

Actuarial Valuation for Other Postemployment Benefits Accounting

As of January 1, 2017

Fairview Township Postemployment Benefits Plan

For purposes of

Governmental Accounting Standards Board Statement No. 75

for Fiscal Year January 1, 2018 to December 31, 2018

Fairview Township Postemployment Benefits Plan
Actuarial Valuation as of January 1, 2017 for Fiscal Year Ending December 31, 2018
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Disclosure Statement

Purpose

Actuarial computations under Governmental Accounting Standards Board Statement No. 75 (GASB No. 75) are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been performed in accordance with generally accepted actuarial principles and practices, and on a basis consistent with our understanding of GASB No. 75. In preparing this report, we have relied upon information furnished to us by Fairview Township. This information includes data pertaining to the Plan, as well as a description of the substantive plan. The information has been reviewed and determined to be reasonable and consistent; however, we have not audited the data or reviewed plan provisions for compliance with IRS or DOL regulations.

Determinations for purposes other than meeting the employer financial accounting requirements may be significantly different from the results reported herein. The funded status, measured by comparing the Accrued Liability against the Actuarial Value of Plan Assets, is not an appropriate measure for assessing the sufficiency of the plan assets to cover the estimated cost of settling the plan's benefit obligations upon plan termination nor is it appropriate for measuring the need for, or the amount of, future contributions. Accordingly, additional determinations are needed for other purposes, such as judging benefit security at termination or adequacy of funding for an ongoing plan. The actuarial calculations contained in this report are not intended or written to be used, and cannot be used, for the purposes of avoiding penalties under the Internal Revenue Code.

This valuation involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Calculations are based on the types of benefits provided under the terms of the substantive plan at the time of the valuation and on the pattern of sharing of costs between the employer and plan members to that point. Calculations reflect a long-term perspective, so methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Benefits Not Included

Defined contribution benefits and insured benefits under GASB No. 75 paragraph 11, pension benefits accounted for under GASB 68, and benefits for compensated absences under GASB 16 are not included in this valuation.

Multiple Year Reporting

Pursuant to GASB No. 75, an actuarial valuation can be used over a two-year period. The figures in this report are reflected as of the measurement date for the specified fiscal year and are based on an actuarial valuation date or rolled forward from an actuarial valuation date. Some figures have been determined based on estimated contributions for the period. These figures may need to be adjusted for actual contributions deposited to the trust or claims paid on behalf of plan benefits.

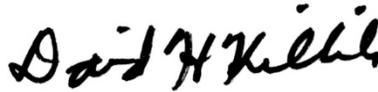
A new valuation should be performed if, between the actuarial valuation date and measurement date, material changes have occurred that affect the results of this valuation, including significant changes in benefit provisions, the size or composition of the population covered by the plan, or other changes that impact long-term assumptions. If roll forward procedures have been used, this report reflects any necessary adjustments to the interest rate as of the measurement date.

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Valuation For Funded Plans

The interest rate used for this valuation reflects future contributions as allowed under GASB No. 75. If there are any changes to the formal, written funding policy or changes in the statute or contract which determines the contribution amount, a new valuation that reflects the appropriate interest rate may need to be completed.

I am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this valuation.



David H. Killick, FSA, EA, MAAA
Partner & Consulting Actuary

May 24, 2019
Date

DHK/NRS

Fairview Township Postemployment Benefits Plan
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Summary of Plan Provisions

Eligibility for Benefits

Police Officers are eligible for postemployment benefits upon retirement after attainment of age 50 and completion of 25 years of service or due to a service related disability.

Non-Uniformed employees hired prior to August 29, 2011, are eligible for postemployment benefits upon retirement after attainment of age 65 and completion of 12 years of service or after attainment of age 60 and completion of 25 years of service, if earlier. Non-Uniformed employees hired on or after August 29, 2011, are not eligible for postemployment benefits.

The Township Manager is eligible to receive postemployment benefits upon retirement after attainment of age 60 and completion of 12 years of service.

Medical Benefits Payable upon Retirement

Eligible retirees may continue medical, prescription drug, and dental insurance for the retiree and his or her spouse. Coverage continues for a period of 8 years.

For Police Officers hired in 2012 or later, the member shall be required to contribute 40% of medical insurance premiums. Additionally, all coverage shall cease upon the member's attainment of Medicare age.

For all other eligible members, the member is not required to contribute for coverage. If the member and/or spouse attains Medicare age before the Township paid benefits cease, the member and/or spouse must move to the Senior Plan provided.

