

Funded in excess of Actuarial Liability, June 30, 2022	\$ (7,778,000)
Interest	(489,000)
Normal cost	4,160,000
Contributions	(6,336,000)
Assumption Changes	-
Plan Changes	551,000
Liability (Gain)/Loss	1,430,000
Actuarial Asset (Gain)/Loss	(366,000)
<b>Funded in excess of Actuarial Liability, June 30, 2023</b>	<b>\$ (8,828,000)</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.





## Consolidated Public Retirement Board

601 57<sup>th</sup> Street SE, Suite 5  
Charleston, West Virginia 25304



### EXECUTIVE DIRECTOR

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### BOARD CHAIRMAN

Joseph G. Bunn

December 16, 2024

West Virginia Consolidated Public Retirement Board  
West Virginia Natural Resources Police Officers Retirement System  
601 57th Street SE, Suite 5  
Charleston, WV 25304

Dear Board Members:

We performed the annual actuarial valuation of the West Virginia Natural Resources Police Officers Retirement System (NRPORS) as of July 1, 2023. The purpose of the actuarial valuation is to determine the actuarial liabilities of the System for funding purposes and to determine whether expected contributions will be sufficient to fulfill the System's long-term funding policy.

The valuation was based on membership data as of June 30, 2023, maintained by the West Virginia Consolidated Public Retirement Board, and financial information received from the West Virginia Investment Management Board. Census and financial data were not audited by the West Virginia Consolidated Public Retirement Board but were reviewed for consistency. The accuracy of the results of the valuation is dependent on the accuracy of the data.

The tables presented for NRPORS in the actuarial section of this Annual Comprehensive Financial Report are based on information contained in our July 1, 2023, valuation report dated April 2024. These tables include:

### Actuarial Section

- Summary of Actuarial Methods and Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Funding Progress
- Solvency Test
- Schedule of Retirees and Beneficiaries Added and Removed
- Changes in Unfunded Actuarial Liability



## Financial Section

- Schedules of Contributions

All schedules in the Actuarial Section above were completed by the West Virginia Consolidated Public Retirement Board. The CPRB has reviewed these schedules for accuracy and consistency with the information provided in our July 1, 2023, valuation report.

This report presents fairly the actuarial position of NRPORS as of July 1, 2023, in accordance with Actuarial Standards of Practice applied on a basis consistent with that of the preceding valuation. In my opinion, the assumptions used in preparing the liabilities and costs are individually reasonable with respect to NRPORS experience and represent my best estimate of anticipated future experience of NRPORS. In my professional judgement, the combined effect of the assumptions is expected to have no significant bias. The mortality improvement assumption was selected in accordance with Actuarial Standards of Practice No. 35.

Future actuarial measurements may differ significantly from current measurements due to system experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in system provisions, or applicable law or regulations. An analysis of the potential range of such future differences was beyond the scope of the valuation.

Where presented, the “funded status” and “unfunded accrued liability” are typically measured using the actuarial value of assets. It should be noted that use of the fair value of assets would result in different funded status ratios and unfunded accrued liabilities. Moreover, the funded status ratio presented is appropriate for evaluating the need and level of future contributions but does not represent the funded status of the plan if it were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

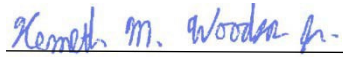
Actuarial Standard of Practice No. 56 provides guidance to actuaries performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models. The CPRB uses third-party software to calculate the liabilities associated with the provisions of the plan using data, assumptions and funding methods as specified in our report. The CPRB also uses an internally developed model that applies applicable funding methods and policies to the liabilities derived from the output of the third-party software and other inputs, such as plan assets and contributions, to generate the exhibits found in our report.

The CPRB maintains an extensive review process in which the results of the liability calculations are checked using detailed sample output, changes from year to year are summarized by source, and significant deviations from expectations are investigated. Other funding outputs and the internal model are similarly reviewed in detail and at a high level for accuracy, reasonability and consistency with prior results. The CPRB also reviews the third-party model when significant changes are made to the software. The review is performed by the CPRB Board Actuary who is familiar with applicable funding methods as well as the manner in which the model generates its output. If significant changes are made to the internal model, extra checking and review are completed.

The results presented herewith were prepared solely by the West Virginia Consolidated Public Retirement Board for the purposes herein stated and may not be appropriate to use for other purposes. Use of this report for any other purposes or by anyone other than the West Virginia Consolidated Public Retirement Board and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without prior written consent of the CPRB Board Actuary.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Respectfully,

Handwritten signature of Kenneth M. Woodson Jr. in blue ink, written over a horizontal line.

Kenneth M. Woodson Jr., FSA, MAAA,  
Ph.D. CPRB Board Actuary



**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Natural Resources Police Officers Retirement System*

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**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS**

**Valuation Date:** July 1, 2023

**Funding Method and Basis of Assumptions**

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Experience studies are performed at least once in every five-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on an experience study covering the period from July 1, 2015, to June 30, 2020. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions.

**Interest Return and Expenses**

The interest rate assumption is a net return rate of 7.25% annually, net of investment and administrative expenses.

**Pre-Retirement Mortality**

100% of Pub-2010 Safety Employee Mortality Tables, median, amount-weighted, projected generationally with Scale MP-2020.

**Post-Retirement Mortality**

Post-retirement mortality tables are as follows:

Healthy Male:	98% of Pub-2010 Safety Retiree Male Mortality Table, median, amount-weighted, projected generationally with Scale MP-2020.
Healthy Female:	99% of Pub-2010 Safety Retiree Female Mortality Table, median, amount-weighted, projected generationally with Scale MP-2020.
Disabled Male:	124% of Pub-2010 Safety Disabled Male Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.
Disabled Female:	100% of Pub-2010 Safety Disabled Female Mortality Tables, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Male:	111% of Pub-2010 Contingent Survivor Male Table, median, amount-weighted, projected generationally with Scale MP-2020.
Beneficiary Female:	109% of Pub-2010 Contingent Survivor Female Table, median, amount-weighted, projected generationally with Scale MP-2020.

\* The credibility-weighted Pub-2010 Contingent Survivor mortality tables are also applied to spouses and designated beneficiaries while the member is alive.

**Salary Scale**

An annual salary increase rate of 5.75% in each of the first two years of service, decreasing to 5.25% for years three through five, 4.75% for years six through ten, and 4.25% for all years in excess of the first ten years.

**Withdrawal Rates**

Withdrawal rates predict termination of employment prior to unreduced retirement eligibility. A sample of unisex rates by age are:

Age	Rate of Withdrawal
30	0.0440
40	0.0264
50	0.0200
55	0.0200

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
*Natural Resources Police Officers Retirement System*

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**Disability Rates**

Disability rates predict an active member becoming disabled prior to unreduced retirement eligibility. A sample of disability rates by age are:

Age	Rate of Disablement
30	0.0012
40	0.0031
50+	0.0040

It is assumed that members eligible for unreduced retirement will elect retirement prior to becoming disabled. It is also assumed that retired members will not become disabled following retirement due to duty related causes incurred prior to retirement.

