



Pittsfield Charter Township Other Postemployment Benefits

**Actuarial Valuation Report
as of January 1, 2019**

Produced by Cheiron

November 2019

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Via Email

November 1, 2019

Board of Trustees
Pittsfield Charter Township
6201 W. Michigan Ave
Ann Arbor, MI 48108

Re: Pittsfield Charter Township Other Postemployment Benefits Valuation

Dear Members of the Board:

The purpose of this report is to present the January 1, 2019 actuarial valuation of Pittsfield Charter Township's Other Postemployment Benefits (OPEB). This report is for the use of the Township and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Cheiron began performing actuarial valuations for Pittsfield Charter Township as of January 1, 2013. Results shown before January 1, 2013 were calculated by the prior actuary.

The results of this valuation rely on future plan experience conforming to the underlying assumptions and methods outlined in this report. Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: Plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

This report does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010, related legislation, or regulations. The report does not reflect the three-year temporary Transitional Reinsurance contribution or the eight-year temporary Patient-Centered Outcome Research Institute (PCORI) fees because these fees are paid out of general funds.

Appendix A describes the participant data, assumptions, and methods used in calculating the figures throughout the report. In preparing our report, we relied without audit, on information (some oral and some written) supplied by Pittsfield Charter Township staff. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The demographic assumptions used in this report are based on those that were adopted by the Municipal Employees' Retirement System of Michigan (MERS) Board for the December 31, 2017 actuarial valuation. Appendix B contains a summary of the substantive plan provisions based on documentation provided by and discussions with the Pittsfield Charter Township staff.

The results of this valuation reflect only the financial condition of the Plan as of the valuation date. We recommend reviewing forecasts of the plan's financial condition under alternative scenarios. Such forecasts, however, are beyond the scope of this assignment.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we collectively meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This valuation report was prepared for the Township for the purposes described herein and for the use by the Plan Auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron



Gaëlle Gravot, FSA, MAAA
Principal Consulting Actuary



Kathleen T. Weaver, FSA, EA, MAAA
Consulting Actuary



William R. Hallmark, ASA, FCA, EA, MAAA
Consulting Actuary

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION I – EXECUTIVE SUMMARY

Pittsfield Charter Township has engaged Cheiron to provide a valuation of the Township’s Other Postemployment Benefits. The primary purpose of performing this actuarial valuation is to:

- Measure the Actuarial Liability (AL) as of the valuation date in a manner consistent with the requirements of GASB 74/75 to be used as the basis for projecting the Total OPEB Liability (TOL) to the GASB 74/75 measurement date;
- Calculate the Township’s contribution under the Township’s current contribution policy;
- Provide funding disclosures for financial statements; and,
- Show the sensitivity of the valuation results to changes in health trend assumptions and the discount rate.

We have determined costs, liabilities, and trends for the substantive plan using actuarial assumptions and methods that we consider reasonable.

Implicit Subsidy

Actuarial Standard of Practice No. 6 (ASOP No. 6) requires the recognition of the age related costs and the inherent implicit subsidy that exists in the health benefit plans offered by Pittsfield Charter Township. An implicit subsidy exists when the premium rates charged to active and retired employees are the same, or “blended.” This provides the users of the Township’s valuation report an estimate of the total value of the promised retiree benefit. However, while the valuation results include the liability associated with the implicit subsidy, each year the implicit subsidy is actually paid through the active employee premiums.

The employer’s share of the current coverage costs for active and retired employees should be calculated based on the claim costs or age-adjusted premiums for the employer. The current age adjusted costs used in this valuation are based on the estimated age related costs for the applicable plans offered by the Township to its employees and retirees.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION I – EXECUTIVE SUMMARY

Valuation Results

The table below presents the key results of the 2019 valuation.

Table I-1 Summary of Key Valuation Results		
Valuation Date	1/1/2019	1/1/2017
Discount Rate (per annum)	6.75%	7.00%
Actuarial Liability		
- Retirees & Term Vesteds	\$ 3,775,000	\$ 3,069,000
- Active Employees	8,178,000	6,147,000
- Total	\$ 11,953,000	\$ 9,216,000
Assets	\$ 9,327,000	\$ 7,877,000
Unfunded Actuarial Liability (UAL)	\$ 2,626,000	\$ 1,339,000
Normal Cost	\$ 281,000	\$ 236,000
Amortization of UAL	\$ 128,000	\$ 67,000
Total Contribution	\$ 409,000	\$ 303,000
Normal Cost % of pay	3.43%	3.15%
Amortization of UAL % of pay	1.56%	0.90%
Total Contribution as % of pay	4.99%	4.05%
Projected Payroll	8,200,000	7,482,000
Expected /Actual Contribution Amount	\$ 409,322	\$ 669,674

Table I-1 shows that the total Unfunded Actuarial Liability (UAL) increased by \$1.29 million. This change is the result of a number of offsetting effects, including claims costs and trend assumption changes, benefit changes, medical cost experience, a decrease in the discount rate, and asset growth. These changes are discussed further in the Valuation Results section.

The table below shows the results broken down between the explicit cost and implicit subsidy portions of the benefits. Assets have been allocated first to the explicit cost and then to the implicit subsidy. The explicit cost amounts include all administrative expenses.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION I – EXECUTIVE SUMMARY

Table I-2 Summary of Key Valuation Results 6.75% Discount Rate January 1, 2019 Valuation Date			
	Explicit Cost	Implicit Subsidy	Total Liability
Actuarial Liability			
- Retirees & Term Vested	\$ 3,279,000	\$ 496,000	\$ 3,775,000
- Active Employees	<u>6,198,000</u>	<u>1,980,000</u>	<u>8,178,000</u>
- Total	\$ 9,477,000	\$ 2,476,000	\$ 11,953,000
Assets	\$ 9,327,000	\$ 0	\$ 9,327,000
Unfunded Actuarial Liability (UAL)	\$ 150,000	\$ 2,476,000	\$ 2,626,000
Normal Cost	\$ 206,000	\$ 75,000	\$ 281,000
Amortization of UAL	\$ 7,000	\$ 121,000	\$ 128,000
Total ARC	\$ 213,000	\$ 196,000	\$ 409,000
Normal Cost % of pay	2.52%	0.91%	3.43%
Amortization of UAL % of pay	0.08%	1.48%	1.56%
Total Cost (ARC as % of pay)	2.60%	2.39%	4.99%

The remainder of this report provides additional detail. First, we present the assets. Second, we develop the contribution calculated based on the Township’s contribution history. Third, we develop the actuarial valuation results and illustrate the sensitivity of the results to changes in the healthcare trend rates and the discount rate. We conclude with disclosure information to comply with GFOA’s financial reporting checklist.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION II – ASSETS

Assets

The Plan’s last valuation was performed as of January 1, 2017. Table II-1 below shows the reconciliation of assets for the last two fiscal years. Note that benefit payments are currently paid outside of the Trust.

