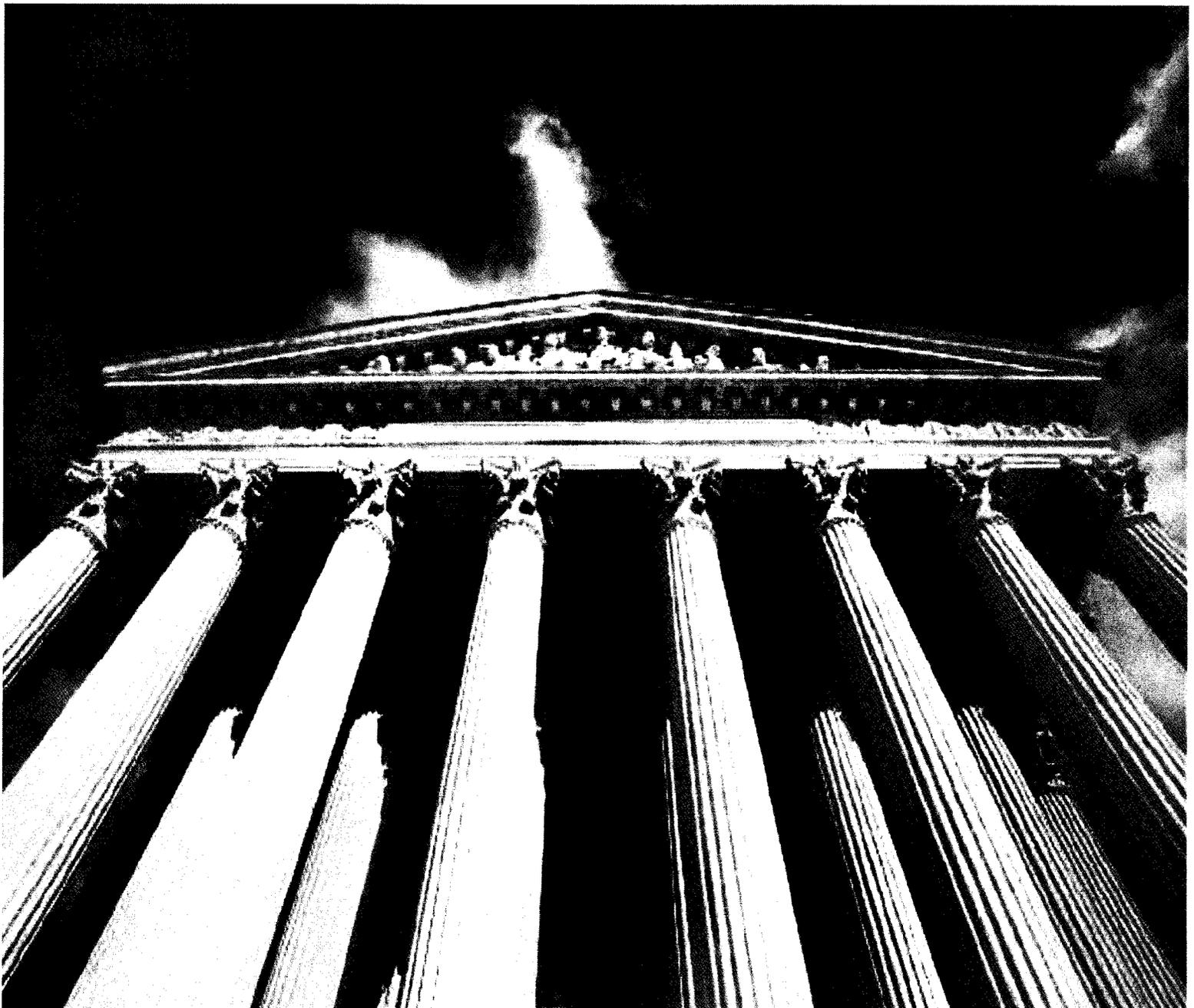


Westmoreland County Employees' Retirement System

Report on 2016 Actuarial Valuation Including
Determination of County Actuarially Determined
Contribution for 2016

HayGroup®



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Chair Commissioner
Commissioner
Commissioner
Controller/Secretary
Treasurer

June 28, 2016

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I. Introduction

The primary purpose of this report is to investigate and fully and fairly disclose the actuarial position of the Westmoreland County Employees' Retirement System as of January 1, 2016 and to establish the proper appropriation for the 2016 plan year, in accordance with the funding standards of Section 6 of Act 96, 1971 of the Commonwealth of Pennsylvania as amended.

On the basis of the actuarial methods, assumptions and major plan provisions summarized in this report and in reliance on the member data and statement of the Fund's assets furnished by the County, to the best of our knowledge the information in this report is complete and accurate.

To the best of our knowledge, this report is complete and accurate and all costs and liabilities have been determined in conformance with generally accepted actuarial principles, Pennsylvania State Law, Act 44 and on the basis of actuarial assumptions and methods which are reasonable (taking into account past experience under the plan and reasonable expectations) and which represent our best estimate of anticipated experience under the plan.

Respectfully submitted,

HayGroup

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II. Findings

Certified Actuarially Determined Contribution

Please note that the certified actuarially determined contribution which is reported on page 13 of this report and which must be funded in 2016 is \$7,674,463. This amount is required to ensure that the fund accumulates sufficient assets to pay future benefits and should be paid by the County from the General Fund.

