2016

COMPREHENSIVE ANNUAL FINANCIAL REPORT

Ohio Police & Fire Pension Fund

FOR YEAR ENDED DECEMBER 31, 2016

Ohio Police & Fire Pension Fund

2016 Comprehensive Annual Financial Report
For year ended Dec. 31, 2016
Prepared through the combined efforts of OP&F staff

Prudence • Integrity • Empathy

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Columbus, Ohio 43215

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2016

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR YEAR ENDED DEC. 31, 2016

PREPARED THROUGH THE COMBINED EFFORTS OF OHIO POLICE & FIRE PENSION FUND STAFF

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INTRODUCTION

2016 COMPREHENSIVE ANNUAL FINANCIAL REPORT | OHIO POLICE & FIRE PENSION FUND

BOARD OF TRUSTEES

About the Board of Trustees

Ohio law provides for the Ohio Police & Fire Pension Fund (OP&F) Board of Trustees to be comprised of nine members. There are six employee members elected to four-year terms by their respective member groups: two active representatives of police departments, two active representatives of fire departments, one retired police officer and one retired firefighter. The Board of Trustees also includes three statutory members. Each statutory member – one appointed by the Governor of Ohio, one by the Ohio Treasurer of State and one appointed jointly by the Ohio Senate President and the Ohio Speaker of the House – must have professional investment expertise.

The OP&F Board of Trustees appoints the Executive Director, an actuary and other advisors necessary for the transaction of business. By law, the Ohio Treasurer of State is custodian of OP&F's funds. The Board of Trustees meets monthly, except for one month each year. In 2016, the Board of Trustees did not meet in the month of July and in 2017 the Board of Trustees will not meet in the month of July. The Board of Trustees receives no compensation, but is reimbursed for necessary expenses.

Board of Trustee Members

William E. Deighton
Retired, Cleveland Fire, term began on June 1, 2015, expires on June 2, 2019.

Daniel J. Desmond
Toledo Fire, term began on June 1, 2015, expires on June 2, 2019.

Edward L. Montgomery
Chair, Columbus Police, term began on June 6, 2016, expires on May 31, 2020.

Jeffrey H. Moore
Chair Elect, West Chester Fire, term began on June 1, 2015, expires on June 2, 2019.

Timothy P. Patton, Jr.
Cleveland Police, term began on June 1, 2015, expires June 2, 2019.

John L. Wainscott
Vice Chair, Retired, Cincinnati Police, term began on June 6, 2016, expires on May 31, 2020.

J. David Heller
Investment Expert Member, appointed by the Ohio Senate and the Ohio House of Representatives, term began on Nov. 5, 2016, expires on Nov. 5, 2020.

Karin Maloney Stifler
Investment Expert Member, appointed by the Ohio Treasurer of State, term began March 4, 2015, expires on March 4, 2019.

ADMINISTRATIVE STAFF


John J. Gallagher, Jr.


Scott K. Miller


Mary Beth Foley


Theodore G. Hall


Caren R. Sparks


Maureen L. Gatewood


Jennifer L. Harville

Executive Staff

John J. Gallagher, Jr.
Executive Director

Scott K. Miller
Deputy Executive Director

Mary Beth Foley
General Counsel

Theodore G. Hall
Chief Investment Officer

Caren R. Sparks
Chief Audit Executive/Privacy and Ethics Officer

Maureen L. Gatewood
Business and Technology Solutions Director

Jennifer L. Harville
Member Services Director

Professional Consultants *(not pictured)*

Actuary
Conduent (Formally known as Buck Consultants, LLC)

Legal Counsel
Ohio Attorney General, the Honorable Mike DeWine

Custodian of OP&F's Funds
Ohio Treasurer of State, Josh Mandel

Custodial Banks
Huntington National Bank - Domestic
Northern Trust Company - International

Independent Accountants
RSM US LLP
(Under contract with the Ohio Auditor of State)

Medical Advisors
Gregory M. Jewell, M.D., M.S., M.M.M., OP&F Board Medical Advisor
Joel S. Steinberg, M.D., Disability Evaluation Panel Medical Advisor

Investment Consultants and Money Managers
(See page 62)

Schedule of Brokers' Fees Paid
(See page 63)

AWARDS

OP&F has been recognized by financial experts for their commitment to the highest possible fiscal standards. OP&F is honored to have been recognized with the following:

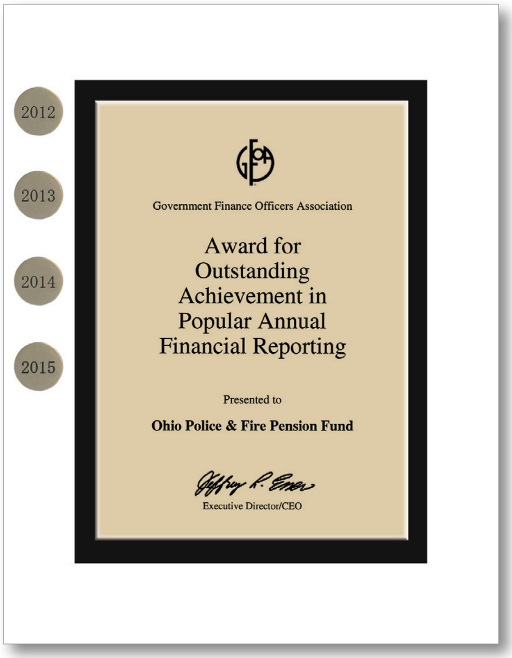
2015 Certificate of Achievement for Excellence in Financial Reporting

For 27 years, the Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to OP&F for its Comprehensive Annual Financial Report. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report that satisfies both generally accepted accounting principles and applicable legal requirements.

2016 Distinguished Budget Presentation Award

OP&F was again recognized by GFOA's Distinguished Budget Presentation Award in 2016, representing the 15th consecutive year OP&F has achieved this distinction. OP&F has received the award annually since 2002. The GFOA established the Distinguished Budget Presentation Awards Program (Budget Awards Program) in 1984 to encourage and assist state and local governments to prepare budget documents of the very highest quality that reflect both the guidelines established by the National Advisory council on State and Local Budgeting and the GFOA's best practices on budgeting and then to recognize individual governments that succeed in achieving that goal.

AWARDS



2015 Award for Outstanding Achievement in Popular Annual Financial Reporting

For 15 years, the GFOA has awarded a Certificate of Outstanding Achievement in Popular Annual Financial Reporting to OP&F for its Popular Annual Financial Report. This award is a prestigious national award recognizing conformance with the highest standards of creativity, presentation, understandability and reader appeal for preparation of governmental popular reports.

2016 Public Pension Standards Award

Awarded to OP&F by the Public Pension Coordinating Council (PPCC). OP&F has received the award annually since 2009. This award recognizes OP&F's professional standards attained for administration. The PPCC's standards were established in 2002 to promote excellence in pension plan design and administration. These standards serve as a benchmark by which to measure current practices of defined benefit plans.

LETTER OF TRANSMITTAL

Ohio Police & Fire Pension Fund

140 East Town Street / Columbus, Ohio 43215-5164 / Tel. (614) 228-2975 / www.op-f.org

June 29, 2017

Dear Chair and Members of the Board of Trustees:

We are pleased to submit to you the Comprehensive Annual Financial Report (CAFR) of the Ohio Police & Fire Pension Fund (OP&F) for the fiscal year ending Dec. 31, 2016. This CAFR was prepared to aid interested parties in assessing OP&F's financial status on Dec. 31, 2016 and its results for the year then ended.

Accounting System and Internal Controls

The financial statements were prepared in accordance with accounting principles generally accepted in the United States of America (U.S.) applicable to governmental units, including the pronouncements of the Governmental Accounting Standards Board (GASB). Additional information on OP&F's significant accounting policies is contained in the Notes to the Basic Financial Statements in the Financial Section.

Management is responsible for establishing and maintaining an effective internal control structure designed to ensure that the assets of OP&F are protected from loss, theft, or misuse; and to ensure that adequate accounting data is compiled to allow for the preparation of Basic Financial Statements in conformity with accounting principles generally accepted in the U.S. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that:

(1) the cost of a control should not exceed the benefits likely to be derived; and

(2) the valuation of costs and benefits requires estimates and judgments by management.

Management believes its internal control structure meets these objectives.

OP&F History and Overview

OP&F is a cost-sharing, multiple–employer public employee retirement system and was created by the Ohio General Assembly in 1965, replacing 454 separate local police and firefighter relief and pension funds in Ohio. OP&F began operating as a statewide Retirement Fund on Jan. 1, 1967. On that date, the local pension funds transferred their assets and liabilities to OP&F. Assets transferred to OP&F totaled approximately $75 million, while OP&F's actuary computed the liabilities accrued up to 1966 at approximately $490 million. Employers are paying the remaining unfunded accrued liability, which began in 1969, over a 67-year period. As of Dec. 31, 2016, the balance totaled nearly $22.8 million.

OP&F provides pension, disability, deferred retirement option plan (DROP) and health care benefits to qualified members. In addition, OP&F provides survivor benefits, death benefits and sponsors health care programs for eligible survivors, spouses, children and dependent parents. Please refer to the Plan Summary in the Actuarial Section for further information on plan benefits.

Membership in OP&F is mandatory under Ohio law for all full–time police officers employed by Ohio municipalities and appointed under the required statutory provisions. Membership is also mandatory for all full–time firefighters employed by Ohio municipalities, townships (fire only), villages, joint fire districts or other political subdivisions. In order to become a member of OP&F, a full-time firefighter is required to satisfactorily complete or have satisfactorily completed a firefighter training course approved under former Section 3303.07, Section 4765.55, or conducted under Section 3737.33 of the Ohio Revised Code (ORC). The table below is a tabulation of current participating employers at Dec. 31, 2016:

Participating Employers

	Police	Fire	Total
Municipalities	248	221	469
Townships	–	130	130
Villages	279	37	316
TOTAL	**527**	**388**	**915**

Financial Overview

OP&F receives virtually all of its funds from the following sources: investment earnings, employer contributions, member contributions, state subsidies, benefit recipient health care premiums and reimbursements. Additions to the fiduciary net position were $2,160.9 million in 2016, which included appreciation on investments due to a positive return of 11.51 percent as well as contributions received from employers and members.

Contributions increased by 6.8 percent in 2016. This is due to the last incremental increase in the member contribution rate that became effective during the middle of 2015. For all of 2016, the statutory member contribution rate was 12.25 percent.

The statutory employer contribution rate remained unchanged from the prior year at 19.5 percent for police employers and 24 percent for fire employers. In 2016, both member contributions and employer contributions were due monthly. Statutory penalties are assessed if payments and/or the member contribution reports are received late. Penalties assessed against employers decreased in 2016. The decrease is mainly due to OP&F's initiative to help employers avoid penalty situations. Just before each due date, OP&F sends an automated voice message to all employers if OP&F has not received their payment or report before the due date. OP&F also offers to our employers the ability to report electronically using OP&F's secured Employer Self Serve Web and to pay electronically using the online Automated Clearing House (ACH) payment options.

	2016	
Additions to Fiduciary Net Position *(dollars in millions)*	**Amount**	**Percent**
Net Investment Income	$1,317.4	61.0%
Contributions	807.2	37.3%
Other Additions	36.3	1.7%
TOTAL ADDITIONS	**$2,160.9**	**100.0%**

Deductions to Fiduciary Net Position *(dollars in millions)*	2016 Amount	2016 Percent
Benefits	$1,396.4	97.6%
Refund of Member Contributions	14.2	1.0%
Administrative and Other Expenses	19.6	1.4%
TOTAL DEDUCTIONS	**$1,430.2**	**100.0%**

Benefit payments represent the largest deduction and usage of the additions to fiduciary net position. In 2016, OP&F experienced a 1.9 percent increase in retirement benefits. This increase is due to a three percent cost-of-living allowance (COLA) for eligible benefit recipients and a 1.6 percent increase in the number of beneficiaries receiving pension benefits.

Service retirement benefits increased 6.5 percent, and survivor and disability benefits increased at a lower rate of 1.7 percent. In addition, DROP withdrawals decreased 15.5 percent. There was also a 4.8 percent increase in the amount of health care benefit payments due to normal cost trend increases and increased utilization of both the medical and prescription drug benefits.

Administrative and other expenses increased this year by 20.2 percent. This increase is primarily due to an increase in GASB 68 pension expense. In accordance with GASB 68, OP&F is required to recognize its proportionate share of OPERS net pension liability and also amortize certain changes in this liability as pension expense based on the amortization schedule. Refunds of member contributions increased slightly in 2016 and other deductions were not material to the overall change in plan assets.

Please refer to the Management's Discussion and Analysis in the Financial Section for additional financial details.

Funding Practices and Actuarial Overview

Funds are derived from the excess of additions over deductions and are accumulated by OP&F in order to meet current and future benefit obligations to retirees and other beneficiaries. OP&F experienced a $730.7 million increase in the 2016 fiduciary net position primarily due to the appreciation of the fair value of investments. OP&F also administers a self-insured health care plan for its members. A portion of employer contributions and a portion of investment income are both set aside to operate the health care program.

The OP&F investment portfolio achieved a return of 11.51 percent in 2016. By adhering to the sound principles and strategies that are in place, OP&F is strategically positioned to weather market fluctuations. As of Dec. 31, 2016, total investments at fair value stood at $14.5 billion.

In 2016, OP&F achieved a 29-year amortization period and in 2015 OP&F achieved a 30-year amortization period on the annual actuarial valuations completed by Conduent. This is a direct reflection of the pension legislation changes enacted in 2012. The report also shows that OP&F's pension funding ratio as of Jan. 1, 2016 was 71.3 percent based on the actuarial value of assets. The report confirms that OP&F continues to be able to meet its current and future pension obligations. As of the same date, OP&F's health care funding ratio was 18.0 percent with a solvency period until the year 2025, or nine more years.

A report by Wilshire, an independent investment consultant, showed that OP&F's investment portfolio continues its exceptional performance. In 2016, OP&F's performance ranked in the top one percent of its relevant peer group, with an 11.51 percent return. OP&F's portfolio returns ranked in the top nine percent in the 10-year period and ranked in the top five percent in the five-year period ending December 2016. In the 10-year period, OP&F realized a 6.31 percent annualized return on investments while the five-year period realized 10.09 percent and the three-year period realized 6.25 percent. The three-year investment period lagged the assumed rate of return of 8.25 percent by 200 basis points (bps), but the five-year return outpaced OP&F's assumed rate of return by 184 bps.

Please see the Notes to the Basic Financial Statements, the Statistical Section and the Required Supplementary Information (RSI) Sections of this report for more detailed information.

Investment Policy

OP&F invests all available funds in order to maximize both current income and long–term appreciation. The primary objective of OP&F's investment policy is to ensure that OP&F meets its responsibilities for providing retirement and other benefits. The investment portfolio is diversified to provide adequate cash flow and to provide the highest possible total return for OP&F's assets while maintaining an acceptable level of risk. OP&F's total rate of return on its investment portfolio was favorable with a gain of 11.51 percent in 2016.

Details of portfolio composition, rates of return, analysis of significant economic conditions, and additional information concerning OP&F's investment policy are provided in the Investment Section of this report.

Material Plan Amendments

There were no material plan amendments in 2016. See the Actuarial Section for the assumptions used within this report.

Independent Audit

RSM US LLP, independent certified public accountants, audited the financial statements of OP&F for the year ended Dec. 31, 2016, and their opinion thereon is included in the Financial Section.

Notes to Basic Financial Statements

The Notes to the Basic Financial Statements, which follow the Basic Financial Statements, contain additional information and are an integral part of such statements.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to OP&F for its CAFR for the fiscal year ended Dec. 31, 2015. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized CAFR, whose contents conform to program standards. Such reports must satisfy both accounting principles generally accepted in the U.S. and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. OP&F believes the current report continues to conform to the Certificate of Achievement Program requirements and is submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgments

The preparation and contents of this report reflect the combined efforts of OP&F's staff under the direction of the Board of Trustees and are the responsibility of OP&F's management staff. It is intended to provide complete and reliable information as a basis for making management decisions, to disclose compliance with legal provisions and as a means of demonstrating responsible stewardship for the assets contributed by the members and their employers.

The cooperation of OP&F's employers is vital to our success and is greatly appreciated.

Respectfully submitted,

John J. Gallagher, Jr.
Executive Director

Scott K. Miller
Deputy Executive Director

FINANCIAL

INDEPENDENT AUDITOR'S REPORT

RSM

Independent Auditor's Report

The Board of Trustees
Ohio Police & Fire Pension Fund and
The Honorable Dave Yost
Columbus, Ohio

Report on the Financial Statements
We have audited the accompanying basic financial statements of Ohio Police & Fire Pension Fund, which comprise the statement of fiduciary net position as of December 31, 2016, and the related statement of changes in fiduciary net position for the year ended December 31, 2016, and the related notes to the financial statements, (collectively, basic financial statements).

Management's Responsibility for the Financial Statements
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 on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial 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 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 policies 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 basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of Ohio Police & Fire Pension Fund as of December 31, 2016, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that management's discussion and analysis and the schedules of funding progress and employer contributions and related notes, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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.

Other Information
Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise Ohio Police & Fire Pension Fund's basic financial statements. The additional information, including the schedule of administrative expenses, schedule of investment expenses, and the combining statement of changes in assets and liabilities – public officers' death benefit fund, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The additional information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the additional information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investments, actuarial and statistical sections, as listed in the table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*
In accordance with *Government Auditing Standards*, we have also issued our report dated June 28, 2017 on our consideration of Ohio Police & Fire Pension Fund's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Ohio Police & Fire Pension Fund's internal control over financial reporting and compliance.

RSM US LLP

Columbus, Ohio
June 28. 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

This Management Discussion and Analysis (MD&A) of OP&F's financial performance provides a narrative overview of financial activities for the fiscal year ended Dec. 31, 2016. The MD&A is designed to focus on the current year's activities, resulting changes and currently known facts. OP&F encourages reading this in conjunction with the Basic Financial Statements, Notes to the Basic Financial Statements and the Letter of Transmittal included in the Introductory Section of this CAFR.

Historically, OP&F's Comprehensive Annual Financial Report (CAFR) presented combined financial statements for two comparative years. Beginning in 2016, OP&F's CAFR presents financial statements for the most recent year end only. Management elected to make the change due to the increased reporting requirements of the Governmental Accounting Standards Board (GASB). Management's goal was to streamline the Financial Section of the CAFR to include only the required information. Users of this CAFR can refer to the Statistical Section for historical financial information.

FINANCIAL HIGHLIGHTS

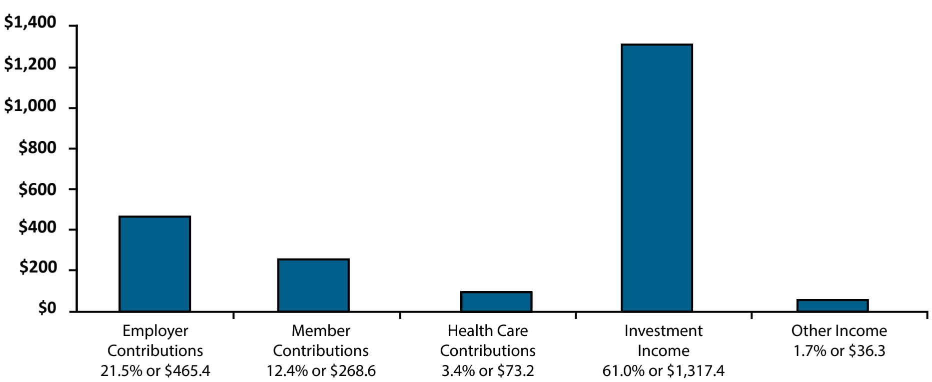
Additions are received primarily from investment income and employer and member pension contributions. For fiscal year 2016, these additions totaled $2,160.9 million compared to $774.9 million in 2015, which is a 178.9 percent increase.

Investment income can fluctuate dramatically because it includes realized and unrealized investment gains and losses based on performance of global capital markets.

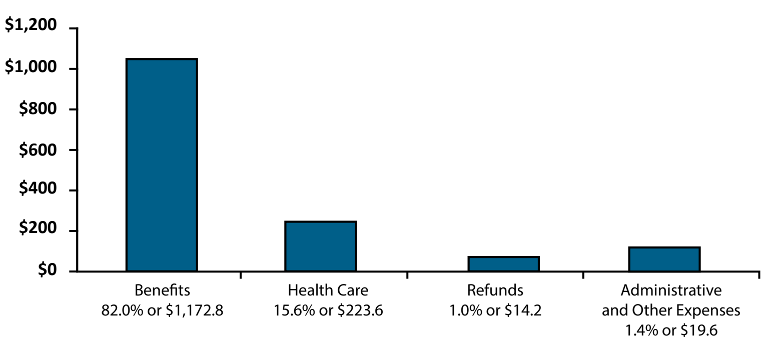
The employer contribution rates of 19.5 percent for police and 24 percent for fire remained unchanged in both 2016 and 2015. The member contribution rate was 12.25 percent for both police and fire in 2016. From Jan. 1, 2015 to July 1, 2015 the member contribution rate was 11.5 percent. From July 2, 2015 to Dec. 31, 2015 the member contribution rate increased to 12.25 percent. This increase was part of S.B. 340 where member contributions gradually increased over a three year period by 0.75 percent each year from 10.0 percent to 12.25. This increase in the member contribution rate was the first since 1988.

Deductions are incurred primarily for the purpose for which OP&F was created; the payment of pension, disability and survivor benefits to qualified members and survivors. Included in the deductions from OP&F's fiduciary net position for 2016 were benefits for retirement, DROP, disability, health care and survivors. Also included were contribution refunds, administrative and other expenses. Pension benefits are funded through a combination of investment earnings and employer and member contributions. Health care expenses are funded on a self insured basis through a portion of employer contributions, health care premiums and

2016 ADDITIONS (DOLLARS IN MILLIONS) $2,160.9



2016 DEDUCTIONS (DOLLARS IN MILLIONS) $1,430.2



investment income. Deductions totaled $1,430.2 million in 2016 and were $1,400.0 million in 2015, which is a 2.2 percent increase over 2015. Please refer to the Plan Summary in the Actuarial Section for further information on plan benefits.

OP&F administers the State of Ohio Public Safety Officers Death Benefit Fund. This program was established by the State of Ohio to provide monthly benefit payments to eligible surviving family members of Ohio public safety officers who have been killed in the line of duty or die of a duty-related injury or illness. Funds are disbursed to OP&F on a quarterly basis and are paid monthly by OP&F to eligible recipients. Annually the unused balance is returned to the State of Ohio. The Public Safety Officers Death Benefit Fund is considered to be an agency fund administered by OP&F and accordingly, its assets of $0.5 million and $0.7 million at Dec. 31, 2016 and 2015, respectively, and the related liability for unpaid benefits as of the same dates are included in the accompanying financial statements.

OVERVIEW OF FINANCIAL STATEMENTS

Following the MD&A are the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position. OP&F's financial statements are prepared using the accrual basis of accounting and are in compliance with applicable GASB Statements.

The Statement of Fiduciary Net Position provides a snapshot view at year–end for the amount OP&F has accumulated in assets to pay for benefits. The Statement of Changes in Fiduciary Net Position reflects what has happened to OP&F's assets during the fiscal year. If the fiduciary net position increased, then additions were greater than the deductions. If the fiduciary net position decreased, then additions were less than the deductions.

In addition to the Basic Financial Statements and accompanying Notes to the Basic Financial Statements, certain Required Supplementary Information (RSI) is provided. The RSI consists of information pertaining to OP&F's actuarial methods and assumptions and provides data on the net pension liability and the changes in net pension liability. Also included in the RSI is data on contributions from employers, data on the funding progress for the retiree health care trust fund, and other information useful in evaluating the financial condition of OP&F. Following the RSI are Schedules of Administrative Expenses and the Schedule of Investment Expenses.

In accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions, which significantly revised accounting for pension costs and liabilities, OP&F recorded as a liability its proportionate share of the Ohio Public Employees Retirement System (OPERS) Net Pension Liability (NPL). However, OP&F is not responsible for certain key factors affecting the balance of this liability. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are set by state statute. Benefit provisions are also determined by state statute. Ohio law does not currently place responsibility for unfunded liabilities on the municipal employers who participate in OPERS. The pension system is responsible for the administration of the plan.

Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e. sick and vacation leave) are satisfied through paid time-off or termination payments. There is no repayment schedule for the NPL. Changes in pension benefits, contribution rates and return on investments affect the balance of the NPL, but are outside the control of the public employer. In the event that contributions, investment returns and other changes are insufficient to keep up with required pension payments, state statute does not assign or identify the responsible party for the unfunded portion.

A condensed version of OP&F's financial information is being provided as part of this discussion.

CONDENSED FIDUCIARY NET POSITION INFORMATION (DOLLARS IN MILLIONS)

	2016	2015	2016 Change Amount	2016 Change Percent
Cash and Short-term Investments	$923.9	$1,365.9	$(442.0)	(32.4)%
Receivables	167.5	133.9	33.6	25.1%
Investments, at Fair Value	14,457.6	13,466.7	990.9	7.4%
Capital Assets, Net of Depreciation	16.7	17.8	(1.1)	(6.2)%
Other Assets	0.2	0.3	(0.1)	(33.3)%
TOTAL ASSETS	**15,565.9**	**14,984.6**	**581.3**	**3.9%**
DEFERRED OUTFLOWS	3.4	1.5	1.9	126.7%
Benefits and Accounts Payable	71.8	66.3	5.5	8.3%
Investments Payable	913.1	1,066.0	(152.9)	(14.3)%
TOTAL LIABILITIES	**984.9**	**1,132.3**	**(147.4)**	**(13.0)%**
DEFERRED INFLOWS	0.4	0.5	(0.1)	(20.0)%
FIDUCIARY NET POSITION, END OF YEAR	**$14,584.0**	**$13,853.3**	**$730.7**	**5.3%**

CONDENSED CHANGES IN FIDUCIARY NET POSITION INFORMATION (DOLLARS IN MILLIONS)

	2016	2015	2016 Change Amount	2016 Change Percent
Contributions	$807.2	$755.7	$51.5	6.8%
Net Investment Gain/(Loss)	1,317.4	(10.0)	1,327.4	13274.0%
Other Additions	36.3	29.2	7.1	24.3%
TOTAL ADDITIONS	**2,160.9**	**774.9**	**1,386.0**	**178.9%**
Benefits	1,396.4	1,369.9	26.5	1.9%
Refunds	14.2	13.8	0.4	2.9%
Administrative and Other Expenses	19.6	16.3	3.3	20.2%
TOTAL DEDUCTIONS	**1,430.2**	**1,400.0**	**30.2**	**2.2%**
Net Increase/(Decrease)	**730.7**	**(625.1)**	**1,355.8**	**216.9%**
Fiduciary Net Position, Beginning of Year	**13,853.3**	**14,478.4**	**(625.1)**	**(4.3)%**
FIDUCIARY NET POSITION, END OF YEAR	**$14,584.0**	**$13,853.3**	**$730.7**	**5.3%**

FINANCIAL ANALYSIS

FIDUCIARY NET POSITION

The fiduciary net position available for benefits and expenses in 2016 was $14,584.0 million versus $13,853.3 million in 2015, which represents a 5.3 percent net increase. The overall net increase in 2016 can be primarily attributed to net appreciation on the fair value of investments. Please refer to the Investment Section for additional information on OP&F's investment activities in 2016.

REVENUE ADDITIONS TO FIDUCIARY NET POSITION

Based on the rounded numbers found on page six, overall contributions received by OP&F in 2016 increased 6.8 percent, or $51.5 million, compared to 2015. These changes are due to fluctuations in member increases in the member contribution rate, the average annual salary and in the total annual payroll.

Pension contributions from employers increased $26.8 million, or 6.1 percent, in 2016. Employer pension contribution increases are due to an increase in the average annual salary and an increase in the total annual payroll. Employer contributions are not impacted by DROP and the employer contributions associated with DROP participation are not allocated to the individual DROP accounts.

In 2016, pension contributions from members increased $22.8 million, or 9.3 percent. The increase in 2016 can be attributed to the 4.2 percent increase in the average annual salary, from $70,163 to $73,083, while the active member population, or contributing members, decreased slightly by 145 to 27,624, or by 0.5 percent.

In 2016, member purchased service credit increased by $1.1 million, or 24.0 percent compared to 2015. These purchases fluctuate year-to-year based on the number and amount of the service credit being purchased by the membership.

Contributions paid by members and beneficiaries for their share of health care costs increased by 2.8 percent from $71.2 million in 2015 to $73.2 million in 2016. The annual changes in the contributions can be attributed to the annual increase in the premiums paid by plan participants along with fluctuations in the number of members and beneficiaries selecting to participate in the OP&F health care program.

In 2016, contributions received through the state-subsidy decreased 10.9 percent, or $48,474 from $446,735 to $398,161. This trend is due to a normal decline in the population of survivors receiving this subsidized benefit.

Investment net appreciation totaled $1,005.6 million in 2016. The net appreciation of 2016 can be attributed to a positive return of 11.51 percent from OP&F's portfolio of investments. In 2015, investment net depreciation totaled $361.4 million. The net depreciation of 2015 can be attributed to a decrease in the fair values of high yield bonds and master limited partnerships (MLPs) as well as a net negative cash flow resulting from benefit payments being greater than contributions. The overall gross return on OP&F's investments was 0.65 percent.

EXPENSE DEDUCTIONS FROM NET POSITION

Benefit deductions for retirement, DROP, disability and survivors increased $16.1 million or 1.4 percent in 2016. Part of the increases in pension benefits is due to the increases in the number of retirees and beneficiaries. The benefit recipients increased by 439 individuals, or 1.6 percent in 2016 and there was also a three percent COLA for eligible recipients.

In 2016, health care benefits increased by 4.9 percent, gross health care payments totaled $223.6 million and represented 15.6 percent of all plan deductions. In 2015, health care benefits totaled $213.2 million and represented 15.2 percent of all plan deductions. These increases in health care benefits can be attributed to increased trends in health care costs and to an expansion in the number of members and beneficiaries selecting to participate in the OP&F health care program.

Refunds to members increased by $0.4 million, or 2.9 percent in 2016. These refunds include actual refunds of pension contributions and member contributions on deposit for inactive members.

BASIC FINANCIAL STATEMENTS

STATEMENT OF FIDUCIARY NET POSITION (AS OF DEC. 31, 2016)

	Pensions	Post-employment Health Care	2016 Total	Death Benefit Agency Fund
Assets:				
Cash and Short-term Investments	$865,269,067	$58,602,834	$923,871,901	$517,051
Receivables:				
Employers' Contributions	49,272,280	1,165,711	50,437,991	-
Members' Contributions	27,879,411	-	27,879,411	-
Accrued Investment Income	30,500,374	2,065,725	32,566,099	-
Investment Sales Proceeds	31,640,034	2,142,912	33,782,946	-
Local Funds Receivable	22,828,681	-	22,828,681	-
TOTAL RECEIVABLES	**162,120,780**	**5,374,348**	**167,495,128**	**-**
Investments, at fair value:				
Domestic Bonds	2,682,774,220	181,698,593	2,864,472,813	-
Non-U.S. Bonds	436,426,505	29,558,239	465,984,744	-
Mortgage and Asset-Backed Securities	403,077,455	27,299,579	430,377,034	-
Domesitc Stocks	2,920,962,012	197,830,546	3,118,792,558	-
International Equities	2,559,263,042	173,333,444	2,732,596,486	-
Real Estate	1,483,136,336	100,449,670	1,583,586,006	-
Commercial Mortgage Funds	35,055,176	2,374,213	37,429,389	-
Private Debt	279,935,932	18,959,465	298,895,397	-
Private Equity	856,768,620	58,027,117	914,795,737	-
Timber	282,318,228	19,120,813	301,439,041	-
Master Limited Partnerships	868,662,778	58,832,683	927,495,461	-
Domestic Derivatives	(64,224)	(4,350)	(68,574)	-
Non-U.S. Derivatives	(715,644)	(48,469)	(764,113)	-
TOTAL INVESTMENTS	**12,807,600,436**	**867,431,543**	**13,675,031,979**	**-**
Collateral on Loaned Securities	732,899,564	49,637,729	782,537,293	-
Capital Assets, net of accumulated depreciation, where applicable:				
Land	3,200,000	-	3,200,000	-
Building and Improvements	12,114,785	-	12,114,785	-
Furniture and Equipment	141,288	-	141,288	-
Computer Software and Hardware	1,281,680	-	1,281,680	-
TOTAL CAPITAL ASSETS, NET	**16,737,753**	**-**	**16,737,753**	**-**
Prepaid Expenses and Other	215,977	-	215,977	-
TOTAL ASSETS	**14,584,843,577**	**981,046,454**	**15,565,890,031**	**517,051**
DEFERRED OUTFLOWS OF RESOURCES				
Deferred Outflows - Pension	3,427,827	-	3,427,827	-
Liabilities:				
Health Care Payable	-	21,470,736	21,470,736	-
Investment Commitments Payable	122,317,055	8,284,274	130,601,329	-
Accrued Administrative Expenses	25,310,686	-	25,310,686	-
Due to State of Ohio	-	-	-	517,051
Obligations Under Securities Lending	732,899,564	49,637,729	782,537,293	-
Other Liabilities	24,971,287	-	24,971,287	-
TOTAL LIABILITIES	**905,498,592**	**79,392,739**	**984,891,331**	**517,051**
DEFERRED INFLOWS OF RESOURCES				
Deferred Inflows - Pension	383,572	-	383,572	-
FIDUCIARY NET POSITION HELD IN TRUST FOR PENSION AND POST-EMPLOYMENT HEALTH CARE BENEFITS	**$13,682,389,240**	**$901,653,715**	**$14,584,042,955**	**$-**

See notes to Basic Financial Statements.

