

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND

GASB NOS. 43 AND 45 ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2015



June 8, 2016

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

Subject: GASB Nos. 43 and 45 Actuarial Valuation as of June 30, 2015, 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);
- Teachers' Insurance and Annuity Association and College Retirement Equities Fund (TIAA-CREF);
- Great West (Plan G);
- West Virginia Death, Disability and Retirement Fund (Troopers Plan A); and
- West Virginia State Police Retirement System (Troopers Plan B).

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, 2015, was prepared for purposes of complying with the requirements of Governmental Accounting Standards Board (GASB) Statement Nos. 43 and 45. 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 and the plan sponsor may produce significantly different results. The valuation was based upon:

- Census information as of June 30, 2015, provided by WV-RHBT and CPRB;
- 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; and
- Demographic and other pension-related assumptions based on the most recent actuarial valuation for each respective retirement system;

Mr. Jason A. Haught West Virginia Public Employees Insurance Agency Page 2

- Economic assumptions and other healthcare-related assumptions recommended by Gabriel, Roeder, Smith & Company and approved by the WV-RHBT including a discount rate of 6.70% and an ultimate trend rate assumption of 4.50%; and
- Entry age normal cost method and a 22-year closed level percent of pay amortization period as of June 30, 2015.

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 or CPRB. Authorization of the assumptions and methods applicable to this valuation was granted by WV-RHBT, and they are disclosed in the assumptions and methods section of this report.

The actuarial liabilities and annual required contributions were developed in accordance with the requirements of GASB Nos. 43 and 45, and are applicable only for financial reporting purposes. The unfunded actuarial accrued liability and annual required contributions disclosed in this report should not be used to assess the level of plan assets needed to settle the plan's benefit obligations or the annual actuarially determined contributions needed to fund future 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 or demographic assumptions; changes in economic 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 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 Lance J. Weiss 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

alex Rivera

Senior Consultant

Lance J. Weiss, EA, MAAA, FCA

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SECTION AEXECUTIVE SUMMARY

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Executive Summary

WV-RHBT administers and provides medical and prescription drug benefits to certain retired members receiving pension benefits under the PERS, TRS, TDCRS, TIAA-CREF, Plan G, Troopers Plan A or Troopers Plan B pension systems, as administered by the CPRB. 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 to each covered retired member. The subsidy increases by no more than three percent per year. Based on the report, WV-RHBT 2015 Financial Report for Fiscal Years 2015 to 2020, produced by CCRC Actuaries, the fiscal year 2016 per member capped monthly subsidy is \$553.27 for non-Medicare coverage and \$230.09 for Medicare coverage.
- 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 the 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.
- Under the Retired Employee Assistance Program, the sponsor 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 benefit and invests contributions made in excess of annual expenditures. As of June 30, 2015, the market value of assets is approximately \$704,592,000, and annual expenditures are approximately \$242,712,000 or 34.4% of assets. Long-term pre-funding assets are invested with the West Virginia Investment Management Board (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 West Virginia Board of Treasury Investment (WVBTI).
- 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

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 EXECUTIVE SUMMARY

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.

GRS performed a valuation of the retiree healthcare for purposes of financial reporting under the requirements of GASB Nos. 43 and 45. The basis of the valuation is outlined below:

- The valuation was based on census, claims, premium data, capped employer subsidies and applicable accrued sick leave balances as of June 30, 2015, provided by WV-RHBT and the CPRB.
- The substantive healthcare plan provisions were found in WV-PEIA's Summary Plan Description and Shopper Guide used for the annual enrollment process.
- 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 the actuarial valuation reports provided by CPRB.
- 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 6.7% and a select and ultimate trend rate which grades from approximately 9.0% in 2017 to an ultimate rate of 4.5% in 2025.
- An expected long-term rate of return of 7.5% 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 4.25% for assets invested with WVBTI.
- In the future, short-term assets invested with WVBTI are assumed to be approximately equal to four 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.
- Based on recent investment income data, for purposes of projecting assets the investment income for fiscal year ending June 30, 2016, was assumed to be \$0.

The key GASB Nos. 43 and 45 valuation results as of June 30, 2015, are summarized in the following table.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 EXECUTIVE SUMMARY

WV-RHBT GASB Nos. 43 and 45 Valuation as of June 30, 2015						
(\$ in thousands)						
Actuarial Accured Liability	\$	3,416,620				
Market Value of Assets	\$	704,592				
Unfunded Actuarial Accrued Liability ("UAAL")	\$	2,712,028				
Funded Ratio		21%				
Employer Normal Cost	\$	76,802				
Amortization of UAL	\$	159,229				
Annual Required Contribution	\$	236,031				
FY 2016 Expected Employer Contributions	\$	203,560				
FY 2016 Expected Claims and Expenses	\$	307,185				
FY 2016 Retiree Contributions	\$	103,625				
Percent of Claims and Expenses paid by Retired Members		34%				

Key observations and conclusions include:

- The discount rate of 6.7% depends on the excess contribution of \$30 million per year projected to be made by the State from FY 2017 through FY 2037. Our 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 6.7% discount rate assumption.
- Appendix A shows the details of the projections. For purposes of the projection 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 2034.
- 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 trend while the employer capped subsidy is projected to increase by no more than three percent, the member's cost is projected to increase at a rate higher than the healthcare trend

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 EXECUTIVE SUMMARY

- assumption. When member contributions are expressed as a percentage of claims and other expenses, the percentage is projected to increase from 34% in 2016 to 68% in 2038.
- As the retired members' share of the total contributions increases, the future retired member participation may decrease. We recommend monitoring the participation experience especially during periods of significant increases in member premium.
- 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 valuation and supporting documentation are provided in the following sections.

SECTION B

OVERVIEW

West Virginia Retiree Health Benefits Trust Fund GASB Nos. 43 and 45 Valuation as of June 30, 2015

OVERVIEW

Overview

The following section presents the results of the actuarial valuation as of June 30, 2015, of the WV-RHBT Retiree Healthcare Benefit Program. The actuarial valuation reflects the liability for benefits paid by the plan sponsor including: capped subsidies, percentage of retiree premiums under the Sick and Annual Leave Program, and premiums under the Retired Employee Assistance 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 sponsor's capped subsidy used for this actuarial valuation was based on the report issued by WV-RHBT healthcare actuary, WV-RHBT 2015 Financial Report for Fiscal Years 2015 to 2020. Based on this report the fiscal year 2016 per member capped monthly subsidy is \$553.27 for non-Medicare coverage and \$230.09 for Medicare coverage. The capped monthly subsidy was assumed to increase by three percent in each future year.

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.

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

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 plan year 2016 premium rates for single coverage under PPB Plan A and MAPD Plan 1:

FY 2016 Monthly Premium	PPB Plan A 1	MAPD Plan 1 1
Hired on or after July 1, 2010	\$1,055	\$437
5 to 9 years service	845	398
10 to 14 years service	651	293
15 to 19 years service	456	188
20 to 24 years service	341	126
25 or more years service	264	84

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. Retirees may receive an additional \$4 discount if they submit an advanced directive/living will affidavit.

WEST VIRGINIA RETIREE HEALTH BENEFITS TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 OVERVIEW

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 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 22-year closed period as of June 30, 2015. 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 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 Annual OPEB Cost, Annual Required Contribution and the Unfunded Actuarial Accrued Liability that will be disclosed in the plan and plan sponsor's financial statements.

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 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 and the likelihood that a member selects healthcare coverage.

The interest rate used to discount expected future benefit payments was based on the expected return on assets supporting the future benefits. 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 4.25% was assumed. The actuarial valuation

WEST VIRGINIA RETIREE HEALTH BENEFITS TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 OVERVIEW

assumes that approximately four months of self-insured claims, fully-insured premiums and administrative expenses will be held in the WVBTI account. The actuarial valuation also assumes that investment earnings and principal from the WVIMB will be used to pay sponsor benefits only after the sponsor's benefit obligations are fully funded. Based on these assumptions we believe a blended rate of 6.70% can be supported. Appendix A of the report contains a projection supporting the blended discount rate assumption.

Actuarial Cost Method

GASB Nos. 43 and 45 provide flexibility in the use of various actuarial cost methods. WV-RHBT has selected the entry age normal cost method for this valuation which is an acceptable method. 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 22-year closed period, as of June 30, 2015.