Actuarial Adjustments

Also note that the balances in the Reserve Accounts on page 9 reflect the following transfers which are necessary to keep the balance in the Retired Member's Reserve Account equal to the liability for the retired lives and to reflect the difference between the amount of interest credited to the respective reserves and the interest rate assumed in the valuation of the liabilities. Please make these transfers in your records:

	DEBIT	CREDIT
County Annuity Reserve Account	\$ 8,884,541	
Retired Members Annuity Reserve Account		\$ 8,884,541

III. Schedules

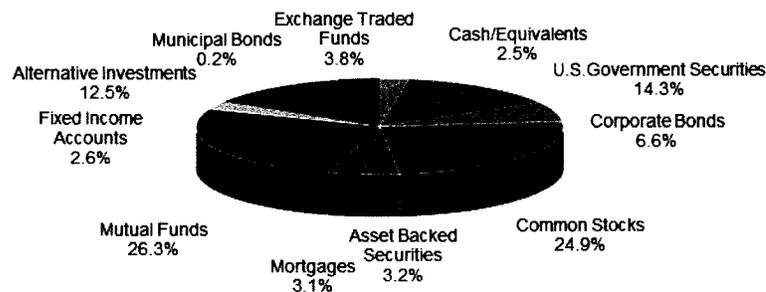
Schedule A

WESTMORELAND COUNTY EMPLOYEES' RETIREMENT SYSTEM			
CHANGES IN PLAN NET ASSETS FOR THE CALENDAR YEAR 2015 AND 2014			
Additions			
		<u>2015 Total</u>	<u>2014 Total</u>
Contributions			
County	\$	6,418,453	\$ 5,466,886
Plan Members	\$	7,724,552	\$ 7,942,978
Miscellaneous	\$	133,907	\$ 245,027
Total Contributions	\$	<u>14,276,912</u>	<u>\$ 13,654,891</u>
Investment Income			
Realized Gain	\$	<u>16,411,924</u>	
Unrealized Loss	\$	<u>(21,949,173)</u>	
Net Loss in Fair Value	\$	(5,537,249)	\$ 10,365,546
Interest	\$	2,336,913	\$ 4,527,417
Dividends	\$	6,024,825	\$ 4,648,665
Net Accrued Interest	\$	0	\$ (144,173)
Investment Income	\$	<u>2,824,489</u>	<u>\$ 19,397,455</u>
Less Investment Expense	\$	1,257,256	\$ 1,469,460
Net Investment Income	\$	<u>1,567,233</u>	<u>\$ 17,927,995</u>
Total Additions	\$	<u>15,844,145</u>	<u>\$ 31,582,886</u>
Deductions			
Benefits	\$	27,126,621	\$ 22,309,107
Refunds of Member Contributions	\$	1,136,735	\$ 1,219,695
Administrative Expense	\$	<u>122,226</u>	<u>\$ 125,263</u>
Total Deductions	\$	<u>28,385,582</u>	<u>\$ 23,654,065</u>
Net Increase/(Decrease)	\$	<u>(12,541,437)</u>	<u>\$ 7,928,821</u>
Net Assets Held In Trust For Pension Benefits			
Beginning of Year	\$	422,033,546	\$ 414,104,725
End of Year	\$	<u>409,492,109</u>	<u>\$ 422,033,546</u>

Schedule A—Continued

WESTMORELAND COUNTY EMPLOYEES' RETIREMENT SYSTEM				
PLAN ASSETS AS OF DECEMBER 31, 2015 AND 2014				
Assets				
		<u>2015 Total</u>		<u>2014 Total</u>
Cash and Short-Term Investments	\$	8,841,147	\$	17,305,384
Receivables	\$	1,592,082	\$	2,771,356
Investments, at fair market value				
US Government Securities	\$	58,536,407	\$	44,514,044
Corporate Bonds	\$	26,897,101	\$	35,256,071
Common Stocks	\$	102,200,880	\$	129,211,218
Asset Backed Securities	\$	12,960,819	\$	16,296,838
Mortgages	\$	12,866,853	\$	18,122,593
Mutual Funds	\$	107,848,184	\$	98,504,231
Municipal Bonds	\$	727,144	\$	1,757,557
Fixed Income Accounts	\$	10,753,690	\$	12,338,879
Alternative Investments	\$	51,031,691	\$	41,773,259
Exchange Traded Funds	\$	15,662,058	\$	4,539,208
Total Investments	\$	<u>399,484,827</u>	\$	<u>402,313,898</u>
Total Assets	\$	<u>409,918,056</u>	\$	<u>422,390,638</u>
Liabilities				
Refunds Payable and Other	\$	425,947	\$	357,092
Net Assets Held In Trust For Pension Benefits				
	\$	<u><u>409,492,109</u></u>	\$	<u><u>422,033,546</u></u>

TOTAL ASSETS (MARKET VALUE 12-31-2015)



Schedule A – Continued

Westmoreland County Employees’ Retirement System

Plan Description and Contribution Information

Basis of Accounting: The Westmoreland County Employees’ Retirement System financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to each plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

Method Used to Value Investments: Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair value.

