



EAST HEMPFIELD TOWNSHIP

POLICE PENSION PLAN

Lancaster County

**Financial Statements
December 31, 2018**



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Legal Citations

Act 205 - Municipal Pension Plan Funding Standard and Recovery Act, act of December 18, 1984, P. L. 1005 no. 205, as amended, 53 P. S. 895.101, et. seq.

Act 600 - Police Pension Fund Act, act of May 29, 1956, P. L. (1955) 1804 no. 600, as amended, 53 P. S. 767, et. seq.



BANKING | INSURANCE | INVESTMENTS

East Hempfield Township Police Pension Plan

Opening Statement

To the Governing Body of
East Hempfield Township

This report is an accumulation of data reflecting the status and activity of the East Hempfield Township Police Pension Plan as of and for the year ended December 31, 2018. These financial statements have been prepared in accordance with the reporting requirements established by the Auditor General's Office of the Commonwealth of Pennsylvania. However, this report is not and should not be considered an Audit, Review, or Compilation Report within the meanings established by the American Institute of Certified Public Accountants.

The values contained herein were obtained from several different sources, including the 2018 Annual Investment Report, the 2017 Act 205 Actuarial Valuation Report, the Plan Document, prior Financial Statements, and the Records Update Survey that East Hempfield Township provided to us earlier this year. As a result, our combined efforts have produced this report. Consequently, this report is subject to our ability to verify data as it was provided to us.

We hope this report is viewed as another valuable resource and reference document to assist the Board of Supervisors in fulfilling your fiduciary responsibilities to this pension plan in the areas of financial reporting and monitoring. Ultimately, these financial statements are the responsibility of the plan's management.

Sincerely,

Univest Municipal Pension Services

Univest's investment advisory services are provided by TCG Investment Advisory, Inc. Univest and TCG only accept PA Municipal Pension Plans that are under the purview of Pennsylvania State Law, namely the Municipal Pension Plan Funding Standard and Recovery Act 205 as well as the Police Pension Fund Act 600. Investment products are offered through Univest Investments, Inc., a registered broker dealer, Member FINRA, SIPC. Securities products are not FDIC insured, are not a deposit of or bank guaranteed, and are subject to risks, including possible loss of principal amount invested.

East Hempfield Township Police Pension Plan

Statement of Fiduciary Net Position as of December 31, 2018

ASSETS

Cash and Other Assets	
Checking account.....	\$0
Savings account.....	0
Trust account.....	0
Prepaid pension benefits (Note 6).....	<u>67,840</u>
Total Cash and Other Assets.....	67,840

Receivables	
State aid.....	0
Municipal contributions.....	0
Members' contributions.....	11,189
Interest and dividends.....	<u>0</u>
Total Receivables.....	11,189

Investments	
U.S. Government obligations.....	0
Municipal bonds.....	0
Corporate bonds and notes.....	0
Stocks.....	0
Mutual funds	
Equities.....	6,150,898
Fixed Income.....	3,569,893
Real Estate.....	286,385
Other.....	0
Master trust.....	0
Other investments.....	<u>0</u>
Total Investments.....	10,007,176

Assets, at Contract Value	
Group Annuity Contract.....	0
Guaranteed Investment Contracts (GIC).....	0
Deposit Administration Contracts (DA).....	<u>0</u>
Total Assets at Contract Value.....	0

Total Assets **\$10,086,205**

LIABILITIES

Payables	
Refunds.....	0
Accounts payable.....	0
Accrued expenses.....	<u>0</u>
Total Liabilities.....	\$0

NET POSITION RESTRICTED FOR PENSIONS **\$10,086,205**

The Notes to the Financial Statements are an integral part of this report.