For all eligible members, if the Township's subsidized benefits cease before the member attains Medicare age, the member may elect to continue coverage by paying the full premiums until attainment of Medicare age. If the spouse has not attained Medicare age, the spouse may also elect to continue coverage until the earlier of the spouse's attainment of Medicare age or the member's attainment of Medicare age.

Dependents

Only spouses who are legally married to the retiree at the time of retirement are covered.

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Actuarial Assumptions and Methods (1 of 2)

Discount Rate

4.46%¹

Salary

An assumption for salary increases is used only for spreading contributions over future pay under the entry age normal cost method. For this purpose, annual salary increases are assumed to be 5.0%.

Withdrawal

Table D-1: Rates of withdrawal at selected ages:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	5.5000%	35	2.5000%	50	0.0000%
25	5.0000%	40	1.0000%	55	0.0000%
30	4.0000%	45	0.5000%	60	0.0000%

Mortality

IRS 2017 Small Plan Combined Static Mortality Table

Incorporated into the table are rates for annuitants projected 7 years and rates for non-annuitants projected 15 years using Scale AA to reflect mortality improvement.

Disability

SOA 1987 Group LTD Table

Retirement

Police Officers are assumed to elect the DROP benefit under the Fairview Township Police Pension Plan for 24 months upon the later of attainment of age 50 and completion of 25 years of service. Non-Uniformed employees are assumed to retire upon the attainment of age 65 or, if earlier, elect the DROP benefit under the Fairview Township Non-Uniformed Employees' Pension Plan for 24 months upon the later of attainment of age 60 and completion of 25 years of service.

Percent of Eligible Retirees Electing Coverage in Plan

80% of employees are assumed to elect coverage. 80% of Vested Former Participants eligible to return to coverage are assumed to elect coverage at age 60.

Percent Married at Retirement

75% of employees are assumed to be married and have a spouse covered by the plan at retirement.

Spouse Age

Wives are assumed to be the same age as their husbands.

¹The discount rate is determined following the procedures of Illustration B2 in the GASB 74 implementation guide. The long-term expected rate of return on OPEB plan investments is 4.50% and the municipal bond rate is 3.64% based on the S&P Municipal Bond 20 Year High Grade Rate Index as of December 31, 2018.

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Actuarial Assumptions and Methods (2 of 2)

Per Capita Claims Cost

The per capita claims cost for medical and prescription drug is based on the expected portion of the group's overall cost attributed to individuals in the specified age and gender brackets. Dental costs are assumed to not vary with age or gender. The resulting costs are as follows:

Medical and Prescription Drug Combined					
Age	Males	Females	Age	Males	Females
<25	\$2,967	\$6,679	45-49	\$7,678	\$11,089
25-29	\$3,570	\$8,908	50-54	\$10,169	\$12,533
30-34	\$4,038	\$9,035	55-59	\$12,386	\$13,114
35-39	\$4,894	\$9,384	60-64	\$16,163	\$15,065
40-44	\$5,981	\$10,106	65+	\$5,098	\$5,098

Dental costs are assumed to be equal to the premium, \$313 for single coverage and \$984 for coverage other than single coverage.

Retiree Contributions

Retiree contributions are assumed to increase at the same rate as the Health Care Cost Trend Rate.

Health Care Cost Trend Rate

6.0% in 2017 and 2018, and 5.5% in 2019 through 2021. Rates gradually decrease from 5.4% in 2022 to 3.8% in 2075 and later based on the Society of Actuaries Long-Run Medical Cost Trend Model.

Actuarial Value of Assets

Equal to the Market Value of Assets

Actuarial Cost Method - Entry Age Normal

Under the Entry Age Normal Cost Method, the Normal Cost is the present value of benefits allocated to the year following the valuation date. Benefits are allocated on a level basis over the earnings of an individual between the date of hire and the assumed retirement age. The Accrued Liability as of the valuation date is the excess of the present value of future benefits over the present value of future Normal Cost. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets. Actuarial gains and losses serve to reduce or increase the Unfunded Accrued Liability.

Participant Data

Based on census information as of January 1, 2017.

Additional Background Information

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Fixed Income	100.00%	1.00% - 3.00%

Inflation is assumed to be 3.00%.

