West Virginia Retiree Health Benefit Trust Fund

GASB Statement No. 74, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions

Actuarial Valuation as of June 30, 2018
Measured as of June 30, 2020, and Applicable to Plan's Fiscal Year End June 30, 2020

P: 312.456.9800 | www.grsconsulting.com

September 17, 2020

Mr. Jason A. Haught
Chief Financial Officer
West Virginia Public Employees Insurance Agency
601 57th Street, SE, Suite 2
Charleston, West Virginia 25304

Subject: GASB Statement No. 74 Actuarial Valuation as of June 30, 2018, for WV-RHBT

Submitted in this report are the results of the actuarial valuation of the liabilities associated with the employer financed postemployment benefits provided through the West Virginia Retiree Health Benefit Trust Fund (WV-RHBT). This program provides postretirement healthcare benefits to eligible retired members receiving pension benefits under the following retirement systems ("Retirement Systems") as administered by the West Virginia Consolidated Public Retirement Board (CPRB):

- Public Employees' Retirement System (PERS);
- Teachers' Retirement System (TRS);
- Teachers' Defined Contribution Retirement System (TDCRS);
- Great West (Plan G);
- West Virginia Death, Disability and Retirement Fund (Troopers Plan A);
- West Virginia State Police Retirement System (Troopers Plan B);
- Deputy Sheriffs' Retirement System (DSRS);
- Emergency Medical Services Retirement System (EMSRS); and
- Judges' Retirement System (JRS).

The program also provides benefits to certain eligible members receiving pension benefits under the Teachers' Insurance and Annuity Association and College Retirement Equities Fund (TIAA-CREF).

This report was prepared at the request of WV-RHBT and is intended for use by WV-RHBT and those designated or approved by WV-RHBT. This report may be provided to other parties only in its entirety and only with the permission of WV-RHBT.

The actuarial valuation as of June 30, 2018, and measured as of June 30, 2020, was prepared for purposes of complying with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 74 for the plan's fiscal year end June 30, 2020. The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the financial reporting requirements of the plan sponsor may produce significantly different results. The actuarial valuation was based upon:

- Census information as of June 30, 2018, provided by WV-RHBT, CPRB, and TIAA-CREF;

- Healthcare claims, premium and enrollment data provided by WV-RHBT;
- Substantive plan information provided by WV-RHBT;
- Retirement eligibility conditions for each respective retirement system found in CPRB actuarial valuation reports;
- Demographic and other pension-related assumptions based on the actuarial valuation as of July 1, 2018, for each respective retirement system;
- Economic assumptions and other healthcare-related assumptions recommended by Gabriel, Roeder, Smith & Company and approved by the WV-RHBT including a discount rate of 7.15% and an ultimate trend rate assumption of 4.50%; and
- Entry age normal cost method and a 20-year closed level percent of pay amortization period as of June 30, 2017 with 19 years remaining as of June 30, 2018.

We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by WV-RHBT, CPRB, or TIAA-CREF. Authorization of the assumptions and methods applicable to this actuarial valuation was granted by WV-RHBT, and they are disclosed in the assumptions and methods section of this report.

The actuarial liabilities and actuarially determined contributions were developed in accordance with the requirements of GASB Statements No. 74 and 75, and are applicable only for financial reporting purposes. The unfunded actuarial accrued liability and actuarially determined contributions (ADC) disclosed in this report should not be used to assess the level of plan assets needed to settle the plan's benefit obligations.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic, healthcare or demographic assumptions; changes in economic, healthcare or demographic assumptions; and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

The signing actuaries are independent of the plan sponsor.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of WV-RHBT as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes. Alex Rivera and Jeff Tebeau are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,

Alex Rivera, FSA, EA, MAAA, FCA
Senior Consultant

Jeff Tebeau, FSA, EA, MAAA
Consultant

Table of Contents

		Page
Section A	Executive Summary	1-7
Section B	Overview	1-4
Section C	Actuarial Valuation Results	1
	Projection of Total OPEB Liability as of June 30, 2020	1
	Summary of Actuarial Valuation Results as of June 30, 2018	2
	Development of Actuarially Determined Contribution	3
	Market Value of Assets	4
	Statements of Fiduciary Net Position	5
	Statements of Changes in Fiduciary Net Position	6
	Investment Pool Disclosure	7
	WVIMB Asset Allocation as of June 30, 2020	8
Section D	GASB Statement No. 74 Information	
	Discussion	1-4
	Executive Summary	5
	Schedule of Changes in the Net OPEB Liability under GASB Statement No. 74	6
	Sensitivity of Net OPEB Liability to the Single Discount Rate	7
	Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption	7
	Schedule of Net OPEB Liability Multiyear	8
	Schedule of Contributions Multiyear	9
	Notes to Schedule of Contributions	10
	Single Discount Rate	11
	Summary of Membership Information	11
Section E	Summary of Actuarial Assumptions and Methods	1-21
Section F	Summary of Principal Plan Provisions	1-10
Section G	Glossary	1-4
Appendix A	Projections of Assets and Liabilities	1-2
Appendix B	Summary of Participant Demographic Information	1-7

SECTION A

EXECUTIVE SUMMARY

Executive Summary

WV-RHBT administers and provides medical and prescription drug benefits to certain retired members receiving pension benefits under the PERS, TRS, TDCRS, Plan G, Troopers Plan A, Troopers Plan B, DSRS, EMSRS, or JRS pension systems, as administered by the CPRB, and TIAA-CREF. Healthcare benefits are administered by the West Virginia Public Employees Insurance Agency (PEIA). The key features of the postretirement healthcare benefit program include:

- The plan sponsor provides a capped pay-as-you-go subsidy on behalf of eligible retired members. Based on the report, *WV-RHBT 2019 Financial Report for Fiscal Years 2019 to 2024*, dated November 2019, produced by Continuing Care Actuaries (CCA), the per member per month capped subsidy for plan year end June 30, 2019, is $729.04 for non-Medicare coverage, $216.89 for Medicare coverage and $292.64 for the composite rate. The aggregate capped costs are projected at: $140 million for fiscal year 2020, $150 million for fiscal year 2021, $160 million for fiscal year 2022, $170 million for fiscal year 2023, and $180 million for fiscal year 2024.
- As of December 2019, the plan sponsor has decreased projected aggregate capped contributions. Based on the report, *WV-RHBT Financial Plan for Fiscal Years 2020 to 2024*, dated December 2019, produced by Continuing Care Actuaries (CCA), aggregate capped contributions are projected at: $141 million for fiscal year 2020, $135 million for fiscal year 2021, $140 million for fiscal year 2022, $150 million for fiscal year 2023, and $160 million for fiscal year 2024. The composite per member per month capped subsidy decreased by 8.60% from $292.64 for plan year 2019 to $267.46 for plan year 2020.
- Based on CCA's *WV-RHBT Financial Plan for Fiscal Years 2020 to 2024* RHBT is projected to receive additional revenue from the General Revenue Transfer premium offset program of $5 million for fiscal year 2020.
- Based on Senate Bill 419: "For fiscal years beginning on and after July 1, 2016, an annual amount of $30 million from annual collections of the tax imposed by this article shall be dedicated for payment of the unfunded liability of the West Virginia Retiree Health Benefit Trust Fund." The $30 million annual prefunding contribution is provided through fiscal year 2037, or if earlier, the year the employer's benefit obligation is fully funded.
- WV-RHBT also administers a fully insured retiree life insurance program. We understand the retiree premium rates are self-supporting and the retiree pays 100% of the premium resulting in no plan sponsor subsidy.
- Retiree contributions are set each year by the WV-RHBT and approved by the WV-PEIA Finance Board. Retiree contributions are based on the experience of the plan including claim, premium and investment performance. Increases to retiree contributions may reflect healthcare inflation, claim experience and premium increases above the plan sponsor capped pay-as-you-go subsidy.
- Retiree contributions depend on date of hire and years of service at retirement. Members hired on or after July 1, 2010, pay retiree healthcare contributions with no sponsor provided implicit or explicit subsidy. Members hired before July 1, 2010, pay retiree healthcare contributions that are reduced by a sponsor subsidy which depends on the member's years of service at retirement.
- The Sick and Annual Leave Program (SAL) allows members hired prior to July 1, 2001, to convert accrued sick leave and accrued annual leave balances at retirement into either retiree healthcare benefits or pension benefits. Members hired before July 1, 1988, may convert accrued sick or leave days into 100% of the required retiree healthcare contribution. Members hired from July 1, 1988, to June 30, 2001, may convert accrued sick or leave days into 50% of the required retiree healthcare contribution. The conversion rate is two days of unused sick and annual leave days per

month for single healthcare coverage and three days of unused sick and annual leave days per month for family healthcare coverage.

- Full-time higher education faculty members hired before July 1, 2009, who are employed on an annual contract basis for a period other than 12-months, upon retirement may extend years of teaching service into 100% of the employer-paid healthcare insurance coverage. The conversion rate is 3.3 years of teaching service for one year of single healthcare coverage, and 5.0 years of teaching service for one year of family healthcare coverage.
- Under the Retired Employee Assistance Program, the Plan provides premium subsidies to certain retirees if their income falls below 250% of the federal poverty level.
- WV-RHBT has established a qualified trust which receives contributions, pays benefits and invests contributions made in excess of annual expenditures. As of June 30, 2019, the market value of assets was approximately $1,091.7 million, and increased to approximately $1,213.4 million as of June 30, 2020. Long-term pre-funding assets are invested with the West Virginia Investment Management Board (WVIMB). Based on the WVIMB 2019 Annual Report, the investment objective is to earn 7.50% per year net of investment expenses. The strategic asset allocation consists of 55% equity, 15% fixed income, 10% private equity, 10% hedge fund and 10% real estate invested. Short-term assets used to pay current year benefits and expenses are invested with the West Virginia Board of Treasury Investment (WVBTI). Based on the amount of assets held in the BTI account and expected benefit payments, and solely for projection purposes, GRS has assumed that approximately six to nine months of benefits and expenses are held in reserve with the WVBTI. We also understand that, if needed, the plan sponsor may use assets held with the WVIMB to pay current benefits and expenses.

GRS performed an actuarial valuation of the retiree healthcare for purposes of financial reporting under the requirements of GASB Statements No. 74 and 75. The basis of the actuarial valuation is outlined below:

- The actuarial valuation was based on census, claims, premium data, capped per member per month subsidies, aggregated projected capped subsidies and applicable accrued sick leave balances as of June 30, 2018, as provided by WV-RHBT and reported by CCA.
- The census as of June 30, 2018, includes data for 18,119 waived annuitants who are receiving an annuity and are eligible to receive healthcare benefits but have waived healthcare coverage.
- For purposes of the actuarial valuation as of June 30, 2018, we have assumed that 2.5% of all waived annuitants under the age of 75 will elect to participate in the retiree healthcare program as of the actuarial valuation date. As of June 30, 2018, there were 11,881 waived annuitants under age 75 who were included in the actuarial valuation data, and so approximately 297 waived annuitants were assumed to elect coverage as of June 30, 2018.
- The waived annuitant participation assumption was based on a limited review of experience for the period from July 1, 2014, to June 30, 2019. Based on this review, members who waive healthcare coverage at retirement are expected to elect healthcare coverage at a rate of approximately: 1.9% during the first year since retirement, 2.1% during the second year since retirement, 1.4% during the third year since retirement, and 0.6% during the fourth year since retirement. Members who have waived coverage during the first four years of retirement have a 2.5% likelihood of electing healthcare coverage in the future. As of June 30, 2018, waived annuitants under age 75 have declined healthcare coverage for an average period of seven years.

Consequently, assuming 2.5% of waived annuitants elect healthcare coverage as of the actuarial valuation date provides a slight margin for conservatism.

- We did not review lapse experience for members who elected healthcare coverage at retirement and subsequently waived coverage. However, we will be evaluating the lapse assumption during the next experience review study. The results of the experience study, including updates to the actuarial valuation assumptions, will be incorporated in the valuation as of June 30, 2019.
- The substantive healthcare plan provisions were found in WV-PEIA's Summary Plan Description and Shopper Guide used for plan year end June 30, 2019, enrollment.
- The retirement eligibility conditions were found in annual reports and actuarial valuation reports provided by CPRB.
- Pension related assumptions such as rates of termination, retirement, and mortality were based on actuarial valuation reports as of July 1, 2018, provided by CPRB.
- The retirement assumption used for the OPEB actuarial valuation was based on experience from the CPRB pension plans. However, using retirement rates derived from pension plan experience for the OPEB actuarial valuation has produced more expected retirements than actual retirements. Consequently, we reduced the retirement rates by 15% to be more consistent with observed OPEB retirement experience.
- For future actuarial valuations, we recommend that a retirement and participation study be performed, based on experience from the OPEB program, in order to improve the measurement of actuarial liabilities of the OPEB program.
- Healthcare-related assumptions including the discount rate, healthcare trend rates, per capita claim costs and participation assumptions were recommended by GRS and approved by WV-RHBT. GRS recommended a discount rate of 7.15% and select and ultimate trend rates which grade:
    - From 8.50% for plan year end 2020 to an ultimate rate of 4.50% for plan year end 2028 for non-Medicare coverage, and
    - From 3.10% for plan year end 2020, 9.50% for plan year end 2021, decreasing to an ultimate rate of 4.50% for plan year end 2031 for Medicare coverage.
- Certain healthcare-related assumptions such as the participation rate, percentage of single and family contracts, and percentage of members that convert SAL benefits to OPEB benefits were based on an Experience Study performed by GRS based on experience data for the five-year period ending June 30, 2015. These assumptions will be updated during the upcoming experience study.
- An expected long-term rate of return of 7.50% for long-term assets invested with WVIMB, was based on WVIMB's investment policy and the long-term strategic asset allocation.
- An expected short-term rate of return of 3.00% for assets invested with WVBTI, was based on the general inflation assumption of 2.75% plus 25 basis points.
- In the future, short-term assets invested with WVBTI are assumed to be approximately equal to six months of self-insured claims, fully-insured premiums and administrative expenses. The remaining assets are invested in the long-term WVIMB account.
- Assets in the WVIMB account are assumed to be used to pay benefits and expenses only after the program is fully funded.
- The discount rate assumption of 7.15%, used to develop the actuarial accrued liability and normal cost, was based on the average expected return on invested plan assets during the period that the program is projected to reach full funding; i.e., 2033.
- A discount rate of 7.15% was also used to measure the Total OPEB Liability as of June 30, 2017, June 30, 2018, and June 30, 2019. The discount rate reflects projected earnings of a short-term

account managed by the WV-BTI and a long-term account managed by the WVIMB. The discount rate does not consider a municipal bond rate index since assets are projected to be available to pay benefits in all future years and the program is expected to be fully funded by 2033.