East Hempfield Township Police Pension Plan

Statement of Changes in Fiduciary Net Position for the Year Ended December 31, 2018

ADDITIONS

Contributions	
State aid	\$318,538
Municipal contributions.....	463,711
Members' contributions	<u>144,090</u>
Total Contributions	926,339
Investment Income	
Net increase in fair value of investments	(699,986)
Interest income	0
Dividend income	0
Total Investment Income.....	(699,986)
Less investment expense	<u>(86,151)</u>
Net Investment Income	(786,137)
Other income.....	<u>0</u>
Total Additions	140,202

DEDUCTIONS

Benefits (Note 6)	770,560
Refunds of terminated members' contributions.....	127
Administrative expenses	0
Allocated insurance premiums	0
Other expenses	<u>0</u>
Total Deductions	<u>770,687</u>

NET INCREASE (DECREASE) IN NET POSITION(630,485)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of Year.....	<u>10,716,690</u>
End of Year	\$10,086,205

The Notes to the Financial Statements are an integral part of this report.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements

1. Plan Description

A. General

The East Hempfield Township Police Pension Plan is a single-employer defined benefit pension plan that covers all full-time police officers of East Hempfield Township and which is controlled by the provisions of Ordinance No. 03-04, as amended, adopted pursuant to Act 600. The plan is governed by the Board of Township Supervisors which is responsible for the management of plan assets. The Board of Township Supervisors has appointed the Pension Board as the official body to which all related investment matters of the Fund are delegated. The Pension Board consists of 5 members, the Township Manager and Finance Director, two members chosen by a majority of the participants in the plan, and a "citizen-at-large" appointed by the Township Supervisors. The Board of Township Supervisors has delegated the authority to manage certain plan assets to TCG Investment Advisory, Inc., with Nationwide Financial as custodian.

B. Plan Membership

At December 31, 2018, pension plan membership consisted of the following:

Active plan members	32
Inactive plan members or beneficiaries currently receiving benefits	25
Inactive plan members entitled to but not yet receiving benefits	1
Total	58

C. Benefit Provisions as of December 31, 2018

Eligibility Requirements:

Normal Retirement - Age 50 and 25 years of service.

Early Retirement - None

Vesting - None for the first 12 years of service; thereafter, 100%. If a member dies before the pension becomes vested, the surviving spouse or minor children shall receive repayment of the member's contributions, if any, plus interest.

Retirement Benefit: The monthly pension shall be 50% of the average salary over the participant's last 36 months of employment, plus an incremental pension of \$100 per month for each completed year of service in excess of 25 years up to a maximum of \$500 per month.

Survivor Benefit: A pension benefit shall be automatically provided to a retired officer's spouse or to the spouse of an officer eligible to retire, equal to no less than 50% of the eligible pension. If no spouse, or if spouse subsequently dies, the benefit shall apply to children under age 18, or if attending college, under or attaining age 23.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

1. Plan Description (continued)

C. Benefit Provisions (continued)

Disability Benefit:

Service-Related - The monthly disability pension benefit shall be calculated at no less than 50% of the member's salary at the time the disability was incurred. Said pension shall be reduced by any benefits received for the same injuries under the Social Security Act.

Nonservice-Related - None

Postretirement Adjustments: None

Other Benefits:

Non-Intervening Military Service Credit

Member Contributions: 5%, with interest credited at 6% per year.

D. Contributions

On December 18, 1984, Act 205 was passed into law, and is known as the "Municipal Pension Plan Funding Standard and Recovery Act". The act mandates actuarial funding standards, establishes a recovery program for financially distressed pension plans, and provides for the distribution of the tax on the premiums of foreign fire insurance companies.

The act requires minimum funding standards based on the most recent actuarial valuation report, including normal cost and administrative expense requirements and an amortization contribution of the unfunded actuarial accrued liability.

Funding Requirements

The plan's governing document provides the Township with the authority to establish and amend contribution requirements. For the year ended December 31, 2018, active members were required to contribute 5% of monthly salary to the plan, with interest credited to these contributions at 6% per year.