Membership of the plan consisted of the following as of January 1, 2016:

Retirees and Beneficiaries Receiving Benefits	1,213
Terminated Plan Members Entitled to but not yet Receiving Benefits	134
Active Plan Members	1,867
Total	3,214
Number of Participating Employers	1

Schedule A—Continued

Westmoreland County Employees’ Retirement System

Plan Description: The Westmoreland County Employees’ Retirement Plan is a single-employer defined benefit pension plan that covers all employees of the County. The plan provides retirement, disability, and death benefits to plan members and their beneficiaries. Cost-of-living adjustments (COLA) are provided at the discretion of the Westmoreland County Employees’ Retirement Board. Act 96 of 1971, as amended cited as the County Pension Law provides for the creation, maintenance and operation of this plan.

Contributions: Plan members are required to contribute 9% of their annual covered salary. The County is required to contribute at an actuarially determined rate. Per Act 96 of 1971, as amended, contribution requirements of the plan members and the County are established and may be amended by the General Assembly of the Commonwealth of Pennsylvania. Administrative costs may be financed through investment earnings.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year	Contribution *	County Contribution
2006	\$ 4,142,359	\$ 4,142,359
2007	\$ 2,990,464	\$ 2,990,464
2008	\$ 2,222,551	\$ 3,710,000
2009	\$ 8,275,610	\$ 8,275,610
2010	\$ 7,533,685	\$ 6,194,962
2011	\$ 7,955,926	\$ 7,955,926
2012	\$ 8,796,356	\$ 8,796,356
2013	\$ 9,964,570	\$ 9,964,570
2014	\$ 5,466,886	\$ 5,466,886
2015	\$ 6,418,453	\$ 6,418,453

Note: Effective in 2010 the Entry Age Funding Method was used to determine the annual required contribution. Prior to 2010 the Aggregate Method was used.

*Prior to 2014, contribution was described as Annual Required Contribution (ARC). After 2013, contribution was described as actuarially determined contribution.

Schedule A--Continued

SCHEDULE OF FUNDING PROGRESS						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
1/1/2008	321,559,812	317,205,668	(4,354,144)	101.4%	72,160,746	(6.0%)
1/1/2009	292,192,498	336,512,225	44,319,727	86.8%	75,096,281	59.0%
1/1/2010	296,022,678	349,024,545	53,001,867	84.8%	76,147,376	69.6%
1/1/2011	312,113,726	369,072,999	56,959,273	84.6%	77,360,215	73.6%
1/1/2012	326,861,795	389,814,931	62,953,136	83.9%	79,578,330	79.1%
1/1/2013	339,251,435	410,324,610	71,073,175	82.7%	80,398,838	88.4%
1/1/2014	414,104,725	438,103,949	23,999,224	94.5%	80,665,059	29.8%
1/1/2015	428,804,426	461,514,144	32,709,718	92.9%	80,148,609	40.8%
1/1/2016	440,427,678	482,828,392	42,400,714	91.2%	82,150,103	51.6%

Schedule A--Continued

HISTORICAL ACCOUNTING INFORMATION	
The information was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:	
Valuation Date	01/01/2016
Actuarial Cost Method	Entry Age
Asset Valuation Method	The method that is prescribed by Pennsylvania State Law, Act 44 as described in Schedule M
Actuarial Assumptions:	
Investment Rate of Return *	7.5%
Projected Salary Increases *	3.5%
* Includes Inflation at	3%

ACCOUNTING PROCEDURES FOR CALCULATING - NET PENSION OBLIGATION (NPO)								
Subsequent years Net Pension Liability calculation found in GASB 67 & 68 disclosure report								
(1) Year	(2) ARC	(3) Interest on NPO ***	(4) ARC Adjustment **	(5) Pension Cost (2+3-4)	(6) Contribution	(7) Change in NPO (5-6)	(8) NPO Balance* (BB+7)	
2005	5,346,980	0	0	5,346,980	5,346,980	0	0	0
2006	4,142,359	0	0	4,142,359	4,142,359	0	0	0
2007	2,990,464	0	0	2,990,464	2,990,464	0	0	0
2008	2,222,551	0	0	2,222,551	3,710,000	(1,487,449)	(1,487,449)	0
2009	8,275,610	(111,559)	(181,189)	8,345,240	8,275,610	69,630	(1,417,819)	0
2010	7,533,685	(106,336)	(185,432)	7,612,781	6,194,962	1,417,819	0	0
2011	7,955,926	0	0	7,955,926	7,955,926	0	0	0
2012	8,796,356	0	0	8,796,356	8,796,356	0	0	0
2013	9,964,570	0	0	9,964,570	9,964,570	0	0	0

* BB = Beginning balance for the year.

** ARC Adjustment - Amortization factor based upon level percentage of projected payroll.

*** Interest on the balance of the NPO at the beginning of the year using the investment return rate assumed in determining ARC. The interest is an estimate of the investment earnings lost to the plan on any contributions that were not made (7.5% when applicable).

Schedule B

Schedule B shows the allocation of the assets among the Fund's reserve accounts (see Schedule I for Determination of Reserve Balances) and the Fund's liabilities as of January 1, 2016. The liabilities were determined from the actuarial valuation of the System based upon the data submitted by the County.

ASSETS	
Members' Annuity Reserve Account	\$ 118,053,004
County Annuity Reserve Account	\$ 20,598,015
Retired Members' Reserve Account	\$ 227,192,951
Unrealized Appreciation of Assets	\$ 43,648,139
<i>Total Assets, (Market Value) of the Westmoreland County Employees' Retirement Fund</i>	<i>\$ 409,492,109</i>
LIABILITIES	
Actuarial Present Value of:	
Accumulated Plan Benefits	
Vested participants (1,208)	\$ 80,671,552
Nonvested participants (659)	\$ 1,256,766
Future Benefit Accruals	\$ 75,893,750
Terminated Vested Benefits	\$ 6,372,774
Retired Benefits	\$ 227,192,951
Member Accumulated Deductions	\$ 118,053,004
<i>Total Liabilities of the Westmoreland County Employees' Retirement Fund</i>	<i>\$ 509,440,797</i>

Schedule C

Unfunded Actuarial Liability and Normal Cost

Schedule C shows the development of the unfunded actuarial liability and the normal cost for 2016.