- Based on CCA's report *WV-RHBT Financial Plan for Fiscal Years 2020 to 2024*, the aggregate capped subsidy is $141 million for fiscal year 2020, $135 million for fiscal year 2021, $140 million for fiscal year 2022, $150 million for fiscal year 2023, and $160 million for fiscal year 2024. After fiscal year 2024, we have assumed the aggregate capped subsidy increases by $10 million per year until the year the program is fully funded. Projected employer contributions were assumed to equal the sum of State appropriations, the fixed annual capped pay as you go employer contribution, and expected SAL employer contributions. After the program is fully funded, we assumed the plan sponsor would pay the normal cost and administrative expenses, up to the amount needed to remain 100% funded after 2033.
- The percentage of program costs paid by the retired member was assumed to increase from approximately 28% for plan year end 2020 to approximately 46% for plan year end 2030, and remain stable thereafter.
- Please see Section E for a summary of the assumptions used for the projection. Please see Appendix A for additional details on projection results.
- GRS relied on plan year end June 30, 2019, per member per month capped subsidy rates of $729.04 for non-Medicare coverage, $216.89 for Medicare coverage and $292.64 for the composite rate as contained in the report *WV-RHBT 2019 Financial Report for Fiscal Years 2019 to 2024*, dated November 2019, as produced by Continuing Care Actuaries (CCA). GRS also relied on the updated plan year end June 30, 2020, composite capped rates of $267.46 per member per month contained in *WV-RHBT Financial Plan for Fiscal Years 2020 to 2024*, dated December 2019, produced by CCA. GRS reviewed the plan year 2019 and 2020 capped subsidy rates for reasonableness; however, GRS did not perform a full analysis of the development of the capped subsidy rates for plan years 2019 and 2020.
- GRS relied on Board approved projected aggregate sponsor contributions of $141 million for fiscal year 2020, $135 million for fiscal year 2021, $140 million for fiscal year 2022, $150 million for fiscal year 2023, and $160 million for fiscal year 2024 as contained in the report *WV-RHBT Financial Plan for Fiscal Years 2020 to 2024*, dated December 2019, produced by CCA.
- GRS relied on Humana's renewal premium rating reports applicable for calendar years 2017, 2018, 2019, and 2020 (including not exceed rates for calendar year 2021) and Humana's gain sharing reports applicable to calendar years 2017 and 2018.
- GRS relied on the Economic and Pension-related assumptions used for the July 1, 2018, actuarial valuation of the pension systems administered by CPRB.
- GRS relied on the WVIMB 2019 Annual Report and CPRB for information relating to the investment policy and long-term expected return on assets including: an assumed inflation rate of 2.75%, an assumed long-term rate of return 7.50% on invested assets, and an effective real return of 4.75%.
- GRS considered CPRB's Experience Study for PERS for the period July 1, 2013, to June 30, 2018, released October of 2019. Based on a limited review, reflecting CPRB's updated assumptions is expected to decrease liabilities at June 30, 2019, for all RHBT OPEB valuation groups, by less than 0.3%, which is insignificant.
- GRS considered claim and enrollment experience through June 30, 2020, and available MAPD premium adjustments as of June 30, 2020. Benefit payments decreased significantly from $133.6 million for plan year 2019 to $85.8 million for plan year 2020. The primary reason for the

decrease in benefits was due to the decline in the utilization of healthcare benefit services caused by the COVID-19 pandemic. Due to the uncertainty of COVID-19 related healthcare experience in the near term, we did not reflect near-term COVID-19 related claim experience gains and MAPD gain sharing adjustments in the projection of long-term OPEB costs.

- GRS will be conducting an Experience Review for all RHBT OPEB valuation groups. The study will be based on experience that is specific to RHBT's OPEB programs. GRS recommends adopting updated valuation assumptions which are based on RHBT OPEB program experience.

The key actuarial valuation results as of June 30, 2016, June 30, 2017, and June 30, 2018, are summarized in the following table ($ in thousands).

WV-RHBT Actuarial Valuation ($ in thousands)			
Actuarial Valuation Date	**June 30, 2018**	**June 30, 2017**	**June 30, 2016**
Measurement Date	**June 30, 2019**	**June 30, 2018**	**June 30, 2017**
Actuarial Accrued Liability	$ 2,750,793	$ 3,108,551	$ 3,282,900
Market Value of Assets	$ 1,091,661	$ 963,115	$ 824,016
Unfunded Actuarial Accrued Liability (UAAL)	$ 1,659,132	$ 2,145,436	$ 2,458,884
Funded Ratio	39.69%	30.98%	25.10%
Applicable for Plan Year End	**June 30, 2020**	**June 30, 2019**	**June 30, 2018**
Employer Normal Cost	$ 43,991	$ 51,870	$ 60,108
Operating Expenses[a]	$ 3,236	$ 2,825	$ 3,056
Amortization of UAL	$ 117,373	$ 145,749	$ 160,845
Actuarially Determined Contribution	$ 164,600	$ 200,444	$ 224,009
Expected Employer Contributions	$ 191,743	$ 204,052	$ 205,315
Total Expected Claims and Expenses	$ 242,260	$ 249,670	$ 234,457
Expected Retiree Contributions	$ 68,488	$ 63,475	$ 57,357
Percent of Claims and Expenses paid by Retired Members	28.27%	25.42%	24.46%
Year Program is Projected to be 100% Funded	2033	2036	2036
Discount Rate	7.15%	7.15%	7.15%

[a] *Beginning with the June 30, 2016, actuarial valuation, operating expenses are included in the actuarially determined contribution.*

Executive Summary

Key observations and conclusions include:

- During the plan year end June 30, 2018, the actuarial accrued liability decreased from $3.018 billion as of June 30, 2017, to $2.750 billion as of June 30, 2018.
- The key reasons for the decrease in the actuarial accrued liability include: favorable healthcare claims and demographic experience, and changes in healthcare-related assumptions. A detailed gain/loss analysis showing a reconciliation of the decrease in the actuarial liability can be found on page C-1.
- The MAPD premium rates decreased significantly since the last actuarial valuation which was one of the primary reasons for the decrease in actuarial liabilities due to favorable healthcare claims experience. Sources which decreased MAPD premium rates include: favorable claim increases, increases in prescription rebates, increases in CMS reimbursement rates, and the repeal of the ACA Health Insurance Tax.
- The discount rate of 7.15% depends on the excess contribution of $30 million per year projected to be made by the State from FY 2019 through FY 2037, or if earlier, the year the employer benefit obligations are fully funded. Our actuarial valuation assumes the State will make these contributions. If the State deviates from the funding policy or if the program experiences significant losses, we may not be able to support the 7.15% discount rate assumption and may need to change the projection assumptions and methodology.
- During December of 2019, the plan sponsor decreased the employer's projected capped paygo subsidy contributions for fiscal years 2020 through 2024 when compared to the prior year policy. A decrease in capped paygo subsidy contributions could impact the actuarial projections including the year that the program becomes fully funded. However, due to favorable claim experience and premium rate increases during 2018 and 2019, the year that the program is projected to be fully funded decreased from 2036 to 2033.
- Appendix A shows the details of the projections. For purposes of the projections we assumed investment income would be used to pay employer benefits and expenses only after the program is fully funded. Based on this assumption the employer's benefit obligation is projected to be fully funded by plan year 2033.
- Another key observation is the relationship of projected retiree contributions to projected claims and expenses. Because claims and fully insured premiums are expected to increase by the healthcare trend assumption while the employer's aggregate capped subsidy is projected to increase by no more than $10 million per year, the member's cost could increase by a rate higher than the healthcare trend assumption. In our projection model, we have assumed the percentage of total costs paid by the plan member would level off after the program is fully funded in 2033 and remain stable at about 46% of total plan costs. After the program is fully funded in 2033, we have assumed the sponsor would pay normal cost and administrative expenses up to the amount needed to remain 100% funded.
- As the retired members' share of the total contributions increases, the future retired member's participation may decrease. We recommend monitoring retirement and participation experience especially during periods of significant increases in the retired member's share of the premium. In addition, we recommend performing a full experience study, including a review of retirement and participation experience, and updating actuarial assumptions in order to improve the measurement of actuarial liabilities of the OPEB program.

- Members hired on or after July 1, 2010, are required to pay 100% of expected cost of coverage, resulting in no implicit or explicit cost to the employer. Consequently, these members were excluded from the actuarial valuation.

The details of the actuarial valuation and supporting documentation are provided in the following sections.

SECTION B

OVERVIEW

Overview

The following section presents the results of the actuarial valuation as of June 30, 2018, of the WV-RHBT Retiree Healthcare Benefit Program. The actuarial valuation reflects the liability for benefits paid by the plan sponsor including: capped subsidies, and percentage of retiree premiums under the Sick and Annual Leave Program. The actuarial valuation assumes self-insured claims, fully-insured premiums and administrative costs in excess of sponsor paid benefits, including explicit and implicit subsidies, will be paid by the retired member.

The plan sponsor provides a capped pay-as-you-go subsidy on behalf of eligible retired members. Based on the report, *WV-RHBT 2019 Financial Report for Fiscal Years 2019 to 2024*, dated November 2019, produced by Continuing Care Actuaries (CCA), the per member per month capped subsidy for plan year end June 30, 2019, is $729.04 for non-Medicare coverage and $216.89 for Medicare coverage and $292.64 for the composite rate. The aggregate capped costs are projected to be: $140 million for fiscal year 2020, $150 million for fiscal year 2021, $160 million for fiscal year 2022, $170 million for fiscal year 2023, and $180 million for fiscal year 2024.

As of December 2019, the plan sponsor has decreased projected aggregate capped contributions. Based on the report, *WV-RHBT 2020 Financial Report for Fiscal Years 2020 to 2024*, dated December 2019, produced by Continuing Care Actuaries (CCA), aggregate capped contributions are projected at: $141 million for fiscal year 2020, $135 million for fiscal year 2021, $140 million for fiscal year 2022, $150 million for fiscal year 2023, and $160 million for fiscal year 2024. The composite per member per month capped subsidy decreased by 8.60%, from $292.64 to $267.48. Based on CCA's 2020 Financial Report, dated December of 2019, the RHBT is projected to receive additional revenue from the General Revenue Transfer premium offset program of $5 million for fiscal year 2020.

The Sick and Annual Leave Program (SAL) allows members hired prior to July 1, 2001, to convert accrued sick leave and accrued annual leave balances at retirement into either retiree healthcare benefits or pension benefits. Members hired before July 1, 1988, may convert accrued sick or leave days into 100% of the required retiree healthcare contribution. Members hired from July 1, 1988, to June 30, 2001, may convert accrued sick or leave days into 50% of the required retiree healthcare contribution. The conversion rate is two days of unused sick and annual leave days per month for single healthcare coverage and three days of unused sick and annual leave days per month for family healthcare coverage.

Full-time higher education faculty members hired before July 1, 2009, who are employed on an annual contract basis for a period other than 12-months, upon retirement may extend years of teaching service into 100% of the employer-paid healthcare insurance coverage. The conversion rate is 3.3 years of teaching service for one year of single healthcare coverage; and 5.0 years of teaching service for one year of family healthcare coverage.

Under the Retired Employee Assistance Program, the Plan provides premium subsidies to certain retirees if their income falls below 250% of the federal poverty level.

Overview

Most retired members are receiving benefits under the self-insured PPB Plan A for non-Medicare coverage and the fully-insured MAPD Plan 1 for Medicare coverage. The retired member's share of the premium depends on the date of hire and years of service at retirement. Members hired on or after July 1, 2010, pay 100% of the premium, resulting in no explicit or implicit subsidy to the plan sponsor. The following table shows representative premium rates for plan years 2019 and 2020 for single coverage under PPB Plan A and MAPD Plan 1:

Monthly Premiums for FY	PPB Plan A [a]		MAPD Plan 1 [a]	
	2019	2020	2019	2020
Hired on or after July 1, 2010	$1,160	$1,160	$473	$473
5 to 9 years service	929	929	431	431
10 to 14 years service	716	716	317	317
15 to 19 years service	501	501	204	204
20 to 24 years service	375	375	136	136
25 or more years service	291	291	91	91

[a] *Premium rates are standard rates. Retirees receive a monthly discount of $25 per tobacco-free covered member. It is assumed that 50% of future retirees and dependents are eligible for the preferred rates.*

The WV-RHBT established a qualified trust to pre-fund sponsor benefit obligations. Future pre-funding contributions include a $30 million annual contribution made by the State from 2017 through 2037, or if earlier, the year the employer benefit obligations are fully funded.

Long-term pre-funding assets are invested with the WVIMB. The strategic asset allocation consists of 55% equity, 15% fixed income, 10% private equity, 10% hedge fund and 10% real estate invested. Short-term assets used to pay current year benefits and expenses are invested with the WVBTI.

The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level percent of active member payroll over a 20-year closed period as of June 30, 2017. Unlike a level-dollar amortization which pays principal and interest each year, a level percent-of-pay (or increasing-payment) amortization may not finance principal for a period of time depending on the amortization period.

The UAAL represents the portion of the total actuarial present value of all future employer-provided benefits which is attributable to prior years, minus any actuarial valuation assets. It represents a measure of the unfunded liability allocable to past service. The cost and liabilities shown on the following pages are employer costs and liabilities, relating to the capped premium subsidy, the accrued sick and annual leave SAL program and the retiree assistance program.

Actuarial Assumptions

In any long-term actuarial valuation (such as for Pensions and OPEBs), certain demographic, economic, and behavioral assumptions are made concerning the population, the investment discount rates, and the benefits provided. These actuarial assumptions form the basis for the actuarial model which is used to project the future population, the future benefits provided, and the future contributions collected. The discount rate assumption is used to discount projected net OPEB benefits to a present value. This and other related present values are used to calculate the Actuarial Accrued Liability, Normal Cost and Actuarially Determined Contribution.

Overview

This actuarial valuation of WV-RHBT is similar to the actuarial valuation performed for the pension plan systems administered by CPRB. The demographic assumptions (rates of retirement, termination, disability, and mortality) used in this OPEB actuarial valuation were consistent with those used in the most recent actuarial valuations performed for the pension plan systems administered by CPRB.

Certain economic and behavioral assumptions are unique to healthcare benefits. These assumptions include the healthcare trend, per capita claim costs, the likelihood that a member selects healthcare coverage and the likelihood that a retiree selects one-person, two-person, or family coverage. These assumptions were updated based on a recent experience study performed by GRS using five-year experience data through June 30, 2015.

The interest rate used to discount expected future benefit payments was based on the expected return on current assets and pre-funding contributions that are expected to accumulate and fully fund the projected actuarial accrued liability. For pre-funded assets invested in the long-term WVIMB account, an investment return of 7.50% was assumed. For assets invested in the short-term WVBTI account, an investment return of 3.00% was assumed. The discount rate used to develop the actuarial liability and normal costs was based on the average return on invested plan assets during the period that the plan reaches full funding. The key basis of the projection includes:

- The employer's aggregate capped subsidy of $141 million for fiscal year 2020, $135 million for fiscal year 2021, and $140 million for fiscal year 2022, will increase by approximately $10 million per year after 2021 until the program is fully funded.
- The employer's total contribution equals the sum of State appropriations, aggregate capped contributions, and SAL program contributions.
- Approximately six months of self-insured claims, fully-insured premiums, and administrative expenses will be held in the WVBTI account.
- Investment earnings and principal from the WVIMB will be used to pay sponsor benefits only after the sponsor's benefit obligations are fully funded.
- After the program becomes fully funded, the sponsor contributes the normal cost and operating expenses up to amount needed to remain fully funded.
- Annual increases for the member's share of the plan cost increases at a higher rate when compared to annual increases of capped costs. When the program becomes fully funded, the percentage of plan cost paid by the member is assumed to remain stable.