Disability retirement benefits vary by duty and non-duty causes. Disability retirements are assumed to occur in the following percentages:

Type of Disability	Probability
Duty-Related Full	0.50
Duty-Related Partial	0.25
Non-Duty-Related Full	0.20
Non-Duty-Related Partial	0.05

**Family Composition**

In determining the value of pre-retirement spousal death benefits, it is assumed that 90% of all members will be married at death. Males are assumed to be three years older than their female spouse. Remarriage rates are not used, and no dependent children are assumed.

**Accrual of Future Service**

NRPORS employment is considered a full-time professional position. All active members are assumed to complete sufficient hours to accrue one year of service in each future year of employment.

**Non-Contributory Service Credits for Military Service**

At retirement, a member is assumed to be granted 1.25 additional year of service for benefits due to allowable military service, plus 2.25 additional years for unused annual leave and/or sick leave for a total of 3.5 additional years.

**Retirement Rates**

40% of members are assumed to retire when first eligible for unreduced benefits at the earlier of (a) attainment of age 55 and age plus service at least 70, or (b) attainment of age 62 and 10 years of service. An active member who has already attained eligibility for normal retirement has a 20% probability of retiring each year thereafter with 100% retiring on or after attainment of age 62.

**Asset Valuation Method**

The asset valuation method changed from fair value of assets to a four-year 25% level asset smoothing method, implemented prospectively from July 1, 2022. 4-year 25% level smoothing of actuarial gain or (loss) on trust fund return:

- Implemented over 4 years, prospectively commencing July 1, 2022 for the experience for the trust year ending June 30, 2022.
- Actuarial gain or (loss) on assets is calculated as the difference between the expected return under valuation assumptions based on the smoothed Actuarial Value of Assets and the actual trust fund return.

**West Virginia Consolidated Public Retirement Board  
Actuarial Section**

***Natural Resources Police Officers Retirement System***

- Actuarial gain or (loss) is recognized at 25% of the original amount each year until fully recognized in the fourth year.
- Total accumulated deferred gain or (loss) amounts are used to adjust the reported Fair value of Assets to determine the Actuarial Value of Assets.

**Plan Contributions**

Member and employer contributions are calculated as a percentage of total members' payroll. Amounts are deposited to the Trust Fund on a monthly basis. For interest calculation purposes, all amounts are treated as being deposited on an average of half-way through the Plan year.

**Schedule of Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Change in Average Pay	Number of Employers
6/30/2023	113	\$ 7,476,000	\$ 66,159	15.5%	1
6/30/2022	115	6,589,000	57,296	2.2%	1
6/30/2021	111	6,224,000	56,072	-	1

**Schedule of Funding Progress (in thousands)**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll
						((b-a)/c)
7/1/2023	\$ 29,326	\$ 35,920	\$ 6,594	81.6%	\$ 7,476	88.2%
7/1/2022	27,121	30,028	2,907	90.3%	\$ 6,589	44.1%
7/1/2021	25,013	27,860	2,847	89.8%	6,224	45.7%

**Solvency Test**

Valuation Date	(1) Active Member Contributions	(2) Terms, Retirees, and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation of Assets	% of Accrued Liabilities Covered by Valuation Assets		
					(1)	(2)	(3)
6/30/2023	\$ 5,690,043	\$ 6,574,000	\$ 23,655,957	\$ 29,326,000	100.0%	100.0%	72.1%
6/30/2022	5,060,054	5,233,000	19,734,946	27,121,000	100.0%	100.0%	85.3%
6/30/2021	4,710,383	2,802,000	20,347,617	25,013,000	100.0%	100.0%	86.0%

**West Virginia Consolidated Public Retirement Board**  
**Actuarial Section**  
***Natural Resources Police Officers Retirement System***

**Schedule of Retirees and Beneficiaries Added and Removed**

Fiscal Year Ended	Added		Removed		Year End		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
2023	3	\$ 122,093	-	-	10	\$ 528,446	30.0%	\$ 52,845
2022	4	210,857	-	-	7	406,353	107.9%	58,050
2021	3	195,496	-	-	3	195,496	-	65,165

**Changes in Unfunded Actuarial Liability**

Unfunded Actuarial Liability, January 2, 2022	\$ 2,907,000
Interest	243,000
Normal cost	1,201,000
Contributions	(1,534,000)
Assumption changes	-
Plan changes	340,000
Liability (Gain)/Loss	2,584,000
Actuarial Asset (Gain)/Loss	853,000
<b>Unfunded Actuarial Liability, June 30, 2023</b>	<b>\$ 6,594,000</b>

**Schedule of Contributions**

The Schedule of Contributions is included in the Required Supplementary Information provided in the Financial Section of this Annual Comprehensive Financial Report.

**Plan Provisions**

A discussion of plan provisions is included in Note 2 to the financial statements included in the Financial Section.

# Statistical Section



2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT  
*For the Fiscal Year Ended June 30, 2024*

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## **West Virginia Consolidated Public Retirement Board**

### ***Statistical Section***

#### ***Overview***

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The statistical section of the annual comprehensive financial report provides information to the reader to assist in understanding the information in the financial statements, note disclosures, and required supplementary information regarding the Retirement Systems' overall financial health. The information in this section is obtained from annual comprehensive financial reports and other internal sources.

#### **Financial Trends**

These schedules contain trend information to help the reader understand how the Retirement Systems' financial performance has changed over time.

- Additions by Source, Deductions by Type, and Changes in Plan Net Position
- Benefit by Type

#### **Retirees and Beneficiaries**

These schedules provide information concerning the retirees and beneficiaries receiving benefits.

- Retired Members by Type of Benefit
- Average Monthly Benefit Payments

#### **Participating Units**

This schedule provides information concerning units participating in the various Retirement Systems.

- Largest Employers



# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### Public Employees Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 95,542	\$ 166,916	\$ 945,162	\$ 831
2023	89,190	152,675	669,213	11,682
2022	81,165	167,761	(542,500)	1,238
2021	78,762	159,259	2,170,293	1,154
2020	75,857	155,230	215,355	866
2019	70,357	147,031	393,179	763
2018	65,150	152,541	606,303	1,497
2017	63,578	165,676	875,090	1,031
2016	62,801	186,770	(6,827)	297
2015	61,838	189,947	219,329	17

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refunds	
2024	\$ 527,375	\$ 530	\$ 4,124	\$ 14,718	\$ 661,704
2023	507,209	2,914	3,736	15,131	393,770
2022	489,324	(20)	3,520	13,395	(798,555)
2021	469,160	21,432	6,311	9,934	1,902,631
2020	453,001	(227)	6,186	10,549	(22,201)
2019	436,965	(232)	6,915	11,782	155,900
2018	421,936	-	6,850	12,248	384,457
2017	402,213	(110)	4,989	10,566	687,717
2016	382,577	(123)	4,886	11,877	(156,176)
2015	363,495	(265)	4,785	10,669	92,447

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### Teachers' Defined Benefit Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 111,006	\$ 446,644	\$ 1,039,146	\$ 4,132
2023	104,429	452,521	739,885	3,925
2022	95,694	483,005	(600,544)	3,573
2021	97,258	417,334	2,429,811	2,944
2020	96,511	463,840	241,591	3,371
2019	93,219	481,525	444,661	3,446
2018	89,128	471,837	688,273	3,046
2017	91,503	451,447	995,095	2,822
2016	95,177	423,195	(18,403)	3,918
2015	94,694	490,640	255,988	3,460