Table II-1 Asset Reconciliation		
Calendar year	2018	2017
Balance at Beginning of Year	\$ 9,381,177	\$ 7,876,812
Changes for the year:		
Contributions - employer	\$ 317,563	\$ 463,805
Contributions - member	0	0
Net investment income	(349,245)	1,060,975
Benefit payments	0	0
Administrative expense	<u>(22,963)</u>	<u>(20,415)</u>
Net changes	\$ (54,645)	\$ 1,504,365
Balance at End of Year	\$ 9,326,532	\$ 9,381,177
Estimated Rate of Return	(3.90%)	12.83%

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION III – VALUATION RESULTS

This section of the report provides more detail on the Actuarial Liability, reconciles the changes in Actuarial Liability since the last valuation, and calculates contribution amounts in accordance with the Township’s contribution policy.

The liabilities presented in this section assume an ongoing plan and would not be appropriate for measuring the settlement value of plan obligations, either through annuity purchases or payment of lump sums.

The development of the Unfunded Actuarial Liability (UAL) is shown below.

Table III-1 Unfunded Actuarial Liability		
Valuation Date	1/1/2019	1/1/2017
Actuarial Liability		
Retirees & Term Vesteds:		
Group 1	\$ 829,000	463,000
Group 2	594,000	383,000
Group 3	2,212,000	2,062,000
Group 4	140,000	161,000
Total Retirees	\$ 3,775,000	\$ 3,069,000
Active Employees:		
Group 1	1,134,000	1,437,000
Group 2	5,143,000	3,259,000
Group 3	1,899,000	1,449,000
Group 4	2,000	2,000
Total Active Employees	\$ 8,178,000	\$ 6,147,000
Total Actuarial Liability	\$ 11,953,000	\$ 9,216,000
Assets	\$ 9,327,000	\$ 7,877,000
Unfunded Actuarial Liability (UAL)	\$ 2,626,000	\$ 1,339,000

The groups shown above reflect the following member divisions:

- Group 1: TPOAM (Division 1, HF) and non-represented employees (Division 14, HE);
- Group 2: Police Patrol (Division 2, HD) and Firefighters (Division 5, HB);
- Group 3: Police Command (Division 20, HC); and,
- Group 4: Elected Officials (Division 10, HG).

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION III – VALUATION RESULTS

Reconciliation

The table below provides an estimate of the major factors contributing to the change in Actuarial Liability since the last valuation report.

Table III-2 Reconciliation of Actuarial Liability	
Actuarial Liability at 1/1/2017	\$ 9,216,000
Expected Actuarial Liability at 1/1/2019	10,775,000
Actual Liability as of 1/1/2019	11,953,000
(Gain) or Loss	1,178,000
Changes due to:	
Demographic (Gain)/Loss	35,000
Change in Mortality and Active Decrements	0
Change in Claims and Trend Assumptions	8,000
Change in Discount Rates	431,000
Changes from Union Contracts	724,000
Changes in Medical Plans Offered	(20,000)
Total Changes	\$ 1,178,000

- *Demographic*: refers to the change in liability from updating the census
- *Change in Mortality and Active Decrements*: refers to the change associated with changing the decrement assumption to match the latest Municipal Employees’ Retirement System of Michigan. There were no changes with this valuation.
- *Change in Claims and Trend Assumptions*: refers to the change in expected current and future healthcare claims and expense costs. This item also reflects the change in expected future trends.
- *Change in Discount Rate*: refers to the change in discount rate from 7.00% to 6.75%
- *Changes from Union Contracts*: refers to the changes in provisions due to new Collectively Bargained Agreements and extensions adopted through December 31, 2021.
- *Changes in Medical Plans Offered*: refers to the addition of the BCBSM0007 and BCBSM0008 Plans.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION III – VALUATION RESULTS

The Township calculates a contribution to the OPEB trust that consists of two parts: (1) the *Normal Cost*, which represents the annual cost attributable to service earned in a given year, and (2) the amortization of the Unfunded Actuarial Liability (UAL). The amortization method is a 30-year rolling amortization, meaning that the amortization payment is re-calculated every year assuming 30 years of payments. Under this method, if all assumptions are met, the UAL would never be paid off and would instead grow indefinitely. We understand this method was adopted because it was the minimum that satisfied the GASB 45 requirements for an Annual Required Contribution (ARC). We have not provided any recommendation on appropriate contribution amounts; therefore, we do not label this contribution as an Actuarially Determined Contribution.

The contribution calculation for the fiscal year ending December 31, 2019 is developed in the table below. The prior calculation is shown for comparison.

Table III-3 Contribution Calculation		
Valuation Date	1/1/2019	1/1/2017
Fiscal Year Ending	2019	2017
Normal Cost:		
Group 1	\$ 37,000	\$ 51,000
Group 2	190,000	139,000
Group 3	54,000	46,000
Group 4	0	0
Total Normal Cost	\$ 281,000	\$ 236,000
Amortization of UAL	128,000	67,000
Total Contribution	\$ 409,000	\$ 303,000
Projected Payroll	\$ 8,200,000	\$ 7,482,000
Contribution as a Percentage of Payroll	4.99%	4.05%
Fiscal Year Ending	2020	
Projected Payroll	\$ 8,508,000	
Estimated Contribution	\$ 424,000	

The estimated contribution for FYE 2020 shown above is simply the FYE 2019 contribution as a percentage of payrolls applied to the projected payroll for FYE 2020.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

SECTION III – VALUATION RESULTS

Expected Net Benefit Payments

The table below shows the expected net benefit payments for the next 16 years. These payments include the expected annual implicit subsidy as well as expected plan premium payments. The implicit subsidy payments are shown because these payments are included as a plan contribution as well as a benefit payment.