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

- Actuarial valuation results, including financial disclosures;
- Summary of assumptions and methods and plan provisions; and
- Projection of program cost.

GASB Statements Nos. 74 and 75

Currently, the applicable accounting standards for OPEB plans are found in GASB Statement Nos. 43 and 45. On June 2, 2015, the GASB released two new accounting standards applicable to OPEB. GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, addresses reporting by OPEB plans that administer benefits on behalf of governments. GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, addresses reporting by governments that provide OPEB to their employees and for governments that finance OPEB for employees of other governments.

GASB Statement No. 75

GASB Statement No. 75 replaces Statement No. 45. The new Statement requires governments to report a liability on the face of the financial statements for the OPEB that they provide.

GASB Statement No. 75 requires governments to present more extensive note disclosures and required supplementary information (RSI) about their OPEB liabilities. Among the new note disclosures is a description of the effect on the reported OPEB liability of using a discount rate and a healthcare cost trend rate that are one percentage point higher and one percentage point lower than assumed by the government. Also, the Statement changes the way in which the discount rate for a Plan that is being pre-funded is calculated. The new RSI includes a schedule showing the causes of increases and decreases in the OPEB liability and a schedule comparing a government's actual OPEB contributions to its contribution requirements.

WEST VIRGINIA RETIREE HEALTH BENEFITS TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

OVERVIEW

GASB Statement No. 74

GASB Statement No. 74 replaces Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. Statement 74 addresses the financial reports of defined benefit OPEB plans that are administered through trusts that meet specified criteria.

The Statement requires a statement of fiduciary net position and a statement of changes in fiduciary net position. The Statement also requires more extensive note disclosures and RSI related to the measurement of the OPEB liabilities for which assets have been accumulated, including information about the annual money-weighted rates of return on plan investments.

Effective Dates

The provisions in GASB Statement No. 74 are first effective for the fiscal year beginning July 1, 2016. The provisions in GASB Statement No. 75 are first effective for the fiscal year beginning July 1, 2017.

Potential Impact of New Accounting

As a result of the new accounting standards, the annual expense and OPEB liability amounts will likely become much more volatile. The discount rate for plans funded on a pay-as-you-go basis will now be tied to a municipal bond index resulting in a rate that will fluctuate from year to year. The discount rate will depend on the level of sponsor benefits paid with invested pre-funded assets and pay-as-you-as go annual contributions.

GASB Statement No. 74 impacts WV-RHBT plan reporting for plan year ending June 30, 2017. This statement requires the disclosure of the Net OPEB Liability which is equal to the actuarial accrued liability less the market value of assets as of the measurement date. The actuarial accrued liability is based on the entry age normal cost method, and a blended discount rate which depends on the expected return of invested assets available to pay benefits, and a 20-year high quality general obligation bond index if benefits are financed on a pay-as-you-go basis.

GASB Statement No. 75 impacts WV-RHBT plan sponsor financial reporting for the fiscal year ending June 30, 2018. This statement requires the recognition of the Net OPEB Liability on the plan sponsor's balance sheet.

The results contained in this report apply only to financial reporting under GASB Statements Nos. 43 and 45. The actuarial valuation used for GASB Statements Nos. 74 and 75 financial reporting will be provided in a separate report.

SECTION C

VALUATION RESULTS

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

VALUATION RESULTS

	aibit 1 nmary of Actuarial Valuation	Res	sults as of Ju	ne :	30, 2015					_		d P	iscount Rate re-Medicare st-Medicare		6.70% 4.50% 4.50%
		Lo	ocal Agencies		PERS	Troopers Plan A	Troopers Plan B	TRS Pre-6/30/91	TRS Post- 6/30/91	Un	defined Pre- 6/30/91	Un	defined Post- 6/30/91	Retirees	Total
A)	Present Value of Benefits														
	i) Active ^a	\$	175,925,700	\$	541,217,000	\$ 3,876,700	\$ 30,427,900	\$ 491,193,700	\$ 791,394,500	\$	3,626,900	\$	10,347,500	\$ -	\$2,048,009,900
	ii) Active SAL^biii) Retired		600		69,549,700	1,447,400	6,826,200	78,219,400 -	46,176,800		72,800		7,000	1,584,835,800	202,299,900 1,584,835,800
	iv) Total	\$	175,926,300	\$	610,766,700	\$ 5,324,100	\$ 37,254,100	\$ 569,413,100	\$ 837,571,300	\$	3,699,700	\$	10,354,500	\$1,584,835,800	\$3,835,145,600
B)	Actuarial Accrued Liability														
	i) Active ^a	\$	142,596,700	\$	442,923,000	\$ 3,458,800	\$ 24,868,900	\$ 475,120,100	\$ 545,769,000	\$	3,438,600	\$	7,417,800	\$ -	\$1,645,592,900
	ii) Active SAL^bii) Retired		500		63,183,000	1,307,400	6,408,500	76,126,200	39,089,000		71,500		5,600	1,584,835,800	186,191,700 1,584,835,800
	iii) Total	\$	142,597,200	\$	506,106,000	\$ 4,766,200	\$ 31,277,400	\$ 551,246,300	\$ 584,858,000	\$	3,510,100	\$	7,423,400	\$1,584,835,800	\$3,416,620,400
C)	Employer Normal Cost	\$	7,066,000	\$	22,451,000	\$ 135,400	\$ 1,201,900	\$ 8,867,700	\$ 36,526,900	\$	80,000	\$	473,400	\$ -	\$ 76,802,300
D)	Employer Benefit Payments	\$	1,788,700	\$	7,425,700	\$ 17,400	\$ 358,100	\$ 19,573,100	\$ 8,651,100	\$	100,900	\$	94,400	\$ 165,550,300	\$ 203,559,700
E)	Covered Members														
	i) Active ^c		4,519		13,311	49	397	8,107	21,480		59		281	-	48,203
	ii) Retired		-		-	-	-	-	-		-		-	41,083	41,083
	iii) Total		4,519		13,311	49	397	8,107	21,480		59		281	41,083	89,286

^a Includes employer capped subsidy and Employee Assistance Program benefits

^b Includes employer paid premium under the Accrued Sick Annual Leave Program

^cExcludes active members hired after July 1, 2010

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Valuation Results

Exhibit 2
Development of Annual Required Contribution and Annual OPEB Cost (\$ in thousands)

Fiscal Ye	ear Ending	Ju	ne 30, 2016	Ju	ne 30, 2017	June 30, 2018		
A)	Annual Required Contribution (ARC) i) Net Normal Cost ii) Amortization of UAAL	\$	76,802 159,229	\$	58,504 170,837	\$	53,138 175,288	
	iii) Total	\$	236,031	\$	229,341	\$	228,426	
B)	Net OPEB Obligation (NOO) beginning of Fiscal Year	\$	2,733,920 2	\$	2,854,109	\$	2,827,720	
C)	Annual OPEB Cost (AOC) i) ARC ii) Interest on NOO ii) Adjustment to ARC	\$	283,972 ² 183,173 (160,367)	\$	229,341 191,225 (173,518)	\$	228,426 189,457 (178,410)	
	iv) Total	\$	306,778 2	\$	247,048	\$	239,473	
D)	Employer Contributions i) Estimated Current Fiscal Year Contribution	\$	186,589 2	\$	273,437	\$	281,780	
E)	Net OPEB Obligation end of Fiscal year	\$	2,854,109 ²	\$	2,827,720	\$	2,785,413	

¹Remeasured June 30, 2016, ARC based on June 30, 2015, valuation. Used to project FYE 2017 and FYE 2018 ARC.