Appendix A of the report contains a projection supporting the Single Discount Rate assumption. Appendix A shows that the program is projected to be fully funded by 2033 and the average return on invested plan assets from 2019 to 2033 is approximately 7.15%.

Actuarial Cost Method

WV-RHBT has selected the entry age normal cost method for this actuarial valuation which is an acceptable method and the required cost method for GASB Statements No. 74 and 75 financial reporting. This cost method spreads cost on a level percent of pay basis. The amortization of the Unfunded Actuarial Accrued Liability was calculated using a level percent of pay over a 20-year closed period, as of June 30, 2017.

Overview

The remainder of the report is an integral component of the actuarial valuation and includes:

- Reconciliation Total OPEB Liability from June 30, 2018, to June 30, 2020;
- Statements of Fiduciary Net Position as of June 30, 2020, and Statements of Changes in Fiduciary Net Position as of June 30, 2020;
- GASB Statement No. 74 financial reporting information measured as of June 30, 2020, and applicable to the plan's fiscal year end June 30, 2020;
- Summary of actuarial assumptions and methods and plan provisions; and
- Projection of program cost.

SECTION C

ACTUARIAL VALUATION RESULTS

Actuarial Valuation Results

The following section contains:

- A reconciliation of the Total OPEB Liability from June 30, 2018, to June 30, 2020;
- Summary of actuarial valuation results as of June 30, 2018, by pension plan group; and
- Comparison of actuarially determined contributions for the plan year end June 30, 2020, June 30, 2019, and June 30, 2018.

Projection of Total OPEB Liability from June 30, 2018 to June 30, 2020

West Virginia Retiree Health Benefit Trust Fund GASB 74 Total OPEB Liability as of June 30, 2018, Projected to June 30, 2020	
Expected Total OPEB Liability as of June 30, 2018	**$ 3,385,684,300**
Service Cost for Fiscal Year 2019	$ 51,870,039
Employer Benefits and Expenses for Fiscal Year 2019	(135,061,413)
(Gain)/Loss due to Expected versus Actual Benefit Payments	(52,832,517)
(Gain)/Loss due to Other Emerging Experience	(141,558,951)
Change in Assumptions	(296,677,844)
Interest	219,338,640
Total	**$ (354,922,046)**
Expected Total OPEB Liability as of June 30, 2019 [a]	**$ 3,030,762,254**
(Gain)/Loss at June 30, 2019	
Demographic Experience	$ (26,224,788)
Change in Assumptions and Methods	(253,744,141)
Total	**$ (279,968,929)**
Total OPEB Liability as of June 30, 2019 [b]	**$ 2,750,793,325**
Service Cost for Fiscal Year 2020	$ 43,991,277
Employer Benefits and Expenses for Fiscal Year 2020	(87,772,000)
(Gain)/Loss due to Expected versus Actual Benefit Payments	(86,082,954)
Interest	192,119,243
Total	**$ 62,255,566**
Total OPEB Liability as of June 30, 2020 [b]	**$ 2,813,048,891**

[a] *Based on actuarial valuation as of June 30, 2017.*
[b] *Based on actuarial valuation as of June 30, 2018.*

Summary of Actuarial Valuation Results as of June 30, 2018

Discount Rate	7.15%
Ultimate Trend Pre-Medicare	4.50%
Ultimate Trend Post-Medicare	4.50%

		Local Agencies	PERS	Troopers Plan A	Troopers Plan B	TRS Pre-6/30/91	TRS Post-6/30/91	Retiree PERS	Retiree TRS	Total
A)	Present Value of Benefits									
	i) Active[a]	$ 162,685,654	$ 385,710,657	$ 2,181,160	$ 28,675,926	$ 222,984,007	$ 681,487,200	$ -	$ -	$ 1,483,724,604
	ii) Active SAL[b]	156,024	23,766,302	68,361	572,864	23,240,889	13,414,902	-	-	61,219,342
	iii) Retired	-	-	-	-	-	-	675,228,321	795,867,552	1,471,095,873
	iv) Waived Annuitants[c]	-	-	-	-	-	-	5,451,029	4,708,394	10,159,423
	v) Total	$ 162,841,678	$ 409,476,959	$ 2,249,521	$ 29,248,790	$ 246,224,896	$ 694,902,102	$ 680,679,350	$ 800,575,946	$ 3,026,199,242
B)	Actuarial Accrued Liability									
	i) Active[a]	$ 133,316,505	$ 318,422,955	$ 2,048,550	$ 22,854,043	$ 206,131,071	$ 478,106,124	$ -	$ -	$ 1,160,879,248
	ii) Active SAL[b]	139,632	21,991,085	64,489	515,864	21,789,399	11,115,687	-	-	55,616,156
	iii) Retired	-	-	-	-	-	-	675,228,321	795,867,552	1,471,095,873
	iv) Waived Annuitants[c]	-	-	-	-	-	-	5,451,029	4,708,394	10,159,423
	iii) Total	$ 133,456,137	$ 340,414,040	$ 2,113,039	$ 23,369,907	$ 227,920,470	$ 489,221,811	$ 680,679,350	$ 800,575,946	$ 2,697,750,700
C)	Employer Normal Cost									
	i) Fiscal Year Ending June 30, 2019	$ 4,935,985	$ 11,727,002	$ 52,111	$ 850,395	$ 4,709,266	$ 25,794,898	$ -	$ -	$ 48,069,657
	ii) Fiscal Year Ending June 30, 2020	4,436,044	10,592,191	41,322	824,318	3,879,653	24,217,749	-	-	43,991,277
D)	Employer Benefit Payments									
	i) Fiscal Year Ending June 30, 2019	$ 1,002,297	$ 2,722,090	$ 16,662	$ 62,060	$ 3,276,991	$ 3,104,791	$ 81,852,777	$ 91,021,563	$ 183,059,231
	ii) Fiscal Year Ending June 30, 2020	2,826,214	7,711,067	52,254	196,472	9,162,665	8,578,172	69,095,532	76,150,004	173,772,381
E)	Covered Members									
	i) Active[d]	4,679	10,596	21	375	4,796	19,517	-	-	39,984
	ii) Retired	-	-	-	-	-	-	19,934	23,120	43,054
	iii) Waived Annuitants	-	-	-	-	-	-	6,395	5,486	11,881
	iv) Total	4,679	10,596	21	375	4,796	19,517	26,329	28,606	94,919
F)	Covered Payroll[e]	$203,012,553	$441,758,038	$1,370,664	$20,505,836	$286,230,234	$898,309,205	$ -	$ -	$ 1,851,186,530

[a] *Includes employer capped subsidy and Employee Assistance Program benefits.*

[b] *Includes employer paid premium under the Accrued Sick Annual Leave Program.*

[c] *The actuarial valuation assumes 2.5% of waived annuitants under the age of 75 will select retiree healthcare coverage in the future. As of June 30, 2018, there were 11,881 waived annuitants under age 75 and 6,238 waived annuitants over age 75.*

[d] *Excludes active members hired on or after July 1, 2010.*

[e] *Covered payroll excludes members hired on or after July 1, 2010, and is based on the payroll data provided as of the actuarial valuation date. Based on updated actuarial valuation data as of June 30, 2018.*

Actuarial Valuation Results

Development of Actuarially Determined Contribution

Actuarial Valuation Date	**June 30, 2018**	**June 30, 2017**	**June 30, 2016**
Measurement Date	**June 30, 2019**	**June 30, 2018**	**June 30, 2017**
Fiscal Year Ending	**June 30, 2020**	**June 30, 2019**	**June 30, 2018**
A) Funded Status at Measurement Date			
i) Actuarial Accrued Liability	$ 2,750,793,325	$ 3,108,550,896	$ 3,282,900,408
ii) Market Value of Assets	1,091,661,000	963,114,601	824,015,704
iii) Unfunded Actuarial Accrued Liability	$ 1,659,132,325	$ 2,145,436,295	$ 2,458,884,704
iv) Funded Ratio	39.69%	30.98%	25.10%
B) Actuarially Determined Contribution (ADC)			
i) Employer Normal Cost	$ 43,991,277	$ 51,870,039	$ 60,108,139
ii) Operating Expenses [a]	3,236,000	2,824,857	3,056,005
ii) Amortization of Unfunded Actuarial Accrued Liability	117,372,701	145,749,442	160,845,026
iv) Actuarially Determined Contribution	$ 164,599,978	$ 200,444,338	$ 224,009,170
C) Actual Employer Contribution	$ 193,406,000	$ 206,028,203	$ 204,234,825
D) Percentage of ADC Contributed	117.50%	102.79%	91.17%
E) Retired Member Health Premiums	$ 67,776,000	$ 66,818,000	$ 68,089,000

[a] *Beginning with the June 30, 2016, actuarial valuation, operating expenses are included in the actuarially determined contribution.*

Market Value of Assets

This section contains the following information relating to the market value of plan assets:

- Statements of Fiduciary Net Position as of June 30, 2020, and June 30, 2019;
- Statements of Changes in Fiduciary Net Position for the Plan years ending June 30, 2020, and June 30, 2019;
- Market value of assets broken out by investment pool as of June 30, 2019, and June 30, 2020; and
- WVIMB asset allocation as of June 30, 2020.

West Virginia Retiree Health Benefit Trust Fund
Statements of Fiduciary Net Position
June 30, 2020 and 2019
($ in thousands)

	2020	2019
ASSETS		
Cash and cash equivalents	$ 6,411	$ 3,805
Equity position in investment pools	1,193,675	1,108,753
Contributions receivable - net of allowance for doubtful accounts	-	-
of $143 and $468, respectively	1,724	1,213
Due from the State - contributions	942	1,383
Due from the State - State appropriation (Contribution)	2,500	-
Other receivables	38,108	8,193
Total assets	1,243,360	1,123,347
DEFERRED OUTFLOWS OF RESOURCES		
Pension	112	179
Other Post-Employment Benefits	79	69
Total deferred outflows of resources	191	248
LIABILITIES		
Claims payable	9,244	9,290
Due to PEIA	6,457	10,532
Payables to managed care organizations	-	8,955
Other liabilities	2,973	2,883
Total liabilities	18,674	31,660
DEFERRED INFLOWS OF RESOURCES		
Pension	84	171
Other Post-Employment Benefits	151	103
Total deferred inflows of resources	235	274
NET POSITION		
Net position restricted for other postemployment benefits	$ 1,224,642	$ 1,091,661

West Virginia Retiree Health Benefit Trust Fund
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2020 and 2019
($ in thousands)

	2020	2019
Additions:		
Contributions:		
Employers	$ 107,756	$ 115,345
State appropriation (School Aid)	50,650	55,683
State appropriation (Contribution)	5,000	30,000
State appropriation (OPEB)	30,000	5,000
Total contributions	193,406	206,028
Retiree drug subsidy	643	882
Other revenue	19	24
Interest and dividend income	1,350	1,810
Net appreciation in fair value of investments	28,571	57,688
Total additions	223,989	266,432
Deductions:		
Benefit payments, net	85,786	133,625
Administrative service fees	1,986	1,436
Other expenses	3,236	2,825
Total deductions	91,008	137,886
Net increase in net position	132,981	128,546
Net position restricted for other postemployment benefits:		
Net position, beginning of year	1,091,661	963,115
Net position, end of year	$ 1,224,642	$ 1,091,661

West Virginia Retiree Health Benefit Trust Fund
Equity Position in Investment Management Pools
June 30, 2020 and 2019
($ in thousands)

	June 30, 2020	June 30, 2019
West Virginia Board of Treasury Investments (WVBTI)		
Money Market Pool	$ 43,447	$ 107,183
West Virginia Investment Management Board (WVIMB)		
Domestic Equity	$ 275,410	$ 248,998
International Equity Pool	198,284	173,189
International Non-Qualified Pool	73,848	83,843
Short-Term Fixed Income	80,000	-
Total Return Fixed Income Pool	100,930	88,937
Core Fixed Income Pool	43,026	38,465
Hedge Funds Pool	105,533	114,290
Private Markets	273,197	253,848
	$ 1,150,228	$ 1,001,570
Grand Total	**$ 1,193,675**	**$ 1,108,753**

WVIMB Asset Allocation as of June 30, 2020

WV - RHBT
GASB No. 74 Actuarial Valuation as of June 30, 2018
Measured as of June 30, 2020, and applicable for the fiscal year end June 30, 2020

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return 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 rates of return by the target asset allocation percentage. Target asset allocations, capital market assumptions ("CMA"), and forecast returns were provided by the plan's investment advisors, including the West Virginia Investment Management Board ("WV-IMB"). The projected return for the Money Market Pool held with the West Virginia Board of Treasury Investments ("WV-BTI") was estimated based on WV-IMB assumed inflation of 2.0% plus a 25 basis point spread.

		2019 CMA 10-Year	
	Current Policy Asset Allocation	Geometric Return	Standard Deviation
WV-IMB [a]			
Global Equity	55.0 %	6.8 %	17.1 %
Core Plus Fixed Income	15.0 %	4.1 %	8.4 %
Core Real Estate	10.0 %	6.1 %	12.9 %
Hedge Fund	10.0 %	4.4 %	7.8 %
Private Equity	10.0 %	8.8 %	25.6 %
Target Allocation [a]	**100.0 %**		
Percentage of Portfolio [b]	**90.0 %**		
Forecast 10-year Return [a,c]		6.7 %	
Standard Deviation [a]		13.1 %	
CMA 10-year Inflation [a]		2.0 %	
10-year Real Return		4.7 %	
Actuarial Valuation Inflation Assumption		2.75 %	
10-year Nominal Return after Inflation Adjustment		7.45 %	
Actuarial Valuation Return Assumption [e]		7.50 %	
		Expected	
WV-BTI		Return	
Money Market Pool with 2.00% inflation [d]	**100.0 %**	2.25 %	
Money Market Pool with 2.75% inflation [e]		3.00 %	
Percentage of Portfolio [b]	**10.0 %**		

a Target asset allocation, capital market assumptions, and forecast of 10-year returns provided by WV-IMB.

[b] Based on invested assets as of June 30, 2019.

[c] Ten-year forecast returns provided by WV-IMB are based on gross market return assumption for each asset class. WV-IMB utilizes active management and generally expects actively managed net returns to meet or exceed forecast net returns.

[d] Based on WV-IMB assumed inflation of 2.00% plus 0.25%.

[e] Used for actuarial valuation.

SECTION D

GASB STATEMENT NO. 74 INFORMATION

Auditor's Note – This information is intended to assist in preparation of the plan sponsor's financial statements relating to the West Virginia Retiree Health Benefit Trust Fund. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

Discussion

Accounting Standard

For postemployment (OPEB) benefit plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 74, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans," replaces the requirements of GASB Statement No. 43, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans." GASB Statement No. 74 establishes standards of financial reporting for separately issued financial reports of state and local government OPEB plans.