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refund	
2024	\$ 899,316	\$ 158	\$ 4,576	\$ 13,113	\$ 683,765
2023	885,273	190	4,192	12,558	398,547
2022	877,766	188	3,951	12,753	(912,930)
2021	863,132	151	5,221	8,384	2,070,459
2020	844,272	232	5,525	9,695	(54,411)
2019	827,539	174	6,239	10,769	178,130
2018	806,511	-	6,035	9,591	430,147
2017	780,030	(149)	4,582	9,028	747,376
2016	749,139	133	4,507	10,364	(260,256)
2015	710,833	262	4,432	8,006	121,249

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### State Police Death, Disability, and Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 4	\$ 10,038	\$ 85,901	\$ 665
2023	22	40	62,950	704
2022	26	17,842	(51,130)	721
2021	34	16,699	208,656	822
2020	35	13,246	21,252	530
2019	110	15,595	38,174	752
2018	186	24,829	60,939	691
2017	362	17,319	87,793	847
2016	320	13,977	(1,229)	594
2015	445	21,668	22,866	861

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refund	
	2024	\$ 53,754	\$ -	\$ 382	
2023	52,429	-	358	-	10,929
2022	51,447	-	340	-	(84,328)
2021	50,228	-	54	-	175,929
2020	49,225	-	54	-	(14,216)
2019	47,551	-	63	-	7,017
2018	45,529	-	61	-	41,055
2017	43,325	-	46	-	62,950
2016	41,969	-	53	-	(28,360)
2015	39,708	-	51	-	6,081

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### State Police Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 5,150	\$ 13,296	\$ 37,363	\$ 35
2023	4,860	8,100	24,933	129
2022	4,395	9,428	(19,815)	-
2021	4,185	7,928	72,138	-
2020	4,168	4,850	7,010	-
2019	3,905	4,556	11,730	-
2018	3,621	4,205	16,303	-
2017	3,634	3,657	22,346	-
2016	3,755	3,724	91	-
2015	3,609	4,060	4,972	-

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit	Service	Administrative		
	Payments	Transfers to (from)	Expenses	Refund	
2024	\$ 9,609	\$ -	\$ 157	\$ 654	\$ 45,424
2023	6,826	-	135	320	30,741
2022	5,290	-	120	453	(11,855)
2021	3,302	-	59	297	80,593
2020	2,140	-	67	358	13,463
2019	1,473	-	60	471	18,187
2018	1,186	-	60	656	22,227
2017	957	-	64	497	28,119
2016	811	-	47	260	6,452
2015	633	-	45	418	11,545

West Virginia Consolidated Public Retirement Board

Statistical Section

Additions by Source, Deductions by Type, and Changes in Plan Net Assets

Deputy Sheriffs Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 6,294	\$ 11,834	\$ 36,250	\$ 441
2023	5,777	8,811	24,926	322
2022	5,531	8,258	(19,974)	404
2021	5,177	7,213	76,547	392
2020	4,860	6,861	7,528	404
2019	4,846	6,705	13,200	479
2018	4,416	6,194	19,361	471
2017	4,166	5,917	27,282	433
2016	4,306	6,071	(64)	494
2015	4,068	5,972	6,534	506

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service	Administrative	Refund	
		Transfers to (from)	Expenses		
2024	\$ 17,105	\$ -	\$ 155	\$ 1,235	\$ 36,324
2023	15,740	-	137	1,225	22,734
2022	14,491	-	126	981	(21,379)
2021	13,364	(166)	136	530	75,465
2020	12,260	-	133	716	6,544
2019	11,338	-	145	602	13,145
2018	9,614	-	137	997	19,694
2017	8,957	-	102	1,186	27,553
2016	8,187	-	101	611	1,908
2015	7,554	-	96	817	8,613



West Virginia Consolidated Public Retirement Board

Statistical Section

Additions by Source, Deductions by Type, and Changes in Plan Net Assets

Judges Retirement System

(in thousands)

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Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 402	\$ 854	\$ 31,738	\$ 490
2023	369	797	22,031	1,303
2022	319	1,052	(17,631)	-
2021	295	886	68,611	-
2020	301	791	6,850	-
2019	331	779	12,085	-
2018	364	735	18,373	-
2017	372	747	26,270	-
2016	383	739	(175)	-
2015	413	2,845	6,525	-

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service	Administrative	Refund	
		Transfers to (from)	Expenses		
2024	\$ 5,384	\$ -	\$ 137	\$ 82	\$ 27,881
2023	5,134	-	121	-	19,245
2022	5,046	-	112	-	(21,418)
2021	4,810	-	10	-	64,972
2020	4,897	-	10	-	3,035
2019	4,846	86	11	87	8,165
2018	4,765	-	8	167	14,532
2017	4,510	12	6	99	22,762
2016	4,382	-	27	47	(3,509)
2015	4,244	-	6	69	5,464

West Virginia Consolidated Public Retirement Board

Statistical Section

Additions by Source, Deductions by Type, and Changes in Plan Net Assets

Emergency Medical Services Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 4,260	\$ 4,758	\$ 14,498	\$ -
2023	3,272	3,662	9,618	2,232
2022	2,924	3,610	(7,672)	-
2021	2,842	3,523	28,643	-
2020	2,531	3,078	2,817	-
2019	2,302	2,844	4,774	-
2018	2,231	2,765	6,867	-
2017	2,314	2,859	9,506	-
2016	2,222	2,744	18	1
2015	2,071	2,607	2,144	-

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service		Refund	
		Transfers to (from)	Administrative Expenses		
2024	\$ 5,115	\$ -	\$ 62	\$ 931	\$ 17,408
2023	4,686	-	53	1,075	12,970
2022	4,184	-	47	891	(6,260)
2021	3,752	-	78	962	30,216
2020	3,348	-	73	969	4,036
2019	2,989	-	77	1,187	5,667
2018	2,582	-	73	1,071	8,137
2017	2,201	-	53	575	11,850
2016	1,953	-	49	605	2,378
2015	1,600	-	46	666	4,510

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### Municipal Police Officers & Firefighters Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 3,592	\$ 3,592	\$ 4,455	\$ 271
2023	3,168	3,168	2,535	19
2022	2,673	2,672	(1,830)	-
2021	2,158	2,136	5,202	68
2020	1,717	1,721	437	1
2019	1,438	1,438	611	38
2018	1,087	1,089	547	-
2017	846	846	606	-
2016	644	644	28	-
2015	417	417	66	-

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refund	
	2024	\$ 39	\$ -	\$ 17	
2023	39	-	12	560	8,279
2022	41	-	10	365	3,099
2021	41	-	41	273	9,209
2020	39	-	36	209	3,592
2019	36	(28)	35	262	3,220
2018	20	-	23	125	2,555
2017	-	-	14	79	2,205
2016	-	-	11	34	1,271
2015	-	-	7	49	844

#### Natural Resources Police Officers Retirement System\*

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 771	\$ 973	\$ 3,259	\$ 95
2023	\$ 678	\$ 856	\$ 2,128	\$ -
2022	615	779	(1,661)	-
2021	263	332	2,996	21,432

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refund	
	2024	\$ 568	\$ -	\$ 14	
2023	\$ 449	\$ -	\$ 11	\$ 31	\$ 3,171
2022	385	(162)	10	36	(536)
2021	-	-	-	10	25,013

\* The NRPORS was established in January 2021.