Table III-4 Expected Benefit Payments							
Fiscal Year Ending December 31	Expected Net Premium Payments	Expected Implicit Subsidy	Total Benefit Payments	Fiscal Year Ending December 31	Expected Net Premium Payments	Expected Implicit Subsidy	Total Benefit Payments
2019	\$ 143,000	\$ 48,000	\$ 191,000	2027	\$ 489,000	\$ 218,000	\$ 707,000
2020	160,000	62,000	222,000	2028	547,000	240,000	787,000
2021	184,000	71,000	255,000	2029	607,000	262,000	869,000
2022	213,000	79,000	292,000	2030	675,000	273,000	948,000
2023	269,000	99,000	368,000	2031	749,000	292,000	1,041,000
2024	312,000	130,000	442,000	2032	814,000	344,000	1,158,000
2025	387,000	188,000	575,000	2033	873,000	338,000	1,211,000
2026	439,000	206,000	645,000	2034	931,000	370,000	1,301,000

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2018**

SECTION IV – SENSITIVITY OF RESULTS

The liabilities and contributions calculated in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the health care trend rates on the Actuarial Liability and the contribution calculation to provide some measure of sensitivity. In all cases, we are using a discount rate of 6.75%.

Table IV-1			
Actuarial Liability - January 1, 2019			
6.75% assumed discount			
Sensitivity of Healthcare Trends			
	- 1%	Valuation	+ 1%
Retirees, Beneficiaries, and Term Vesteds	\$ 3,407,000	\$ 3,775,000	\$ 4,209,000
Active Employees	6,729,000	8,178,000	10,037,000
Total	\$ 10,136,000	\$ 11,953,000	\$ 14,246,000
Assets	\$ 9,327,000	\$ 9,327,000	\$ 9,327,000
UAL	\$ 809,000	\$ 2,626,000	\$ 4,919,000

Table IV-2			
Contribution Calculation - January 1, 2019			
6.75% assumed discount			
Sensitivity of Healthcare Trends			
	- 1%	Valuation	+ 1%
Normal Cost	\$ 228,000	\$ 281,000	\$ 364,000
UAL Amortization	40,000	128,000	245,000
Total	\$ 268,000	\$ 409,000	\$ 609,000

The tables below show the impact of a 1% increase or decrease in the discount rate on the Actuarial Liability and the contribution calculation.

Table IV-3			
Actuarial Liability - January 1, 2019			
Sensitivity of Discount Rate			
	5.75%	6.75%	7.75%
Retirees, Beneficiaries, and Term Vesteds	\$ 4,212,000	\$ 3,775,000	\$ 3,411,000
Active Employees	9,705,000	8,178,000	6,939,000
Total	\$ 13,917,000	\$ 11,953,000	\$ 10,350,000
Assets	\$ 9,327,000	\$ 9,327,000	\$ 9,327,000
UAL	\$ 4,590,000	\$ 2,626,000	\$ 1,023,000

Table IV-4			
Contribution Calculation - January 1, 2019			
Sensitivity of Discount Rate			
	5.75%	6.75%	7.75%
Normal Cost	\$ 374,000	\$ 281,000	\$ 212,000
UAL Amortization	199,000	128,000	56,000
Total	\$ 573,000	\$ 409,000	\$ 268,000

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2017**

SECTION V – CAFR DISCLOSURES

The Government Finance Officers Association (GFOA) maintains a checklist of items to be included in the Comprehensive Annual Financial Report (CAFR) in order to receive recognition for excellence in financial reporting. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the Plan is funded and how this status has changed over the past several years. The Actuarial Liability is compared to the Actuarial Value of Assets to determine the funding ratio. The Actuarial Liability is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions.

Table V-1 Schedule of Funding Progress						
Fiscal year Beginning January 1	Actuarial Value of Assets (a)	Actuarial Liabilities (b)	Unfunded Actuarial Liabilities (UAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	(UAL) as Percentage of Covered Payroll ((b-a)/c)
2019	\$ 9,327,000	\$ 11,953,000	2,626,000	78%	\$ 8,200,000	32.02%
2017	7,877,000	9,216,000	1,339,000	85%	7,482,000	17.90%
2015	6,220,000	10,135,000	3,915,000	61%	6,988,000	56.02%
2013	4,109,000	9,437,000	5,328,000	44%	6,703,000	79.49%
2010*	1,545,277	8,033,569	6,488,292	19%	6,465,155	100.36%

*Based on calculations by the prior actuary.

Schedule of Funded Liabilities by Type

Table V-2 on the next page compares the Plan’s assets as of each valuation date shown to the Plan’s Actuarial Liability divided into three separate groups: liabilities for contributions on deposit for current active members, liabilities for future benefits for inactive members, and employer-financed liabilities for current active members. This schedule is used to assess funding progress based on what percentage of the liabilities for each of these groups the Plan’s assets are sufficient to cover.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2017**

SECTION V – CAFR DISCLOSURES

Table V-2								
Schedule of Funded Liabilities by Type								
Aggregate Actuarial Liabilities for								
Valuation Date	(1) Active Member Contributions	(2) Retirees, Vested Terms, Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	Portion of Actuarial Liabilities Covered by Reported Assets			
					(1)	(2)	(3)	
January 1, 2019	\$ 0	\$ 3,775,000	\$ 8,178,000	\$ 9,327,000	100%	100%	68%	
2017	0	3,069,000	6,147,000	7,877,000	100%	100%	78%	
2015	0	3,836,000	6,299,000	6,220,000	100%	100%	38%	
2013	0	2,998,000	6,439,000	4,109,000	100%	100%	17%	
2010*	0	1,911,000	6,123,000	1,545,277	100%	81%	0%	

*Based on calculations by prior actuary

Table V-3 below is a gain/loss analysis of the changes in the Actuarial Liability over the past two valuations, reflecting variances between actual experience and assumed experience for different kinds of risk as specified in the GFOA GAAFR.

Table V-3		
Analysis of Financial Experience		
Gain and Loss in Actuarial Liability During Valuation Years Ended December 31		
Type of Activity	FYE 2017	FYE 2019
Investment Income	\$ 2,157,939	\$ 566,592
Combined Liability Experience	<u>(1,719,000)</u>	<u>(35,000)</u>
Gain (or Loss) during Year from Financial Experience	\$ 438,939	\$ 531,592
Non-Recurring Items	<u>4,312,000</u>	<u>(1,143,000)</u>
Composite Gain (or Loss) During Year	\$ 4,750,939	\$ (611,408)

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Member Data

Valuation Date	January 1, 2017	January 1, 2019	% Change
Active Employees			
Group 1	64	59	(7.81%)
Group 2	50	56	12.00%
Group 3	10	10	0.00%
Group 4	3	3	0.00%
Total	127	128	0.79%
Average Age	42.9	42.7	(0.61%)
Average Service	10.0	11.0	9.96%
Total Payroll	\$ 7,482,000	\$ 8,200,000	9.60%
Total Term Vesteds			
	3	3	
Average Age	55.4	57.4	
Total Retirees and Spouses			
Pre-65			
Group 1	0	1	
Group 2	2	3	
Group 3	4	4	
Group 4	0	0	
Pre-65 Total	6	8	33.33%
Post-65			
Group 1	4	6	
Group 2	0	0	
Group 3	2	2	
Group 4	2	2	
Post-65 Total	8	10	25.00%
Total	14	18	28.57%
Average Age	63.6	65.4	2.85%

The groups shown above reflect the following member divisions:

- Group 1: TPOAM (Division 1, HF)) and non-represented employees (Division 14, HE);
- Group 2: Police Patrol (Division 2, HD) and Firefighters (Division 5, HB);
- Group 3: Police Command (Division 20, HC); and,
- Group 4: Elected Officials (Division 10, HG).