GASB Statement No. 75 replaces the requirements of GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployments Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB.

GASB Statements No. 74 and 75 are effective for fiscal years beginning after June 15, 2016, and June 15, 2017, respectively.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards.

Plan Financial Statements

GASB Statement No. 74 requires defined benefit OPEB plans which are administered as trusts or equivalent arrangements to present two financial statements: a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the assets and liabilities of the OPEB plan at the end of the OPEB plan's reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense, and net increase or decrease in the fiduciary net position.

GASB Statement No. 75 requires state and local government employers to recognize the net OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. The net OPEB liability is the difference between the total OPEB liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

The OPEB expense recognized each fiscal year is equal to the change in the net OPEB liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

GASB Statement No. 75 requires that employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources.

Notes to Financial Statements

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the total OPEB expense, the OPEB plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to OPEB.

GASB Statements No. 74 and 75 require the notes of the financial statements for the Plan and Plan Sponsor to include certain additional information. The list of disclosure items should include:

- The name of the OPEB plan, the administrator of the OPEB plan and the identification of whether the OPEB plan is a single-employer, agent, or cost-sharing OPEB plan;
- A description of the benefits provided by the plan;
- A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date;
- The number of plan members by category and if the plan is closed;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The OPEB plan's investment policies;
- The OPEB plan's fiduciary net position and the net OPEB liability;
- The net OPEB liability using +/- 1% change on the discount rate;
- The net OPEB liability using +/- 1% change on the healthcare trend rate;
- Significant assumptions and methods used to calculate the total OPEB liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

OPEB plans that are administered through trusts or equivalent arrangements are required to disclose additional information in accordance with GASB Statement No. 74. This information includes:

- The composition of the OPEB plan's Board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 74 requires a 10-year fiscal history of:

- Sources of changes in the net OPEB liability.
- Information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll.

- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.
- For plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan, and related ratios.

Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date," which may not be earlier than the employer's prior fiscal year end-date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

Since the RHBT is projected to be fully funded by fiscal year end June 30, 2033, and plan assets are available to pay benefits and expenses in all future years, we have assumed a rate of 7.15% for the long-term expected return on plan assets and the discounting of future plan obligations. Please see Appendix A for a projection supporting the 7.15% long-term return and discount rate assumptions.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in detail in Section E. The assumptions include details on the healthcare trend assumption, the aging factors, as well as the cost method used to develop the OPEB expense.

The pension-related assumptions were based on experience studies conducted by the pension system's actuary as approved by the pension system. The OPEB-related assumptions were based on a recent experience study conducted by GRS and approved by WV-RHBT.

Future Uncertainty or Risk

Future results may differ from those anticipated in this actuarial valuation. Reasons include, but are not limited to:

- Claims experience differing from expected;
- Medical trend experience differing from expected;
- Changes in the healthcare plan designs offered to active and retired members;

- Changes in healthcare related costs due to recent experience; and
- Participant behavior differing from expected; e.g.,
    - Elections at retirement;
    - One-person versus two-person coverage elections; and
    - Timing of retirement or termination.

Benefits Valued

The benefit provisions that were valued are described in Section F. The actuarial valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits.

GASB Statement No. 74 Information

The actuarial valuation as of June 30, 2018, with a measurement date of June 30, 2020, was prepared for purposes of complying with the requirements of GASB Statement No. 74 for the plan's fiscal year end June 30, 2020.

A number of disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the plan sponsor will be responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

This section contains the following GASB Statement No. 74 information:

- GASB Statement No. 74 Executive Summary;
- GASB Statement No. 74 Changes in Net OPEB Liability for plan year end June 30, 2020, applicable to plan's fiscal year end June 30, 2020;
- GASB Statement No. 74 Sensitivity of Net OPEB Liability plan year end June 30, 2020;
- GASB Statement No. 74 Schedule of Net OPEB Liability Multiyear;
- GASB Statement No. 74 Schedule of Contributions; and
- Notes to Schedule of Contributions.

GASB Statement No. 74 Information

Executive Summary

	2020
Actuarial Valuation Date	June 30, 2018
Measurement Date of the Net OPEB Liability	June 30, 2020
Plan's Fiscal Year End for GASB Statement No. 74	June 30, 2020
Membership	
Number of	
- Retirees and Beneficiaries	43,054
- Waived Annuitants [a]	11,881
- Active Members	39,984
- Total	94,919
Covered Payroll [b]	$ 1,768,975,119
Net OPEB Liability	
Total OPEB Liability	$ 2,813,048,891
Plan Fiduciary Net Position	1,224,642,000
Net OPEB Liability	$ 1,588,406,891
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	43.53%
Net OPEB Liability as a Percentage of Covered Payroll	89.79%
Development of the Single Discount Rate	
Single Discount Rate Beginning of Year	7.15%
Single Discount Rate End of Year	7.15%
Long-Term Expected Rate of Investment Return	7.15%
WVIMB Long-Term Expected Rate of Investment Return	7.50%
WVBTI Short-Term Expected Rate of Investment Return	3.00%
Long-Term Municipal Bond Rate Beginning of Year [c]	3.13%
Long-Term Municipal Bond Rate End of Year [c]	2.45%
Year WV-RHBT is Projected to be Fully Funded	2033

[a] *Represents eligible waived annuitants under age 75. It is assumed that 2.5% of these members will elect coverage.*

[b] *Covered payroll excludes members hired on or after July 1, 2010, and is based on the payroll data provided as of the actuarial valuation date projected to Plan year 2020 on a closed group basis.*

[c] *Based on fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of the measurement date. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.*

Schedule of Changes in Net OPEB Liability under GASB Statement No. 74
Measured as of June 30, 2020
Applicable to Plan Sponsor's Fiscal Year End June 30, 2020

Fiscal Year Ending June 30,	2020	2019	2018	2017
Total OPEB Liabililty				
Service Cost	$ 43,991,277	$ 51,870,039	$ 60,108,139	$ 66,067,781
Interest on the Total OPEB Liability	192,119,243	219,338,640	232,001,350	223,113,462
Changes of Benefit Terms	-	-	-	-
Difference between Expected and Actual Experience	(112,307,742)	(194,391,468)	(51,625,410)	(10,450,977)
Changes of Assumptions	(253,744,141)	(296,677,844)	-	-
Benefit Payments and Administrative Expenses	(87,772,000)	(135,061,413)	(137,700,187)	(164,823,111)
Net Change in Total OPEB Liability	(217,713,363)	(354,922,046)	102,783,892	113,907,155
Total OPEB Liability - Beginning	3,030,762,254	3,385,684,300	3,282,900,408	3,168,993,253
Total OPEB Liability - Ending (a)	$ 2,813,048,891	$ 3,030,762,254	$ 3,385,684,300	$ 3,282,900,408
Plan Fiduciary Net Position				
Employer Contributions	$ 193,406,000	$ 206,028,203	$ 204,234,825	$ 204,908,111
Net Investment Income	29,921,000	59,498,185	74,048,016	99,447,152
Benefit Payments and Administrative Expenses	(87,772,000)	(135,061,413)	(137,700,187)	(164,823,111)
Operating Expenses	(3,236,000)	(2,824,857)	(3,056,005)	(1,846,001)
Other	662,000	906,084	1,572,248	557,162
Net Change in Plan Fiduciary Net Position	132,981,000	128,546,202	139,098,897	138,243,313
Plan Fiduciary Net Position - Beginning, as restated [a]	1,091,661,000	963,114,601	824,015,704	685,668,002
Plan Fiduciary Net Position - Ending (b)	1,224,642,000	1,091,660,803	963,114,601	823,911,315
Net OPEB Liability - Ending (a) - (b)	$ 1,588,406,891	$ 1,939,101,452	$ 2,422,569,700	$ 2,458,989,094
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	43.53%	36.02%	28.45%	25.10%
Covered-Employee Payroll[a]	$ 1,768,975,119	$ 1,892,941,244	$ 2,286,998,500	$ 2,199,037,019
Net OPEB Liability as a Percentage of Covered-Employee Payroll	89.79%	102.44%	105.93%	111.82%

[a] *Plan year end 2019 payroll based on payroll provided for the July 1, 2017, actuarial valuation projected to Plan year 2019 on a closed group basis. Plan year end 2020 payroll based on payroll provided for the July 1, 2018, actuarial valuation projected to Plan year 2020 on a closed group basis.*

Sensitivity of Net OPEB Liability

Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the plan's net OPEB liability, calculated using a Single Discount Rate of 7.15%, as well as what the plan's net OPEB liability would be if it were calculated using a Single Discount Rate that is one percentage point higher or lower:

Sensitivity of Net OPEB Liability as of June 30, 2020, to the Single Discount Rate Assumption

1% Decrease 6.15%	Current Single Discount Rate Assumption 7.15%	1% Increase 8.15%
$ 1,913,790,824	$ 1,588,406,891	$ 1,316,072,867

Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the plan's net OPEB liability, calculated using the assumed trend rates as well as what the plan's net OPEB liability would be if it were calculated using a trend rate that is one percentage point higher or lower:

Sensitivity of Net OPEB Liability as of June 30, 2020, to the Healthcare Cost Trend Rate Assumption

1% Decrease	Healthcare Cost Trend Rates Assumption	1% Increase
$ 1,238,102,511	$ 1,588,406,891	$ 2,014,207,792

GASB Statement No. 74 Information

Schedule of Net OPEB Liability Multiyear

FY Ending June 30,	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability	Fiduciary Net Position as a % of Total OPEB Liability	Covered Payroll[a]	Net OPEB Liability as a % of Covered Payroll
2017	$ 3,282,900,408	$ 823,911,315	$ 2,458,989,094	25.10%	$ 2,199,037,019	111.82%
2018	3,385,684,300	963,114,601	2,422,569,699	28.45%	2,286,998,500	105.93%
2019	3,030,762,254	1,091,660,803	1,939,101,451	36.02%	1,892,941,244	102.44%
2020	2,813,048,891	1,224,642,000	1,588,406,891	43.53%	1,768,975,119	89.79%

[a] *Plan year end 2020 payroll based on payroll provided for the July 1, 2018, actuarial valuation projected to Plan year 2020 on a closed group basis.*

Schedule of Contributions Multiyear

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2017	$ 224,710,406	$ 204,908,111	$ 19,802,295	$ 2,199,037,019	9.32%
2018	224,009,170	204,234,825	19,774,345	2,286,998,500	8.93%
2019	200,444,338	206,028,203	(5,583,865)	1,892,941,244	10.88%
2020	164,599,978	193,406,000	(28,806,022)	1,768,975,119	10.93%

Notes to Schedule of Contributions

Valuation Date	June 30, 2018
Measurement Date	June 30, 2020

Methods and Assumptions Used to Develop Actuarially Determined Contribution:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percentage of payroll, closed
Amortization Period	20-year closed period as of June 30, 2017
Asset Valuation Method	Market value
Investment Rate of Return	7.15%, net of OPEB plan investment expense, including inflation
Inflation	2.75%
Wage Inflation	4.00%
Salary Increases	Dependent upon pension system. Ranging from 3.00% to 6.5%, including inflation
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the June 30, 2016, actuarial valuation.
Mortality	Post-Retirement: RP-2000 Healthy Annuitant Mortality Table projected with Scale AA on a fully generational basis for PERS and TRS. RP-2014 Healthy Annuitant Mortality Table projected with scale MP-2016 on a fully generational basis for Troopers A and B. Pre-Retirement: RP-2000 Non-Annuitant Mortality Table projected with Scale AA on a fully generational basis for PERS and TRS. RP-2014 Employee Mortality Table projected with Scale MP-2016 on a fully generational basis for Troopers A and B.
Healthcare Cost Trend Rates	Trend rate for pre-Medicare per capita costs of 8.5% for plan year end 2020, decreasing by 0.5% each year thereafter, until ultimate trend rate of 4.5% is reached in plan year end 2028. Trend rate for Medicare per capita costs of 3.1% for plan year end 2020, 9.5% for plan year end 2021, decreasing by 0.5% each year thereafter, until ultimate trend rate of 4.5% is reached in plan year end 2031.
Aging Factors	Based on the 2013 SOA Study "Health Care Costs - From Birth to Death"
Expenses	Health administrative expenses are included in the development of the per capita claims costs. Operating expenses are included as a component of the annual expense.

Single Discount Rate

A Single Discount Rate of 7.15% was used to measure the total OPEB liability. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 7.15%. The projection of cash flows used to determine this Single Discount Rate assumed that employer contributions will be made in accordance with the prefunding and investment policies. See Appendix A for a projection supporting the development of the Single Discount Rate. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Summary of Membership Information

The following table provides a summary of the number of participants in the plan as of June 30, 2018:

Members or Beneficiaries Currently Receiving Benefits	43,054
Waived Annuitants [a]	11,881
Active Plan Members	39,984
Total Plan Members	94,919

[a] *The actuarial valuation assumes 2.5% of eligible waived annuitants under the age of 75 will select retiree healthcare coverage on the valuation date. As of June 30, 2018, there were 11,881 waived annuitants under the age of 75 who were included in the actuarial valuation, and so approximately 297 were assumed to elect coverage as of June 30, 2018. Also, 6,238 waived annuitants over the age 75 were excluded from the actuarial valuation.*

SECTION E

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

Development of Per Capita Claim Costs

Per capita claim costs for the self-insured PPB plans were developed using the following information:

- Incurred medical and prescription drug claims, enrollment, and administrative expense data for calendar years 2016, 2017, and 2018, as provided by WV-RHBT.

Costs for plan year end June 30, 2019, were based on:

- Average costs for calendar years 2016, 2017, and 2018 projected to the 12-month rating period ending June 30, 2019, using historical annual trend rates of 5% for medical experience and 8% for prescription drug experience; and
- Overall average costs for plan year end June 30, 2019, using trend adjusted historical costs weighted by 16.7% for 2016 experience, 33.3% for 2017 experience, and 50.0% for 2018 experience.

Per capita claim costs for the fully-insured Humana MAPD plans were developed using the following information:

- Incurred medical and prescription drug claims, prescription drug rebates, and enrollment data for calendar years 2017 and 2018, as provided WV-RHBT;
- Humana's renewal premium rating reports applicable to calendar years 2017, 2018, 2019, and 2020 (including not to exceed rates for calendar year 2021), which provide projected: medical and prescription drug costs, CMS reimbursement rates for medical and prescription drug costs, administrative/profit margins, and other adjustments; and
- Humana's gain sharing reports applicable to calendar years 2017 and 2018, which compare renewal premium rates against actual experience, and provide gain sharing adjustments for favorable claim and CMS reimbursement rates experience.

Average costs for calendar years 2019 and 2020 were based on:

- Calendar year 2018 incurred claims increased by 3% for medical cost and 4% for prescription drug costs;
- Drug rebate rate of 37% of projected drug claims;
- CMS reimbursement rate of 100% of projected medical costs and 38% of projected prescription drug costs net of rebates;
- Administrative/profit margins based on historical rates through calendar year 2019 before any gain sharing or "business decision" adjustments; and
- Elimination of ACA Health Insurance Tax.