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Additions by Source, Deductions by Type, and Changes in Plan Net Assets

#### Teachers' Defined Contribution Retirement System

(in thousands)

Fiscal Year	Additions			
	Contributions		Investment	Other
	Member	Employer	Income	Income
2024	\$ 5,578	\$ 9,341	\$ 99,427	\$ 71
2023	5,597	9,329	70,638	471
2022	5,703	9,536	(83,137)	112
2021	5,980	10,307	141,739	12
2020	6,219	9,965	35,185	32
2019	6,126	10,204	34,920	95
2018	6,075	11,664	41,447	34
2017	6,971	10,510	49,571	980
2016	6,438	11,401	3,542	87
2015	6,504	11,194	15,530	354

Fiscal Year	Deductions				Total Change in Plan Net Position
	Benefit Payments	Service Transfers to (from)	Administrative Expenses	Refund	
2024	\$ -	\$ -	\$ 335	\$ 36,067	\$ 78,015
2023	-	-	282	26,335	59,418
2022	-	(6)	281	31,907	(99,968)
2021	-	15	465	22,838	134,720
2020	-	(5)	784	17,476	33,146
2019	-	-	752	16,282	34,311
2018	-	-	1,054	12,173	45,993
2017	-	247	1,288	18,432	48,065
2016	-	(10)	1,417	16,046	4,015
2015	-	3	1,064	15,552	16,963

The TDCRS is a multiple employer defined contribution retirement system, which is a money purchase pension plan covering primarily full-time employees of the State's 55 county public school systems, the State Department of Education, and the Schools for the Deaf and Blind who were hired between July 1, 1991 and June 30, 2005. TDCRS benefits depend solely on amounts contributed to the plan plus investment earnings. TDCRS closed participation to new members effective June 30, 2005.

In 2008, the West Virginia Legislature provided an opportunity for members of the TDCRS to elect to transfer to the West Virginia Teachers' Retirement System (TRS). The transfer occurred on July 1, 2008 and a total of 15, 152 TDCRS members transferred to TRS.

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Benefits by Type**

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The following schedules provide information on the benefits provided by type of benefit for each plan.

**Public Employees Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 486,668	\$ 11,699	\$ 29,008	\$ 2,306	\$ 12,412
2023	446,356	11,259	29,594	1,896	13,235
2022	448,103	10,896	30,325	164	13,231
2021	427,658	10,475	31,027	563	9,371
2020	411,166	10,315	31,520	1,523	9,026
2019	378,882	29,435	28,648	189	11,593
2018	355,308	33,028	33,600	1,041	11,207
2017	338,865	31,400	31,944	990	9,580
2016	320,869	30,223	31,868	1,317	10,177
2015	304,113	28,795	30,480	1,123	9,653

**Teachers' Defined Benefit Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 869,375	\$ 4,459	\$ 25,482	\$ 3,319	\$ 9,794
2023	855,460	4,426	25,387	4,268	8,290
2022	847,287	4,555	25,924	5,488	7,265
2021	832,041	4,410	26,681	3,157	5,227
2020	812,961	4,479	26,832	2,826	6,869
2019	773,205	27,583	26,751	3,090	7,679
2018	748,486	30,522	27,503	2,203	7,388
2017	723,929	29,482	26,576	2,095	6,976
2016	695,555	27,591	26,292	4,231	5,834
2015	658,674	25,230	25,947	3,910	5,078

**State Police Death, Disability, and Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 43,898	\$ 1,025	\$ 8,831	\$ -	\$ -
2023	48,805	1,020	8,604	-	-
2022	42,001	1,033	8,413	-	-
2021	40,949	1,007	8,272	-	-
2020	40,052	1,021	8,152	-	-
2019	36,524	3,023	8,004	-	-
2018	34,052	3,610	7,867	-	-
2017	32,403	3,436	7,486	-	-
2016	31,525	3,092	7,352	-	-
2015	30,240	2,320	7,148	-	-

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Benefits by Type**

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**State Police Retirement System**  
(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 8,254	\$ 335	\$ 1,020	\$ -	\$ 654
2023	5,802	247	777	-	320
2022	4,411	229	650	-	453
2021	2,497	204	601	-	297
2020	1,448	489	203	-	358
2019	815	201	457	-	471
2018	518	252	416	-	656
2017	425	199	329	-	501
2016	344	153	317	-	257
2015	319	21	292	-	419

**Deputy Sheriffs Retirement System**  
(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 14,225	\$ 348	\$ 2,532	\$ 23	\$ 1,212
2023	13,090	272	2,378	13	1,212
2022	12,011	181	2,299	-	981
2021	10,925	156	2,283	-	530
2020	10,032	147	2,081	53	663
2019	9,388	130	1,820	-	602
2018	7,654	398	1,562	46	951
2017	7,095	380	1,493	235	940
2016	6,517	342	1,333	43	563
2015	6,060	271	1,219	-	821

**Judges Retirement System**  
(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 5,119	\$ 106	\$ 159	\$ 82	\$ -
2023	4,790	106	150	-	-
2022	4,866	106	162	-	-
2021	4,564	101	145	-	-
2020	4,650	102	145	-	-
2019	3,894	774	178	-	87
2018	3,909	856	-	-	167
2017	3,710	800	-	-	99
2016	3,427	955	-	-	47
2015	3,314	866	47	-	86

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Benefits by Type**

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**Emergency Medical Services Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 4,194	\$ 109	\$ 812	\$ 5	\$ 926
2023	2,842	109	735	23	1,052
2022	3,366	109	709	-	891
2021	2,895	129	728	52	910
2020	2,649	75	624	1	968
2019	2,315	87	587	57	1,130
2018	2,031	26	525	-	1,071
2017	1,782	20	399	-	575
2016	1,616	20	282	-	640
2015	1,320	20	261	-	665

**Municipal Police Officers & Firefighters Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ -	\$ -	\$ 39	\$ -	\$ 572
2023	-	-	39	17	543
2022	-	-	41	-	365
2021	-	-	41	-	273
2020	39	-	-	-	209
2019	36	-	-	20	242
2018	-	-	20	-	125
2017	-	-	-	-	79
2016	-	-	-	-	34
2015	-	-	-	-	49

**Natural Resources Police Officers Retirement System**

(in thousands)

Fiscal Year	Age & Service Benefits		Disability Benefits	Death Benefits & Refunds	
	Retirants	Survivors		Death	Resignation
2024	\$ 568	\$ -	\$ -	\$ 10	\$ 35
2023	449	-	-	-	31
2022	385	-	-	-	36
2021	-	-	-	-	10

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Retired Members by Type of Benefit

#### Public Employees Retirement System

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	13,110	10,864	532	1,714	6,602	4,654	1,854	-
1,001 - 2,000	10,079	8,916	279	884	5,077	3,542	1,460	-
2,001 - 3,000	4,642	4,466	72	104	2,243	1,580	819	-
3,001 - 4,000	1,882	1,853	19	10	911	584	387	-
4,001 - 5,000	692	684	6	2	321	232	139	-
Over \$ 5,000	400	398	2	0	229	102	69	-
	30,805	27,181	910	2,714	15,383	10,694	4,728	-