I. Unfunded Actuarial Liability January 1, 2016

1. Actuarial Liability:		
(a) Active Participants		
Retirement Benefits	\$	119,631,160
Termination Benefits		7,330,319
Death Benefits		4,248,184
Total	\$	131,209,663
(b) Terminated Vested Participants	\$	6,372,774
(c) Retired Members and Beneficiaries		
Retirement Benefits	\$	211,964,601
Cost-of-Living Benefits		15,228,350
Total	\$	227,192,951
(d) Member Accumulated Deductions	\$	118,053,004
(e) Total (a) + (b) + (c) + (d)	\$	482,828,392
2. Actuarial Value of Plan Assets (see page 15)	\$	440,427,678
3. Unfunded Actuarial Liability as of January 1, 2016: (1e) – (2)	\$	42,400,714

II. Normal Cost for 2016

1. Normal Cost for:		
(a) Retirement Benefits	\$	3,110,398
(b) Termination Benefits		445,717
(c) Death Benefits		120,065
(d) Normal Cost as of January 1, 2016	\$	3,676,180
(e) Normal Cost with interest to end of year: (d) x 1.075	\$	3,951,894

Schedule D

**Actuarial Gain (Loss) for One Year Period Ending
December 31, 2015**

Schedule D shows the development of the actuarial gain (loss) for the 2015 plan year.

1.	Unfunded Actuarial Liability as of January 1, 2015	\$ 32,709,718
2.	Normal Cost as of January 1, 2015	3,545,301
3.	Interest at 7.50% Per Year to December 31, 2015 on (1) and (2)	2,719,126
4.	Employer Contributions for the 2015 Plan Year	6,418,453
5.	Change in Unfunded Actuarial Liability Due to Cost of Living Increase to Retirees	0
6.	Change in Unfunded Actuarial Liability Due to Change in Assumptions	0
7.	Expected Unfunded Actuarial Liability as of January 1, 2016: (1) + (2) + (3) - (4) + (5) + (6)	32,555,692
8.	Unfunded Actuarial Liability as of January 1, 2016	42,400,714
9.	Actuarial Gain (Loss) for 2015 Plan Year: (7) - (8)	(9,845,022)

Schedule E

Amortization Schedule

Schedule E provides a record of the amortization amounts. Actuarial gains (losses) will be amortized over 15 years from the date determined; increases or decreases created by pension plan establishing an unfunded actuarial accrued liability will be amortized over 30 years from the effective establishment date; increases or decreases created by a modification in the benefit plan applicable to active members will be amortized over 20 years beginning with the January 1st coinciding with or next following the effective date of change; increases or decreases created by a modification in the benefit plan applicable to retired members will be amortized over 10 years beginning with the January 1st coinciding with or next following the effective date of change; increases in actuarial accrued liability attributable to the special early retirement provision will be amortized over 5 years beginning with the January 1st coinciding with or next following the end of the early retirement period; and increases or decreases created by changes in actuarial assumptions will be amortized over 15 years from the effective date of change; resetting the unfunded actuarial liability (UAL) due to outstanding balance becoming negative will be amortized over 15 years beginning with the January 1st coinciding with or next following when the outstanding balance becomes negative. When resetting, any previous charges or credits will be considered paid off and eliminated.

Amortization Record for 2016

As of January 1, 2016					
	<u>Initial Amount</u>	<u>Effective Date</u>	<u>Remaining Period</u>	<u>Outstanding Balance</u>	<u>Amortization Charge or (Credit)</u>
Amortization of Liability for:					
(a) Initial UAAL	\$ 53,001,867	1/1/2010	24 Years	\$ 49,288,633	\$ 4,487,734
(b) Retiree COLA increase	393,255	1/1/2012	6 Years	268,920	57,292
(c) Retiree COLA increase	2,798,151	1/1/2013	7 Years	2,159,165	407,651
(d) Retiree COLA increase	1,939,356	1/1/2014	8 Years	1,654,905	282,537
(e) Retiree COLA increase	1,505,349	1/1/2015	9 Years	1,398,942	219,308
(f) Experience loss	3,131,277	1/1/2011	10 Years	2,434,923	354,734
(g) Experience loss	6,171,131	1/1/2012	11 Years	5,114,285	699,110
(h) Experience loss	6,199,272	1/1/2013	12 Years	5,432,470	702,298
(i) Experience gain	(19,199,352)	1/1/2014	13 Years	(17,674,035)	(2,175,041)
(j) Chg. in mot. table	5,414,117	1/1/2014	13 Years	4,983,983	613,350
(k) Chg. in asset val. meth.	(33,849,742)	1/1/2014	13 Years	(31,160,517)	(3,834,744)
(l) Experience loss	7,000,124	1/1/2015	14 Years	6,732,108	793,025
(m) Experience loss	9,845,022	1/1/2016	15 Years	<u>9,845,022</u>	<u>1,115,315</u>
(n) Total				<u>\$ 40,478,804</u>	<u>\$ 3,722,569</u>

Schedule F

Schedule F determines the certified actuarially determined contribution of \$7,674,463 for 2016 for the Westmoreland County Employees' Retirement System.