²Based on prior actuary's valuation report as of June 30, 2013.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Valuation Results

Exhibit 3
Statements of Changes in Plan Net Position (\$ in thousands)

(4 22 22 22 22 22 22 22 22 22 22 22 22 22	2015	2014
Additions		
Employers	\$ 148,508	\$ 159,632
Plan members	83,024	83,424
Total contributions	231,532	243,056
Retiree drug subsidy	1,481	422
Interest and dividend income	3,046	2,691
Net appreciation in fair value of investments	20,096	85,786
Total additions	256,155	331,955
Deductions		
Payments to managed care organizations	136,797	129,963
Claims expense, net	100,736	95,994
Administrative service fees	1,954	1,713
Other expenses	3,225	2,956
Total deductions	242,712	230,626
Change in net position	13,443	101,329
Net position at beginning of year Cumulative effect of adoption of	691,559	590,230
accounting principle	(410)	
Net position restricted for OPEB:		
Beginning of period, as restated	691,149	590,230
End of period	\$ 704,592	\$ 691,559

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

VALUATION RESULTS

Exhibit 4
Statements of Plan Net Position
(\$ in thousands)

	2015			2014	
Assets					
Cash and cash equivalents	\$	72	\$	423	
Equity position in internal investment pools		711,463		694,137	
Contributions receivable - net of allowance for doubtful accounts					
of \$372 and \$288, respectively		2,798		1,940	
Due from the State		206		316	
Due from PEIA		3,785		1,055	
Other receivables		4,889		5,519	
Total assets	_	723,213	-	703,390	
Deferred outflows of resources related to pension		104		-	
Total deferred outflows of resources	_	104	-		
Liabilities					
Claims payable		12,330		10,200	
Other liabilities		6,172		1,631	
Total liabilities	_	18,502	-	11,831	
Deferred inflows of resources related to pension		223		-	
Total deferred inflows of resources	_	223	-	-	
Net position restricted for other postemployment benefits	\$	704,592	\$	691,559	

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 VALUATION RESULTS

Exhibit 5 Investment Pool Disclosure (\$ in thousands)

Investment Pool	Fair Value as of June 30, 2015			
West Virginia Board of Treasury Investments (BTI)				
BTI Money Market Pool	\$	104,212		
West Virginia Investment Management Board (WVIMB)				
WVIMB Investment Pool:				
Short-term fixed income	\$	112		
Core - fixed income		27,261		
Large cap domestic		133,328		
Non-large cap domestic		31,606		
International non-qualified		53,223		
Hedge		61,028		
Private equity		63,600		
Real estate		64,073		
Total return fixed income		62,717		
International equity		110,303		
WVIMB Investment Pool Total	\$	607,251		
Investment Pool Grand Total	\$	711,463		

SECTION DGASB DISCLOSURES

Auditor's Note – This information is intended to assist in preparation of the financial statements of 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.

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 GASB DISCLOSURES

Exhibit 6
GASB No. 45 Disclosures
Schedule of Funding Progress
(\$ in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	 narial Accrued ability (AAL) (b)	Unfunded AL (UAAL) (b-a)	Funded Ratio (a/b)	Ratio Payı		UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/2011 1	\$ 472,079	\$ 3,841,243	\$ 3,369,165	12.29%	\$	3,649,954	92.31%
6/30/2013 1 6/30/2015	590,230 704,592	3,262,553 3,416,620	2,672,323 2,712,028	18.09% 20.62%		3,921,147 2,096,000 ²	68.15% 129.39%

¹As developed by prior actuary.

² Estimated covered payroll for 48,203 active members hired before July 1, 2010, who were included in the valuation.

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 GASB DISCLOSURES

Exhibit 7
GASB No. 45 Disclosures
Development of Net OPEB Obligation (NOO) and Annual OPEB Cost (\$ in thousands)

		Annual					Annual						
Year	Required Year Contribution		Interest on NOO		Adjustment to ARC		OPEB Cost	Employer Contribution		Change in NOO		NOO Balance	
Ended		(a)	(b)		(c)				(d)		a+b+c-d)		
6/30/2012 1	\$	272,773	\$ 133,714	\$	(106,488)	\$	299,999	\$	156,476	\$	143,523	\$	2,335,549
6/30/2013 1		289,725	142,468		(117,264)		314,929		171,221		143,708		2,479,257
6/30/2014 1		253,220	166,110		(135,461)		283,870		165,054		118,816		2,598,073
6/30/2015 1		261,896	174,071		(146,935)		289,032		153,185		135,847		2,733,920
6/30/2016 1		283,972	183,173		(160,367)		306,778		186,589		120,189		2,854,109

¹As developed by prior actuary

SECTION E

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Development of Per Capita Claim Costs

The per capita claims for the self-insured PPB plans used in the valuation were based on claims, expense and enrollment data for the period July 1, 2012, through June 30, 2015, as provided by the WV-RHBT. The per capita claims for the fully-insured MAPD plans used in the valuation were based on plan year 2016 weighted premium rates, as provided by WV-RHBT. The average per member costs were adjusted at each respective retirement age by the morbidity factors disclosed in the assumption section of the report.

Cost Method and Expense Calculations for Retiree Healthcare Benefits

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

Under GASB Statement Nos. 43 and 45, the entry age normal method is an acceptable cost method. The Annual Required Contribution (ARC) equals the normal cost plus the amortization of the unfunded actuarial accrued liability. The actuarial valuation is based on a level-percentage-of-pay closed amortization period with 22 years remaining as of June 30, 2015.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

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

Measurement Date	June 30, 2015
Discount Rate	6.70%
Return on Assets Invested with WVIMB	7.50%
Return on Assets Invested with WVBTI	4.25%
Inflation ¹	3.00%
Wage Inflation ²	4.00%

OPEB Assumptions

	Healthcare Trend	
	Pre-Medicare	Post-Medicare
Applied at July 1,	Medical/Rx	Medical/Rx
2016 3	7.50%	0.00%
2017	9.00%	10.25%
2018	8.50%	9.75%
2019	8.00%	9.25%
2020	7.50%	8.75%
2021	7.00%	8.25%
2022	6.50%	7.75%
2023	6.00%	7.25%
2024	5.50%	6.75%
2025	5.00%	6.25%
2026	4.50%	5.75%
2027+	4.50%	4.50%

¹Inflation assumption used to estimate the impact of the Excise tax under Federal Healthcare Reform.

²Wage inflation used to project payroll.

³Actual trend of 7.50 percent and 0.00 percent applied July 1, 2016, for pre and post Medicare premiums, respectively.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Age	<u>Morbidit</u>	ty Factor
	Male	Female
50	5.87%	3.40%
55	4.96%	3.45%
60	4.17%	3.03%
65	3.23%	2.62%
70	2.41%	2.08%
75	1.67%	1.50%
80	1.02%	0.92%
85	0.47%	0.39%
90	0.00%	0.00%

Annual Per Capita Claims Costs for Pre-65, Non-Medicare Eligible Members PPB Plans A, B and Capitated Plans

<u>Medical</u>	Medical and Rx					
Male	Female					
\$ 1,604	\$ 2,964					
1,672	3,377					
1,735	3,551					
2,002	3,724					
2,583	4,047					
3,510	4,595					
4,748	5,380					
5,027	5,563					
5,314	5,754					
5,606	5,956					
5,903	6,165					
6,206	6,379					
6,514	6,600					
6,825	6,825					
7,147	7,045					
7,472	7,269					
7,797	7,494					
8,122	7,721					
8,445	7,949					
8,762	8,181					
9,075	8,412					
	Male \$ 1,604 1,672 1,735 2,002 2,583 3,510 4,748 5,027 5,314 5,606 5,903 6,206 6,514 6,825 7,147 7,472 7,797 8,122 8,445 8,762					

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Annual Per Capita Claims Costs for Medicare Eligible Members MAPD Plans 1, 2 and Special Medicare Plans

	Medical and Rx				
Age	Male	Female			
65	\$2,965	\$2,731			
66	3,061	2,802			
67	3,155	2,873			
68	3,246	2,942			
69	3,335	3,010			
70	3,420	3,076			
71	3,503	3,139			
72	3,582	3,201			
73	3,658	3,260			
74	3,729	3,316			
75	3,797	3,370			
76	3,861	3,420			
77	3,920	3,468			
78	3,975	3,511			
79	4,025	3,552			
80	4,071	3,589			
81	4,113	3,622			
82	4,150	3,651			
83	4,182	3,677			
84	4,210	3,699			
85	4,234	3,717			
86	4,254	3,732			
87 +	4,273	3,739			

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Summary of Actuarial Assumptions and Methods

Adjustments due to the Estimate Impact of Excise Tax under Healthcare Reform

Beginning in 2020, the Patient Protection and Affordable Care Act (PPACA) imposes a 40 percent excise tax on healthcare plan costs over certain statutory limits. On December 18, 2015, this was delayed 2 years from 2018 to 2020. The annual statutory limits for 2018 depend on the age and coverage tier as shown below:

	Age less than 55 or greater than 64	Age greater than 54 and less than 65		
Single person coverage	\$10,200	\$11,850		
All other coverage types	\$27,500	\$30,950		

These thresholds will be updated before the tax takes effect in 2020, and after 2020 the statutory limits are increased by the Consumer Price Index for all Urban Consumers (CPI-U) rate. The statutory limits don't recognize differences due to region, health status of the group or plan design. Healthcare plan costs may be blended among active members, pre-Medicare retirees and Medicare retirees if members are covered by the same plan, and similar benefits are provided. Healthcare plan costs subject to the excise tax include: medical, prescription and employer Health Savings Accounts and Health Reimbursement Accounts.