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

BASIC FINANCIAL STATEMENTS

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION (FOR YEAR ENDED DEC. 31, 2016)

	Pensions	Post-employment Health Care	2016 Total
Additions:			
From Contributions:			
Members'	$268,594,295	$-	$268,594,295
Employers'	454,745,371	10,708,739	465,454,110
State of Ohio–Subsidies	398,161	-	398,161
Health Care Premiums	-	73,161,967	73,161,967
TOTAL CONTRIBUTIONS	**723,737,827**	**83,870,706**	**807,608,533**
From Investment Income:			
Net Appreciation (Depreciation)			
Value of Investments	940,788,275	64,801,146	1,005,589,421
Bond Interest	118,420,360	8,156,750	126,577,110
Dividends	82,460,225	5,679,830	88,140,055
Alternative Investment Income	58,389,693	4,021,860	62,411,553
Master Limited Partnerships Income	47,981,440	3,304,944	51,286,384
Other Investment Income (Loss)	24,571,071	1,692,446	26,263,517
Less Investment Expenses	(42,726,835)	(2,943,008)	(45,669,843)
NET INVESTMENT INCOME	**1,229,884,229**	**84,713,968**	**1,314,598,197**
From Securities Lending Activities:			
Securities Lending Income	5,262,174	362,457	5,624,631
Securities Lending Expense	(2,577,295)	(177,523)	(2,754,818)
NET INCOME FROM SECURITIES LENDING	**2,684,879**	**184,934**	**2,869,813**
Interest on Local Funds Receivable	988,996	-	988,996
Other Income	7,022,384	27,855,788	34,878,172
TOTAL ADDITIONS	**1,964,318,315**	**196,625,396**	**2,160,943,711**
Deductions:			
Retirement Benefits	672,597,970	-	672,597,970
Disability Benefits	248,879,989	-	248,879,989
Health Care Benefits	-	223,535,753	223,535,753
Survivor Benefits	84,626,847	-	84,626,847
DROP Withdrawals	166,662,400	-	166,662,400
Contribution Refunds	14,253,260	-	14,253,260
Administrative Expenses	18,719,581	798,310	19,517,891
Other Expenses	132,184	-	132,184
TOTAL DEDUCTIONS	**1,205,872,231**	**224,334,063**	**1,430,206,294**
Change in Fiduciary Net Position	758,446,084	(27,708,667)	730,737,417
FIDUCIARY NET POSITION - BEGINNING OF YEAR	**12,923,943,156**	**929,362,382**	**13,853,305,538**
FIDUCIARY NET POSITION - END OF YEAR	**$13,682,389,240**	**$901,653,715**	**$14,584,042,955**

See notes to Basic Financial Statements.

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

NOTES TO BASIC FINANCIAL STATEMENTS (DEC. 31, 2016)

1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following are the significant accounting policies followed by OP&F:

BASIS OF ACCOUNTING

OP&F's financial statements have been prepared using the accrual basis of accounting. Revenues are recognized when earned and expenses are recorded when a liability is incurred. Contributions are earned based on statutory requirements under Chapter 742 of the ORC.

NEW ACCOUNTING PRONOUNCEMENTS

During the year ended Dec. 31, 2016, OP&F adopted the provision of GASB Statement No. 72, Fair Value Measurement and Application, which resulted in an additional disclosure to the financial statements. In addition, OP&F adobted GASB Statement No. 76, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments, GASB Statement No. 77, Tax Abatement Disclosures, GASB Statement No. 78, Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans and GASB Statement No. 79, Certain External Investment Pools and Pool Participants. The adoption of these had no material impact on the financial statements.

The GASB also issued the following pronouncements: GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other than pension plans, is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 80, Blending Requirements for Certain Component Units–an amendment of GASB Statement No. 14, is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 81, Irrevocable Split-Interest Agreements, is effective for fiscal years beginning after Dec. 15, 2016. GASB Statement No. 82, Pension Issues-an amendment of GASB Statements No. 67, No. 68 and No. 73, is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 83, Certain Asset Retirement Obligations, is effective for fiscal years beginning after June 15, 2018. GASB Statement No. 84, Fiduciary Activities, is effective for fiscal years beginning after Dec. 15, 2018. GASB Statement No. 85, Omnibus 2017, is effective for fiscal years beginning after June 15, 2017. GASB Statement No. 86, Certain Debt Extinguishment Issues, is effective for fiscal years beginning after June 15, 2017. OP&F is also analyzing the impact that these GASB pronouncements will have on the financial statements.

MANAGEMENT USE OF ESTIMATES

The preparation of the financial statements requires management to make a number of estimates and assumptions relating to the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Significant items subject to estimates and assumptions include the fair value of certain investments, carrying amount of capital assets and assets and obligations related to employee and member benefits. Actual results could differ from those estimates.

INVESTMENTS

Investment purchases and sales are recorded on a trade-date basis. Dividend income is recognized on the ex-dividend date. Income on bonds, private equity, private debt, real estate funds and interest income are recognized when earned.

Investments are reported at fair value. Fair value is the amount reasonably expected to be received for an investment in a current sale between a willing buyer and a willing seller. Securities traded on a national or international exchange, including master limited partnerships, are valued at the last reported sales price at the then current exchange rates. Mortgages are valued on the basis of future principal payments discounted at prevailing interest rates for similar instruments. The fair value of real estate and timber are based on independent appraisals and internal valuations. Investments that do not have an established market are reported at estimated fair value received from the investment managers. The value of OP&F's private equity interests are based on values established by each partnership's valuation committee. Investments, for which no national exchanges or pricing services exist, such as private equity assets, are valued at fair value by the investment partnership based on the valuation methodology outlined in the partnership agreement. Real estate may be valued by the manager or independent appraisers. Commingled assets that are not traded on a national exchange are valued by the commingled manager. OP&F performs due diligence review of the investment pricing, process and infrastructure of private equity, commingled and real estate investments to assure that asset values provided by the managers are reasonable.

Net appreciation (depreciation) is determined by calculating the change in the fair value of investments between the end of the year and the beginning of the year, less the cost of investments purchased, plus reinvested proceeds from sales of investments at fair value. Investment expense consists of administrative expenses directly related to OP&F's investment operations and a proportional amount of all other administrative expenses allocated based on the ratio of OP&F's investment staff to total OP&F staff.

FEDERAL INCOME TAX STATUS

OP&F was determined to be a qualified trust under section 401(a) of the Internal Revenue Code that is exempt from Federal income taxes under Section 501(a) of the Internal Revenue Service Code. OP&F's DROP plan was also determined to be part of the 401(a) trust. A separate health care trust accrual account is maintained for health care benefits under Internal Revenue Service (IRS) Code Section 115, trust and Code Section 401(h), account is maintained for Medicare Part B reimbursements.

ADMINISTRATIVE COSTS

The cost of administering the plan is financed by investment income.

CONTRIBUTIONS, BENEFITS, AND REFUNDS

Employer and member contributions are recognized when due or in the period the related member salaries are earned. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

PROPERTY AND EQUIPMENT

Property and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets. The range of estimated useful lives is as follows:

Buildings and Improvements:	40 years
Furniture and Equipment:	3 to 10 years
Computer Software and Hardware:	2 to 7 years

CHANGES IN CAPITAL ASSETS YEAR ENDED DEC. 31, 2016

Non-Depreciable Capital Assets	Jan. 1, 2016	Increases	Decreases	Dec. 31, 2016
Land	$3,200,000	$-	$-	$3,200,000
Depreciable Capital Assets				
Building and Improvements	21,396,130	-	-	21,396,130
Furniture and Equipment	3,437,364	14,155	-	3,451,519
Computer Software and Hardware	16,486,196	442,756	(3,927)	16,925,025
TOTAL DEPRECIABLE CAPITAL ASSETS	**41,319,690**	**456,911**	**(3,927)**	**41,772,674**
Accumulated Depreciation				
Building and Improvements	8,744,220	537,125	-	9,281,345
Furniture and Equipment	3,283,400	26,831	-	3,310,231
Computer Software and Hardware	14,652,973	990,372	-	15,643,345
TOTAL ACCUMULATED DEPRECIATION	**26,680,593**	**1,554,328**	**-**	**28,234,921**
TOTAL DEPRECIABLE CAPITAL ASSETS, NET	**$14,639,097**	**$(1,097,417)**	**$(3,927)**	**$13,537,753**

2 – DESCRIPTION OF THE SYSTEM

ORGANIZATION

OP&F is a cost-sharing, multiple–employer public employee retirement system established by the ORC Chapter 742 in 1965 to consolidate the various individual local police and firefighter's relief and pension funds into one statewide plan. OP&F is administered by a nine member Board of Trustees, consisting of two active representatives of police departments, two active representatives of fire departments, one retired police officer and one retired firefighter. The Board of Trustees also includes three statutory members. Each statutory member—one appointed by the Governor of Ohio, one appointed by the Ohio Treasurer of State and one appointed jointly by the Ohio Senate President and Ohio Speaker of the House of Representatives—must have professional investment expertise.

OP&F administers pension, disability, DROP and health care benefits to qualified members. In addition, OP&F administers survivor benefits, death benefits and sponsors health care programs for eligible survivors, spouses, children and dependent parents. OP&F is a separate financial reporting entity in accordance with criteria established by Governmental Accounting Standards Board Statement No.14. Because OP&F is a legally separate entity, a voting majority of the governing board is not appointed by the State and it is fiscally independent of other state and local governments. OP&F also has a variety of professional consultants and money managers as listed on page vii and page 66.

BENEFITS

Plan benefits are established under ORC Chapter 742. OP&F offers four types of service retirement: normal, service commuted, age/service commuted and actuarially reduced. Each type has different eligibility guidelines and is calculated using the member's allowable average annual salary.

Allowable average annual salary is subject to certain statutory and administrative limitations. Not all salary, earnings, or compensation may be used in the calculation. OP&F calculates allowable average annual salary as follows:

- For members with less than 15 years of service credit as of July 1, 2013, allowable average annual salary is an average of the five years of highest allowable earnings; regardless of when in their career the highest years occurred. Allowable average annual salary means one-fifth of the total salary during the five years for which the total allowable earnings were greatest.
- For OP&F members with 15 or more years of service credit as of July 1, 2013, allowable average annual salary is an average of the three years of highest allowable earnings; regardless of when in their career the highest years occurred. Allowable average annual salary means one-third of the total salary during the three years for which the total allowable earnings were greatest.

PLAN MEMBERSHIP

Employer and member data as of Jan. 1, 2016, based on the most recent actuarial valuation is as follows:

		2016	
Employee Members	**Police**	**Fire**	**Total**
Retirees and Beneficiaries			
Currently receiving benefits	16,226	12,176	28,402
Terminated employees entitled to benefits but not yet receiving them	151	85	236
TOTAL BENEFIT MEMBERS	**16,377**	**12,261**	**28,638**
Current Members			
Vested*	7,786	6,877	14,663
Non-vested	7,060	5,901	12,961
TOTAL CURRENT MEMBERS	**14,846**	**12,778**	**27,624**
TOTAL EMPLOYEE MEMBERS	**31,223**	**25,039**	**56,262**
Employer Members			
Municipalities	248	221	469
Townships	-	130	130
Villages	279	37	316
TOTAL EMPLOYER MEMBERS	**527**	**388**	**915**

* Includes Rehired Retirees.

NORMAL SERVICE RETIREMENT

ELIGIBILITY

- For members hired into an OP&F-covered position after July 1, 2013, minimum retirement age is 52 with at least 25 years of service credit.
- For members hired into an OP&F-covered position on or before July 1, 2013, minimum retirement age is 48 with 25 years of service credit.

BENEFIT

An annual pension equal to a percentage of the allowable average annual salary. The percentage equals 2.5 percent for each of the first 20 years of service credit, 2.0 percent for each of the next five years of service credit and 1.5 percent for each year of service credit in excess of 25 years. The maximum pension of 72 percent of the allowable average annual salary is paid after 33 years of service credit.

SERVICE COMMUTED RETIREMENT

ELIGIBILITY

- For members hired into an OP&F-covered position after July 1, 2013, the minimum retirement age is 52, they must have at least 15 years of service credit and 25 years have elapsed from the date of their full-time hire.
- For members hired into an OP&F-covered position on or before July 1, 2013, the minimum retirement age is 48, they must have at least 15 years of service credit and 25 years have elapsed from the date of their full-time hire.

BENEFIT

An annual pension equal to 1.5 percent of the allowable average annual salary multiplied by the number of full years of service credit (up to 25 years of service credit).

AGE/SERVICE COMMUTED RETIREMENT

ELIGIBILITY

Age 62, 15 years of service credit and still working as a full-time police officer or firefighter.

BENEFIT

An annual pension that uses the same formula as the Normal Service Retirement benefit (up to 25 years of service credit).

ACTUARIALLY REDUCED

ELIGIBILITY

For members hired into an OP&F-covered position after July 1, 2013, age 48 with 25 years of service credit.

BENEFIT

An annual pension reduced to the actuarial equivalent of the amount payable had the member retired at age 52.

OTHER BENEFITS

In addition to retirement benefits, OP&F also provides disability, survivor and Death Benefit Fund (DBF) benefits. Disability benefits are available to all members and vary by length of service and type of disability. Statutory survivor benefits are specified dollar amounts paid to eligible surviving spouse, children and dependent parents upon the death of an active member or retiree. A one-time lump sum death benefit of $1,000 is payable to the surviving spouse, designated beneficiary or estate, as applicable, of each deceased retired member.

OP&F also administers the Ohio Public Safety Officers DBF, which is funded by the State of Ohio and provides special benefits to eligible survivors of public safety officers who are killed in the line of duty or who die from injuries or disease incurred in the performance of official duties. If the public safety officer had not qualified for age and service retirement these eligible survivors are entitled to receive the member's full base pay, which will be reduced at the member's retirement eligibility date. If the public safety officer would have qualified for age and service retirement, the survivors are eligible for a transitional benefit equal to 50 percent of the monthly base pay. The transitional benefit is paid in addition to any optional payment that may have been selected.

DEFERRED RETIREMENT OPTION PLAN

Effective January 2003, DROP is an optional benefit that allows eligible police officers and firefighters to accumulate a lump sum of money for retirement, subject to the member meeting certain criteria.

At Dec. 31, 2016, 3,952 members were enrolled in the DROP program, with total values of the DROP accounts equaling $1,462.8 million.

ELIGIBILITY

When a member is eligible for a normal service retirement they can enter DROP by delaying retirement and continuing to work as a full-time police officer or firefighter.

- For members hired into an OP&F-covered position after July 1, 2013, normal service retirement eligibility is age 52 with at least 25 years of service credit.
- For members hired into an OP&F-covered position on or before July 1, 2013, normal service retirement eligibility is age 48 with at least 25 years of service credit.

BENEFIT

DROP is a cost neutral benefit offered by OP&F. Upon the DROP effective date, the member's pension is calculated as if that were their date of retirement. While the member continues to work and draw their normal salary, the amount they would have received in retirement benefits, a portion of their ongoing OP&F employee contributions and interest, accumulates tax-deferred at OP&F on their behalf. Since the member's pension has already been calculated:

- The years of DROP service do not apply towards the member's normal service retirement.
- If a member earns a higher salary after their DROP effective date due to a raise, job promotion, etc., it will not be used to recalculate their pension and, therefore, will not result in that member receiving a higher pension upon retirement.

The DROP interest rate is set by administrative rule and is subject to change at any time. OP&F credits interest to all DROP balances each month at a rate equal to the 10-year United States Treasury Note Business Day Series, as published by the U.S. Department of the Treasury, with a cap of five percent. This variable interest rate is adjusted quarterly to match the published 10-year U.S. Treasury Note Business Day Series rate for the last trading business day of the preceding quarter and is in effect for the subsequent quarter.

Members whose election to participate in DROP is effective after July 1, 2013 do not qualify for annual cost-of-living allowances (COLA) at any time during DROP. Members whose election to participate in DROP is effective on or before July 1, 2013 will continue to receive a cost-of-living allowance during DROP, but only when they reach 55 years of age and have been participating in DROP for at least one year. Those members whose enrollment date into DROP qualifies them for a cost-of-living allowance during DROP will receive three percent of their base pension.

Member contributions are credited to their DROP account based on the number of years of DROP service. For those members whose election to participate in DROP is effective after July 1, 2013, OP&F applies contributions to DROP in the following manner:

Years of DROP Service	Percentage of Member Contributions
Years 1-3	50% of member's contributions
Years 4-5	75% of member's contributions
Years 6-8	100% of member's contributions

For this group of members, the minimum participation in DROP, without penalty, is five years and the maximum is eight years.

- If a member terminates employment within the first five years of joining DROP, then the member forfeits all of their DROP interest. In addition to losing their accumulated interest, members who choose to terminate employment before completing the required participation period cannot withdraw any of the funds in their DROP account until the minimum participation period has expired. The only exception to this rule is if the member dies during the DROP minimum participation period. The member's surviving spouse, designated beneficiary or estate, as applicable, will receive the entire DROP account balance determined at time of death.
- If a member chooses to continue working after eight years in DROP, the member forfeits all DROP benefits and receives the Normal Service Retirement benefit upon retirement, which will be calculated to include the service credit and salary earned during the DROP participation period.

For those members whose election to participate in DROP was on or before July 1, 2013, member contributions are applied to DROP under the following schedule:

Years of DROP Service	Percentage of Member Contributions
Years 1-2	50% of member's contributions
Year 3	75% of member's contributions
Years 4-8	100% of member's contributions

For this group of members, the minimum participation in DROP, without penalty, is three years and the maximum is eight.

- If a member terminates employment within the first three years of joining DROP, then the member forfeits all of their DROP interest. In addition to losing their accumulated interest, members who choose to terminate employment before completing the required participation period cannot withdraw any of the funds in their DROP account until the minimum participation period has expired. The only exception to this rule is if the member dies during the DROP minimum participation period. The member's surviving spouse, designated beneficiary or estate, as applicable, will receive the entire DROP account balance determined at time of death.
- If a member chooses to continue working after eight years in DROP, the member forfeits all DROP benefits and receives the Normal Service Retirement benefit upon retirement, which will be calculated to include the service credit and salary earned during the DROP participation period.

All DROP members retiring before the eight-year maximum participation period will receive their Normal Service Retirement benefit determined at the time of DROP entry, with the COLA adjustment (if applicable) to date of retirement when eligible. These members will also receive the DROP account balance as a lump sum or monthly annuity.

If a member dies while participating in DROP, the member's surviving spouse, designated beneficiary or estate, as applicable, will receive the entire DROP account balance determined at the time of death. The surviving spouse or contingent dependent beneficiary will receive the greater of the retirement allowance made at the time of DROP entry or the Normal Service Retirement benefit paid with COLA adjustments (if applicable) to the date of death, paid as if the member had elected a 50 percent joint and survivor option at death. All other statutory death benefits will apply.

If the member becomes disabled while in DROP, and has not terminated employment, the member must choose between receiving a disability benefit or DROP and a service retirement benefit. If the member stays in DROP, the disability benefit is forfeited. If the member chooses the disability benefit, the member forfeits all DROP benefits and receives the disability benefit, with service credit during the DROP period included.

REFUNDS

Upon termination of active service in a police or fire department, members may withdraw their accumulated employee contributions on deposit with OP&F. Acceptance of a refund cancels the member's rights and benefits in OP&F. Employer contributions to OP&F are not refundable. The refund of employee contributions cancels the member's total service credit with OP&F.

HEALTH CARE

OP&F sponsors a comprehensive health care program for eligible benefit recipients and their eligible dependents administered by a third party provider. This program is not guaranteed and is subject to change at any time upon action of the Board of Trustees. The program includes medical, prescription drugs, dental, vision and reimbursement of Medicare Part B premiums. Benefit recipients pay a portion of the health care cost through a monthly contribution.

Under Ohio law, health care costs paid from the funds of the plan are included in the employer contribution rates, which are currently 19.5 percent and 24 percent of salaries for police and fire employers, respectively. During 2016, the Board of Trustees allocated employer contributions equal to 0.5 percent of annual covered payroll to the Health Care Stabilization Fund (HCSF). The HCSF is part of the Pension Reserve Fund.

OP&F maintains funds for health care in two separate accounts. There is one account for health care benefits and one account for Medicare Part B reimbursements. A separate health care trust accrual account is maintained for health care benefits under IRS Code Section 115, trust and Code Section 401(h), account is maintained for Medicare Part B reimbursements.

HEALTH CARE PLAN

The funded status of the Health Care plan as of Jan. 1, 2016, the most recent actuarial valuation date, is as follows:

SCHEDULE OF FUNDING STATUS FOR THE VALUATION YEAR ENDING JAN. 1, 2016

RETIREE HEALTH CARE TRUST FUND (DOLLARS IN MILLIONS)*

Valuation Year Jan. 1	Valuation Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$929.4	$5,166.6	$4,237.2	18.0%	$2,060.9	205.6%

* See page 46 for multi-year trend information.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and cost trends. Actuarially determined amounts are subject to continual review as actual results are compared with past expectations and new estimates are made about the future. The Schedule of Funding Progress, presented as RSI following the notes to the financial statements, present multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. Additional information as of the latest actuarial valuation follows:

RETIREE HEALTH CARE BENEFITS – HEALTH CARE TRUST FUND

Valuation date: Jan. 1, 2016
Actuarial cost method: Entry age
Amortization method: Level percent of payroll, open
Remaining amortization period: 30 years
Funding ratio: 18.0%
Asset valuation method: Fair value

ACTUARIAL ASSUMPTIONS:

Investment return (discount rate)	4.25%
Projected salary increases	4.25% - 11.00%
Payroll increases	3.75%
Inflation assumption	3.25%

Health Care Cost Trends	Initial Rate 3 years: 2015 to 2016	2016 to 2017	2017 to 2018	Ultimate Rate	Ultimate Year
Non-Medicare	0.43%	6.00%	5.50%	4.50%	2020
Non-AARP	0.43%	6.00%	5.50%	4.50%	2020
AARP	5.80%	5.50%	5.25%	4.50%	2020
Rx Drug	(9.60)%	6.00%	5.50%	4.50%	2020
Medicare Part B	5.30%	5.20%	5.10%	5.00%	2019

OP&F's retiree health care plan is partially funded. The discount rate is a blended rate based on the plan and employer rates of return, using the plan rate times the percentage of the Annual Required Contributions (ARC) contributed and the employer rate times the percentage not contributed.

3 – CONTRIBUTIONS AND RESERVES

CONTRIBUTIONS

The ORC Chapter 742 requires contributions by active members and their employers. Contribution rates are subject to annual review by the Ohio Retirement Study Council (ORSC). Additionally, an actuary is used to determine the actuarial implications of the requirement. The adequacy of contribution rates is determined annually using the entry age normal actuarial cost method. Rates are at the statutory maximums and the maximum rates have been taken into consideration in the projection of pension benefits for financial accounting measurement purposes.

Rates established by the ORC Jan. 1, 2016 through Dec. 31, 2016:

Percent of active member payroll	Police	Fire	Percent Contributed
Member	12.25%	12.25%	100%
Employer	19.50%	24.00%	100%
TOTAL STATUTORY RATE *	**31.75%**	**36.25%**	**100%**

* Combined member and employer contributions as a percentage of the total active member payroll required and made Jan. 1, 2016 through Dec. 31, 2016.

The ORC establishes the length of the amortization period for unfunded pension liability as the primary measure of OP&F's financial status, with a period of 30 years or less being considered satisfactory. This 30-year target was to be attained by Dec. 31, 2006 and maintained thereafter. As of Jan. 1, 2016, the amortization period was 29 years. On Sept. 26, 2012, Ohio signed into law the 30-year funding plan OP&F submitted to ORSC. This pension legislation increased the active member contribution rate from 10 percent to 12.25 percent in annual increments of 0.75 percent each year beginning on July 2, 2013 and the final scheduled increase occurred on July 2, 2015.

The chart below summarizes the member and employer contributions for 2016:

In accordance with the ORC, the State of Ohio is required to contribute additional amounts to finance the cost of certain state-legislated benefit improvements. The total amount contributed by the State of Ohio was $398,161 for the year ended Dec. 31, 2016.

LOCAL FUNDS RECEIVABLE

Local governments are required by state statute to pay the unfunded portion of the actuarially-determined liability of the local police and firefighter's relief and pension funds that were merged to form OP&F in 1967. The ORC designates this obligation of the local governments to the Employers' Accrued Liability. Interest on the outstanding balance is being accrued at the rate of 4.25 percent, compounded semi-annually. Local governments began repayment in 1969 and payments are required to be made until 2035. Between 1969 and 1973, payments of principal and interest were received at incremental semi-annual rates ranging from two percent to four percent of the original receivable balance. Between 1973 and 2035, semi-annual payments of principal and interest are required to be made by the local governments at a rate of five percent of the original receivable balance. The underpaid balance due at Dec. 31, 2016 includes $81,706 due from local governments, which had previously underpaid their semi-annual payment and from local governments that joined OP&F subsequent to 1967 according to a 20-year payment plan.

SUMMARY OF MEMBER AND EMPLOYER CONTRIBUTIONS

Year Ending Dec. 31	Police Member Contributions	Police Employer Contributions	Percent Contributed	Fire Member Contributions	Fire Employer Contributions	Percent Contributed
2016	$143,950,925	$223,299,745	100%	$124,643,370	$242,154,365	100%

The following is a summary of the amounts due on the local funds receivable:

Year ending December 2017	$1,816,846
Year ending December 2018	1,816,846
Year ending December 2019	1,816,846
Year ending December 2020	1,791,823
Year ending December 2021	1,785,839
Thereafter	23,912,903
TOTAL PROJECTED PAYMENTS	**32,941,103**
Less future interest portion	(10,112,422)
BALANCE AT DEC. 31, 2016	**$22,828,681**

RESERVES

The ORC requires that several reserve funds be maintained annually for tracking fund activities for both police and fire. Each year-end the reserve funds are managed and allocations are done to reflect the revenue and expense activities and funding balance transfers due to changes in membership status from active to retired.

The Guarantee Fund and Expense Fund are always zero at the end of each year as they are used to fund the Pension Reserve Fund from investment gains and losses and to account for the administrative operation expenses.

As required by the ORC, the following accounts have been established for the reserves held for current and future benefits and are separated between police and fire:

The Police Officers' and Firefighters' Contribution Fund
This fund accumulates the contributions deducted from the salaries of members. Upon retirement, a member's accumulated contributions are transferred to the Police Officers' and Firefighters' Pension Reserve Fund.

The Police Officers' and Firefighters' Employers' Contribution Fund
This fund is the depository for employer contributions. Based on actuarial valuations, amounts are transferred from this account to the Police Officers' and Firefighters' Pension Reserve Fund.

The Police Officers' and Firefighters' Pension Reserve Fund
This fund is the account from which all retirement, disability, DROP, health care and survivor benefits are paid. Included in this Fund is the Health Care Stabilization Fund from which payments for the health care benefits are made. Amounts are transferred into the Pension Reserve Fund from the Contribution Funds and the Guarantee Fund.

The Guarantee Fund
This fund records all investment earnings of OP&F. In addition, contributions from the State of Ohio, exclusive of death benefit contributions, are recorded in this fund. Annually, investment earnings are transferred to the Pension Reserve Fund and the Expense Fund.

Ohio law provides that any deficit occurring in any other fund that will not be covered by payments to that fund, as otherwise provided by sections 742.01 to 742.61 of the ORC, must be paid by transfers of amounts from the Guarantee Fund to such fund or funds. Should the amount in the Guarantee Fund be insufficient at any time to meet the amounts payable therefrom, the amount of such deficiency, with regular interest, must be paid by an additional employer rate of current contributions as determined by the actuary and must be approved by the Board of Trustees of OP&F, and the amount of such additional employer contribution will be credited to the Guarantee Fund.

The Expense Fund
This fund is used to record all expenses for the administration and management of OP&F. Annually funds are transferred from the Guarantee Fund to cover expenses incurred.

Fiduciary net position held in trust for the various funds were as follows:

	2016
Members' Contribution	$2,728,054,139
Employers' Contribution	1,155,842,816
Pension Reserve	10,700,146,000
TOTAL	**$14,584,042,955**

4 – FAIR VALUE MEASUREMENT

OP&F measures and records its investments using fair value measurement guidelines established by generally accepted accounting principles. These guidelines categorize the inputs to valuation techniques into three hierarchal levels, as follows:

Level 1
Quoted (unadjusted) prices for identical investments in active markets.

Level 2
Inputs other than quoted prices that are observable for the investments directly or indirectly. These inputs are quoted prices for similar assets in active markets, quoted prices for identical or similar assets in markets that are not active and observable inputs other than quoted prices. Such inputs may include interest rates, yield curves, implied volatilities and credit spreads.

Level 3
Level 3 inputs are prices based on unobservable sources. Level 3 inputs include the best information available under the circumstances, which can include OP&F's own data and takes into account all information about market participant assumptions.

The classification of the levels, within the hierarchy, is based on the asset type and the pricing transparency. Level 1 securities in Domestic Stocks, International Securities, Fixed Income and Derivatives are valued based on prices quoted in active markets for those securities.

Level 2 securities in Cash and Short-Term Investments primarily consist of commercial paper. These are reported at cost plus earned discount which approximates market or fair value. Equity securities in Level 2 are valued using quoted prices for similar assets in both active and non-active markets. The fair values for debt and derivative securities in Level 2 are based on bid evaluations or matrix pricing method. Bid evaluations are typically based on market quotations, yields, maturities, call features and ratings. Matrix pricing technique is used to value securities based on the securities relationship to benchmark quoted prices.

The Level 3 securities consists solely of investments in timberlands. Due to the significance of certain unobservable assumptions in the valuation of timberland, this investment is valued using Income Capitalization, Sales Comparison or Cost methods. Income capitalization method involves using a range of discount rates to determine the present value of the future income that can be produced over the holding period. Sales comparison approach is a method of estimating the fair value based on open market prices recently paid for similar timberland properties in the market area. The cost approach is a method of estimating the fair value based on the concept that a market participant would pay no more for the timberland property than the cost to purchase and develop a comparable property having same utility.

The fair values of investments in certain equity, fixed income and marketable alternative funds are based on the investments' net asset value provided by the investee. Investments that are measured at fair value using the net asset value as practical expedient are not calssified in the fair value hierarchy.

The following table shows the classification of OP&F fair value measurement for its investments as of Dec. 31, 2016 (Dollars in thousands):

		Fair Value Measurements Using:		
	Dec. 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level				
Corporate Bonds and Obligations	2,117,456	-	2,117,456	-
Domestic Stocks	309,219	297,353	11,866	-
International Equities	1,971,900	1,958,250	13,650	-
International Pooled Stocks	27,568	27,568	-	-
Master Limited Partnership	927,496	927,496	-	-
Mortgage and Asset-Backed Obligations	430,377	-	430,377	-
Municipal Bond Obligations	3,212	1,533	1,679	-
Non-U.S. Bonds	4,197	-	4,197	-
Timber	145,429	-	-	145,429
U.S. Government Agencies	18,366	-	18,366	-
U.S. Government Treasury Obligations	120,767	-	120,767	-
U.S. Government Treasury STRIPS	107,001	-	107,001	-
TOTAL INVESTMENT BY FAIR VALUE LEVEL	**$6,182,988**	**$3,212,200**	**$2,825,359**	**$145,429**
Investments measured at net asset value (NAV)				
Commercial Mortgage	$37,429			
Domestic Commingled Bonds	497,670			
Domestic Pooled Stocks	1,749,596			
Domestic Stocks	1,059,978			
International Pooled Stocks	733,128			
Non-U.S. Bonds	461,788			
Private Debt	298,895			
Private Equity	914,796			
Real Estate	1,583,586			
Timber	156,010			
TOTAL INVESTMENTS MEASURED AT NAV	**$7,492,876**			
Investments Derivatives				
Futures	$1	$1	$-	$-
Options/Swaptions	(114)	-	(114)	-
Foreign Currency Forwards	(764)	-	(764)	-
Interest Rate Swaps	49	-	49	-
Credit Default Swaps	(4)	-	(4)	-
TOTAL INVESTMENTS DERIVATIVES	**$(832)**	**$1**	**$(833)**	-
TOTAL INVESTMENTS	**$13,675,032**			
Securities not leveled in investment portfolio				
Cash Equivalents	**$923,215**			

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV) (Dollars in thousands)

	Dec. 31, 2016	Unfunded Commitments	Redemption Frequency (If Currently Eligible)[1]	Redemption Notice Period[2]
Bond/Credit Funds (1)	$1,177,486	$189,123	Daily, Semi-annually, Not Eligible	0 days - Not Eligible
Domestic Equity Funds (2)	1,232,533	0	Daily	0 Days
Exchange Traded Funds (3)	321,190	0	Daily	0 Days
Hedge Funds (4)				
Global Macro	556,661	0	Monthly	5-90 Days
Credit	41,803	0	Quarterly	60 Days
Relative Value	36,896	0	Monthly	30 Days
Hedge Fund of Funds (5)				
Multi-Strategy	240,576	0	Daily	5 Days
Market Neutral	498,211	0	Daily, Quarterly	0-70 Days
International Equity Funds (6)	733,128	0	Daily	0-15 Days
Private Equity/Venture Capital Funds (7)	914,796	818,273	Not Eligible	Not Eligible
Real Estate Funds				
Open-End (8)	1,101,907	26,425	Quarterly	45-90 Days
Closed-End (9)	481,679	378,400	Not Eligible	Not Eligible
Timberland Funds (10)	156,010	129,212	Not Eligible	Not Eligible
TOTAL INVESTMENT MEASURED AT THE NAV	**$7,492,876**			

(1) Bond/Credit Funds: Consisting of five bond funds, four private debt funds, one commercial mortgage fund and one real estate investment fund are considered bond/credit funds. Each is valued at the net asset value at the end of the period based on the value of the underlying assets. Distributions from the private debt funds are received when the underlying assets are liquidated. This is estimated to occur between 5 to 8 years.

(2) Domestic Equity Fund: Consists of one fund, which tracks the Russell 1000 Index. It is valued at net asset value on a daily basis . The fund is eligible for redemption on a daily basis.

(3) Exchange Traded Funds: Consisting of the SPDR S&P 500 ETF Trust which is an exchange-traded fund incorporated in the U.S. It tracks the S&P 500 Index. The trust consists of a portfolio representing all stocks in the S&P 500 Index. The ETF is structured as a Unit Investment Trust and is valued at the net asset value on a daily basis.

(4) Hedge Funds: Consisting of three global macro, one credit and one relative value funds. These funds can be redeemed on a monthly to quarterly basis with five to ninety days' notice.

(5) Hedge Fund of Funds: Consisting of one multi-strategy and two market neutral funds. The multi-strategy fund can be redeemed daily with five days notice while the market neutral can be redeemed daily to quarterly with 0 to 70 days notice.

(6) International Equity Funds: Consisting of four commingled funds which invest in international developed and emerging markets equity securities. These investments are valued at net asset value on a daily basis. These funds are eligible for redemption on a daily basis.

(7) Private Equity/Venture Capital Funds: Consisting of 88 commingled funds, fund-of-funds, and secondary funds involving domestic, international and global buyout, distressed debt, growth equity and venture capital funds. These are long-term lock-up vehicles, typically with 10-year terms plus available extensions. These investments are valued at net asset value, typically on a quarterly basis, as reported by the fund. The unfunded commitments can be called to make new investments or pay fees and expenses. Distributions are received when underlying assets are liquidated and this occurs from 5 to 15 years.

(8) Open-End Real Estate Funds: Consisting of 10 commingled funds which invest primarily in operating and substantially leased institutional quality properties located in the U.S. These investments are valued at net asset value, typically on a quarterly basis, as reported by the fund. The unfunded commitments can be called to make new investments or pay fees and expenses. These funds are eligible for redemption on a quarterly basis subject to available liquidity.

(9) Closed-End Real Estate Funds: Consisting of 40 commingled funds which invest in properties on a global basis having more risk and correspondingly higher expected returns than those in the Open-End Real Estate Funds. These are long-term lock-up vehicles, typically with 10-year terms plus available extensions. These investments are valued at net asset value, typically on a quarterly basis, as reported by the fund. The unfunded commitments can be called to make new investments or pay fees and expenses.