Dispatch Division of Public Safety was merged into Washtenaw County Metro Dispatch effective January 1, 2018. No employees were eligible for retiree health insurance benefits at that time; therefore Dispatch has been removed from OPEB Group 1.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Member Data as of January 1, 2019

Eligible Active Employees								
Age	Service							Total
	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 and Up	
Under 25	4	0	0	0	0	0	0	4
25 - 29	11	3	0	0	0	0	0	14
30 - 34	6	2	3	1	0	0	0	12
35 - 39	5	1	5	11	1	0	0	23
40 - 44	5	3	4	5	3	0	0	20
45 - 49	4	5	2	1	6	5	0	23
50 - 54	5	4	3	1	3	2	0	18
55 - 59	1	2	2	0	2	0	0	7
60 - 64	3	0	0	1	1	0	0	5
65 and Up	0	0	1	0	1	0	0	2
Total	44	20	20	20	17	7	0	128

Eligible Retirees			
Age	Gender		Total
	Male	Female	
Under 50	0	0	0
50 - 54	0	0	0
55 - 59	2	0	2
60 - 64	2	0	2
65 - 69	2	2	4
70 - 74	0	1	1
75 - 79	0	0	0
80 - 84	1	0	1
85 - 89	0	0	0
90 and Up	0	0	0
Total	7	3	10

Medical Plan Election			
Medical Plan	Actives	Retirees &	Spouses
		Beneficiaries	of Retired
BCBSM 0003/0004	76	5	3
BCBSM 0005	0	1	1
BCBSM 0006	0	4	4
BCBSM 0007	26	0	0
BCBSM 0008	11	0	0
Opt Out	15	3 *	0
Total	128	13	8

* Police Command Retirees eligible to continue coverage with the Township at a later date.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Economic Assumptions

1. Expected Return on Trust Assets: 6.75% per year

We understand Trust assets are invested in the MERS Total Market Portfolio. This assumption is based on average capital market assumptions from the 2018 Horizon Survey of capital market assumptions applied to the target asset allocation for this portfolio as reported by MERS.

2. Per Person Cost Trends:

Year	Trends		
	Medical		Rx
	Pre Med	Post Med	All
2019	8.00%	6.00%	9.00%
2020	7.73	5.87	8.67
2021	7.47	5.73	8.33
2022	7.20	5.60	8.00
2023	6.93	5.47	7.67
2024	6.67	5.33	7.33
2025	6.40	5.20	7.00
2026	6.13	5.07	6.67
2027	5.87	4.93	6.33
2028	5.60	4.80	6.00
2029	5.33	4.67	5.67
2030	5.07	4.53	5.33
2031	4.80	4.40	5.00
2032	4.53	4.27	4.67
2033	4.27	4.13	4.33
2034	4.00	4.00	4.00

Ultimate trends (beyond 2034) for Pre-Medicare and Post-Medicare retirees are 4%.
 Medical administrative expenses assumed to increase at 4% per year.
 Per the Township, Agent Administrative Expenses are fixed and not to increase with time.
 Therefore, Agent Administrative Expenses are assumed to increase at 0% per year.

Trends are based on standard industry expectations with a reasonable ultimate trend. We see no reason to deviate from these expectations.

3. Inflation: 2.50% per year

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Demographic Assumptions

1. Retirement Rates:

Rates of retirement are based on those that were adopted by the Municipal Employee’ Retirement System of Michigan (MERS) Board for the December 31, 2017 actuarial valuation these rates were further simplified, as shown below:

Age / Svc	Rates of Retirement					
	General		Police		Fire	
	15 – 24	25+	15 - 24	25+	15 - 24	25+
50	0.0%	2.0%	0.0%	25.0%	21.0%	2.0%
51	0.0	2.0	0.0	25.0	21.0	2.0
52	0.0	3.3	0.0	25.0	21.0	3.3
53	0.0	3.8	0.0	25.0	21.0	3.8
54	0.0	5.6	0.0	25.0	21.0	5.6
55	4.3	4.3	4.3	25.0	21.0	24.0
56	4.2	4.2	4.2	25.0	21.0	24.0
57	4.1	4.1	4.1	25.0	21.0	24.0
58	5.0	5.0	5.0	25.0	21.0	24.0
59	6.2	6.2	6.2	25.0	21.0	24.0
60	20.0	21.0	21.0	25.0	21.0	24.0
61	20.0	21.0	21.0	25.0	21.0	24.0
62	20.0	21.0	21.0	25.0	21.0	24.0
63	20.0	21.0	21.0	25.0	21.0	24.0
64	20.0	21.0	21.0	25.0	21.0	24.0
65	20.0	21.0	21.0	28.0	21.0	24.0
66	20.0	21.0	21.0	28.0	21.0	24.0
67	20.0	21.0	21.0	28.0	21.0	24.0
68	20.0	21.0	21.0	28.0	21.0	24.0
69	20.0	21.0	21.0	28.0	21.0	24.0
70	100.0	100.0	100.0	100.0	100.0	100.0

All members with 10 - 15 years of service and at least age 60 will have a 20% likelihood of retirement until age 70 when they will have 100%.

Police Command members who retire with coverage but then go work in the same capacity with another township have their coverage suspended. They are assumed to resume coverage at age 60.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

2. Termination Rates:

Rates of termination for all employees from causes other than death, disability, and service are the same as what is used in the MERS December 31, 2017 actuarial valuation. Sample base rates of termination are shown below. The base rates are then multiplied by a scaling factor of 0.94 as determined by MERS to reflect Pittsfield-specific experience.

