ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

DECEMBER 31, 2017 AND 2016

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM
FINANCIAL STATEMENTS
AND SUPPLEMENTAL SCHEDULES

YEARS ENDED DECEMBER 31, 2017 AND 2016

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PROFESSIONAL ACCOUNTING,
CONSULTING & BUSINESS
ADVISORY SERVICES

March 16, 2018

President and Members of the Retirement Board
Allegheny County Employees' Retirement System
Pittsburgh, Pennsylvania

REPORT OF INDEPENDENT AUDITORS

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We have audited the accompanying financial statements of the Allegheny County Employees' Retirement System (Retirement System) as of December 31, 2017 and 2016, and for the years then ended, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Allegheny County Employees' Retirement System's management is responsible for the preparation and fair presentation of these financial statements, in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion of these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting principles used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Allegheny County Employees' Retirement System as of December 31, 2017 and 2016, and the changes in its fiduciary net position for the years then ended in conformity with accounting principles generally accepted in the United States of America

Emphasis of a Matter

As discussed more fully in the disclosure about the discount rate in Note 6 to the financial statements, the Allegheny County Employees' Retirement System is projected to reach a depletion date in 2044. Our opinion is not modified with respect to this matter.

Other Matters

Accounting principles generally accepted in the United States of America require that the schedule of changes in net pension liability, the schedule of employer contributions, and the schedule of annual money-weighted rate of return on pages 18 through 21 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

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Certified Public Accountants
Pittsburgh, PA

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ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF FIDUCIARY NET POSITION
DECEMBER 31,

ASSETS

	2017	2016
Cash and Cash Equivalents	$ 15,395,727	$ 13,761,337
Investments (at fair value):		
Equity:		
U.S. Common and Preferred Stock	124,424,207	96,260,497
American Depositary Receipts	2,061,761	1,680,703
S&P 500 Index Fund	89,140,130	74,569,550
Non-U.S. Stocks and Equity Mutual Funds	149,232,859	135,501,881
Bonds and Notes:		
Corporate Certificates of Deposit	2,728,503	1,650,446
U.S. Government and Related Agency Debt	21,624,759	20,163,391
Fannie Mae and Freddie Mac Debt	7,143,227	8,573,919
Fixed Income Mutual Funds	145,338,006	142,682,678
U.S. Corporate Debt Instruments	66,272,117	61,731,245
Non-U.S. Government and Corporate Debt	17,531,906	17,449,596
Other Investments:		
Hedge Funds	1,697,855	-
Real Estate Investment Trusts	97,462,544	93,744,640
Commodities Funds	16,579,156	15,852,623
Venture Capital / Private Equity	183,560,628	174,693,094
Receivables:		
Amounts Due from Brokers for Sold Investments	992,067	383,935
Accrued Interest and Dividends	1,439,384	1,539,674
Accrued Employer Contributions	857,302	709,395
Accrued Employee Contributions	857,302	709,308
Other Assets	10,057	478
Total Assets	$ 944,349,497	$ 861,658,390

LIABILITIES

Liabilities:		
Vouchers Payable	$ 21,401	$ 397,444
Accrued Payroll	3,292	1,513
Payroll Withholdings	942	911
Accrued Liabilities	2,690,992	2,772,128
Amounts Due to Brokers for Purchased Investments	953,771	712,109
Other Liabilities	24,258	4,269
Total Liabilities	$ 3,694,656	$ 3,888,374

FIDUCIARY NET POSITION

Net Position Restricted for Pensions:	$ 940,654,841	$ 857,770,016

The accompanying notes are an integral part of these financial statements.

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
DECEMBER 31,

	2017	2016
Additions:		
Contributions:		
Employee	$ 35,184,080	$ 34,102,601
Employer	35,123,482	33,975,748
Total Contributions	70,307,562	68,078,349
Investment Income:		
Net Appreciation (Depreciation) in Fair Value of Investments	107,999,823	51,018,397
Interest	4,715,004	4,499,890
Dividends	6,119,044	6,756,439
Partnership Income	7,452,936	7,931,578
Stock Loan Income	89,956	114,385
	126,376,763	70,320,689
Less: Investment Management Fees	10,972,813	4,213,570
Total Investment Income - net	115,403,950	66,107,119
Miscellaneous Income	206,171	55,139
Total Additions - Net	185,917,683	134,240,607
Deductions:		
Benefit Payments	96,244,878	91,072,767
Refunds of Employee Contributions	5,333,853	5,464,912
Salaries, Wages and Related Expenses	179,947	252,836
Administrative & Miscellaneous Expenses	1,274,180	1,128,731
Total Deductions	103,032,858	97,919,246
Net Increase in Net Position	82,884,825	36,321,361
Net Position Restricted for Pensions at Beginning of Year	857,770,016	821,448,655
Net Position Restricted for Pensions at End of Year	$ 940,654,841	$ 857,770,016

The accompanying notes are an integral part of these financial statements.