(10) Timberland Funds: Consisting of four commingled funds which invest in timberland markets on a global basis. These are long-term lock-up vehicles, typically with 10-year terms plus available extensions. These investments are valued at net asset value, typically on a quarterly basis, as reported by the fund. The unfunded commitments can be called to make new investments or pay fees and expenses. Distributions are received when underlying assets are liquidated and this occurs from 5 to 15 years.

5 – CASH AND INVESTMENTS

CASH AND INVESTMENTS

A summary of cash and short-term securities and investments held at Dec. 31, 2016 is as follows:

Category	Dec. 31, 2016
Cash and Cash Equivalents*	$923,215,230
U.S. Government Obligations	120,767,263
U.S. Government Agencies	18,366,082
U.S. Government Treasury STRIPS**	107,000,987
Municipal Bond Obligations	3,212,021
Corporate Bonds and Obligations	2,117,455,979
Domestic Commingled Bonds	497,670,481
Mortgage and Asset-Backed Obligations	430,377,034
Non-U.S. Bonds	465,984,744
Domestic Stocks	1,369,196,877
Domestic Pooled Stocks	1,749,595,680
International Equities	2,732,596,486
Real Estate	1,583,586,006
Derivatives	(832,687)
Commercial Mortgage Funds	37,429,389
Private Equity	914,795,737
Private Debt	298,895,397
Timber	301,439,041
Master Limited Partnerships	927,495,461
GRAND TOTAL	**$14,598,247,208**

The investment type classification is based on the characteristics of the individual securities.
* Cash and cash equivalents are included in cash and short-term investments on the Statement of Fiduciary Net Position.
** STRIPS = Separate Trading of Registered Interest and Principal Securities.

MONEY WEIGHTED RETURN ON INVESTMENT

The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended Dec. 31, 2016, the annual money weighted rate of return on investments, net of investment expense, was 10.048 percent.

CUSTODIAL CREDIT RISK

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, an organization 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. The custodial credit risk for investments is the risk that, in the failure of the counterparty to a transaction, an organization will not be able to recover the value of investment or collateral securities that are in the possession of an outside party.

In accordance with ORC 135.18, the Ohio Treasurer of State, the statutory custodian for OP&F, requires that the amount in any demand deposit account not covered by federal deposit insurance be collateralized with securities permitted under ORC 135.18 at 102 percent of the value of the cash. Collateral is held in the Ohio Treasurer of State's name by a third party trustee for the benefit of OP&F. All of OP&F's depository-eligible securities are held in the custodial bank or its agent's nominee, for the benefit of OP&F. Any physical securities are held in the vaults of the custodial bank, or its agent. The custodial bank provides book entry accounting for OP&F's real estate and private market assets. The custody agreement between the custodial bank and the Ohio Treasurer of State has historically restricted the right of the custodial bank or its agents from putting any right, charge, security interest, lien or claim of any kind on the securities they hold. Despite OP&F objections, the Ohio Treasurer of State allowed language in the custody agreement that grants a security interest in favor of the custodial bank in OP&F assets. The cash held in foreign local banks for immediate settlement of pending trade transactions are not collateralized.

Deposits exposed to Custodial Credit Risk as of Dec. 31, 2016

Uninsured deposits collateralized with securities held by the pledging financial institution	$9,007,167
Uninsured and uncollateralized deposits	$13,307,158

CREDIT RISK

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the holder of the investment. This risk is measured by the assignment of a rating by a nationally recognized statistical rating organization. OP&F's policy over credit risk is based on the type of fixed income instruments. For credit risk purposes, OP&F classifies its fixed income securities into three main types: core, high yield and short-term fixed income. The credit risk policies related to these types are as follows:

CORE FIXED INCOME

OP&F's four core fixed income portfolios, all managed externally, contain government, mortgage and asset-backed securities, U.S. Agency and corporate bonds. These external managers invest in securities based on guidelines provided by the OP&F Board of Trustees. It is the policy of OP&F that a security in the core fixed income portfolio shall be rated BBB- or better by two standard rating services at the time of purchase. OP&F allows some of its investment managers to purchase securities that are not rated as long as they deem these securities to be at least equivalent to the minimum ratings at the time of purchase.

- Government instruments include those issued by the U.S. Treasury as well as fixed income instruments, other than mortgage-backed securities, of an agency or instrumentality of the U.S. government.
- Mortgage-backed instruments include collateralized mortgage obligations and Real Estate Mortgage Investment Conduits (REMIC's), whose payment of principal and interest is insured by the full faith and credit of the U.S. government, or an agency or instrumentality thereof. Also included in this category are secured assets issued by Government National Mortgage Association (GNMA) project loans, pools and participation certificates, Federal National Mortgage Association (FNMA) and Federal Home Loan Mortgage Corporation (FHLMC).
- U.S. Agency debt instruments include unsecured or uncollateralized securities issued by U.S. government agencies and government sponsored enterprises.
- Corporate bonds consist of debt instruments issued by domestic corporations or U.S. dollar-denominated debt issued by foreign entities and managed by a U.S. based investment manager.
- Global Inflation Protected Securities consist of bonds whose principal accrues with inflation during the life of the security and the entire accrued principal is paid out at maturity. Secondly, regular coupon payments are based on real rate of return since the interest payments are calculated on the inflation-accrued principal rather than on the nominal principal.

The following tables show ratings by asset class in OP&F's fixed income portfolio as of Dec. 31, 2016:

RATINGS BY ASSET CLASS – 2016

S&P Ratings	Corporate Bond Obligations	Domestic Commingled Bonds	Mortgage and Asset-Backed Securities	Municipal Bond Obligations	Non-U.S. Bonds	U.S. Government Agencies	U.S. Government Treasury STRIPS	U.S. Government Treasury Obligations	GRAND TOTAL
AAA	$11,595,376	$-	$39,718,263	$-	$1,523,022	$772,790	$28,554,076	$11,650,748	$93,814,275
AA+	25,349,583	374,568,453	129,977,985	98,496	461,787,694	3,016,495	92,213,187	-	1,087,011,893
AA	3,947,057	-	1,020,720	288,391	-	-	-	-	5,256,168
AA-	16,163,855	-	1,390,591	642,895	-	-	-	-	18,197,341
A+	21,334,589	-	2,983,137	-	-	382,227	-	-	24,699,953
A	32,878,872	-	2,175,028	229,324	-	-	-	-	35,283,224
A-	29,485,094	-	94,426	420,093	-	-	-	-	29,999,613
BBB+	61,804,359	-	894,319	-	-	-	-	-	62,698,678
BBB	39,229,152	-	1,384,783	736,261	-	-	-	-	41,350,196
BBB-	120,348,872	-	1,703,022	796,561	-	-	-	-	122,848,455
BB+	223,927,531	-	938,043	-	-	-	-	-	224,865,574
BB	212,589,146	-	1,683,421	-	1,921,205	299,633	-	-	216,493,405
BB-	327,280,193	-	2,578,227	-	-	-	-	-	329,858,420
B+	328,658,947	-	1,972,713	-	-	-	-	-	330,631,660
B	205,206,833	-	1,383,250	-	-	-	-	-	206,590,083
B-	197,221,600	-	2,975,529	-	-	-	-	-	200,197,129
CCC+	143,160,276	-	573,057	-	-	-	-	-	143,733,333
CCC	34,680,680	-	8,332,494	-	-	-	-	-	43,013,174
CCC-	24,687,029	-	5,676,953	-	357,407	-	-	-	30,721,389
CC	3,027,125	-	8,751,845	-	-	-	-	-	11,778,970
C	-	-	4,441,141	-	-	-	-	-	4,441,141
D	8,020,911	-	13,864,153	-	-	-	-	-	21,885,064
FFC*	2,506,166	-	163,831,119	-	-	13,894,937	-	95,350,239	275,582,461
NR**	44,352,733	123,102,028	32,032,815	-	395,416	-	-	-	199,882,992
GRAND TOTAL	**$2,117,455,979**	**$497,670,481**	**$430,377,034**	**$3,212,021**	**$465,984,744**	**$18,366,082**	**$120,767,263**	**$107,000,987**	**$3,760,834,591**

* FFC = Full Faith and Credit.
** NR = Not Rated.

HIGH YIELD FIXED INCOME

As of Dec. 31 2016, OP&F had nine high yield fixed-income portfolios, of which five invested in publicly traded securities and four in private debt. All these portfolios were managed externally. The high yield bond asset class consists of the portion of the U.S. corporate bond market that is rated below BBB- by Standard & Poor's 500 (S&P) or below Baa3 by Moody's. Accordingly, credit risks associated with these bonds are greater than with core fixed income bonds. OP&F's policy is to invest in high yield bonds issued by U.S. corporations with a minimum credit rating of CCC or equivalent. OP&F allows some of its investment managers to purchase securities that are not rated as long as they deem these securities to be at least equivalent to the minimum ratings at the time of purchase. It is possible after purchase that the security is downgraded. In the event of an investment guideline violation and in the event of a security downgrade, such that the ratings (Moody's, S&P, or Fitch Investor's Service) are below the allowable minimum security quality, the investment manager will inform OP&F in writing within five business days of such violation. Such notice will include the action the Manager intends to take with regard to the violation and over what time period that action will be taken. Both the method and timing of the violation resolution must be agreeable to OP&F.

SHORT-TERM INVESTMENTS

The short-term investment portfolio consists mainly of commercial paper. OP&F's policy is that, at the time of purchase, the short-term instrument must be rated within the two highest classifications established by two standard rating services. However, it is possible that after the purchase the ratings could change. The following table lists the commercial paper ratings as of Dec. 31, 2016:

S&P/Moody's Rating	Fair Value 2016	Percent 2016
A-1/P-1	$202,090,862	42.73%
A-2/P-1	51,997,383	11.00%
A-2/P-2	218,819,096	46.27%
GRAND TOTAL	**$472,907,341**	**100.00%**

INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of fixed income investments. This relationship can be measured using duration, which shows the sensitivity of the price of a fixed-income investment to a change in interest rates. OP&F uses effective duration to measure the interest rate risk of the core fixed income portfolio. The effective duration takes into account that expected cash flows will fluctuate as interest rates change.

OP&F's policy is that two of the four core fixed income managers are allowed a range of permissible durations around that of their benchmark index. One of the remaining managers, Western Asset Management, is required to have portfolio duration of one year or less. OP&F does not measure the duration of the other remaining core fixed income portfolio, managed by Russell Investments Implementation Services (Core Fixed Income Transition Account), as interest rate risk is constrained do to the fact that the portfolio tracking error shall not exceed 0.75 precent of the benchmark, Bloomberg Barclays Index. All the core fixed income managers are also required to monitor and report the effective duration of their portfolio(s) on a monthly basis.

As of Dec. 31 2016, the permissible ranges for the three core fixed income portfolio managers were:

Portfolio Benchmark	2016 Benchmark Duration (years)	Portfolio Manager	Portfolio Permissible Range
Bloomberg Barclays Index	6.07	Pacific Investment Management Company	-3 years to + 8 years
Barclays U.S. Government Inflation Linked Index	24.60	Bridgewater Associates U.S. Inflation Linked Bond Fund*	Replicate benchmark
Custom weighted-average mix of Barclays country indexes	24.08	Bridgewater Associates*	Replicate benchmark

* These funds are levered 3:1

Since portfolio level duration is the best measure of interest rate risk, OP&F does not require its managers to measure or report on the duration of each security sector. OP&F does not measure the duration of their high yield portfolios because interest rate risk is a very small part of the total risk of high yield securities. The major risks for high yield bonds are credit risk and interest rate spread risk. The following table lists the effective duration for OP&F's fixed-income portfolio as of Dec. 31, 2016:

Investment Type	Fair Value 2016	Effective Duration 2016 (years)
U.S. Government Treasury Obligations	$120,767,263	8.19
U.S. Government STRIPS	107,000,987	5.98
U.S. Government Agencies	18,366,082	4.46
Mortgage and Asset-Backed Securities	430,377,034	3.04
Municipal Bond Obligations	3,212,021	10.99
Corporate Bond Obligations*	299,303,869	3.74
Non-U.S. Bonds	465,984,744	44.47
Domestic Commingled Bonds	497,670,481	19.03
TOTAL FIXED INCOME EFFECTIVE DURATION	**$1,942,682,481**	**17.69**

* High yield bonds are excluded from duration.

COLLATERALIZED MORTGAGE OBLIGATIONS

In general, mortgage-backed securities entitle their holders to receive both principal and interest payments from the payments made by the borrowers of the underlying mortgages over the lives of those loans. The life of the mortgage that underlies a mortgage-backed security can be shortened by several economic events, including borrower refinancing. When interest rates fall and remain very low, a growing number of borrowers will refinance their existing loans causing mortgage-backed security holders to be repaid more quickly than anticipated. This early repayment is a form of market risk assumed by OP&F and other owners of mortgage-backed securities.

To the contrary, when interest rates begin to rise, the refinancing of existing mortgages begins to slow. If the rates remain high for long periods of time, fewer borrowers refinance their mortgages. This causes mortgage-backed security holders to be repaid over longer periods of time. This prolonged repayment is known as extension risk and is another form of market risk assumed by OP&F and other owners of mortgage-backed securities.

These securities are based on cash flows from interest payments on underlying loans. Therefore, they are sensitive to prepayments by the debtor, which may result from a decline in interest rates.

VARIABLE RATE SECURITIES

OP&F's core fixed income and high yield managers are permitted to hold variable-rate coupons whose rates may vary directly or inversely with changes in a related interest rate. As of Dec. 31, 2016, OP&F did not hold any security with a variable-rate coupon that had a multiplier greater than one or any security with an inverse variable rate.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributed to the magnitude of an entity's investment in a single issuer. OP&F does not permit more than 10 percent of the core fixed income portfolio to be invested in the securities of any one issuer and no more than five percent in any one issue on a dollar duration basis, with the exception of U.S. Government or Agency securities. For the high yield portfolio, no more than 10 percent of the entire portfolio at market shall be invested in securities of a single issue or issuer, unless otherwise approved by the Board of Trustees. At Dec. 31, 2016, OP&F did not hold investments in any one issuer that represented five percent or more of OP&F's net assets.

SECURITIES LENDING

OP&F participates in domestic and international securities lending programs, as authorized by the Board of Trustees. Securities are loaned to investment broker/dealers (borrower). Securities loaned are collateralized by the borrower at 102 percent of the domestic and 105 percent of the international loaned securities' fair value. OP&F has minimized its exposure to credit risk due to borrower default by having the lending agent bank determine daily that required collateral meets the specified collateral requirements. There are no restrictions on the amount of the securities that can be loaned. Contracts with lending agents require them to indemnify OP&F if the borrowers fail to return the securities or fail to pay OP&F for income distributions by the securities' issuer while the securities are on loan. All securities loans can be terminated on demand and the maturities of the investments made with an acceptable form of the collateral generally matches the maturities of the securities loans.

At year end, OP&F has no credit risk exposure to borrowers because the amounts that OP&F owes the borrowers exceed the amounts the borrowers owe OP&F.

OP&F has not experienced any losses due to credit or market risk on securities lending activity since implementation of the program. OP&F does have the ability to pledge or sell collateral securities in case of a borrower default.

The following represents the balances relating to the securities lending transactions at Dec. 31, 2016:

SECURITIES LENT AS OF DEC. 31, 2016

Securities Lent	Underlying Security	Collateral Received	Collateral Fair Value	Type of Collateral
U.S. Government and Treasuries	$223,295,369	$227,991,776	$227,991,776	Cash
Domestic Equities	428,129,909	440,282,067	440,282,067	Cash
Domestic Corporate Fixed Income	109,665,971	114,263,450	114,263,450	Cash
TOTAL SECURITIES LENT	**$761,091,249**	**$782,537,293**	**$782,537,293**	

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. OP&F's target allocation to international equity holdings was 19.1 percent as of Dec. 31, 2016. While OP&F has no specific policy regarding the international custodial credit risk, OP&F limits its international investment managers to hold five percent or less of their total portfolio in cash. Apart from cash needed for immediate settlement of pending trade transactions, (local cash awaiting repatriation), any excess cash received in OP&F's trust accounts is invested in a U.S. Dollar denominated Short-Term Investment Fund (STIF). For the year ending Dec. 31, 2016, OP&F's exposure to foreign currency risk is as follows:

2016 EXPOSURE TO FOREIGN CURRENCY RISK

Currency	Fair Value (Cash Deposits)	Fair Value (Fixed Income)	Fair Value (Currency Contracts)	Fair Value (Equities)	Fair Value (Private Equities)	Total Fair Value (Cash Deposits and Securities)
Australian Dollar	$938,126	$-	$(164,508)	$72,781,436	$-	$73,555,054
Brazilian Real	33,896	1,921,205	35,369	20,951,380	-	22,941,850
British Pound	2,824,499	2,748,011	(420,136)	395,221,716	-	400,374,090
Canadian Dollar	418,227	-	(70,728)	91,590,750	-	91,938,249
Chilean Peso	14,628	-	-	6,990,659	-	7,005,287
Danish Kroner	39,801	10,662,097	567,829	22,302,785	-	33,572,512
Euro	496,058	5,089,196	(674,111)	535,835,572	76,072,862	616,819,577
Hong Kong Dollar	644,866	-	(1,070)	75,328,356	-	75,972,152
Hungarian Forint	-	-	-	678,613	-	678,613
Indonesian Rupiah	9,926	-	-	7,756,019	-	7,765,945
Japanese Yen	875,492	-	(497,828)	293,292,736	9,308,327	302,978,727
Malaysian Ringgit	68,250	-	16,641	4,356,013	-	4,440,904
Mexican Peso	10,774	-	(34,216)	2,075,408	-	2,051,966
New Turkish Lira	137	-	-	3,162,424	-	3,162,561
New Zealand Dollar	-	-	5,006	3,584,863	-	3,589,869
Norwegian Krone	223	-	-	2,669,656	-	2,669,879
Philippine Peso	-	-	-	465,710	-	465,710
Polish Zloty	-	-	-	2,385,294	-	2,385,294
Russian Ruble	-	-	80,486	2,391,732	-	2,472,218
Singapore Dollar	10,001	-	52,357	20,117,695	-	20,180,053
South African Rand	-	-	-	5,455,872	-	5,455,872
South Korean Won	2,625	-	234,082	42,657,947	-	42,894,654
Swedish Krona	61,244	-	(3,001)	32,748,031	-	32,806,274
Swiss Franc	5	-	(13,080)	192,082,301	-	192,069,226
Taiwanese New Dollar	-	-	122,795	20,359,282	-	20,482,077
Thailand Baht	-	-	-	11,039,853	-	11,039,853
UAE Dirham	-	-	-	1,351,411	-	1,351,411
GRAND TOTAL	**$6,448,778**	**$20,420,509**	**$(764,113)**	**$1,869,633,514**	**$85,381,189**	**$1,981,119,877**

DERIVATIVES

Derivatives are generally defined as investment instruments whose value depends on, or is derived from, the value of an underlying asset, reference rate, or index.

OP&F has classified the following as derivatives:

- Mortgage and Asset-Backed Securities: OP&F invested in Planned Amortization Class and Sequential Pay Real Estate Mortgage Investment Conduit bonds issued by GNMA, FHLMC, and FNMA. Planned Amortization Class bonds are retired according to a payment schedule so as to have a stable average life and yield even if expected prepayment rates change within a specified broad range of prepayment possibilities. Sequential pay bonds begin to pay principal when classes with an earlier priority have paid to a zero balance. Such bonds enjoy uninterrupted payment of principal until paid to a zero balance. In terms of credit risk, the U.S. government explicitly backs GNMA mortgage securities programs and is viewed by the market as implicitly backing FHLMC and FNMA mortgage securities programs.

- Futures Contracts: Futures contracts are contracts to buy or sell units of an index or financial instrument on a specified future date at a price agreed upon when the contract is originated. OP&F had futures exposure with seven external managers constituting $1.7 billion of notional value as of Dec. 31, 2016. This amount represented 11.8 percent of the total portfolio. OP&F uses this exposure to synthetics to maintain market exposure while also increasing liquidity and flexibility.

- Forward-Currency Contracts: Forward currency contracts are legal agreements between two parties to purchase and sell a foreign currency, for a price specified at the contract date, with delivery and settlement in the future. OP&F, through its external investment managers, enters into forward currency contracts to hedge underlying foreign currency exposure in its non-U.S. equity portfolios back to the U.S. dollar or to provide the quantity of foreign currency needed to settle trades.

All the contracts are valued at the spot foreign exchange rate at Dec. 31, 2016. The changes in the value of the open contracts are recognized as unrealized appreciation/depreciation. A realized gain or loss is recorded at the time of the delivery/closing of the contract. The realized gain or loss is the difference between the value of the original contract and the closing/delivery value of such contracts. Both realized and unrealized gains and losses are included in the Statement of Changes in Fiduciary Net Position as net appreciation/depreciation. The following table represents the balances of the outstanding currency transactions as of Dec. 31, 2016:

OPEN CURRENCY CONTRACTS AS OF DEC. 31, 2016

Purpose	Fair Value (Outstanding Purchases)	Fair Value (Outstanding Sales)	Unrealized Appreciation/ (Depreciation)
Trade Settlement	$1,429,262	$1,423,131	$6,131
Position Hedging	89,436,869	90,207,113	(770,244)
GRAND TOTAL	**$90,866,131**	**$91,630,244**	**$(764,113)**

On delivered/closed currency contracts OP&F had a realized loss of $1,451,102 in 2016.

- Options: An option is the right, but not the obligation, to buy or sell a specific amount of a given security or other financial assets at a specified price during a specified period of time. OP&F invests in options as part of its portable alpha program. OP&F's exposure represented less than one percent of the total portfolio fair value at year-end.
- Swaps: A swap is a derivative contract through which two parties exchange financial instruments that involve cash flows based on a notional principal amount to which both parties agree. Usually, the principal does not change hands but each cash flow comprises one leg of the swap. One cash flow is generally fixed, while the other is variable and based on a benchmark interest rate, floating currency exchange rate or index price.

In 2016, OP&F invested in interest rate and credit default swaps through one external manager. The notional principal and the fair value for both as of Dec. 31, 2016 were:

OP&F has not violated any legal, regulatory, or contractual provisions by its participation in these types of derivative instruments and there is no known undue credit, market, or legal risk. These instruments were purchased in order to enhance OP&F's overall rate of return.

6 – DEFERRED COMPENSATION PLAN

OP&F does not sponsor a deferred compensation program. OP&F employees are eligible to participate in the deferred compensation plan sponsored by the State of Ohio. The state-sponsored plan was created in accordance with IRS Code Section 457. The plan is available to all OP&F employees and permits them to defer a portion of their salary until future years. Deferred compensation assets are not available to employees until termination, retirement, death, or unforeseeable emergency.

IRS Code Section 457 requires that the amount of compensation assets deferred under a plan, all property and rights and all income attributable to those amounts, property or rights, be held in trust for the benefit of the participants. This insulates IRS Code Section 457 benefits from the claims of an employer's general creditors. Accordingly, OP&F does not include the deferred compensation assets or liabilities of the Ohio Deferred Compensation Plan in its financial statements.

SWAP HOLDINGS AS OF DEC. 31, 2016

Type of Swap	Notional Long	Notional Short	Net Notional	Fair Value
Interest Rate Swap	$28,473,349	$(213,262,314)	$(184,788,965)	$48,709
Credit Default Swap	9,100,000	(4,654,750)	4,445,250	(4,239)
GRAND TOTAL	**$37,573,349**	**$(217,917,064)**	**$(180,343,715)**	**$44,470**

7 – DEFINED BENEFIT PENSION PLAN

NET PENSION LIABILITY

The net pension liability reported on the statement of fiduciary net position represents a liability to employees for pensions. Pensions are a component of exchange transactions, between an employer and its employees, of salaries and benefits for employee services. Pensions are provided to an employee on a deferred-payment basis as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice recourses for pensions is a present obligation because it was created as a result of employment exchanges that already have occurred. The net pension liability represents OP&F's proportionate share of each pension plan's collective actuarial present value of projected benefit payments attributed to past periods of service, net of each pension plan's fiduciary net position. The net pension liability calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknown future events require this estimate to be adjusted annually.

ORC limits OP&F's obligation for this liability to annually required payments. OP&F cannot control benefit terms or the manner in which pensions are financed; however, OP&F does receive the benefit of employees' services in exchange for compensation including pension.

GASB No. 68 assumes the liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) state statute requires all funding to come from these employers. All contributions to date have come solely from these employers (which also includes costs paid in the form of withholdings from employees). State statute requires the pension plans to amortize unfunded liabilities within 30 years. If the amortization period exceeds 30 years, each pension plan's board must propose corrective action to the state legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension liability. Resulting adjustments to the net pension liability would be effective when the changes are legally enforceable.

The proportionate share of each plan's unfunded benefits is presented as a long-term net pension liability on the accrual basis of accounting. Any liability for the contractually-required pension contribution outstanding at the end of the year is included in intergovernmental payable on the accrual basis of accounting.

PLAN DESCRIPTION – OHIO PUBLIC EMPLOYEES RETIREMENT SYSTEM (OPERS)

Public employees participate in OPERS, a cost-sharing multiple-employer public employee retirement system administered by OPERS. OPERS provides retirement and disability benefits to members and death and survivor benefits to beneficiaries. OPERS also provides health care benefits to some retirees and beneficiaries. OPERS issues a stand-alone financial report that includes financial statements, RSI and detailed information about OPERS' fiduciary net position. That report can be obtained by writing to OPERS, 277 E. Town Street, Columbus, OH 43215, or by visiting the OPERS website: www.OPERS.org.

New members have a choice of three retirement plans: The Traditional Plan (defined benefit plan); the Combined Plan (combination of defined benefit and defined contributions plans); and the Member Directed Plan (defined contribution plan with the option upon retirement to use the defined contribution account balance to purchase a defined benefit annuity). Benefits are established by Chapter 145 of the ORC. The defined benefit (DB) plan offers an annual retirement allowance based on final average salary multiplied by a percentage that varies based on years of service.

Senate Bill (SB) 343 was enacted into law with an effective date of Jan. 7, 2013. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. Members who were eligible to retire under law in effect prior to SB 343 or who will be eligible to retire no later than five years after Jan. 7, 2013 comprise transition Group A. Members who have 20 years of service credit prior to Jan. 7, 2013 or who will be eligible to retire no later than 10 years after Jan. 7, 2013 are included in transition Group B. Group C includes those members who are not in either of the other groups and members who were hired on or after Jan. 7, 2013.

Benefit payments vary in amount depending on years of service credit, final average salary (FAS), age and plan of payment selection. FAS is the average of the three highest years of earnable salary for Group A and B; and the average of the five highest years of earnable salary for members in Group C. The age-and-service formula benefit cannot exceed 100 percent of the FAS (Law Enforcement is 90 percent) or the limits under IRC Section 415 and may be subject to the contribution-based benefit cap. The base benefit amount calculated by the formula will be reduced if a member begins receiving a retirement benefit before reaching the age-and-service requirements for an unreduced benefit.

In the Traditional Pension Plan (DB), the benefit formula for the state and local members in transition Group A and B applies a factor of 2.2 percent to the member's FAS for the first 30 years of service. A factor of 2.5 percent is applied to years of service in excess of 30. The benefit formula for state and local members in transition Group C applies a factor of 2.2 percent to the member's FAS for the first 35 years of service and a factor of 2.5 percent is applied to years of service in excess of 35.

In the Combined Plan, the benefit formula for the defined benefit component of the plan for state and local members in transition Group A and B applies a factor of one percent to the member's FAS for the first 30 years of service. A factor of 1.25 percent is applied to years of service in excess of 30. The benefit formula for transaction Group C applies a factor of one percent to the member's FAS and the first 35 years of service and a factor of 1.25 percent is applied to years in excess of 35.

When a benefit recipient has received benefits for 12 months, an annual COLA is provided. This COLA is calculated on the base retirement benefit at the date of retirement and is not compounded. For those retiring prior to Jan. 7, 2013, the COLA will continue to be three percent simple annual COLA. For those retiring after Jan. 7, 2013, beginning in calendar year 2019, the COLA will be based on the average percentage increase in the Consumer Price Index, capped at three percent.

A DB or Combined Plan member with five or more years of service credit who is determined to be disabled may qualify for a disability benefit.

FUNDING POLICY – OPERS

Employees covered by OPERS are required to contribute 10 percent of their salary to the plan and employers are required to contribute 14 percent. Both rates are at the statutory maximum.

OP&F's contractually required contribution to OPERS was $2,358,670 for year end Dec. 31, 2016. Of this amount $1,200,689 is reported as a deferred outflow - contribution subsequent to the measurement date.

PENSION LIABILITIES, PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

The net pension liability was measured as of Dec. 31, 2015 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. OP&F's proportion of the net pension liability was based on OP&F's share of contributions to the pension plan relative to the contributions of all participating entities. Following is information related to the proportionate share and pension expense:

OPERS	Traditional	Combined	Member Directed	TOTAL
Proportionate Share of the Net Pension Asset	$-	$63,275	$837	**$64,112**
Proportionate Share of the Net Pension Liability	$(10,779,540)	$-	$-	**$(10,779,540)**
Proportion of the Net Pension Asset/Liability	0.06%	0.13%	0.22%	**0.07%**
Pension Expense	$2,274,758	$41,060	$95	**$2,315,913**

At Dec. 31, 2016, OP&F reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

OPERS	Traditional	Combined	Member Directed	TOTAL
Deferred Outflows of Resources				
Net difference between projected and actual earnings on pension plan investments	$2,194,550	$23,957	$1,164	**$2,219,671**
Changes in proportion and differences	-	1,850	5,617	**7,467**
Contributions subsequent to the measurement date	998,022	52,832	149,835	**1,200,689**
TOTAL DEFERRED OUTFLOWS OF RESOURCES	**$3,192,572**	**$78,639**	**$156,616**	**$3,427,827**
Deferred Inflows of Resources				
Differences between expected and actual experience	$123,239	$25,602	$-	**$148,841**
Changes in proportion and differences	231,151	408	3,172	**234,731**
TOTAL DEFERRED INFLOWS OF RESOURCES	**$354,390**	**$26,010**	**$3,172**	**$383,572**

Deferred outflows of resources related to pensions resulting from OP&F's contributions subsequent to the measurement date were $1,200,689 and will be recognized as a reduction of the net pension liability in the year ending Dec. 31, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as indicated in the schedule below. Deferrals arising from differences between projected and actual earnings on pension plan investments will be amortized over five years for all three plans. Deferrals arising from differences between projected and actual experience will be amortized over the average remaining service life of the entire pool of participants (both active and inactive). The Traditional Plan has 3.1673 years of average remaining service life. The Combined Plan has 9.4080 years of average remaining service life and the Member Directed Plan has 9.5692 years of average remaining service life.

OPERS	Traditional	Combined	Member Directed	TOTAL
Fiscal Year Ending Dec. 31:				
2017	$(699,156)	$(269)	$(504)	**$(699,929)**
2018	(899,996)	(269)	(504)	**(900,769)**
2019	(241,008)	(269)	(504)	**(241,781)**
2020	-	530	(446)	**84**
2021	-	530	(446)	**84**
2022	-	530	(446)	**84**
2023	-	530	(446)	**84**
2024	-	(570)	(279)	**(849)**
2025	-	(540)	(34)	**(574)**
TOTAL	**$(1,840,160)**	**$203**	**$(3,609)**	**$(1,843,566)**

ACTUARIAL ASSUMPTIONS – OPERS

OPERS' total pension liability was determined by their actuaries in accordance with GASB Statement No. 67, as part of their annual actuarial valuation for each defined benefit retirement plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts (e.g., salaries, credited service) and assumptions about the probability of occurrence of events far into the future (e.g., mortality, disabilities, retirements, employment termination). Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employers and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

Actuarial calculations reflect a long-term perspective. For a newly hired employee, actuarial calculations will take into account the employee's entire career with the employer and also take into consideration the benefits, if any, paid to the employee after termination of employment until the death of the employee and any applicable contingent annuitant. In many cases actuarial calculations reflect several decades of service with the employer and the payment of benefits after termination.

Key methods and assumptions used in calculating the total pension liability in the latest actuarial valuation, prepared as of Dec. 31, 2015, are presented below:

KEY METHODS AND ASSUMPTIONS USED IN VALUATION OF TOTAL PENSION LIABILITY

Actuarial Information	Traditional Pension Plan	Combined Plan and Member Directed Plan
Valuation Date	Dec. 31, 2015	Dec. 31, 2015
Experience Study	5-Year Period Ended Dec. 31, 2010	5-Year Period Ended Dec. 31, 2010
Actuarial Cost Method	Individual entry age	Individual entry age
Actuarial Assumptions		
Investment Rate of Return	8.00%	8.00%
Wage Inflation	3.75%	3.75%
Projected Salary Increases	4.25%-10.05% (includes wage inflation at 3.75%)	4.25%-8.05% (includes wage inflation at 3.75%)
Cost-of-living Adjustments	Pre Jan. 7, 2013 Retirees: 3.00% Simple Post Jan. 7, 2013 Retirees: 3.00% Simple Through 2018, then 2.80% Simple	Pre Jan. 7, 2013 Retirees: 3.00% Simple Post Jan. 7, 2013 Retirees: 3.00% Simple Through 2018, then 2.80% Simple

Mortality rates are based on the RP-2000 mortality table projected 20 year using Projection Scale AA. For males, 105 percent of the combined healthy male mortality rates were used. For females, 100 percent of the combined healthy female mortality rates were used. The mortality rates used in evaluating disability allowances were based on the RP-2000 mortality table with no projection. For males, 120 percent of the disabled female mortality rates were used, set forward two years. For females, 100 percent of the disabled female mortality rates were used.

DISCOUNT RATE – OPERS

The discount rate used to measure the total pension liability was 8.0 percent for the Traditional Pension Plan, the Combined Plan and the Member Directed Plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rates of return on pension plan investments for the Traditional Pension Plan, the Combined Plan and the Member Directed Plan were applied to all periods of projected benefit payments to determine the total pension liability.

SENSITIVITY OF OP&F'S PROPORTIONATE SHARE TO THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following table presents OP&F's proportionate share of the net pension liability calculated using the current period discount rate assumption of 8.0 percent as well as what OP&F's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one-percentage-point lower, (7.0 percent), or one-percentage-point higher, (9.0 percent), than the current rate:

OP&F's proportionate share of the Net Pension Liability (Asset)	One Percent Decrease	Current Discount Rate	One Percent Increase
Discount Rate	7.0%	8.0%	9.0%
Traditional Pension Plan	$17,174,441	$10,779,540	$5,385,644
Combined Plan	$(1,300)	$(63,275)	$(113,126)
Member Directed Plan	$2,189	$(837)	$(2,189)

The following table displays OPERS' Board-approved asset allocation policy of the Defined Benefit portfolio for 2015 and long-term expected real rates of return:

Asset Class	Target Allocation for 2015	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	23.00%	2.31%
Domestic Equities	20.70%	5.84%
Real Estate	10.00%	4.25%
Private Equity	10.00%	9.25%
International Equities	18.30%	7.40%
Other Investments	18.00%	4.59%
TOTAL	**100.00%**	**5.27%**

The long-term expected rate of return on defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return 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, adjusted for inflation.

