

COMPLIANCE AUDIT

City of Erie Aggregate Pension Fund Erie County, Pennsylvania For the Period January 1, 2017 to December 31, 2018

September 2019



Commonwealth of Pennsylvania
Department of the Auditor General

Eugene A. DePasquale • Auditor General



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EUGENE A. DePASQUALE
AUDITOR GENERAL

The Honorable Mayor and City Council
City of Erie
Erie County
Erie, PA 16501

We have conducted a compliance audit of the City of Erie Aggregate Pension Fund for the period January 1, 2017 to December 31, 2018. We also evaluated compliance with some requirements subsequent to that period when possible. The audit was conducted pursuant to authority derived from Section 402(j) of Act 205 and in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objective.

The objective of the audit was to determine if the aggregate pension fund was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies.

Our audit was limited to the areas related to the objective identified above. To determine whether the aggregate pension fund was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies, our methodology included the following:

- We determined whether state aid was properly determined and deposited in accordance with Act 205 requirements by verifying the annual deposit date of state aid and determining whether deposits were made within 30 days of receipt for all years within the period under audit.
- We determined whether annual employer contributions were calculated and deposited in accordance with the plans' governing document and applicable laws and regulations by examining the municipality's calculation of the plans' annual financial requirements and minimum municipal obligation (MMO) and comparing these calculated amounts to amounts actually budgeted and deposited into the pension plans as evidenced by supporting documentation.

- We determined whether annual employee contributions were calculated, deducted, and deposited into the pension plans in accordance with the plans' governing documents and applicable laws and regulations by testing total members' contributions on an annual basis using the rates obtained from the plans' governing documents in effect for all years within the period under audit and examining documents evidencing the deposit of these employee contributions into the pension plans.
- We determined whether retirement benefits calculated for 23 of 50 non-uniformed employees, 10 of 19 police officers, and 4 of 6 firefighters who retired during the current audit period, and through the completion of our fieldwork procedures, represent payments to all (and only) those entitled to receive them and were properly determined and disbursed in accordance with the plans' governing documents, applicable laws and regulations by recalculating the amount of the monthly pension benefit due to retired individuals and comparing these amounts to supporting documentation evidencing amounts determined and actually paid to recipients.¹ We also determined whether retirement benefits calculated for 2 of 7 non-uniformed employees and 1 of 4 police officers who elected to vest during the current audit period, and through the completion of our fieldwork procedures, represent payments to all (and only) those entitled to receive them and were properly determined in accordance with the plans' governing documents, applicable laws and regulations by recalculating the amount of the pension benefit due to retired individuals and comparing these amounts to supporting documentation evidencing amounts determined.²
- We determined whether the January 1, 2015 and January 1, 2017 actuarial valuation reports were prepared and submitted by March 31, 2016 and 2018, respectively, in accordance with Act 205 and whether selected information provided on these reports is accurate, complete, and in accordance with plan provisions to ensure compliance for participation in the state aid program by comparing selected information to supporting source documentation.
- We determined whether all annual special ad hoc postretirement reimbursements received by the municipality were authorized and appropriately deposited in accordance with Act 147 by tracing information to supporting documentation maintained by plan officials.

¹ We selected plan members randomly from each plan's population of members who retired during the current audit period, and through the completion of our fieldwork procedures, in order to obtain a representative selection for the purpose of our testing to achieve the audit objective. While representative selection is a required factor of audit sampling methodologies, audit sampling methodology was not applied to achieve this test objective; accordingly, the results of this audit procedures are not, and should not be, projected to the population.

² We selected plan members randomly from each plan's population of members who elected to vest during the current audit period, and through the completion of our fieldwork procedures, in order to obtain a representative selection for the purpose of our testing to achieve the audit objective. While representative selection is a required factor of audit sampling methodologies, audit sampling methodology was not applied to achieve this test objective; accordingly, the results of this audit procedures are not, and should not be, projected to the population.

- We determined whether the pension fund is in compliance with Act 205 for distressed municipalities through inquiry of plan officials and evaluation of the recovery remedies implemented during the audit period.
- We determined whether provisions of the Deferred Retirement Option Plan (DROP) were in accordance with the provisions of Act 205 by examining provisions stated in the plans' governing documents.

The City of Erie contracted with independent certified public accounting firms for audits of the financial statements of each of the city's pension plans for the years ended December 31, 2017 and 2018, which are available at the city's offices. Those financial statements were not audited by us and, accordingly, we express no opinion or other form of assurance on them.

City officials are responsible for establishing and maintaining effective internal controls to provide reasonable assurance that the City of Erie Aggregate Pension Fund is administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies. In conducting our audit, we obtained an understanding of the city's internal controls as they relate to the city's compliance with those requirements and that we considered to be significant within the context of our audit objective, and assessed whether those significant controls were properly designed and implemented. Additionally and as previously described, we tested transactions, assessed official actions, performed analytical procedures, and interviewed selected officials to provide reasonable assurance of detecting instances of noncompliance with legal and regulatory requirements or noncompliance with provisions of contracts, administrative procedures, and local ordinances and policies that are significant within the context of the audit objective.