For the June 30, 2015, valuation, the impact of the excise tax was estimated by:

- 1) Averaging costs separately for the PPO plans and HMO plans;
- 2) Projecting average plan costs based on the assumed valuation trend rate;
- 3) Projecting the statutory limits assuming a CPI-U rate of 3.0 percent;
- 4) Estimating the projected excise tax based on the projected average costs and statutory limits;
- 5) Developing an adjusted trend rate, applied to the explicit costs, to approximate the impact of the additional excise tax costs.

The projected WV-RHBT average costs were not impacted by the Excise Tax.

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:

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Member hire date	Before July 1, 1988	From July 1, 1988 to June 30, 2001		
Single coverage conversion	Two days of accrued sick leave for 100% of monthly premium	Two days of accrued sick leave for 50% of monthly premium		
Family coverage conversion	Three days of accrued sick leave for 100% of monthly premium	Three days of accrued sick leave for 50% of monthly premium		
Percentage of members assumed to convert unused sick and leave days into OPEB benefits	61%	85%		

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. The following table shows the assumed participation rates for members hired before July 1, 2010:

Service at Retirement	Participation Rate
5 to 9 years	60%
10 to 14 years	70%
15 to 19 years	80%
20 to 24 years	90%
25 or more years	95%

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 95% in total.

Coverage and Continuance Assumption: The percentage married assumption is consistent with the assumption found in the pension-related assumption section of the report. Eighty percent of married members are assumed to elect spousal healthcare coverage at retirement.

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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Summary of Actuarial Assumptions and Methods

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 valuation.

The data provided for retirees did not distinguish between healthy or disabled lives, and did not provide the retiree's pension system. Therefore, all retirees were valued as healthy lives under the Public Employees' Retirement System Post-Retirement Healthy Mortality assumption.

Pension-related Assumptions:

The assumptions used for the most recent pension valuations of TRS, PERS, Plan A and Plan B were applied to the WV-RHBT OPEB valuation.

Local Agencies used the pension-related assumptions that pertained to PERS and the Undefined Groups used the pension-related assumptions that pertained to TRS.

Furthermore, all Local Agency/PERS members and TRS/Undefined Group members were assumed to use state and teacher related assumptions, respectively.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – TRS PENSION RELATED ASSUMPTIONS

TEACHERS' RETIREMENT SYSTEM

Post-Retirement Healthy Mortality:

RP-2000 Healthy Annuitant Mortality Table Projected to 2020 with Scale AA.

Post-Retirement Disabled Mortality:

RP-2000 Disabled Annuitant Mortality Table, Projected to 2020 with Scale AA. Set back two years for males and one year for females.

Pre-Retirement Mortality:

RP-2000 Non-Annuitant Mortality Table Projected to 2020 with Scale AA.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – TRS PENSION RELATED ASSUMPTIONS

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Select and Ultimate Representative Rates

	Teachers											
	Years of Service											
	0	-1	1-	-2	2.	-3	3.	-4	4	-5	Ov	er 5
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	30.000%	30.000%	14.300%	13.000%	10.000%	10.000%	8.000%	8.000%	6.000%	4.000%	3.200%	3.200%
30	26.000%	26.000%	12.100%	11.000%	6.850%	7.400%	6.000%	4.800%	4.000%	3.600%	2.400%	2.400%
40	22.000%	22.000%	8.800%	8.000%	6.350%	5.400%	4.000%	3.600%	2.000%	2.267%	1.904%	1.600%
50	18.000%	18.000%	6.600%	6.000%	5.700%	4.000%	3.000%	3.000%	1.500%	1.500%	1.200%	0.800%
60	14.000%	14.000%	5.500%	5.000%	5.000%	4.000%	3.000%	3.000%	1.500%	1.500%	1.600%	1.200%

Select and Ultimate Representative Rates

	Atopiobolium vo Atures											
	Non-Teachers and State											
						Years of	f Service					
	0	-1	1.	-2	2-	3	3-	-4	4	-5	Ov	er 5
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	22.500%	22.500%	13.000%	11.700%	10.000%	8.000%	8.000%	7.200%	4.500%	4.500%	4.000%	2.800%
30	19.500%	19.500%	11.000%	9.900%	8.500%	6.800%	6.000%	5.400%	3.750%	3.750%	3.000%	2.450%
40	16.500%	16.500%	8.000%	7.200%	5.500%	4.400%	4.000%	3.600%	2.250%	2.250%	1.750%	1.750%
50	13.500%	13.500%	6.000%	5.400%	4.000%	3.200%	3.000%	2.700%	1.500%	1.500%	1.250%	1.316%
60	10.500%	10.500%	5.000%	4.500%	4.000%	3.200%	3.000%	2.700%	1.125%	1.125%	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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

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 Sta						
20	5.25%	6.50%					
30	4.75%	5.50%					
40	4.25%	5.25%					
50	3.85%	4.40%					
60	3.85%	3.73%					

Disability:

Sample Disability Rates								
% Sep	parating Within	n Next Year						
Age	Age Male Female							
20	0.010%	0.008%						
30	0.100%	0.080%						
40	0.250%	0.200%						
50	0.509%	0.376%						
60	0.700%	0.880%						

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

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)								
	Teac	chers	Non-Teach	ers & State				
Age	Male	Female	Male	Female				
54	0.0%	0.0%	0.0%	0.0%				
55	25.0%	27.5%	30.0%	20.0%				
56	15.0%	17.5%	20.0%	15.0%				
57	15.0%	17.5%	15.0%	15.0%				
58	17.0%	18.0%	15.0%	15.0%				
59	19.0%	19.0%	15.0%	17.5%				
60	20.0%	25.0%	15.0%	20.0%				
61	30.0%	20.0%	15.0%	20.0%				
62	40.0%	27.5%	40.0%	30.0%				
63	25.0%	20.0%	25.0%	20.0%				
64	25.0%	25.0%	17.5%	20.0%				
65	40.0%	30.0%	30.0%	30.0%				
66	30.0%	30.0%	22.5%	20.0%				
67	30.0%	30.0%	20.0%	20.0%				
68	30.0%	30.0%	20.0%	20.0%				
69	30.0%	30.0%	20.0%	20.0%				
70+	100.0%	100.0%	100.0%	100.0%				

Spouse and Marriage Assumptions:

85.0% of active male participants and 80.0% of active female participants are assumed to be married. 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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND

GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – PERS PENSION RELATED ASSUMPTIONS

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Post-Retirement Healthy Mortality:

110% of RP-2000 Annuitant for males and 101% of RP-2000 Annuitant for females, with full generational projections using Scale AA.

Post-Retirement Disabled Mortality:

96% of RP-2000 Disabled Annuitant for males and 107% of RP-2000 Disabled Annuitant for females, with full generational projections using Scale AA.