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as of January 1, 2017
for Purposes of Other Postemployment Benefits Plan Accounting
for Fiscal Year January 1, 2018 to
December 31, 2018

Section 1

Asset Information

Fairview Township Postemployment Benefits Plan
 Actuarial Valuation as of January 1, 2017 for Fiscal Year Ending December 31, 2018
Plan Fiduciary Net Position

Receipts and Disbursements

Market Value at December 31, 2017 \$ 1,844,354.55

Receipts

Contributions - Employer \$ 401,407.57

Contributions - Employee 0.00

Net Investment Income 29,061.59

Total Receipts 430,469.16

Disbursements

Benefit Payments \$ (88,282.00)

Administrative Expenses (5,982.36)

Total Disbursements (94,264.36)

Market Value at December 31, 2018 \$ 2,180,559.35

Assets and Liabilities

Assets

Cash and Cash Equivalents 1,024,538.31

Fixed Income 1,139,262.32

Corporate Bonds 0.00

Municipal Bonds 0.00

Master Trust 0.00

Mutual Funds 0.00

Total Assets in Fund \$ 2,163,800.63

Benefits Receivable 0.00

Accrued Income 16,758.72

Total Assets \$ 2,180,559.35

Liabilities

Benefits Payable \$ 0.00

Administrative Expenses Payable 0.00

Total Liabilities 0.00

Market Value at December 31, 2018 \$ 2,180,559.35

Fairview Township Postemployment Benefits Plan
Actuarial Valuation
as of January 1, 2017
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for Fiscal Year January 1, 2018 to
December 31, 2018

Section 2

Calculations for GASB No. 75 Reporting

Fairview Township Postemployment Benefits Plan
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GASB No. 75 Summary Information

Demographic Information	Non-Uniformed Employees	Police	Total
Active Participants	13	15	28
Vested Former Participants	1	0	1
Retired Participants	4	1	5
Total	18	16	34

Annual Payroll of Active Participants	\$805,078	\$1,239,262	\$2,044,340
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Financial Information

Total OPEB Liability	\$ 1,015,176	\$ 1,367,413	\$ 2,382,589
Plan Fiduciary Net Position	1,103,244	1,077,315	2,180,559
Net OPEB Liability (Asset)	\$ (88,068)	\$ 290,098	\$ 202,030
Deferred Outflows of Resources	\$ 26,955	\$ 21,723	\$ 48,678
Deferred Inflows of Resources	\$ 6,331	\$ 11,956	\$ 18,287

Plan Fiduciary Net Position as a % of Total OPEB Liability	108.68%	78.78%	91.52%
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Net OPEB Liability as a % of Covered-Employee Payroll	-10.94%	23.41%	9.88%
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OPEB Expense	\$ 46,005	\$ 102,652	\$ 148,657
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Fairview Township Postemployment Benefits Plan
 Actuarial Valuation as of January 1, 2017 for Fiscal Year Ending December 31, 2018
Changes in the Net OPEB Liability

Total OPEB Liability	Non-Uniformed Employees	Police	Total
Fiscal Year Ending 12/31/2018			
Balance at 12/31/2017	\$ 986,001	\$ 1,282,744	\$ 2,268,745
Service Cost	40,268	77,662	117,930
Interest ²	44,594	59,718	104,312
Changes of Benefit Terms	0	0	0
Differences between Expected and Actual Experience ¹	0	0	0
Changes of Assumptions ¹	(6,964)	(13,152)	(20,116)
Benefit Payments ²	(48,723)	(39,559)	(88,282)
Other Changes	0	0	0
Net Changes	29,175	84,669	113,844
Balance at 12/31/2018	\$ 1,015,176	\$ 1,367,413	\$ 2,382,589

Plan Fiduciary Net Position

Fiscal Year Ending 12/31/2018

Balance at 12/31/2017	\$ 1,049,149	\$ 795,206	\$ 1,844,355
Contributions - Employer	91,549	309,859	401,408
Contributions - Employee	0	0	0
Net Investment Income	14,412	14,648	29,060
Benefit Payments ²	(48,723)	(39,559)	(88,282)
Administrative Expense	(3,143)	(2,839)	(5,982)
Net Changes	54,095	282,109	336,204
Balance at 12/31/2018	\$ 1,103,244	\$ 1,077,315	\$ 2,180,559

Net OPEB Liability (Asset)

Balance at 12/31/2018	\$ (88,068)	\$ 290,098	\$ 202,030
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Changes of Assumptions

The discount rate changed from 4.50% to 4.46%. The trend assumption was updated.

Changes of Benefit Terms

¹Each year's loss (or gain) is recognized over a closed period, using the average of the expected remaining service lives of all active and inactive employees that are currently receiving a benefit or may be eligible to receive a benefit in the future.

²These figures are based on estimated benefit payments. These amounts may be adjusted for actual benefit payments made during the year.