Rates of Termination	
Years of Service	All
0	19.6%
1	16.3
2	13.3
3	10.5
4	8.6
5	6.9
10	4.6
15	3.4
20	2.6
25	2.2
30	2.2
34 and over	2.2

3. Rate of Mortality:

Active Employees and Healthy Retirees:

Rates of mortality for members and their beneficiaries are the same as what is used in the MERS December 31, 2017 actuarial valuation. MERS uses a 50% Male – 50% Female blend of the following tables:

- I. The RP-2014 Healthy Annuitant Mortality Tables, with rates multiplied by 105%
- II. The RP-2014 Employee Mortality Tables

For ages 18 - 49, MERS uses the rates from Table II. For ages 70 and older, MERS uses the rates in Table I. For ages 50-69, MERS blends Table II and Table I as follows:

- a) Age 50 - 60% of Table II and 40% of Table I
- b) Age 51 - 57% of Table II and 43% of Table I
- c) Etc...
- d) Age 69 - 3% of Table II and 97% of Table I

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Disabled Employee:

Rates of mortality for disabled members are the same as what is used in the MERS December 31, 2017 actuarial valuation. MERS uses the RP-2014 Disabled Retiree Mortality Table, blended 50% male and 50% female.

Sample Mortality at Selected Ages		
Age	Healthy	Disabled
40	0.0512%	0.8226%
45	0.0815	1.3044
50	0.2271	1.6151
55	0.3706	1.8924
60	0.5833	2.1802
65	0.9404	2.6273
70	1.5559	3.4275
75	2.5076	4.7666
80	4.1772	6.8826

4. Disability Rates:

Rates of disability are the same as what is used in the MERS December 31, 2017 actuarial valuation assumptions. Sample rates of disability are shown below.

Rates of Disability	
Age	All
20	0.02%
25	0.02
30	0.02
35	0.05
40	0.08
45	0.20
50	0.29
55	0.38
60	0.39
65	0.39

5. Salary Increase Rate:

Salary increase rates follow the MERS December 31, 2017 actuarial valuation assumption:

Wage inflation component: 3.75%

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

In addition, the following merit component is added based on an individual member's age. Sample rates are shown below.

Salary Merit Increases	
Age	Merit/ Longevity
20	11.00%
25	7.20
30	3.10
35	1.90
40	1.20
45	0.81
50	0.52
55	0.30
60	0.00

- 6. Percent of Retirees Electing Coverage:** The township provides retiree healthcare benefits at no cost to retirees. Current retirees are expected to continue coverage in their current plan. All active members currently enrolled in medical coverage through the Township are assumed to continue coverage after retirement, if eligible. For those currently opting out of coverage with the Township, 50% are assumed to resume coverage before retirement and then continue coverage after retirement. This assumption is consistent with past valuation assumptions and is based on discussions with the Township.

We assume that those who retire and elect coverage continue coverage until death. There is no assumption for dropping coverage or suspension of coverage.

- 7. Plan Election:** According to the Collective Bargaining Agreements that the Township has with its labor groups, only the current active PPO plan is available for future retirees electing coverage. Therefore, all future retirees who elect coverage at retirement are assumed to enroll in the BCBS PPO plan.
- 8. Family Composition:** 70% of members are assumed to cover a spouse at retirement. This assumption is the same as used in the MERS December 31, 2017 actuarial valuation. We did not allocate any credibility to the Township actual retiree family composition as there are only seven retirees. Members with suspended benefit (Term Vested) are assumed to have 100% election of spouse benefit at retirement.
- 9. Dependent Age:** For current retirees, actual spouse date of birth was used when available. For future retirees, male retirees are assumed to be three years older than their partner. This assumption is the same as used in the MERS December 31, 2017 actuarial valuation.

Changes Since Last Valuation

None.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Methodology

The Entry Age Normal actuarial cost method was used for active employees, whereby the Normal Cost is computed as the level annual percentage of pay required to fund the postemployment benefits between each member's date of hire and assumed retirement. The Actuarial Liability is the difference between the Present Value of Future Benefits and the present value of future normal cost. The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets.

Claims and Expenses:

The claim costs are based on Calendar Year (CY) 2017 and 2018 paid claims by plan. Experience from each plan is adjusted to Plan BCBSM 0003/0004 design by applying benefit adjustment factors developed using OptumInsight's Comprehensive Pricing tool. Based on the combined normalized experience, the following CY 2019 projected rates were developed:

- **Non-Medicare Medical rates:** The Non-Medicare Eligible (NME) medical claim experience for each CY is based on active and retiree Pre-Medicare population, and converted to a Per Person Per Month (PPPM) cost by dividing the total CY paid claims by the corresponding CY member-months. We removed claims in excess of the pooling point (none for CY 2017 and 2018) prior to trending the PPPM claim costs to CY 2019, using a 7.50% per annum rate. As the claim experience is based on paid dates, three months' worth of trend was added to convert paid to incurred dates. The resulting projected CY 2019 PPPM is then blended using 50%/50% weights for the CY 2017/CY 2018 based projected 2019 PPPMs, respectively. Due to the low credibility of the claim experience, we blended the projected medical and pharmacy claim costs with a manual rate developed using OptumInsight's Comprehensive Pricer, allocating 50% credibility to the Township claim experience.
- **Medicare Medical rates:** There are only eleven persons covered by the Township who are Medicare Eligible (ME). Therefore, we developed the projected CY 2019 Medicare Eligible (ME) medical claim costs using the OptumInsight's Comprehensive Medicare Coordination Model.
- **Pharmacy rates:** The projected CY 2019 pharmacy costs for the NME and ME population are based on the CY 2017 and 2018 pharmacy costs of the entire population participating in the Township health plan (i.e., active, Pre-Medicare and Post-Medicare retiree). The total CY pharmacy claim costs are converted to PPPM costs using the corresponding CY member-months for the entire population. The PPPMs are trended at a 7.50% annual rate to CY 2019, and half a month of trend is added to convert claims from a paid to an incurred basis. The projected CY 2019 cost is the blend of the CY 2017 and CY 2018 based projected costs using 50%/50% weight, respectively. The resulting projected costs is then blended with the manual rate developed using OptumInsight's Comprehensive Pricer, allocating 50% credibility to the Township claim experience.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
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APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

- The benefit adjustment factors are then applied to the CY 2019 projected PPPMs to obtain plan design specific projected PPPMs.
- CY 2019 Administrative Expenses are assumed to be the same as CY 2018 administrative expenses.

The resulting medical Non-Medicare Eligible (NME), medical ME, and pharmacy PPPM costs were then adjusted using age curves to develop the expected costs of the medical and pharmacy benefits based on the covered individuals age and sex. Note that the age curves are net large claims, but the pooling charge (i.e. stop loss premium) is added separately.

To develop the manual rates used in the projection of claim costs, we rely on software and databases to get industry average figures. The software and underlying databases are owned and developed by OptumInsight and licensed by Cheiron, Inc. Cheiron assumes responsibility for the actuarial soundness and appropriateness of the figures and calculations provided in this report.