NOTE 1 – Significant Accounting Policies

Basis of Accounting

The accompanying financial statements of the Allegheny County Employees' Retirement System (Retirement System) have been prepared on the accrual basis of accounting. Employee and employer contributions are recognized as revenues in the period in which employee services are performed.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Investments

Investments of the Retirement System are presented at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price. Bonds and notes not regularly on a national exchange are valued based on the last reported sale price or mean of the latest bid and ask price. Other investments consist of ownership interests in various private equity funds. These interests are recorded at the latest available book value of Retirement System's ownership interest, generally being December 31, 2017. The book value for these investments approximates fair value due to the requirement for these funds to follow the guidance of Accounting Standards Codification 820-10, *Fair Value Measurements*.

The Retirement System has adopted investment guidelines that summarize the investment philosophy of the Board and set forth investment targets and performance objectives for the fund. In 2012, the Retirement Board approved changes to the target allocations for investments. The investment guidelines, adopted June 16, 2011, were last amended April 21, 2016. The target allocations are included in the revised investment guidelines and are included in these notes.

Actuarial Cost Method

The Retirement System Plan (Plan) utilizes the entry age normal method. Under this method, normal cost percent is determined separately for each active participant as the level percent of expected career earnings required to fund expected plan benefits. A dollar nominal cost is computed by applying this percent to the participant's expected earnings for the current plan year. The participant's actuarial accrued liability is the difference between the present value of all future plan benefits expected to be paid on his benefit and the present value of his future normal costs.

NOTE 2 – Plan Description

The Retirement System is sponsored by the County of Allegheny, Pennsylvania (County). The Retirement System is presented as the Pension Trust Fund (Fund) of the County, within the financial statements of the County as a whole.

The Retirement System Board (Board) administers the Retirement System. The Board consists of the following seven members: the County Executive, the County Controller, the County Treasurer, two members elected by the County employees and retirees, one member appointed by the County Executive, and one member appointed by the County Council.

The Retirement System is a single-employer, defined benefit, contributory retirement benefit plan covering substantially all employees of the County. Benefit and contribution provisions for the Retirement System are determined under the statutes enacted by the General Assembly of the Commonwealth of Pennsylvania. The Board, pursuant to express statutory authority, has the right to increase the employee contributions in the event it is actuarially determined that a contribution increase is required in order for the Board to meet its funding requirements. Any increase in employee contributions imposes a statutory requirement upon the County to match the employee contributions. Also, the obligation of the Fund to pay retirement benefits is further secured by statutory obligation imposed upon the County to utilize its taxing authority to meet the Board's obligation to make monthly benefit payments to retirees.

Monthly benefit payments are determined for each individual according to the retirement option and the age and length of service at retirement. Additionally, the Board, at its discretion, can provide for cost of living allowances to retirees based on meeting certain actuarial funding levels as more fully described in the House Bill 869 of the General Assembly of the Commonwealth of Pennsylvania. Under normal retirement (attainment of age 50 with 20 years of service for police and firefighters; age 55 with 20 years of service for deputy sheriffs, jail guards, and probation officers; age 60 with 20 years of service for non-uniformed employees), the retirement benefit is equal to 50% of the final average salary, plus 1% thereon for each full year of service between 20 and 40 years. Final average salary is the monthly average of the 24 highest months of compensation in the last 48 months of employment preceding retirement.

Act 125 was passed in December, 2013 and applies to County employees hired or re-hired on or after February 21, 2014. It changed vesting from 8 to 10 years and the service requirement from 20 to 25 years. For the purpose of calculating final average salary, final average salary was changed from the highest 24 months out of the final 4 years to the highest 48 months out of the final 8 years and overtime compensation is limited to 10% of base pay.