The results of our procedures indicated that, in all significant respects, the City of Erie Aggregate Pension Fund was administered in compliance with applicable state laws, regulations, contracts, administrative procedures, and local ordinances and policies.

The accompanying supplementary information is presented for purposes of additional analysis. We did not audit the information or conclude on it and, accordingly, express no form of assurance on it. **However, we are extremely concerned about the funded status of the firemen's pension plan contained in the schedule of funding progress included in this report which indicates the plan's funded ratio is 69.1% as of January 1, 2017**, which is the most recent data available. We encourage city officials to monitor the funding of its pension plans to ensure their long-term financial stability.

The contents of this report were discussed with officials of the City of Erie and, where appropriate, their responses have been included in the report. We would like to thank city officials for the cooperation extended to us during the conduct of the audit.

August 26, 2019



EUGENE A. DEPASQUALE
Auditor General

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BACKGROUND

On December 18, 1984, the Pennsylvania Legislature adopted the Municipal Pension Plan Funding Standard and Recovery Act (P.L. 1005, No. 205, as amended, 53 P.S. § 895.101 et seq.). The Act established mandatory actuarial reporting and funding requirements and a uniform basis for the distribution of state aid to Pennsylvania's public pension plans. Section 402(j) of Act 205 specifically requires the Auditor General, as deemed necessary, to make an audit of every municipality which receives general municipal pension system state aid and of every municipal pension plan and fund in which general municipal pension system state aid is deposited.

Annual state aid allocations are provided from a 2 percent foreign (out-of-state) casualty insurance premium tax, a portion of the foreign (out-of-state) fire insurance tax designated for paid firefighters and any investment income earned on the collection of these taxes. Generally, municipal pension plans established prior to December 18, 1984, are eligible for state aid. For municipal pension plans established after that date, the sponsoring municipality must fund the plan for three plan years before it becomes eligible for state aid. In accordance with Act 205, a municipality's annual state aid allocation cannot exceed its actual pension costs.

In addition to Act 205, the City of Erie Aggregate Pension Fund is also governed by implementing regulations adopted by the former Public Employee Retirement Commission published at Title 16, Part IV of the Pennsylvania Code and applicable provisions of various other state statutes including, but not limited to, the following:

Act 147 - Special Ad Hoc Municipal Police and Firefighter Postretirement Adjustment Act, Act of December 14, 1988 (P.L. 1192, No. 147), as amended, 53 P.S. § 896.101 et seq.

Act 399 - Optional Third Class City Charter Law, Act of July 15, 1957 (P.L. 901, No. 399), as amended, 53 P.S. § 41101 et seq.

The city's pension plans are single-employer defined benefit pension plans locally controlled by Article 145 (Officers' and Employees'), Article 147 (Police), and Article 149 (Firemen's) of the city's codified ordinances. The plans are also affected by the provisions of collective bargaining agreements between the city and its non-uniformed employees, police officers, and firefighters.

The officers' and employees' pension plan was established May 23, 1944. Active members are required to contribute 6.5 percent of compensation to the plan. As of December 31, 2018, the plan had 307 active members, 24 terminated members eligible for vested benefits in the future, and 374 retirees receiving pension benefits from the plan.

BACKGROUND – (Continued)

The police pension plan was established June 20, 1950. Active members hired prior to January 1, 1981 are required to contribute 5 percent of base and longevity pays, plus \$1 per month, to the plan. Members hired on or after January 1, 1981 are required to contribute 6 percent of base and longevity pays, plus \$1 per month, to the plan. As of December 31, 2018, the plan had 164 active members, 8 terminated members eligible for vested benefits in the future, and 252 retirees receiving pension benefits from the plan.

The firemen's pension plan was established December 22, 1965. Active members are required to contribute 6 percent of base and longevity pays, plus \$1 per month, to the plan. As of December 31, 2018, the plan had 133 active members, no terminated members eligible for vested benefits in the future, and 199 retirees receiving pension benefits from the plan.

BACKGROUND – (Continued)

As of December 31, 2018, selected plan benefit provisions are as follows:

OFFICERS' AND EMPLOYEES' PENSION PLAN

Eligibility Requirements:

Normal Retirement	Age 55 and 20 years of service.
Early Retirement	None
Vesting	With 12 years of service, deferred to age 60; and with 20 years of service, deferred to age 55.

Retirement Benefit:

Benefit equals 50% of the greater of the member's current hourly pay rate expressed as monthly earnings or the highest 5 year average monthly earnings, plus a service increment equal to 1/40th of the retirement allowance times years of service in excess of 20 years.

Survivor Benefit:

Before Retirement Eligibility	Refund of member contributions, without interest.
After Retirement Eligibility	A monthly benefit equal to 50% of the pension the member was receiving or was entitled to receive on the day of the member's death.

Service Related Disability Benefit:

The normal retirement benefit after 15 years of service.

BACKGROUND – (Continued)

POLICE PENSION PLAN

Eligibility Requirements:

Normal Retirement	Age 50 and 20 years of service.
Early Retirement	None
Vesting	A member is 100% vested after 12 years of service.

