

Fairview Township Police Pension Plan  
Actuarial Valuation  
as of January 1, 2014

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Table of Contents**

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Comments

Actuarial Certification

Summary of Principal Plan Benefit Provisions (SPPB)

Actuarial Assumptions and Methods

Section 1 - Summary of Plan Assets and Summary of Plan Membership

Section 2 - Act 205 Funding Calculations

Section 3 - Supplemental Information for GASB Reporting

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Comments**

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The purpose of the valuation report is to determine the actuarial status of the Plan. It will not serve as the basis for satisfying any reporting requirements under Act 205.

The Summary of Principal Plan Benefit Provisions page provides a summary of the basic plan benefit provisions in effect as of January 1, 2014. Effective January 1, 2014, members contribute 4.0% of compensation to the Plan to asset in the funding of the plan benefits.

The Actuarial Assumptions and Methods page is a summary of actuarial assumptions and methods used in determining the actuarial status of the Plan.

Section 1 of the report provides a summary of plan assets and summary of plan membership.

The market value of the fund as of December 31, 2013, is \$8,608,240. The net dollar-weighted rate of investment return during 2013 was 16.51%.

As of January 1, 2014, there are 12 active members with total annual payroll of \$1,043,932. There are also 9 retired members currently receiving benefits under the Plan totaling \$290,959 annually, 1 spouse beneficiary of a deceased member currently receiving benefits under the Plan totaling \$14,577 annually and 2 vested former members entitled to deferred benefits under the Plan totaling \$44,118 annually.

Section 2 of the report provides the Act 205 funding calculations.

As of January 1, 2014, plan assets exceed the actuarial accrued liability under the Plan of \$616,506. The normal cost of the Plan, which is the cost of benefits being accrued during the current year, is \$212,994, which is 20.4% of annual payroll.

Page 2 of Section 2 shows the analysis of the change in the unfunded actuarial accrued liability from January 1, 2013, to January 1, 2014. There was an actuarial gain during the period of \$669,487.

Page 3 of Section 2 illustrates the minimum municipal obligation for the Plan. The financial requirement of the Plan is \$258,534. This includes the normal cost, \$212,994, plus assumed annual administrative expenses, \$45,540. The financial requirement is reduced by expected member contributions to the Plan during 2014, \$41,757, and 10% of the excessive of plan assets over the actuarial accrued liability, \$61,651. This results in a minimum municipal obligation of \$155,126. If the Township allocates \$108,762 of general municipal pension system State aid received during 2014 to the Plan, there is a net minimum municipal obligation of \$46,364. This calculation of the minimum municipal obligation is for illustrative purposes only since the calculation of the minimum municipal obligation for purposes of determining the Township's required contribution to the Plan is prepared through the budgeting process by September 30 each year for the upcoming calendar year.

Section 3 of the report provides supplemental information for reporting under Governmental Accounting Standards Board Statement Nos. 67 and 68.

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Certification**

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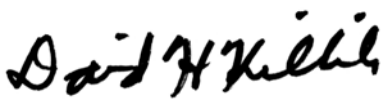
In preparing this report, we have relied upon the data furnished to us. The data with respect to receipts and disbursements and assets of the Plan was furnished by BNY Mellon, N.A. The data with respect to participants and beneficiaries was furnished by Fairview Township. The data has been reviewed and has been determined to be reasonable and consistent.

The information as contained in this report is a projection of liabilities based upon stated assumptions and is not an exact statement of the Plan's ultimate benefits and liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as at the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, an analysis of the potential range of such future measurements was not performed.

I certify that all costs, liabilities, rates of interest, and other factors under the Plan in Section 2 of the report have been determined on the basis of actuarial assumptions and methods, each of which is reasonable (taking into account the experience of the Plan and reasonable expectations) or which, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption and method were reasonable, and which, in combination, offer my best estimate of anticipated experience under the Plan.

I am a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and an Enrolled Actuary under ERISA, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

April 23, 2014  
Date

  
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David H. Killick, F.S.A.  
Consulting Actuary  
Enrolled Actuary No. 14-03880

DHK/GGC

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Summary of Principal Plan Benefit Provisions**

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**Eligibility**

All full-time members of the police force join the Plan upon employment.

**Normal Retirement**

A member is eligible for normal retirement after attainment of age 50 and completion of 25 years of vesting service.

The normal retirement pension is payable monthly during the member's lifetime, with payments continuing after the member's death to the surviving spouse, or eligible child, equal to 50% of the amount payable to the member at the time of the member's death.