OPERS manages investments in four investment portfolios: the DB Portfolio, the Health Care portfolio, the 115 Health Care Trust portfolio and the Defined Contribution portfolio. The DB portfolio includes the investment assets of the Traditional Pension Plan, the DB component of the Combined Plan, the annuitized accounts of the Member-Directed Plan and the Voluntary Employees' Beneficiary Association Trust (VEBA Trust). Within the DB Portfolio, contributions into the plans are all recorded at the same time and benefit payments all occur on the first of the month. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The money-weighted rate of return, net of investment expense, for the DB portfolio is 0.4 percent for 2015.

8 – COMPENSATED ABSENCES

As of Dec. 31, 2016, $2.3 million were accrued for unused vacation and sick leave for OP&F employees. To help OP&F reduce and manage the vacation liability, all employees with at least one year of continuous service as of the beginning of the current calendar year are required to use five consecutive workdays of vacation leave each year. Upon termination of employment, employees will be paid for unused vacation time that has been earned through the last day of work. Three-fourths of accrued but unused sick leave will be paid at the employee's base rate upon termination of employment.

9 – SELF-INSURED HEALTH CARE FOR EMPLOYEES OF OP&F

OP&F is self-insured for employee benefits for medical, dental, vision and hospitalization. A third-party administrator manages the program. OP&F holds a stop-loss policy of $90,000 per employee per year.

10 – OTHER POST-EMPLOYMENT BENEFITS (OPEB)

In addition to the pension benefits described in note seven, OPERS provides post-retirement health care coverage to age and service retirees with qualifying Ohio service credit. OPERS administers a cost-sharing, multiple-employer defined benefit post-employment healthcare plan, which includes a medical plan, prescription drug program and Medicare Part B premium reimbursement, to qualifying members of both the Traditional Pension and the Combined plans. Members of the Member-Directed Plan do not qualify for ancillary benefits, including post-employment health care coverage.

OPERS provides medical benefits to retired public employees of public employers who are subject to coverage under Chapter 145 of the ORC. Chapter 145 of the ORC assigns the authority to establish and amend benefit provisions to the OPERS Board of Trustees. OPERS issues a publicly available financial report that includes financial statements and RSI for OPERS. That report may be obtained by visiting www.opers.org/investments/cafr.shtml, by writing to OPERS, 277 East Town Street, Columbus, OH 43215-4642, or by calling (614) 222-5601 or 800-222-7377.

Chapter 145 of the ORC provides that contribution requirements of the participating employers and of plan members to the OPERS (defined benefit pension plan) are established and may be amended by the OPERS Board of Trustees. Participating employers and active pension plan members are required to contribute to the pension plan at rates expressed as percentages of the payroll of active pension plan members, currently 14 percent and 10 percent of payroll, respectively. Chapter 145 of the ORC states that the employer contribution rate may not exceed 14 percent of payroll and that the employee contribution rate may not exceed 10 percent.

OPERS' post employment health care plan was established under, and is administered in accordance with, IRS Code Section 401(h). Each year, the OPERS Board of Trustees determines the portion of the employer contribution rate that will be set aside for funding of post employment health care benefits. For the year ended Dec. 31, 2016, the employer contribution allocated to the retiree health care plan was 2.0 percent of employer contributions. The amount of employer contributions allocated to the health care plan each year is subject to the Trustees' primary responsibility to ensure that pension benefits are adequately funded and also is limited by the provisions of Section 401(h).

The OPERS Board of Trustees is also authorized to establish requirements for contributions to the retiree health care plan by retirees or their surviving beneficiaries. Payment amounts vary depending on the number of covered dependents and the coverage selected.

The following chart lists OP&F's employer contributions and the amounts allocated to health care.

ANNUAL REQUIRED PENSION AND HEALTH CARE CONTRIBUTIONS

Year Ended	Pension Annual Required Contributions	Pension Percent Contributed	Health Care Annual Required Contributions	Health Care Percent Contributed
2016	$1,356,608	100%	$193,724	100%
2015*	1,301,933	100%	185,916	100%
2014	1,264,620	100%	180,664	100%

* Annual Required Health Care Contributions for 2015 were restated to reflect 2.0 percent of employer contributions that were allocated to the retiree health care plan.

11 – COMMITMENTS AND CONTINGENCIES

OP&F is a defendant in a number of lawsuits pertaining to matters that are incidental to performing routine business functions. OP&F's management is of the opinion that ultimate resolution of such claims will not result in a material, adverse effect on OP&F's financial position as of Dec. 31, 2016.

OP&F is committed to making additional capital contributions to the following investment types as of Dec. 31, 2016:

Asset Class	Unfunded Commitments	Fair Value At Dec. 31, 2016
Private Equity*	$818,273,464	$914,795,737
Private Debt	189,122,957	298,895,397
Real Estate	404,825,228	1,583,586,006
Timber	132,123,635	301,439,041
GRAND TOTAL	**$1,544,345,284**	**$3,098,716,181**

* Included in the Private Equity are seven Euro based unfunded commitments totaling as of Dec. 31, 2016:
€ 93,176,050 (€ = Euro) ($98,277,435 U.S.D.)

12 – STATE OF OHIO PUBLIC SAFETY OFFICERS DEATH BENEFIT FUND

Pursuant to ORC Section 742.62, the Board of Trustees of the OP&F administers the State of Ohio Public Safety Officers Death Benefit Fund. This program was established by the State of Ohio to provide monthly benefit payments to eligible surviving family members of Ohio public safety officers who have been killed in the line of duty or die of a duty–related injury or illness. Funds are disbursed to OP&F on a quarterly basis each state fiscal year (July 1-June 30) and are paid monthly by OP&F to eligible recipients. The unused balance at June 30 is returned to the State. The Public Safety Officers Death Benefit Fund is considered to be an agency fund administered by OP&F and, accordingly, its assets of $517,051 and the related liability for unpaid benefits are included in the accompanying financial statements as of Dec. 31, 2016.

13 – EMPLOYERS' NET PENSION LIABILITY (SURPLUS)

THE COMPONENTS OF THE NET PENSION LIABILITY OF EMPLOYERS AS OF DEC. 31, 2016

Year Ending Dec. 31	(a) Total Pension Liability	(b) Plan Fiduciary Net Position	(a)-(b)=(c) Net Pension Liability (Surplus)	(b) / (a) Plan Fiduciary Net Pension as a Percentage of Total Pension Liability	(d) Covered Employee Payroll	(c) / (d) Net Pension Liability (Surplus) as a Percentage of Covered Employee Payroll
2016	$20,016,288,888	$13,682,389,240	$6,333,899,648	68.36%	$2,094,550,962	302.40%

The total pension liability is determined by OP&F's actuaries in accordance with GASB Statement No. 67, as part of their annual valuation. Actuarial valuations of an ongoing retirement plan involve estimates of the value of reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality, salary increases, disabilities, retirements and employment terminations. Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the RSI section. The total pension liability as of Dec. 31, 2016, is based on the results of an actuarial valuation date of Jan. 1, 2016 and rolled-forward using generally accepted actuarial procedures.

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

ACTUARIAL ASSUMPTIONS

Valuation date	Jan. 1, 2016
Actuarial cost method	Entry age
Investment rate of return	8.25%
Projected salary increases	4.25% - 11.00%
Payroll increases	3.75%
Inflation assumptions	3.25%
Cost-of-living adjustments	2.60% and 3.00% simple

The long-term expected rate of return on pension plan investments was determined using a building-block approach and assumes a time horizon, as defined in the Statement of Investment Policy. A forecasted rate of inflation serves as the baseline for the return expected. Various real return premiums over the baseline inflation rate have been established for each asset class. The long-term expected nominal rate of return has been determined by calculating a weighted average of the expected real return premiums for each asset class, adding the projected inflation rate and adding the expected return from rebalancing uncorrelated asset classes. Best estimates of the long-term expected real rates of return for each major asset class included in OP&F's target asset allocation as of Dec. 31, 2016 are summarized below:

TARGET ALLOCATIONS

Asset Class	Target Allocations	10 Year Expected Real Rate of Return**	30 Year Expected Real Rate of Return**
Cash and Cash Equivalents	-%	-%	-%
Domestic Equity	16.0%	4.46%	5.21%
Non-U.S. Equity	16.0%	4.66%	5.40%
Core Fixed Income*	20.0%	1.67%	2.37%
Global Inflation Protected Securities*	20.0%	0.49%	2.33%
High Yield	15.0%	3.33%	4.48%
Real Estate	12.0%	4.71%	5.65%
Private Markets	8.0%	7.31%	7.99%
Real Assets	5.0%	6.87%	6.87%
Master Limited Partnerships	8.0%	6.92%	7.36%
TOTAL	**120.0%**		

Note: Assumptions are geometric. * Levered 2x.
** Numbers are net of expected inflation.

OP&F's Board of Trustees has incorporated the risk parity concept into OP&F's asset liability valuation with the goal of reducing equity risk exposure, which reduces overall Total Portfolio risk without sacrificing return and creating a more risk-balanced portfolio based on the relationship between asset classes and economic environments. From the notional portfolio perspective above, the Total Portfolio may be levered up to 1.20 times due to the application of leverage in certain fixed income asset classes.

Total pension liability was calculated using the discount rate of 8.25 percent. The projection of cash flows used to determine the discount rate assumed the contributions from employers and from members would be computed based on contribution requirements as stipulated by state statute. Projected inflows from investment earnings were calculated using the longer-term assumed investment rate of return 8.25 percent. Based on those assumptions, OP&F's fiduciary net position was projected to be available to make all future benefit payment of current plan members. Therefore, a long-term expected rate of return on pension plan investments was applied to all periods of projected benefits to determine the total pension liability.

Net pension liability is sensitive to changes in the discount rate. To illustrate the potential impact, the following table presents the net pension liability calculated using the discount rate of 8.25 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower, 7.25 percent, or one percentage point higher, 9.25 percent, than the current rate:

CHANGES IN DISCOUNT RATE

Sensitivity of the Net Pension Liability to Changes in the Discount Rate at Dec. 31, 2016

	One Percent Decrease	Current Discount Rate	One Percent Increase
Discount Rate	7.25%	8.25%	9.25%
Total Pension Liability	$22,118,393,001	$20,016,288,888	$18,234,727,093
Plan Fiduciary Net Position	$13,682,389,240	$13,682,389,240	$13,682,389,240
NET PENSION LIABILITY (SURPLUS)	**$8,436,003,761**	**$6,333,899,648**	**$4,552,337,853**

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY*

Total Pension Liability	Year Ending Dec. 31, 2016	Year Ending Dec. 31, 2015	Year Ending Dec. 31, 2014
Service Cost	$273,592,476	$267,624,727	$262,846,976
Interest	1,570,560,385	1,519,848,287	1,472,778,463
Plan Changes	-	-	-
Differences Between Expected and Actual Experience	2,143,161	(21,544,278)	-
Changes in Assumptions	-	-	-
Benefit Payments, Including Refunds of Member Contributions	(1,187,020,466)	(1,170,476,866)	(1,126,154,321)
NET CHANGE IN TOTAL PENSION LIABILITY	659,275,556	595,451,870	609,471,118
TOTAL PENSION LIABILITY - BEGINNING	19,357,013,332	18,761,561,462	18,152,090,344
TOTAL PENSION LIABILITY - ENDING (a)	**$20,016,288,888**	**$19,357,013,332**	**$18,761,561,462**
Plan Fiduciary Net Position			
Contributions - Employer	$455,143,532	$428,972,949	$418,493,468
Contributions - Member	268,594,295	245,834,623	223,989,055
Net Investment Income	1,240,580,488	(11,259,198)	786,522,451
Benefit Payments, Including Refunds of Member Contributions	(1,187,020,466)	(1,170,476,866)	(1,126,154,321)
Administrative Expense	(18,851,765)	(15,635,762)	(15,480,687)
Other Changes	-	(6,940,426)	-
NET CHANGES IN PLAN FIDUCIARY NET POSITION	758,446,084	(529,504,680)	287,369,966
PLAN FIDUCIARY NET POSITION - BEGINNING	12,923,943,156	13,453,447,836	13,166,077,870
PLAN FIDUCIARY NET POSITION - ENDING (b)	**$13,682,389,240**	**$12,923,943,156**	**$13,453,447,836**
NET PENSION LIABILITY (SURPLUS) - ENDING (a)-(b)	**$6,333,899,648**	**$6,433,070,176**	**$5,308,113,626**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.36%	66.77%	71.71%
Covered Employee Payroll	$2,094,550,962	$2,046,601,668	$1,998,631,412
Net Pension Liability as a Percentage of Covered Employee Payroll	302.40%	314.33%	265.59%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY (ASSET)*

Year Ending Dec. 31	(a) Total Pension Liability	(b) Plan Fiduciary Net Position	(a)-(b)=(c) Net Pension Liability (Surplus)	(b) / (a) Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	(d) Covered Employee Payroll	(c) / (d) Net Pension Liability (Surplus) as a Percentage of Covered Employee Payroll
2016	$20,016,288,888	$13,682,389,240	$6,333,899,648	68.36%	$2,094,550,962	302.40%
2015	19,357,013,332	12,923,943,156	6,433,070,176	66.77%	2,046,601,668	314.33%
2014	18,761,561,462	13,453,447,836	5,308,113,626	71.71%	1,998,631,412	265.59%
2013	18,152,090,344	13,166,077,870	4,986,012,474	72.53%		

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SCHEDULE OF EMPLOYER CONTRIBUTIONS – PENSION TRUST FUND

Year Ending Dec. 31	(a) Statutorily Due Employer Contributions	(b) Actual Employer Contributions	(a)-(b)=(c) Contribution Deficiency (Excess)	(d) Covered Employee Payroll*	(a) / (d) Contributions as a Percentage of Covered Employee Payroll
2016	$454,745,371	$454,745,371	$-	$2,060,850,564	22.07%
2015	428,526,214	428,526,214	-	1,986,568,535	21.57%
2014	417,993,316	417,993,316	-	1,942,269,436	21.52%
2013	349,461,765	349,461,765	-	1,913,382,667	18.26%
2012	286,752,750	286,752,750	-	1,897,413,344	15.11%
2011	278,175,108	278,175,108	-	1,868,502,282	14.89%
2010	285,251,945	285,251,945	-	1,895,195,693	15.05%
2009	277,684,455	277,684,455	-	1,900,935,000	14.61%
2008	276,358,483	276,358,483	-	1,831,438,000	15.09%
2007	278,282,782	278,282,782	-	1,782,851,000	15.61%

* Actuarial Estimate.

SCHEDULE OF INVESTMENT RETURNS*

	2016	2015	2014
Annual Money Weighted Rate of Return, Net of Investment Expenses	10.048%	0.187%	6.540%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

1. SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY

The total pension liability contained in this schedule was provided by OP&F's actuary, Conduent. The net pension liability is measured as the total pension liability less the amount of OP&F's fiduciary net position.

2. SCHEDULE OF EMPLOYER CONTRIBUTIONS

The required employer contributions and percent of those contributions actually made are presented in this schedule.

3. ACTUARIAL ASSUMPTIONS

The information presented in the required supplementary schedules was used in the actuarial valuation for the following purposes. The retiree health care assumptions are used for determining the annual required contribution under GASB 43. For pensions, the assumptions are used in the actuarial valuation of the plan to determine the sufficiency of the statutorily determined annual contribution. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board of Trustees. Additional information as of the latest actuarial valuation follows.

DEFINED BENEFIT PLAN – PENSION TRUST FUND
ACTUARIAL ASSUMPTIONS

Valuation date	Jan. 1, 2016
Actuarial cost method	Entry age
Amortization method	Level percent of payroll, open
Amortization period	30 years
Asset valuation method	4-year adjusted fair value with a corridor of 20% of the fair value.
Investment rate of return	8.25%
Projected salary increases	4.25% - 11.00%
Payroll increases	3.75%
Inflation assumptions	3.25%
Cost-of-living adjustments	2.60% and 3.00% simple

RETIREE HEALTH CARE BENEFITS – HEALTH CARE TRUST FUND
ACTUARIAL ASSUMPTIONS

Valuation date	Jan. 1, 2016
Actuarial cost method	Entry age
Amortization method	Level percent of payroll, open
Amortization period	30 years
Asset valuation method	Fair value
Investment rate of return	4.25%
Projected salary increases	4.25% - 11.00%
Payroll increases	3.75%
Inflation assumptions	3.25%

Health Care Cost Trends	Initial Rate 3 years 2016 to 2017	 2017 to 2018	 2018 to 2019	Ultimate Rate	Ultimate Year
Non-Medicare	0.43%	6.00%	5.50%	4.50%	2020
Non-AARP	0.43%	6.00%	5.50%	4.50%	2020
AARP	5.80%	5.50%	5.25%	4.50%	2020
Rx Drug	(9.60)%	6.00%	5.50%	4.50%	2020
Medicare Part B	5.30%	5.20%	5.10%	5.00%	2019

OP&F's retiree health care plan is partially funded. The discount rate is a blended rate based on the plan and employer rates of return, using the plan rate times the percentage of the ARC contributed and the employer rate times the percentage not contributed.

SCHEDULE OF FUNDING PROGRESS FOR THE VALUATION YEAR ENDING JAN. 1, 2016

RETIREE HEALTH CARE TRUST FUND (DOLLARS IN MILLIONS)

Valuation Year Jan. 1	Valuation Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$929.4	$5,166.6	$4,237.2	18.0%	$2,060.9	205.6%
2015	1,031.9	5,399.5	4,367.6	19.1%	1,986.6	219.9%
2014	1,053.5	5,244.5	4,191.0	20.1%	1,942.3	215.8%
2013	935.6	4,234.8	3,299.2	22.1%	1,913.4	172.5%
2012	780.1	3,698.7	2,918.6	21.1%	1,897.4	153.8%
2011	717.7	3,295.3	2,577.6	21.8%	1,868.5	137.9%

DESCRIPTION OF SCHEDULE OF FUNDING PROGRESS

Actuarial valuations of an on-going plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future mortality and cost trends.

Each time there is a loss due to demographic changes, claims experience or a discount rate change, an unfunded accrued liability is created. Also, if actual investment returns are less favorable than assumed investment returns, the difference is added to the unfunded accrued liabilities. Actuarially determined amounts are subject to continued review as actual results are compared with past expectations and new estimates are made about the future.

The Schedule of Funding Progress includes two ratios that provide information about whether the financial strength of OP&F is improving or deteriorating over time. An improvement is indicated when the funded ratio (assets expressed as a percentage of the actuarial accrued liability) is increasing and the ratio of the unfunded actuarial liability to payroll is decreasing.

SCHEDULE OF EMPLOYER CONTRIBUTIONS – RETIREE HEALTH CARE TRUST FUND

Year Ending Dec. 31	(a) Statutorily Due* Employer Contributions	(b) Actual Employer Contributions	(a)-(b)=(c) Contribution Deficiency (Excess)	(d) Covered Employee Payroll**	(a) / (d) Contributions as a Percentage of Covered Employee Payroll
2016	$10,708,739	$10,708,739	$-	$2,060,850,584	0.52%
2015	10,211,723	10,211,723	-	1,986,568,535	0.51%
2014	9,895,274	9,895,274	-	1,942,269,436	0.51%
2013	68,720,879	68,720,879	-	1,913,382,667	3.59%
2012	130,285,935	130,285,935	-	1,897,413,344	6.87%
2011	129,297,720	129,297,720	-	1,868,502,282	6.92%
2010	128,774,894	128,774,894	-	1,895,195,693	6.79%
2009	126,649,859	126,649,859	-	1,900,935,000	6.66%
2008	129,544,343	129,544,343	-	1,831,438,000	7.07%
2007	121,721,828	121,721,828	-	1,782,851,000	6.83%

* Retiree health care allocation is established by OP&F's Board of Trustees.
** Actuarial Estimate.

OPERS RELATED REQUIRED SUPPLEMENTARY PENSION INFORMATION

SCHEDULE OF OP&F'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - TRADITIONAL PENSION PLAN
LAST 10 FISCAL YEARS *

	2016	2015
OP&F's proportion of the net pension liability (asset)	$10,779,540	$7,534,305
OP&F's proportionate of the net pension liability (asset)	0.062233%	0.062468%
OP&F's covered-employee payroll	$7,745,508	$7,649,967
OP&F's proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	139.17%	98.49%
Plan fiduciary net position as a percentage of the total pension liability	81.08%	86.45%

SCHEDULE OF OP&F'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - COMBINED PENSION PLAN
LAST 10 FISCAL YEARS *

	2016	2015
OP&F's proportion of the net pension liability (asset)	$(63,275)	$(52,363)
OP&F's proportionate of the net pension liability (asset)	0.130030%	0.135973%
OP&F's covered-employee payroll	$473,208	$478,275
OP&F's proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	(13.37)%	(10.95)%
Plan fiduciary net position as a percentage of the total pension liability	116.90%	114.83%

SCHEDULE OF OP&F'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - MEMBER DIRECTED PLAN
LAST 10 FISCAL YEARS *

	2016	2015
OP&F's proportion of the net pension liability (asset)	$(837)	$(1,441)
OP&F's proportionate of the net pension liability (asset)	0.218912%	0.244781%
OP&F's covered-employee payroll	$1,045,000	$1,076,864
OP&F's proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	(0.08)%	(0.13)%
Plan fiduciary net position as a percentage of the total pension liability	103.91%	N/A

* The amounts presented were determined as of Dec. 31 of the prior calendar year. GASB 68 was implemented in 2015.
This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

SCHEDULE OF CONTRIBUTIONS
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - TRADITIONAL PENSION PLAN
LAST 10 FISCAL YEARS *

	2016	2015
Contractually required contributions	$929,461	$917,996
Contributions in relation to the contractually required contributions	$929,461	$917,996
Contribution deficiency (excess)	$-	$-
OP&F's covered employee payroll	$7,745,508	$7,649,967
Contributions as a percentage of covered-employee payroll	12%	12%

SCHEDULE OF CONTRIBUTIONS
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - COMBINED PENSION PLAN
LAST 10 FISCAL YEARS *

	2016	2015
Contractually required contributions	$56,785	$57,393
Contributions in relation to the contractually required contributions	$56,785	$57,393
Contribution deficiency (excess)	$-	$-
OP&F's covered employee payroll	$473,208	$478,275
Contributions as a percentage of covered-employee payroll	12%	12%

SCHEDULE OF CONTRIBUTIONS
OHIO PUBLIC EMPLOYEES RETIREMENT PLAN - MEMBER DIRECTED PLAN
LAST 10 FISCAL YEARS *

	2016	2015
Contractually required contributions	$146,300	$150,761
Contributions in relation to the contractually required contributions	$146,300	$150,761
Contribution deficiency (excess)	$-	$-
OP&F's covered employee payroll	$1,045,000	$1,076,864
Contributions as a percentage of covered-employee payroll	14%	14%

* The amounts presented were determined as of Dec. 31 of the prior calendar year. GASB 68 was implemented in 2015.
This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

ADDITIONAL INFORMATION

SCHEDULE OF ADMINISTRATIVE EXPENSES *

For the year ended Dec. 31,		2016
Personnel Services	Salaries and Wages	$9,971,263
	OPERS Contributions	3,672,521
	Insurance	2,516,189
	Fringe Benefits/Employee Recognition	11,488
	Tuition Reimbursement	23,151
	TOTAL PERSONNEL SERVICES	**16,194,612**
Professional Services	Actuarial	437,966
	Audit	142,590
	Custodial Banking Fees	569,975
	Investment Fees and Consulting	41,352,861
	Other Consulting (Disability, Software, Legal, and Health Care)	1,348,993
	Banking Expense	75,144
	TOTAL PROFESSIONAL SERVICES	**43,927,529**
Communications Expense	Printing and Postage	262,087
	Telephone	98,196
	Member/Employer Education	11,429
	Other Communications	87,000
	TOTAL COMMUNICATIONS EXPENSE	**458,712**
Other Operating Expense	Conferences and Education	81,266
	Travel	154,879
	Computer Technology	871,114
	Other Operating	571,243
	Warrant Clearing	894
	ORSC Expense	151,306
	Depreciation Expense - Capital	1,554,329
	TOTAL OTHER OPERATING EXPENSES	**3,385,031**
Net Building Expense (includes rent)		**1,221,850**
TOTAL OPERATING EXPENSES		**65,187,734**
Investment Expenses		**(45,669,843)**
NET ADMINISTRATIVE EXPENSES		**$19,517,891**

* Includes investment related administrative expenses.

SCHEDULE OF INVESTMENT EXPENSES**

Category	2016
Investment Manager Services	$39,883,139
Custodial Banking Fees	569,975
Other Professional Services	1,469,722
Other Direct Investment Expenses	2,010,347
Allocation of Other Administrative Expenses	1,736,660
INVESTMENT EXPENSES	**$45,669,843**

** A portion of the non-Investment Department administrative expenses is allocated to Investment Expense based on the ratio of investment staff to total OP&F staff.

COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES - PUBLIC SAFETY OFFICERS DEATH BENEFIT FUND

PUBLIC SAFETY OFFICERS DEATH BENEFIT FUND FOR THE YEAR ENDING DEC. 31, 2016

	Balance Dec. 31, 2015	Additions	Subtractions	Balance Dec. 31, 2016
Assets:				
Cash and Short-term Investments	$721,580	$20,000,000	$20,204,529	$517,051
TOTAL ASSETS	**721,580**	**20,000,000**	**20,204,529**	**517,051**
Liabilities:				
Due to State of Ohio	721,580	20,000,000	$20,204,529	517,051
TOTAL LIABILITIES	**$721,580**	**$20,000,000**	**$20,204,529**	**$517,051**

INVESTMENTS

INVESTMENT REPORT (PREPARED THROUGH A COMBINED EFFORT WITHIN THE INVESTMENT DEPARTMENT)

INTRODUCTION

The investment authority of OP&F is specified in Chapter 742 of the ORC. Importantly, the ORC requires that the Board of Trustees and other fiduciaries discharge their duties solely in the interest of the participants and beneficiaries, for the exclusive purpose of providing benefits to participants and their beneficiaries and defraying reasonable expenses of administering OP&F. Within the guidelines of the ORC, OP&F has developed an Investment Policy and Guideline statement that provides for appropriate diversification of assets and an acceptable expected return on investments after consideration of investment risks. Investment performance returns are prepared by Wilshire Associates. Investment activities are presented on a trade date basis and measurements are calculated using time weighted rates of return consistent with investment industry standards.

SIGNIFICANT DEVELOPMENTS IN 2016

For strategic, tactical, and practical reasons, OP&F converted its 5.0 percent timber allocation target to a real assets allocation consisting of timber, infrastructure and agriculture. Strategically, the broader allocation of real assets will continue to provide an inflation-linked allocation consistent with the risk parity framework of OP&F's asset allocation policy. Tactically, OP&F sees greater opportunity today in infrastructure and agriculture/farmland than in timberland. From a practical perspective, sourcing adequate, attractive opportunities in timber has been challenging in today's market environment. In conjunction, OP&F expanded The Townsend Group's investment consulting services to include infrastructure and agriculture/farmland, along with real estate and timber. In addition to these accomplishments, other significant noteworthy investment endeavors and issues addressed last year include the following:

- Added a complementary alpha strategy to Bridgewater Associates and Grosvenor Capital Management within OP&F's U.S. equity portable alpha program.
- Hired Delaware Investment Advisors for a U.S. active small-cap mandate.
- Hired Loomis Sayles and Prudential for Levered Core Fixed Income mandates.
- Approved investment guidelines for Delaware Investment Advisors and Loomis Sayles Levered Core Fixed Income.
- Amended investment guidelines for Delaware Investment Advisors, Harvest Fund Advisors, Russell ACWI ex-U.S., Loomis Sayles and MacKay Shields High Yield.
- Completed the annual evaluation of OP&F's real estate strategic portfolio for possible rebalancing.
- Continued to work toward the target allocation in private markets:
    - Made commitments to Cinven Sixth Fund, MBK Partners Fund IV, Montauk Triguard Fund VII, Trident VII, The Veritas Capital Fund VI, Vista Equity Partners Fund VI and Vista Foundation Fund III.
- Continued to work toward the target allocation in real estate:
    - Made commitments to Asana Partners Fund I, Brookfield Premier Real Estate Partners, Exeter Industrial Fund IV and Greystar Equity Partners IX.
- Shifted non-U.S. custody to Northern Trust.
- Approved the 2016 Private Markets Investment Plan.
- Approved the 2017 Real Estate Investment Plan.
- Amended OP&F's Derivatives Policy Statement.
- Amended OP&F's Proxy Voting Policy.
- Amended OP&F's Investment Policy and Guidelines Statement.
- Amended OP&F's Timberland Investment Policy.
- Amended OP&F's Investment Manager Monitoring & Evaluation Policy.
- Amended OP&F's Investment Manager Search Policy.
- Developed an Annual Consultant Satisfaction Survey.
- Continued to shift toward long-term allocation targets by rebalancing between overweight/underweight asset classes.

ECONOMIC ENVIRONMENT

Despite a year full of surprises and capital market gyrations, the global economy was relatively steady in 2016. In the U.S., real gross domestic product (GDP) advanced 1.6 percent. Oil prices, having dropped to a multi-year low in the first quarter, rebounded to finish the year in the mid-$50 a barrel range. Having remained relatively stable during the first half of the year, consumer confidence increased during the back half of the year, with a clear bounce after the U.S. presidential election on the prospects of higher economic growth. The

U.S. unemployment rate finished the year near a nine-year low as the demand for workers and higher wages brought more workers into the labor force. Despite the higher wages, home prices continued to advance much faster causing many Americans to be priced out of the real estate market. The homeownership rate hit its lowest level in decades during 2016. Despite the rise in home prices as well as continued increases in medical care costs, U.S. inflation remained relatively tame in 2016, with a year-over-year increase of 2.1 percent in 2016.

The Federal Reserve (Fed) came into 2016 with an expectation of four interest rate increases but only raised the federal funds rate once, by 25 basis points (bps), in December. This was only their second interest rate increase in the last decade. Given the prospects of higher short-term interest rates, the U.S. dollar continued to strengthen throughout the year.

Elsewhere in the world, Europe's economic growth remained subdued despite ongoing central bank stimulus via accommodative monetary policy. In addition to the uncertainty over the potential impact of the U.K. referendum, or so-called Brexit vote, banking sector concerns remained prevalent, especially in Italy. In China, real GDP growth was about 6.7 percent in line with the government's target. China continues its balancing act of trying to support economic growth while finding the right balance between easy or tight monetary conditions. Despite fiscal stimulus and accommodative monetary policy, Japan continued to muddle along in a deflationary environment due to very weak domestic consumption. In another significant economic hotspot, Brazil continued to climb its way out of a two-year recession with the aid of the central bank lowering interest rates and the prospects for economic reform.

Early in 2017, the Fed continued to tighten monetary conditions by raising short-term interest rates by 25 bps in March to a range of 0.75 percent to 1.00 percent and indicated additional rate increases are in store. Oil prices have stabilized while consumer confidence continues to climb. The U.S. unemployment rate continued to fall with a reading in March of 4.5 percent. Market participants are watching intently to see if any of President Trump's policy initiatives are approved as they could lead to higher economic growth and rising inflationary pressures. Every word out of the Federal Reserve is being heavily scrutinized for possible clues about the timing and number of potential rate increases as well as any move to reduce the size of the Fed's balance sheet. Meanwhile, the Bank of England, the European Central Bank and the Bank of Japan continue their easy monetary policies as political uncertainty remains with upcoming elections in France and Germany this year while the U.K. Brexit process continues.

TOTAL FUND

The total portfolio, on a trade date basis, was valued at $14.53 billion at the end of 2016, up from $13.82 billion at the end of 2015. Within OP&F's portfolio, exceptionally strong returns in MLPs and global inflation protected securities and very good results in U.S. equity, private markets, real estate and high yield combined to pull up the overall portfolio return in 2016. On the weaker, yet still positive, side were returns registered by core fixed income, non-U.S. equity and timber. For calendar year 2016, the total portfolio's investment return was 11.51 percent gross of fees (10.90 percent net) compared to a policy index return of 11.45 percent. This slight outperformance of the total portfolio's policy index by six bps represents a very strong second half comeback by the total portfolio relative to its policy index. OP&F's investments in MLPs, U.S. equity, private markets, core fixed income and global inflation protected securities all significantly outperformed their respective asset class benchmarks over the final two quarters of 2016.

In late 2014, OP&F adopted an updated asset allocation policy, which included a series of transitional policy benchmarks and asset class targets that laid out a roadmap to reach the new asset allocation benchmark over the course of several years. New target weights for each asset class kick in on Jan. 1 and July 1 each year. Generally, these six-month steps are de-risking the portfolio but in a risk parity sense. Public equity is slowly being reduced as fixed income, MLPs and alternative assets exposures are ramping up. The increasing fixed income exposures include growing an already 2x levered global inflation protected securities mandate and converting traditional core fixed income into a 2x levered core fixed income mandate. Over the course of the year, persistent underweights to MLPs and global inflation protected securities hurt the portfolio's performance versus the policy index while overweights to public and private equity helped the portfolio's performance relative to the policy index. The relative performance of asset classes versus their individual benchmarks also played a role in determining the total portfolio's performance versus its policy benchmark. Outperformance of managers in U.S equity, core fixed income, inflation protected bonds, MLPs and real estate versus their respective benchmarks was nearly offset by the underperformance of managers in high yield, private equity, non-U.S. equity and timber relative to their benchmarks.

Last year's strong absolute performance also translated into excellent relative peer group performance with OP&F's portfolio return placing in the 1st percentile of Wilshire's Master Trusts – All Plans Universe. With 2016's result, OP&F's three-year annualized gross of fees return now stands at 6.25 percent (5.66 percent net), while the five-year annualized gross of fees return is 10.09 percent (9.56 percent net) and the 10-year gross of fees return is 6.31 percent (5.89 percent net). The 2016 results versus the policy index still kept OP&F's three-year relative return above the policy index return of 5.23 percent for the same period, while OP&F's five-year return also beat the policy return of 8.95 percent and the 10-year return bested the policy return of 5.27 percent. As mentioned earlier, the total portfolio's 2016 results ranked in the 1st percentile of Wilshire's Master Trusts – All Plans Universe, while the three-year, five-year and 10-year results ranked in the 6th, 5th and 9th percentiles, respectively, of that same peer universe.