Retirement Benefit:

Benefit equals 50% of the final pay at retirement plus a service increment equal to 1/40th of the retirement allowance times years of service in excess of 20 years, to a maximum of \$500 per month.

Survivor Benefit:

Before Retirement Eligibility	Refund of member contributions, without interest.
After Retirement Eligibility	A monthly benefit equal to 100% of the pension the member was receiving or was entitled to receive on the day of the member's death.

Service Related Disability Benefit:

Standard Service Connected	Benefit equals 50% of the member's final pay at the time the disability was incurred, plus service increments.
Enhanced Service Connected	Benefit equals 75% of the member's final pay at the time the disability was incurred.

BACKGROUND – (Continued)

FIREMEN’S PENSION PLAN

Eligibility Requirements:

Normal Retirement	Age 50 and 20 years of service.
Early Retirement	None
Vesting	A member is 100% vested after 12 years of service.

Retirement Benefit:

Benefit equals 50% of the final pay at retirement plus a service increment equal to 1/40th of the retirement allowance times years of service in excess of 20 years, to a maximum of \$500 per month.

Survivor Benefit:

Before Retirement Eligibility	With less than 12 years of service, a monthly benefit equal to 25% of the member’s final pay. With the completion of 12 years of service, a monthly benefit equal to 50% of the member’s final pay.
After Retirement Eligibility	A monthly benefit equal to 100% of the pension the member was receiving or was entitled to receive on the day of the member’s death.

Service Related Disability Benefit:

Benefit equals 75% of the member’s final pay at the time the disability was incurred.

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

The supplementary information contained on Pages 6 through 17 reflects the implementation of GASB Statement No. 67, *Financial Reporting for Pension Plans*. The objective of this statement is to improve financial reporting by state and local governmental pension plans.

OFFICERS' AND EMPLOYEES' PENSION PLAN

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
FOR THE YEARS ENDED DECEMBER 31, 2009, 2010, 2011, 2012, AND 2013

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Total Pension Liability					
Service cost	\$ 1,590,165	\$ 1,592,272	\$ 1,523,185	\$ 1,562,687	\$ 1,622,645
Interest	7,011,944	7,288,175	7,379,577	7,653,361	7,940,841
Difference between expected and actual experience	-	(2,300,236)	-	7,684	-
Benefit payments, including refunds of member contributions	(4,980,947)	(5,295,497)	(5,430,459)	(5,595,712)	(5,770,112)
Net Change in Total Pension Liability	3,621,162	1,284,714	3,472,303	3,628,020	3,793,374
Total Pension Liability – Beginning	88,757,151	92,378,313	93,663,027	97,135,330	100,763,350
Total Pension Liability – Ending (a)	<u>\$ 92,378,313</u>	<u>\$ 93,663,027</u>	<u>\$ 97,135,330</u>	<u>\$ 100,763,350</u>	<u>\$ 104,556,724</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 2,234,481	\$ 2,231,790	\$ 2,108,004	\$ 2,121,322	\$ 2,506,265
Contributions – member	1,082,893	1,046,412	1,034,214	1,138,449	1,125,216
Net investment income	10,375,104	8,540,398	2,439	7,381,834	12,780,251
Benefit payments, including refunds of member contributions	(4,980,947)	(5,295,497)	(5,430,459)	(5,595,712)	(5,770,112)
Administrative expense	(97,911)	(83,089)	(93,162)	(94,309)	(106,666)
Net Change in Plan Fiduciary Net Position	8,613,620	6,440,014	(2,378,964)	4,951,584	10,534,954
Plan Fiduciary Net Position – Beginning	57,194,500	65,808,120	72,248,134	69,869,170	74,820,754
Plan Fiduciary Net Position – Ending (b)	<u>\$ 65,808,120</u>	<u>\$ 72,248,134</u>	<u>\$ 69,869,170</u>	<u>\$ 74,820,754</u>	<u>\$ 85,355,708</u>
Net Pension Liability – Ending (a-b)	<u>\$ 26,570,193</u>	<u>\$ 21,414,893</u>	<u>\$ 27,266,160</u>	<u>\$ 25,942,596</u>	<u>\$ 19,201,016</u>
Net Pension Liability – City of Erie	<u>\$ 21,092,111</u>	<u>\$ 16,544,834</u>	<u>\$ 21,890,736</u>	<u>\$ 20,559,257</u>	<u>\$ 14,139,471</u>
Net Pension Liability – Erie City Water Authority	<u>\$ 5,478,082</u>	<u>\$ 4,870,059</u>	<u>\$ 5,375,424</u>	<u>\$ 5,383,339</u>	<u>\$ 5,061,545</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.24%	77.14%	71.93%	74.25%	81.64%
Estimated Covered Employee Payroll	\$ 16,400,956	\$ 16,378,066	\$ 15,363,270	\$ 15,766,175	\$ 16,615,451
Net Pension Liability as a Percentage of Covered Employee Payroll	162.00%	130.75%	177.48%	164.55%	115.56%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

OFFICERS' AND EMPLOYEES' PENSION PLAN – (Continued)

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS – (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2014, 2015, 2016, 2017, AND 2018