Pre-Retirement Mortality:

110% of RP-2000 Non-Annuitant for males and 101% of RP-2000 Non-Annuitant for females, with full generational projections using Scale AA.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – PERS PENSION RELATED ASSUMPTIONS

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Select and Ultimate Representative Rates

	State											
		Years of Service										
	0.	-1	1	-2	2-3 3-4		-4	4-5		Over 5		
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	26.000%	26.000%	26.250%	22.500%	24.700%	20.000%	20.800%	16.800%	18.200%	13.500%	12.000%	12.100%
30	21.580%	22.100%	20.625%	20.000%	18.200%	17.500%	15.600%	14.400%	14.000%	11.250%	8.400%	8.800%
40	18.200%	18.200%	15.000%	15.000%	13.000%	12.500%	10.400%	9.600%	8.400%	8.750%	4.800%	4.500%
50	15.600%	15.600%	13.750%	12.500%	8.800%	10.000%	7.800%	8.400%	5.600%	7.188%	2.400%	3.500%
60	14.300%	14.300%	12.500%	11.250%	6.600%	7.500%	5.200%	6.000%	2.800%	5.000%	1.200%	1.000%

Select and Ultimate Representative Rates

						TTO PTOS CITO						
	Nonstate											
		Years of Service										
	0-	0-1 1-2 2-3 3-4 4-5 Over 5							er 5			
Age	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
20	31.200%	28.750%	25.200%	24.150%	25.000%	20.900%	20.900%	18.000%	20.400%	20.400%	16.500%	16.000%
30	26.400%	25.070%	20.400%	21.850%	17.600%	18.700%	15.400%	15.500%	15.000%	15.600%	9.900%	10.000%
40	21.600%	21.850%	15.600%	18.975%	12.650%	14.000%	10.000%	13.000%	9.000%	10.800%	6.000%	6.500%
50	16.800%	17.250%	11.000%	13.000%	9.000%	11.500%	8.000%	10.000%	6.600%	8.400%	4.000%	3.500%
60	13.200%	13.800%	10.000%	11.000%	8.000%	9.500%	6.000%	8.000%	4.200%	6.000%	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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – PERS PENSION RELATED ASSUMPTIONS

Salary Increases:

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

	Annual Increase					
Age	State	Nonstate				
20	6.000%	6.000%				
30	5.500%	5.500%				
40	5.000%	5.000%				
50	4.500%	4.750%				
60	4.250%	4.250%				

Disability:

Sample Disability Rates						
% Separating Within Next Year						
Age	Male	Female				
20	0.008%	0.008%				
30	0.030%	0.060%				
40	0.113%	0.113%				
50	0.488%	0.225%				
60	0.750%	0.750%				

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

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	% Separating Within Next Year (Age-Based)						
Age	Rate						
55	25%						
56	15%						
57	15%						
58	15%						
59	15%						
60	15%						
61	15%						
62	30%						
63	18%						
64	18%						
65	25%						
66	20%						
67	20%						
68	20%						
69	20%						
70+	100%						

Spouse and Marriage Assumptions:

85.0% of active male participants and 80.0% of active female participants are assumed to be married. 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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – TROOPERS PENSION RELATED ASSUMPTIONS

TROOPERS PLAN A AND PLAN B

Post-Retirement Healthy Mortality:

RP-2000 Healthy Annuitants Table projected to 2025 using Scale BB.

Post-Retirement Disabled Mortality:

RP-2000 Healthy Annuitants Table projected to 2025 using Scale BB, set forward one year.

Pre-Retirement Mortality

RP-2000 Non-Annuitant Mortality Table projected to 2020 using Scale BB. 70% of deaths of members in service are assumed to be duty-related.

Termination:

Illustrative rates of withdrawal from the plan are as follows:

Troopers A

Age Based Withdrawal					
Age	Rate				
20	2.67%				
30	1.90%				
40	1.14%				
50	0.38%				
60	0.00%				

Troopers B

Age Based Withdrawal					
Age	Rate				
20	7.60%				
30	5.42%				
40	2.40%				
50	1.14%				
60	0.00%				

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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

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:

Service Based Salary					
Service (Beginning					
of Year)	Rate				
0	5.00%				
1	5.00%				
2	4.50%				
3	4.50%				
4	4.50%				
5	4.00%				
6	4.00%				
7	4.00%				
8	4.00%				
9	4.00%				
10+	3.25%				

Disability:

Troopers A

Age Based Disablity					
Age	Rate				
20	0.05%				
30	0.20%				
40	0.60%				
50	0.40%				
60	0.40%				

Troopers B

Age Based Disablity					
Age	Rate				
20	0.05%				
30	0.20%				
40	0.60%				
50	0.40%				
60	0.00%				

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

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – TROOPERS PENSION RELATED ASSUMPTIONS

Retirement Troopers A:

70% 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 20% probability of retiring each year thereafter with 100% retiring on or after attainment of age 55.

Retirement Troopers B:

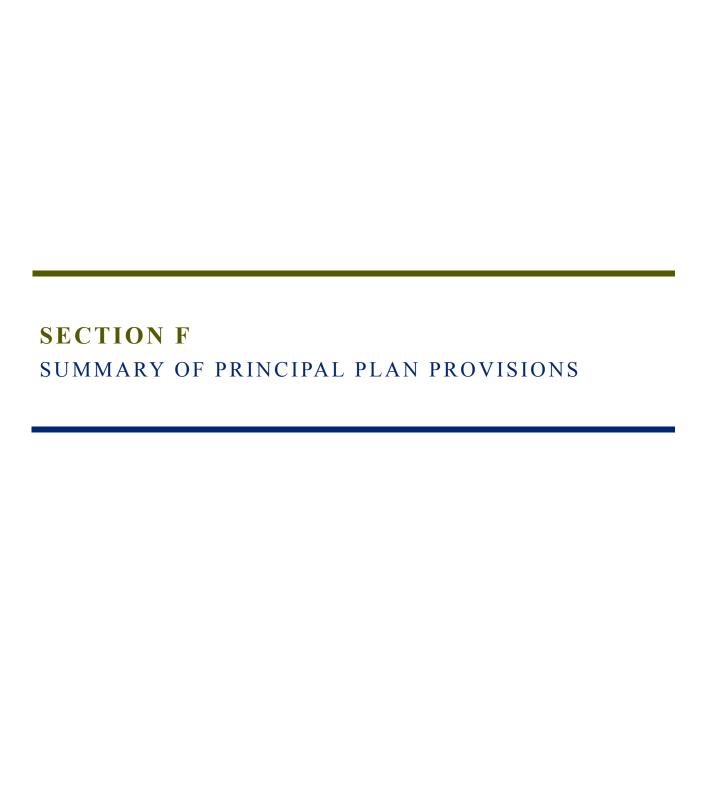
70% of members are assumed to retire when first eligible for unreduced benefits at the earlier of age 50 and 25 years of service or age 52 and 20 years of service. An active member who has already attained eligibility for normal retirement has a 20% probability of retiring each year thereafter with 100% retiring on or after attainment age of 55.

Spouse and Marriage Assumptions:

90.0% of active participants are assumed to be married. 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.



OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE REGINIA RETIDEE HEALTH REMEET THUST B

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 Summary of Principal Plan Provisions

Plan Year 2016 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), Teachers' Insurance and Annuity Association and College Retirement System (TIAA-CREF), Great West (Plan G), West Virginia Death, Disability and Retirement Fund (Plan A) and West Virginia State Police Retirement System (Plan B).

Following are the retirement eligibility provisions for pension benefits. The following retirement eligibility requirements are based on information contained in the most recent pension valuation report.

PENSION ELIGIBILITY PROVISIONS

PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Normal Retirement

Members who have reached 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, attained age 55 and with the sum of age plus years of contributing service equal to or greater than 80 are able 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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Plan Year 2016 Benefits

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.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Plan Year 2016 Benefits

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.

Plan Year 2016 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.

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.

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.

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015

Plan Year 2016 Benefits

SUMMARY OF PRINCIPAL PLAN PROVISIONS

OPEB PROGRAMS

Following are the premium rates assumed for future retired members. Premiums rates for current 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.

FY 2016 Monthly PPO PPB Plan A Premium	Pre-Me	Pre/Post Medicare	
Paid by Retired Member	PPB Pl	PPB Plan A 1, 2	
	Single	Family	Family
Hired on or after July 1, 2010	\$1,055	\$2,510	\$1,759
5 to 9 years service	845	2,009	1,408
10 to 14 years service	651	1,514	1,048
15 to 19 years service	456	1,022	691
20 to 24 years service	341	726	478
25 or more years service	264	529	334

FY 2016 Monthly MAPD Plan 1 Premium	Post-Mo	Post-Medicare		
Paid by Retired Member	MAPD I	MAPD Plan 1 1, 2		
	Single	Family	Family	
Hired on or after July 1, 2010	\$437	\$900	\$1,464	
5 to 9 years service	398	819	1,331	
10 to 14 years service	293	592	1,002	
15 to 19 years service	188	365	672	
20 to 24 years service	126	228	474	
25 or more years service	84	139	342	

¹Premium 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. Retirees may receive an additional \$4 discount if they submit an advanced directive/living will affidavit.