1.	Total Amortization Charge/(Credit) (page 12 (n))	\$ 3,722,569
2.	Normal Cost with interest to end of year (page 10 II 1(e))	\$ 3,951,894
3.	Total Funding Requirement for 2016 (actuarially determined contribution for 2016): (1) + (2), but not less than 0	\$ 7,674,463

Notes:

The actuarially determined contribution for 2016 as a percentage of the estimated 2016 compensation (\$82,150,103) for active members is 9.34%.

The equivalent normal cost accrual rate to be applied to actual 2015 salaries to determine reimbursable expenses is 9.67%.

Schedule G

The following are notes to Schedules B and I:

Members' Annuity Reserve Account

The balance of \$118,053,004 in this account is the total of the contributions deducted from the salaries of the active and terminated vested members of the retirement system and the IRC 414(h)(2) pickup contributions together with the interest additions as of January 1, 2016. Since these accumulations represent the present value as of January 1, 2016, of future benefits, the reserve balance and liability are identical.

County Annuity Reserve Account

The balance of \$20,598,015 in this account as of January 1, 2016 and the amounts expected to be credited in the future, plus investment earnings, represent the reserves set aside for the payment of the county's share of the retirement allowances.

This is the account out of which regular interest is credited to the member's annuity and retired members' reserve account, administrative expenses may be paid and the pension obligations of the County are funded.

When a County Annuity is scheduled to commence for a particular member, sufficient monies are transferred from the County Annuity Reserve Account to the Retired Members' Reserve Account to provide for such County Annuities actually entered upon.

Retired Members' Reserve Account

This is the account out of which monthly retirement allowances including cost-of-living increases and death benefits are paid.

The assets allocated to this reserve account as of January 1, 2016 amount to \$227,192,951. The corresponding liability for those annuitants on the roll is identical.

Schedule G--Continued

Adjustment for Market Value Fluctuation

In order to reduce the fluctuations in the County normal cost which can result from full recognition of the unrealized appreciation or depreciation of the Fund's securities each year, the value of assets used to determine costs was determined as prescribed by the Pennsylvania State Law, Act 44 by using the greater of the market value of assets as of the valuation date and adjusting the actuarial value of assets as of the prior valuation date: increased by contributions and other deposits except investment income; decreased by benefit payments and administrative expenses or other payments; and credited with interest at 1% less than the plan's assumed rate to the valuation date. The actuarial value of assets will be limited to a maximum of 120% and a minimum of 80% of the market value of assets as of the valuation date.

1. Actuarial Value of Assets as of 1/1/2015	\$	428,804,426
2. Contributions and Other Deposits Except Investment Income	\$	14,276,912
3. Benefit Payments and Administrative Expenses or Other Payments	\$	29,642,838
4. Interest at 1% less than the plan's assumed rate to the valuation date 2015: $0.065 \times [(1) + 0 \times (2) - 11/24 \times (3)]$	\$	26,989,178
5. Preliminary Actuarial Value of Assets: $(1) + (2) - (3) + (4)$	\$	440,427,678
6. Market Value of Assets as of 1/1/2016	\$	409,492,109
7. 80% of Market Value: $.8 \times (6)$	\$	327,593,687
8. 120% of Market Value: $1.2 \times (6)$	\$	491,390,531
9. Actuarial Value of Assets as of 1/1/2016: Greater of (5) and (6) but not less than (7) nor more than (8)	\$	440,427,678

Schedule H

APPROXIMATE RATE OF RETURN FOR 2015 PLAN YEAR				
		<u>Actuarial Value</u>		<u>Market Value</u>
1. Value as of December 31, 2014	\$	428,804,426	\$	422,033,546
2. Contributions Received During Year	\$	14,276,912	\$	14,276,912
3. Benefits and Expenses Paid During Year	\$	29,642,838	\$	29,642,838
4. Value as of December 31, 2015	\$	440,427,678	\$	409,492,109
5. Non-Investment Increment: (2) - (3)	\$	(15,365,926)	\$	(15,365,926)
6. Investment Increment: (4) - (1) - (5)	\$	26,989,178	\$	2,824,489
7. Time Weighted Value of Assets: (1) + .5 x (5)	\$	421,121,463	\$	414,350,583
8. Approximate Rate of Return for 2015: (6) / (7)		6.41%		0.68%

HISTORY OF RATE OF RETURNS		
<u>Plan Year</u>	<u>Actuarial Value Rate of Return</u>	<u>Market Value Rate of Return</u>
2014	6.41%	4.75%
2013	23.87%	15.95%
2012	5.42%	11.63%
2011	5.75%	0.75%
2010	7.04%	11.95%
2009	1.49%	22.08%
2008	(8.22%)	(23.38%)
2007		8.35%
2006		11.12%
Five Year Average (2011 - 2015):	9.35%	6.58%
Ten Year Average (2006 - 2015):		5.66%