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Total Pension Liability					
Service cost	\$ 1,613,214	\$ 1,609,099	\$ 1,728,232	\$ 1,756,276	\$ 1,811,971
Interest	8,223,667	8,222,417	8,480,965	8,812,497	9,060,091
Difference between expected and actual experience	(3,457,812)	-	936,387	-	(2,476,122)
Benefit payments, including refunds of member contributions	(6,229,116)	(6,527,215)	(6,880,887)	(7,155,213)	(7,846,279)
Net Change in Total Pension Liability	149,953	3,304,301	4,264,697	3,413,560	549,661
Total Pension Liability – Beginning	104,556,724	104,706,677	108,010,978	112,275,675	115,689,235
Total Pension Liability – Ending (a)	<u>\$ 104,706,677</u>	<u>\$ 108,010,978</u>	<u>\$ 112,275,675</u>	<u>\$ 115,689,235</u>	<u>\$ 116,238,896</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 2,503,919	\$ 3,130,198	\$ 3,129,417	\$ 3,048,028	\$ 3,308,899
Contributions – member	1,109,608	1,185,228	1,227,245	1,166,665	1,240,907
Net investment income	5,405,998	1,195,611	4,756,309	14,566,433	(5,409,681)
Benefit payments, including refunds of member contributions	(6,229,116)	(6,527,215)	(6,880,887)	(7,155,213)	(7,846,279)
Administrative expense	(99,113)	(22,572)	(109,215)	(96,363)	(135,283)
Net Change in Plan Fiduciary Net Position	2,691,296	(1,038,750)	2,122,869	11,529,550	(8,841,437)
Plan Fiduciary Net Position – Beginning	85,355,708	88,047,004	87,008,254	89,131,123	100,660,673
Plan Fiduciary Net Position – Ending (b)	<u>\$ 88,047,004</u>	<u>\$ 87,008,254</u>	<u>\$ 89,131,123</u>	<u>\$ 100,660,673</u>	<u>\$ 91,819,236</u>
Net Pension Liability – Ending (a-b)	<u>\$ 16,659,673</u>	<u>\$ 21,002,724</u>	<u>\$ 23,144,552</u>	<u>\$ 15,028,562</u>	<u>\$ 24,419,660</u>
Net Pension Liability – City of Erie	<u>\$ 11,634,103</u>	<u>\$ 15,864,744</u>	<u>\$ 17,809,806</u>	<u>\$ 10,378,978</u>	<u>\$ 19,414,047</u>
Net Pension Liability – Erie City Water Authority	<u>\$ 5,025,570</u>	<u>\$ 5,137,980</u>	<u>\$ 5,334,746</u>	<u>\$ 4,649,584</u>	<u>\$ 5,005,613</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	84.09%	80.56%	79.39%	87.01%	78.99%
Estimated Covered Employee Payroll	\$ 16,506,472	\$ 17,458,372	\$ 17,372,080	\$ 17,727,081	\$ 18,005,057
Net Pension Liability as a Percentage of Covered Employee Payroll	100.93%	120.30%	133.23%	84.78%	135.63%

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

OFFICERS' AND EMPLOYEES' PENSION PLAN – (Continued)

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

The following presents the net pension liability of the city as of December 31, 2015, 2016, 2017, and 2018, calculated using the discount rate of 8.0%, as well as what the city's net pension 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:

	<u>1% Decrease (7.0%)</u>	<u>Current Discount Rate (8.0%)</u>	<u>1% Increase (9.0%)</u>
Net Pension Liability – 12/31/15	\$ 32,422,613	\$ 21,002,724	\$ 11,213,469
Net Pension Liability – 12/31/16	\$ 34,680,900	\$ 23,144,552	\$ 13,243,978
Net Pension Liability – 12/31/17	\$ 26,915,654	\$ 15,028,562	\$ 4,826,977
Net Pension Liability – 12/31/18	\$ 36,077,908	\$ 24,419,660	\$ 14,417,425

SCHEDULE OF CONTRIBUTIONS

<u>Year Ended December 31</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contributions</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered- Employee Payroll</u>	<u>Contributions as a Percentage of Covered- Employee Payroll</u>
2009	\$ 2,180,475	\$ 2,234,481	\$ (54,006)	\$16,400,956	13.62%
2010	2,184,070	2,231,790	(47,720)	16,378,066	13.63%
2011	2,060,284	2,108,004	(47,720)	15,363,270	13.72%
2012	2,073,598	2,121,322	(47,724)	15,766,175	13.45%
2013	2,458,545	2,506,265	(47,720)	16,615,451	15.08%
2014	2,456,199	2,503,919	(47,720)	16,506,472	15.17%
2015	3,087,286	3,130,198	(42,912)	17,458,372	17.93%
2016	3,129,417	3,129,417	-	17,372,080	18.01%
2017	3,048,028	3,048,028	-	17,727,081	17.19%
2018	3,308,899	3,308,899	-	18,005,057	18.38%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

OFFICERS' AND EMPLOYEES' PENSION PLAN – (Continued)

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense:

2018	(5.470%)
2017	16.631%
2016	5.806%
2015	1.372%
2014	6.480%
2013	17.884%
2012	12.267%
2011	0.003%
2010	13.236%
2009	18.515%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