Through the first quarter of 2017, all of OP&F's asset classes have registered positive returns. However, returns from asset classes in which OP&F invests are a mixed bag relative to their early 2016 results. Returns from MLPs and both U.S. and non-U.S. equities are easily outdistancing their results through the first quarter of last year. Meanwhile, global inflation protected securities, core fixed income, private markets, real estate and high yield are performing worse than at this point last year. With the U.S. economy expected to continue its steady, subpar growth, OP&F's 2017 full year results are likely to hinge on the strength of European economies and markets, the outcome of European elections, a hopefully uneventful geopolitical environment and central bank actions, especially whether the Federal Reserve raises the federal funds rate more than is discounted by the markets.

The Board of Trustees and staff believe that a well-diversified portfolio will serve OP&F well over the long-term. As mentioned in prior reports, the Board of Trustee's 2010 adoption of and continued reaffirmation of risk parity and the ongoing implementation of that approach demonstrate that OP&F is committed to creating and maintaining a well-diversified portfolio. A combination of lower long-term equity targets inherent in risk parity and a generally rising stock market over the past several years have kept the equity portfolio above its allocation target; thus, making it a natural source of funds to diversify into rising target allocations for fixed income, MLPs and alternatives exposures. This ongoing shift out of equities has generally kept OP&F from any forced rebalancing efforts, but staff closely monitors the portfolio's status relative to asset class allocation ranges and occasional periods of extreme valuation. For example, as the late June Brexit surprise occurred during a typical cash raising timeframe, staff turned to a strengthening fixed income market as a source of funds rather than the suddenly weak equity markets. This disciplined deviation from typical practice played out well as equities rebounded strongly in relatively short order. In addition to forcing OP&F to sell high and buy low, a disciplined rebalancing policy removes human emotion from the decision making process. As evident in the Board of Trustee's risk parity approach and recent asset class structure decisions, OP&F has and will continue to evaluate non-correlated, non-traditional strategies and asset classes in its search for optimal risk-adjusted returns.

EQUITIES - U.S. AND NON-U.S.

Unlike 2015 when equity returns were flat to negative, stocks in 2016 were up virtually across the board. Once again, U.S. equities outperformed non-U.S. developed markets, though emerging market (EM) returns were strong. The U.S. dollar was higher against other major developed country currencies, which was, on balance, a 3.0 to 4.0 percent headwind to U.S.-based investors in overseas markets.

Though world stock markets, as measured by the Morgan Stanley Capital International (MSCI) All Country World Index (ACWI), rose 8.4 percent in 2016, much of this was driven by U.S. and EM stocks. In the U.S., for example, the Wilshire 5000 increased 13.4 percent with small cap stocks leading the way (up 22.4 percent as measured by the Wilshire Small Cap Index), beating both mid and large-caps, which rose 17.2 and 12.5 percent, respectively. Emerging market stocks tacked on a solid 11.2 percent for the year, reversing several years of weak performance. Conversely, non-U.S., developed market returns, as measured by the MSCI Europe, Australasia, Far East (EAFE) index, were up an uninspiring 1.0 percent in 2016 (in U.S. dollar terms).

Equity markets were weak in the last four to five months of 2015 and into the first six weeks of 2016 due to several concerns including: 1) falling oil and some other commodity prices, 2) soft global economic growth, especially overseas, 3) uncertainty about Federal Reserve monetary policy, 4) U.S. dollar strength, 5) widening credit spreads and 6) weak U.S. corporate sales and earnings. The political environment was likely also at least a small factor as well given concerns about the Brexit vote slated for late June and the U.S presidential election later in 2016.

However, in the first quarter of 2016 some of these negative factors began to reverse. Oil (and many commodities) troughed in February as U.S. oil production declines were helping to gradually improve the supply/demand balance. This led to lessened concerns about energy and other cyclical companies, which helped narrow credit spreads in those sectors specifically and in high yield credit generally. The dollar, which peaked in late-2015/early-2016 continued to slide into May and June which helped alleviate some concerns that a strong dollar would continue to pressure sales and earnings growth of large U.S. multi-national companies. The weaker dollar was also seen as a potential benefit to EM countries who have large dollar denominated sovereign debt and have commodity-focused economies.

Equity markets rebounded significantly off of the mid-February lows into mid-late spring, rising 15 percent in the case of U.S. large-caps to 25 percent for U.S. small-caps. There was a pause prior to the June 23 Brexit vote. This was followed by a sharp, but short-lived, several day drop in global stocks after the United Kingdom (U.K.) voted to leave the European Union (EU). Although the vote was initially viewed as a significant negative for the U.K. and the EU, investors' concerns gradually eased, driving improved investor sentiment and a sharp rebound in global stocks. Similarly, concerns regarding the U.S. presidential election caused a modest pullback in equities over the September to early November time frame, though after the election, investors quickly became bullish on the prospects for tax reform and infrastructure spending favored by the new administration.

OP&F's U.S. Equity Composite for 2016 appreciated a strong 15.60 percent gross of fees (15.34 percent net of fees). This compared favorably to the Wilshire 5000 and S&P 500 indices, which returned 13.37 percent and 11.96 percent, respectively, for the calendar year.

The OP&F Total International Equity Composite in 2016 returned 2.75 percent gross of fees (2.40 percent net). Unlike the domestic portion of the portfolio, the International Equity Composite underperformed the benchmark MSCI ACWI ex-U.S. Iran/Sudan Free Index (includes developed and emerging international markets), which rose 4.45 percent.

MASTER LIMITED PARTNERSHIPS (MLPs)

MLPs had a strong 2016 rebounding from an extremely difficult year in 2015. The Alerian MLP Index rose 18.31 percent in 2016, partially reversing a decline of 32.59 percent in 2015. Similar to U.S. equities, which reversed in quarter one (Q1), MLPs troughed on the heels of the factors mentioned earlier, namely improving oil supply/demand, narrowing credit spreads, and very attractive valuation and distribution yields.

MLP returns and oil prices were more correlated than is normal at certain times in the last two to three years due to the dramatic 70 percent decline in crude prices from mid-2014 into the lows of early 2016. Historically, the two have not been highly correlated. This is because MLPs and their midstream operations (pipeline transmission, distribution and related businesses) tend to have a business model that is relatively stable and not particularly dependent on changes in or levels of oil or natural gas prices. This business model stability stems from the fact that MLP/pipeline companies 1) sign very long term (ten years or more) customer contracts, 2) have contracts that obligate their E&P (exploration and production) customers to pay the MLP (pipeline company) regardless of the volumes pushed through the pipelines, and 3) MLPs have a history of positive cash flow and increasing distributions.

In mid-2016, MLPs and oil prices began to trade more independently of each other as investors believed the MLP business model was not broken and the relatively stable nature of the cash flows would not be impaired. Subsequently, MLP returns continued to be fairly strong even though oil prices peaked in the middle of the year.

In 2016, the OP&F MLP Composite returned 20.42 percent gross of fees (19.69 percent net) outperforming the Alerian MLP Index, which appreciated 18.31 percent. OP&F's managers have provided positive absolute and relative returns since the inception of the program (Dec. 31, 2012), generating a 7.11 percent gross of fee annualized return (6.62 percent net) compared to the Alerian MLP Index at 1.62 percent. The outlook for midstream-focused MLPs continues to look strong as they provide a service needed by any developed economy, i.e. the movement of energy commodities.

FIXED INCOME – CORE AND INFLATION PROTECTED BONDS

For fixed income investors, the first half of the year was starkly different from the second. Long dated Treasury bonds returned roughly 16 percent in the first half of the year as bond investors believed economic growth would remain tepid, keeping a lid on inflation. In addition, German, Japanese and other developed country bond yields actually went negative, helping pull down U.S. interest rates as well. However, after bottoming in July at 1.36 percent, the 10 year Treasury sold off harshly in the back half of the year as the 10 year rate rose to 2.45 percent at year end. Long Treasuries declined roughly 13 percent in the second half of the year leaving the full year slightly positive. OP&F's fixed income portfolio was positioned more in intermediate maturity bonds and thus did not experience the same level of volatility as long Treasuries.

The bond market selloff began in early July as rates had fallen sharply and the proliferation of negative rates around the world seemed to reach extreme levels. The rise was gradual going into the U.S. presidential election but accelerated afterwards as talk of tax cuts, infrastructure and other deficit spending by the new administration created fears for bond investors that growth and inflation would rise more than had been previously expected.

The OP&F Core Fixed Income Composite returned 4.14 percent gross of fees (3.76 percent net) for the year, outperforming the Barclays Aggregate Bond Index return of 2.65 percent. The Global Inflation Protected Securities (GIPS) Composite was up significantly in 2016, generating a gross of fee return of 18.76 percent (17.63 percent net). This compared favorably to the GIPS Policy Benchmark, which advanced 16.76 percent.

HIGH YIELD

High yield (HY) bond returns were one of the strongest areas of the financial markets in 2016 as the Barclay's High Yield Bond Index rose 17.1 percent. This followed a poor showing in 2015 when high yield indices fell roughly mid-single digits. Strong high yield bond returns were driven by the factors previously mentioned, namely rebounding oil and other commodity prices. In addition, high yield interest rates relative to U.S. Treasury bond yields had widened to a point that investors found more attractive as compared to very narrow spreads available in quarter two (Q2) of 2014.

High yield spreads tend to decline during periods of economic strength and widen when bond investors fear deteriorating economic conditions, either for the broad economy or in certain sectors. Deteriorating conditions typically lead to lower corporate earnings and risks that HY corporate debt issuers may have difficulty repaying their debt.

The OP&F High Yield Composite performed well on an absolute basis last year, rising 12.80 percent gross of fees (12.39 percent net), but lagged relative to OP&F's High Yield Policy Index, which was up 17.96 percent. The underperformance can be broadly attributed to two factors: 1) OP&F managers tend to have higher quality portfolios relative to the benchmark, holding relatively higher levels of better credit BB and B rated bonds and lower percentages of the lowest quality CCC credits and 2) the inclusion in the OP&F High Yield Composite of dedicated bank loan portfolios, which tend to be higher quality and shorter maturity and did not perform as strongly coming out of the trough in Q1 of 2016 through the end of the year.

Recall also that OP&F made its initial investments to the direct lending space in 2014. These direct lending commitments are included in the HY allocation and returns. The overall high yield allocation, including the bank loan and direct lending portfolios, is generally of higher quality and shorter duration/ maturity than the benchmark and thus should provide a more defensive profile, doing well during normal and/or more challenging market environments, but likely lagging during extremely strong, risk-seeking time periods.

REAL ESTATE

Real estate markets delivered solid returns in 2016. Performance was driven by favorable capital market conditions and by continued improvement in demand from tenants.

In 2016, OP&F's total Real Estate Portfolio delivered a 13.14 percent gross of fees return (11.10 percent net), exceeding the Open End Diversified Core Equity (ODCE) index net of fees by 201 bps. Figures in this section are presented as of Sept. 30, 2016 due to the fact that private market reporting lags public market reporting.

The portfolio is designed to exceed the ODCE index by 50 bps per year on a net basis over full market cycles, and has accomplished that goal over most long-term and short-term measurement periods. The trailing 10-year period is an exception, with the portfolio delivering an annualized net return of 5.32 percent over that period, exceeding the ODCE index by only 27 bps. This result is due, in large part, to the fact the starting point for the 10-year measurement period is near the prior market peak.

Looking forward, returns in the lower risk Strategic Portfolio are expected to be driven by current income, rather than by the broad capital market uplift that drove appreciation returns for the past several years. Rising interest rates may operate as a headwind. The Strategic Portfolio is designed to deliver steady cash distributions throughout market cycles.

In its Tactical Portfolio, OP&F seeks to generate higher returns over full market cycles by investing in assets that could benefit from improvement in their operations, physical structure, capital structure, or tenant base, and by accepting other calculated risks. While OP&F continues to see and pursue attractive opportunities in this space, those opportunities have been less abundant over the past few years, as markets have been operating fairly efficiently. OP&F has responded by investing at a measured pace, by reducing the overall risk profile of its Tactical Portfolio, and by seeking unique opportunities to add value. For example, during the year, OP&F helped launch an open-end core-plus vehicle in exchange for meaningful founding investor benefits.

In addition to seeking to achieve its return target, OP&F remains focused on Real Estate's other strategic objectives: diversifying OP&F's broader portfolio and serving as a partial inflation hedge. Each investment is selected based on its risk/ return profile and on its perceived ability to advance these other goals.

OP&F's market exposure to Real Estate slightly decreased during the 12 months ended Sept. 30, 2016 from 11.1 percent to 10.9 percent. Exposure was increased by nearly $128 million of new contributions and over $160 million in investment profit, net of fees. The impact of these drivers was moderated by nearly $240 million in distributions. Current exposure is below the 12 percent target allocation, but well within the targeted range for Real Estate. OP&F is maintaining its philosophy of investing patiently and prioritizing attractive risk-adjusted returns over capital deployment.

PRIVATE MARKETS

For the year ending Sept. 30, 2016 (private market returns are lagged by one quarter), OP&F's private markets portfolio provided a net return, on a time weighted basis, of 14.37 percent. It should be noted that evaluating private markets performance over short-time periods can be misleading. With that stated, for the ten-year period ending Sept. 30, 2016, the portfolio provided an annualized net return of 10.82 percent.

In 2014, OP&F adopted changes to how it evaluates the performance of the private markets portfolio. The methodology evaluates the performance of the private markets program by developing a Public Markets Equivalent (PME) comparison of the program's history. A PME comparison uses an Internal Rate of Return (IRR) calculation of all historical cash flows, on a dollar-weighted basis, and compares the resulting performance to a public market proxy index by assuming that all of the same cash flows were invested on the same dates in the public market index. This methodology allows for the purest comparison of the private markets program performance to that of a public market alternative. Secondarily, the performance of the private markets program is evaluated relative to the Cambridge Associates Private Equity Pooled Horizon IRR: Net to Limited Partners peer universe, or equivalent. The Cambridge Associates peer universe data allows OP&F to compare the private markets program to other private markets programs and managers over specified periods. For the ten-year period ending Sept. 30, 2016, OP&F's private markets program provided a net IRR of 10.0 percent, outperforming the Wilshire 5000 PME by 1.5 percent annualized. Relative to the Cambridge Associates Private Equity Pooled Horizon IRR: Net to Limited Partners peer universe, OP&F's private markets program's net of fee IRR ranks above median across all time periods measured as of Sept. 30, 2016.

With respect to the state of private markets, assessing metrics such as fundraising, investment activity and exit environments across various strategies provides insights on the health of the industry as a whole. Across most strategies, fundraising continues to be strong. Fundraising remains strong given the continued level of healthy distributions returned to investors and no better alternatives for allocating the capital elsewhere. Investment levels remain steady across most of the strategies within the industry. On the exit front, the initial public offerings (IPO) market remains challenging for private equity and venture-backed companies. The merger and acquisitions (M&A) market remains the most viable exit route for private equity or venture-backed companies. In the U.S., looking forward, favorable prospects for the majority of strategies within the private markets industry include the continued strength in equity markets and higher GDP growth expectations. Conditions dampening these prospects include a high level of un-invested capital, a competitive deal environment, and high purchase price multiples or valuation levels (i.e. pricing). In Europe, looking forward, favorable prospects for the private markets industry include improving economic conditions and continued monetary accommodation. Similar to the U.S., concerns for the private markets industry within Europe include a high level of dry powder, a competitive deal environment, and high pricing.

OP&F continues to work prudently toward its eight percent target allocation to the private markets asset class. On an invested basis, private markets comprised approximately 6.2 percent of OP&F's total assets as of year-end. In the future, OP&F will continue to work toward its eight percent target by targeting domestic and global direct partnerships, and on an opportunistic basis, fund-of-funds (both U.S. and non-U.S.) and secondary partnerships. OP&F believes that implementing its private markets exposure mainly through direct partnerships on a going forward basis will allow OP&F to achieve better risk-adjusted, net of fees, returns for the program, reduce costs and successfully implement its annual investment plans. OP&F and its dedicated private markets investment consultant will prudently recommend commitments that will seek to keep the private markets portfolio compliant with its policies and guidelines.

REAL ASSETS

During 2016, OP&F established a 5.0 percent allocation to real assets. The allocation currently covers timberland, agriculture, and infrastructure, and is distinct from the separate allocations that OP&F has established for real estate and MLPs. The program is designed to provide diversification, to hedge against inflation, to preserve capital, and to generate attractive risk-adjusted returns through a combination of income and appreciation.

The real assets program replaces the timberland program that OP&F initiated in 2012. Recognizing that the market for timberland was competitive, OP&F sought to build its exposure in that space gradually and deliberately, conserving capital to be deployed at a more opportune time. As a result, at Sept. 30, 2016, OP&F's timberland program represented only 2.0 percent of OP&F's total portfolio, relative to a 5.0 percent target. The timber exposure is not expected to grow significantly, leaving nearly 60 percent of the allocation available for future deployment.

For 2016, OP&F's timberland portfolio delivered a gross of fees time-weighted return of 2.99 percent (1.99 percent net). For the trailing three-year period, the gross return was 4.28 percent (3.22 percent net). Five year returns are not yet available. The timberland portfolio is lagging its initial performance objective, which was to exceed inflation by 5.0

percent net of fees. This under-performance, driven largely by the modest performance of the asset class in general, helps validate OP&F's decision to move slowly and conserve capital. Figures in this section are presented as of Sept. 30, 2016 due to the fact that private market reporting lags public market reporting.

In the near term, OP&F is focusing on permanent crop investments in the U.S. and on infrastructure investments in developed markets globally. Within infrastructure, OP&F has a preference for U.S. investments, but will accept significant non-U.S. exposure, particularly in developed markets where currency exposures are at least partially hedged. OP&F is generally focusing on infrastructure investments that fall toward the middle of the risk/return spectrum, where risk-adjusted returns are generally attractive and investments are capable of advancing all of OP&F's strategic objectives for the real assets program.

2017 DEVELOPMENTS AND CHALLENGES AHEAD

In conjunction with OP&F reviewing its investment return assumption as part of its five-year actuarial experience review in 2017, OP&F, working with Wilshire Associates, has commenced an asset liability study to determine if its current long-term asset allocation policy is still the best policy for meeting its objectives. As part of this study, OP&F continues to incorporate factor-based asset allocation techniques to provide a clearer understanding of the economic drivers of asset class performance and to construct better, truly diversified portfolios. Building on these techniques in this year's study, OP&F has begun to group asset classes into macro-asset class buckets that play similar roles in a portfolio and allow for a better understanding of risk and diversification. The goal is to bring several policy portfolios to OP&F's Board in the hopes of adopting a more efficient policy portfolio that will better meet OP&F's objectives going forward. Early work shows several reasonable asset mixes that would improve the portfolio's risk/reward profile. Below are some of the other items already addressed in 2017 and many that still lie ahead:

- Amended OP&F's Investment Policy and Guidelines Statement.
- Amended OP&F's Proxy Voting Policy.
- Amended OP&F's Private Markets Investment Policy.
- Amended OP&F's Derivatives Policy Statement.
- Amended OP&F's Investment Manager Monitoring and Evaluation Policy.
- Adopted a Real Assets Investment Policy replacing OP&F's Timberland Investment Policy.
- Approved investment guidelines for Prudential Levered Core Fixed Income mandate.
- Amended investment guidelines for Franklin Templeton International Small-Cap.
- Approved the 2017 Private Markets Investment Plan.
- Continued to work toward the target allocation in private markets:
    - Made commitments to KKR Asia Fund III, Marlin Equity V and Marlin Heritage II.
- Continued to work toward the target allocation in real estate:
    - Made commitment to Hancock U.S. Real Estate Fund.
- Implement the 2017 Private Markets Investment Plan.
- Implement the 2017 Real Estate Investment Plan.
- Adopt 2017 Real Assets Investment Plan.
- Implement the 2017 Real Assets Investment Plan.
- Evaluate the Real Estate Strategic Portfolio for possible rebalancing.
- Amend OP&F's Investment Manager Search Policy and Ohio-Qualified Investment Manager Policy.
- Approved Northern Trust for international securities lending.
- Continue to evaluate liquidity management options to maintain market exposure while more efficiently meeting increasing cash needs.

Other initiatives that may come to fruition in 2017 are an updated non-U.S. equity investment structure analysis as well as a High Yield investment structure analysis. From an operational standpoint, OP&F continues to look for ways to reduce the costs of its operations as well as to compare its current procedures to other approaches or best practices for areas of improvement or better efficiencies.

INVESTMENT PORTFOLIO SUMMARY

INVESTMENT PORTFOLIO SUMMARY - AS OF DEC. 31, 2016

Investment Type	Percent of Net Investment Value	Fair Value
Cash and Cash Equivalents	6.35%	$923,215,230
U.S. Government Obligations	0.83%	120,767,263
U.S. Government Agencies	0.13%	18,366,082
U.S. Government Treasury STRIPS	0.74%	107,000,987
Municipal Bond Obligations	0.02%	3,212,021
Corporate Bonds and Obligations	14.58%	2,117,455,979
Domestic Commingled Bonds	3.42%	497,670,481
Mortgage and Asset-Backed Obligations	2.96%	430,377,034
Non-U.S. Inflation Linked Bonds	3.21%	465,984,744
Domestic Stocks	9.42%	1,369,196,877
Domestic Pooled Stocks	12.04%	1,749,595,680
International Equities	18.80%	2,732,596,486
Real Estate	10.90%	1,583,586,006
Derivatives	(0.01)%	(832,687)
Commercial Mortgage Funds	0.26%	37,429,389
Private Equity	6.29%	914,795,737
Private Debt	2.06%	298,895,397
Timber	2.07%	301,439,041
Master Limited Partnerships	6.38%	927,495,461
TOTAL FAIR VALUE – CASH AND SECURITIES	**100.45%**	**$14,598,247,208**
Accrued Income	0.22%	32,566,099
Sales Receivable	0.23%	33,782,946
Purchases Payable	(0.90)%	(130,601,329)
TOTAL INVESTMENT NET ASSET VALUE*	**100.00%**	**$14,533,994,924**

* Trade Date Basis.

TEN LARGEST COMMON STOCKS (BY FAIR VALUE)

Stock	Shares	Fair Value
Royal Dutch Shell	1,321,740	$38,445,715
Williams Cos.	1,186,902	36,960,128
Roche Holdings AG-Genusschein	149,541	34,223,679
Novartis AG-Reg Shs	423,017	30,841,304
British American Tobacco PLC	482,030	27,529,572
Nestle SA-Registered	322,630	23,188,982
KDDI Corp.	882,600	22,395,130
Aviva PLC	3,669,570	22,054,854
Akzo Nobel N.V.	345,864	21,665,474
Renaissancere Holdings LTD	153,600	20,923,392

TEN LARGEST BONDS AND OBLIGATIONS (BY FAIR VALUE)

Description	Coupon	Maturity Date	Par Value	Fair Value
U.S. Treasury STRIPS	-	May 15, 2020	$17,001,000	$16,087,706
U.S. Treasury Note	1.875	Oct. 31, 2022	14,500,000	14,263,123
U.S. Treasury Inflationary	0.125	Jul. 15, 2024	13,539,400	13,304,678
U.S. Treasury Bond	2.875	Aug. 15, 2045	13,700,000	13,037,370
U.S. Treasury STRIPS	-	Aug. 15, 2017	11,706,000	11,650,748
U.S. Treasury Note	1.000	Dec. 15, 2017	9,200,000	9,209,752
VRX Escrow Corp.	5.875	May 15, 2023	11,110,000	8,388,050
Lucent Technologies Inc.	6.450	Mar. 15, 2029	7,770,000	8,100,225
Virgin Media Secured Fin	5.250	Jan. 15, 2021	7,585,000	8,002,175
Arcelormittal	7.750	Oct. 15, 2039	7,130,000	7,824,034

TEN LARGEST REAL ESTATE HOLDINGS (BY FAIR VALUE)

Description	Fair Value
JP Morgan Strategic Property Fund	$204,429,991
Prudential PRISA	202,666,152
UBS Trumbull Property Fund	140,876,552
Heitman Core Property Fund	137,683,198
Jamestown Premier Property Fund	109,737,583
Morgan Stanley Prime Property Fund	91,248,066
LaSalle Property Fund, LP	80,353,059
Lion Industrial Trust	55,704,918
Blackstone Real Estate Partners VII	54,683,324
USAA Eagle Real Estate Feeder 1, LP	53,634,977

A complete listing of portfolio holdings can be obtained by calling (614) 228-2975.

SCHEDULE OF INVESTMENT RESULTS (FOR THE YEAR ENDED DEC. 31, 2016)

	Annualized Rates of Return		
	1-Year	3-Year	5-Year
U.S. Equity			
OP&F	**15.60%**	**8.99%**	**14.93%**
Wilshire 5000	13.37%	8.76%	14.71%
International Equity			
OP&F	**2.75%**	**(1.25)%**	**6.93%**
International Equity Policy Benchmark *	4.45%	(1.20)%	5.52%
Fixed Income			
OP&F - Core	**4.14%**	**3.29%**	**3.00%**
Barclays Aggregate	2.65%	3.03%	2.23%
OP&F - High Yield (HY)	**12.80%**	**4.74%**	**7.12%**
CS First Boston High Yield *	17.96%	4.57%	7.13%
OP&F - GIPS	**18.76%**	**12.45%**	**7.88%**
Barclays Global Inflation Linked Bond Index	16.76%	10.63%	5.95%
**OP&F - Commercial Mortgages ** **	**5.63%**	**5.78%**	**5.87%**
Barclays Mortgage Index **	3.61%	3.61%	2.65%
Master Limited Partnerships			
OP&F	**20.42%**	**(0.16)%**	**N/A**
Alerian MLP Index	18.31%	(5.80)%	N/A
**Real Estate ** **			
OP&F	**13.14%**	**16.16%**	**15.32%**
NCREIF ODCE Index	9.09%	11.42%	11.34%
**Private Markets ** **			
OP&F	**14.37%**	**14.89%**	**13.13%**
Wilshire 5000 + 3%	18.82%	13.99%	19.81%
**Timber ** **			
OP&F	**2.99%**	**4.28%**	**N/A**
CPI + 5%	7.17%	6.24%	N/A
TOTAL PORTFOLIO			
OP&F	**11.51%**	**6.25%**	**10.09%**
Policy Index***	11.45%	5.23%	8.95%

* a) International Equity benchmark is a blend of the MSCI ACWI ex U.S. (Net) through June 30, 2011, the MSCI ACWI ex U.S. Iran/Sudan Free (I/S Free) from July 1, 2011 through Sept. 30, 2012 and the MSCI ACWI ex U.S. Iran/Sudan Free IMI Index from Oct. 1, 2012 forward.
b) High Yield benchmark is a blend of the CS First Boston Dev. Countries HY through Aug. 31, 2016 and the CS First Boston High Yield from Sept. 1, 2016 forward.

** One quarter in arrears.

*** Interim Policy Index: 19.8 percent Wilshire 5000, 19.1 percent MSCI ACWI ex-U.S. Iran/Sudan Free IMI Index, 10.2 percent Barclays Aggregate, 14.1 percent CS First Boston High Yield, 9.4 percent Global Treasury Inflation Protected Securities (TIPS) Custom, 11.2 percent NCREIF ODCE Index (Net) Lagged, 5.6 percent Wilshire 5000 + 3 percent Lagged, 3.1 percent CPI + 5 percent (Net), 7.5 percent Alerian MLP Index.

Long-Term Policy: 16 percent Wilshire 5000, 16 percent MSCI ACWI ex-U.S. Iran/Sudan Free IMI Index, 20 percent Barclays Aggregate, 15 percent CS First Boston High Yield, 20 percent Global TIPS Custom, 12 percent NCREIF ODCE Index (Net) Lagged, 8 percent Wilshire 5000 + 3 percent Lagged, 5 percent NCREIF Timberland Lagged, 8 percent Alerian MLP Index (adds to 120 percent as "Risk Parity" approach uses 2x levered Global Inflation-Protected Securities and 2x levered Core Fixed Income).

Time Weighted methodology, based upon fair market values, is used when calculating performance.

INVESTMENT CONSULTANTS AND MONEY MANAGERS (FOR THE YEAR ENDED DEC. 31, 2016)

INVESTMENT CONSULTANTS
TorreyCove Capital Partners
(The) Townsend Group
Wilshire Associates

INVESTMENT MANAGERS
U.S. EQUITY
AQR Capital Management
Bridgewater Associates, LP
Delaware Investments
Grosvenor Capital Management, LP
N.A. Investcorp, LLC
Russell Investments Implementation Services, LLC
State Street Global Advisors

INVESTMENT MANAGERS
INTERNATIONAL EQUITY
Causeway Capital Management, LLC
Dimensional Fund Advisors
Fidelity Institutional Asset Management Trust Co.
Franklin Templeton
Russell Investments Implementation Services, LLC

INVESTMENT MANAGERS
REAL ESTATE
AEW Capital Management
Aermont Capital LLP
(The) Blackstone Group
Brookfield Asset Management, Inc.
CB Richard Ellis Investors, LLC
Clarion Partners
Colony Capital, LLC
DivcoWest Real Estate Services, LLC
Exeter Property Group
Fortress Japan Opportunity Management, LLC
Fremont Realty Capital, LP
(The) Gerrity Group
Greystar Investment Group, LLC
Heitman Capital Management, LLC
Hunt Investment Management
Jamestown Premier GP, LP
JP Morgan Investment Management, Inc.
LaSalle Investment Management
Lone Star Funds
Lubert-Adler Management Co., LLC
Morgan Stanley Real Estate Advisors, Inc.
Prudential Real Estate Investors
Savanna Investment Management, LLC
Starwood Capital Group
Stockbridge Real Estate Fund
TA Realty Associates
Tricon Capital Group, Inc.
TriGate Capital
UBS Realty Investors, LLC
USAA Eagle Real Estate GP, LLC
VBI Real Estate
Walton Street Capital, LLC
Westbrook Partners, LLC

INVESTMENT MANAGERS
MASTER LIMITED PARTNERSHIPS
Harvest Fund Advisors, LLC
Salient Capital Advisors, LLC
Tortoise Capital Advisors, LLC

INVESTMENT MANAGERS
TIMBER
Brookfield Timberlands Management
Forest Investment Associates
Global Forest Partners
Hancock Timber Resources Group

INVESTMENT MANAGERS
FIXED INCOME
Bridgewater Associates, LP
GSO Capital Partners LP
JPMorgan Investment Advisors, Inc.
Kohlberg Kravis Roberts & Co. LP
Loomis Sayles & Company, LP
MC Credit Partners, LP
MacKay Shields, LLC
Neuberger Berman
Pacific Investment Management Company, LLC
PENN Capital
Prima Capital Advisors, LLC
Russell Investments Implementation Services, LLC
Tennenbaum Capital Partners, LLC
Western Asset Management

INVESTMENT MANAGERS
PRIVATE EQUITY
Abbott Capital Management, LLC
Adams Street Partners
Advent International
Athenian Venture Partners
Blackstone Capital Partners
Blue Chip Venture Partners, LP
Blue Point Capital Partners, LP
Cinven
Coller Capital
Conway MacKenzie
EQT
Francisco Partners
Glendon Capital Management, LP
GTCR, LLC
HarbourVest Partners, LLC
Harvest Partners
Horsley Bridge Partners, LLC
(The) Jordan Company
Kirtland Capital Partners
Landmark Equity Partners
Leonard Green & Partners, LP
Lexington Capital Partners
Linsalata Capital Partners
Montauk TriGuard Management, Inc.
Morgenthaler Venture Partners
NGP Energy Capital Management
Northgate Capital Group
Park Street Capital
Peppertree Partners, LLC
Primus Venture Partners
Rhône Capital LLC
(The) Riverside Company
Riverstone Investment Group, LLC
RRJ Capital
Stonepoint Capital
Summit Partners
TA Associates, LP
Tenex Capital Management, LP
Vista Equity Partners
Warburg Pincus
Wilshire Private Markets, LLC

SECURITIES LENDING AGENTS
Key Bank Securities Lending
JP Morgan Chase

OTHER PROFESSIONAL CONSULTANTS
(see page vii)

SCHEDULE OF BROKERS' FEES PAID (FOR THE YEAR ENDED DEC. 31, 2016)

Broker Name	Fees Paid	Units Traded	Average Cost Per Unit
Goldman Sachs	$404,838	4,204,278	$0.0963
Merrill Lynch Pierce Fenner Smith	142,272	21,844,043	0.0065
Morgan Stanley	136,582	35,558,127	0.0038
Citigroup	128,887	42,575,541	0.0030
UBS Securities	123,316	7,613,175	0.0162
Credit Suisse First Boston	106,080	12,999,585	0.0082
JP Morgan	100,853	18,920,108	0.0053
Investment Technology Group	67,572	6,249,078	0.0108
Barclays Securities Inc.	60,121	3,888,403	0.0155
Deutsche Bank	59,233	5,572,082	0.0106
Jefferies & Co., Inc.	45,544	5,020,966	0.0091
RBC Capital Markets	44,056	2,780,282	0.0158
Frank Russell Securities/Broadcort Capital Clearing	37,703	3,770,311	0.0100
Macquarie Securities, Inc.	37,407	2,870,949	0.0130
Wells Fargo Securities	36,494	3,011,329	0.0121
BMO Capital Markets	23,465	1,008,710	0.0233
Instinet	22,912	4,125,872	0.0056
Nomura Securities International Co.	20,784	8,333,581	0.0025
Sanford C. Bernstein	20,537	1,571,689	0.0131
Brokers Less than $20,000	353,409	28,607,460	0.0124
TOTAL	**$1,972,065**	**220,525,569**	**$0.0089**

INVESTMENT POLICY AND GUIDELINES

Minor formatting edits have been made to the Board of Trustee approved investment policy and guidelines in order to provide style consistency throughout the CAFR.

1. INTRODUCTION

The purpose of this Investment Policy and Guidelines (Policy or Statement) is to define the framework for investing the assets (Total Portfolio) of the Ohio Police & Fire Pension Fund (OP&F or Plan). This Statement is intended to provide general principles for establishing the goals of OP&F, the allocation of assets and the employment of outside asset management. The statutory investment authority of the Investment Committee/Board of Trustees (the Board of Trustees or the Board) is set forth in Sections 742.11 to 742.113 and Sections 742.114, 742.116 of the Ohio Revised Code (ORC), as amended from time to time.

The objectives of OP&F have been established in conjunction with a comprehensive review of the current and projected financial requirements. These objectives are:

- To have the ability to pay all benefit and expense obligations when due.
- To maintain the purchasing power of the current assets and all future contributions by maximizing the rate of return on OP&F's assets at a reasonable level of risk.
- To maintain 30-year funding and achieve full funding on an actuarial accrued liability basis.
- To control the costs of administering OP&F and managing the investments.

The investment objectives of the Total Portfolio are:

- Long-term returns on Plan investments, in addition to contributions received from members and employers, should satisfy any current funding obligations of the Plan when and as prescribed by law and, once the Plan is fully funded, should keep pace with the growth of Plan liabilities.
- The investment performance goal for the Total Portfolio is to meet or exceed the return of the Total Portfolio policy benchmark over a full market cycle, generally measured over three to five years, without taking on additional risk as measured by standard deviation of returns. The Total Portfolio policy benchmark is a weighted average, based on the allocation target defined in Section 3 below, of each asset class benchmark.