Schedule I

Determination of Reserve Balances

	M.A.R.A.	C.A.R.A.	R.M.R.A.	TOTAL
Balance 1/1/2015	\$ 115,987,737	\$ 30,055,419	\$ 210,393,078	\$ 356,436,234
County Appropriations		6,418,453		6,418,453
Member Contributions	7,724,552	0		7,724,552
Net Investment Income		24,773,662		24,773,662
Investment Expenses		(1,257,256)		(1,257,256)
Member Contributions Refunded	(1,136,735)			(1,136,735)
Pension Payments			(26,508,886)	(26,508,886)
Death Benefits			(617,735)	(617,735)
Retiree and Death Benefit Transfers	(10,587,390)	(16,048,651)	26,636,041	0
Cost of Living Funding Requirement		0	0	0
Administrative Expenses		(122,226)		(122,226)
Miscellaneous		133,907		133,907
Balance Before Interest	111,988,164	43,953,308	209,902,498	365,843,970
Interest Allocated in 2015	6,064,840	(14,470,752)	8,405,912	
Balance Before Actuarial Adjustments	118,053,004	29,482,556	218,308,410	365,843,970
Actuarial Adjustments		(8,884,541)	8,884,541	
Ending Balance 12/31/2015	118,053,004	20,598,015	227,192,951	365,843,970
Unrealized Appreciation				43,648,139
Total Assets (12/31/2015) (Market Value)				409,492,109

Schedule J

Membership History

Below is a ten-year history of the Retirement System's membership.

ACTIVE MEMBERS AND VESTED TERMINATED MEMBERS				RETIRED MEMBERS AND BENEFICIARIES		
January 1	Male	Female	Total	Male	Female	Total
2016	765	1,236	2,001	372	841	1,213
2015	782	1,248	2,030	351	822	1,173
2014	781	1,265	2,046	326	739	1,065
2013	773	1,300	2,073	305	688	993
2012	779	1,313	2,092	288	652	940
2011	742	1,324	2,066	275	618	893
2010	736	1,344	2,080	261	580	841
2009	753	1,340	2,093	244	555	799
2008	736	1,311	2,047	233	558	791
2007	722	1,297	2,019	230	531	761

Schedule K

Changes in Plan Participation From January 1, 2015 to January 1, 2016

ACTIVE PARTICIPANTS		
Number as of January 1, 2015		1,908
Changes During Plan Year:		
Retired	(-)	68
Terminated and Vested	(-)	22
Terminated	(-)	154
Died	(-)	2
New Participants	(+)	205
Number as of January 1, 2016		1,867

RETIRED PARTICIPANTS		
Number as of January 1, 2015		1,173
Changes During Plan Year:		
Returned to Active Service	(-)	0
Died	(-)	34
New Retirements from Active Service	(+)	68
New Surviving Annuitants	(+)	2
Vested Terminated Participants Whose Benefits Commenced	(+)	5
Deletions	(-)	1
Number as of January 1, 2016		1,213

TERMINATED VESTED PARTICIPANTS		
Number as of January 1, 2015		122
Changes During Plan Year:		
Returned to Active Service	(-)	1
Benefits Commenced	(-)	5
Died	(-)	4
New Termination's with Vesting	(+)	22
Number as of January 1, 2016		134

Schedule L

Age, Service and Average Salary Profile of the Active Members on January 1, 2016.

MALES -- FULL YEARS OF SERVICE TO JANUARY 1, 2016									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Average Salary
0-19	1	0	0	0	0	0	0	1	\$ 11,580
20-24	24	1	0	0	0	0	0	25	\$ 29,989
25-29	52	26	1	0	0	0	0	79	\$ 39,838
30-34	36	44	12	1	0	0	0	93	\$ 42,183
35-39	17	27	12	8	0	0	0	64	\$ 47,038
40-44	11	20	13	23	5	0	0	72	\$ 46,963
45-49	11	19	9	14	33	11	1	98	\$ 51,517
50-54	14	12	7	13	14	20	13	93	\$ 56,826
55-59	7	16	10	11	14	15	11	84	\$ 56,901
60-64	7	11	5	9	8	5	13	58	\$ 56,123
65 +	2	7	4	9	9	4	4	39	\$ 53,866
Total	182	183	73	88	83	55	42	706	\$ 49,139

Average Age: 44.63
Average Service: 12.46

FEMALES -- FULL YEARS OF SERVICE TO JANUARY 1, 2016									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Average Salary
0-19	1	0	0	0	0	0	0	1	\$ 36,598
20-24	50	5	0	0	0	0	0	55	\$ 28,056
25-29	71	34	4	0	0	0	0	109	\$ 36,308
30-34	49	58	19	2	0	0	0	128	\$ 39,501
35-39	34	25	13	12	0	0	0	84	\$ 36,637
40-44	30	29	17	26	10	1	0	113	\$ 43,856
45-49	34	32	15	24	29	21	1	156	\$ 45,619
50-54	25	28	24	30	27	20	26	180	\$ 43,508
55-59	28	37	25	42	15	17	35	199	\$ 41,592
60-64	6	19	20	21	13	11	18	108	\$ 41,314
65 +	2	8	5	3	2	2	6	28	\$ 40,868
Total	330	275	142	160	96	72	86	1,161	\$ 40,877

Average Age: 45.44
Average Service: 12.08

Schedule M

Actuarial Assumptions and Actuarial Cost Method for Funding Purposes, January 1, 2016.

Actuarial Assumptions

Mortality Rates: 2013 RP Annuitant and Non-Annuitant Mortality Tables for males and females with no projected improvement.