The pension plan may also receive an annual allocation from the General Municipal Pension System State Aid Program which must be used for pension plan funding. Any funding requirements in excess of members' contributions and state aid must be paid by the municipality in accordance with Act 205.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

2. Summary of Significant Accounting Policies

A. Basis of Accounting

The plan's financial statements are prepared using the accrual basis of accounting. Municipal and members' contributions are recognized when due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

B. Valuation of Investments

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Investments that do not have an established market are reported at estimated fair value.

3. Investments

A. Investment Policy

The Pension Board, with the assistance of TCG Investment Advisory, Inc., shall select the appropriate asset weighting percentage to be allocated to each specific asset class. Each asset class shall consist of a combination of investment options that have been made available to obtain the absolute investment objective of the fund. Investments shall be diversified with the intent to minimize the risk of large investment losses. Consequently, the total portfolio will be constructed and maintained to provide prudent diversification with regard to the concentration of holdings in investment funds specializing in individual issues, issuers, countries, governments or industries.

It is not expected that the Investment Policy Statement will change frequently. In particular, short term changes in the financial markets should not require an adjustment in the Investment Policy Statement. However, any changes to the asset allocation model will only be implemented in accordance with formal authorization and instructions given by the Pension Board.

As of December 31, 2018, it shall be the policy of the Pension Board to invest the fund's assets with the following allocations:

<u>Asset Class</u>	<u>Asset Weighting Range</u>	<u>Target Allocation</u>
Domestic Equity	38% - 48%	43%
International Equity	14% - 24%	19%
Fixed Income	27% - 37%	32%
Real Estate	1% - 5%	3%
Cash	1% - 5%	<u>3%</u>
Total		<u>100%</u>

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

3. Investments (continued)

A. Investment Policy (continued)

The asset allocation range established by this investment policy represents a long term perspective. As such, rapid unanticipated market shifts or changes in economic conditions may cause the asset mix to fall outside the policy range. These divergences should be of a short term nature and TCG Investment Advisory, Inc. will be responsible for rebalancing the assets and ensuring that the investment funds keep divergences as brief as possible.

B. Rate of Return

For the year ended December 31, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense was -7.33 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changes in amounts actually invested.

C. Fair Value Measurements

Generally accepted accounting principles in accordance with GASB Statement No. 72 define fair value, describe a framework for measuring fair value, and require disclosure about fair value measurements. Recurring fair value measurements are those that GASB Statements require or permit in the statement of net position at the end of each reporting period. The established framework includes a three-level hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the assets or liabilities fall within different levels of the hierarchy, the classification is based on the lowest level input that is significant to the fair value measurement of the asset or liability. Classification of assets and liabilities within the hierarchy considers the markets in which the assets and liabilities are traded and reliability and transparency of the assumptions used to determine fair value. The hierarchy requires the use of observable market data when available. The levels of the hierarchy and those investments included in each are as follows:

Level 1 - Represented by quoted prices available in an active market. Level 1 securities include highly liquid government bonds, treasury securities, mortgage products and exchange traded equities and mutual funds.

Level 2 - Represented by assets and liabilities similar to Level 1 where quoted prices are not available, but are observable, either directly or indirectly through corroboration with observable market data, such as quoted prices for similar securities and quoted prices in inactive markets and estimated using pricing models or discounted cash flows. Level 2 securities would include U.S. agency securities, mortgage-backed agency securities, obligations of states, and political subdivisions and certain corporate, asset backed securities, swap agreements, and life insurance contracts.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

3. Investments (continued)

C. Fair Value Measurements (continued)

Level 3 - Represented by financial instruments where there is limited activity or unobservable market prices and pricing models significant to determining the fair value measurement include the reporting entity's own assumptions about the market risk. Level 3 securities would include hedge funds, private equity securities, and those with internally developed values.

The following is a description of the valuation methodologies used for instruments measured at fair value on the statement of net position, as well as the general classifications of such instruments pursuant to the valuation hierarchy.