POLICE PENSION PLAN

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
FOR THE YEARS ENDED DECEMBER 31, 2009, 2010, 2011, 2012, AND 2013

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Total Pension Liability					
Service cost	\$ 1,364,421	\$ 1,391,847	\$ 1,328,159	\$ 1,403,365	\$ 1,469,155
Interest	7,815,171	8,035,634	8,444,943	8,687,016	9,110,603
Difference between expected and actual experience	-	2,309,649	-	2,334,238	-
Benefit payments, including refunds of member contributions	(6,392,313)	(6,501,085)	(6,604,452)	(7,006,818)	(7,355,279)
Net Change in Total Pension Liability	<u>2,787,279</u>	<u>5,236,045</u>	<u>3,168,650</u>	<u>5,417,801</u>	<u>3,224,479</u>
Total Pension Liability – Beginning	99,787,719	102,574,998	107,811,043	110,979,693	116,397,494
Total Pension Liability – Ending (a)	<u>\$ 102,574,998</u>	<u>\$ 107,811,043</u>	<u>\$ 110,979,693</u>	<u>\$ 116,397,494</u>	<u>\$ 119,621,973</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 2,870,932	\$ 2,885,521	\$ 2,658,837	\$ 2,698,115	\$ 3,988,557
Contributions – member	592,498	634,617	667,792	700,431	718,921
Net investment income	9,988,544	8,297,513	147,386	6,867,925	11,314,178
Benefit payments, including refunds of member contributions	(6,392,313)	(6,501,085)	(6,604,452)	(7,006,818)	(7,355,279)
Administrative expense	(104,563)	(68,164)	(73,751)	(69,520)	(85,001)
Net Change in Plan Fiduciary Net Position	<u>6,955,098</u>	<u>5,248,402</u>	<u>(3,204,188)</u>	<u>3,190,133</u>	<u>8,581,376</u>
Plan Fiduciary Net Position – Beginning	55,343,893	62,298,991	67,547,393	64,343,205	67,533,338
Plan Fiduciary Net Position – Ending (b)	<u>\$ 62,298,991</u>	<u>\$ 67,547,393</u>	<u>\$ 64,343,205</u>	<u>\$ 67,533,338</u>	<u>\$ 76,114,714</u>
Net Pension Liability – Ending (a-b)	<u>\$ 40,276,007</u>	<u>\$ 40,263,650</u>	<u>\$ 46,636,488</u>	<u>\$ 48,864,156</u>	<u>\$ 43,507,259</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	60.74%	62.65%	57.98%	58.02%	63.63%
Estimated Covered Employee Payroll	\$ 10,731,221	\$ 10,946,923	\$ 10,543,454	\$ 11,140,468	\$ 11,807,462
Net Pension Liability as a Percentage of Covered Employee Payroll	375.32%	367.81%	442.33%	438.62%	368.47%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

POLICE PENSION PLAN – (Continued)

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS – (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2014, 2015, 2016, 2017, AND 2018

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Total Pension Liability					
Service cost	\$ 1,500,302	\$ 1,564,357	\$ 1,668,629	\$ 1,648,394	\$ 1,678,322
Interest	9,390,331	10,000,734	10,352,694	10,649,986	10,991,668
Difference between expected and actual experience	3,612,232	-	(638,526)	-	1,795,444
Benefit payments, including refunds of member contributions	(6,910,412)	(6,959,287)	(7,532,644)	(7,742,670)	(8,323,511)
Net Change in Total Pension Liability	<u>7,592,453</u>	<u>4,605,804</u>	<u>3,850,153</u>	<u>4,555,710</u>	<u>6,141,923</u>
Total Pension Liability – Beginning	119,621,973	127,214,426	131,820,230	135,670,383	140,226,093
Total Pension Liability – Ending (a)	<u>\$ 127,214,426</u>	<u>\$ 131,820,230</u>	<u>\$ 135,670,383</u>	<u>140,226,093</u>	<u>\$ 146,368,016</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 4,004,714	\$ 4,888,047	\$ 4,940,860	\$ 5,945,568	7,150,737
Contributions – member	768,259	822,167	809,343	842,889	873,752
Net investment income	4,491,830	1,109,554	4,067,201	13,291,880	(4,955,655)
Benefit payments, including refunds of member contributions	(6,910,412)	(6,959,287)	(7,532,644)	(7,742,670)	(8,323,511)
Administrative expense	(119,903)	(95,387)	(78,560)	(75,090)	(97,857)
Net Change in Plan Fiduciary Net Position	<u>2,234,488</u>	<u>(234,906)</u>	<u>2,206,200</u>	<u>12,262,577</u>	<u>(5,352,534)</u>
Plan Fiduciary Net Position – Beginning	76,114,714	78,349,202	78,114,296	80,320,496	92,583,073
Plan Fiduciary Net Position – Ending (b)	<u>\$ 78,349,202</u>	<u>\$ 78,114,296</u>	<u>\$ 80,320,496</u>	<u>92,583,073</u>	<u>\$ 87,230,539</u>
Net Pension Liability – Ending (a-b)	<u>\$ 48,865,224</u>	<u>\$ 53,705,934</u>	<u>\$ 55,349,887</u>	<u>\$ 47,643,020</u>	<u>\$ 59,137,477</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	61.59%	59.26%	59.20%	66.02%	59.60%
Estimated Covered Employee Payroll	\$ 12,057,786	\$ 15,661,713	\$ 17,370,976	\$ 14,015,389	\$ 14,525,366
Net Pension Liability as a Percentage of Covered Employee Payroll	405.26%	342.91%	318.63%	339.93%	407.13%