Withdrawal Rates: Members not eligible to retire are assumed to terminate employment in accordance with a percentage of the withdrawal rates set forth in Table T-7 of the Actuary's Handbook. The applicable percentage depends on the member's years of service as follows:

YEARS OF SERVICE	PERCENTAGE
less than 1	300%
1 but less than 2	275%
2 but less than 3	250%
3 but less than 4	225%
4 but less than 5	200%
5 but less than 6	175%
6 or more	100%

It is further assumed that a percentage of members who terminate after having met the Plan's five year vesting requirement will elect an immediate refund of their own contributions with interest thus forfeiting the County -- provided pension. The applicable percentage is 100% for termination ages up to age 30. After age 30 the applicable percentage is determined as 100% less $(age - 30) \times 3 \frac{1}{3}\%$. Illustrative percentages are as follows:

AGE	PERCENTAGE
30 or less	100.0%
35	83.3%
40	66.7%
45	50.0%
50	33.3%
55	16.7%

Schedule M--Continued

The following tables set forth illustrative withdrawal rates as determined in accordance with the methodology described on the previous page.

**Probability of Withdrawing
During Year:**

LESS THAN FIVE YEARS OF SERVICE					
Age at Hire	Years of Service				
	0	1	2	3	4
20	.2982	.2720	.2460	.2202	.1947
30	.2791	.2532	.2275	.2021	.1770
40	.2326	.2067	.1814	.1570	.1335
50	.1267	.1013	.0781	.0577	.0407
59	.0086	-	-	-	-

FIVE OR MORE YEARS OF SERVICE		
Age at Beginning of Year	Probability of Withdrawing and Forfeiting County Pension	Probability of Withdrawing and Retaining County Pension
30	.0930	.0000
40	.0517	.0258
50	.0141	.0281
59	.0001	.0028

Schedule M--Continued

Retirement Rates: Members eligible to retire are assumed to retire in accordance with the following rates:

AGE AT BEGINNING OF YEAR	PROBABILITY OF RETIRING DURING YEAR
55-59	.07
60-61	.08
62-64	.15
65	.34
66-70	.23
71-79	.21
80	1.00

Disability Rates Disability rates are not used.

Investment Return 7.5% per annum, compounded annually.

Salary Increases 3.5% per annum.

Valuation Assets The asset method that is prescribed by Pennsylvania State Law, Act 44, which is the greater of the market value of assets as of the valuation date and the actuarial value of assets as of the prior valuation date plus contributions and other deposits except investment income minus benefit payments and administrative expenses or other payments plus credited interest at 1% less than the plan's assumed rate to the valuation date. The actuarial value of assets will be limited to a maximum of 120% and a minimum of 80% of the market value of assets as of the valuation date.

Administrative Expenses Assumed to be paid from the County's general fund and not from plan assets. However, administrative expenses may from year to year be paid from the fund unless it is determined by the actuary that such payment will impair the actuarial soundness of the fund.

Actuarial Cost Method The actuarial cost method used to determine the plan's funding requirements is the entry age normal method. Under this method, an actuarial accrued liability is determined as the actuarial present value of projected benefits for all participants minus the actuarial present value of future normal costs. The normal cost is determined as the annual amount required to fund between entry age and assumed exit age the actuarial present value of projected benefits for each active participant under the assumed retirement age.

Schedule N

Summary of Plan Provisions

- 1. Effective Date** The effective date of this plan is January 1, 1945.
- 2. Eligibility for Plan Membership** An employee shall be eligible to become a participant immediately upon becoming an employee.
- 3. Accrued Benefit** The Retirement Board has authorized benefits equal to a percentage of the members Final Average Salary for each year of service the member has participated in the following Classes:

<u>CLASS</u>	<u>PERCENTAGE</u>	<u>EFFECTIVE</u>
1/120	0.833%	01/01/1945
1/100	1.000%	01/01/1952
1/80	1.250%	03/01/1965
1/70	1.429%	01/01/1972
1/60	1.667%	01/01/1975

- 4. Normal Retirement (Superannuation)** *Eligibility:* Retirement occurs at age 60 or at age 55 if the participant has completed 20 years of service.

Pension: A monthly pension equal to (a) and (b), as follows:

- (a) 0.833% of 1/12th of Final Average Salary multiplied by years of credited service on the 1/120 Class,
 1.000% of 1/12th of Final Average Salary multiplied by years of credited service on the 1/100 Class,
 1.250% of 1/12th of Final Average Salary multiplied by years of credited service on the 1/80 Class,
 1.429% of 1/12th of Final Average Salary multiplied by years of credited service on the 1/70 Class,
 1.667% of 1/12th of Final Average Salary multiplied by years of credited service on the 1/60 Class,

PLUS

- (b) a monthly annuity based on the actuarial equivalent of the member's accumulated contributions with credited interest.

Schedule N--Continued

- 5. Final Average Salary** The average of the member's annual compensation received for the three years which produce the highest such average.
- 6. Compensation** Pick-up contributions plus remuneration received as a county employee excluding refunds for expenses, contingency and accountable expense allowances and excluding severance payments or payments for unused vacation or sick leave.
- 7. Early Retirement**
- Eligibility:*
- Voluntary:* Upon completion of 20 years of service.
- Involuntary:* Upon completion of 8 years of service.
- Pension:*
- (a) a monthly pension equal to the actuarial equivalent of the benefits calculated in 4(a),
- PLUS
- (b) a monthly annuity based on the actuarial equivalent of the member's accumulated contributions with credited interest.
- 8. Vesting** One Hundred Percent (100%) upon completion of five years of credited service. A member who terminates employment after five years of credited service will receive a deferred annuity commencing at age 60 (or at age 55 if the member has at least 20 years of service at termination). The deferred benefit shall be calculated using the normal retirement pension formula but based on credited service, final average salary and accumulated contributions at termination.
- If a member terminates employment prior to entitlement to Plan benefits, he will receive his accumulated contributions with interest.
- 9. Postponed Retirement** A member may work past normal retirement age and continue to accrue pension credits.