The costs to the Plan consist of both an explicit subsidy and an implicit subsidy. The implicit subsidy arises from the difference between the actual cost to insure NME retirees and the claims and expenses allocated to those NME retirees. The Plan Sponsor allocates the same monthly rate (i.e., PMPM claims and expenses, or premium equivalent) to covered NME retirees as it allocates to active employees, thus allocating retirees less than the true cost of their coverage. If the monthly rate structure were to be determined for NME retirees separately from actives, you would see a lower premium equivalent for actives than for NME retirees and the implicit subsidy disappear. Typically, this implicit subsidy only occurs for NME retirees as Medicare retirees are rated separately and thus no implicit subsidy is assumed. However, as we developed our pharmacy claim curves based on the blended NME and ME population and claim experience, Medicare retirees are also impacted by the implicit subsidy.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

Expected Retiree and Spouse costs for Calendar Year 2019:

Medical & Rx Claims

Average Claim and Expense Assumptions: For Calendar Year 2019													
Age	Group 0003 / 0004				Group 0007				Group 0008				
	Medical		Rx		Medical		Rx		Medical		Rx		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
40	\$2,973	\$5,393	\$1,177	\$1,460	\$2,804	\$5,087	\$1,109	\$1,376	\$2,601	\$4,719	\$1,011	\$1,254	
45	3,925	5,585	1,527	1,742	3,702	5,268	1,440	1,643	3,434	4,887	1,312	1,497	
50	5,143	6,428	1,941	2,060	4,851	6,063	1,830	1,942	4,500	5,624	1,668	1,770	
55	6,628	7,869	2,418	2,412	6,251	7,421	2,280	2,274	5,799	6,885	2,078	2,072	
60	8,377	9,265	2,959	2,799	7,901	8,738	2,790	2,639	7,330	8,107	2,542	2,405	
64	9,969	9,410	3,437	3,133	9,402	8,875	3,241	2,954	8,723	8,233	2,953	2,692	
65	1,257	1,152	3,217	2,881	1,257	1,152	3,033	3,033	1,257	1,152	2,764	2,476	
70	1,516	1,305	3,621	3,016	1,516	1,305	3,414	3,414	1,516	1,305	3,111	2,592	
75	1,848	1,557	3,531	2,962	1,848	1,557	3,329	3,329	1,848	1,557	3,034	2,545	
80	2,193	1,831	3,199	2,796	2,193	1,831	3,016	3,016	2,193	1,831	2,749	2,402	
85	2,505	2,074	2,815	2,582	2,505	2,074	2,654	2,654	2,505	2,074	2,419	2,219	

Average Claim and Expense Assumptions: For Calendar Year 2019									
Age	Group 0005				Group 0006				
	Medical		Rx		Medical		Rx		
	Male	Female	Male	Female	Male	Female	Male	Female	
40	\$2,723	\$4,941	\$1,110	\$1,377	\$2,977	\$5,402	\$1,207	\$1,498	
45	3,596	5,117	1,441	1,644	3,931	5,594	1,567	1,788	
50	4,712	5,889	1,831	1,944	5,151	6,438	1,992	2,114	
55	6,072	7,209	2,282	2,276	6,637	7,881	2,481	2,475	
60	7,675	8,488	2,792	2,641	8,390	9,279	3,036	2,872	
64	9,133	8,621	3,243	2,956	9,984	9,424	3,527	3,215	
65	1,257	1,152	3,036	2,719	1,257	1,152	3,301	2,957	
70	1,516	1,305	3,417	2,846	1,516	1,305	3,716	3,095	
75	1,848	1,557	3,332	2,795	1,848	1,557	3,623	3,040	
80	2,193	1,831	3,018	2,638	2,193	1,831	3,283	2,869	
85	2,505	2,074	2,656	2,437	2,505	2,074	2,889	2,650	

Stop Loss premium

The cost of Specific and Aggregate Stop Loss coverage for the Township provided for the CY 2019 is \$206.74 Per Employee Per Month (PEPM). We converted these rates to a PPPM using the average contract size of the retiree population as of 1/1/19. It is assumed that the Township pays Stop Loss premium on their entire membership, including ME retirees. The Stop Loss rates are not age adjusted

2019 Stop Loss Expenses: \$110.26 PPPM

Admin Claims

2019 Medical Administrative Expenses: \$40.15 PPPM
2019 Agent Administrative Expenses: \$7.17 PPPM



**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX A – MEMBER DATA, ASSUMPTIONS, AND METHODS

This report does not reflect future changes in benefits, penalties, taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010 related legislation and regulations.

Amortization Cost

The Actuarial Value of Assets is subtracted from the *Actuarial Liability* to determine the *Unfunded Actuarial Liability*.

The *Unfunded Actuarial Liability* is amortized as a level percent of pay amount over an open 30-year period. Because the amortization period is reset to 30 years with each valuation, the *Unfunded Actuarial Liability* is not expected to ever be paid off if contributions are made according to this schedule and all assumptions are met. In fact, the *Unfunded Actuarial Liability* is expected to grow as a dollar amount even as it is expected to become a smaller percentage of payroll. The payment for a given year is expressed as a percentage of projected active member payroll for that year. This percentage is the *Amortization Rate*.

The sum of the *Normal Cost Rate* and the *Amortization Rate* is the Township's *Contribution Rate*. The Township's actuarial cost for a given year is determined by multiplying the active payroll by the *Contribution Rate*.

Actuarial Value of Plan Assets

Pittsfield Charter Township contributes funds to a Retiree Health Funding Vehicle, a Section 115 Trust account with MERS of Michigan. As of December 31, 2018, the Market Value of Assets was \$9,326,532. The Actuarial Value of Assets is equal to the market value.

Changes Since The Last Valuation

- Expected claim costs for CY 2019 were updated to reflect the latest claim and premium information.
- Effective 1/1/2019, the plan started offering two additional plans BCBS Simply Blue HSA PPO Plan (Division 0007) and BCBS Community Blue PPO (Division 0008) through the BCBSM PPO plans

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Summary of Key Substantive Plan Provisions

Non-represented employees (excluding elected officials) and TPOAM

Eligibility: Retirement from Pittsfield Charter Township with 25 or more years of service having attained age 60.

Benefits: For employees hired before December 31, 2006 (December 31, 2007 for non-represented members), the Township will pay a portion of the cost of medical plan premiums for the retiree and spouse for life. The Township portion of premiums is 100% for employees with 10 or more years of service as of 12/31/2009 and 90% for all others. Benefits continue to the surviving spouse after the retiree's death.