#### Teachers' Retirement System

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	9,891	8,464	27	1,400	5,688	2,339	1,327	537
1,001 - 2,000	10,741	9,940	91	710	5,908	2,646	1,654	533
2,001 - 3,000	8,774	8,595	50	129	4,871	1,929	1,483	491
3,001 - 4,000	5,123	5,100	15	8	3,033	904	960	226
4,001 - 5,000	1,911	1,905	6	0	1,251	256	341	63
Over \$ 5,000	1,021	1,018	2	1	628	159	197	37
	37,461	35,022	191	2,248	21,379	8,233	5,962	1,887

#### State Police Death, Disability, and Retirement System

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	9	8	-	1	-	-	-	9
1,001 - 2,000	30	19	2	9	-	-	-	30
2,001 - 3,000	45	31	2	12	-	-	-	45
3,001 - 4,000	43	29	4	10	-	-	-	43
4,001 - 5,000	58	46	1	11	-	-	-	58
Over \$ 5,000	552	471	9	72	-	-	-	552
	737	604	18	115	-	-	-	737

#### State Police Retirement System

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	11	10	1	-	-	3	-	8
1,001 - 2,000	7	3	1	3	-	-	-	7
2,001 - 3,000	13	3	3	7	-	2	-	11
3,001 - 4,000	20	18	1	1	-	6	-	14
4,001 - 5,000	46	37	2	7	-	13	-	33
Over \$ 5,000	90	86	1	3	-	39	-	51
	187	157	9	21	-	63	-	124



**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Retired Members by Type of Benefit**

**Deputy Sheriffs Retirement System**

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	57	50	1	6	10	13	10	24
1,001 - 2,000	160	124	6	30	38	19	24	79
2,001 - 3,000	206	177	3	26	66	29	28	82
3,001 - 4,000	93	75	1	17	27	15	10	41
4,001 - 5,000	55	46	2	7	19	8	5	22
Over \$ 5,000	18	17	-	1	4	8	1	5
	589	489	13	87	164	92	78	253

**Judges Retirement System**

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	-	-	-	-	-	-	-	-
1,001 - 2,000	-	-	-	-	-	-	-	-
2,001 - 3,000	-	-	-	-	-	-	-	-
3,001 - 4,000	-	-	-	-	-	-	-	-
4,001 - 5,000	15	12	2	1	-	-	-	17
Over \$ 5,000	46	45	-	1	-	-	-	44
	61	57	2	2	-	-	-	61

**Emergency Medical Services Retirement System**

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	17	17	-	-	13	2	1	1
1,001 - 2,000	58	54	2	2	29	17	4	8
2,001 - 3,000	58	50	3	5	22	13	7	16
3,001 - 4,000	33	26	-	7	12	8	4	9
4,001 - 5,000	12	9	-	3	4	4	1	3
Over \$ 5,000	6	4	-	2	2	1	1	2
	184	160	5	19	82	45	18	39

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Retired Members by Type of Benefit**

**Municipal Police Officers & Firefighters Retirement System**

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	-	-	-	-	-	-	-	-
1,001 - 2,000	-	-	-	-	-	-	-	-
2,001 - 3,000	-	-	-	-	-	-	-	-
3,001 - 4,000	1	-	-	1	-	-	-	1
4,001 - 5,000	-	-	-	-	-	-	-	-
Over \$ 5,000	-	-	-	-	-	-	-	-
	1	-	-	1	-	-	-	1

**Natural Resources Police Officers Retirement System**

Amount of Monthly Benefit	Number of Retirants	Type of Retirement			Option Selected			
		A	B	C	Maximum	Option 1	Option 2	Other
\$ 1 - 1,000	-	-	-	-	-	-	-	-
1,001 - 2,000	-	-	-	-	-	-	-	-
2,001 - 3,000	2	2	-	-	1	-	1	-
3,001 - 4,000	4	4	-	-	1	3	-	-
4,001 - 5,000	4	4	-	-	1	2	-	1
Over \$ 5,000	2	2	-	-	2	-	-	-
	12	12	-	-	5	5	1	1

Type of Retirement  
A - Service  
B - Survivor Benefit  
C - Disability

Option  
Maximum - Life Annuity  
Option 1 - 100% Joint Survivorship  
Option 2 - 50% Joint Survivorship  
Other

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Largest Employers**

**Public Employees Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
State of West Virginia	24,872	1	60.42%	23,076	1	65.69%
All other employers	16,292		39.58%	12,051		34.31%
	41,164		100.00%	35,127		100.00%

**Teachers Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
Kanawha County Board of Education	3,486	1	9.05%	3,277	1	9.31%
Berkeley County Board of Education	2,702	2	7.01%	2,247	2	6.39%
Cabell County Board of Education	1,782	3	4.62%	1,422	5	4.04%
Wood County Board of Education	1,733	4	4.49%	1,603	3	4.56%
Monongalia County Board of Education	1,675	5	4.34%	1,288	7	3.66%
Raleigh County Board of Education	1,562	6	4.05%	1,512	4	4.30%
Harrison County Board of Education	1,475	7	3.83%	1,392	6	3.96%
Mercer County Board of Education	1,216	8	3.15%	1,162	8	3.30%
Putnam County Board of Education	1,197	9	3.10%	1,021	10	2.90%
Jefferson County Board of Education	605	10	1.57%	1,021	9	2.90%
Total Top Employers	17,433		45.21%	15,945		45.32%
All other employers	21,128		54.79%	19,244		54.68%
	38,561		100.00%	35,189		100.00%

**State Police Death, Disability, and Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
State of West Virginia	1	1	100.00%	73	1	100.00%
All other employers	-		-	-		0.00%
	1		100.00%	73		100.00%

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Largest Employers**

**State Police Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
State of West Virginia	597	1	100.00%	596	1	100.00%
All other employers	-	-	-	-	-	-
	597		100.00%	596		100.00%

**Deputy Sheriffs Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
Kanawha County	107	1	9.35%	97	1	9.90%
Berkeley County	68	2	5.94%	53	2	5.41%
Harrison County	52	3	4.55%	48	3	4.90%
Raleigh County	51	4	4.46%	34	6	3.47%
Cabell County	45	5	3.93%	38	4	3.88%
Putnam County	41	6	3.58%	37	5	3.78%
Fayette County	37	7	3.23%	31	8	3.16%
Marshall County	35	8	3.06%			
Wood County	35	9	3.06%	33	7	3.37%
Jefferson County	34	10	2.97%			
Total Top Employers	505		44.13%	371		37.87%
All other employers	639		55.85%	609		62.12%
	1,144		99.98%	980		99.99%

**Judges Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
State of West Virginia	53	1	100.00%	50	1	100.00%
All other employers	-	-	-	-	-	-
	53		100.00%	50		100.00%

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Largest Employers**

**Emergency Medical Services Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
Cabell County Emergency Medical Services	218	1	9.53%	108	2	20.34%
Kanawha County Emergency Ambulance	164	2	7.17%	182	1	34.26%
Berkeley County Emergency Ambulance Auth	80	3	3.50%			
Grant County Ambulance	80	4	3.50%			
Metro Emergency Operations Center	79	5	3.45%			
Total Top Employers	621		27.15%	290		54.60%
All other employers	1,667		72.86%	241		45.40%
	2,288		100.01%	531		100.00%

**Municipal Police Officers and Firefighters Retirement System**

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
City of Charleston Firefighters	116	1	14.81%	-		
City of Charleston Police	96	2	12.26%	34	2	36.17%
City of Huntington Police	66	3	8.43%	44	1	46.81%
City of Huntington Firefighters	49	4	6.26%			
City of Wheeling Firefighters	46	5	5.87%			
Total Top Employers	373		47.63%	78		82.98%
All other employers	410		52.37%	16		17.02%
	783		100.00%	94		100.00%

**Natural Resources Police Officers Retirement System\***

Top Employers	June 30, 2024			June 30, 2014		
	Covered Members	Rank	Percentage of Total	Covered Members	Rank	Percentage of Total
State of West Virginia	115	1	100.00%	n/a	n/a	n/a
All other employers	-		-	n/a		n/a
	115		100.00%	n/a		n/a

\* The NRPORS was established in January 2021.