In order to achieve these objectives, the Board of Trustees will conduct itself in accordance with ORC Section 742.11, which provides "The Board and other Fiduciaries shall discharge their duties with respect to OP&F solely in the interest of the participants and beneficiaries." These duties shall also be carried out "with care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and like aims", as referenced in ORC Section 742.11. All aspects of this Statement should be interpreted in a manner consistent with OP&F's objectives. At least annually, the Board shall review and adopt policies, objectives or criteria for the operation of the investment program and make such changes as appropriate.

Investment policies and Investment Manager(s) guidelines referenced in this document are separate policies governing specific aspects of managing the Total Portfolio and are not reproduced in this Statement, but are incorporated by reference as governing documents of the Plan.

2. DEFINITION OF RESPONSIBILITIES

A. INVESTMENT COMMITTEE/BOARD OF TRUSTEES

The statutory investment authority of the Board with regard to the Plan is set forth in Chapter 742, as described above, provides that in its capacity as a fiduciary, the Investment Committee/Board of Trustees must discharge its duties in a prudent manner and for the exclusive benefit of the participants and beneficiaries of the Plan.

In discharging its duties, the responsibilities of the Investment Committee/Board of Trustees pursuant to this Policy include the following:

- Establish the strategic investment policy (Asset Allocation Policy) for OP&F in accordance with the above goals, and periodically review Asset Allocation Policy in light of any changes in actuarial variables and/or market conditions.
- Approve the investment structure for applicable asset classes identified in the Asset Allocation Policy.
- Select qualified Investment Consultant(s) and Investment Manager(s) to advise on and manage OP&F's assets recognizing the goals set forth in ORC Sections 742.11 and 742.116.
- Monitor and review the performance of selected Investment Manager(s) to determine achievement of goals and compliance with policy guidelines.
- Monitor the costs of the investment operations at least annually.
- Review, at least annually, the current investment policies of OP&F and make such changes as appropriate.

- Review applicable annual investment plan(s) prepared by the staff and/or Investment Consultant(s). As conditions warrant, revise the annual investment plan(s) as the year progresses.
- Monitor investment activity for compliance with Board policies and adherence by Investment Manager(s) to strategy and direction.
- Review the overall investment performance to determine whether it meets established benchmarks.
- Evaluate and assign all Investment Manager(s) to a rating category as outlined in OP&F's Investment Manager Monitoring and Evaluation Policy.
- Review suggested changes or additions to the functions and operations regarding the investment operations of similar institutional investors.
- Review the proposed investment department annual operating budget and report its recommendations to the Finance Committee.
- Fulfill any other responsibilities as provided in the ORC and Investment Committee Charter.

The Investment Committee/Board of Trustees may authorize others such as OP&F staff, and may utilize the services of external advisors, such as actuaries, auditors, consultants and legal counsel, to implement decisions made by the Board. The comments and recommendations of such parties will be considered by the Board in conjunction with Board discussion of the issues for the purpose of making informed and prudent decisions.

B. STAFF

Staff will be the primary liaison between the Investment Committee/Board of Trustees and the Investment Consultant(s), the Investment Manager(s), and the custodial bank(s). In doing so, the staff will:

- Manage OP&F assets under its care and/or control in accordance with this Policy's objectives and guidelines set forth herein.
- Implement Board decisions regarding asset allocation, investment structure, Investment Manager(s) selection, and portfolio rebalancing procedures.
- Coordinate the Investment Manager(s) selection, evaluation, and retention decisions for the Plan's investments, consistent with OP&F's Investment Manager Search Policy.
- Monitor both internally and externally managed assets to ensure compliance with guidelines set forth in this Policy.
- Establish a process to promptly vote all proxies and related actions in a manner consistent with OP&F's long-term interests and objectives set forth herein and OP&F's Proxy Voting Policy. Maintain detailed records of said voting of proxies and related actions and comply with all regulatory objectives related thereto.
- Manage the overall liquidity in the Total Portfolio to ensure timely payment of member benefit payments and Plan expenses and the investment of contributions consistent with established asset allocation and portfolio rebalancing policies.
- Report to the Board at least quarterly regarding the status of the Total Portfolio and its performance for various time periods. Meet with the Board at least annually to report on Investment Manager(s) performance and compliance with goals and objectives.
- Acknowledge and agree in writing to their fiduciary responsibility to fully comply with this Policy set forth herein, and as modified in the future.

C. INVESTMENT CONSULTANT(S)

The Investment Committee/Board of Trustees may retain an investment consulting organization or organizations (the Investment Consultant(s)) to assist in the overall strategic investment direction of the Total Portfolio, or specific asset classes, and its implementation. Each such Investment Consultant(s), in recognition of its role as a fiduciary of the Plan, will assume specific duties. These duties shall generally include the following:

- Provide independent and unbiased information.
- Assist in the development of this Policy and other policies that govern the Plan investments.
- Assit in monitoring compliance with this Policy.
- Assist in the development and recommendation of strategic asset allocation targets, investment structure, and rebalancing procedures, for the total portfolio or for a specified asset class.
- Assist in development of performance measurement standards.
- Assist in the Investment Manager(s) search and selection process consistent with OP&F's Investment Manager Search Policy.
- Monitor, evaluate and report to the Board on Total

Portfolio and/or Asset Class and Investment Manager(s) performance on an ongoing basis.

- Conduct due diligence when an Investment Manager(s) fails to meet a standard.
- Establish a procedural due diligence search process.

D. INVESTMENT MANAGER(S)

The Investment Committee/Board of Trustees may, from time to time, cause the Plan to retain one or more qualified investment managers (Investment Manager(s)) to manage a portion of the Plan assets. When applicable, the Investment Committee/Board of Trustees shall approve each Investment Manager(s) guidelines, which may set forth the purpose, Investment Manager(s) philosophy and approach, authorized investments, prohibitions, typical portfolio characteristics, performance objectives and evaluation, and Investment Manager(s) communications. The Investment Manager(s) have certain responsibilities that include the following:

- Manage OP&F assets under its care, custody, where applicable, and/or control in accordance with this Policy's objectives and guidelines set forth herein and its governing agreement with OP&F.
- Exercise full investment discretion over the assets in their care within the guidelines set forth in this Policy and, where applicable, the specific guidelines established for the Investment Manager(s) in the governing agreements with OP&F.
- Constructing a portfolio of securities that reflects the execution of a specific investment strategy.
- Promptly inform the Board and staff in writing regarding all changes of a material nature pertaining to the firm's organization and professional staff.
- If directed, promptly vote all proxies and related actions in a manner consistent with OP&F's long-term interests and objectives set forth herein and OP&F's Proxy Voting Policy. Each Investment Manager(s) designated to vote shall keep detailed records of said voting of proxies and related actions and will comply with all regulatory obligations related thereto.
- Provide reporting to the Board or staff or Investment Consultant(s) quarterly regarding the status of the portion of the Total Portfolio managed by the Investment Manager(s) and its performance for various time periods. Meet or participate via teleconference or webcast with the Board or staff or Investment Consultant(s) annually or as needed to report on their performance and compliance with goals and objectives.
- Acknowledge and agree in writing to their fiduciary responsibility to fully comply with this Policy set forth herein, and as modified in the future.

E. OFFICE OF THE OHIO TREASURER/BOARD OF DEPOSIT/CUSTODIAN(S)

Per Section 742.11 of the ORC, the Treasurer of the State of Ohio (the Treasurer of State) is designated as custodian of investment assets. As custodian, the Treasurer of State or its designee (as described below) will be responsible for holding and safekeeping Plan assets, settling purchases and sales of securities; and identifying and collecting income which becomes due and payable on assets held. The Treasurer of State may engage a qualified bank or trust company, as authorized agent of the Treasurer of State, to perform certain services on behalf of the Treasurer of State to fulfill its responsibilities as custodian.

3. ASSET ALLOCATION AND REBALANCING

It is the responsibility of the Board to determine the allocation of assets among distinct public and private market asset classes. The allocation will be completed in a manner consistent with commonly recognized financial principles. Application of these principles is expected to lead to a portfolio with the highest level of return consistent with the risk tolerance of OP&F.

The procedure for determining the allocation will consider the relevant characteristics of the liabilities and potential assets of OP&F. The liability considerations shall include, but not be limited to, current and expected future values of the benefits, and future contributions. These factors are important for identifying the investment horizon of OP&F and its cash flow requirements. The asset characteristics considered shall include, but not be limited to, current asset value, the potential return relative to the potential risk, and diversification characteristics.

The asset allocation must be consistent with the investment standards specified in ORC Section 742.11.

The risk/return characteristics of OP&F shall be reviewed on a periodic basis (no less than every five years) through a comprehensive asset liability valuation study. The goal of the study shall be to formulate an Asset Allocation Policy which maximizes return while minimizing overall risk through the most efficient combination of acceptable asset classes under the prudent person standard.

Based on an asset liability valuation study, which analyzed the expected returns, risk and correlations of various asset classes, projected liabilities, and the risks associated with alternative asset mix strategies, the Board has established the following Asset Allocation Policy:

Asset Class	Long-Term Target Allocation– Notional Exposure	Range
Domestic Equity	16.0%	± 5.5%
Non-U.S. Equity	16.0%	± 5.5%
TOTAL EQUITY	**32.0%**	± 5.5%
Core Fixed Income	20.0%	± 7.0%
Global Inflation Protected Securities	20.0%	± 4.0%
High Yield	15.0%	± 4.5%
TOTAL FIXED INCOME	**55.0%**	± 7.5%
Real Estate	12.0%	± 3.5%
Private Markets	8.0%	± 2.5%
Real Assets	5.0%	± 2.0%
Master Limited Partnerships (MLP or MLPs)	8.0%	± 1.5%
TOTAL ALTERNATIVES	**33.0%**	± 6.0%
Cash Equivalents	-%	± 0.5%
TOTAL	**120.0%**	

Asset Class	Long-Term Target Allocation–Market Value
Domestic Equity	16.0%
Non-U.S. Equity	16.0%
Core Fixed Income	10.0%
Global Inflation Protected Securities	10.0%
High Yield	15.0%
Real Estate	12.0%
Private Markets	8.0%
Real Assets	5.0%
MLPs	8.0%
Cash Equivalents	-%
TOTAL	**100.0%**

The most recent study has shown that this is a favorable asset mix for meeting longer-term goals under multiple market conditions. In addition, this study incorporates the "risk parity" concept into OP&F's asset liability valuation with the goal of reducing equity risk exposure, which reduces overall Total Portfolio risk without sacrificing return, and creates a more risk-balanced portfolio based on the relationship between asset classes and economic environments . From the notional portfolio perspective above, the Total Portfolio may be levered up to 1.20 times due to the application of leverage in certain fixed income asset classes.

The Asset Allocation Policy represents a long-term strategy and thus, the Total Portfolio should strategically meet its performance objectives in the long term but not necessarily every year.

Short-term market shifts may cause the asset mix to drift from the allocation targets. Should the target percentage fall out of the indicated range for a particular asset class, the staff shall direct rebalancing transactions to reallocate assets from the over-allocated asset class to the under-allocated asset class. This rebalancing discipline is intended to encourage "buying low" and "selling high" and to keep the Total Portfolio invested at an appropriate overall risk level. Except when there is a perceived extraordinary downside risk in a particular asset class, movement outside the normal ranges should be avoided.

Investments in private markets, private credit, private real estate and private real assets (infrastructure, timberland and agriculture/farmland,) are generally less liquid than investments in public markets securities and are typically implemented via periodic commitments to funds with limited partnership structures. As a result, actual allocations to these asset classes may deviate from their strategic targets for extended periods. Actual vs. target deviations for these asset classes shall not be considered in violation of the Asset Allocation Policy. Under/overweights to these asset classes shall be invested in public markets securities with the most similar risk/return characteristics as a short-term proxy for the private asset classes. To assist in rebalancing, OP&F may retain a derivative overlay Investment Manager(s) which may provide several benefits including: (1) reduce OP&F's tracking error relative to our target allocations; (2) improve Total Portfolio returns; (3) enhance liquidity, and (4) reduce the administrative burden associated with management of monthly cash flows.

The Board may adopt interim Asset Allocation Policy target allocations to reflect the transition from previous policy target allocations to new policy target allocations. The interim target allocations will reflect dollar cost averaging and/or opportunistic implementation to most prudently reach the new policy target allocations over time.

4. INVESTMENT IMPLEMENTATION

The implementation of an investment portfolio designed to achieve the Total Portfolio objectives must be consistent with governing statutes as specified in Sections 742.11 to 742.113, 742.114, 742.116 and with the Ohio-Qualified Investment Manager Policy, the Ohio-Qualified Broker Policy, and OP&F's Broker Policy.

Where appropriate, OP&F will invest assets through the use of qualified Investment Manager(s). The allocations to these Investment Manager(s) will be made in accordance with the results of the asset liability valuation study, investment structure analysis, and established procedures.

For a complete description of the selection of Investment Manager(s), please see OP&F's Investment Manager Search Policy.

5. ASSET CLASS OBJECTIVES, CHARACTERISTICS AND INVESTMENT STRUCTURE

Investment structure targets will be established within applicable asset classes to address risk and return factors present in the respective asset class. For example, the domestic equity composite portfolio structural targets will be established to ensure style (growth vs. value) and market capitalization neutrality relative to the overall market, and to address active versus passive implementation decisions. External Investment Manager(s) will be hired to implement the structural targets in a diversified manner and will therefore have derived target weightings within the overall investment program. Where applicable, these are set forth below.

A. DOMESTIC EQUITY

Investment Objectives

Total return of the domestic equity composite portfolio should exceed the return of the Wilshire 5000 Index over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should rank above the median when compared to their peer group, if applicable, over a full market cycle on an annualized basis and should exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation.

Investment Characteristics

The main focus of investing will be on companies headquartered and/or domiciled in the United States. The domestic equity composite portfolio shall have similar portfolio characteristics as that of the Wilshire 5000 Index, and should not exhibit size (market capitalization) or style (value vs. growth) bias.

Investment Structure

The structure of the domestic equity composite portfolio will be diversified among passive and active investment strategies as follows:

1. ***Passive Large Capitalization Core Exposure***

   The passive large capitalization core component has a target allocation of 40 percent of the domestic equity composite portfolio. This passive portfolio is intended to provide broad market exposure for and diversification to OP&F's domestic equity composite portfolio through holdings in large - and mid - capitalization equities or futures and is to be constructed so as to match the characteristics and return of the Russell 1000 Index.

2. ***Active Large Capitalization Portable Alpha Exposure***

   The active large capitalization portable alpha component has a target allocation of 50 percent of the domestic equity composite portfolio, comprised of 18 percent to global macro strategies, 22 percent to market neutral strategies, and 10 percent to multi-strategy. The overall objective is to provide risk-adjusted returns greater than the return of the Standard & Poor's (S&P) 500 Index. S&P 500 market exposure, obtained through the use of derivatives and/or physicals, will be combined with strategies that represent diversified sources of alpha with a broad range of risk characteristics. For a complete description of the appropriate use of derivatives, please see OP&F's Derivatives Policy Statement.

3. ***Active Small Capitalization Core Exposure***

   The active small capitalization core component has a target allocation of 7.5 percent of the domestic equity composite portfolio.

4. ***Synthetic Small Capitalization Exposure***

   The synthetic small capitalization component has a target allocation of 2.5 percent of the domestic equity composite portfolio.

B. NON-U.S. EQUITY

Investment Objectives

Total return of the Non-U.S. equity composite portfolio should exceed the return of the Morgan Stanley Capital International All Country World Index ex-U.S. Investible Market Index – Iran and Sudan Free (MSCI ACWI-ex U.S. IMI I/S Free) over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should rank above the median when compared to their peer group, if applicable, over a full market cycle on an annualized basis and should exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation.

Investment Characteristics

The main focus of investing will be on companies headquartered or domiciled in the MSCI ACWI-ex U.S. IMI countries, which includes both developed and emerging markets. The Non-U.S. Equity composite portfolio shall have similar portfolio characteristics as that of the MSCI ACWI-ex U.S. IMI I/S Free Index.

Investment Structure

Non-U.S. equity assets will be managed on an active basis in order to exploit the perceived inefficiencies in the Non-U.S. equity markets. The structure of the Non-U.S. equity composite portfolio will be diversified among active ACWI-ex U.S. strategies and dedicated ACWI-ex U.S. small capitalization strategies as follows:

1. ***Active ACWI-ex U.S. Exposure***

   The Active ACWI-ex U.S. component has a target allocation of 75 percent of the Non-U.S. equity composite portfolio.

2. ***Active ACWI-ex U.S. Small Capitalization Exposure***

   The dedicated Active ACWI-ex U.S. Small Capitalization component has a target allocation of 25 percent of the Non-U.S. equity composite portfolio.

C. FIXED INCOME

1. Core

Investment Objectives

Total return of the core fixed income composite should exceed the applicable levered return of the Barclays Aggregate Index over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should rank above the median when compared to their peer group, if applicable, over a full market cycle on an annualized basis and exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation.

Investment Characteristics

The main focus of investing will be a diversified mix of traditional and non-traditional fixed income securities and/or strategies. Each Investment Manager(s) portfolio shall have similar portfolio characteristics as that of their respective benchmark, however, certain Investment Manager(s) may have broad investment guidelines to allow for greater flexibility in expressing each Investment Manager(s) core investment themes and therefore, the core fixed income portfolio, as well as each Investment Manager(s) portfolio, may exhibit different portfolio characteristics as that of the Bloomberg Barclays Aggregate Index and respective benchmark, respectively.

Investment Structure

Core fixed income assets will be managed on an active basis in order to exploit the perceived inefficiencies in traditional and non-traditional fixed income markets. Given the core fixed income allocation target set forth in the Asset Allocation Policy above, the core fixed income composite portfolio may be levered up to 2.0x

2. Global Inflation Protected Securities (GIPS)

Investment Objectives

Total return of the GIPS composite portfolio should exceed the levered return of a custom weighted-average mix of the Bloomberg Barclays country indexes within the Global Inflation-Linked Bond Index over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation. In addition, there is a portable alpha component to the GIPS composite portfolio whereas the overall objective is to provide risk-adjusted returns greater than the return of the custom weighted-average mix of the Bloomberg Barclays country indexes within the Global Inflation-Linked Bond Index.

Investment Characteristics

The main focus of investing will be a diversified mix of global inflation-linked securities. The GIPS composite portfolio, as well as each Investment Manager(s) portfolio, shall have similar portfolio characteristics as that of a custom weighted-average mix of the Bloomberg Barclays country indexes within the Global Inflation-Linked Bond Index.

Investment Structure

GIPS assets will be managed on an active basis. Given the GIPS allocation target set forth in the Asset Allocation Policy above, the GIPS composite portfolio will be levered approximately 2.0x. GIPS exposure, obtained through the use of derivatives and/or physical bonds, may be combined with a strategy that provides a diversified source of alpha with customized risk tolerances. Implementation of the GIPS composite portfolio will be consistent with OP&F's Derivatives Policy Statement, which provides a complete description of the appropriate use of derivatives in the Plan.

3. Commercial Mortgages

Investment Objectives

While in existence, the total return of the commercial mortgage composite portfolio should exceed the return of the Bloomberg Barclays Mortgage Index; both the returns for the commercial mortgage composite portfolio and Bloomberg Barclays Mortgage Index are lagged one quarter.

Investment Characteristics

While in existence, the main focus of investing will be on commercial mortgage whole loans which provide for fixed income payments derived from underlying property cash flows. Risk shall be controlled through diversification strategies and the retention of qualified Investment Manager(s) with acceptable loan underwriting and/or commercial mortgage acquisition experience.

Investment Structure

While in existence, commercial mortgage assets will be managed solely on an active basis in order to exploit the perceived inefficiencies in the commercial mortgage market. OP&F will utilize commingled fund investments to manage its commercial mortgage allocation.

D. HIGH YIELD

Investment Objectives

Total return of the high yield fixed income composite portfolio should exceed the return of the B of AMLUS High Yield Constrained Index, over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should rank above the median when compared to their peer group, if applicable, over a full market cycle on an annualized basis and should exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation.

Investment Characteristics

The main focus of investing will be on below investment grade fixed income securities, those securities rated below BBB- or equivalent. Positions may include publicly traded high yield bonds as well as public and private bank loans and private credit strategies. The high yield fixed income composite portfolio shall have similar portfolio characteristics as that of the B of AMLUS High Yield Constrained Index, or a blended benchmark of the aforementioned index, leveraged loan indices and private credit strategies. Each Investment Manager(s) portfolio shall have similar portfolio characteristics as that of their respective benchmark.

Investment Structure

High yield fixed income assets will be managed solely on an active basis in order to exploit the perceived inefficiencies in the high yield fixed income markets and to minimize the probability of exposure to securities in default.

E. REAL ESTATE

Investment Objectives

The primary role of real estate in the Total Portfolio is to provide: (1) an inflation hedge, (2) diversify the Total Portfolio by providing a return that has a low or negative correlation with stock and bond returns and (3) provide a total return that is competitive on a risk–adjusted basis with stocks and bonds and is accretive to OP&F achieving its long-term target rate of return. The return target for the real estate composite portfolio is set forth in OP&F's Real Estate Strategic Plan. Both the returns for the real estate composite portfolio and respective benchmark(s) are lagged one quarter.

Investment Characteristics

Investments will adhere to certain risk management and diversification criteria set forth in OP&F's Real Estate Strategic Plan.

Investment Structure

The target allocation of Total Portfolio assets to real estate will be established by OP&F's long-term Asset Allocation Policy. In order to meet this allocation target, it will generally be necessary to make commitments in excess of the target because of the contribution and distribution cash flow characteristics inherent in the underlying real estate investments.

F. PRIVATE MARKETS

Investment Objectives

The private markets composite portfolio is designed to provide an attractive risk-adjusted rate of return to OP&F. The performance objective for the private markets composite portfolio and for individual investments is set forth in OP&F's Private Markets Investment Policy. Both the returns for the private markets composite portfolio and respective benchmark are lagged one quarter.

Investment Characteristics

Investments will be diversified by certain criteria as set forth in OP&F's Private Markets Investment Policy.

Investment Structure

OP&F may utilize any of the following types of vehicles in implementing the private markets composite portfolio: fund-of-funds, partnerships, limited liability companies or group trusts. OP&F may also participate in secondary offerings or purchase private markets placements from other investors on the secondary market. Annual commitment targets to such investments will be established by OP&F's Private Markets Investment Plan. As stated in OP&F's Private Markets Investment Policy, in order to meet the target allocation of Total Portfolio assets to private markets investments, it will generally be necessary to make commitments in excess of the target because of the contribution and distribution cash flow characteristics inherent in the underlying individual private markets investments.

G. REAL ASSETS

Investment Objectives

The real assets program will consist of infrastructure, timberland and agriculture/farmland. The primary performance objective, along with the strategic goals, of the real assets program will be set forth in OP&F's Real Assets Investment Policy. Both the returns for the real assets program and respective benchmark are lagged one quarter.

Investment Characteristics

Real assets investments will seek to adhere to certain risk controls and diversification criteria set forth in OP&F's Real Assets Investment Policy.

Investment Structure

The target allocation of Total Portfolio assets to real assets will be established by OP&F's long-term Asset Allocation Policy. OP&F will allow an over commitment to the real assets program, up to 35 precent, to achieve the targeted allocation due to the fact that certain real assets investments, in particular closed-ended funds, draw capital gradually, may not draw their full commitments and generally begin to return capital long before they are liquidated.

H. MASTER LIMITED PARTNERSHIPS (MLP)

Investment Objectives

Total return of the MLP composite portfolio should exceed the return of the Alerian MLP Index over a full market cycle on an annualized basis. Total return of each Investment Manager(s) portfolio should rank above the median when compared to their peer group, if applicable, over a full market cycle on an annualized basis and should exceed their benchmark return as specified in each Investment Manager(s) guidelines or applicable documentation.

Investment Characteristics

The main focus of investing will be on publicly traded partnership units of energy-focused MLP companies. The MLP composite portfolio as well as each Investment Manager(s) portfolio shall have similar portfolio characteristics as that of the Alerian MLP Index.

Investment Structure

MLP assets will be managed solely on an active basis in order to exploit the perceived inefficiencies in the MLP publicly-traded partnership markets.

I. CASH EQUIVALENTS

Investment Objectives

Total return of the cash equivalents composite portfolio should exceed the 91-day Treasury Bill rate of return over rolling twelve-month periods. To provide effective cash management when investing cash balances, emphasis is placed on the protection of principal through the purchase of higher quality money market instruments, while at the same time attempting to achieve the highest available return.

Investment Characteristics

Authorized investments, minimum short-term credit ratings, portfolio concentration limits and maturity limits for the short-term investment fund (STIF) shall be set forth in OP&F's Short-Term Cash Management Policy. In addition, the frequency of credit reviews of approved issuers of commercial paper will be based on the short-term credit rating of the issuer and set forth in OP&F's Short-Term Cash Management Policy.

Investment Structure

Staff is responsible for the cash management function, which is described in OP&F's Short-Term Cash Management Policy.

6. PROXY VOTING

OP&F's Board of Trustees believes that common stock proxies are valuable and should be voted in the long-term interests and objectives of the Plan set forth herein and OP&F's Proxy Voting Policy. Common stock proxies may be executed by the Sr. Investment Officer or the Chief Investment Officer, or their designees. Staff or their designee that exercises a proxy vote shall keep detailed records of said voting of proxies and related actions and will comply with all regulatory obligations related thereto and the policies set forth in OP&F's Proxy Voting Policy. Staff shall provide a semi-annual summary report of proxy voting actions to the Investment Committee/ Board of Trustees.

7. SECURITIES LENDING

The investment objective for the securities lending program is to generate incremental income within a high quality investment program that safeguards the return of principal, maintains adequate daily liquidity, ensures diversification and tightly controls exposure to fluctuating interest rates. The program may be operated by a bank trustee or a third party lending agent. Marking to market shall be performed daily by the agent(s) and a minimum average of at least 102 percent for domestic, and 105 percent for Non-U.S. collateral shall be diligently maintained. Securities lending reports shall be provided monthly by the agent(s) to staff. Staff will present a semi-annual summary report to the Investment Committee/ Board of Trustees.

8. INVESTMENT MANAGER MONITORING AND EVALUATION POLICY

The purpose of OP&F's Investment Manager Monitoring and Evaluation Policy is to establish the process and discipline for managing the Investment Manager(s) relationship. The policy states the process, responsibilities and important factors for consideration in the monitoring and evaluation process. For a complete description of the monitoring and evaluation process, please see OP&F's Investment Manager Monitoring and Evaluation Policy.

9. COMMUNICATIONS

Each Investment Manager(s) will provide hard copy reports at least quarterly, including performance measurement, asset inventories, transaction summaries, market commentary or anything else deemed significant at the time of reporting. Each Investment Manager(s) is expected to meet or participate via teleconference or webcast with OP&F's Board or staff or Investment Consultant(s) annually or as needed.

10. INVESTMENT MANAGER SEARCH POLICY

When applicable, the selection of Investment Manager(s) will be conducted under a Request for Proposal (RFP) process and the search may be on a closed or open manager universe basis. For a complete description of the selection of Investment Manager(s), please see OP&F's Investment Manager Search Policy.

11. SECURITIES LITIGATION POLICY

The Securities Litigation Policy has been adopted to ensure that OP&F takes prudent, effective, appropriate, and efficient actions to protect and increase the value of OP&F investments and to ensure that OP&F receives all money or assets which are due it as a result of the resolution of class action suits in a cost effective manner consistent with the Board's fiduciary duties. For a complete description of the policy objectives, monitoring, reporting requirements and procedures, please see OP&F's Securities Litigation Policy.

12. IRAN AND SUDAN DIVESTMENT POLICY

As required by uncodified provisions of Chapter 742 of the ORC, OP&F has adopted an Iran and Sudan Divestment Policy, the purpose of which is to divest and restrict the purchase of stocks and bonds issued by a publicly traded company with scrutinized business operations in Iran and Sudan, subject to the fiduciary responsibilities of the Board of Trustees, as set forth in Chapter 742 of the ORC. For a complete description of the responsibilities, process, reporting requirements, etc., please see OP&F's Iran and Sudan Divestment Policy.

ACTUARIAL

REPORT OF ACTUARY

A Xerox Company

October 2016

Board of Trustees
Ohio Police & Fire Pension Fund
140 East Town Street
Columbus, Ohio 43215

Members of the Board:

Ohio Police & Fire retained Buck Consultants, LLC (Buck) to complete this actuarial valuation of the Ohio Police & Fire Pension Fund (OP&F). This report presents the results of the annual actuarial valuation of the assets and liabilities of OP&F as of Jan. 1, 2016, prepared in accordance with Chapter 742 of the Ohio Revised Code (ORC), as amended by Senate Bill No. 340. The valuation takes into account all of the promised benefits to which members are entitled, including pension and survivor benefits.

The principal results of the valuation do not take into account Medicare Part B premium reimbursements or any other health care benefits. However, at the request of the Ohio Retirement Study Council (ORSC), supplemental results have been prepared that do take into account the liability for Medicare Part B premium reimbursements and are presented in Table 1A in the report.

The purpose of the valuation is to determine the financial status of OP&F on an actuarial basis. Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Buck will not accept any liability for any statement made about the report without prior review by Buck.

Where presented, references to "funded ratio" and "unfunded accrued liability" typically are measured on an actuarial value of assets basis. It should be noted that the same measurements using market value of assets would result in different funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities.

This report does not include accounting disclosure information under Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68. Buck will provide disclosure information under Statement Nos. 67 and 68 in a separate report after OP&F's 2016 year-end. Buck prepares a separate valuation of OP&F retiree health care benefits in accordance with and in compliance with the parameters set forth in Statement No. 43.

The valuation was based on the actuarial assumptions and methods that have been adopted by the Board of Trustees, including a valuation interest rate of 8.25 percent per annum compounded annually. The assumptions were effective Jan. 1, 2012 and recommended by the actuary based on a five-year experience review covering the period 2007-2011. The next experience review will cover the five-year period 2012-2016. Actuarial Standards of Practice require that the likelihood and extent of future mortality improvements be considered. We have reflected future mortality improvement in the valuation. Additional assumptions related to the benefit provision changes under Senate Bill No. 340 were employed for this valuation.

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Assets and Membership Data

OP&F reported to the actuary the individual data for members as of the valuation date. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the pension trust fund taken into account in the valuation was based on financial statements prepared for us by OP&F.

An assumption is made by Buck to account for salary adjustments reported by employers assumed to occur after the census information has been provided to Buck by OP&F. For the Jan. 1, 2016 actuarial valuation, Buck increased all reported salaries by an assumed 1.246 percent.

Funding Objectives and Progress

The actuary uses an actuarial cost method to determine the portion of OP&F's liabilities accrued by the members as of the valuation date and the portion that is attributable to future years of service. The rate of contribution necessary to systematically fund the future service liabilities, the normal cost rate, is calculated under the cost method to be a level percentage of active member payroll. The portion of the liabilities accrued as of the valuation date, the actuarial accrued liability (AAL), is compared to a market-related, actuarial value of OP&F's assets. The amount of liabilities in excess of the assets is called the unfunded actuarial accrued liability (UAAL).

The actuary determines how many years are required by OP&F to completely amortize the UAAL (the funding period), using the member and employer contributions reduced by the amount allocated to health care and the amount of normal cost for the year. For 2003-2012, the funding period was infinite years, meaning the annual contribution toward the unfunded when compared to the unfunded amount was not sufficient to pay it off. As a result of benefit and member contribution changes under Senate Bill No. 340, changes to the DROP program, and a reduction in the contribution allocation to the Health Care Stabilization Fund by the Board of Trustees, and favorable asset investment gains, the pension funding period has decreased to 47 years, 33 years and 30 years for 2013, 2014 and 2015, respectively. As of Jan. 1, 2016, the funding period is 29 years.

Section 742.16 of the ORC, as adopted by Senate Bill No. 82, sets forth an objective that the funding period is no more than 30 years. If the funding period exceeds 30 years, a plan shall be developed and presented by the Board of Trustees to the ORSC to reduce the funding period to not more than 30 years. Section 742.14 of the ORC, as amended by Senate Bill No. 340, sets forth that the 30-year funding analysis be performed every three years and the 30- year funding plan, if necessary, be developed and presented not later than 90 days after the Board of Trustees' receipt of the actuarial valuation and 30-year funding analysis. The current triennial analysis is based on this Jan. 1, 2016 actuarial valuation, which shows the funding period is 29 years, so no 30-year funding plan is required. The next analysis will be performed based on the Jan. 1, 2019 actuarial valuation.

The funded ratio (i.e., the ratio of actuarial assets to the AAL) determined as of Jan. 1, 2016 is 71.3 percent, compared to 70.8 percent determined as of Jan. 1, 2015. If measured using the market value of assets, the funded ratio would be lower at 67.5 percent on account of net investment losses not yet reflected in the actuarial assets. Taking into account the AAL for Medicare Part B premium reimbursements, the funded ratio would be 69.5 percent using the actuarial assets and 65.8 percent using the market value of assets. The funded ratio is not intended to measure the adequacy of funding in any analysis of a possible settlement of plan liabilities.

Supporting Schedules and Certification

The valuation report show detailed summaries of the financial results of the valuation and membership data used in preparing this valuation. The actuary prepared the following supporting schedules for inclusion in the Actuarial and Statistical Sections of the OP&F Comprehensive Annual Financial Report: Analysis of Financial Experience, Short-Term Solvency Test, Schedule of Funding Progress, Calculation of Actuarial Value of Assets, and Retirees and Beneficiaries Added to and Removed from the Rolls.

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The valuation assumptions were chosen by the Board of Trustees with the advice of the actuary. The assumptions used to develop the Jan. 1, 2016 valuation are individually reasonable and in combination represent our best estimate of anticipated experience under the plan.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

This report was prepared under the supervision of Larry Langer and Paul Wilkinson who are pension actuaries, Enrolled Actuaries, Associates of the Society of Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the pension actuarial opinions contained in this report. Bob Besenhofer is a health care actuary, Associate of the Society of Actuaries and Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report regarding the liability adjustments provided in Table 1A for Medicare Part B reimbursements. This report has been prepared in accordance with all Applicable Actuarial Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Buck is completely independent of OP&F and its officers and key personnel. Neither we, nor anyone closely associated with us, has any relationship with them that would impair our independence.

Respectfully submitted,

Larry Langer, FCA, ASA, EA, MAAA
Principal, Consulting Actuary

Paul R. Wilkinson, ASA, EA, MAAA
Director, Consulting Actuary

Bob Besenhofer, ASA, MAAA
Director, Health and Productivity

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DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS

ASSUMPTIONS

The actuarial assumptions were adopted as of Jan. 1, 2012, based on a five-year experience review covering the period 2007-2011. The next review of the actuarial assumptions is to be completed for adoption with the Jan. 1, 2017 valuation.