NOTE 2 – Plan Description (Continued)

Employees are required to contribute 9.0% of covered compensation. Employee contributions are matched equally by the County, as prescribed by the Second Class County Code of the Commonwealth of Pennsylvania. Employees with at least 24 months of service who terminate prior to satisfying the minimum service requirements for a retirement benefit are entitled to refunds of their contributions plus interest thereon, approximately 0.58% in 2017. Employees with less than 24 months of service who terminate prior to satisfying the minimum service requirements for a retirement benefit are entitled to refunds of their contributions only.

At January 1, 2017 and 2016, the dates of the most recent available data, participants in the Retirement System were as follows:

	2017	2016
Participants:		
Retirees and beneficiaries	4,790	4,654
Deferred vested	232	255
	5,022	4,909
Current Employees:		
Vested – non-uniform	3,593	3,661
Vested – all others	463	474
Vested – police and fire	173	174
Non-vested – non-uniform	2,370	2,320
Non-vested – all others	565	470
Non-vested – police and fire	82	69
	7,246	7,168
Total	12,268	12,077

NOTE 3 – Contributions Required and Contributions Made

The Retirement System's funding policy requires that the County match all employee contributions on an equal basis and fund those amounts currently. The Board, pursuant to express statutory authority, has the right to increase or decrease the employee's contribution in the event it is actuarially determined that a contribution increase is required in order for the Board to meet its funding requirements. Any increase in employee contributions imposed a statutory requirement upon the County to match the employee contributions. Also, the obligation of the Retirement System to pay retirement benefits is further secured by statutory obligation imposed upon the County to utilize its taxing authority to meet the Retirement System's obligation to make monthly benefit payments to retirees.

NOTE 4 – Cash and Investments

The Retirement System is required to invest no less than 22% of its portfolio in fixed income securities and the remaining portion primarily in stocks or equities; along with hedge funds, venture capital and real estate, which are not to collectively exceed 45% of the total portfolio.

The Retirement System is authorized by the Board to invest in obligations of the U.S. government, agencies and instrumentalities, commercial paper rated at least A-2 by Standard & Poor's or P-2 by Moody's Investors Service, Inc. (Moody's), bankers' acceptances, and corporate obligations including mutual funds, rated A by Standard & Poor's or A-2 by Moody's. The securities of any one issuer should not exceed 5% of the market value of the fund. This limitation does not apply to securities issued or guaranteed by the U.S. government or its agencies. In the case of U.S. government agency issues, the securities of any one agency should not exceed 10% of the market value of the fund.

As of December 31, 2017, the Retirement Board had the following cash and investments:

		Investment Maturities from December 31, 2017			
Cash or Investment Type	Fair Market Value	Less than 1 year	1-10 Years	10-20 Years	More than 20 years
Government & related agency debt	$ 21,624,759	$ 882,249	$ 17,403,037	$ 258,774	$ 3,080,699
Corporate certificates of deposit	2,728,503	239,610	2,488,893	-	-
Fannie Mae and Freddie Mac debt	7,143,227	-	320,198	1,571,556	5,251,473
Corporate debt	66,272,117	2,653,279	55,358,585	1,889,437	6,370,816
Non-U.S. gov't and corp. notes	17,531,906	1,655,602	14,897,299	253,165	725,840
Total debt securities	115,300,512	$ 5,430,740	$ 90,468,012	$ 3,972,932	$15,428,828
Cash and cash equivalents	15,395,727				
Bond mutual funds	145,338,006				
Equity mutual funds	149,232,859				
Stocks and ADRs	126,485,968				
Real estate investment trusts	97,462,544				
S&P 500 index fund	89,140,130				
Hedge fund	1,697,855				
Commodities fund	16,579,156				
Private equity/venture capital	183,560,628				
Total cash and other investments	824,892,873				
Total cash and investments reported on Pension Trust Fund Statement of Net Position	$ 940,193,385				

Governmental Accounting Standards Board (GASB) Statement No. 40, "*Deposit and Investment Risk Disclosures,*" requires disclosures related to deposit and investment risks. The following is a description of the deposit and investment risks:

NOTE 4 – Cash and Investments (Continued)

Interest Rate Risk –Limiting investment maturities is a means of managing exposure to fair value losses arising from rising interest rates. The Retirement Board's investment guidelines require the effective duration of each Fixed-Income Investment Manager's portfolio to comply with the schedule below:

Fixed-Income Class	Index	Duration Limit
Short-term	Merrill Lynch One-Three-Year Gov't	+/-20%
Government/Credit	Lehman Brothers Gov't/Credit	+/-20%
Core	Lehman Brothers Aggregate	+/-20%

Credit Risk – The risk that an issuer or other counterparty to an investment will not fulfill its obligations is called credit risk. The Pension Fund's Fixed-Income Investment Managers are authorized by the Retirement Board to invest in marketable debt issues of the U.S. Treasury, U.S. Agencies, U.S. corporations, U.S. banks or other financial institutions, mortgage or asset backed securities, Yankee bonds, and cash equivalents. Domestic bonds in the core-fixed income portfolios must be rated Baa/BBB or better by either Moody's or Standard & Poor's.