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Average Monthly Benefit Payments

The following schedules provide information on the average monthly benefit payments. These schedules exclude participants retiring with a reduced early retirement benefit with less than 10 years of service.

#### Public Employees Retirement System

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 610	\$ 888	\$ 1,246	\$ 1,654	\$ 2,669
Average final average salary	\$ 32,160	\$ 34,513	\$ 37,897	\$ 40,671	\$ 48,275
Number of benefit recipients	4,698	4,471	4,920	4,820	11,937
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 597	\$ 871	\$ 1,217	\$ 1,606	\$ 2,522
Average final average salary	\$ 31,176	\$ 33,649	\$ 36,870	\$ 39,694	\$ 46,621
Number of benefit recipients	4,665	4,426	4,914	4,778	8,850
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 586	\$ 847	\$ 1,186	\$ 1,572	\$ 2,479
Average final average salary	\$ 30,200	\$ 32,503	\$ 35,779	\$ 38,770	\$ 45,714
Number of benefit recipients	4,620	4,396	4,875	4,742	8,724
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 569	\$ 825	\$ 1,147	\$ 1,533	\$ 2,431
Average final average salary	\$ 28,988	\$ 31,436	\$ 34,510	\$ 37,669	\$ 44,737
Number of benefit recipients	4,575	4,341	4,771	4,682	8,518
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 560	\$ 810	\$ 1,119	\$ 1,507	\$ 2,383
Average final average salary	\$ 28,080	\$ 30,541	\$ 33,400	\$ 36,863	\$ 46,815
Number of benefit recipients	4,530	4,288	4,666	4,606	8,292
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 550	\$ 791	\$ 1,094	\$ 1,477	\$ 2,729
Average final average salary	\$ 27,186	\$ 29,558	\$ 32,418	\$ 36,048	\$ 46,159
Number of benefit recipients	4,462	4,238	4,636	4,594	8,095
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 543	\$ 775	\$ 1,078	\$ 1,466	\$ 2,317
Average final average salary	\$ 26,402	\$ 28,543	\$ 31,614	\$ 35,540	\$ 42,311
Number of benefit recipients	4,441	4,202	4,555	4,548	7,877
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 547	\$ 764	\$ 1,070	\$ 1,456	\$ 2,299
Average final average salary	\$ 27,350	\$ 26,965	\$ 29,182	\$ 32,356	\$ 36,300
Number of benefit recipients	4,512	4,049	4,448	4,295	6,902
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 531	\$ 743	\$ 1,037	\$ 1,392	\$ 2,274
Average final average salary	\$ 26,550	\$ 26,224	\$ 28,282	\$ 30,933	\$ 35,905
Number of benefit recipients	4,471	3,998	4,309	4,176	6,484
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 522	\$ 733	\$ 1,019	\$ 1,386	\$ 2,204
Average final average salary	\$ 26,100	\$ 25,871	\$ 27,791	\$ 30,800	\$ 34,800
Number of benefit recipients	4,438	3,934	4,296	4,107	6,390

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

**Teachers Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 560	\$ 865	\$ 1,195	\$ 1,633	\$ 2,820
Average final average salary	\$ 28,970	\$ 31,199	\$ 32,538	\$ 36,082	\$ 48,037
Number of benefit recipients	2,812	3,550	4,449	4,969	20,293
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 548	\$ 844	\$ 1,169	\$ 1,580	\$ 2,784
Average final average salary	\$ 28,016	\$ 30,045	\$ 31,221	\$ 34,749	\$ 47,212
Number of benefit recipients	2,741	3,441	4,450	4,984	20,474
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 533	\$ 819	\$ 1,138	\$ 1,548	\$ 2,745
Average final average salary	\$ 26,717	\$ 28,581	\$ 29,673	\$ 33,375	\$ 46,229
Number of benefit recipients	2,671	3,400	4,456	5,091	20,653
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 517	\$ 787	\$ 1,105	\$ 1,516	\$ 2,705
Average final average salary	\$ 25,327	\$ 26,910	\$ 28,177	\$ 32,173	\$ 45,247
Number of benefit recipients	2,577	3,293	4,434	5,181	20,676
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 503	\$ 763	\$ 1,080	\$ 1,491	\$ 2,665
Average final average salary	\$ 24,025	\$ 25,418	\$ 26,939	\$ 31,067	\$ 44,093
Number of benefit recipients	2,502	3,197	4,397	5,211	20,528
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 485	\$ 739	\$ 1,054	\$ 1,468	\$ 3,096
Average final average salary	\$ 22,542	\$ 23,782	\$ 25,525	\$ 30,212	\$ 42,789
Number of benefit recipients	2,410	3,154	4,440	5,258	20,383
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 479	\$ 728	\$ 1,040	\$ 1,460	\$ 2,596
Average final average salary	\$ 21,520	\$ 22,553	\$ 24,240	\$ 29,356	\$ 42,331
Number of benefit recipients	2,400	3,157	4,434	5,274	20,051
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 475	\$ 719	\$ 1,048	\$ 1,488	\$ 2,572
Average final average salary	\$ 23,750	\$ 25,376	\$ 28,582	\$ 33,067	\$ 40,611
Number of benefit recipients	2,476	3,199	4,674	5,383	18,717
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 443	\$ 692	\$ 1,021	\$ 1,437	\$ 2,486
Average final average salary	\$ 22,150	\$ 24,424	\$ 27,845	\$ 31,933	\$ 39,253
Number of benefit recipients	2,402	3,191	4,605	5,359	17,974
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 432	\$ 668	\$ 1,004	\$ 1,414	\$ 2,453
Average final average salary	\$ 21,600	\$ 23,576	\$ 27,382	\$ 31,422	\$ 38,732
Number of benefit recipients	2,352	3,187	4,728	5,351	17,680