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

POLICE PENSION PLAN – (Continued)

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

The following presents the net pension liability of the city as of December 31, 2015, 2016, 2017, and 2018, calculated using the discount rate of 8.0%, as well as what the city’s net pension 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:

	1% Decrease (7.0%)	Current Discount Rate (8.0%)	1% Increase (9.0%)
Net Pension Liability – 12/31/15	\$ 71,187,192	\$ 53,705,934	\$ 39,333,997
Net Pension Liability – 12/31/16	\$ 73,440,930	\$ 55,349,887	\$ 40,488,431
Net Pension Liability – 12/31/17	\$ 66,341,547	\$ 47,643,020	\$ 32,282,527
Net Pension Liability – 12/31/18	\$ 78,527,083	\$ 59,137,477	\$ 43,195,967

SCHEDULE OF CONTRIBUTIONS

Year Ended December 31	Actuarially Determined Contribution	Actual Contributions	Contribution Deficiency (Excess)	Covered- Employee Payroll	Contributions as a Percentage of Covered- Employee Payroll
2009	\$ 2,870,932	\$ 2,870,932	\$ -	\$ 10,731,221	26.75%
2010	2,885,521	2,885,521	-	10,946,923	26.36%
2011	2,658,837	2,658,837	-	10,543,454	25.22%
2012	2,698,115	2,698,115	-	11,140,468	24.22%
2013	3,988,557	3,988,557	-	11,807,462	33.78%
2014	4,004,714	4,004,714	-	12,057,786	33.21%
2015	4,888,047	4,888,047	-	15,661,713	31.21%
2016	4,940,860	4,940,860	-	17,370,976	28.44%
2017	5,945,568	5,945,568	-	14,015,389	42.42%
2018	7,150,737	7,150,737	-	14,525,366	49.23%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

POLICE PENSION PLAN – (Continued)

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense:

2018	(5.36%)
2017	16.66%
2016	5.27%
2015	1.43%
2014	5.99%
2013	17.10%
2012	10.99%
2011	0.22%
2010	13.65%
2009	18.56%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

FIREMEN'S PENSION PLAN

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
FOR THE YEARS ENDED DECEMBER 31, 2009, 2010, 2011, 2012, AND 2013

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Total Pension Liability					
Service cost	\$ 1,089,822	\$ 1,223,210	\$ 1,145,949	\$ 1,208,623	\$ 1,166,988
Interest	6,170,334	6,363,904	6,652,624	6,846,078	7,220,944
Difference between expected and actual experience	-	1,136,535	-	2,329,905	-
Benefit payments, including refunds of member contributions	(4,944,879)	(4,998,485)	(5,070,308)	(5,758,477)	(5,571,413)
Net Change in Total Pension Liability	<u>2,315,277</u>	<u>3,725,164</u>	<u>2,728,265</u>	<u>4,626,129</u>	<u>2,816,519</u>
Total Pension Liability – Beginning	78,717,825	81,033,102	84,758,266	87,486,531	92,112,660
Total Pension Liability – Ending (a)	<u>\$ 81,033,102</u>	<u>\$ 84,758,266</u>	<u>\$ 87,486,531</u>	<u>\$ 92,112,660</u>	<u>\$ 94,929,179</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 2,595,678	\$ 2,669,197	\$ 2,583,586	\$ 2,618,602	\$ 3,642,281
Contributions – member	507,734	507,088	526,942	553,124	592,040
Net investment income	8,020,141	6,405,669	(125,430)	5,380,970	9,041,143
Benefit payments, including refunds of member contributions	(4,944,879)	(4,998,485)	(5,070,308)	(5,758,477)	(5,571,413)
Administrative expense	(88,470)	(62,761)	(56,110)	(45,641)	(46,825)
Other	-	-	-	-	46,643
Net Change in Plan Fiduciary Net Position	<u>6,090,204</u>	<u>4,520,708</u>	<u>(2,141,320)</u>	<u>2,748,578</u>	<u>7,703,869</u>
Plan Fiduciary Net Position – Beginning	43,051,010	49,141,214	53,661,922	51,520,602	54,269,180
Plan Fiduciary Net Position – Ending (b)	<u>\$ 49,141,214</u>	<u>\$ 53,661,922</u>	<u>\$ 51,520,602</u>	<u>\$ 54,269,180</u>	<u>\$ 61,973,049</u>
Net Pension Liability – Ending (a-b)	<u>\$ 31,891,888</u>	<u>\$ 31,096,344</u>	<u>\$ 35,965,929</u>	<u>\$ 37,843,480</u>	<u>\$ 32,956,130</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	60.64%	63.31%	58.89%	58.92%	65.28%
Estimated Covered Employee Payroll	\$ 8,139,667	\$ 8,416,633	\$ 8,726,837	\$ 8,735,814	\$ 9,535,816
Net Pension Liability as a Percentage of Covered Employee Payroll	391.81%	369.46%	412.13%	433.20%	345.60%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