The investment guidelines allow for two different classifications of fixed-income managers – core fixed income or high-yield fixed income. Core-fixed income portfolios should normally maintain an average market-weighted quality of Aa/AA. High-yield fixed income securities are bonds that are typically below investment grade bonds. These high-yield fixed income securities do not carry credit ratings below BBB by definition.

The Pension Trust Fund's December 31, 2017 investments in fixed income investments have received the following ratings:

Rating Standards & Poors'	Other Government Securities	Corporate Certificates Of Deposit	FNMA & FHLMC	Corporate Bonds	Non-US Gov't & Corporate Debt
AAA	$ -	$ -	$ -	$ 1,713,478	$ 166,694
AA	1,870,431	-	-	2,743,573	685,701
A	-	-	-	9,971,468	902,647
BBB	-	-	-	12,876,347	1,864,388
BB	-	-	-	13,626,245	2,381,866
B	-	-	-	13,610,948	2,940,375
CCC	-	-	-	6,858,610	597,562
CC	-	-	-	86.250	-
Not Rated	19,754,328	2,728,503	7,143,227	4,785,198	7,992,673
Totals	$ 21,624,759	$ 2,728,503	$ 7,143,227	$ 66,272,117	$ 17,531,906

NOTE 4 – Cash and Investments (Continued)

Rating Moody's	Other Government Securities	Corporate Certificates Of Deposit	FNMA & FHLMC	Corporate Bonds	Non-US Gov't & Corporate Debt
Aaa	$ 19,260,117	$ -	$ -	$ 2,701,140	$ 166,694
Aa	-	-	-	2,252,112	509,261
A	-	-	-	11,826,359	1,416,592
Baa	-	-	-	10,959,716	1,648,789
Ba	-	-	-	9,909,874	1,922,718
B	-	-	-	15,478,948	2,924,656
Caa	-	-	-	9,290,174	1,320,125
Not Rated	2,364,642	2,728,503	7,143,227	3,853,794	7,623,071
Totals	$ 21,624,759	$ 2,728,503	$ 7,143,227	$ 66,272,117	$ 17,531,906

The Retirement Board has passed a "Statement of Investment Policy" which gives the High Yield Fixed Income asset class a target asset allocation of 12% of total fund assets. Within the High Yield Fixed Income class, the policy allows 60% of this class to be invested in Defensive High Yield investments and 40% to be invested in Opportunistic High Yield investments. The policy further defines the Opportunistic High Yield investments as "may include CCC and below rated securities", and Defensive High Yield investments "only generally excluding CCC and below securities."

The credit ratings for the Pension Fund's mutual fund investments are unknown.

Custodial Credit Risk – Cash and cash equivalents – For deposits, custodial credit risk is the risk that in the event of bank failure, the fund's deposits may not be returned to it. As of December 31, 2017, the book value of the Pension Trust Fund's cash and deposits was $2,798,691 and the bank balance was $3,365,653. Of the $3,365,653 bank balance, $250,000 was covered by federal depository insurance. $3,115,653 is uninsured and subject to custodial credit risk and is collateralized in accordance with ACT 72. An additional $12,597,036 in cash or cash equivalents was held by the Fund's investment managers in temporary investment vehicles. The investment guidelines state cash equivalent investments may be U.S. Treasury Bills, U.S. Government repurchase agreements (with a minimum of 102% collateral), money market funds, or commercial paper. If commercial paper is used for short-term investments, it must be rated at least A-1 or A by Moody's or Standard & Poor's.

Custodial Credit Risk – Investments – For investments, custodial credit risk is the risk that in the event of the failure of the counterparty, the Fund will not be able to recover the value of its investments or collateral securities that are in the possession of an outside entity. The Pension Trust Fund does not have a formal investment policy to mitigate custodial credit risk. However, to reduce investment risks, the Board's investment guidelines do set target and range asset allocations for all investments.