The amount of monthly pension is equal to 50% of average monthly compensation, plus a service increment of \$100 per month for each completed year of benefit service in excess of 25 years, up to a maximum of \$300 additional per month.

Average monthly compensation is based upon the last 36 months of employment.

**Late Retirement**

If a member continues working after his normal retirement date, his pension does not start until he actually retires. The monthly late retirement pension is equal to the benefit accrued to the late retirement date.

**Early Retirement**

A member is eligible for early retirement after completion of 20 years of vesting service. The monthly early retirement pension is equal to the actuarial equivalent of the benefit accrued at the early retirement date.

**Disability Retirement**

If an active member is disabled in the line of duty, he is eligible for a disability pension. The monthly disability pension is equal to 75% of the member's monthly salary at the time the disability was incurred.

**Deferred Retirement Option Program**

An active member who has met the eligibility requirements for normal retirement may elect to participate in the deferred retirement option program for a period of not less than three months nor more than 24 months. His monthly pension shall be calculated as of his date of participation in the deferred retirement option program and shall be accumulated with interest earned on the DROP account and distributed in a lump sum at retirement.

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Summary of Principal Plan Benefit Provisions**

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**Postretirement Cost-of-Living Increase**

An annual cost-of-living increase equal to the percentage increase in the "Wage Earner Index" in the Consumer Price Index during the preceding calendar year is made to retirees, with a maximum total cost-of-living increase of 30%, and a maximum pension benefit of 75% of the compensation used for computing retirement benefits.

**Death Benefits**

If a member is eligible for retirement at the time of death, a monthly death benefit is payable to his surviving spouse, or eligible child, equal to 50% of the monthly benefit the member would have been receiving had he been retired at the time of death.

**Vesting**

A member's benefits vest upon completion of 12 years of vesting service. The vested benefit is a deferred monthly pension beginning at normal retirement equal to the benefit accrued to the date of termination.

**Accrued Pension**

The benefit accrued at any date other than the normal retirement date is equal to the projected normal retirement benefit multiplied by the ratio of the number of years of benefit service to date to the total number of years of benefit service projected at normal retirement.

**Contributions**

Effective January 1, 2014, members contribute 4.0% of compensation.

Member contributions are credited with 4.0% annual interest.

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Assumptions and Methods**

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**Interest**

7.00%

**Salary**

5.00% Annual Increase

**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**

RP2000 Table

(This table does not include projected mortality improvements.)

**Disability**

SOA 1987 Group LTD Table - Males, 3-month elimination. Sample rates are shown below.

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	0.1444%	35	0.2123%	50	0.7536%
25	0.1534%	40	0.2931%	55	1.2612%
30	0.1708%	45	0.4561%	60	1.8818%

100% of disabilities are assumed to be service-related.

**Retirement**

It is assumed that all members enter the Deferred Retirement Option Program (DROP) upon meeting the eligibility requirements for normal retirement. It is also assumed that participation in the DROP continues for 24 months.

**Preretirement Death Benefit**

Liabilities computed on the assumption that all participants will have spouses of the same age at the date of eligibility for the benefit.

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Assumptions and Methods**

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**Expenses**

Provision for administrative expenses added to normal cost.

**Inflation**

Moderate inflation based on long term historical average rates is a component of the actuarial assumptions used herein. Provision is not made for advance funding of sharply higher rates of inflation experienced in some years. The effects of such higher rates are reflected in the funding after their occurrence.

**Cost-of-Living Increase**

3.00% per year

**Actuarial Value of Assets**

Market Value as determined by the trustee.

**Actuarial Cost Method**

Entry Age Normal



Fairview Township Police Pension Plan  
Actuarial Valuation  
as of January 1, 2014

Section 1

Summary of Plan Assets and Summary of Plan Membership

Fairview Township Police Pension Plan  
 Actuarial Valuation as of January 1, 2014  
**Receipts and Disbursements**

Market Value at 1/1/2013		\$ 7,387,668.56
<b>Receipts</b>		
Employer Contributions Received	\$ 204,863.96	
Employee Contributions Received	33,535.09	
State Contributions Received	108,762.04	
Investment Income		
Income Received	\$ 39.42	
Accrued Income at 1/1/2013	(1.36)	
Accrued Income at 12/31/2013	2.39	
Total Investment Income	40.45	
Change in Market Value	1,239,337.90	
Total Receipts		1,586,539.44
<b>Disbursements</b>		
Monthly Benefit Payments	\$ (303,092.88)	
Refund of Employee Contributions	(17,335.20)	
Administrative Expenses	(45,540.07)	
Total Disbursements		(365,968.15)
Market Value at 12/31/2013		\$ 8,608,239.85
Approximate Net Dollar-Weighted Rate of Investment Return		16.51%