²Beginning July 1, 2015, surviving dependents enrolling in the PEIA plan will 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, will be grandfathered under the previous benefit and continue to pay premiums based on 25 or more years of service.

Plan Year 2016 Benefits

PEIA PPB Plan A - Non-Medicare Retired Policyholder

Plan Feature	In Network	Out of Network ¹
Annual Deductible	\$425	Twice the in network deductible
Annual Out of Pocket Limit	\$1,500	Twice the in network out of pocket limit
<u>Covered Services</u>	<u>Co-insurance</u>	<u>Co-insurance</u>
-Office Visits	\$20 co-pay per visit	40% after deductible
-Emergency Room Treatment (Emergency Services)	\$100 co-pay, then 20% after deductible	\$100 co-pay, then 40% after deductible
-Inpatient Services	\$100 co-pay, then 20% after deductible	\$600 co-pay, then 40% after deductible
-Outpatient Services -Preventive Services	\$10 co-pay, then 20% after deductible	\$10 co-pay, then 40% after deductible
-Lab/X-ray	20% after deductible	40% after deductible
-Other	20% after deductible	40% after deductible
	After annual prescription deduction \$150 for family	ctible of \$75 for individual and
	Retail at 30-day supply	
	Generic	\$10
Prescription Drug Co-pays	Formulary Brand	\$25
	Non-Formulary Brand	75% co-insurance
	Maintenance Network or Mail (supply for in network claims	Order Pharmacy at 90-day
	Two months' co-pay for generi	c and formulary brand.
Maximum Lifetime Benefit	Unlii	mited

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

Plan Year 2016 Benefits

PEIA PPB Plan B - Non-Medicare Retired Policyholder

Plan Feature	In Network	Out of Network ¹
Annual Deductible	\$825	Twice the in network deductible
Annual Out of Pocket Limit	\$3,000	Twice the in network out of pocket limit
<u>Covered Services</u>	<u>Co-insurance</u>	<u>Co-insurance</u>
-Office Visits	\$20 co-pay per visit	40% after deductible
-Emergency Room Treatment (Emergency Services)	\$100 co-pay, then 20% after deductible	\$100 co-pay, then 40% after deductible
-Inpatient Services	\$100 co-pay, then 20% after deductible	\$600 co-pay, then 40% after deductible
-Outpatient Services -Preventive Services	\$10 co-pay, then 20% after deductible	\$10 co-pay, then 40% after deductible
-Lab/X-ray	20% after deductible	40% after deductible
-Other	20% after deductible	40% after deductible
	After annual prescription deduction \$300 for family	ctible of \$150 for individual and
	Retail at 30-day supply	
	Generic	\$10
Prescription Drug Co-pays	Formulary Brand	\$30
	Non-Formulary Brand	75% co-insurance
	Maintenance Network or Mail (supply for in network claims	Order Pharmacy at 90-day
	Two months' copay for generic	and formulary brand.
Maximum Lifetime Benefit	Unlii	mited

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

Plan Year 2016 Benefits

MCO Plan A - Non-Medicare Retired Policyholder

Plan Feature	
Annual Deductible	\$200 per enrollee, with \$400 per family
Out of Pocket Maximum	\$3,600 per enrollee, with \$7,200 per family
Covered Services	<u>Co-insurance</u>
-Physicians Visits	\$5 Co-pay per visit, deductible waived
-Emergency Care	\$100 Co-pay per visit, deductible waived (co-pay waived if admitted)
-Inpatient Services	\$100 Co-pay, then 15% after co-insurance after deductible
-Outpatient Services	20% co-insurance after deductible
	Retail at 30-day supply
	Generic \$10
	Formulary 50% co- Brand insurance
Prescription Drug Co-pays ¹	Non- Formulary Not Covered Brand
	Maintenance Network or Mail Order Pharmacy at 90-day supply
	\$20 copay or 50% co- insurance
Maximum Lifetime Benefit	Unlimited

¹ Formulary brand not covered if generic is available.

Plan Year 2016 Benefits

MCO Plan B - Non-Medicare Retired Policyholder

Plan Feature	
Annual Deductible	\$500 per enrollee, with \$1,000 per family
Out of Pocket Maximum	\$3,750 per enrollee, with \$7,500 per family
Covered Services	<u>Co-insurance</u>
-Physicians Visits	\$5 Co-pay per visit, deductible waived
-Emergency Care	\$100 Co-pay per visit, deductible waived (co-pay waived if admitted)
-Inpatient Services	\$100 Co-pay, then 20% co-insurance after deductible
-Outpatient Services	20% co-insurance after deductible
	Retail at 30-day supply
	Generic \$7.50
	Formulary Not Covered Brand
Prescription Drug Copays	Non- Formulary Not Covered Brand
	Maintenance Network or Mail Order Pharmacy at 90-day supply
	\$15 co-pay, Generic only
Maximum Lifetime Benefit	Unlimited

Plan Year 2016 Benefits

MAPD - Plan 1 - Medicare Retired Policyholder

Plan Feature	
Annual Deductible	\$100 per enrollee
Out of Pocket Maximum	\$750 per enrollee
Covered Services	<u>Co-insurance</u>
-Physicians Visits	\$20 Co-pay, then 100%
-Emergency Care	\$50 Co-pay, then 100%
-Inpatient Services	\$100 Co-pay, then 100%
-Outpatient Services	\$100 Co-pay, then 100%
	After annual prescription deductible of \$75 Retail at 30-day supply
Prescription Drug Co-pays	Generic \$5
	Formulary Brand \$15
	Non- Formulary \$50 Brand
Maximum Lifetime Benefit	Unlimited

Plan Year 2016 Benefits

MAPD - Plan 2 - Medicare Retired Policyholder

Plan Feature	
Annual Deductible	\$325 per enrollee
Out of Pocket Maximum	\$1,500 per enrollee
Covered Services	<u>Co-insurance</u>
-Physicians Visits	\$20 Co-pay, then 100%
-Emergency Care	\$65 Co-pay, then 100%
-Inpatient Services	\$150 Co-pay, then 100%
-Outpatient Services	\$115 Co-pay, then 100%
	After annual prescription deductible of \$150 Retail at 30-day supply
	Generic \$5
Prescription Drug Co-pays	Formulary Brand \$20
	Non- Formulary \$85 Brand
Maximum Lifetime Benefit	Unlimited

SECTION G

GLOSSARY

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015 GLOSSARY

Accrued Service. The service credited under the plan, which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits; and (ii) the actuarial present value of future normal cost, which is sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision 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 future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets. The value of cash, investments and other property belonging to a pension or OPEB plan, as used by the actuary for the purpose of an actuarial valuation.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual OPEB Cost (AOC). An accrual-basis measure of the periodic cost of an employer's participation in a defined OPEB plan.

Annual Required Contribution (ARC). The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Discount Rate. The rate used to adjust a series of future payments to reflect the time value of money.

WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

GLOSSARY

Entry Age Normal Cost Method. A method under which each participant's projected benefit is allocated on a level percent of pay basis from entry age to assumed exit age. The Actuarial Accrued Liability is the portion of the present value associated with pay prior to the valuation date. The Normal Cost is the portion of the present value associated with pay during the current plan year.

Expected Net Employer Contributions. The difference between the age-adjusted premium or expected retiree healthcare claims and retired member's share of the premium. This amount is used to offset the Annual OPEB Cost during the fiscal year.

Explicit Rate Subsidy. The portion of the premium paid by the employer. The premium may be based on the experience of active and retired members or retired members only.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. The de facto subsidy of retirees by permitting them to pay lower than age-adjusted premiums through the use of a single common or blended premium for both retirees and active employees.

Medical Trend Rate (Health Inflation). The increase in the plan's cost over time. Trend includes all elements that may influence a plan's cost, assuming those enrollments and the plan benefits do not change. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology and cost shifting.

Net OPEB Obligation (NOO). An accounting liability when an employer doesn't fully fund the ARC.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Benefits (OPEB). OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other healthcare benefits.