NOTE 4 – Cash and Investments (Continued)

The total plan targets are as follows:

Asset Allocation	Target
Cash/Fixed-income	27.0%
Diversified Equity	35.0%
Real Estate	10.0%
Venture Capital / Private	20.0%
Commodities	8.0%
Total	100.0%

Concentration of Credit Risk – The Retirement Board's investment guidelines do not set total fund diversification guidelines. However, they do attempt to minimize the impact of substantial loss in any specific industry or issue by establishing specific limits for the portfolios of each of the investment managers. For the equity investment managers, no more than 5% of each manager's equity portfolio may be invested in any one company (valued at cost), and no more than 10% of each manager's equity portfolio may be invested in any one company (valued at market). In addition, equity investments may not exceed the benchmark index by 20% of the GICS economic sector allocation.

For the core fixed-income managers, except for U.S. Treasury and Agency obligations, each manager's fixed-income portfolio may not contain more than 10% (valued at market) of a given domestic issuer; no more than 10% of each portfolio's market value may be in Yankee bonds. If an investment manager chooses to invest in SEC Rule 144A securities without registration rights, such securities may not consist of more than 10% of the portfolio.

Foreign Currency Risk –For cash and investments, foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. At December 31, 2017, the Retirement Board held $23,269 in foreign cash, $35,798,585 in common stock investments, and $17,531,906 in fixed income investments, all in various non-U.S. dollar denominations.

Rate of Return – For the year ended December 31, 2017, the annual money-weighted rate of return on the Pension Trust Fund's investments, net of the Pension Trust Fund's expense, was 13.69 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Fair Value – The Pension Trust Fund categorizes its fair value measures within the fair value hierarchy established by generally accepted accounting principles. This hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

NOTE 4 – Cash and Investments (Continued)

Investments in entities that calculate their Net Asset Value (NAV) per share, or its equivalent, are exempt from classification by the fair value hierarchy. As explained in Note 1, the other investments are recorded as the book value of the Pension Trust Fund's capital account, which is considered to be equivalent to NAV and an approximation of fair value since these investments are reported at fair value under FASB standards.

		Fair Value Measurements Using		
Investments by Fair Value Level	12/31/17	*Level 1*	*Level 2*	*Level 3*
Equity				
U.S. Common and Preferred Stock	$ 124,424,207	$ 124,424,207	$ -	$ -
American Depositary Receipts	2,061,761	2,061,761	-	-
S&P 500 Index Fund	429,488	429,488	-	-
Non-U.S. Stocks /Equity Mutual Fds	37,706,283	37,706,283	-	-
Total Equity	164,621,739	164,621,739	-	-
Bonds and Notes				
US Govt and Related Agency Debt	21,624,759	21,624,759	-	-
Fannie Mae and Freddie Mac	7,143,227	7,143,227	-	-
Fixed Income Mutual Funds	6,640,628	6,640,628	-	-
U.S Corporate Debt	66,272,117	-	66,272,117	-
Non-US Govt and Corporate Debt	17,531,906	-	17,531,906	-
Total Bonds and Notes	119,212,637	35,408,614	83,804,023	-
Total Investments by Fair Value Level	283,834,376	$ 200,030,353	$ 83,804,023	$ -

Investment by Net Asset Value (NAV)	
Equity	
S&P 500 Index Fund	88,710,642
Non-U.S. Stocks /Equity Mutual Fds	111,526,576
Total Equity	200,237,218
Bonds and Notes	
Fixed Income Mutual Funds	138,697,378
Total Bonds and Notes	138,697,378
Other Investments	
Hedge Funds	1,697,855
Real Estate Investment Trusts	97,462,544
Commodities Funds	16,579,156
Venture Capital/Private Equity	183,560,628
Total Other Investments	299,300,183
Total Investments by Net Asset Value	638,234,779
Total Investments Measure at Fair Value	$ 922,069,155

NOTE 4 – Cash and Investments (Continued)

Equity and Bonds and Notes securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Bonds and Notes classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

The Equity and Bonds and Notes securities reported at NAV are valued daily and the Pension Trust Fund can generally withdraw their investment on demand. The Pension Trust Fund has no obligation to make additional investments in these funds.