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

**State Police Death, Disability, and Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 6,575	\$ 6,868	\$ 5,384	\$ 6,005	\$ 7,329
Average final average salary	\$ 102,467	\$ 78,866	\$ 48,945	\$ 45,179	\$ 53,301
Number of benefit recipients	26	26	86	475	105
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 6,276	\$ 6,620	\$ 5,169	\$ 5,796	\$ 6,998
Average final average salary	\$ 97,808	\$ 76,019	\$ 46,991	\$ 43,607	\$ 50,894
Number of benefit recipients	27	26	85	486	107
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 6,326	\$ 6,384	\$ 4,971	\$ 5,594	\$ 6,707
Average final average salary	\$ 98,587	\$ 73,309	\$ 45,191	\$ 42,087	\$ 48,778
Number of benefit recipients	27	26	86	497	107
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 6,097	\$ 5,960	\$ 4,839	\$ 5,425	\$ 6,416
Average final average salary	\$ 95,018	\$ 68,441	\$ 43,991	\$ 40,813	\$ 46,662
Number of benefit recipients	27	28	84	494	113
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 5,877	\$ 5,745	\$ 4,631	\$ 5,263	\$ 6,156
Average final average salary	\$ 91,589	\$ 65,972	\$ 42,100	\$ 39,596	\$ 44,770
Number of benefit recipients	27	28	86	499	117
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 5,664	\$ 5,541	\$ 4,487	\$ 5,104	\$ 5,776
Average final average salary	\$ 88,270	\$ 63,629	\$ 40,791	\$ 38,400	\$ 42,007
Number of benefit recipients	27	28	87	502	118
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 5,459	\$ 5,270	\$ 4,337	\$ 4,928	\$ 5,729
Average final average salary	\$ 85,075	\$ 60,517	\$ 39,427	\$ 37,076	\$ 41,665
Number of benefit recipients	27	30	86	483	119
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 5,307	\$ 5,356	\$ 4,332	\$ 5,069	\$ 5,707
Average final average salary	\$ 82,706	\$ 61,504	\$ 39,382	\$ 38,137	\$ 41,505
Number of benefit recipients	29	27	105	450	83
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 5,276	\$ 5,262	\$ 4,109	\$ 4,747	\$ 5,466
Average final average salary	\$ 82,223	\$ 60,425	\$ 37,355	\$ 35,714	\$ 39,753
Number of benefit recipients	29	27	103	449	84
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 5,224	\$ 4,965	\$ 3,910	\$ 4,574	\$ 5,277
Average final average salary	\$ 81,413	\$ 57,014	\$ 35,545	\$ 34,413	\$ 38,378
Number of benefit recipients	30	27	111	446	85



**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

**State Police Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 3,129	\$ 3,933	\$ 3,446	\$ 4,248	\$ 5,671
Average final average salary	\$ 46,547	\$ 57,936	\$ 61,735	\$ 69,658	\$ 77,988
Number of benefit recipients	11	9	16	62	83
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 3,183	\$ 3,847	\$ 3,406	\$ 4,002	\$ 5,630
Average final average salary	\$ 42,965	\$ 55,535	\$ 61,277	\$ 67,032	\$ 76,179
Number of benefit recipients	9	7	15	48	61
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 3,208	\$ 3,810	\$ 3,039	\$ 4,002	\$ 5,181
Average final average salary	\$ 41,520	\$ 55,535	\$ 60,307	\$ 67,115	\$ 73,089
Number of benefit recipients	8	7	12	42	39
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 3,179	\$ 4,011	\$ 3,033	\$ 4,037	\$ 4,975
Average final average salary	\$ 41,520	\$ 55,284	\$ 60,307	\$ 67,507	\$ 70,849
Number of benefit recipients	8	6	12	35	25
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 2,977	\$ 4,204	\$ 3,101	\$ 4,014	\$ 4,842
Average final average salary	\$ 92,790	\$ 55,005	\$ 60,885	\$ 65,026	\$ 63,259
Number of benefit recipients	7	5	11	18	8
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 3,186	\$ 4,163	\$ 3,193	\$ 3,303	\$ 4,375
Average final average salary	\$ 99,304	\$ 95,610	\$ 58,055	\$ 49,700	\$ 63,636
Number of benefit recipients	6	5	3	12	6
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 3,159	\$ 4,123	\$ 3,694	\$ 3,379	\$ 4,298
Average final average salary	\$ 98,462	\$ 94,691	\$ 67,164	\$ 50,844	\$ 62,516
Number of benefit recipients	6	5	6	7	3
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 3,537	\$ 3,683	\$ 3,031	\$ 2,953	\$ 3,998
Average final average salary	\$ 110,244	\$ 84,586	\$ 55,109	\$ 44,434	\$ 58,153
Number of benefit recipients	3	4	3	7	2
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 3,489	\$ 3,718	\$ 3,015	\$ 3,058	\$ 3,998
Average final average salary	\$ 108,748	\$ 85,389	\$ 54,818	\$ 46,014	\$ 58,153
Number of benefit recipients	3	3	3	2	2
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 3,468	\$ 4,130	\$ 3,034	\$ 3,058	\$ 4,469
Average final average salary	\$ 108,094	\$ 94,852	\$ 55,164	\$ 46,014	\$ 65,004
Number of benefit recipients	3	2	2	2	1

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

**Deputy Sheriffs Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 1,166	\$ 2,203	\$ 2,091	\$ 2,334	\$ 3,155
Average final average salary	\$ 31,863	\$ 34,949	\$ 43,441	\$ 45,896	\$ 51,245
Number of benefit recipients	29	51	123	146	219
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 1,051	\$ 2,108	\$ 2,036	\$ 2,276	\$ 3,155
Average final average salary	\$ 33,365	\$ 34,149	\$ 41,956	\$ 44,265	\$ 51,245
Number of benefit recipients	23	48	115	139	219
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 1,081	\$ 2,136	\$ 1,964	\$ 2,208	\$ 3,051
Average final average salary	\$ 32,155	\$ 33,802	\$ 40,475	\$ 42,808	\$ 48,928
Number of benefit recipients	23	47	102	135	196
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 1,195	\$ 2,083	\$ 2,006	\$ 2,333	\$ 3,091
Average final average salary	\$ 31,595	\$ 34,112	\$ 41,169	\$ 42,439	\$ 48,585
Number of benefit recipients	25	47	130	124	150
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 1,198	\$ 1,888	\$ 1,954	\$ 2,267	\$ 2,986
Average final average salary	\$ 29,839	\$ 32,584	\$ 40,255	\$ 41,045	\$ 46,914
Number of benefit recipients	21	43	122	118	134
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 1,158	\$ 1,856	\$ 1,935	\$ 2,240	\$ 2,769
Average final average salary	\$ 34,405	\$ 38,925	\$ 31,359	\$ 29,579	\$ 32,908
Number of benefit recipients	19	40	109	114	129
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 1,136	\$ 1,807	\$ 1,680	\$ 1,914	\$ 2,545
Average final average salary	\$ 33,752	\$ 34,147	\$ 38,653	\$ 40,547	\$ 45,086
Number of benefit recipients	16	33	78	108	151
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 1,535	\$ 1,537	\$ 1,645	\$ 1,810	\$ 2,549
Average final average salary	\$ 45,607	\$ 48,220	\$ 39,879	\$ 35,753	\$ 45,316
Number of benefit recipients	18	29	67	105	135
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 1,479	\$ 1,541	\$ 1,613	\$ 1,757	\$ 2,487
Average final average salary	\$ 43,943	\$ 48,345	\$ 39,103	\$ 34,706	\$ 44,213
Number of benefit recipients	16	26	64	98	129
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 1,428	\$ 1,503	\$ 1,570	\$ 1,729	\$ 2,424
Average final average salary	\$ 42,427	\$ 47,153	\$ 38,061	\$ 34,153	\$ 43,093
Number of benefit recipients	14	25	62	95	121