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Assets and Liabilities**

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**Assets**

Cash	\$	0.00	
Common Trust Funds		<u>8,608,237.46</u>	
Total Assets in Fund			\$ 8,608,237.46
Accrued Income			<u>2.39</u>
Total Assets			\$ 8,608,239.85

**Liabilities**

Total Liabilities			<u>0.00</u>
Net Assets			<u><u>\$ 8,608,239.85</u></u>

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Summary of Plan Membership**

<b>Active Members</b>	Number of Members	Annual Payroll
Active Members as of 1/1/2013	14	
New Members During the Period	0	
Returned to Active	0	
Members No Longer Active:		
Retired with Disability Benefit	0	
Retired with Service Retirement Benefit	0	
Elected DROP Benefit	0	
Separated with Deferred Benefit	0	
Separated with Refund of Contributions	(2)	
Separated with Neither Deferred Benefit nor Refund of Contributions	0	
Deceased	0	
Total	(2)	
Active Members as of 1/1/2014	12	\$ 1,043,932
<b>Vested Former Members</b>	Number of Members	Annual Benefit
Vested Former Members as of 1/1/2013	2	
Separated with Deferred Benefit	0	
Beneficiary of Deceased Participant	0	
Returned to Active	0	
Retired with Service Retirement Benefit	0	
Deceased or Paid in Full	0	
Vested Former Members as of 1/1/2014	2	\$ 44,118
<b>Retired Members</b>		
Retired Members as of 1/1/2013	9	
Retired with Service Retirement Benefit	0	
Retired from DROP Benefit	0	
Deceased or Paid in Full	0	
Retired Members as of 1/1/2014	9	\$ 290,959
<b>Spouse Beneficiaries of Deceased Members</b>		
Spouse Beneficiaries of Deceased Members as of 1/1/2013	1	
Additional Spouse Beneficiaries of Deceased Members	0	
Deceased	0	
Spouse Beneficiaries of Deceased Members as of 1/1/2014	1	\$ 14,577

Fairview Township Police Pension Plan  
Actuarial Valuation  
as of January 1, 2014

Section 2

Act 205 Funding Calculations

Fairview Township Police Pension Plan  
 Actuarial Valuation as of January 1, 2014  
**Unfunded Actuarial Accrued Liability and Normal Cost**

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**Unfunded Actuarial Accrued Liability**

Actuarial Present Value of Future Benefits

Active Members Retirement Pension Benefits	\$	5,494,383
Active Members Vested Withdrawal Benefits		81,175
Active Members Disability Benefits		509,139
Active Members Preretirement Death Benefits		12,115
Active Members Refund of Member Contributions		10,918 <sup>1</sup>
Vested Former Members Benefits		466,734
Retired Members Benefits		3,482,432
Surviving Spouses Benefits		<u>122,173</u>
<b>Total</b>	<b>\$</b>	<b>10,179,069</b>
Actuarial Present Value of Future Normal Costs		<u>(2,187,335)</u>
Actuarial Accrued Liability	<b>\$</b>	<b>7,991,734</b>
Actuarial Value of Assets		<u>(8,608,240)</u>
Unfunded Actuarial Accrued Liability	<b>\$</b>	<b><u>(616,506)</u></b>

**Normal Cost**

Normal Cost	<b>\$</b>	<b><u>212,994</u></b>
Normal Cost as a Percentage of Annual Payroll		<u>20.4%</u>

<sup>1</sup> Accumulated Member Contributions Without Interest as of 1/1/2014 = \$157,308  
 Accumulated Member Contributions With Interest as of 1/1/2014 = \$188,703

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Analysis of the Change in the Unfunded Actuarial Accrued Liability**

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Unfunded Actuarial Accrued Liability at 1/1/2013	\$	56,609
<b>Additions</b>		
Normal Cost	\$ 239,963	
Administrative Expenses	45,540	
Interest on Unfunded Actuarial Accrued Liability, Normal Cost, and Administrative Expenses	<u>22,354</u>	
Total		307,857
<b>Contributions</b>		
Employer Contributions	\$ (204,864)	
Employee Contributions	(33,535)	
State Contributions	(108,762)	
Interest on Contributions	<u>(22,213)</u>	
Total		(369,374)
Adjustment for Funding Deviation		57,889
Modification in the Benefit Plan		0
Change in Actuarial Assumptions		0
Actuarial Gain		
Investment Gain	\$ (712,838)	
Experience Loss	101,240	
Funding Deviation	<u>(57,889)</u>	
Total		<u>(669,487)</u>
Unfunded Actuarial Accrued Liability at 1/1/2014	\$	<u><u>(616,506)</u></u>