The Other Investments reported at NAV are valued over a range; generally, either monthly or quarterly. Most of these investments do not allow the Pension Trust Fund to withdraw their funds from the investment. For those that allow withdrawals, they can occur either monthly or quarterly, with notice of 60 to 120 days. As explained more fully in Note 5, the Pension Trust Fund is obligated to contribute approximately $40 million to these funds.

NOTE 5 – Commitments and Contingencies

The Retirement System is subject to asserted and unasserted potential claims encountered in the normal course of business. In the opinion of management and legal counsel, the resolution of these claims will not have a material adverse effect on the Retirement System's net assets or results of operations.
Certain other investments of the Retirement System consist of the Retirement System entering into agreements as limited partners in private equity funds. These agreements generally provide for the Retirement System to make commitments as to the amount of funds the Retirement System will contribute to these funds. The decision as to whether these funds are required to be contributed and the amounts of any particular contribution are determined by the general partners of these funds. As of December 31, 2017, the Retirement System has approximately $40 million in outstanding commitments under these agreements.

NOTE 6 – Net Pension Liability

The components of the net pension liability at December 31, 2017, were as follows:

Total Pension Liability	$ 2,026,854,704
Plan Fiduciary Net Pension	940,654,841
Net Pension Liability	$ 1,086,199,863
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	46.41%

NOTE 6 – Net Pension Liability (Continued)

Actuarial Assumptions - The total pension liability was determined by an actuarial valuation as of December 31, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Projected salary increases	5.75% for age <25 5.25% for age 25-29 4.25% for age 30-34 3.75% for age 35-39 3.25% for age >40
Investment rate of return	7.75%
General inflation	2.75%
Contribution rate	9.0% of salary

Mortality rates were based on the RP-2000 Combined Healthy Annuitants Mortality Table (Base Year = 2010), with blue-collar adjustments and adjustments for mortality improvements based on Scale AA and the RP-2000 Disabled Retirees Mortality Table, with no future mortality improvement.

The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial valuation as of January 1, 2017 with update procedures used to roll forward the Total Pension Liability to December 31, 2017.

The long-term expected rate of return on the Pension Trust Fund 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 geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2017 (see Note 4 for the discussion of the Pension Trust Fund's investment policy are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
U.S. Equity	4.55%
Non-U.S. Equity	4.75%
Private Equity/Venture Capital	7.10%
Core Fixed Income	1.65%
High Yield	3.45%
Real Estate	4.00%
TIPS	1.20%
Commodities	2.00%

NOTE 6 – Net Pension Liability (Continued)

Discount Rate - The discount rate used to measure the total pension liability was 5.54 percent. A projection of Plan Net Fiduciary Position was performed in order to determine if a depletion date was reached. Benefit payments were projected from the January 1, 2017 valuation date for the closed group of plan participants on that date. Administrative expenses were assumed to increase at 2.75%. Future employer and employee contribution rates were assumed to increase from the 2017 level of 9% of covered payroll to 9.5% effective January 1, 2018. Future new entrants were included in the projection of future contributions only to the extent that contributions in excess of their service costs are considered. Asset projections include future new entrants to the plan. The demographic composition of the new entrant group is similar to the recent group of new participants to the plan. Projections assume that the active headcount increases from the January 1, 2017 level to 7,300. Based on those assumptions, the Pension Trust Fund's fiduciary net position was projected to reach a depletion date in 2044. Therefore, in the determination of the discount rate, the long-term expected rate of return was applied through 2044 to projected benefit payments and a municipal bond rate of 3.16% was applied to projected benefit payments thereafter. For this purpose, the index used was the S&P Municipal Bond 20 Year High Grade Index as of December 29, 2017.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate – The following presents the net pension liability using the discount rate of 5.54 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 – percentage-point lower (4.54 percent) or 1 – percentage-point higher (6.54 percent) than the current rate:

	1% Decrease (4.54%)	Current Discount Rate (5.54%)	1% Increase (6.54%)
Net Pension Liability	$ 1,336,772,954	$ 1,086,199,863	$ 875,878,766

NOTE 7 – Tax Status

The Internal Revenue Service has determined and informed the Retirement System by a letter dated December 15, 1997 that the Retirement System is designated in accordance with the applicable sections of the Internal Revenue Code (Code). The plan document has been amended since receiving the determination letter. The Retirement System administrator and the Retirement System's tax counsel believe that the plan remains designated and is currently being operated in compliance with the applicable requirements of the Code.