Schedule N--Continued**10. Disability Retirement**

Eligibility: Total and permanent disability prior to Superannuation (Normal Retirement) age and after completion of five years of credited service.

Pension: A total monthly pension commencing on the last day of the month following disability retirement equal to 25% of the 1/12th of Final Average Salary at time of retirement. Such total monthly pension shall include the monthly disability that is actuarially equivalent to the member's accumulated contributions at retirement.

11. Normal Form of Pension

Benefits are payable in the form of a modified cash refund life annuity, that is for the member's lifetime only, except that disability benefits shall cease upon cessation of disability.

12. Optional Retirement Benefits

A member may elect to receive the actuarial equivalent of his retirement benefit as a full cash refund annuity (Option One) or a reduced joint and survivor pension payable for the remainder of his life, with either 100% or 50% of the member's pension continuing after death to the designated beneficiary. A member may also elect to receive, in one payment, the full amount of his accumulated deductions and continue to receive the annuity provided by the county.

13. Death Benefits

- (a) Pre-Retirement. If a member dies after having attained age 60 or having completed ten years of credited service, his beneficiary will receive a lump sum equal to the actuarially determined present value of the benefits calculated in (7a) based on the member's Final Average Salary and credited service at time of death plus the member's accumulated contributions with interest at time of death.
- (b) Post-Retirement. Upon the death of a terminated or retired member, his beneficiary will receive survivor benefits, if any, in accordance with the form under which benefits were being paid to the member. In any event, the total amount of benefits paid to the deceased member and beneficiary must, at least, equal the member's accumulated contributions with interest.

Schedule N--Continued

14. Employee Contributions

Employees on the 1/170 Class must contribute between 8% and 18% of salary.
 Employees on the 1/60 Class must contribute between 9% and 19% of salary.

15. Deposit Administrator

Investment Managers:
 C.S. McKee and Company Inc. Victory Gradison, Inc.
 Fusion Investment Group TWIN Capital
 Stewart Capital Emerald Advisors
 SIT Investment Associates, Inc. Corry Capital
 Grosvenor Institutional Partners Wellington Mngt.
 Metropolitan West Asset Management, LLC

Custodian:
 PNC Institutional Asset Management

Investment Consultant:
 Gallagher Fiduciary Advisors

16. Administration

Retirement Board as designated in Act 96 of 1971, the County Pension Law.

17. Cost-of-Living

The cost-of-living increase shall be reviewed at least once in every three years by the Retirement Board. The Board has granted cost-of-living increases twenty-six times in the past from January, 1972 through January, 2003 and since then as follows:

PERCENTAGE CHANGE IN C.P.I.	EFFECTIVE DATE OF INCREASE
70%	1/1/2005
70%	1/1/2006
70%	1/1/2007
70%	1/1/2008
70%	1/1/2009
70%	1/1/2011
70%	1/1/2012
70%	1/1/2013
70%	1/1/2014
70%	1/1/2015

18. Early Retirement Provision

The Retirement Board has authorized the following Early Retirement Provisions:

Percent of <u>Additional Service</u>	Early <u>Retirement Period</u>
15%	4/1/01 - 4/30/01

Schedule O

Historical Trend Information

REVENUES BY SOURCE					
Fiscal Year	Employee Contributions	Employer Contributions	Investment Income	Miscellaneous	Total
2006	\$ 6,136,721	\$ 4,142,359	\$ 22,964,648	\$ 220,983	\$ 33,464,711
2007	6,567,415	2,990,464	23,398,622	501,915	33,458,416
2008	6,727,132	3,710,000	(13,647,019)	0	(3,209,887)
2009	7,033,493	8,275,610	5,938,025	0	21,247,128
2010	7,122,087	6,194,962	17,920,992	0	31,238,041
2011	7,387,713	7,955,926	19,591,156	0	34,934,795
2012	7,574,642	8,796,356	15,568,504	0	31,939,502
2013	7,634,296	9,964,570	22,851,226	49,408	40,499,500
2014	7,942,978	5,466,886	40,719,372	245,027	54,374,263
2015	7,724,552	6,418,453	24,773,662	133,907	39,050,574

EXPENSES BY TYPE				
Fiscal Year	Benefits	Refunds	Administrative/ Miscellaneous	Total
2006	\$ 9,993,066	\$ 1,016,643	\$ 1,181,078	\$ 12,190,787
2007	11,715,586	848,737	1,356,797	13,921,120
2008	10,846,460	1,266,388	1,357,394	13,470,242
2009	13,498,597	1,145,285	1,190,051	15,833,933
2010	15,495,558	1,059,431	1,342,394	17,897,383
2011	16,056,150	1,007,683	1,379,659	18,443,492
2012	18,830,639	1,211,628	1,512,244	21,554,511
2013	20,757,907	780,619	1,594,140	23,132,666
2014	22,309,107	1,219,695	1,594,723	25,123,525
2015	27,126,621	1,136,735	1,379,482	29,642,838