Mutual Funds

Mutual funds listed on a national market or exchange are purchased by Nationwide on a daily basis. Investors (the Township) then purchase units of investments through Nationwide. These units are made up of a portion of the pools of mutual funds held by Nationwide. The unit value is determined by the price of the underlying mutual funds and other factors which are recalculated daily. These mutual funds as presented on the Statement of Plan Net Assets are accounted for at fair value on a recurring basis as of December 31, 2018 at Level 2.

4. Deposit and Investment Risks

A. Credit Risk and Interest Rate Risk

The plan's deposits and investments are currently governed by Title 20 of the Pennsylvania Consolidated Statutes, Chapter 73, entitled the Probate, Estates, and Fiduciaries Code, Section 7302, Fiduciaries Investments, act of June 30, 1972. This act allows the trustees of the plan to invest in securities which a prudent person of discretion and intelligence, who is seeking a reasonable income and preservation of capital, would buy.

This discretionary authority, known as the "Prudent Person Rule", permits the selection of a variety of investments, allowing for diversity in the degree of risk and liquidity. Finally, there were no deposit or investment transactions during the year that were in violation of this state statute or the policy of the plan.

Credit risk for deposits and investments is the risk that an issuer or other counterparty to an investment will not fulfill its financial obligations. Generally, obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not require disclosure of credit quality.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

4. Deposit and Investment Risks (continued)

A. Credit Risk and Interest Rate Risk (continued)

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party.

During the year and as of December 31, 2018, the plan held no deposits and, therefore, was not subject to custodial credit risk, interest rate risk, or foreign currency risk in this area.

The plan's investment policy contains a number of investment objectives including the desire to maximize long-term returns through a combination of income and capital appreciation using sound investment practices. These objectives are intended to be achieved through a well-diversified portfolio consisting entirely of mutual funds selected from among the various asset classes in accordance with recognized asset allocation theory. As for the credit risk, the plan generally invests in money market funds and bond mutual funds with credit quality ratings of at least "A" according to either the Moody's, Standard & Poor's, or Morningstar rating system with average maturities of five years or less; however, in cases where the yield spread adequately compensates for additional risk, other ratings can be purchased to achieve a higher yield performance. Finally, the plan does not invest in individual securities, commodities, futures contracts, private placements, repurchase and/or reverse repurchase agreements, securities lending transactions, or hedge funds.

During the year and at December 31, 2018, all of the plan's investments were in mutual funds under a custodial agreement with Nationwide Financial. These investments are covered by the Securities Investor Protection Corporation (SIPC). The SIPC does not protect against losses from the rise or fall in market value of the investment. It does, however, provide important protections against certain losses if a SIPC member fails financially and is unable to meet obligations to its securities customers.

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to the transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. Investments in external investment pools and in open-end mutual funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form. As a result, the investments held by the plan in open-end mutual funds and unallocated insurance contracts were not exposed to custodial credit risk or foreign currency risk.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The plan does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

4. Deposit and Investment Risks (continued)

A. Credit Risk and Interest Rate Risk (continued)

At December 31, 2018, the credit risk and interest rate risk of the plan's investments in debt securities (specifically, bond mutual funds), as measured by Morningstar, were rated as follows:

Investment	Fair Value	Average Credit Quality	Avg Eff Duration/ Avg Eff Maturity
Doubleline Core Fixed Income	\$ 622,279	BB	04.3/06.4 years
Guggenheim Total Return	829,007	BB	04.0/06.1 years
Legg Mason W.A. CorePlus	523,736	BBB	06.3/10.8 years
PGIM Total Return Bond	625,095	BBB	06.2/--- years
PIMCO Income	726,791	Not available	02.0/03.8 years
Principal Short Term Income	242,985	A	01.8/02.7 years
	<u>\$ 3,569,893</u>		

B. Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. It is the policy of the plan that the investments shall be diversified with the intent to minimize the risk of large investment losses. Consequently, the plan's overall portfolio will be constructed and maintained to provide prudent diversification with regard to the concentration of holdings in investment funds specializing in individual issues, issuers, countries, governments or industries.