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF CHANGES IN NET PENSION LIABILITY

	2017	2016	2015	2014
Total Pension Liability				
Service Cost	$ 49,757,279	$ 30,707,225	$ 30,573,729	$ 34,628,592
Interest	107,626,883	110,765,848	106,192,763	98,256,438
Differences between Expected and Actual Experience	34,811,005	35,351,752	(1,277,131)	-
Changes of Benefit Terms	-	-	8,150,316	-
Changes in Assumptions	(38,440,255)	443,570,618	9,448,604	(218,138,548)
Benefit Payments, Including Refunds of Member Contributions	(101,578,731)	(96,537,679)	(91,468,361)	(83,481,880)
Net Change in Total Pension Liability	52,176,181	523,857,764	61,619,920	(168,735,398)
Total Pension Liability - Beginning	1,974,678,523	1,450,820,759	1,389,200,839	1,557,936,237
Total Pension Liability - Ending (a)	$ 2,026,854,704	$ 1,974,678,523	$ 1,450,820,759	$ 1,389,200,839
Plan Fiduciary Net Position				
Contributions - Employer	$ 35,123,482	$ 33,975,748	$ 32,925,519	$ 29,830,945
Contributions - Employee	35,184,080	34,102,601	33,151,939	30,170,618
Net Investment Income	115,610,121	66,162,258	11,081,867	35,993,409
Benefit Payments, Including Refunds of Member Contributions	(101,578,731)	(96,537,679)	(91,468,361)	(83,481,880)
Administrative Expense	(1,454,127)	(1,381,567)	(1,325,422)	(1,274,059)
Net Change in Plan Fiduciary Net Position	82,884,825	36,321,361	(15,634,458)	11,239,033
Plan Fiduciary Net Position - Beginning	857,770,016	821,448,655	837,083,113	825,844,080
Plan Fiduciary Net Position - Ending (b)	$ 940,654,841	$ 857,770,016	$ 821,448,655	$ 837,083,113
County's Net Pension Liability - Ending (a) - (b)	$ 1,086,199,863	$ 1,116,908,507	$ 629,372,104	$ 552,117,726
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	46.41%	43.44%	56.62%	60.26%
Covered-Employee Payroll	$ 378,411,951	$ 361,963,695	$ 350,743,858	$ 337,015,597
County's Net Pension Liability as a Percentage of Covered-Employee Payroll	287.04%	308.57%	179.44%	163.83%

See accompanying note to supplemental schedules.

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF EMPLOYER CONTRIBUTIONS

	Statutorily Required Contribution	Contribution in Relation to the Statutorily Required Contribution	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2017	$ 35,123,482	$ 35,123,482	$ -	$ 378,411,951	9.28%
2016	33,975,748	33,975,748	-	361,963,695	9.39%
2015	32,925,519	32,925,519	-	350,743,858	9.39%
2014	29,830,945	29,830,945	-	337,015,597	8.85%
2013	27,587,089	27,587,089	-	339,905,490	8.12%
2012	27,224,149	27,224,149	-	340,880,866	7.99%
2011	23,406,380	23,406,380	-	357,290,379	6.55%
2010	20,115,911	20,115,911	-	340,878,581	5.90%
2009	19,256,793	19,256,793	-	326,803,000	5.89%
2008	18,577,232	18,577,232	-	317,380,000	5.85%

See accompanying note to supplemental schedules.

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF ANNUAL MONEY-WEIGHTED RATE OF RETURN

	Annual Money-Weighted Rate of Return, Net of Investment
2017	13.69%
2016	8.19%
2015	1.33%
2014	4.40%

See accompanying note to supplementatl schedules

ALLEGHENY COUNTY EMPLOYEES' RETIREMENT SYSTEM

NOTES TO SUPPLEMENTARY SCHEDULES

FOR THE PLAN YEAR ENDED DECEMBER 31, 2017

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

Actuarial valuation date	12/31/2017
Amortization	None
Actuarial cost method	Entry Age Normal
Asset valuation method	Market Value
Actuarial assumptions:	
Projected salary increases	5.75% for age <25 5.25% for age 25-29 4.25% for age 30-34 3.75% for age 35-39 3.25% for age >40
Investment rate of return	7.75%
General inflation	2.75%
Contribution rate	9.0% of salary

Change in Assumptions – The discount rate changed from 5.37% to 5.54%.

The Schedule of Changes in Net Pension Liability and the Schedule of Annual Money-Weighted Rate of Return only present information for the current and the previous three years since information from years previous to 2014 is unavailable.