Pay-as-you-go funding. A method of financing benefits by making required payments only as they come due.

Plan member. A plan's membership includes active service employees, terminated employees who are eligible to receive benefits but are not receiving them, and retired employees and beneficiaries currently receiving benefits.

Pre-funding. A method of financing benefits by placing resources in trust as employees earn benefits so that the resources thus accumulated, along with related earnings, can be used to make benefit payments as they become due.

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 GLOSSARY

Present Value of all Projected Benefits. The present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Qualified Plan. A qualified plan is an employer-sponsored retirement plan that qualifies for special tax treatment under Section 401(a) of the Internal Revenue Code.

Reserve Account. An account used to indicate that funds have been set-aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Valuation Assets. The value of current plan assets recognized for valuation purposes.



OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 APPENDIX A

WV-RHBT GASB Nos. 43 and 45 OPEB Projections (\$ in thousands)																		
Discount Rate		6.70%																
WVIMB Long-Term Investment Return Assumption		7.50%																
WVBTI Short-Term Investment Return Assumption		4.25%																
Percent of Annual Expenditures invested in Short-																		
Term Account		33.00%																
Percentage of Income Allocated to Expenditures		0.00%																
Fiscal Year Beginning (7/1)		2015	2016	5	2017	2018	2019		2020	2021		2022		2023	2024	20	025	20
Present Value of Benefits	\$ 3,8	335,145	\$ 3,881,832	\$	3,890,454	\$ 3,891,037	\$ 3,883,783	\$ 3,	,869,493	\$ 3,849,495	\$ 3	3,825,261	\$ 3	3,797,092	\$ 3,764,724	\$ 3,727,6	42	\$ 3,685,59
Actuarial Accrued Liability	,	416,620	3,514,599		3,559,049	3,592,317	3,614,699	3,	,627,158	3,631,580	3	3,629,937	3	3,622,628	3,609,552	3,590,2		3,564,56
Normal Cost		76,802	58,504		53,138	48,066	43,349		39,358	36,005		32,864		29,993	27,296	24,7		22,50
Expected Employer Benefit Payments	2	203,560	243,437		251,780	259,404	265,746		270,344	273,148		275,386		277,624	280,088	282,4	88	284,48
Market Value of Asset	\$ 7	704,592	\$ 704,592	\$	780,808	\$ 862,023	\$ 948,590	\$ 1,	,040,919	\$ 1,139,470	\$	1,244,760	\$	1,357,332	\$ 1,477,772	\$ 1,606,6	83	\$ 1,744,73
Unfunded Actuarial Accrued Liability	2,7	712,028	2,810,007		2,778,241	2,730,294	2,666,109	2,	,586,240	2,492,110	2	2,385,177	2	2,265,296	2,131,780	1,983,5	85	1,819,83
Funded Ratio		21%	20%)	22%	24%	26%		29%	31%		34%		37%	41%	4	5%	49
Projected Assets																		
Market Value of Assets beginning of year	\$ 7	704,592	\$ 704,592	\$	780,808	\$ 862,023	\$ 948,590	\$ 1,	,040,919	\$ 1,139,470	\$ 1	1,244,760	\$:	1,357,332	\$ 1,477,772	\$ 1,606,6	83	\$ 1,744,73
Employer Benefit Payments	(2	203,560)	(243,437))	(251,780)	(259,404)	(265,746)	((270,344)	(273,148)		(275,386)		(277,624)	(280,088)	(282,4	88)	(284,48
Employer PAYGO Contributions	2	203,560	243,437		251,780	259,404	265,746		270,344	273,148		275,386		277,624	280,088	282,4	88	284,48
Employer Excess Contributions		-	30,000		30,000	30,000	30,000		30,000	30,000		30,000		30,000	30,000	30,0	00	30,00
Investment Income		-	46,216		51,215	56,567	62,328		68,551	75,290		82,572		90,440	98,911	108,0	54	117,95
Percentage of Income Allocated to Expenditures		-	-		-	-	-		-	-		-		-	-	-		-
Market Value of Assets end of year	\$ 7	704,592	\$ 780,808	\$	862,023	\$ 948,590	\$ 1,040,919	\$ 1,	,139,470	\$ 1,244,760	\$ 1	1,357,332	\$	1,477,772	\$ 1,606,683	\$ 1,744,7	38	\$ 1,892,69
Average Return on Assets		0.0%	6.4%)	6.4%	6.4%	6.5%		6.5%	6.5%		6.6%		6.6%	6.6%	6.	7%	6.7
Annual Expenditure Sharing																		
Employer Benefit Payments	\$ 2	203,560	\$ 243,437	\$	251,780	\$ 259,404	\$ 265,746	\$	270,344	\$ 273,148	\$	275,386	\$	277,624	\$ 280,088	\$ 282,4	88	\$ 284,48
Percentage of Income Allocated to Expenditures		-	-		-	-	-		-	-		-		-	-	-		-
Net Member Contributions	1	103,625	130,260		162,345	196,384	231,274		266,236	300,218		332,646		362,820	392,027	419,2	52	442,80
Total Annual Expenditures	\$ 3	307,185	\$ 373,697	\$	414,126	\$ 455,788	\$ 497,019	\$	536,580	\$ 573,366	\$	608,031	\$	640,444	\$ 672,114	\$ 701,7	40	\$ 727,29
Percent of Expenditures Paid by Retirees		34%	35%		39%	43%	47%		50%	52%		55%		57%	58%	6	0%	61

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 APPENDIX A

WV-RHBT GASB Nos. 43 and 45 OPEB Projections (\$ in thousands)	. ,											
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WVIMB Long-Term Investment Return Assumption	7.50%											
WVBTI Short-Term Investment Return Assumption	4.25%											
Percent of Annual Expenditures invested in Short-												
Term Account	33.00%											
Percentage of Income Allocated to Expenditures	0.00%											
Fiscal Year Beginning (7/1)	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	203
Present Value of Benefits	\$ 3,638,666	\$ 3,586,472	\$ 3,528,576	\$ 3,464,985	\$ 3,395,512	\$ 3,320,433	\$ 3,240,628	\$ 3,156,467	\$ 3,067,610	\$ 2,973,792	\$ 2,874,587	\$ 2,769,093
Actuarial Accrued Liability	3,532,775	3,494,594	3,449,566	3,397,787	3,339,122	3,273,918	3,203,158	3,127,249	3,045,790	2,958,349	2,864,305	2,762,586
Normal Cost	20,435	18,416	16,560	14,822	13,218	11,774	10,419	9,057	7,589	5,997	4,321	2,703
Expected Employer Benefit Payments	286,541	288,675	290,434	292,003	292,925	292,630	291,671	290,757	289,798	288,927	288,580	287,969
Market Value of Asset	\$ 1,892,692	\$ 2,051,365	\$ 2,221,565	\$ 2,404,182	\$ 2,600,160	\$ 2,810,510	\$ 3,036,362	\$ 3,127,249	\$ 3,049,462	\$ 2,966,595	\$ 2,878,177	\$ 2,783,24
Unfunded Actuarial Accrued Liability	1,640,082	1,443,229	1,228,001	993,605	738,962	463,408	166,796	-	(3,671)	(8,246)	(13,873)	(20,65
Funded Ratio	54%	59%	64%	71%	78%	86%	95%	100%	100%	100%	100%	1019
Projected Assets												
Market Value of Assets beginning of year	\$ 1,892,692	\$ 2,051,365	\$ 2,221,565	\$ 2,404,182	\$ 2,600,160	\$ 2,810,510	\$ 3,036,362	\$ 3,127,249	\$ 3,049,462	\$ 2,966,595	\$ 2,878,177	\$ 2,783,240
Employer Benefit Payments	(286,541)	(288,675)	(290,434)	(292,003)	(292,925)	(292,630)	(291,671)	(290,757)	(289,798)	(288,927)	(288,580)	(287,96
Employer PAYGO Contributions	286,541	288,675	290,434	292,003	292,925	292,630	143,153	-	-	-	-	-
Employer Excess Contributions	30,000	30,000	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
Investment Income	128,673	140,199	152,617	165,978	180,350	195,852	209,405	212,970	206,931	200,509	193,643	186,32
Percentage of Income Allocated to Expenditures	-	=	-	-	-	-	-	-	-	-	-	-
Market Value of Assets end of year	\$ 2,051,365	\$ 2,221,565	\$ 2,404,182	\$ 2,600,160	\$ 2,810,510	\$ 3,036,362	\$ 3,127,249	\$ 3,049,462	\$ 2,966,595	\$ 2,878,177	\$ 2,783,240	\$ 2,681,59
Average Return on Assets	6.7%	6.8%	6.8%	6.9%	6.9%	6.9%	7.0%	7.1%	7.1%	7.1%	7.1%	7.19
Annual Expenditure Sharing												
Employer Benefit Payments	\$ 286,541	\$ 288,675	\$ 290,434	\$ 292,003	\$ 292,925	\$ 292,630	\$ 291,671	\$ 290,757	\$ 289,798	\$ 288,927	\$ 288,580	\$ 287,969
Percentage of Income Allocated to Expenditures	-	-	-	-	-	-	-	-	-	-	-	-
Net Member Contributions	462,098	481,066	498,856	516,199	533,707	549,434	563,364	577,173	590,844	604,419	618,411	630,84
Total Annual Expenditures	\$ 748,639	\$ 769,741	\$ 789,290	\$ 808,202	\$ 826,632	\$ 842,064	\$ 855,034	\$ 867,931	\$ 880,642	\$ 893,346	\$ 906,991	\$ 918,81
Percent of Expenditures Paid by Retirees	62%	62%	63%	64%	65%	65%	66%	66%	67%	68%	68%	699