FIREMEN'S PENSION PLAN – (Continued)

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS – (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2014, 2015, 2016, 2017, AND 2018

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Total Pension Liability					
Service cost	\$ 1,278,994	\$ 1,266,732	\$ 1,401,775	\$ 1,473,156	\$ 1,578,496
Interest	7,457,238	7,967,232	8,243,434	8,853,237	9,194,974
Difference between expected and actual experience	3,327,789	-	3,866,424	-	3,403,498
Benefit payments, including refunds of member contributions	(5,524,974)	(5,805,347)	(6,010,511)	(5,918,149)	(6,364,662)
Net Change in Total Pension Liability	<u>6,539,047</u>	<u>3,428,617</u>	<u>7,501,122</u>	<u>4,408,244</u>	<u>7,812,306</u>
Total Pension Liability – Beginning	94,929,179	101,468,226	104,896,843	112,397,965	116,806,209
Total Pension Liability – Ending (a)	<u>\$ 101,468,226</u>	<u>\$ 104,896,843</u>	<u>\$ 112,397,965</u>	<u>\$ 116,806,209</u>	<u>\$ 124,618,515</u>
Plan Fiduciary Net Position					
Contributions – employer	\$ 3,703,438	\$ 4,370,193	\$ 4,443,702	\$ 5,357,018	\$ 6,389,725
Contributions – member	598,699	657,501	640,020	707,327	730,144
Net investment income	3,730,879	1,009,427	3,369,398	10,953,413	(4,388,394)
Benefit payments, including refunds of member contributions	(5,524,974)	(5,805,347)	(6,010,511)	(5,918,149)	(6,364,662)
Administrative expense	(40,483)	(42,048)	(39,154)	(52,024)	(44,816)
Other	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	<u>2,467,559</u>	<u>189,726</u>	<u>2,403,455</u>	<u>11,047,585</u>	<u>(3,678,003)</u>
Plan Fiduciary Net Position – Beginning	61,973,049	64,440,608	64,630,334	67,033,789	78,081,374
Plan Fiduciary Net Position – Ending (b)	<u>\$ 64,440,608</u>	<u>\$ 64,630,334</u>	<u>\$ 67,033,789</u>	<u>\$ 78,081,374</u>	<u>\$ 74,403,371</u>
Net Pension Liability – Ending (a-b)	<u>\$ 37,027,618</u>	<u>\$ 40,266,509</u>	<u>\$ 45,364,176</u>	<u>\$ 38,724,835</u>	<u>\$ 50,215,144</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	63.51%	61.61%	59.64%	66.85%	59.70%
Estimated Covered Employee Payroll	\$ 9,595,242	\$ 10,708,529	\$ 10,618,049	\$ 11,466,628	\$ 11,896,982
Net Pension Liability as a Percentage of Covered Employee Payroll	385.90%	376.02%	427.24%	337.72%	422.08%

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

FIREMEN’S PENSION PLAN – (Continued)

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

The following presents the net pension liability of the city as of December 31, 2015, 2016, 2017, and 2018, calculated using the discount rate of 8.0%, as well as what the city’s net pension 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:

	1% Decrease (7.0%)	Current Discount Rate (8.0%)	1% Increase (9.0%)
Net Pension Liability – 12/31/15	\$ 53,755,848	\$ 40,266,509	\$ 29,086,064
Net Pension Liability – 12/31/16	\$ 59,588,307	\$ 45,364,176	\$ 33,550,894
Net Pension Liability – 12/31/17	\$ 53,506,836	\$ 38,724,835	\$ 26,448,237
Net Pension Liability – 12/31/18	\$ 65,679,995	\$ 50,215,144	\$ 37,337,821

SCHEDULE OF CONTRIBUTIONS

Year Ended December 31	Actuarially Determined Contribution	Actual Contributions	Contribution Deficiency (Excess)	Covered- Employee Payroll	Contributions as a Percentage of Covered- Employee Payroll
2009	\$ 2,595,678	\$ 2,595,678	\$ -	\$ 8,139,667	31.89%
2010	2,669,197	2,669,197	-	8,416,633	31.71%
2011	2,583,586	2,583,586	-	8,726,837	29.61%
2012	2,618,602	2,618,602	-	8,735,814	29.98%
2013	3,642,281	3,642,281	-	9,535,816	38.20%
2014	3,703,438	3,703,438	-	9,595,242	38.60%
2015	4,370,193	4,370,193	-	10,708,529	40.81%
2016	4,443,702	4,443,702	-	10,618,049	41.85%
2017	5,357,018	5,357,018	-	11,466,628	46.72%
2018	6,389,725	6,389,725	-	11,896,982	53.71%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

FIREMEN'S PENSION PLAN – (Continued)

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense:

2018	(5.59%)
2017	16.33%
2016	5.25%
2015	1.58%
2014	6.08%
2013	16.87%
2012	10.72%
2011	(0.24%)
2010	13.29%
2009	19.06%

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

SCHEDULE OF FUNDING PROGRESS

Historical trend information about the plan is presented herewith as supplementary information. It is intended to help users assess the plan's funding status on a going-concern basis, assess progress made in accumulating assets to pay benefits when due, and make comparisons with other state and local government retirement systems.