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Deferred Outflows/Inflows and Sensitivity

Deferred Outflows of Resources	Non-Uniformed Employees	Police	Total
Differences between Expected and Actual Experience	\$ 0	\$ 0	\$ 0
Changes of Assumptions	0	0	0
Net Difference between Projected and Actual Earnings	26,955	21,723	48,678
Total Deferred Outflows	\$ 26,955	\$ 21,723	\$ 48,678

Deferred Inflows of Resources	Non-Uniformed Employees	Police	Total
Differences between Expected and Actual Experience	\$ 0	\$ 0	\$ 0
Changes of Assumptions	6,331	11,956	18,287
Net Difference between Projected and Actual Earnings	0	0	0
Total Deferred Inflows	\$ 6,331	\$ 11,956	\$ 18,287

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the Plan, as well as what the Plan's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

Net OPEB Liability (Asset)

1% Increase (5.46%)	\$ (150,067)	\$ 185,951	\$ 35,884
Current Discount Rate (4.46%)	\$ (88,068)	\$ 290,098	\$ 202,030
1% Decrease (3.46%)	\$ (22,652)	\$ 402,730	\$ 380,078

Sensitivity of Net OPEB Liability to Changes in the Healthcare Cost Trend Rate

The following presents the net OPEB liability of the Plan, as well as what the Plan's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

Net OPEB Liability (Asset)

1% Increase	\$ 39,570	\$ 489,222	\$ 528,792
Current Rates	\$ (88,068)	\$ 290,098	\$ 202,030
1% Decrease	\$ (197,803)	\$ 119,504	\$ (78,299)

¹These figures are based on estimated benefit payments. These amounts may be adjusted for actual benefit payments made.

Fairview Township Postemployment Benefits Plan
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OPEB Expense and Future Recognition of Deferred Outflows and (Inflows)

OPEB Expense

	Non-Uniformed Employees	Police	Total
Fiscal Year Ending 12/31/2018			
Service Cost	\$ 40,268	\$ 77,662	\$ 117,930
Interest on Total OPEB Liability	44,594	59,718	104,312
Changes of Benefit Terms	0	0	0
Expected Investment Income	(48,105)	(41,802)	(89,907)
Contributions - Employee	0	0	0
Amortization of Deferred Outflows	6,738	5,431	12,169
Amortization of Deferred Inflows	(633)	(1,196)	(1,829)
Administrative Expense	3,143	2,839	5,982
Other Changes	0	0	0
Total OPEB Expense	\$ 46,005	\$ 102,652	\$ 148,657

Future Deferred Outflows and (Inflows) to be Recognized as OPEB Expense (Income)

Fiscal Year Ending			
December 31, 2019	\$ 6,105	\$ 4,235	\$ 10,340
December 31, 2020	6,105	4,235	10,340
December 31, 2021	6,105	4,235	10,340
December 31, 2022	6,108	4,234	10,342
December 31, 2023	(633)	(1,196)	(1,829)
Thereafter	(3,166)	(5,976)	(9,142)

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Deferred Outflows and Inflows of Resources Bases

Deferred Outflows of Resources

Date	Initial Balance	Annual Recognition	Remaining Balance	Remaining Recognition Period	Type
December 31, 2018	60,847	12,169	48,678	4 years	Asset Loss
Total		12,169	48,678		

Deferred Inflows of Resources

Date	Initial Balance	Annual Recognition	Remaining Balance	Remaining Recognition Period	Type
December 31, 2018	20,116	1,829	18,287	10 years	Assumption Change
Total		1,829	18,287		

Fairview Township Postemployment Benefits Plan
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Required Supplementary Information

Fiscal Year Ending ¹	2018
Total OPEB Liability	
Service Cost	\$ 117,930
Interest	104,312
Changes of Benefit Terms	0
Differences between Expected and Actual Experience	0
Changes of Assumptions	(20,116)
Benefit Payments	(88,282)
Other Changes	0
Net Change	113,844
Total OPEB Liability - Beginning	2,268,745
Total OPEB Liability - Ending	\$ 2,382,589
Plan Fiduciary Net Position	
Contributions - Employer	\$ 401,408
Contributions - Employee	0
Net Investment Income	29,060
Benefit Payments	(88,282)
Administrative Expense	(5,982)
Net change	336,204
Plan Fiduciary Net Position - Beginning	1,844,355
Plan Fiduciary Net Position - Ending	\$ 2,180,559
Net OPEB Liability (Asset)	\$ 202,030
Plan Fiduciary Net Position as a % of Total OPEB Liability	91.52%
Covered-Employee Payroll	\$ 2,044,340
Net OPEB Liability as a % of Covered-Employee Payroll	9.88%

¹This information is shown for the last 10 years, if available.