Fairview Township Police Pension Plan  
 Actuarial Valuation as of January 1, 2014  
**Illustration of Minimum Municipal Obligation**

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Financial Requirements

Normal Cost	\$	212,994
Administrative Expenses		<u>45,540</u> <sup>1</sup>
Total	\$	258,534
Expected Member Contributions		(41,757)
10% of Negative Unfunded Actuarial Accrued Liability		<u>(61,651)</u>
Minimum Municipal Obligation	\$	155,126
Estimated Allocation of General Municipal Pension System State Aid		<u>(108,762)</u>
Net Minimum Municipal Obligation	\$	<u><u>46,364</u></u>

<sup>1</sup> Total Administrative Expenses for Plan Year 1/1/2013 to 12/31/2013 - \$ 45,540



Fairview Township Police Pension Plan  
Actuarial Valuation  
as of January 1, 2014

Section 3

Supplemental Information for GASB Reporting

Fairview Township Police Pension Plan  
 Actuarial Valuation as of January 1, 2014  
**Supplemental Information for GASB Statement Nos. 67 & 68 Reporting**

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**Schedule of Funding Progress**

Valuation Date	Market Value of Assets (a)	Entry Age Actuarial Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1/1/2011	\$ 6,571,653	\$ 7,034,498	\$ 462,845	6.6%	93.4%	\$ 1,129,831	41.0%
1/1/2012	6,650,380	7,407,977	757,597	10.2%	89.8%	1,140,865	66.4%
1/1/2013	7,387,669	7,444,278	56,609	0.8%	99.2%	1,050,246	5.4%
1/1/2014	8,608,240	7,991,734	(616,506)	-7.7%	107.7%	1,043,932	-59.1%

**Schedule of Interest Rate Sensitivity Testing**

Interest Rate <sup>1</sup>	Market Value of Assets (a)	Entry Age Actuarial Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)
6.00%	\$ 8,608,240	\$ 9,099,358	\$ 491,118	5.4%	94.6%
7.00%	8,608,240	7,991,734	(616,506)	-7.7%	107.7%
8.00%	8,608,240	7,074,911	(1,533,329)	-21.7%	121.7%

<sup>1</sup> Valuation interest rate is 7.00%

Fairview Township Police Pension Plan  
 Actuarial Valuation as of January 1, 2014  
**Supplemental Information for GASB Statement Nos. 67 & 68 Reporting**

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**Schedule of Changes to Unfunded Actuarial Accrued Liability <sup>1</sup>**

Modification in Plan	\$	0
Changes in Actuarial Assumptions		0
2013 Investment (Gain)/Loss		(712,838)
Experience (Gain)/Loss		101,240

**Schedule of Contributions from the Employer and Other Contributing Entities**

Year	Actuarially <sup>2</sup> Determined Contribution	Contributions <sup>3</sup> From Employer	Contribution Deficiency/ (Surplus)
2004	\$ 0	\$ 0	\$ 0
2005	140,081	140,081	0
2006	97,925	97,925	0
2007	104,217	104,217	0
2008	92,234	92,234	0
2009	127,822	127,822	0
2010	139,987	151,643	(11,656)
2011	218,312	284,964	(66,652)
2012	216,035	216,035	0
2013	313,626	313,626	0

<sup>1</sup> Determined on a market value basis

<sup>2</sup> Minimum Municipal Obligation under Act 205 of 1984

<sup>3</sup> Includes general municipal pension system State aid

Fairview Township Police Pension Plan  
Actuarial Valuation as of January 1, 2014  
**Supplemental Information for GASB Statement Nos. 67 & 68 Reporting**

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**Notes and Disclosures:**

**Discount Rate Determination for GASB Nos. 67 & 68 Purposes**

This discount rate is based on the long-term expected rate of return on pension plan investments that are expected to be used to finance the payment of benefits. The plan's fiduciary net position is projected to be sufficient to make projected benefit payments and the plan assets are expected to be invested using a strategy to achieve that return. The employer has always met the funding requirements of Pennsylvania law Act 205 of 1984. Act 205 requires full funding of the entry age normal cost plus plan expenses, as well as amortization of the unfunded liability to ultimately achieve a 100% funded status.

**Actuarial Determinations and Disclosures**

The Actuarial Accrued Liability information provided in Section 3 was determined using the same actuarial methods and assumptions as listed at the beginning of this actuarial valuation report.