INTEREST RATE: 8.25 percent per annum, compounded annually.

SALARY INCREASE RATES: Assumed annual salary increases are as follows:

Years of Service	Salary Increase Rate
Less than 1	11.00%
1	9.50%
2	8.50%
3	6.50%
4	5.00%
5 or more	4.25%

DROP INTEREST RATE: 4.5 percent per annum, compounded annually.

COLA: Three percent simple; 2.6 percent simple for increases based on the lesser of the increase in CPI and three percent.

WITHDRAWAL RATES: The following sample withdrawal rates are based on age and service (for causes other than death, disability, or retirement):

POLICE

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
25	10.3%	6.3%	3.5%	4.4%	3.9%	2.2%	2.1%	2.0%	1.8%	1.8%	1.5%
30	10.4%	5.8%	4.4%	3.5%	3.2%	3.0%	2.9%	2.5%	2.2%	1.8%	1.5%
35	13.0%	5.3%	3.2%	3.8%	3.5%	3.4%	3.2%	3.1%	2.5%	1.7%	1.3%
40	14.0%	6.0%	4.6%	4.5%	4.1%	3.9%	3.3%	3.2%	1.8%	1.5%	0.9%
45	16.0%	6.3%	6.1%	5.9%	5.2%	4.3%	3.5%	3.5%	2.1%	1.2%	0.8%
50	18.0%	8.3%	8.1%	7.5%	6.5%	5.3%	4.1%	4.0%	3.9%	3.1%	1.5%
55	20.0%	12.0%	10.0%	9.4%	8.0%	6.5%	5.2%	5.1%	4.9%	4.5%	1.7%
60	20.0%	12.0%	10.0%	9.4%	8.0%	6.5%	5.2%	5.1%	4.9%	4.5%	1.7%

FIREFIGHTERS

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
25	2.8%	2.2%	1.6%	1.5%	1.2%	1.1%	1.0%	1.0%	0.9%	0.9%	0.8%
30	3.8%	1.6%	1.8%	1.7%	1.6%	1.3%	1.2%	1.1%	1.0%	1.0%	0.9%
35	4.2%	3.4%	2.1%	2.0%	1.9%	1.4%	1.3%	1.25%	1.1%	0.9%	0.8%
40	4.5%	3.6%	2.2%	2.1%	2.0%	1.5%	1.4%	1.3%	1.2%	1.0%	0.6%
45	4.6%	3.8%	2.7%	2.6%	2.5%	1.9%	1.6%	1.4%	1.3%	1.1%	0.5%
50	6.1%	4.4%	4.0%	3.8%	3.5%	2.7%	2.4%	2.2%	2.1%	1.5%	0.7%
55	6.1%	5.0%	5.0%	5.0%	4.0%	3.5%	2.4%	2.2%	2.0%	1.5%	1.1%
60	6.1%	5.0%	5.0%	5.0%	4.0%	3.5%	2.4%	2.2%	2.0%	1.5%	1.1%

RATES OF DISABILITY

The following are sample rates of disability and occurrence of disability by type:

Age	Police	Firefighters
20	.002%	.004%
30	.255%	.063%
40	.732%	.454%
50	1.126%	.891%
55	.933%	1.350%
60	.966%	1.331%
64	1.441%	3.126%

On duty permanent and total	23%
On duty partial	61%
Off duty ordinary	16%

RETIREMENT RATES

The following rates of retirement apply to members not in DROP:

Age	Police	Firefighters
48	10%	10%
49-52	5%	5%
53-54	11%	5%
55-57	11%	10%
58-59	5%	13%
60	15%	20%
61	25%	20%
62	25%	50%
63	25%	20%
64	25%	25%
65-69	35%	25%
70	100%	100%

DEFERRED RETIREMENT OPTION PLAN ELECTIONS

90 percent of members who do not retire when first eligible are assumed to elect DROP.

DROP RETIREMENT RATES

The following rates of retirement apply to members in DROP on or before July 1, 2013:

	Police - Years in DROP								
Age	0	1	2	3	4	5	6	7	8
48	5%								
49	5%	5%							
50	4%	5%	5%						
51	4%	5%	5%	10%					
52	4%	5%	5%	10%	10%				
53	4%	5%	5%	10%	10%	12%			
54	4%	5%	5%	10%	10%	12%	14%		
55	5%	5%	5%	15%	15%	12%	17%	30%	
56	5%	5%	5%	15%	15%	12%	17%	30%	100%
57	5%	5%	5%	15%	15%	12%	17%	30%	100%
58	5%	5%	5%	15%	15%	12%	17%	30%	100%
59	16%	5%	5%	15%	16%	15%	18%	32%	100%
60	16%	5%	5%	15%	16%	15%	18%	32%	100%
61	16%	5%	5%	15%	16%	15%	18%	32%	100%
62	16%	5%	5%	15%	16%	15%	18%	32%	100%
63	16%	5%	5%	15%	16%	15%	18%	32%	100%
64	19%	5%	5%	17%	17%	16%	19%	35%	100%
65-69	19%	5%	5%	17%	17%	16%	19%	35%	100%
70	100%	100%	100%	100%	100%	100%	100%	100%	100%

	Firefighters - Years in DROP								
Age	0	1	2	3	4	5	6	7	8
48	2%								
49	4%	3%							
50	4%	3%	3%						
51	4%	3%	3%	10%					
52	4%	3%	3%	10%	12%				
53	4%	3%	3%	10%	12%	13%			
54	4%	3%	3%	10%	12%	13%	15%		
55	5%	3%	3%	12%	12%	13%	17%	27%	
56	5%	3%	3%	12%	12%	13%	17%	27%	100%
57	5%	3%	3%	12%	12%	13%	17%	27%	100%
58	5%	3%	3%	17%	16%	15%	20%	35%	100%
59	6%	3%	3%	17%	16%	15%	20%	35%	100%
60	6%	3%	3%	17%	16%	15%	20%	35%	100%
61	6%	3%	3%	17%	16%	15%	20%	35%	100%
62	6%	3%	3%	17%	16%	15%	20%	35%	100%
63	30%	3%	3%	20%	20%	20%	20%	40%	100%
64	30%	3%	3%	20%	20%	20%	20%	40%	100%
65-69	30%	3%	3%	20%	20%	20%	20%	40%	100%
70	100%	100%	100%	100%	100%	100%	100%	100%	100%

The same rates apply for members entering DROP after July 1, 2013, except the rates for years three and four are replaced with the rates for year two.

RETIREMENT AGE FOR INACTIVE VESTED PARTICIPANTS

Commencement at age 48 and 25 years of service from full-time hire date, whichever is later.

MORTALITY

Rates of death are based on the RP2000 Combined Table, age-adjusted as follows. For active members, set back six years. For disability retirements, set forward five years for police and three years for firefighters. For service retirements, set back zero years for police and two years for firefighters. For beneficiaries, set back zero years. The rates are applied on a fully generational basis, with a base year of 2009, using mortality improvement Scale AA.

CREDITED SERVICE

Credited service on the valuation date, as provided by OP&F, includes all service credited under the plan, including service transferred from other municipal plans and purchased service. The valuation assumes future service will be credited at the rate of one year per year worked, with no assumed future crediting of transferred service or purchased service.

415 LIMITS

Benefits are limited by the IRC Section 415, assumed to increase 3.25 percent per annum.

FUTURE EXPENSES

The normal cost is increased by all administrative expenses budgeted, net of the State Subsidy received from the State of Ohio.

UNKNOWN DATA FOR MEMBERS

Same as those exhibited by members with similar known characteristics.

LATE REPORTED SALARIES

1.246 percent load to 2015 reported salaries to account for salaries accrued but not reported for the valuation. This adjustment is based on plan experience for the prior year. This adjustment will be reviewed annually for future late reported salaries.

PERCENT MARRIED

75 percent of active members are assumed to be married.

AGE OF SPOUSE

Wives are assumed to be three years younger than their husbands.

OPTIONAL FORM ELECTION

33 percent of service retirees and 10 percent of disability retirees are assumed to elect the 50 percent Joint and Survivor pension. If the joint annuitant predeceases the retiree, assume the retiree's benefit increases 17.65 percent.

DEPENDENT PARENTS

Costs based upon allowance for mortality (same rates as for beneficiaries), but no specific allowance for change in dependency status.

DEPENDENT CHILDREN

Each member is assumed to have two children, born when the member was age 26. Dependency is assumed to cease when the child is 22.

MEDICARE PART B PREMIUM TREND RATES

The Medicare Part B premium subsidy ($104.90 per month for 2016) is assumed to increase as follows:

Year	Increase
2016	5.30%
2017	5.20%
2018	5.10%
2019 and Later	5.00%

MEDICARE PART B PREMIUM REIMBURSEMENT

90 percent of members are assumed to be eligible for reimbursement once they reach age 65.

METHODS

ACTUARIAL COST METHOD

Projected benefit method with individual level percentage entry age normal cost and AAL. Gains and losses are reflected in the accrued liability.

ADJUSTMENT FOR RE-EMPLOYED RETIREES

The present value of future benefits and the actuarial accrued liability are increased by an amount for the re-employed retirees' defined contribution plan benefit equal to two times the re-employed retirees' post-retirement contribution balances on the valuation date.

ADJUSTMENT FOR EMPLOYER ACCRUED LIABILITY

The actuarial accrued liability is reduced by the present value of special employer contributions - referred to as "Local Funds." Local governments are required by state statute to pay the unfunded portion of the actuarially-determined liability of the local police and firefighter's relief and pension funds that were merged to form OP&F in 1967. The ORC designates this obligation of the local governments to the Employers' Accrued Liability. Interest on the outstanding balance is being accrued at the rate of 4.25 percent, compounded semiannually. Local governments began repayment in 1969 and payments are required to be made until 2035. The present value of the remaining payments on the valuation date is determined using the valuation interest rate.

ASSET VALUATION METHOD

A four-year moving average market value of assets that spreads the difference between the actual investment income and the expected income on the market value (based on the valuation interest rate) over a period of four years. The actuarial value shall not be less than 80 percent or more than 120 percent of market value.

PAYROLL GROWTH

Inflation rate of 3.25 percent plus productivity increase rate of 0.5 percent.

DATA

CENSUS AND ASSETS

The valuation was based on members of OP&F as of the valuation date and does not take into account future members. All census and asset data was supplied by OP&F. Salaries and benefits tabulated in the tables in this report were summed to pennies, but displayed to whole dollars, thus, totals may not be consistent with amounts displayed due to rounding.

PLAN SUMMARY

SUMMARY OF BENEFITS AND CONTRIBUTION PROVISIONS

The following is intended to summarize the key provisions valued in this valuation. Members of OP&F and other parties should not rely on this summary as a substitute for or legal interpretation of the laws and rules covering this retirement plan.

MEMBERSHIP

Membership in OP&F is mandatory under Ohio law for all full–time police officers employed by Ohio municipalities and appointed under the required statutory provisions. Membership is also mandatory for all full-time firefighters employed by Ohio municipalities, townships, villages, joint fire districts or other political subdivisions. In order to become members of OP&F, full-time firefighters are required to satisfactorily complete, or have satisfactorily completed, a firefighter training course approved under former Section 3303.07, Section 4765.55 or conducted under Section 3737.33 of the ORC.

ELIGIBILITY FOR MEMBERSHIP

Full-time police officers or firefighters are eligible for membership in OP&F immediately upon commencement of employment as a full-time police officer or firefighter.

CONTRIBUTIONS

Employer and member contributions are established by statute and both are due monthly. Employers of police officers pay 19.5 percent of salary; employers of firefighters pay 24 percent of salary. Members contributed 10 percent of salary through July 1, 2013. On July 2, 2013, the member contribution rate increased by 0.75 percent to 10.75 percent. The member contribution rate increased annually by 0.75 percent until it reached the current 12.25 percent on July 2, 2015.

Employer Contribution Rates - Percentage of Active Member Payroll

Time Frame of Rates	Police	Fire
Jan 1, 1986 thru Present	19.50%	24.00%

Member Contribution Rates - Percentage of Active Member Payroll

Time Frame of Rates	Police	Fire
July 2, 2015 and Thereafter	12.25%	12.25%
July 2, 2014 thru July 1, 2015	11.50%	11.50%
July 2, 2013 thru July 1, 2014	10.75%	10.75%
Sept. 9, 1988 thru July 1, 2013	10.00%	10.00%

BENEFITS

SERVICE RETIREMENT

Upon attaining a qualifying age with sufficient years of service, a member of OP&F may retire and receive a lifetime monthly pension. OP&F offers four types of service retirement: normal, service commuted, age/service commuted and actuarially reduced. Each type has different eligibility guidelines and is calculated using the member's average annual salary.

Since average annual salary is subject to certain statutory and administrative limitations, not all salary, earnings, or compensation may be used in the calculation. OP&F calculates allowable average annual salary as follows:

- For OP&F members with 15 or more years of service credit as of July 1, 2013, average annual salary is an average of the three years of highest allowable earnings, regardless of when in their career the highest years occurred.
- For OP&F members with less than 15 years of service credit as of July 1, 2013, average annual salary is an average of the five years of highest allowable earnings, regardless of when in their career the highest years occurred.
- A salary benchmark is established for members with 15 or more years of service credit as of July 1, 2013, under which certain increases are excluded from salary for the purpose of determining allowable average annual salary. This benchmarking does not apply to members with less than 15 years of service credit as of July 1, 2013.

NORMAL SERVICE RETIREMENT

ELIGIBILITY

- For members hired into an OP&F-covered position after July 1, 2013, minimum retirement age is 52 with at least 25 years of service credit.
- For members hired into an OP&F-covered position on or before July 1, 2013, minimum retirement age is 48 with 25 years of service credit.

BENEFIT

An annual pension equal to a percentage of the allowable average annual salary. The percentage equals 2.5 percent for each of the first 20 years of service, 2.0 percent for each of the next five years of service, and 1.5 percent for each year of service in excess of 25 years. The maximum pension of 72 percent of the allowable average annual salary is paid after 33 years of service.

SERVICE COMMUTED RETIREMENT

ELIGIBILITY

- For members hired into an OP&F-covered position after July 1, 2013, the minimum retirement age is 52, they must have at least 15 years of service credit and 25 years have elapsed from the date of their full-time hire.
- For members hired into an OP&F-covered position on or before July 1, 2013, the minimum retirement age is 48, they must have at least 15 years of service credit and 25 years have elapsed from the date of their full-time hire.

BENEFIT

An annual pension equal to 1.5 percent of the allowable average annual salary multiplied by the number of full years of service credit (up to 25 years of service credit).

AGE/SERVICE COMMUTED RETIREMENT

ELIGIBILITY

Age 62, 15 years of service credit and still working as a full-time police officer or firefighter.

BENEFIT

An annual pension that uses the same formula as the Normal Service Retirement benefit (up to 25 years of service credit).

ACTUARIALLY REDUCED

ELIGIBILITY

For members hired into an OP&F-covered position after July 1, 2013, age 48 with 25 years of service credit.

BENEFIT

An annual pension reduced to the actuarial equivalent of the amount payable had the member retired at age 52.

RIGHTS UPON SEPARATION FROM SERVICE

DEFERRED PENSION

If a member meets the years of service credit requirement for any of the service retirement pension benefits but leaves service before attaining the minimum retirement age, a pension becomes payable upon attainment of the qualifying age and filing the appropriate paperwork with OP&F.

REFUND OF EMPLOYEE CONTRIBUTIONS

Upon termination of active service in a police or fire department, a member may withdraw their accumulated employee contributions on deposit with OP&F. Acceptance of a refund cancels the member's rights and benefits in OP&F. Employer contributions are not refundable. The refund of employee contributions cancels the member's total service credit with OP&F.

TERMINATION BEFORE RETIREMENT WITH 25 YEARS SERVICE CREDIT

BENEFIT

Same as the Normal Service Retirement benefit, except benefit commences once the member reaches minimum retirement age.

- For members hired into an OP&F-covered position after July 1, 2013, minimum retirement age is 52.
- For members hired into an OP&F-covered position on or before July 1, 2013, minimum retirement age is 48.

TERMINATION BEFORE RETIREMENT WITH 15 YEARS SERVICE CREDIT

BENEFIT

Same as the Service Commuted Retirement, except benefit commences once the member reaches minimum retirement age and 25 years have elapsed from the date of full-time hire.

- For members hired into an OP&F-covered position after July 1, 2013, the minimum retirement age is 52.
- For members hired into an OP&F-covered position on or before July 1, 2013, the minimum retirement age is 48.

TERMINATION BEFORE RETIREMENT WITH LESS THAN 15 YEARS SERVICE CREDIT

BENEFIT

A lump sum amount equal to the sum of the member's contributions to OP&F.

DEFERRED RETIREMENT OPTION PLAN

ELIGIBILITY

When a member is eligible for a normal service retirement they can enter DROP by delaying retirement and continuing to work as a full-time police officer or firefighter.

- For members hired into an OP&F-covered position after July 1, 2013, normal service retirement eligibility is age 52 with at least 25 years of service credit.
- For members hired into an OP&F-covered position on or before July 1, 2013, normal service retirement eligibility is age 48 with at least 25 years of service credit.

BENEFIT

DROP is a cost neutral benefit offered by OP&F. Upon the DROP effective date, the member's pension is calculated as if that were their date of retirement. While the member continues to work and draw their normal salary, the amount they would have received in retirement benefits accumulates tax-deferred at OP&F on their behalf, as well as a portion of their OP&F employee contributions and interest. Since the member's pension has already been calculated:

- The years of DROP service do not apply towards the member's normal service retirement.
- If a member earns a higher salary after their DROP effective date due to a raise, job promotion, etc., it will not be used to recalculate their pension and, therefore, will not result in that member receiving a higher pension upon retirement.

The DROP interest rate is set by administrative rule and is subject to change at any time. OP&F credits interest to all DROP balances each month at a rate equal to the 10-year United States Treasury Note Business Day Series, as published by the U.S. Department of the Treasury, with a cap of five percent. This variable interest rate is adjusted quarterly to match the published 10-year U.S. Treasury Note rate for the last trading business day of the preceding quarter and is in effect for the subsequent quarter.

Members whose election to participate in DROP is effective after July 1, 2013 do not qualify for annual COLA at any time during DROP. Members whose election to participate in DROP is effective on or before July 1, 2013 will continue to receive a COLA during DROP, but only when they reach 55 years of age and have been participating in DROP for at least one year. Those members whose enrollment date into DROP qualify them for a COLA during DROP will receive three percent of their base pension.

Member contributions are credited to their DROP account based on the number of years of DROP service. For those members whose election to participate in DROP is effective after July 1, 2013, OP&F applies contributions to DROP in the following manner:

Years of DROP Service	Percentage of Member Contributions
Years 1-3	50% of member's contributions
Years 4-5	75% of member's contributions
Years 6-8	100% of member's contributions

For this group of members, the minimum participation in DROP, without penalty, is five years and the maximum is eight years.

- If a member terminates employment within the first five years of joining DROP, then the member forfeits all of their DROP interest. In addition to losing their accumulated interest, members who choose to terminate employment before completing their required participation period cannot withdraw any of the funds in their DROP account until the minimum participation period has expired. The only exception to this rule is if the member dies during the minimum participation period. The member's surviving spouse, designated beneficiary or estate, as applicable, will receive the entire DROP account balance determined at the time of death.
- If a member chooses to continue working after eight years in DROP, the member forfeits all DROP benefits and receives the Normal Service Retirement benefit upon retirement, which will be calculated to include the service credit earned during the DROP participation period.

For those members whose election to participate in DROP was on or before July 1, 2013, member contributions are applied to DROP under the following schedule:

Years of DROP Service	Percentage of Member Contributions
Years 1-2	50% of member's contributions
Year 3	75% of member's contributions
Years 4-8	100% of member's contributions

For this group of members, the minimum participation in DROP, without penalty, is three years and the maximum is eight.

- If a member terminates employment within the first three years of joining DROP, then the member forfeits all of their DROP interest. In addition to losing their accumulated interest, members who choose to terminate employment before completing their required participation period cannot withdraw any of the funds in their DROP account until the minimum participation period has expired. The only exception to this rule is if the member dies during the minimum participation period. The member's surviving spouse, designated beneficiary or estate, as applicable, will receive the entire DROP account balance determined at the time of death.

- If a member chooses to continue working after eight years in DROP, the member forfeits all DROP benefits and receives the Normal Service Retirement benefit upon retirement, which will be calculated to include the service credit earned during the DROP participation period.

All DROP members retiring before the eight-year max receive their Normal Service Retirement benefit determined at the time of DROP entry, with the COLA adjustment (if applicable) to date of retirement when eligible. These members will also receive the DROP account balance as a lump sum or monthly annuity.

If a member dies while participating in DROP, the member's surviving spouse, designated beneficiary or estate will receive the entire DROP account balance determined at the time of death. The surviving spouse or contingent dependent beneficiary will receive the greater of the retirement allowance made at the time of DROP entry or the Normal Service Retirement benefit paid with COLA adjustments (if applicable) to the date of death, paid as if the member had elected a 50 percent joint and survivor option at death. All other statutory death benefits will apply.

If the member becomes disabled while in DROP and has not terminated employment, the member must choose either to receive a disability benefit or a service retirement with DROP. If the member chooses the disability benefit, the member forfeits all DROP benefits and receives the disability benefit, with service credit during the DROP period included.

DISABILITY BENEFITS

Members who become unable to perform their official duties and whose earning capacities are impaired may qualify for disability benefits. Disability benefits are classified as either service-incurred (on-duty) or non-service-incurred (off-duty) and differ in eligibility requirements and benefit formulas. Annual medical evaluations are required for disability benefit recipients who would not have met the age and service requirements for a Normal Service Retirement, unless the Board of Trustee waives this requirement based upon an OP&F physician's certification that the disability is ongoing and further evaluation would not be cost effective. Annual earnings statements are also required to be submitted to OP&F.

PERMANENT AND TOTAL DISABILITY (ON-DUTY)

ELIGIBILITY

No age or service requirement.

BENEFIT

An annual benefit equal to 72 percent of the allowable average annual salary.

PARTIAL DISABILITY (ON-DUTY)

ELIGIBILITY

No age or service requirement.

BENEFIT

If the member has less than 25 years of service credit an annual benefit fixed by the Board of Trustees to be a certain percent up to 60 percent of the allowable average annual salary. If the member has 25 or more years of service credit, the annual disability benefit is equal to the Normal Service Retirement amount.

NON-SERVICE INCURRED DISABILITY (OFF-DUTY)

ELIGIBILITY

Any age and five years of service credit.

BENEFIT

An annual amount is the percent awarded by the Board of Trustees and may not exceed 60 percent of the allowable average annual salary. Service credit over 25 years cannot be used in calculating an off-duty disability award.

PRE–RETIREMENT SURVIVOR ANNUITY

ELIGIBILITY

Upon death before retirement, but after having satisfied the requirements for a Normal Service Retirement or an Age/Service Commuted retirement.

BENEFIT

The surviving spouse or contingent dependent beneficiary will receive the equivalent of a 50 percent joint and survivor annuity, calculated under the assumption that the decedent had retired effective the day following his/her death.

STATUTORY SURVIVOR BENEFITS

ELIGIBILITY

Upon death of any active or retired member of OP&F.

BENEFIT

Surviving Spouse's Benefit
An annual amount equal to $6,600 ($550 monthly), plus an annual COLA of three percent of the original base benefit, paid each July 1, beginning July 1, 2000. The benefit is paid to the surviving spouse for life.

If the spouse is receiving a full death benefit under the Death Fund Benefit statute, the spouse's statutory survivor benefit is $4,920 ($410 monthly). The Death Benefit Fund is funded by the State of Ohio and provides special benefits to eligible survivors of public safety officers who are killed in the line of duty or who die from injuries or disease incurred in the performance of official duties. These eligible survivors are entitled to receive the member's full monthly salary, which will be reduced at the member's retirement eligibility date. These death benefit payments are in addition to any optional payment plan benefits elected by the member.

Surviving Child's Benefit
An annual amount equal to $1,800 ($150 monthly), payable until such child attains age 18 or marries, whichever occurs first. The payment can continue to an unmarried full–time student until age 22. A dependent disabled child, regardless of age at time of member's death, is entitled to a benefit until death or recovery from disability. A COLA of three percent of the original base is payable each July 1.

Dependent Parents' Benefit
If there is no surviving spouse or dependent children, an annual amount of $2,400 ($200 monthly) is payable to one dependent parent or $1,200 ($100 monthly) each to two dependent parents for life or until dependency ceases or remarriage. A COLA of three percent of the original base is payable each July 1.

LUMP SUM DEATH BENEFIT

ELIGIBILITY

Upon death of any service or disability retiree of OP&F.

BENEFIT

A lump sum payment of $1,000 is paid to the member's surviving spouse or, if no surviving spouse, to a designated beneficiary. If there is no surviving spouse or beneficiary, then it is paid to the member's estate.

Survivors	Monthly Benefit	Causes of Termination
Widow / Widower	current amount + future COLA	• Death
Minor child	current amount + future COLA	• Death • Marriage • Attainment of age 18
Dependent disabled child	current amount + future COLA	• Death • Recovery from disability
Student	current amount + future COLA	• Death • Marriage • Attainment of age 22 • Loss of student status
One dependent parent	current amount + future COLA	• Death • Re-marriage • Termination of dependency
Two dependent parents	1/2 current amount (each) + future COLA	

Benefit Type	Base Monthly Benefit Amount	Base Monthly Benefit Amount Plus Increases Through July 1, 2015	Monthly Increase Effective July 1, 2015
Spouse *	$550	$809.60**	$16.50
Child	150	220.80***	4.50
One Parent	200	294.40****	6.00
Two Parents	100	147.20	3.00

* Spouse's benefit is $410 if spouse is receiving a full death benefit under the Death Fund Benefit statute. There is no annual increase on this benefit payment.

** On July 1, 2000 The Statutory Surviving Spouse Benefit increased by $12.10 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was $16.50 or three percent of the base benefit.

*** On July 1, 2000 The Statutory Surviving Child Benefit increased by $3.30 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was $4.50 or three percent of base benefit.

**** On July 1, 2000 The Statutory Surviving One Parent Benefit increased by $4.40 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was $6.00 or three percent of base benefit.

ANNUITIES

Effective Feb. 28, 1980, for those members who are retiring on either a service pension or a disability benefit, optional annuity plans can be chosen, subject to certain limitations. The member can elect actuarially reduced benefits under a joint and survivor annuity, life annuity certain and continuous, or multiple beneficiary annuity plan. The optional annuity plans allow the member's beneficiary(ies) to receive a lifetime payment upon the member's death.

ANNUITY TYPES

SINGLE LIFE ANNUITY

This plan pays the maximum retirement allowance that the member is entitled to receive and, upon the member's death, none of the pension or benefit is continued to any beneficiary. For unmarried members, this is the standard annuity plan. Married members may elect this plan only if the spouse consents to the selection in writing.

JOINT AND SURVIVOR ANNUITY (JSA)

Under this plan, a member designates that, upon his or her death, a certain percentage of the member's actuarially reduced benefit is continued to a surviving designated beneficiary for life. Any percentage between one percent and 100 percent of the member's reduced pension may be continued to the surviving designated beneficiary, but the percent continued may be limited based on the beneficiary's age.

If a member is married at the time benefits are elected, the standard plan is a 50 percent JSA continuing one-half of the member's reduced monthly benefit to his or her surviving spouse. If the member wants to select a plan which provides for the continuation of benefits for someone other than the spouse or less than 50 percent JSA to the spouse, the spouse must consent in writing to this choice. This plan automatically terminates upon death of the beneficiary, to be effective the month following OP&F's receipt of notice of death, or it may be cancelled upon divorce with the consent of the member's spouse or a specific court order, at which point the annuity reverts to the single life annuity to the member. Elected option may be cancelled within one year after benefits commence, with the consent of the beneficiary.

MULTIPLE BENEFICIARY ANNUITY

Under the multiple beneficiary annuity plan, a member may designate up to four beneficiaries at the time of retirement so that, upon death, a certain percentage of the member's actuarially reduced benefit is continued to the surviving designated beneficiaries for their lives. If the member is married at the time of retirement, the spouse must consent in writing for an annuity selection that provides for less than 50 percent JSA payable to the spouse.

LIFE ANNUITY CERTAIN AND CONTINUOUS (LACC)

This plan provides a lifetime allowance to the member and will only be paid to a designated beneficiary if the member dies and the period elected by the member has not expired. The minimum guarantee period is five years and the maximum is 20 years. 100 percent of the member's reduced pension continues to the beneficiary for the guarantee period selected. The elected option may be cancelled within one-year after benefits commence, with the consent of the beneficiary. If the member is married at the time of retirement, the spouse must consent in writing for an annuity selection that provides for less than a 50 percent JSA payable to the spouse.

TIERED RETIREMENT PLAN – COLA OR TERMINAL PAY (NON-COLA)

Members retiring on or after July 24, 1986, who had 15 or more years of service credit as of Jan. 1, 1989, are eligible to select between two different pension calculation plans. Under the terminal pay method, a member's monthly pension benefit is calculated using terminal payouts at the time of retirement such as accrued sick leave and vacation compensation to increase the amount of the average annual salary, but subject to certain limitations, and these members are not eligible to receive cost-of-living allowance adjustments. Under the COLA method, terminal payments are not included in the calculation of a member's average annual salary, but the member is eligible to receive COLA increases. The COLA method is the automatic calculation method for any active member with fewer than 15 years of service as of Jan. 1, 1989.

Under the COLA method, members who are at least 55 years old and have been receiving OP&F pension benefits for at least one year are eligible for cost-of-living allowance adjustments. The age 55 provision for receiving a COLA does not apply to those who are receiving a permanent and total disability benefit, surviving beneficiaries under optional plans and statutory survivors.

The COLA amount for members who have 15 or more years of service credit as of July 1, 2013 and members who are receiving a pension benefit that became effective before July 1, 2013 will be equal to three percent of the member's base pension benefit.

The COLA amount for members who have less than 15 years of service credit as of July 1, 2013, and members whose pension benefit became effective on or after July 1, 2013, will be equal to a percentage of the member's base pension benefit where the percentage is the lesser of three percent or the percentage increase in the consumer price index, if any, over the 12 month period that ends on the thirtieth day of September of the immediately preceding year, rounded to the nearest one-tenth of one percent.

Members who retired prior to July 24, 1986 or their surviving beneficiaries under optional plans are entitled to cost-of-living allowance increases. The annual increase is paid on July 1 each year. The annual COLA increase is $360 under a Single Life Annuity Plan with proportional reductions for optional payment plans.

RE-EMPLOYED RETIREE'S DEFINED CONTRIBUTION PLAN BENEFIT

Effective June 30, 1991, every person who is retired under an Ohio public pension plan and who is re-employed in an OP&F covered position must contribute to OP&F at the same rate as other police officers or firefighters. The employer pays the normal rate as well. If the re-employed member terminates employment before age 60, Ohio law allows the member to receive a lump sum payment of post-retirement employee contributions made during the period of re-employment, plus interest. If the member waits until age 60 to receive this benefit, he or she can choose to receive either a lump sum payment in an amount equal to twice his or her contributions, plus interest, or a lifetime annuity paid monthly. If, after calculation, the member's lifetime monthly annuity is less than $25, the member may only select the lump sum payment option. If the member is married, spousal consent is required before payment can occur.

GROUP HEALTH INSURANCE AND MEDICARE

Commencing Jan. 1, 1974, the Board of Trustees may contract for group health insurance on the basis of part or all of the cost of the premium for the coverage to be paid by OP&F. Medical and prescription drug coverage sponsored by OP&F are not vested rights and are subject to change at any time upon action of the Board of Trustees.

Effective Jan. 1, 1977, OP&F is mandated to pay the premium for supplemental Medicare (Part B) up to the statutory maximum provided the benefit recipient is not eligible for reimbursement from any other sources. By law, OP&F is required to pay monthly to each recipient of service benefits, disability benefits and survivor benefits not less than $96.40, with the exception that OP&F cannot pay an amount that exceeds the amount paid by the recipient for the coverage. Once OP&F obtains the proper documentation from the service retiree, disability retiree or surviving beneficiary of their enrollment in the Medicare program, Medicare (Part B) premium payments begin. Note: This benefit is not included in the principal valuation results, but is included in the retiree health care valuation results.

Effective July 1992, retirees and survivors make monthly medical benefit contributions, which are credited to the Health Care Stabilization Fund. These contributions are reviewed on an annual basis to determine adequacy with the rising cost of health care. In 2004, a new contribution strategy was implemented. Retirees and survivors now pay a percentage of the full cost of the benefit. The percentage ranges from 25 percent to 100 percent for themselves and dependents based on the year of retirement.

ANALYSIS OF FINANCIAL EXPERIENCE - PENSION TRUST FUND

GAINS AND LOSSES AS OF JAN. 1, 2016

Type of Activity	Experience Gain (Loss) 2016
Plan Experience:	
Turnover	
If more liabilities are released by withdrawal separations from active membership than assumed, there is a gain. If smaller releases, there is a loss.	$(1,786,735)
Retirement	
If members retire at older ages than assumed, there is a gain. If younger, there is a loss.	(4,939,352)
Death among retired members and beneficiaries	
If more deaths occur than assumed, there is a gain. If fewer deaths than assumed, there is a loss.	(16,176,502)
Disability Retirees	
If disability claims are less than assumed, there is a gain. If more claims, there is a loss.	25,587,040
Salary increase/decrease	
If there are smaller pay increases than assumed, there is a gain. If greater increases, there is a loss.	40,251,935
Return to work	
If participants return to work with previous service restored, there is a loss.	(1,215,348)
New Entrants	
If new entrants join OP&F, there is a loss.	(5,043,837)
Deaths among actives	
If claims costs are less than assumed, there is a gain. If more claims costs, there is a loss.	(2,396,203)
Investments	
If there is a greater investment return than assumed, there is a gain. If less return, there is a loss.	81,193,240
Other Experience and Payroll Growth	
If other experience, including less than expected payroll growth, increases the unfunded liability, there is a loss. Otherwise, there is a gain.	(2,481,749)
NET GAIN (OR LOSS) DURING THE YEAR DUE TO PLAN EXPERIENCE	**$112,992,489**

SHORT-TERM SOLVENCY TEST

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's valuation assets are compared with: 1) Active member contributions on deposit; 2) The liabilities for future benefits to present retired lives; 3) The liabilities for service already rendered by active members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funding portion of liability 3 will increase over time. Liability 3 being fully funded is very rare.