Except for any holdings in the specialty sectors, not more than 5% of the total stock portfolio valued at market may be invested in the common stock of any one corporation, and not more than 25% of stock valued at market may be held in any one industry category. Also, the fixed income securities of any one issuer shall not exceed 5% of the total bond portfolio at time of purchase. This does not apply to issues of the U.S. Treasury or other federal agencies.

At December 31, 2018, all of the plan's investments were held by Nationwide Financial.

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

5. Net Pension Liability

A. The components of the net pension liability at December 31, 2018 were as follows:

Total Pension Liability	\$ 14,109,671
Plan Fiduciary Net Position	<u>(10,086,205)</u>
Net Pension Liability	\$ 4,023,466
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.48%

B. Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2018, using the following actuarial assumptions:

Inflation	3.00 percent	
Salary increases	5.00 percent, including inflation	
Investment rate of return	8.00 percent, net of pension plan investment expense, including inflation	
Cost-of-living adjustments	None	

Mortality rates were based on the RP2000 Table projected to 2017 using Scale AA for Males or Females, as appropriate, termination rates were based on Scale W65, and disability rates were based on the DI378 Table for Males or Females, as appropriate.

The actuarial assumptions used in the December 31, 2018 valuation were based on the same assumptions as the actuarial experience study as of January 1, 2017.

C. Long Term Expected Rate of Return

The long term expected rate of return on pension 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 pension plan investment expense and 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. Best estimates of real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2018 (see Note 3A) are summarized in the following table:

<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>	<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic Equity		International Equity	8.75%
Large Cap	8.25%	Fixed Income	4.40%
Medium Cap	8.75%	Real Estate	8.75%
Small Cap	9.00%	Cash	2.10%

East Hempfield Township Police Pension Plan

Notes to the Financial Statements (continued)

5. Net Pension Liability (continued)

D. Discount Rate

The discount rate used to measure the total pension liability was 8.00 percent. 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 must meet the funding requirements of Act 205 on an annual basis or be subject to an interest penalty as required. 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.

E. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability, calculated using the discount rate, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate.

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Total pension liability	\$ 15,770,570	\$ 14,109,671	\$ 12,713,853
Plan fiduciary net position	<u>(10,086,205)</u>	<u>(10,086,205)</u>	<u>(10,086,205)</u>
Net pension liability	\$ 3,684,365	\$ 4,023,466	\$ 2,627,648

6. Prepaid Pension Benefits

Funds for the January 2019 benefit payment were withdrawn from the plan late in December 2018, but the payment was not issued to plan retirees until after year end. Consistent with prior years, a prepaid benefit for the January 2019 payment has been included on page 2.

7. Subsequent Event

Effective January 1, 2019, TCG Investment Advisory, Inc., the Registered Investment Advisory company which provides municipal pension consulting services under the name Univest Municipal Pension Services (UMPS), will be known as Girard Pension Services, LLC.

East Hempfield Township Police Pension Plan
Schedules of Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$ 320,409	\$ 305,151	\$ 277,279	\$ 264,075	\$ 251,038
Interest	1,073,705	1,022,953	939,837	895,652	873,904
Changes in benefit terms	-	-	-	-	-
Differences between expected and actual experience	-	166,762	-	(217,009)	-
Changes in assumptions	-	264,471	-	244,829	-
Benefit payments, including refunds of member contributions	(770,686)	(647,233)	(627,320)	(613,924)	(511,909)
Net change in total pension liability	623,428	1,112,104	589,796	573,623	613,033
Total pension liability – Beginning	\$13,486,243	\$12,374,139	\$11,784,343	11,210,720	10,597,687
Total pension liability – Ending (a)	\$14,109,671	\$13,486,243	\$12,374,139	\$11,784,343	\$11,210,720
Plan fiduciary net position					
Contributions – State Aid	\$ 318,538	\$ 302,825	\$ 288,727	\$ 266,617	\$ 255,597
Contributions – Employer	463,711	471,756	412,239	227,864	43,030
Contributions – Employee	144,090	143,775	137,134	131,471	132,010
Net investment income	(786,137)	1,396,336	477,526	(149,398)	343,769
Benefit payments, including refunds of member contributions	(770,686)	(647,233)	(627,320)	(613,924)	(511,909)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	3,730
Net change in plan fiduciary net position	(630,484)	1,667,459	688,306	(137,370)	266,227