For employees hired after December 31, 2006 (December 31, 2007 for non-represented members), the Township will pay a portion of the retiree-only medical plan premiums for life. The maximum amount payable by the Township is \$600 per month, and this amount is not indexed. No benefits are payable for spouse coverage or surviving spouse coverage.

Pension Plan Eligibility

Non-represented, TPOAM, and dispatch employees are eligible for unreduced benefits from the pension plan at age 60 and 10 years of service (eight years for elected officials) and reduced benefits at age 50 with 25 years of service or age 55 with 15 years of service.

Firefighters (IAFF)

Eligibility: Retirement from Pittsfield Charter Township with 25 or more years of service having attained age 55. (NOTE: Paid-On-Call years of service count towards 25 years of service)

Benefits: For employees hired before December 31, 2006, the Township will pay a portion of the cost of medical plan premiums for the retiree and spouse for life. The Township portion of premiums is 100% for employees with 10 or more years of service as of 12/31/2009 and 90% for all others. Benefits continue to the surviving spouse after the retiree's death.

For employees hired after December 31, 2006, the Township will pay a portion of the retiree-only medical plan premiums for life. The maximum amount payable by the Township is \$600 per month, and this amount is not indexed. No benefits are payable for spouse coverage or surviving spouse coverage.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Pension Plan Eligibility

Firefighters are eligible for unreduced benefits from the pension plan at age 60 with 10 years of service or age 55 with 15 years of service and reduced benefits at age 50 with 25 years of service.

Class I: Full-Time Elected Officials

Eligibility: Retirement from Pittsfield Charter Township with eight or more years of service with the Township having attained age 60.

Benefits: For Class I Full-Time Elected Officials elected before December 31, 2007, the Township will pay 90% of the applicable premium for both the eligible elected official and their spouse at the time of retirement (provided he/she remains the spouse). When the eligible retiree or his/her spouse at the time of retirement reaches age sixty-five (65) (or the Medicare eligibility age, if higher), the retiree, or spouse must apply for Medicare Coverage (Parts A and B) and pay the applicable premium. The retiree or spouse will then be enrolled in a Township provided supplemental health insurance plan and the Employer will pay the premium to provide said supplemental coverage for the eligible retiree and spouse at the time of retirement benefits continue to the surviving spouse after the retiree's death.

For Class I Full-Time Elected Officials elected after December 31, 2007, the Township shall only pay the cost of single subscriber coverage up to \$600 per month for the retiree. When the eligible retiree reaches age sixty-five (65) (or the Medicare eligibility age, if higher), the retiree must apply for Medicare Coverage (Parts A and B) and pay the applicable premium. The retiree will then be enrolled in a Township provided supplemental plan and the employer will pay up to \$600 per month towards the supplemental premium to provide said supplemental coverage for the eligible retiree. No benefits are payable for spouse coverage or surviving spouse coverage.

Pension Plan Eligibility

Elected officials are eligible for unreduced benefits from the pension plan at age 60 and eight years of service and reduced benefits at age 50 with 25 years of service or age 55 with 15 years of service.

Police Patrol (POAM)

Eligibility: Retirement from Pittsfield Charter Township with 25 or more years of service having attained age 50.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Benefits: Beginning at age 50, the Township will pay a portion of the cost of medical plan premiums for the retiree and his/her spouse for life. The Township portion of premiums is 100% for employees hired before January 1, 2007 and 50% for those hired after. Benefits continue to the surviving spouse after the retiree's death. *(Previously, retirees had to purchase coverage through the Township and pay the full amount of the premium between ages 50 and 55.)*

Pension Plan Eligibility

Police patrol members are eligible for unreduced benefits from the pension plan at age 60 with 10 years of service or age 50 with 25 years of service and reduced benefits at age 55 with 15 years of service.

Police Command

Eligibility: Retirement from Pittsfield Charter Township with 25 or more years of service having attained age 50.

Benefits: The Township will pay 100% of the cost of medical plan premiums for the retiree and his/her spouse for life. Benefits continue to the surviving spouse after the retiree's death. Retirees who then work for another township in the same capacity have their retiree medical coverage suspended. When the retiree is no longer working, he/she can resume medical coverage with Pittsfield.

Pension Plan Eligibility

Police command members are eligible for unreduced benefits from the pension plan at age 60 with 10 years of service or age 50 with 25 years of service and reduced benefits at age 55 with 15 years of service.

Medical Benefit Plans

Medical:

- Effective 1/1/2019, the Plan started offering two additional plans BCBS Simply Blue HSA PPO Plan (Division 0007) and BCBS Community Blue PPO (Division 0008) through the BCBSM PPO plans
- Beginning in 2016, the Plan has become self-funded using the BCBSM Network. All employees and retirees will use the BCBSM PPO and maintain their benefits as of January 1, 2016. Members who are retired as of 12/31/2014 remain with their current benefit structure; retiree medical benefits for members who retired after 12/31/2014 mirror the active medical and pharmacy plan design.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Group Eligibility	Division 0003 (Actives) Division 0004 (New Retirees)	Division 0008 (Actives)	Division 0007 (Actives)	Division 0005 (Retirees) Closed Plan	Division 0006 (Retirees) Closed Plan
Date	1/1/2017	1/1/2019	1/1/2019	1/1/2017	1/1/2017
Plan:	BCBS Community Blue PPO	BCBS Community Blue PPO	BCBS Simply Blue HSA PPO Plan	BCBS PPO (match BCN)	BCBS PPO
In-Network (INN) Benefits					
Deductible (Individual / Family)	\$500 / \$1,000	\$1000 / \$2,000	\$1,350 / \$2,700	\$0	\$0
Coinsurance	10% (upto \$250/\$500)	20% (upto \$2,500/\$5,000)	0%	0%	0%
Out-of-Pocket Max (Individ/ Family)	\$750 / \$1,500	\$6,350/ \$12,700	\$2,250 / \$4,500	\$6,350/ \$12,700	\$600 / \$1,200
Copays					
Office Visit (OV)-Primary Care (PCP)	\$20	\$30	DC	\$10	\$15
OV - Specialist Care Provider (SCP)	\$20	\$30	DC	\$10	\$15
Hospital Emergency Room (ER)	\$250	\$150	DC	\$50	\$50
Outpatient Surgery	DC	DC	DC	DC	DC
Hospital Inpatient	DC	DC	DC	DC	DC
Lifetime Max	unlimited	unlimited	unlimited	unlimited	unlimited
Out-of-Network (OON) Benefits					
Deductible (Individual / Family)	\$1,000 / \$2,000	\$2,000 / \$4,000	\$2,700 / \$5,400	\$250 / \$500	\$250 / \$500
Coinsurance	30%	40% (upto \$3,000/\$6,000)	20%	20%	20%
Office Visits (PCP) & (SCP)	DC	DC	DC	DC	DC
Out-of-Pocket Max (Individ / Family)	\$1,500 / \$3,000	\$12,700 / \$25,400	\$4,500 / \$9,000	\$12,700/ \$25,400	\$2,250 / \$4,500
Lifetime Max	unlimited	unlimited	unlimited	unlimited	unlimited
Prescription Drugs					
Retail - Generic/Formulary /Non-Form./ Preferred Specialty Copay	\$10 / \$40 / \$80	\$10 / \$40 / \$80 / 15% (\$150 max)	\$10 / \$40 / \$80	\$10 / \$40 / \$40	\$10 / \$20 / \$20
Retail Days	30 days	30 days	30 days	30 days	30 days
Mail Order (90 Days) - Generic/Form. /Non-Form./Non-Preferred Specialty Copay	\$20 / \$80 / \$160	\$20 / \$80 / \$160 / 25% (\$300 max)	\$20 / \$80 / \$160	\$20 / \$80 / \$80	\$20 / \$40 / \$40
Contraceptives	Covered	Covered	Covered	Covered	Covered
Non-Network Pharmacy	25% Coinsurance after Copay	25% Coinsurance after Copay	25% Coinsurance after Copay	25% Coinsurance after Copay	25% Coinsurance after Copay
Mental Health and Substance Abuse					
Mental Health Inpatient	DC (authorization required)	DC	DC	DC	DC
Mental Health Outpatient	10% (authorization required)	DC	DC	DC	DC
Substance Abuse Inpatient	DC (authorization required)	DC	DC	DC	DC
Substance Abuse Outpatient	10% (authorization required)	DC	DC	DC	DC
Detail Benefits					
Preventive Care	\$0	\$0	\$0	\$0	\$0
Diagnostic Services	DC	DC	DC	DC	DC
Urgent Care	\$20	\$30	DC	\$10	\$15
Chiropractic Benefit	\$20 (Annual Limit 24 Visits)	\$30 (Annual Limit 24 Visits)	DC (Annual Limit 12 Visits)	\$10	DC, Annual Limit 24 visits
Allergy	\$0	\$0	DC	DC	DC
Nursing Services	DC up to 120 Days	DC up to 120 Days	DC up to 120 Days	DC up to 120 Days	DC up to 120 Days
Hearing	Not covered	Not covered	Not covered	Not covered	Not covered
DME	DC	DC	DC	DC	DC
Vision Care Services	Not Covered	Not Covered	Not Covered	Not Covered	Not Covered
Dental Benefits	No Retiree Coverage	No Retiree Coverage	No Retiree Coverage	No Retiree Coverage	No Retiree Coverage

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX B – SUBSTANTIVE PLAN PROVISIONS

Changes Since The Last Valuation

- Effective 1/1/2019, the plan started offering two additional plans BCBS Simply Blue HSA PPO Plan (Division 0007) and BCBS Community Blue PPO (Division 0008) through the BCBSM PPO plans
- We have reflected the following additional changes from the new Collective Bargaining agreements and extensions:
 - Reflection of paid on-call service for Firefighter eligibility
 - Removal of requirement that Police Patrol (POAM) retirees pay the full premium between ages 50 and 55

Vendors

General and Claims Administrator:	BCBSM
Medical Provider Network:	BCBSM
Pharmacy Benefit Manager:	BCBSM
Actuary (for Retiree calculations):	Cheiron Inc.
Auditor:	Rehmann Robson

APPENDIX C – GLOSSARY OF TERMS

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, and retirement; changes in compensation; rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and, other relevant items.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. Actuarial Gain / (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.),
- b. multiplied by the probability of the occurrence of the event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.

As a simple example: assume you owe \$100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you won't be obligated to pay him. If the assumed investment return is 10%, the Actuarial Present Value is:

$$\begin{array}{rclcl}
 \text{Amount} & & \text{Probability} & \frac{1}{(1+\text{Discount Rate})} & \\
 \$100 & \times & \text{of Payment} & & \\
 & & (1 - 0.01) & 1/(1+0.1) & = \$90
 \end{array}$$

6. Actuarial Valuation

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

APPENDIX C – GLOSSARY OF TERMS

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values. This way, long-term costs are not distorted by short-term fluctuations in the market.

8. Amortization Payment

The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

9. Discount Rate

The assumed interest rate used for converting projecting dollar related values to a present value as of the valuation date.

10. Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the projected benefits of each individual included in an actuarial valuation is allocated as a level percentage of pay from the individual's date of entry into the Plan to the individual's assumed cessation of employment.

11. Funded Percentage

The ratio of the Actuarial Value of Assets to the Actuarial Liability.

12. Medical Trend

The assumed increase in dollar related values in the future due to the increase in the cost of health care.

13. Mortality Table

A set of percentages which estimate the probability of death at a particular point in time, typically the rates are annual and based on age and sex.

14. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses which is allocated to a valuation year by the actuarial cost method.

15. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

**PITTSFIELD CHARTER TOWNSHIP OTHER POSTEMPLOYMENT BENEFITS
ACTUARIAL VALUATION AS OF JANUARY 1, 2019**

APPENDIX D – LIST OF ABBREVIATIONS

Actuarial Liability (AL)
Actuarially Determined Contribution (ADC)
Actuarial Valuation Report (AVR)
Blue Cross Blue Shield (BCBS)
Blue Cross Blue Shield of Michigan (BCBSM)
Blue Care Network (BCN)
Coordination of Benefits (COB)
Deductible and Coinsurance (DC)
Deferred Retirement Option Plan (DROP)
Durable Medical Equipment (DME)
Employee Assistance Program (EAP)
Employee Benefits Division (EBD)
Fiscal Year Ending (FYE)
Governmental Accounting Standards Board (GASB)
Hospital Emergency Room (ER)
In-Network (INN)
Inpatient (IP)
Medicare Eligible (ME)
Net Other Postemployment Benefit (NOO)
Non-Medicare Eligible (NME)
Not Applicable (NA)
Office Visit (OV)
Other Postemployment Benefit (OPEB)
Out-of-Network (OON)
Out-of-Pocket (OOP)
Outpatient (OP)
Pay-as-you-go (PAYGo)
Per Person Per Month (PPPM)
Pharmacy (Rx)
Preferred Provider Organization (PPO)
Primary Care Physician (PCP)
Specialist Care Provider (SCP)
Summary Plan Description (SPD)
Unfunded Actuarial Liability (UAL)
Urgent Care (UC)



Classic Values, Innovative Advice