Summary of Actuarial Assumptions and Methods

Cost Method and Expense Calculations for Retiree Healthcare Benefits

The retiree healthcare actuarial valuation was based on the entry age normal cost method. Under this method, each participant's projected benefit is allocated on a level percent of pay basis from entry age to assumed exit age. Under GASB Statements No. 74 and 75, the entry age normal method is the required cost method.

The Actuarial Accrued Liability is the portion of the present value associated with pay prior to the actuarial valuation date. The Normal Cost is the portion of the present value associated with pay during the current plan year.

The Actuarially Determined Contribution equals the normal cost plus operating expenses plus the amortization of the unfunded actuarial accrued liability. The actuarial valuation is based on a level-percentage-of-pay closed amortization period with 18 years remaining as of June 30, 2019.

Summary of Actuarial Assumptions and Methods

Actuarial Assumptions

The actuarial assumptions used in our actuarial valuation are outlined on the following pages.

Actuarial Valuation Date	June 30, 2018
Discount Rate	7.15%
Return on Assets Invested with WVIMB	7.50%
Return on Assets Invested with WVBTI	3.00%
Inflation	2.75%
Wage Inflation [a]	4.00%

OPEB Assumptions

	Healthcare Trend [b]	
	Pre-Medicare	Post-Medicare
Plan Year End	Medical/Rx	Medical/Rx
2020	8.5%	3.1%
2021	8.0%	9.5%
2022	7.5%	9.0%
2023	7.0%	8.5%
2024	6.5%	8.0%
2025	6.0%	7.5%
2026	5.5%	7.0%
2027	5.0%	6.5%
2028	4.5%	6.0%
2029	4.5%	5.5%
2030	4.5%	5.0%
2031	4.5%	4.5%
2032+	4.5%	4.5%

[a] *Wage inflation used to project payroll.*
[b] *Healthcare trend applied to per capita claim costs.*

Our projection of capped subsidy costs assumes:

- The sponsor's capped aggregate contribution limit of $141 million for 2020, $135 million for 2021, and $140 million for 2022 would increase by $10 million after 2022;
- The sponsor's contributions equal the sum of State appropriations, capped aggregate subsidy, and expected employer contributions from the SAL program;
- The plan year 2019 per retiree per month capped subsidy is $729.04 for non-Medicare coverage and $216.89 for Medicare coverage;
- The plan year 2019 composite per retiree per month capped subsidy of $292.64 decreases by 8.6% for plan year 2020;
- After 2020, the per retiree capped subsidy increases by at least 3.0% per year but no more than the healthcare trend inflation assumption such that the product of the projected subsidy and projected members is less than the projected aggregated capped costs;
- The member's share of plan costs remains stable as a percentage of total costs following the year that the program is fully funded;
- After 2033, the program is projected to be fully funded and the sponsor is assumed to contribute the residual portion of normal cost and operational expenses needed to maintain a funded ratio of 100% in future years;
- After 2033, the member's share of total plan costs is assumed to remain stable at approximately 46% of total plan costs; and
- These assumptions produced per member annual capped subsidy increases of 3.0% per year from 2021 to 2024 and 4.5% per year on and after 2025.

Our projections also assume (i) the plan sponsor contributes one percent of expected costs towards the Retired Employee Assistance Program, (ii) the sponsor's operating expenses are approximately 1.25% of expected employer payments; and (iii) the Plan receives pre-funding contributions of $30 million per year until 2033.

Average Morbidity Factor

Age	Male	Female
20 to 24	-3.24%	5.77%
25 to 29	4.14%	7.11%
30 to 34	4.50%	1.71%
35 to 39	4.54%	-0.25%
40 to 44	4.48%	1.12%
45 to 49	5.42%	3.05%
50 to 54	5.64%	3.12%
55 to 59	5.25%	3.10%
60 to 64	4.68%	3.78%
65 to 69	1.73%	2.25%
70 to 74	1.44%	1.61%
75 to 79	0.98%	1.12%
80 to 84	0.15%	0.73%
85 to 89	-0.37%	0.20%
90 to 94	-0.28%	-0.81%

Annual Per Capita Claims Costs for Pre-65, Non-Medicare Eligible Members

PPB Plans A, B and Capitated Plans

Medical and Rx

Age	Male	Female
20	$ 1,796	$ 2,351
25	1,521	3,109
30	1,862	4,382
35	2,320	4,767
40	2,897	4,708
45	3,607	4,978
50	4,696	5,786
51	4,969	5,986
52	5,253	6,182
53	5,549	6,373
54	5,858	6,561
55	6,180	6,748
56	6,516	6,939
57	6,865	7,141
58	7,226	7,359
59	7,597	7,597
60	7,982	7,859
61	8,383	8,147
62	8,803	8,460
63	9,244	8,799
64	9,706	9,160

Annual Per Capita Claims Costs for Medicare Eligible Members

MAPD Plans 1, 2 and Special Medicare Plans

Medical and Rx

Age	Male	Female
65	$ 1,970	$ 1,858
66	2,003	1,904
67	2,037	1,949
68	2,072	1,993
69	2,109	2,036
70	2,146	2,077
71	2,183	2,116
72	2,218	2,153
73	2,250	2,188
74	2,279	2,220
75	2,305	2,249
76	2,330	2,276
77	2,354	2,302
78	2,378	2,327
79	2,400	2,353
80	2,420	2,377
81	2,435	2,401
82	2,444	2,421
83	2,447	2,439
84	2,444	2,454
85	2,437	2,466
86	2,428	2,475
87	2,418	2,481
88	2,409	2,486
89	2,400	2,490
90	2,392	2,491
91	2,385	2,487
92	2,379	2,477
93	2,373	2,459
94	2,367	2,431
95	2,359	2,391
96	2,350	2,338
97	2,340	2,272
98 +	2,328	2,192

Participation and Other OPEB Assumptions

Sick and Annual Leave Program: Members hired before July 1, 2001, with unused sick and annual leave credits at retirement, may convert such credits into either OPEB or pension benefits. The following table shows the conversion of unused sick and leave credits to OPEB benefits, and the percentage of members that are assumed to elect to convert credits into OPEB benefits:

Member Hire Date	Percentage Electing to Convert Unused Sick and Annual Leave Days into OPEB Benefits		
	PERS	TRS	Troopers A and B
Before July 1, 1988	65.0%	40.0%	15.0%
From July 1, 1988, to June 30, 2001	50.0%	35.0%	10.0%

For each individual member, future sick and leave days were assumed to accrue at the same rate as in prior years.

Participation Assumption: Participation in the health benefits program was based on the percentage of premium paid by the retired member. Members hired on or after July 1, 2010, pay the full premium, including explicit and implicit subsidies, resulting in no costs to the plan sponsor. Members hired before July 1, 2010, pay retiree premiums that depend on service at retirement. Members retiring before June 30, 1997, pay premiums based on 25 or more years of service regardless of actual service at retirement. The following table shows the assumed participation rates for members hired before July 1, 2010:

Service at Retirement	Participation Rates		
	PERS	TRS	Troopers A and B
5 to 9 years	50.0%	60.0%	60.0%
10 to 14 years	65.0%	75.0%	70.0%
15 to 19 years	80.0%	85.0%	100.0%
20 to 24 years	90.0%	90.0%	100.0%
25 or more years	95.0%	95.0%	95.0%

Members eligible for sponsor provided subsidies under the Sick and Annual Leave Program are assumed to participate at a slightly higher rate. For such members, hired before July 1, 2001, with a sick accrued leave balance of at least 100 days, we have assumed the above participation rates are increased by five percentage points not to exceed the maximum participation rate in total.

Coverage and Continuance Assumption: The percentage of members that elect spousal healthcare coverage is shown below. Of the members electing two-person coverage, it is assumed that 100% of the surviving spouses would continue coverage after the death of the retiree.

Coverage Type	Coverage Type Rate		
	PERS	TRS	Troopers A and B
Single	47.0%	35.0%	25.0%
Two-Person/Family	53.0%	65.0%	75.0%

Retired Employee Assistance Program: The liability for the Retiree Employee Assistance program was assumed to equal one percent of the present value of future self-insured claims and fully-insured premiums.

Data: Members hired on or after July 1, 2010, pay 100% of the costs of providing retiree healthcare benefits, resulting in no implicit or explicit subsidies from the plan sponsor, and have been excluded from the actuarial valuation.

The data provided included retirement systems for approximately 80% of retired members. All retired members specifically designated as belonging to Teachers' Retirement System were valued with the corresponding mortality assumptions. Remaining retired members were valued under the Public Employees' Retirement System post-retirement mortality assumption.

Data for 47 active members who were listed with current dates of hire after July 1, 2010, but found to have original dates of hire prior to July 1, 2010, were deemed eligible for OPEBs under the RHBT program and were included in the actuarial valuation.

If pay for an active member was not provided, the member's pay was estimated using the average pay of the member's assigned pension system.

The actuarial valuation assumes 2.5% of all waived annuitants under the age of 75 will select retiree healthcare coverage as of the actuarial valuation date. As of June 30, 2018, there are 11,881 waived annuitants under the age of 75, and so approximately 297 were assumed to elect coverage as of June 30, 2018. Also, as of June 30, 2018, 6,238 waived annuitants over the age 75 were excluded from the actuarial valuation.

Many of these inactive and waived annuitant records did not include a gender code for the individual. The actuarial valuation assumes approximately 52% of PERS retirees with missing gender codes were male and 30% of TRS retirees with missing gender codes were male. For waived annuitants, healthcare benefits were assumed to commence at the later of attained age or age 60.

Service amounts were adjusted if the member's calculated entry age, using the length of employment, was unreasonable.

Pension-Related Assumptions

The assumptions used for the July 1, 2018 pension actuarial valuations of TRS, PERS, Plan A, and Plan B were applied to the WV-RHBT OPEB actuarial valuation. Retirement rates used for pension actuarial valuations were reduced by 15%.

Local Agencies used the pension-related assumptions that pertained to PERS.

Summary of Actuarial Assumptions and Methods
TRS Pension Related Assumptions

TEACHERS' RETIREMENT SYSTEM

Post-Retirement Healthy Mortality:

Healthy males — 97% of RP-2000 Healthy Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Healthy females — 94% of RP-2000 Healthy Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Post-Retirement Disabled Mortality:

Disabled males — 96% of RP-2000 Disabled Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Disabled females — 101% of RP-2000 Disabled Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Pre-Retirement Mortality:

RP-2000 Non-Annuitant Mortality Table, projected with Scale AA on a fully generational basis.

Summary of Actuarial Assumptions and Methods
TRS Pension Related Assumptions

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Sample Select and Ultimate Representative Rates - Teachers												
	Years of Service											
	0-1		1-2		20		3-4		4-5		Over 5	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	15.000%	15.000%	13.860%	11.000%	10.000%	10.000%	8.000%	8.000%	6.000%	6.000%	3.200%	3.200%
30	19.571%	19.571%	12.978%	10.314%	6.850%	7.400%	6.000%	5.133%	4.930%	5.400%	2.400%	2.400%
40	25.286%	25.286%	11.875%	9.457%	6.500%	5.400%	4.000%	5.000%	4.030%	3.401%	1.904%	1.600%
50	31.000%	31.000%	10.772%	8.600%	6.500%	5.000%	3.000%	5.000%	3.130%	2.250%	1.200%	0.800%
60	35.000%	35.000%	10.000%	8.000%	6.500%	5.000%	3.000%	5.000%	2.500%	2.250%	1.600%	1.200%

Sample Select and Ultimate Representative Rates - Non-Teachers and State												
	Years of Service											
	0-1		1-2		20		3-4		4-5		Over 5	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	18.000%	24.750%	13.000%	17.550%	12.000%	11.200%	8.000%	9.000%	4.500%	6.750%	4.000%	2.800%
30	15.600%	21.450%	11.000%	11.988%	9.440%	9.520%	6.000%	6.732%	3.750%	5.625%	3.507%	3.122%
40	13.200%	18.150%	8.000%	7.200%	6.240%	6.160%	5.000%	3.600%	3.450%	3.375%	2.363%	1.750%
50	10.800%	14.850%	6.000%	5.400%	4.000%	4.480%	5.000%	3.510%	3.450%	2.250%	1.688%	1.316%
60	8.400%	11.550%	5.000%	4.500%	4.000%	4.480%	5.000%	4.050%	3.450%	1.688%	1.500%	1.400%

It is assumed that terminated employees will not be rehired. The rates apply only to employees who have not fulfilled the service requirement necessary for retirement at any given age.

Summary of Actuarial Assumptions and Methods
TRS Pension Related Assumptions

Salary Increases:

Illustrative rates of salary increase per individual employee per annum, compounded annually:

	Annual Increase	
Age	Teachers	Non-Teachers and State
20	6.000%	6.500%
30	5.571%	5.579%
40	4.714%	4.842%
50	3.857%	4.105%
60	3.353%	3.368%
70	3.000%	3.000%

Disability:

Sample Disability Rates		
% Separating Within Next Year		
Age	Male	Female
20	0.008%	0.006%
30	0.080%	0.064%
40	0.200%	0.160%
50	0.407%	0.301%
60	0.560%	0.704%

Summary of Actuarial Assumptions and Methods
TRS Pension Related Assumptions

Retirement:

Employees are assumed to retire in accordance with the rates shown below. The rates apply to employees who have fulfilled the service requirement necessary for retirement at any given age.

Sample Normal Retirement Rates % Separating Within Next Year (Age-Based)				
	Teachers		Non-Teachers & State	
Age	Male	Female	Male	Female
54	0.00%	0.00%	0.00%	0.00%
55	25.00%	27.50%	30.00%	20.00%
56	17.50%	17.50%	20.00%	17.50%
57	17.50%	20.00%	17.50%	15.00%
58	20.00%	20.00%	15.00%	15.00%
59	20.00%	20.00%	15.00%	17.50%
60	20.00%	25.00%	15.00%	17.50%
61	25.00%	20.00%	15.00%	17.50%
62	35.00%	27.50%	35.00%	25.00%
63	25.00%	25.00%	25.00%	20.00%
64	25.00%	25.00%	17.50%	20.00%
65	40.00%	30.00%	30.00%	30.00%
66	30.00%	35.00%	22.50%	25.00%
67	25.00%	30.00%	22.50%	22.50%
68	25.00%	30.00%	22.50%	22.50%
69	25.00%	30.00%	22.50%	22.50%
70+	100.00%	100.00%	100.00%	100.00%

Spouse Age Assumption:

The female spouse is assumed to be three years younger than the male spouse, if no data is available.

Accrual of Future Service:

All active members will accrue 1.00 year of service for each future year of employment.

Summary of Actuarial Assumptions and Methods
PERS Pension Related Assumptions

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Post-Retirement Healthy Mortality:

Healthy males — 110% of RP-2000 Healthy Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Healthy females — 101% of RP-2000 Healthy Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Post-Retirement Disabled Mortality:

Disabled males — 96% of RP-2000 Disabled Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Disabled females — 107% of RP-2000 Disabled Annuitant Mortality table, projected with Scale AA on a fully generational basis.