East Hempfield Township Police Pension Plan
Schedules of Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Plan fiduciary net position – Beginning	10,716,690	9,049,231	8,360,925	8,498,295	8,232,068
Plan fiduciary net position – Ending (b)	<u>\$10,086,205</u>	<u>\$10,716,690</u>	<u>\$ 9,049,231</u>	<u>\$ 8,360,925</u>	<u>\$ 8,498,295</u>
Net pension liability – Ending (a) – (b)	<u>\$ 4,023,466</u>	<u>\$ 2,769,553</u>	<u>\$ 3,324,908</u>	<u>\$ 3,423,418</u>	<u>\$ 2,712,425</u>
Plan fiduciary net position as a percentage of the total pension liability	71.48%	79.46%	73.13%	70.95%	75.81%
Covered-employee payroll	2,889,000	2,760,000	\$ 2,600,000	\$ 2,475,000	\$ 2,450,000
Net pension liability as a percentage of covered-employee payroll	139.27%	100.35%	127.88%	138.32%	110.71%

Refer to the Notes to the Required Supplementary Information following the Schedules of Required Supplementary Information.

East Hempfield Township Police Pension Plan
Schedules of Required Supplementary Information

SCHEDULE OF CONTRIBUTIONS

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially determined contribution	\$ 582,249	\$ 574,581	\$ 500,966	\$ 494,481	\$ 298,627
Contributions in relation to the actuarially determined contribution	<u>782,249</u>	<u>774,581</u>	<u>700,966</u>	<u>494,481</u>	<u>298,627</u>
Contribution deficiency (excess)	<u>\$ (200,000)</u>	<u>\$ (200,000)</u>	<u>\$ (200,000)</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$2,889,000	\$2,760,000	\$2,600,000	\$2,475,000	\$2,450,000
Contributions as a percentage of covered-employee payroll	27.08%	28.06%	26.96%	19.98%	12.19%

Refer to the Notes to the Required Supplementary Information following the Schedules of Required Supplementary Information.

East Hempfield Township Police Pension Plan

Notes to the Required Supplementary Information

Actuarially determined contribution rates are calculated based on the plan's most recent available Act 205 actuarial valuation report. The January 1, 2015 actuarial valuation report was utilized for the 2018 and 2017 Minimum Municipal Obligation calculations. The January 1, 2013 actuarial valuation report was utilized for the 2016 and 2015 Minimum Municipal Obligation calculations. The following actuarial methods and assumptions were used to determine contribution rates.

Actuarial valuation date	01/01/2017	01/01/2015	01/01/2013
Actuarial cost method	Entry age	Entry age	Entry age
Amortization method	Level dollar	Level dollar	Level dollar
Remaining amortization period	9 years	9 years	11 years
Asset valuation method	Market	Market	Smoothing
Salary increases	5.00%	5.00%	5.25%
Investment rate of return net of pension plan expenses including inflation	8.00%	8.00%	8.25%
Disability rates	DI378	DI378	DI378
Termination rates	W65	W65	W65
Mortality	* RP2000	RP2000	RP2000
Retirement age	50	50	50
Cost-of-living adjustments	None	None	None

* - RP2000 Table projected to 2017 using Scale AA

Changes in Benefit Terms: There were no changes in benefit terms.

Changes in Assumptions: The mortality assumption used in the January 1, 2017 actuarial valuation was changed to the RP2000 Mortality Table projected to 2017 using Scale AA to reflect an update in expectation for retired life mortality.