APPENDIX B

West Virginia Retiree Health Benefit Trust Fund GASB Nos. 43 and 45 Valuation as of June 30, 2015

APPENDIX B

Total Lives and Average Sick/Leave Days by Age and Years of Service as of June 30, 2015 for Active Members Hired Before July 1, 1988, with Sick and Annual Leave Balances as of June 30, 2015

				Comple	ted Years of Service	e				
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total
Under 20	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-
_	-	•	-	-	-	•	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	106	10	-	116
_	-	-	-	-	-	-	179	167	-	178
50-54	-	-	-	-	-	-	796	620	50	1,466
_	-	-	-	-	-	-	176	209	286	193
55-59	-	-	-	-	-	-	546	1,065	662	2,273
	-	-	-	-	-	-	193	213	264	223
60-64	-	-	-	-	-	-	360	502	903	1,765
	-	-	-	-	-	-	206	226	292	256
65-69	-	-	-	-	-	-	111	138	306	555
_	-	-	-	-	-	-	247	253	341	300
70-74	-	-	-	-	-	-	22	30	88	140
	-	-	-	-	-	-	262	270	376	335
75 & Over	-	-	-	-	-	-	6	11	31	48
	-	-	-	-	-	-	272	219	408	348
otal Members werage Sick/Leawe Days	-	-	- -	-	-	-	1,947 191	2,376 217	2,040 295	6,363 234

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

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND

GASB Nos. 43 AND 45 VALUATION AS OF JUNE 30, 2015

APPENDIX B

Total Lives and Average Sick/Leave Days by Age and Years of Service as of June 30, 2015 for Active Members Hired Between July 1, 1988, and June 30, 2001, with Sick and Annual Leave Balances as of June 30, 2015

Attained				Complete	ed Years of Service				35 &	
Attained Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	over	Tota
Under 20	-	-		-	-	-	-	-	-	
onder 20	_	_	_	_	_	_	_	_	_	
20-24	_	_		_	_	_	_	_	_	
20 2 .	_	_	_	_	_	_	_	_	_	
25-29	-	-	_	_	_		-	_	_	
20 2)	_	_	-	_	_	_	_	_	_	
30-34	-	-	-	7	-	-	-	-	-	
	_	_	-	94	_	_	_	_	_	
35-39	-	-	_	72	357	4	-	_	_	
	_	_	-	118	102	155	_	-	-	
40-44	-	-	-	105	1,465	323	5	-	-	1,
	_	_	-	111	112	156	69	-	-	ĺ
45-49	-	-		98	1,149	1,172	297	_	-	2,
	<u>-</u>	-	-	120	116	147	159	-	-	_,
50-54	-	-	_	86	986	857	498	-	-	2,
	<u>-</u>	-	-	123	116	154	171	-	-	
55-59	-	-	-	95	1,089	883	401	_	-	2,
	-	-	-	118	118	153	181	-	-	
60-64	-	-	_	78	758	748	310	-	-	1.
	<u>-</u>	-	-	125	129	164	181	-	-	
65-69	-	-	-	27	229	201	93	-	-	
	-	-	-	134	140	180	217	-	-	
70-74	-	-		9	50	41	19	-	-	
	-	-	-	153	130	191	205	_	-	
75 & Over	-	-	-	1	16	15	10	-	-	
	-	-	-	174	157	138	282	-	-	
l Members	-	-	-	578	6,099	4,244	1,633	-	-	12,
age Sick/Leave Days	-	-	-	120	117	155	177	-	-	

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

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 APPENDIX B

Age and Years of Service as of June 30, 2015 for Active Members Hired Before July 1, 2010

Attained	Years of Service											
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total		
Under 20	-	_	_	_	-	-	_	_	_	0		
20-24	-	-	9	-	-	-	-	-	-	9		
25-29	-	-	571	3	-	-	-	-	-	574		
30-34	-	-	2,671	525	1	-	-	-	-	3,197		
35-39	-	_	2,345	1,864	439	6	-	-	-	4,654		
40-44	-	-	2,204	1,472	1,635	392	9	-	-	5,712		
45-49	-	-	2,257	1,578	1,363	1,331	482	14	-	7,025		
50-54	-	-	2,082	1,503	1,274	1,061	1,576	813	69	8,378		
55-59	-	-	1,807	1,334	1,356	1,146	1,216	1,367	832	9,058		
60-64	-	-	1,203	954	932	912	892	648	1,135	6,676		
65-69	-	-	376	356	310	264	301	191	418	2,216		
70-74	-	-	69	81	68	52	65	44	141	520		
75 & Over	-	-	18	20	22	25	25	18	56	184		
otal	0	0	15,612	9,690	7,400	5,189	4,566	3,095	2,651	48,203		

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 APPENDIX B

Age and Years of Service as of June 30, 2015 for Active Members Hired After July 1, 2010

Attained	Years of Service											
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total		
Under 20	_	15	_	_	_	_	_	_	_	15		
20-24	_	1,179	_	_	_	_	_	_	_	1,179		
25-29	-	5,025	-	-	-	-	-	-	-	5,025		
30-34	-	4,116	-	-	-	-	-	-	-	4,116		
35-39	-	3,514	-	-	-	-	-	-	-	3,514		
40-44	-	3,338	-	-	-	-	-	-	-	3,338		
45-49	-	3,084	-	-	-	-	-	-	-	3,084		
50-54	-	2,748	-	-	-	-	-	-	-	2,748		
55-59	-	2,545	-	-	-	-	-	-	-	2,545		
60-64	-	1,958	-	-	-	-	-	-	-	1,958		
65-69	-	808	-	-	-	-	-	-	-	808		
70-74	-	181	-	-	-	-	-	-	-	181		
75 & Over	-	53	-	-	-	-	-	-	-	53		
Total	0	28,564	0	0	0	0	0	0	0	28,564		

OTHER POST-EMPLOYMENT BENEFITS SPONSORED BY THE WEST VIRGINIA RETIREE HEALTH BENEFIT TRUST FUND GASB Nos. 43 and 45 Valuation as of June 30, 2015 APPENDIX B

Retirees and Surviving Spouses Age and Gender Distribution as of June 30, 2015

Age	Female	Male	Total
Under 20	1	1	2
20-24	1	2	3
25-29	1	-	1
30-34	-	-	0
35-39	5	5	10
40-44	20	21	41
45-49	45	63	108
50-54	163	184	347
55-59	1,345	987	2,332
60-64	4,530	2,589	7,119
65-69	5,954	3,694	9,648
70-74	4,356	2,920	7,276
75-79	3,421	2,104	5,525
80-84	2,696	1,492	4,188
85-89	2,111	835	2,946
90-94	904	301	1,205
95-99	231	65	296
100 & Over	28	8	36
Total	25,812	15,271	41,083