Pre-Retirement Mortality:

RP-2000 Non-Annuitant Mortality Table, projected with Scale AA on a fully generational basis.

Summary of Actuarial Assumptions and Methods
PERS Pension Related Assumptions

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Sample Select and Ultimate Representative Rates - State												
	Years of Service											
	0-1		1-2		20		3-4		4-5		Over 5	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	35.100%	32.500%	29.400%	27.000%	24.700%	20.000%	20.800%	17.640%	18.200%	13.500%	14.400%	12.100%
30	26.975%	25.415%	23.100%	22.000%	18.200%	17.500%	15.600%	15.120%	12.600%	11.250%	8.400%	8.800%
40	20.930%	20.020%	16.800%	15.000%	13.000%	12.500%	10.400%	10.080%	10.500%	8.750%	4.800%	4.500%
50	16.380%	17.160%	12.375%	12.500%	8.800%	12.500%	7.800%	8.820%	7.000%	7.188%	3.120%	3.500%
60	15.015%	14.300%	11.250%	11.250%	6.600%	9.375%	5.200%	6.300%	3.500%	5.000%	2.400%	1.750%

Sample Select and Ultimate Representative Rates - Non-State												
	Years of Service											
	0-1		1-2		20		3-4		4-5		Over 5	
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	35.880%	28.750%	30.240%	24.150%	25.000%	19.855%	20.900%	18.000%	16.320%	19.380%	14.850%	14.400%
30	30.360%	25.070%	24.480%	21.850%	17.600%	17.765%	16.940%	15.500%	12.000%	14.820%	8.910%	9.000%
40	24.840%	21.850%	18.720%	18.975%	12.650%	13.300%	11.000%	13.000%	10.800%	10.260%	5.400%	5.850%
50	19.320%	17.250%	13.200%	13.000%	9.000%	10.925%	8.800%	10.000%	7.920%	7.980%	4.000%	3.500%
60	15.180%	13.800%	12.000%	11.000%	8.000%	9.025%	6.600%	8.000%	5.040%	5.700%	2.000%	2.000%

It is assumed that terminated employees will not be rehired. The rates apply only to employees who have not fulfilled the service requirement necessary for retirement at any given age.

Summary of Actuarial Assumptions and Methods
PERS Pension Related Assumptions

Salary Increases:

Illustrative rates of increase per individual employee per annum, compounded annually:

Age	Annual Increase	
	State	Nonstate
20	4.600%	6.000%
30	4.100%	4.600%
40	3.600%	4.100%
50	3.100%	3.850%
60	3.000%	3.350%
70	3.000%	3.350%

Disability:

Sample Disability Rates		
% Separating Within Next Year		
Age	Male	Female
20	0.007%	0.005%
30	0.027%	0.039%
40	0.102%	0.073%
50	0.439%	0.225%
60	0.675%	0.488%

Summary of Actuarial Assumptions and Methods
PERS Pension Related Assumptions

Retirement:

Employees are assumed to retire in accordance with the rates shown below. The rates apply to employees who have fulfilled the service requirement necessary for retirement at any given age.

Sample Normal Retirement Rates % Separating Within Next Year (Age-Based)	
Age	Rate
55	25.00%
56	15.00%
57	15.00%
58	15.00%
59	15.00%
60	12.00%
61	15.00%
62	25.00%
63	18.00%
64	18.00%
65	22.00%
66	20.00%
67	20.00%
68	20.00%
69	20.00%
70+	100.00%

Spouse Age Assumptions:

The female spouse is assumed to be three years younger than the male spouse, if no data is available.

Accrual of Future Service:

All active members will accrue 1.00 year of service for each future year of employment.

Summary of Actuarial Assumptions and Methods
Troopers Pension Related Assumptions

TROOPERS PLAN A AND PLAN B

Post-Retirement Healthy Mortality:

Healthy males — 103% of the RP-2014 Healthy Annuitant Mortality Table rolled back to 2006 and projected with Scale MP-2016 on a fully generational basis.

Healthy females — 100% of the RP-2014 Healthy Annuitant Mortality Table rolled back to 2006 and projected with Scale MP-2016 on a fully generational basis.

Post-Retirement Disabled Mortality:

RP-2014 Disabled Retiree Mortality Table rolled back to 2006 and projected with Scale MP-2016 on a fully generational basis.

Pre-Retirement Mortality

RP-2014 Total Employee Mortality Table rolled back to 2006 and projected with Scale MP-2016 on a fully generational basis. 70% of deaths of members in service are assumed to be duty-related.

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Age Based Withdrawal		
	Troopers A	Troopers B
Age	Rate	Rate
20	2.670%	7.600%
30	1.900%	5.420%
40	1.140%	2.400%
50	0.380%	1.140%
60	0.000%	0.000%

It is assumed that terminated employees will not be rehired. The rates apply only to employees who have not fulfilled the service requirement necessary for retirement at any given age.

Summary of Actuarial Assumptions and Methods
Troopers Pension Related Assumptions

Salary Increases:

Illustrative rates of increase per individual employee per annum, compounded annually for Troopers A and Troopers B:

Troopers A and B	
Service Based Salary	
Service (Beginning of Year)	Rate
0	4.00%
1	4.00%
2	4.00%
3	4.00%
4	4.00%
5	4.00%
6	4.00%
7	4.00%
8	4.00%
9	4.00%
10+	4.00%

Disability:

Troopers A and B	
Sample Disability Rates	
Age	Rate
20	0.038%
30	0.150%
40	0.450%
50	0.400%
60	0.400%

25% of disabilities are assumed to be duty-related full, 60% duty-related partial and 15% non-duty-related.

Summary of Actuarial Assumptions and Methods
Troopers Pension Related Assumptions

Retirement Troopers A:

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.

Retirement Troopers B:

70% 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 age of 55.

Spouse Age Assumptions:

The female spouse is assumed to be three years younger than the male spouse, if no data is available.

Accrual of Future Service:

All active members will accrue 1.00 year of service for each future year of employment.

SECTION F

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

PLAN MEMBERS

Members receiving retirement benefits from certain pension systems administered by CPRB are eligible to receive postretirement healthcare benefits. The retirement systems include: Public Employees' Retirement System (PERS), Teachers' Retirement System (TRS), Teachers' Defined Contribution Retirement System (TDCRS), Great West (Plan G), West Virginia Death, Disability and Retirement Fund (Troopers Plan A), West Virginia State Police Retirement System (Troopers Plan B), Deputy Sheriffs' Retirement System (DSRS), Emergency Medical Services Retirement System (EMSRS), and Judges' Retirement System (JRS). Certain members receiving annuities through the Teachers' Insurance and Annuity Association and College Retirement System (TIAA-CREF) are also eligible to receive postretirement healthcare benefits.

Following are the retirement eligibility provisions for pension benefits for Tier 1 members (hired prior to July 1, 2015). Members hired on or after July 1, 2010 (including Tier 2 members), pay 100% of the costs of providing retiree healthcare benefits, resulting in no implicit or explicit subsidies from the plan sponsor, and have been excluded from the actuarial valuation. The following retirement eligibility requirements are based on information contained in the most recent pension actuarial valuation report.

PENSION ELIGIBILITY PROVISIONS

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Normal Retirement

Members who have reached or attained age 60 and earned 5 or more years of contributing service are eligible for a normal retirement benefit.

Early Retirement

Members with at least 3 years of contributing service, who have attained age 55 and the sum of age plus years of contributing service is 80 or more, are eligible for an unreduced early retirement benefit. Terminating members with at least 3 years of contributing service who either (i) have attained age 55 and completed 10 years of credited service, or (ii) have completed 20 years of credited service, are eligible for a reduced early retirement benefit beginning at age 55. Terminating members with 30 years of credited service, which includes at least 3 years of contributing service, may also retire at any age for a reduced early retirement benefit.

Disability Retirement

Members who have completed 10 years of credited service, including 3 years of contributing service, who are found to be totally and permanently disabled are eligible for a disability benefit. Members with less than 10 years of credited service, or less than 3 years of contributing service, who incur service-connected total and permanent disability and are receiving worker's compensation for this disability are eligible for a disability benefit.

TEACHERS' RETIREMENT SYSTEM

Normal Retirement

Members with 35 years credited service or age 60 and 5 years credited service may retire with an unreduced pension.

Early Retirement

Members with 30 years of credited service may retire at any age, with the pension reduced for members retiring before age 55.

Disability Retirement

Members with 10 years of credited service may be eligible to receive a disability retirement benefit if disabled for 6 months, unable to perform his or her regular occupation and the Retirement Board expects the disability to be permanent.

DEPARTMENT OF PUBLIC SAFETY DEATH, DISABILITY AND RETIREMENT FUND (PLAN A)

Normal Retirement

Members having attained age 50 and 20 or more years of contributory service, or are any age and have earned 25 or more years of contributory and military service, are eligible for a normal retirement benefit.

Duty-Related Disability Retirement

Members disabled in the line of duty and are rendered unable to perform their duties are eligible for a duty-related disability retirement. The member is partially disabled if he can hold other employment and totally disabled if he cannot.

Nonduty-Related Disability Retirement

Members disabled other than in the line of duty and rendered unable to perform their duties as a member of the Department are eligible for disability retirement.

STATE POLICE RETIREMENT SYSTEM (PLAN B)

Normal Retirement

Members who have attained age 50 and earned 25 or more years of contributory service, or have attained age 52 and earned 20 or more years of contributory service, are eligible for a normal retirement benefit.

Early Retirement

Members with 20 or more years of contributory service may retire early at any age.

Disability Retirement

Members disabled in the line of duty and are rendered unable to perform their duties are eligible for a duty-related disability retirement. The member is partially disabled if he can hold other employment and totally disabled if he cannot.

Non-Duty-Related Disability Retirement

Members disabled other than in the line of duty and rendered unable to perform their duties as a member of the Department are eligible for disability retirement.

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

DEPENDENTS ELIGIBLE FOR COVERAGE

If a plan member enrolls in PEIA, he or she may enroll the following dependents: legal spouse; biological children, adopted children or stepchildren under the age of 26, or other children for whom the member is the court-appointed guardian up to the age of 18.

ENROLLMENT TIMING

Members not previously enrolled in a PEIA Plan are eligible to enroll at the time of retirement provided the last employer immediately prior to retirement is a participating employer in the PEIA Plan and State retirement system or a PEIA approved retirement system.

SURVIVING SPOUSE COVERAGE

Spouses of employees/retirees who die and were insured as a spouse or dependent under the policyholder's coverage by PEIA at the time of death are eligible to continue health coverage as a policyholder in their own right under their health plan. Coverage is terminated if the surviving spouse remarries.

Dependents of employees/retirees who die and were insured as a dependent under the policyholder's coverage by PEIA at the time of death are eligible to continue health coverage as a policyholder in their own right under their health plan. Dependent children are subject to the same age restrictions as other dependent children in the PEIA plan. A married surviving dependent child may not enroll his or her spouse for PEIA coverage.

Beginning July 1, 2015, surviving spouses/dependents enrolling in the PEIA plan pay premiums based on the years of service earned by the deceased policyholder. Current surviving spouses/dependents, and those who were enrolled before July 1, 2015, were grandfathered under the previous benefit and continue to pay premiums based on 25 or more years of service.

MEDICARE

Coverage through PEIA becomes secondary to Medicare after Medicare eligibility has been reached. When eligible for Medicare, members must enroll in Medicare Parts A and B in order to be eligible for PEIA's Medicare Advantage Plan or the Special Medicare Plan.

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

OPEB PROGRAMS

Following are the premium rates assumed for future pre-Medicare and post-Medicare retirees. Premium rates for current pre-Medicare and post-Medicare retirees were provided by WV-RHBT and are based on the plan elected by the member. Premiums are assumed to increase by the trend assumption. Members retiring before June 30, 1997, pay premiums based on 25 or more years of service regardless of actual service at retirement.

Plan Year 2019 Monthly PPO PPB Plan A Premium	Pre-Medicare PPB Plan A[a, b]		Pre/Post Medicare PPB Plan A[a, b]
	Single	Family	Family
Hired on or after July 1, 2010	$1,160	$2,760	$1,934
5 to 9 years service	929	2,209	1,548
10 to 14 years service	716	1,665	1,153
15 to 19 years service	501	1,124	760
20 to 24 years service	375	799	526
25 or more years service	291	582	367

Plan Year 2019 Monthly MAPD Plan 1 Premium	Post-Medicare MAPD Plan 1[a, b]		Pre/Post Medicare MAPD Plan 1[a, b]
	Single	Family	Family
Hired on or after July 1, 2010	$473	$974	$1,583
5 to 9 years service	431	886	1,440
10 to 14 years service	317	640	1,083
15 to 19 years service	204	395	727
20 to 24 years service	136	246	512
25 or more years service	91	150	370

[a] *Premium rates are standard rates. Retirees receive a monthly discount of $25 per tobacco-free covered member. It is assumed that 50% of future retirees and dependents are eligible for the preferred rates.*

[b] *Beginning July 1, 2015, surviving dependents enrolling in the PEIA plan pay premiums based on the years of service earned by the deceased policyholder. Current surviving dependents, and those who enrolled prior to July 1, 2015, are grandfathered under the previous benefit and continue to pay premiums based on 25 or more years of service.*

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

PEIA PPB Plan A – Non-Medicare Retired Policyholder

Plan Feature	*In Network*	*Out of Network* [1]
Annual Deductible	$525	Twice the in network deductible
Annual Out of Pocket Limit	$1,500	Twice the in network out of pocket limit
Covered Services	Co-insurance	Co-insurance
-Office Visits	$20 co-pay per visit	Not covered, unless approved in advance by HealthSmart
-Emergency Services	$100 co-pay, then 20% after deductible (copay waived if admitted)	$100 co-pay, then 30% after deductible (copay waived if admitted)
-Inpatient Services	$100 co-pay, then 20% after deductible	Not covered, unless approved in advance by Healthsmart
-Outpatient Services -Ambulatory/Surgery	$100 co-pay, then 20% after deductible	Not covered, unless approved in advance by Healthsmart
-Lab/X-ray	20% after deductible	
-Other	20% after deductible	
Prescription Drug Co-pays	Annual Deductible: $75 individual/$150 family Annual Out of Pocket Maximum: $1,750 individual/$3,500 family Generic $10 Formulary Brand $25 Non-Formulary Brand 75% co-insurance Maintenance Network or Mail Order Pharmacy at 90-day supply for in network claims Two months' co-pay for generic and formulary brand.	
Maximum Lifetime Benefit	Unlimited	

[1] *Out of network claims covered only up to amounts stated in the PEIA's fee schedule.*