The actuarial information is required by Act 205 biennially. The historical information, beginning as of January 1, 2013, is as follows:

OFFICERS' AND EMPLOYEES' PENSION PLAN

	(1)	(2)	(3)	(4)
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded (Assets in Excess of) Actuarial Accrued Liability (b) - (a)	Funded Ratio (a)/(b)
01-01-13	\$ 82,347,721	\$ 100,763,350	\$ 18,415,629	81.7%
01-01-15	88,840,964	104,706,677	15,865,713	84.9%
01-01-17	96,257,193	112,275,675	16,018,482	85.7%

Note: The market value of the plan's assets at 01-01-13, 01-01-15, and 01-01-17 have been adjusted to reflect the smoothing of gains and/or losses subject to a corridor between 80 to 120 percent of the market value of assets. These methods will lower contributions in years of less than expected returns and increase contributions in years of greater than expected returns. The net effect over long periods of time is to have less variance in contribution levels from year to year.

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

SCHEDULE OF FUNDING PROGRESS – (Continued)

POLICE PENSION PLAN

	(1)	(2)	(3)	(4)
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded (Assets in Excess of) Actuarial Accrued Liability (b) - (a)	Funded Ratio (a)/(b)
01-01-13	\$ 82,049,259	\$ 116,397,494	\$34,348,235	70.5%
01-01-15	88,362,785	127,214,426	38,851,641	69.5%
01-01-17	97,499,619	135,670,383	38,170,764	71.9%

Note: The market value of the plan’s assets at 01-01-13, 01-01-15, and 01-01-17 have been adjusted to reflect the smoothing of gains and/or losses subject to a corridor between 80 to 120 percent of the market value of assets. These methods will lower contributions in years of less than expected returns and increase contributions in years of greater than expected returns. The net effect over long periods of time is to have less variance in contribution levels from year to year.

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 (UNAUDITED)

SCHEDULE OF FUNDING PROGRESS – (Continued)

FIREMEN’S PENSION PLAN

	(1)	(2)	(3)	(4)
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded (Assets in Excess of) Actuarial Accrued Liability (b) - (a)	Funded Ratio (a)/(b)
01-01-13	\$ 63,498,793	\$ 92,112,660	\$ 28,613,867	68.9%
01-01-15	69,721,302	101,468,226	31,746,924	68.7%
01-01-17	77,694,300	112,397,965	34,703,665	69.1%

Note: The market value of the plan’s assets at 01-01-13, 01-01-15, and 01-01-17 have been adjusted to reflect the smoothing of gains and/or losses subject to a corridor between 80 to 120 percent of the market value of assets. These methods will lower contributions in years of less than expected returns and increase contributions in years of greater than expected returns. The net effect over long periods of time is to have less variance in contribution levels from year to year.

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
(UNAUDITED)

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the actuarial accrued liability as a factor.

Analysis of the dollar amount of the actuarial value of assets, actuarial accrued liability, and unfunded (assets in excess of) actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability (Column 4) provides one indication of the plan's funding status on a going-concern basis. Analysis of this percentage, over time, indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan.

CITY OF ERIE AGGREGATE PENSION FUND
 SUPPLEMENTARY INFORMATION
 NOTES TO SUPPLEMENTARY SCHEDULES
 (UNAUDITED)

The information presented in the supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation date follows:

OFFICERS' AND EMPLOYEES' PENSION PLAN

Actuarial valuation date	January 1, 2017
Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period:	
Established January 1, 1985	8 years
After January 1, 1985	9 years
Asset valuation method	Plan assets are valued using the method described in Section 210 of Act 205, as amended, subject to a corridor between 80-120% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	8.0%
Projected salary increases *	5.0%
Cost-of-living adjustments	None assumed

* Includes inflation at 3.0%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
NOTES TO SUPPLEMENTARY SCHEDULES
(UNAUDITED)

POLICE PENSION PLAN

Actuarial valuation date	January 1, 2017
Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period	8 years
Asset valuation method	Plan assets are valued using the method described in Section 210 of Act 205, as amended, subject to a corridor between 80-120% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	8.0%
Projected salary increases *	5.0%
Cost-of-living adjustments	2.5%

* Includes inflation at 3.0%

CITY OF ERIE AGGREGATE PENSION FUND
SUPPLEMENTARY INFORMATION
NOTES TO SUPPLEMENTARY SCHEDULES
(UNAUDITED)

FIREMEN'S PENSION PLAN

Actuarial valuation date	January 1, 2017
Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period	9 years
Asset valuation method	Plan assets are valued using the method described in Section 210 of Act 205, as amended, subject to a corridor between 80-120% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	8.0%
Projected salary increases *	5.0%
Cost-of-living adjustments	2.5%

* Includes inflation at 3.0%

CITY OF ERIE AGGREGATE PENSION FUND
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