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

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**Judges Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 4,410	\$ 7,030	\$ 7,824	\$ 7,923	\$ 7,641
Average final average salary	\$ 67,200	\$ 95,170	\$ 117,357	\$ 130,961	\$ 122,171
Number of benefit recipients	1	15	27	10	8
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 4,410	\$ 6,927	\$ 7,694	\$ 7,709	\$ 7,270
Average final average salary	\$ 67,200	\$ 93,776	\$ 115,408	\$ 127,424	\$ 116,240
Number of benefit recipients	1	15	24	12	9
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 4,410	\$ 6,592	\$ 7,574	\$ 7,563	\$ 7,641
Average final average salary	\$ 70,560	\$ 105,472	\$ 121,184	\$ 121,008	\$ 118,176
Number of benefit recipients	1	17	24	10	8
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 4,200	\$ 6,345	\$ 7,335	\$ 7,011	\$ 6,719
Average final average salary	\$ 67,200	\$ 101,520	\$ 117,360	\$ 112,176	\$ 107,504
Number of benefit recipients	1	20	23	9	9
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 4,200	\$ 6,451	\$ 7,335	\$ 7,098	\$ 6,719
Average final average salary	\$ 67,200	\$ 103,216	\$ 117,360	\$ 113,568	\$ 107,504
Number of benefit recipients	1	19	23	10	9
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 4,200	\$ 6,253	\$ 7,357	\$ 7,465	\$ 6,914
Average final average salary	\$ 67,200	\$ 100,048	\$ 117,712	\$ 119,440	\$ 110,624
Number of benefit recipients	1	21	24	10	7
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 4,200	\$ 6,160	\$ 7,335	\$ 7,419	\$ 6,914
Average final average salary	\$ 67,200	\$ 98,560	\$ 117,360	\$ 118,704	\$ 110,624
Number of benefit recipients	1	22	23	9	7
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 4,200	\$ 5,581	\$ 6,841	\$ 7,363	\$ 7,265
Average final average salary	\$ 67,200	\$ 89,296	\$ 109,456	\$ 117,808	\$ 116,240
Number of benefit recipients	1	25	20	8	5
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 4,200	\$ 5,600	\$ 6,847	\$ 7,442	\$ 7,265
Average final average salary	\$ 67,200	\$ 89,600	\$ 109,552	\$ 119,072	\$ 116,240
Number of benefit recipients	1	26	17	8	5
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 4,200	\$ 5,607	\$ 6,864	\$ 7,789	\$ 7,265
Average final average salary	\$ 67,200	\$ 89,712	\$ 109,824	\$ 124,624	\$ 116,240
Number of benefit recipients	1	26	15	8	5

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

**Emergency Medical Services Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 2,340	\$ 1,938	\$ 2,369	\$ 2,706	\$ 3,413
Average final average salary	\$ 38,961	\$ 44,266	\$ 53,093	\$ 56,148	\$ 64,320
Number of benefit recipients	24	39	40	37	29
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 2,418	\$ 1,930	\$ 2,280	\$ 2,682	\$ 3,313
Average final average salary	\$ 37,171	\$ 43,870	\$ 51,158	\$ 55,844	\$ 63,596
Number of benefit recipients	22	34	38	36	27
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 2,185	\$ 1,939	\$ 2,217	\$ 2,641	\$ 3,292
Average final average salary	\$ 38,544	\$ 43,496	\$ 50,042	\$ 52,818	\$ 63,607
Number of benefit recipients	20	31	34	34	29
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 2,015	\$ 1,959	\$ 2,049	\$ 2,480	\$ 3,012
Average final average salary	\$ 37,674	\$ 43,541	\$ 46,313	\$ 49,382	\$ 60,984
Number of benefit recipients	21	30	29	28	22
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 2,084	\$ 2,016	\$ 2,049	\$ 2,391	\$ 3,012
Average final average salary	\$ 39,092	\$ 41,246	\$ 46,313	\$ 47,565	\$ 60,984
Number of benefit recipients	18	26	29	24	22
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 2,053	\$ 2,038	\$ 2,068	\$ 2,333	\$ 2,985
Average final average salary	\$ 74,655	\$ 52,312	\$ 41,018	\$ 37,705	\$ 43,418
Number of benefit recipients	17	22	27	22	19
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 1,975	\$ 2,009	\$ 1,988	\$ 2,393	\$ 2,940
Average final average salary	\$ 71,818	\$ 51,568	\$ 40,461	\$ 42,885	\$ 50,472
Number of benefit recipients	15	20	22	21	17
<b>For the Year Ended June 30, 2017:</b>					
Average monthly benefit	\$ 1,933	\$ 1,528	\$ 1,948	\$ 2,535	\$ 3,173
Average final average salary	\$ 70,291	\$ 39,221	\$ 39,647	\$ 45,430	\$ 54,472
Number of benefit recipients	12	15	20	21	10
<b>For the Year Ended June 30, 2016:</b>					
Average monthly benefit	\$ 1,874	\$ 1,596	\$ 2,012	\$ 2,274	\$ 3,176
Average final average salary	\$ 68,145	\$ 40,967	\$ 40,950	\$ 40,753	\$ 54,524
Number of benefit recipients	10	12	18	17	10
<b>For the Year Ended June 30, 2015:</b>					
Average monthly benefit	\$ 1,812	\$ 1,632	\$ 2,027	\$ 2,104	\$ 3,189
Average final average salary	\$ 65,891	\$ 41,891	\$ 41,255	\$ 37,706	\$ 54,747
Number of benefit recipients	10	10	16	16	8

**West Virginia Consolidated Public Retirement Board**  
**Statistical Section**  
**Average Monthly Benefit Payments**

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**Municipal Police Officers & Firefighters Retirement System**

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2020:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2019:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-
<b>For the Year Ended June 30, 2018:</b>					
Average monthly benefit	\$ 3,228	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ 43,038	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	1	-	-	-	-

Note: The MPFRS was established in January 2010 and had no benefits or retirees to report before the year ended June 30, 2018

# West Virginia Consolidated Public Retirement Board

## Statistical Section

### Average Monthly Benefit Payments

#### Natural Resources Police Officers Retirement System

	Years of Credited Service				
	10 - 14	15 - 19	20 - 24	25 - 29	30+
<b>For the Year Ended June 30, 2024:</b>					
Average monthly benefit	\$ -	\$ -	\$ -	\$ 2,486	\$ 4,702
Average final average salary	\$ -	\$ -	\$ -	\$ 54,969	\$ 70,584
Number of benefit recipients	-	-	-	2	10
<b>For the Year Ended June 30, 2023:</b>					
Average monthly benefit	\$ -	\$ -	\$ -	\$ -	\$ 4,625
Average final average salary	\$ -	\$ -	\$ -	\$ -	\$ 69,937
Number of benefit recipients	-	-	-	-	9
<b>For the Year Ended June 30, 2022:</b>					
Average monthly benefit	\$ -	\$ -	\$ -	\$ -	\$ 4,838
Average final average salary	\$ -	\$ -	\$ -	\$ -	\$ 71,167
Number of benefit recipients	-	-	-	-	7
<b>For the Year Ended June 30, 2021:</b>					
Average monthly benefit	\$ -	\$ -	\$ -	\$ -	\$ -
Average final average salary	\$ -	\$ -	\$ -	\$ -	\$ -
Number of benefit recipients	-	-	-	-	-

Note: The NRPORS was established in January 2021 and had no benefits or retirees to report before the year ended June 30, 2021.