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

PEIA PPB Plan B – Non-Medicare Retired Policyholder

Plan Feature	*In Network*	*Out of Network* [1]
Annual Deductible	$925	Twice the in network deductible
Annual Out of Pocket Limit	$3,000	Twice the in network out of pocket limit
Covered Services	Co-insurance	Co-insurance
-Office Visits	$20 co-pay per visit	Not covered, unless approved in advance by HealthSmart
-Emergency Services	$100 co-pay, then 30% after deductible	$100 co-pay, then 35% after deductible (copay waived if admitted)
-Inpatient Services	$100 co-pay, then 30% after deductible	Not covered, unless approved in advance by Healthsmart
-Outpatient Services -Ambulatory/Surgery	$100 co-pay, then 30% after deductible	Not covered, unless approved in advance by Healthsmart
-Lab/X-ray	30% after deductible	
-Other	30% after deductible	
Prescription Drug Co-pays	Annual Deductible: $150 individual/$300 family Annual Out of Pocket Maximum: $1,750 individual/$3,500 family Generic $10 Formulary Brand $30 Non-Formulary Brand 75% co-insurance Maintenance Network or Mail Order Pharmacy at 90-day supply for in network claims Two months' co-pay for generic and formulary brand.	
Maximum Lifetime Benefit	Unlimited	

[1] *Out of network claims covered only up to amounts stated in the PEIA's fee schedule.*

Summary of Principal Plan Provisions
Plan Year 2019 Benefits

MAPD – Plan 1 – Medicare Retired Policyholder

Plan Feature	
Annual Deductible	$150 per enrollee
Out of Pocket Maximum	$1,200 per enrollee
Covered Services -Physicians Visits -Emergency Care -Inpatient Services -Outpatient Services	Co-insurance $20 Co-pay, then 100% $50 Co-pay, then 100% $100 Co-pay, then 100% $100 Co-pay, then 100%
Prescription Drug Co-pays	After annual prescription deductible of $75 Retail at 30-day supply Generic $5 Formulary Brand $15 Non-Formulary Brand 50% Coinsurance
Maximum Lifetime Benefit	Unlimited

MAPD – Plan 2 – Medicare Retired Policyholder

Plan Feature	
Annual Deductible	$375 per enrollee
Out of Pocket Maximum	$1,950 per enrollee
Covered Services -Physicians Visits -Emergency Care -Inpatient Services -Outpatient Services	Co-insurance $20 Co-pay, then 100% $65 Co-pay, then 100% $150 Co-pay, then 100% $115 Co-pay, then 100%
Prescription Drug Co-pays	After annual prescription deductible of $150 Retail at 30-day supply Generic $5 Formulary Brand $20 Non-Formulary Brand 50% Coinsurance
Maximum Lifetime Benefit	Unlimited

SICK LEAVE BENEFITS – HEALTHCARE COVERAGE EXTENSION

The Sick and Annual Leave Program (SAL) allows members hired prior to July 1, 2001, to convert accrued sick leave and accrued annual leave balances at retirement into either retiree healthcare benefits or pension benefits. Members hired before July 1, 1988, may convert accrued sick or leave days into 100% of the required retiree healthcare contribution. Members hired from July 1, 1988, to June 30, 2001, may convert accrued sick or leave days into 50% of the required retiree healthcare contribution. The conversion rate is:

- Two days of unused sick and annual leave days per month of single healthcare coverage; and
- Three days of unused sick and annual leave days per month of family healthcare coverage.

HIGHER EDUCATION FACULTY – HEALTHCARE COVERAGE EXTENSION

Full-time higher education faculty members hired before July 1, 2009, who are employed on an annual contract basis for a period other than 12-months, upon retirement may extend years of teaching service into 100% of the employer-paid healthcare insurance coverage. The conversion rate is:

- 3.3 years of teaching service for one year of single healthcare coverage; and
- 5.0 years of teaching service for one year of family healthcare coverage.

RETIRED EMPLOYEE ASSISTANCE PROGRAM

Under the Retired Employee Assistance Program, the Plan provides premium subsidies to certain retirees if their income falls below 250% of the federal poverty level.

SECTION G

GLOSSARY

Glossary

Accrued Service	Service credited under the system that was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the OPEB trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total OPEB liability, and related actuarial present value of projected benefit payments for OPEB.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC)	A calculated contribution into an OPEB plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year).

Glossary

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit OPEB Plan (cost-sharing OPEB plan)	A multiple-employer defined benefit OPEB plan in which the OPEB obligations to the employees of more than one employer are pooled and OPEB plan assets can be used to pay the benefits of the employees of any employer that provides benefits through the OPEB plan.
Covered-Employee Payroll	The payroll of employees that are provided with benefits through the OPEB plan.
Deferred Inflows and Outflows	The deferred inflows and outflows of OPEB resources are amounts used under GASB Statement No. 75 in developing the annual OPEB expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in the OPEB expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the OPEB plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (EAN)	The EAN is a cost method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to an actuarial valuation year is the normal cost. The portion of this actuarial present value not provided for at an actuarial valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust dedicated to the defined benefit provisions.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

Glossary

Money-Weighted Rate of Return

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 74, the money-weighted rate of return is calculated as the internal rate of return on OPEB plan investments, net of OPEB plan investment expense.

Multiple-Employer Defined Benefit OPEB Plan

A multiple-employer plan is a defined benefit OPEB plan that is used to provide OPEB payments to the employees of more than one employer.

Municipal Bond Rate

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

Net OPEB Liability (NOL)

The NOL is the liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit OPEB plan.

Non-Employer Contributing Entities

Non-employer contributing entities are entities that make contributions to an OPEB plan that is used to provide OPEB payments to the employees of other entities. For purposes of the GASB accounting statements, plan members are not considered non-employer contributing entities.

Normal Cost

The portion of the actuarial present value allocated to an actuarial valuation year is called the normal cost. For purposes of application to the requirements of this Statement, the term normal cost is the equivalent of service cost.

Other Postemployment Benefits (OPEB)

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

Real Rate of Return

The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost

The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to an actuarial valuation year.

Total OPEB Expense

The total OPEB expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

1. Service Cost
2. Interest on the Total OPEB Liability
3. Current-Period Benefit Changes
4. Employee Contributions (made negative for addition here)
5. Projected Earnings on Plan Investments (made negative for addition here)
6. OPEB Plan Administrative Expense
7. Other Changes in Plan Fiduciary Net Position
8. Recognition of Outflow (Inflow) of Resources due to Liabilities
9. Recognition of Outflow (Inflow) of Resources due to Assets

Glossary

Total OPEB Liability (TOL)	The TOL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and actuarial valuation assets.
Actuarial Valuation Assets	The actuarial valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of GASB Statements No. 74 and 75, the actuarial valuation assets are equal to the market value of assets.

APPENDIX A

Appendix A

WV-RHBT GASB Statements No. 74 and 75 OPEB Projections

Discount Rate	7.15%
General Inflation	2.75%
WVIMB Long-Term Investment Return Assumption	7.50%
WVBTI Short-Term Investment Return Assumption	3.00%
Percent of Annual Expenditures Invested in Short-Term Account	50.00%
Fixed Excess Contribution	$30,000,000
Operating Expenses (% of Employer Benefits)	1.25%

Fiscal Year Beginning (7/1)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
Present Value of Benefits	$ 3,026,199,238	$ 3,052,975,174	$ 3,091,295,761	$ 3,124,956,892	$ 3,154,319,729	$ 3,180,372,244	$ 3,203,492,883	$ 3,223,528,113	$ 3,238,694,938	$ 3,248,696,477	$ 3,253,340,062
Actuarial Accrued Liability	2,697,750,696	2,750,793,325	2,813,048,891	2,869,054,849	2,919,313,562	2,964,931,211	3,006,409,797	3,043,674,523	3,075,039,227	3,100,317,544	3,119,371,452
Normal Cost	48,069,657	43,991,277	40,806,344	37,860,967	35,138,014	32,612,583	30,260,240	28,072,367	26,058,033	24,172,181	22,386,046
Expected Employer Capped Subsidy Benefit Payments	$ 165,922,940	$ 157,658,133	$ 164,888,336	$ 171,687,766	$ 177,285,398	$ 182,377,096	$ 187,519,029	$ 194,219,949	$ 200,780,174	$ 207,174,601	$ 213,440,790
Other Expected Employer Benefit Payments	17,136,292	16,114,248	16,036,944	15,719,100	15,351,269	14,894,526	14,332,876	13,720,433	13,198,861	12,672,141	12,176,774
Total Expected Employer Benefit Payments	183,059,232	173,772,381	180,925,280	187,406,867	192,636,666	197,271,622	201,851,906	207,940,382	213,979,035	219,846,742	225,617,564
Market Value of Assets	$ 963,115,000	$ 1,091,661,000	$ 1,186,887,726	$ 1,269,763,903	$ 1,356,743,886	$ 1,454,601,166	$ 1,564,712,326	$ 1,687,958,379	$ 1,823,688,666	$ 1,972,952,186	$ 2,136,939,286
Unfunded Actuarial Accrued Liability	1,734,635,700	1,659,132,325	1,626,161,165	1,599,290,946	1,562,569,676	1,510,330,044	1,441,697,471	1,355,716,144	1,251,350,562	1,127,365,358	982,432,166
Funded Ratio	35.70%	39.69%	42.19%	44.26%	46.47%	49.06%	52.05%	55.46%	59.31%	63.64%	68.51%
Projected Assets											
Market Value of Assets BTI	$ 57,942,000	$ 67,530,500	$ 86,886,190	$ 90,462,640	$ 93,703,433	$ 96,318,333	$ 98,635,811	$ 100,925,953	$ 103,970,191	$ 106,989,517	$ 109,923,371
Market Value of Assets WVIMB (with accrual)	905,173,000	1,024,130,500	1,100,001,535	1,179,301,263	1,263,040,453	1,358,282,833	1,466,076,515	1,587,032,426	1,719,718,475	1,865,962,668	2,027,015,915
Total Market Value of Assets	963,115,000	1,091,661,000	1,186,887,726	1,269,763,903	1,356,743,886	1,454,601,166	1,564,712,326	1,687,958,379	1,823,688,666	1,972,952,186	2,136,939,286
Operating Expenses	$ (2,825,000)	$ (2,172,155)	$ (2,261,566)	$ (2,342,586)	$ (2,407,958)	$ (2,465,895)	$ (2,523,149)	$ (2,599,255)	$ (2,674,738)	$ (2,748,084)	$ (2,820,220)
Employer Benefit Payments and Expenses	(135,061,000)	(173,772,381)	(180,925,280)	(187,406,867)	(192,636,666)	(197,271,622)	(201,851,906)	(207,940,382)	(213,979,035)	(219,846,742)	(225,617,564)
Employer Contributions	171,028,000	156,743,112	151,036,944	155,719,100	165,351,269	174,894,526	184,332,876	193,720,433	203,198,861	212,672,141	222,176,774
Employer Excess Contributions	35,000,000	35,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
Investment Income	60,404,000	79,428,149	85,026,080	91,010,336	97,550,636	104,954,150	113,288,231	122,549,490	132,718,432	143,909,785	156,214,107
Market Value of Assets end of year	$ 1,091,661,000	$ 1,186,887,726	$ 1,269,763,903	$ 1,356,743,886	$ 1,454,601,166	$ 1,564,712,326	$ 1,687,958,379	$ 1,823,688,666	$ 1,972,952,186	$ 2,136,939,286	$ 2,316,892,382
Average Return on Assets	6.06%	7.22%	7.17%	7.18%	7.19%	7.20%	7.22%	7.23%	7.24%	7.26%	7.27%
Annual Expenditure Sharing											
Employer Benefit Payments	$ 135,061,000	$ 173,772,381	$ 180,925,280	$ 187,406,867	$ 192,636,666	$ 197,271,622	$ 201,851,906	$ 207,940,382	$ 213,979,035	$ 219,846,742	$ 225,617,564
Retired Member Contributions	66,818,000	68,487,972	71,666,316	90,525,773	109,073,413	127,068,033	144,029,419	157,035,801	168,055,523	177,978,479	186,853,871
Total Annual Expenditures	$ 201,879,000	$ 242,260,353	$ 252,591,596	$ 277,932,640	$ 301,710,079	$ 324,339,655	$ 345,881,325	$ 364,976,183	$ 382,034,557	$ 397,825,221	$ 412,471,436
Percent of Expenditures Paid by Retired Members	33.10%	28.27%	28.37%	32.57%	36.15%	39.18%	41.64%	43.03%	43.99%	44.74%	45.30%
Active Members	39,984	35,665	32,415	29,456	26,762	24,303	22,076	20,010	18,136	16,422	14,838
Pre-Medicare Retirees	6,682	8,902	9,912	10,503	10,729	10,642	10,344	9,981	9,582	9,041	8,563
Pre-Medicare Waived Annuitants [a]	86	84	68	53	41	32	25	21	17	13	11
Post-Medicare Retirees	36,372	36,890	37,590	38,440	39,410	40,468	41,512	42,459	43,247	44,006	44,560
Post-Medicare Waived Annuitants [a]	211	211	225	237	246	252	255	255	255	253	250
Pre-Medicare Capped Rate Per Member Per Month	$ 729.04	$ 666.36	$ 686.35	$ 706.94	$ 728.15	$ 749.99	$ 783.74	$ 819.01	$ 855.87	$ 894.38	$ 934.63
Post-Medicare Capped Rate Per Member Per Month	$ 216.89	$ 198.24	$ 204.19	$ 210.32	$ 216.63	$ 223.12	$ 233.16	$ 243.66	$ 254.62	$ 266.08	$ 278.05
Assumed Aggregate Fixed Subsidy Contribution Limit	$ 152,367,996	$ 140,628,864	$ 135,000,000	$ 140,000,000	$ 150,000,000	$ 160,000,000	$ 170,000,000	$ 180,000,000	$ 190,000,000	$ 200,000,000	$ 210,000,000

[a] The actuarial valuation assumes 2.5% of eligible waived annuitants under the age of 75 will select retiree healthcare coverage in the future. As of June 30, 2018, there are 11,881 eligible waived annuitants under age 75.

Appendix A

WV-RHBT GASB Statement Nos. 74 and 75 OPEB Projections

Discount Rate	7.15%
General Inflation	2.75%
WVIMB Long-Term Investment Return Assumption	7.50%
WVBTI Short-Term Investment Return Assumption	3.00%
Percent of Annual Expenditures Invested in Short-Term Account	50.00%
Fixed Excess Contribution	$30,000,000
Operating Expenses (% of Employer Benefits)	1.25%

Fiscal Year Beginning (7/1)	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Present Value of Benefits	$ 3,252,342,546	$ 3,245,579,543	$ 3,232,379,795	$ 3,212,114,591	$ 3,185,270,535	$ 3,152,107,512	$ 3,112,419,030	$ 3,066,558,833	$ 3,014,654,916	$ 2,956,033,728	$ 2,890,237,819	$ 2,817,111,132
Actuarial Accrued Liability	3,131,968,663	3,138,011,706	3,136,845,079	3,127,855,277	3,111,566,226	3,088,261,568	3,057,729,303	3,020,310,788	2,976,099,717	2,924,365,507	2,864,614,113	2,796,661,068
Normal Cost	20,687,129	19,054,274	17,490,417	16,016,745	14,614,449	13,255,385	11,931,850	10,625,699	9,316,526	8,027,424	6,767,600	5,581,939
Expected Employer Capped Subsidy Benefit Payments	$ 219,376,236	$ 225,567,372	$ 231,868,601	$ 237,258,925	$ 241,954,235	$ 246,413,501	$ 250,114,220	$ 253,295,926	$ 256,681,885	$ 260,017,155	$ 262,976,053	$ 264,938,036
Other Expected Employer Benefit Payments	11,742,671	11,303,179	10,916,472	10,482,786	10,038,800	9,594,030	9,115,528	8,606,340	8,126,377	7,675,253	7,255,878	6,859,090
Total Expected Employer Benefit Payments	231,118,907	236,870,551	242,785,073	247,741,711	251,993,036	256,007,531	259,229,748	261,902,266	264,808,262	267,692,408	270,231,931	271,797,126
Market Value of Assets	$ 2,316,892,382	$ 2,514,357,747	$ 2,730,386,340	$ 2,966,248,436	$ 3,111,566,226	$ 3,088,261,568	$ 3,057,729,303	$ 3,020,310,788	$ 2,976,099,717	$ 2,924,365,507	$ 2,864,614,113	$ 2,796,661,068
Unfunded Actuarial Accrued Liability	815,076,280	623,653,958	406,458,739	161,606,842	-	-	-	-	-	-	-	-
Funded Ratio	73.98%	80.13%	87.04%	94.83%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Projected Assets												
Market Value of Assets BTI	$ 112,808,782	$ 115,559,454	$ 118,435,275	$ 121,392,537	$ 123,870,856	$ 125,996,518	$ 128,003,765	$ 129,614,874	$ 130,951,133	$ 132,404,131	$ 133,846,204	$ 135,115,966
Market Value of Assets WVIMB	2,204,083,600	2,398,798,294	2,611,951,065	2,844,855,899	2,987,695,370	2,962,265,050	2,929,725,538	2,890,695,914	2,845,148,584	2,791,961,376	2,730,767,909	2,661,545,102
Total Market Value of Assets	2,316,892,382	2,514,357,747	2,730,386,340	2,966,248,436	3,111,566,226	3,088,261,568	3,057,729,303	3,020,310,788	2,976,099,717	2,924,365,507	2,864,614,113	2,796,661,068
Operating Expenses	$ (2,888,986)	$ (2,960,882)	$ (3,034,813)	$ (3,096,771)	$ (3,149,913)	$ (3,200,094)	$ (3,240,372)	$ (3,273,778)	$ (3,310,103)	$ (3,346,155)	$ (3,377,899)	$ (3,397,464)
Employer Benefit Payments and Expenses	(231,118,907)	(236,870,551)	(242,785,073)	(247,741,711)	(251,993,036)	(256,007,531)	(259,229,748)	(261,902,266)	(264,808,262)	(267,692,408)	(270,231,931)	(271,797,126)
Employer Contributions	231,742,671	241,303,179	250,916,472	151,741,443	13,120,842	11,996,021	10,915,379	9,849,094	8,794,135	7,789,772	6,837,758	5,965,146
Employer Excess Contributions	30,000,000	30,000,000	30,000,000	30,000,000	-	-	-	-	-	-	-	-
Investment Income	169,730,588	184,556,846	200,765,510	214,414,830	218,717,449	216,679,339	214,136,226	211,115,879	207,590,019	203,497,397	198,819,027	193,573,257
Market Value of Assets end of year	$ 2,514,357,747	$ 2,730,386,340	$ 2,966,248,436	$ 3,111,566,226	$ 3,088,261,568	$ 3,057,729,303	$ 3,020,310,788	$ 2,976,099,717	$ 2,924,365,507	$ 2,864,614,113	$ 2,796,661,068	$ 2,721,004,881
Average Return on Assets	7.28%	7.29%	7.31%	7.31%	7.31%	7.31%	7.30%	7.30%	7.29%	7.29%	7.28%	7.27%
Annual Expenditure Sharing												
Employer Benefit Payments	$ 231,118,907	$ 236,870,551	$ 242,785,073	$ 247,741,711	$ 251,993,036	$ 256,007,531	$ 259,229,748	$ 261,902,266	$ 264,808,262	$ 267,692,408	$ 270,231,931	$ 271,797,126
Retired Member Contributions	194,232,697	199,914,767	205,151,487	209,458,198	213,163,607	217,075,187	220,304,264	222,977,732	225,772,814	228,057,306	229,994,760	231,295,818
Total Annual Expenditures	$ 425,351,604	$ 436,785,317	$ 447,936,560	$ 457,199,909	$ 465,156,642	$ 473,082,718	$ 479,534,012	$ 484,879,998	$ 490,581,075	$ 495,749,714	$ 500,226,692	$ 503,092,944
Percent of Expenditures Paid by Retired Members	45.66%	45.77%	45.80%	45.81%	45.83%	45.89%	45.94%	45.99%	46.02%	46.00%	45.98%	45.97%
Active Members	13,373	12,016	10,743	9,574	8,500	7,506	6,574	5,711	4,888	4,120	3,409	2,757
Pre-Medicare Retirees	8,021	7,543	7,045	6,713	6,356	5,946	5,579	5,216	4,818	4,492	4,245	4,028
Pre-Medicare Waived Annuitants [a]	9	8	6	5	4	4	3	3	2	2	1	1
Post-Medicare Retirees	45,037	45,319	45,508	45,397	45,181	44,899	44,476	43,941	43,362	42,623	41,715	40,691
Pre-Medicare Waived Annuitants [a]	246	240	234	227	218	209	199	188	177	165	153	140
Pre-Medicare Capped Rate Per Member Per Month	$ 976.69	$ 1,020.64	$ 1,066.57	$ 1,114.56	$ 1,164.72	$ 1,217.13	$ 1,271.90	$ 1,329.14	$ 1,388.95	$ 1,451.45	$ 1,516.77	$ 1,585.02
Post-Medicare Capped Rate Per Member Per Month	$ 290.57	$ 303.64	$ 317.30	$ 331.58	$ 346.50	$ 362.10	$ 378.39	$ 395.42	$ 413.21	$ 431.81	$ 451.24	$ 471.54
Assumed Aggregate Fixed Subsidy Contribution Limit	$ 219,000,000	$ 226,000,000	$ 232,000,000	$ 237,000,000	$ 13,000,000	$ 12,000,000	$ 11,000,000	$ 10,000,000	$ 8,800,000	$ 7,800,000	$ 6,800,000	$ 6,000,000

[a] The actuarial valuation assumes 2.5% of eligible waived annuitants under the age of 75 will select retiree healthcare coverage in the future. As of June 30, 2018, there are 11,881 eligible waived annuitants under age 75.

APPENDIX B

Appendix B

Total Lives and Average Sick/Leave Days by Age and Years of Service as of June 30, 2018 for Active Members Hired Before July 1, 1988, with Sick and Annual Leave Balances as of June 30, 2018

Attained Age	Completed Years of Service									
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	3004	35 & Over	Total
Under 20	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	*21*	-	*21*
	-	-	-	-	-	-	-	**217**	-	**217**
50-54	-	-	-	-	-	-	-	*513*	*36*	*549*
	-	-	-	-	-	-	-	**206**	**236**	**208**
55-59	-	-	-	-	-	-	-	*1,003*	*428*	*1,431*
	-	-	-	-	-	-	-	**235**	**278**	**248**
60-64	-	-	-	-	-	-	-	*416*	*682*	*1,098*
	-	-	-	-	-	-	-	**251**	**314**	**291**
65-69	-	-	-	-	-	-	-	*134*	*271*	*405*
	-	-	-	-	-	-	-	**302**	**367**	**345**
70-74	-	-	-	-	-	-	-	*25*	*80*	*105*
	-	-	-	-	-	-	-	**309**	**424**	**396**
75 & Over	-	-	-	-	-	-	-	*17*	*27*	*44*
	-	-	-	-	-	-	-	**340**	**516**	**448**
Total Members	-	-	-	-	-	-	-	*2,129*	*1,524*	*3,653*
Average Sick/Leave Days	-	-	-	-	-	-	-	**237**	**321**	**272**

Italics represents total members and bold represents average sick/leave days.

Appendix B

Total Lives and Average Sick/Leave Days by Age and Years of Service as of June 30, 2018 for
Active Members Hired Between July 1, 1988, and June 30, 2001, with Sick and Annual Leave Balances as of June 30, 2018

Attained Age	Completed Years of Service									
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	3004	35 & Over	Total
Under 20	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
3509	-	-	-	-	*66*	*5*	-	-	-	*71*
	-	-	-	-	**147**	**65**	-	-	-	**141**
40-44	-	-	-	-	*748*	*252*	*7*	-	-	*1,007*
	-	-	-	-	**128**	**153**	**127**	-	-	**134**
45-49	-	-	-	-	*830*	*1,131*	*317*	-	-	*2,278*
	-	-	-	-	**130**	**167**	**186**	-	-	**157**
50-54	-	-	-	-	*742*	*937*	*1,102*	-	-	*2,781*
	-	-	-	-	**130**	**157**	**189**	-	-	**163**
55-59	-	-	-	-	*787*	*877*	*744*	-	-	*2,408*
	-	-	-	-	**134**	**162**	**204**	-	-	**166**
60-64	-	-	-	-	*534*	*701*	*568*	-	-	*1,803*
	-	-	-	-	**137**	**179**	**222**	-	-	**180**
65-69	-	-	-	-	*184*	*214*	*191*	-	-	*589*
	-	-	-	-	**136**	**189**	**241**	-	-	**189**
70-74	-	-	-	-	*49*	*50*	*39*	-	-	*138*
	-	-	-	-	**157**	**217**	**265**	-	-	**209**
75 & Over	-	-	-	-	*12*	*11*	*16*	-	-	*39*
	-	-	-	-	**142**	**168**	**235**	-	-	**188**
Total Members	-	-	-	-	*3,952*	*4,178*	*2,984*	-	-	*11,114*
Average Sick/Leave Days	-	-	-	-	**132**	**167**	**203**	-	-	**164**

Italics represents total members and bold represents average sick/leave days.

Appendix B

Age and Years of Service as of June 30, 2018 for
Active Members Hired Before July 1, 2010

Attained Age	Years of Service									
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	3004	35+	Total
Under 20	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
25-29	-	-	73	15	-	-	-	-	-	**88**
3004	-	-	961	598	11	-	-	-	-	**1,570**
3509	-	-	895	2,397	399	11	-	-	-	**3,702**
40-44	-	-	737	1,945	1,585	356	12	-	-	**4,635**
45-49	-	-	759	1,911	1,666	1,445	427	32	-	**6,240**
50-54	-	1	643	1,797	1,537	1,182	1,345	633	41	**7,179**
55-59	-	-	634	1,579	1,586	1,123	988	1,208	557	**7,675**
60-64	-	-	393	1,192	1,154	915	783	579	873	**5,889**
65-69	-	-	162	438	425	300	290	222	385	**2,222**
70-74	-	-	29	131	115	65	77	55	126	**598**
75 & Over	-	-	7	21	34	20	25	20	59	**186**
Total	-	1	**5,293**	**12,024**	**8,512**	**5,417**	**3,947**	**2,749**	**2,041**	**39,984**

Appendix B

Age and Years of Service as of June 30, 2018 for
Active Members Declining Healthcare Coverage Hired Before July 1, 2010

Attained Age	Years of Service									
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Under 20	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
25-29	-	-	4	-	-	-	-	-	-	**4**
30-34	-	-	60	48	-	-	-	-	-	**108**
35-39	-	-	105	237	34	-	-	-	-	**376**
40-44	-	-	77	166	127	20	-	-	-	**390**
45-49	-	-	104	216	154	123	28	1	-	**626**
50-54	-	-	89	224	130	54	70	24	1	**592**
55-59	-	-	66	185	161	66	42	40	24	**584**
60-64	-	-	39	139	105	40	31	23	24	**401**
65-69	-	-	28	47	35	17	12	7	12	**158**
70-74	-	-	8	17	10	5	7	2	2	**51**
75 & Over	-	-	8	5	7	4	0	1	1	**26**
Total	-	-	**588**	**1,284**	**763**	**329**	**190**	**98**	**64**	**3,316**

Appendix B

Age and Years of Service as of June 30, 2018 for
Active Members Hired After July 1, 2010 with PEIA Health Care Coverage

Attained Age	Years of Service									Total
	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	3004	35+	
Under 20	45	5	-	-	-	-	-	-	-	**50**
20-24	511	617	16	-	-	-	-	-	-	**1,144**
25-29	784	3,498	741	-	-	-	-	-	-	**5,023**
3004	538	2,492	1,914	-	-	-	-	-	-	**4,944**
3509	500	2,054	1,382	-	-	-	-	-	-	**3,936**
40-44	413	1,886	1,289	-	-	-	-	-	-	**3,588**
45-49	398	1,810	1,294	-	-	-	-	-	-	**3,502**
50-54	338	1,484	1,029	-	-	-	-	-	-	**2,851**
55-59	269	1,295	936	-	-	-	-	-	-	**2,500**
60-64	146	829	676	-	-	-	-	-	-	**1,651**
65-69	24	217	222	-	-	-	-	-	-	**463**
70-74	10	44	43	-	-	-	-	-	-	**97**
75 & Over	3	5	12	-	-	-	-	-	-	**20**
Total	**3,979**	**16,236**	**9,554**	**0**	**0**	**0**	**0**	**0**	**0**	**29,769**

Appendix B

Retirees and Surviving Spouses
Age and Gender Distribution as of June 30, 2018

Age	Female	Male	Total
Under 20	1	-	**1**
20-24	3	2	**5**
25-29	1	1	**2**
3004	-	-	**-**
3509	3	2	**5**
40-44	9	12	**21**
45-49	37	53	**90**
50-54	120	137	**257**
55-59	1,035	800	**1,835**
60-64	3,816	2,160	**5,976**
65-69	6,721	3,769	**10,490**
70-74	5,332	3,470	**8,802**
75-79	3,995	2,486	**6,481**
80-84	2,848	1,556	**4,404**
85-89	2,084	881	**2,965**
90-94	999	358	**1,357**
95-99	255	70	**325**
100 & Over	30	8	**38**
Total	**27,289**	**15,765**	**43,054**

Appendix B

Waived Annuitants
Age and Gender Distribution as of June 30, 2018

Age	Female	Male	Total
Under 20	-	-	**-**
20-24	-	-	**-**
25-29	-	-	**-**
3004	-	-	**-**
3509	8	3	**11**
40-44	22	18	**40**
45-49	54	45	**99**
50-54	104	102	**206**
55-59	363	330	**693**
60-64	1,467	923	**2,390**
65-69	2,820	1,895	**4,715**
70-74	2,207	1,520	**3,727**
75-79	1,543	994	**2,537**
80-84	1,188	658	**1,846**
85-89	701	318	**1,019**
90-94	387	191	**578**
95-99	155	55	**210**
100 & Over	35	13	**48**
Total	**11,054**	**7,065**	**18,119**

[a] *The actuarial valuation assumes 2.5 percent of eligible waived annuitants under the age of 75 will select retiree healthcare coverage in the future. As of June 30, 2018, there are 11,881 eligible waived annuitants under 75.*