SHORT-TERM SOLVENCY TEST - PENSION TRUST FUND (DOLLARS IN THOUSANDS)

	Valuation as of Jan. 1	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Valuation Assets (1)	(2)	(3)
Police	2016	$1,386,649	$6,085,896	$3,002,889	$7,473,979	100%	100%	-%
Fire	2016	1,213,330	4,614,250	2,832,862	6,179,025	100%	100%	12%
Police	2015	1,210,400	5,857,146	3,015,390	7,141,575	100%	100%	2%
Fire	2015	1,062,097	4,337,819	2,912,741	5,887,716	100%	100%	17%
Police	2014	1,171,496	5,368,637	2,583,711	6,088,816	100%	92%	-%
Fire	2014	1,028,465	3,924,388	2,501,058	4,974,383	100%	100%	1%
Police	2013	1,131,664	5,166,808	2,532,580	5,670,069	100%	88%	-%
Fire	2013	974,362	3,751,279	2,451,195	4,607,962	100%	97%	-%
Police	2012	1,100,146	4,960,051	2,969,900	5,694,783	100%	93%	-%
Fire	2012	965,598	3,581,800	2,769,204	4,614,176	100%	100%	2%
Police	2011	1,100,251	4,368,659	3,008,219	5,885,449	100%	100%	14%
Fire	2011	956,559	3,132,521	2,818,228	4,795,563	100%	100%	25%

ACTIVE MEMBER VALUATION DATA - PENSION TRUST FUND

Valuation as of Jan. 1	Number of Employers		Number of Active Members*		Average Annual Salary		Percentage of Average Annual Salary Increases		Annual Payroll (Millions)
	Police	Fire	Police	Fire	Police	Fire	Police	Fire	
2016	527	388	14,846	12,778	$72,976	$74,229	4.2%**	4.2%**	$2,060.9
2015	529	388	14,919	12,850	70,033	71,228	1.9%	1.6%	1,986.6
2014	532	386	14,841	12,764	68,724	70,087	0.8%	1.0%	1,942.3
2013	531	380	14,745	12,699	68,163	69,360	1.6%	1.0%	1,913.4
2012	537	380	14,854	12,769	67,094	68,663	2.2%	1.6%	1,897.4
2011	533	384	15,293	12,929	65,649	67,559	2.0%	2.0%	1,868.5

* Includes rehired retirees.

** Beginning in 2016 salary includes an assumed 1.246 precent increase adjustment for anticipated late reported 2015 salaries that were not applied for prior years.

RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS - PENSION TRUST FUND (DOLLARS IN THOUSANDS)

	Added to rolls		Removed from rolls		Rolls end of year				
Year Ended Dec. 31	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	Percentage Change in Allowance	Average Annual Allowances	Percentage Change in Membership
2015	1,450	$48,864	1,011	$22,141	28,402	$975,929	4.81%	$34.36	1.57%
2014	1,261	41,378	859	17,204	27,963	931,176	4.59%	33.30	1.46%
2013	1,362	44,842	1,044	23,851	27,561	890,288	4.42%	32.30	1.17%
2012	1,390	48,249	1,225	19,469	27,243	852,602	5.58%	31.30	0.61%
2011	1,783	65,572	779	16,397	27,078	807,550	8.52%	29.82	3.85%
2010	1,165	34,553	803	15,721	26,074	744,144	4.74%	28.54	1.41%

CALCULATION OF ACTUARIAL VALUE ASSETS

Item						Amount
1. Market Value of Assets as of Dec. 31, 2015						$12,923,943,156
2. Determination of Deferred Gain (Loss)						
	Return on Market Value of Assets					
Year	Actual	Expected	Gain/(Loss)	Percentage Deferred	Deferred Amount	
2015	$(11,259,198)	$1,088,245,528	$(1,099,504,726)	75%	$(824,628,545)	
2014	786,522,451	1,065,611,384	(279,088,933)	50%	(139,544,467)	
2013	1,893,854,624	953,408,015	940,446,609	25%	235,111,652	
2012	1,531,042,478	878,042,138	653,000,340	-%	-	
	Total Deferred Gain (Loss)				(729,061,360)	
	Total Deferred Gain (Loss)					(729,061,360)
3. Adjustment for 20 percent corridor						–
4. Actuarial Value of Assets available for benefits (1) - (2) + (3)						$13,653,004,516

EMPLOYER CONTRIBUTION RATES (1967 - PRESENT)*

	Employer Rates	
Time Frame of Rates	Police	Fire
Jan. 1, 1986 thru Present	19.50%	24.00%
Jan. 1, 1985 thru Dec. 31, 1985	20.03%	24.59%
Jan. 1, 1984 thru Dec. 31, 1984	21.35%	24.59%
Jan. 1, 1983 thru Dec. 31, 1983	18.45%	23.57%
Jan. 1, 1982 thru Dec. 31, 1982	16.62%	22.39%
Jan. 1, 1981 thru Dec. 31, 1981	15.60%	20.72%
Jan. 1, 1980 thru Dec. 31, 1980	15.70%	19.87%
Jan. 1, 1979 thru Dec. 31, 1979	18.40%	20.11%
Jan. 1, 1978 thru Dec. 31, 1978	17.53%	18.90%
Jan. 1, 1977 thru Dec. 31, 1977	15.34%	16.77%
Jan. 1, 1976 thru Dec. 31, 1976	14.02%	15.57%
Jan. 1, 1975 thru Dec. 31, 1975	12.49%	13.78%
Jan. 1, 1974 thru Dec. 31, 1974	12.88%	13.60%
Jan. 1, 1973 thru Dec. 31, 1973	12.85%	13.41%
Jan. 1, 1972 thru Dec. 31, 1972	12.96%	13.26%
Jan. 1, 1971 thru Dec. 31, 1971	12.81%	12.96%
Jan. 1, 1970 thru Dec. 31, 1970	15.52%	15.52%
Jan. 1, 1969 thru Dec. 31, 1969	14.68%	14.49%
Jan. 1, 1968 thru Dec. 31, 1968	13.66%	13.50%
Jan. 1, 1967 thru Dec. 31, 1967	13.55%	13.13%

* For employer billing purposes, the September 1988 billing was carried through Sept. 30, 1988 and was not cut off at Sept. 8, 1988. The same goes for the employee rates for the most part.

MEMBER CONTRIBUTION RATES

	Member Rates	
Time Frame of Rates	Police	Fire
July 2, 2015 and thereafter	12.25%	12.25%
July 2, 2014 thru July 1, 2015	11.50%	11.50%
July 2, 2013 thru July 1, 2014	10.75%	10.75%
Sept. 9, 1988 thru July 1, 2013	10.00%	10.00%
Aug. 1, 1986 thru Sept. 8, 1988	9.50%	9.50%
March 1, 1980 thru July 31, 1986	8.50%	8.50%
Jan. 1, 1968 thru Feb. 28, 1980	7.00%	7.00%
Jan. 1, 1967 thru Dec. 31, 1967	6.00%	6.00%

SCHEDULE OF FUNDING PROGRESS

FOR THE VALUATION YEAR ENDING JAN. 1, 2016

PENSION TRUST FUND (DOLLARS IN MILLIONS)*

Valuation Year Jan. 1	Valuation Assets*	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$13,653.0	$19,135.9	$5,482.9	71.3%	$2,060.9	266.1%
2015	13,029.3	18,395.6	5,366.3	70.8%	1,986.6	270.1%
2014	11,063.2	16,577.8	5,514.6	66.7%	1,942.3	283.9%
2013	10,278.0	16,007.9	5,729.9	64.2%	1,913.4	299.5%
2012	10,309.0	16,346.7	6,037.7	63.1%	1,897.4	318.2%
2011	10,681.0	15,384.4	4,703.4	69.4%	1,868.5	251.7%

* The amounts reported in this schedule do not include assets or liabilities for post-employment health care benefits.

RETIREE HEALTH CARE TRUST FUND (DOLLARS IN MILLIONS)

Valuation Year Jan. 1	Valuation Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$929.4	$5,166.6	$4,237.2	18.0%	$2,060.9	205.6%
2015	1,031.9	5,399.6	4,367.7	19.1%	1,986.6	219.9%
2014	1,053.5	5,244.5	4,191.0	20.1%	1,942.3	215.8%
2013	935.6	4,234.8	3,299.2	22.1%	1,913.4	172.5%
2012	780.1	3,698.7	2,918.6	21.1%	1,897.4	153.8%
2011	717.7	3,295.3	2,577.6	21.8%	1,868.5	137.9%

SHORT-TERM SOLVENCY TEST - RETIREE HEALTH CARE TRUST FUND (DOLLARS IN THOUSANDS)

Valuation Year Jan. 1	(1) Active Member Contributions	(2) Retirees, Survivors, and Inactive Members	(3) Employer-Financed Portion of Active Members	Reported Assets	Portion of Actuarial Accrued Liabilities Covered By Valuation Assets: Liability (1)	Liability (2)	Liability (3)
2016	$–	$2,408,594	$2,757,987	$929,362	-%	38.59%	-%
2015	–	2,551,196	2,848,354	1,031,942	-%	40.45%	-%
2014	–	2,571,338	2,673,221	1,053,534	-%	40.97%	-%
2013	–	2,280,017	1,954,750	935,605	-%	41.04%	-%
2012	–	2,180,929	1,517,848	780,142	-%	35.77%	-%
2011	–	1,615,031	1,680,282	717,730	-%	44.44%	-%

RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS - RETIREE HEALTH CARE TRUST FUND (DOLLARS IN THOUSANDS)

	Added to Rolls		Removed from Rolls		Rolls End of Year			
Year Beginning Jan. 1	Number	Annual Subsidy	Number	Annual Subsidy	Number	Annual Subsidy	Average Annual Subsidy	Increase in Average Subsidy
2015	1,837	$9,962	2,340	$11,373	26,319	$142,730	$5.423	$0.563
2014	1,845	8,967	1,817	8,509	26,822	130,360	4.860	0.177
2013	1,710	8,008	1,639	7,540	26,794	125,482	4.683	0.083
2012	2,361	10,862	1,682	7,397	26,723	122,943	4.601	0.203
2011	2,241	9,855	1,593	6,378	26,044	114,528	4.397	0.394
2010	1,579	6,322	1,491	6,497	25,396	101,679	4.004	(0.354)

ANALYSIS OF FINANCIAL EXPERIENCE - RETIREE HEALTH CARE TRUST FUND

GAINS AND LOSSES AS OF JAN. 1, 2016

Type of Activity	Experience Gain (Loss) Jan. 1, 2016
Plan experience:	
Turnover	
If more liabilities are released by withdrawal separations from active membership than assumed, there is a gain. If smaller releases, there is a loss.	$2,320,811
Retirement	
If members retire at older ages than assumed, there is a gain. If younger, there is a loss.	(6,511,136)
Disability Retirement	
If disability claims are less than assumed, there is a gain. If more claims, there is a loss.	17,330,292
New Entrants	
If new entrants join OP&F, there is a loss.	(1,367,379)
Deaths	
If more deaths occur than assumed, there is a gain. If fewer deaths than assumed, there is a loss.	71,720,007
Claims Costs	
If per capita costs or trend rates are less than assumed, there is a gain. Otherwise there is a loss.	88,639,515
Investment	
If there is a greater investment return than assumed, there is a gain. If less return, there is a loss.	(34,862,262)
Other Experience	
If all other experience, including but not limited to data changes, increases the unfunded liability,	(67,752,829)
NET GAIN (OR LOSS) DURING THE YEAR DUE TO PLAN EXPERIENCE	**69,517,019**
Plan changes adopted in 2016	**409,364,646**
Changes in assumed per capita aging table Jan. 1, 2016	**38,043,724**
TOTAL NET GAIN (OR LOSS)	**$516,925,389**

STATISTICAL

STATISTICAL OBJECTIVES

STATISTICAL OBJECTIVES

The objectives of the statistical section are to provide additional historical perspective, context and relevant details to assist readers in using information in the financial statements, notes to the financial statements and RSI in order to understand and assess OP&F's overall financial condition. In support of these objectives, OP&F reports information in this section in compliance with GASB Statement 44, Economic Condition Reporting: The Statistical Section. This statement establishes standardized reporting requirements relative to the supplementary information provided in this section.

The schedules that follow show financial trend information about the growth of OP&F's assets for the past 10 years. These schedules provide detailed information about the trends of key sources of additions and deductions to OP&F's assets, which assist in providing a context framing how OP&F's financial position has changed over time. The financial trend schedules presented are:

- Changes in Fiduciary Net Position.
- Revenues by Source.
- Expenses by Type.
- Benefit Expenses by Type.
- DROP Program Balances.

The schedules beginning on page 104 show revenue capacity information, demographic and economic information and operating information. The demographic and economic information is designed to assist in understanding the environment in which OP&F operates. The operating information is intended to provide contextual information about OP&F's operations to assist in assessing OP&F's economic condition. The revenue capacity information, the demographic and economic information and the operating information presented include:

- Active Member and Total Payroll Base Statistics.
- Active Membership Data.
- Retired Membership by Type of Benefits.
- Retirees and Beneficiaries Statistics.
- Average Monthly Benefit Payments.
- Member Health Care Contributions.
- State of Ohio Subsidy Payments.
- Employer Contribution Rates.
- Member Contribution Rates.
- Health Care Allocation Rates from Employer Contributions.
- OP&F's Cost of Living Allowance (COLA) History.
- Actuarial Interest Rates.
- DROP and Reemployed Interest Rates.
- DROP Member Count Roll Forward.
- Actuarial Valuation Information – Pension Trust Fund.
- Actuarial Valuation Information – Retiree Health Care Trust Fund.
- Historical Annual Investment Results.
- Number of Employer Units.
- Retired Membership by type of Benefits and Average Annual Allowance.
- Schedule of Average Benefits.
- Principal Participating Employers.
- OP&F Employee Budgeted Position Counts.
- Personnel Salaries by Year.
- OP&F Budget.
- Other Operating Statistics.
- Death Benefit Fund.
- Economic Impact.

To help readers of this CAFR, OP&F has added a List of Professional Acronyms and Symbols at the end of the statistical section.

FINANCIAL TRENDS

CHANGES IN FIDUCIARY NET POSITION

COMBINED TRUST FUND (DOLLARS IN MILLIONS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Additions										
Employer Contributions	$465.4	$438.7	$427.8	$418.2	$417.0	$407.5	$414.0	$404.3	$405.9	$400.0
Member Contributions and Purchases	268.6	245.8	224.0	211.4	177.5	176.8	175.5	168.4	172.5	165.1
Investment Income	1,317.4	(10.0)	860.7	2,053.0	1,657.9	229.6	1,651.8	1,894.9	(3,832.9)	1,163.1
Health Care Contributions	73.2	71.2	70.0	66.6	65.1	62.5	58.9	59.1	57.0	56.0
Other Revenues	36.3	29.2	25.2	28.5	30.7	40.5	25.8	24.3	26.0	22.3
TOTAL ADDITIONS	**2,160.9**	**774.9**	**1,607.7**	**2,777.7**	**2,348.2**	**916.9**	**2,326.0**	**2,551.0**	**(3,171.5)**	**1,806.5**
Deductions										
Benefit Payments	1,396.4	1,369.9	1,310.5	1,302.5	1,236.4	1,204.2	1,132.1	1,085.1	1,021.0	965.0
Refund of Member Contributions	14.2	13.8	15.2	16.0	26.5	22.0	15.8	15.7	17.7	15.1
Administrative and Other Expenses	19.6	16.3	16.2	15.9	15.4	15.4	15.1	16.3	16.0	16.3
TOTAL DEDUCTIONS	**1,430.2**	**1,400.0**	**1,341.9**	**1,334.4**	**1,278.3**	**1,241.6**	**1,163.0**	**1,117.1**	**1,054.7**	**996.4**
CHANGES IN FIDUCIARY NET POSITION	**730.7**	**(625.1)**	**265.8**	**1,443.3**	**1,069.9**	**(324.7)**	**1,163.0**	**1,433.9**	**(4,226.2)**	**810.1**
FIDUCIARY NET POSITION – BEGINNING OF YEAR	**13,853.3**	**14,478.4***	**14,219.6**	**12,776.3****	**10,468.5**	**10,793.2**	**9,630.2**	**8,196.3**	**12,422.5**	**11,612.4**
FIDUCIARY NET POSITION – END OF YEAR	**$14,584.0**	**$13,853.3**	**$14,485.4**	**$14,219.6**	**$11,538.4**	**$10,468.5**	**$10,793.2**	**$9,630.2**	**$8,196.3**	**$12,422.5**
Reserve Fund Balances										
Employers' Contribution Reserves	$1,155.8	$1,058.3	$2,701.1	$2,907.9	$873.8	$901.6	$1,515.9	$674.6	$(524.8)	$3,998.7
Members' Contribution Reserves	2,728.1	2,600.0	2,491.3	2,393.7	2,122.8	2,065.8	2,056.8	1,983.2	1,901.3	1,815.6
Health Care Contribution Reserves	901.6	929.4	1,031.9	1,053.5	935.6	780.1	717.7	573.4	438.7	527.0
Pension Reserves	9,798.5	9,265.6	8,261.1	7,864.5	7,606.2	6,721.0	6,502.8	6,399.0	6,381.1	6,081.2
TOTAL FIDUCIARY NET POSITION	**$14,584.0**	**$13,853.3**	**$14,485.4**	**$14,219.6**	**$11,538.4**	**$10,468.5**	**$10,793.2**	**$9,630.2**	**$8,196.3**	**$12,422.5**

* Net Position was restated due to the implementation of GASB 68 during 2015.

** Net Position was restated due to the implementation of GASB 67 during 2014.

CHANGES IN FIDUCIARY NET POSITION

PENSION TRUST FUND (DOLLARS IN MILLIONS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Additions										
Employer Contributions	$454.7	$428.5	$418.0	$349.5	$286.7	$278.2	$285.2	$277.7	$276.4	$278.3
Member Contributions and Purchases	268.6	245.8	224.0	211.4	177.5	176.8	175.5	168.4	172.5	165.1
Investment Income	1,232.6	(16.7)	779.8	1,893.9	1,531.0	210.6	1,551.3	1,791.3	(3,697.1)	1,113.1
Health Care Contributions	-	-	-	-	-	-	-	-	-	-
Other Revenues	8.4	5.9	7.2	12.9	9.5	11.9	9.1	9.5	10.7	8.7
TOTAL ADDITIONS	**1,964.3**	**663.5**	**1,429.0**	**2,467.7**	**2,004.7**	**677.5**	**2,021.1**	**2,246.9**	**(3,237.5)**	**1,565.2**
Deductions										
Benefit Payments	1,172.8	1,156.7	1,110.9	1,111.2	1,049.0	1,027.9	972.2	916.4	867.6	815.8
Refund of Member Contributions	14.2	13.8	15.2	16.0	26.5	22.0	15.8	15.7	17.7	15.1
Administrative and Other Expenses	18.8	15.6	15.5	15.1	14.8	14.7	14.4	15.6	15.1	14.6
TOTAL DEDUCTIONS	**1,205.8**	**1,186.1**	**1,141.6**	**1,142.3**	**1,090.3**	**1,064.6**	**1,002.4**	**947.7**	**900.4**	**845.5**
CHANGES IN FIDUCIARY NET POSITION	**758.5**	**(522.6)**	**287.4**	**1,325.4**	**914.4**	**(387.1)**	**1,018.7**	**1,299.2**	**(4,137.9)**	**719.7**
FIDUCIARY NET POSITION – BEGINNING OF YEAR	**12,923.9**	**13,446.5***	**13,166.1**	**11,840.7****	**9,688.4**	**10,075.5**	**9,056.8**	**7,757.6**	**11,895.5**	**11,175.8**
FIDUCIARY NET POSITION – END OF YEAR	**$13,682.4**	**$12,923.9**	**$13,453.5**	**$13,166.1**	**$10,602.8**	**$9,688.4**	**$10,075.5**	**$9,056.8**	**$7,757.6**	**$11,895.5**
Reserve Fund Balances:										
Employers' Contribution Reserves	$1,155.8	$1,058.3	$2,701.1	$2,907.9	$873.8	$901.6	$1,515.9	$674.6	$(524.8)	$3,998.7
Members' Contribution Reserves	2,728.1	2,600.0	2,491.3	2,393.7	2,122.8	2,065.8	2,056.8	1,983.2	1,901.3	1,815.6
Pension Reserves	9,798.5	9,265.6	8,261.1	7,864.5	7,606.2	6,721.0	6,502.8	6,399.0	6,381.1	6,081.2
TOTAL FIDUCIARY NET POSITION	**$13,682.4**	**$12,923.9**	**$13,453.5**	**$13,166.1**	**$10,602.8**	**$9,688.4**	**$10,075.5**	**$9,056.8**	**$7,757.6**	**$11,895.5**

* Net Position was restated due to the implementation of GASB 68 during 2015.

** Net Position was restated due to the implementation of GASB 67 during 2014.

CHANGES IN FIDUCIARY NET POSITION

RETIREE HEALTH CARE TRUST FUND (DOLLARS IN MILLIONS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Additions										
Employer Contributions	$10.7	$10.2	$9.8	$68.7	$130.3	$129.3	$128.8	$126.6	$129.5	$121.7
Member Contributions and Purchases	-	-	-	-	-	-	-	-	-	-
Investment Income	84.8	6.7	80.9	159.1	126.9	19.0	100.5	103.6	(135.8)	50.0
Health Care Contributions	73.2	71.2	70.0	66.6	65.1	62.5	58.9	59.1	57.0	56.0
Other Revenues	27.9	23.3	18.0	15.6	21.2	28.6	16.7	14.8	15.3	13.6
TOTAL ADDITIONS	**196.6**	**111.4**	**178.7**	**310.0**	**343.5**	**239.4**	**304.9**	**304.1**	**66.0**	**241.3**
Deductions										
Benefit Payments	223.6	213.2	199.6	191.3	187.4	176.3	159.9	168.7	153.4	149.2
Refund of Member Contributions	-	-	-	-	-	-	-	-	-	-
Administrative and Other Expenses	0.8	0.7	0.7	0.8	0.6	0.7	0.7	0.7	0.9	1.7
TOTAL DEDUCTIONS	**224.4**	**213.9**	**200.3**	**192.1**	**188.0**	**177.0**	**160.6**	**169.4**	**154.3**	**150.9**
CHANGES IN FIDUCIARY NET POSITION	**(27.8)**	**(102.5)**	**(21.6)**	**117.9**	**155.5**	**62.4**	**144.3**	**134.7**	**(88.3)**	**90.4**
FIDUCIARY NET POSITION – BEGINNING OF YEAR	**929.4**	**1,031.9**	**1,053.5**	**935.6**	**780.1**	**717.7**	**573.4**	**438.7**	**527.0**	**436.6**
FIDUCIARY NET POSITION – END OF YEAR	**$901.6**	**$929.4**	**$1,031.9**	**$1,053.5**	**$935.6**	**$780.1**	**$717.7**	**$573.4**	**$438.7**	**$527.0**
Reserve Fund Balances										
Health Care Contribution Reserves	$901.6	$929.4	$1,031.9	$1,053.5	$935.6	$780.1	$717.7	$573.4	$438.7	$527.0
TOTAL FIDUCIARY NET POSITION	**$901.6**	**$929.4**	**$1,031.9**	**$1,053.5**	**$935.6**	**$780.1**	**$717.7**	**$573.4**	**$438.7**	**$527.0**

REVENUES BY SOURCE (DOLLARS IN MILLIONS)

Year	Employer Contributions	Member Contributions and Purchases	Employer Contributions as a Percentage of Covered Payroll	Investment and Securities Lending Income	Health Care Contributions	Other Revenues	Total Revenues
2016	$465.4	$268.6	22.6%	$1,317.4	$73.2	$36.3	$2,160.9
2015	438.7	245.8	22.1%	(10.0)	71.2	29.2	774.9
2014	427.8	224.0	22.0%	860.7	70.0	25.2	1,607.7
2013	418.2	211.4	21.9%	2,053.0	66.6	28.5	2,777.7
2012	417.0	177.5	22.0%	1,657.9	65.1	30.7	2,348.2
2011	407.5	176.8	21.8%	229.6	62.5	40.5	916.9
2010	414.0	175.5	21.8%	1,651.8	58.9	25.8	2,326.0
2009	404.3	168.4	21.3%	1,894.9	59.1	24.3	2,551.0
2008	405.9	172.5	22.2%	(3,832.9)	57.0	26.0	(3,171.5)
2007	400.0	165.1	22.4%	1,163.1	56.0	22.3	1,806.5

EXPENSES BY TYPE (DOLLARS IN MILLIONS)

Year	Benefit Payments	Refund of Member Contributions	Administrative and Other Expenses	Total Expenses
2016	$1,396.4	$14.2	$19.6	$1,430.2
2015	1,369.9	13.8	16.3	1,400.0
2014	1,310.5	15.2	16.2	1,341.9
2013	1,302.5	16.0	15.9	1,334.4
2012	1,236.4	26.5	15.4	1,278.3
2011	1,204.2	22.0	15.4	1,241.6
2010	1,132.1	15.8	15.1	1,163.0
2009	1,085.1	15.7	16.3	1,117.1
2008	1,021.0	17.7	16.0	1,054.7
2007	965.0	15.1	16.3	996.4

BENEFIT EXPENSES BY TYPE (DOLLARS IN MILLIONS)

Year	Service	Disability	Health Care	Survivor	DROP	Total Benefits
2016	$672.6	$248.9	$223.6	$84.6	$166.7	$1,396.4
2015	631.6	245.7	213.2	82.1	197.3	1,369.9
2014	598.8	242.1	199.6	79.6	190.4	1,310.5
2013	563.2	239.0	191.3	76.8	232.2	1,302.5
2012	529.9	232.8	187.4	74.2	212.1	1,236.4
2011	490.2	225.0	176.3	71.6	241.1	1,204.2
2010	444.4	217.8	159.9	69.0	241.0	1,132.1
2009	423.7	211.1	168.8	66.1	215.4	1,085.1
2008	407.4	202.2	153.4	63.1	194.9	1,021.0
2007	391.5	191.7	149.2	60.6	172.0	965.0

DROP PROGRAM BALANCES (DOLLARS IN MILLIONS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Police										
DROP Program Beginning Balance	$721.9	$687.8	$661.0	$666.5	$694.7	$650.8	$544.9	$436.9	$337.8	$246.8
Accrued Pension and COLA	108.2	103.0	97.6	95.4	90.7	92.3	98.3	92.4	86.4	80.3
Accrued Member Share Contributions	18.7	15.2	12.3	11.9	11.3	11.7	12.5	13.0	11.8	12.1
Accrued Interest	13.8	14.6	15.1	14.2	17.8	32.2	29.2	23.9	18.7	14.2
Withdrawals	(92.0)	(98.7)	(98.2)	(127.0)	(148.0)	(92.3)	(34.1)	(21.3)	(17.8)	(15.6)
DROP PROGRAM ENDING BALANCE - POLICE	**770.6**	**721.9**	**687.8**	**661.0**	**666.5**	**694.7**	**650.8**	**544.9**	**436.9**	**337.8**
Fire										
DROP Program Beginning Balance	641.0	616.4	584.6	571.4	593.1	536.2	441.4	344.5	257.3	180.0
Accrued Pension and COLA	101.3	101.3	97.8	94.0	88.4	89.3	89.6	80.0	75.0	66.9
Accrued Member Share Contributions	17.2	14.9	12.9	12.0	11.0	11.2	11.2	11.3	10.0	9.5
Accrued Interest	12.2	13.1	13.3	12.4	15.2	27.3	23.8	19.2	14.7	10.6
Withdrawals	(79.5)	(104.7)	(92.2)	(105.2)	(136.3)	(70.9)	(29.8)	(13.6)	(12.5)	(9.7)
DROP PROGRAM ENDING BALANCE - FIRE	**692.2**	**641.0**	**616.4**	**584.6**	**571.4**	**593.1**	**536.2**	**441.4**	**344.5**	**257.3**
Combined Police and Fire										
DROP Program Beginning Balance	1,362.9	1,304.2	1,245.6	1,237.9	1,287.8	1,187.0	986.3	781.4	595.1	426.8
Accrued Pension and COLA	209.5	204.3	195.4	189.4	179.1	181.6	187.9	172.4	161.4	147.2
Accrued Member Share Contributions	35.9	30.1	25.2	23.9	22.3	22.9	23.7	24.3	21.8	21.6
Accrued Interest	26.0	27.7	28.4	26.6	33.0	59.5	53.0	43.1	33.4	24.8
Withdrawals and Adjustments	(171.5)	(203.4)	(190.4)	(232.2)	(284.3)	(163.2)	(63.9)	(34.9)	(30.3)	(25.3)
DROP PROGRAM ENDING BALANCE	**$1,462.8**	**$1,362.9**	**$1,304.2**	**$1,245.6**	**$1,237.9**	**$1,287.8**	**$1,187.0**	**$986.3**	**$781.4**	**$595.1**

REVENUE CAPACITY INFORMATION

ACTIVE MEMBER AND TOTAL PAYROLL BASE STATISTICS (DOLLARS IN MILLIONS)

10-YEAR HISTORY OF MEMBERSHIP DATA*

Year	Payroll Base	Member Contributions	Number of Members*	Percentage Change in Payroll Base	Percentage Change in Member Contributions	Percentage Change in Members
2016	$2,060.9	$268.6	27,624	3.7%	9.3%	(0.5)%
2015	1,986.6	245.8	27,769	2.3%	9.7%	0.6%
2014	1,942.3	224.0	27,605	1.5%	6.0%	0.6%
2013	1,913.4	211.4	27,444	0.8%	19.1%	(0.6)%
2012	1,897.4	177.5	27,623	1.5%	0.4%	(2.1)%
2011	1,868.5	176.8	28,222	(1.4)%	0.7%	(1.4)%
2010	1,895.2	175.5	28,619	(0.3)%	4.2%	(1.5)%
2009	1,900.9	168.4	29,062	3.8%	(2.4)%	0.7%
2008	1,831.4	172.5	28,864	2.7%	4.5%	0.9%
2007	1,782.9	165.1	28,609	1.5%	(1.4)%	2.1%

* Includes rehired retirees.

ACTIVE MEMBERSHIP DATA

NUMBER AND ALLOWABLE AVERAGE ANNUAL SALARY AS OF JAN. 1, 2016*

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
Under 25	612									612
	$49,201									$49,201
25-29	2,278	305								2,583
	$55,503	$70,853								$57,315
30-34	1,564	1,620	390	3						3,577
	$57,659	$71,681	$75,801	$81,826						$66,008
35-39	673	1,028	1,497	659	2					3,859
	$56,683	$71,193	$76,475	$78,846	$82,889					$72,024
40-44	214	445	1,093	2,335	688	10				4,785
	$54,201	$69,792	$74,157	$78,316	$83,418	$81,512				$76,235
45-49	90	193	532	1,535	2,206	858	17			5,431
	$53,318	$66,725	$72,151	$76,310	$82,541	$86,197	$85,074			$79,301
50-54	35	61	180	488	1,096	1,690	517	12		4,079
	$58,469	$65,133	$69,963	$76,276	$79,288	$84,463	$86,789	$89,696		$81,251
55-59	19	24	60	153	360	616	587	78	3	1,900
	$45,276	$62,987	$66,644	$74,047	$76,427	$80,130	$85,600	$89,379	$73,360	$80,006
60-64	9	11	16	37	101	154	157	42	9	536
	$60,837	$52,550	$72,877	$71,538	$72,406	$77,119	$82,186	$88,607	$84,863	$77,456
Over 64	2	3	7	6	14	20	14	6	12	84
	$52,856	$72,970	$71,261	$62,983	$70,907	$71,008	$76,118	$78,999	$88,339	$73,975
TOTAL	5,496	3,690	3,775	5,216	4,467	3,348	1,292	138	24	27,446
	$55,464	$70,769	$74,633	$77,413	$81,120	$83,683	$85,551	$88,721	$85,163	$73,557

* Excludes rehired retirees.

RETIRED MEMBERSHIP BY TYPE OF BENEFITS (SOURCE: ACTUARIAL VALUATION)

	Service		Survivors		Disability		Total
Year	Police	Fire	Police	Fire	Police	Fire	Beneficiaries
2016	8,048	6,207	4,424	3,406	3,754	2,563	28,402
2015	7,842	5,972	4,403	3,386	3,784	2,576	27,963
2014	7,623	5,784	4,395	3,351	3,820	2,588	27,561
2013	7,459	5,683	4,352	3,321	3,834	2,594	27,243
2012	7,204	5,540	4,543	3,389	3,825	2,577	27,078
2011	6,762	5,185	4,479	3,310	3,772	2,566	26,074
2010	6,619	5,108	4,416	3,268	3,762	2,539	25,712
2009	6,546	5,060	4,300	3,194	3,721	2,496	25,317
2008	6,523	5,036	4,090	3,077	3,682	2,470	24,878
2007	6,459	5,012	4,067	3,115	3,594	2,436	24,683

RETIREES AND BENEFICIARIES STATISTICS (DOLLARS IN MILLIONS)

Year	Benefit Payments*	Refunds	Total Payments*	Number of Benefit Recipients**	Percentage Change in Benefit Recipients	Percentage Change Total Benefit Payments
2016	$1,172.8	$14.3	$1,187.1	28,638	1.8%	1.4%
2015	1,156.7	13.8	1,170.5	28,143	1.6%	3.9%
2014	1,110.9	15.2	1,126.1	27,703	1.2%	(0.1)%
2013	1,111.2	16.0	1,127.2	27,380	0.7%	4.8%
2012	1,049.0	26.5	1,075.5	27,184	3.7%	2.4%
2011	1,027.9	22.0	1,049.9	26,225	1.4%	6.3%
2010	972.2	15.8	988.0	25,853	1.6%	6.0%
2009	916.4	15.7	932.1	25,439	1.7%	5.3%
2008	867.6	17.7	885.3	25,013	0.7%	6.5%
2007	815.8	15.1	830.9	24,831	0.3%	6.0%

* Excludes health care benefits.
** Includes terminated employees entitled to benefits but not yet receiving them.

AVERAGE MONTHLY BENEFIT PAYMENTS ** for members placed on Retirement Rolls*

SERVICE RETIREMENT

Year	Normal	Service Commuted	Age Commuted	Age / Service
2016	$3,681	$1,444	$-	$2,724
2015	3,651	1,522	-	2,707
2014	3,606	1,698	-	2,455
2013	3,530	1,292	-	2,590
2012	3,466	1,241	-	2,341
2011	3,442	1,282	-	2,699
2010	3,339	1,374	-	3,016
2009	3,301	1,460	-	2,359
2008	3,266	1,222	-	2,315
2007	3,251	1,265	-	1,928

DISABILITY RETIREMENT*

Year	Permanent and Total	Permanent and Total Presumptive	Partial	Partial Presumptive	Off Duty
2016	$4,681	$4,074	$2,882	$3,047	$2,563
2015	3,864	3,602	2,757	3,239	2,647
2014	3,642	4,252	3,040	3,147	2,258
2013	3,997	5,038	2,865	2,599	2,731
2012	4,276	3,717	2,928	3,338	2,770
2011	3,838	3,870	2,963	2,983	2,510
2010	3,495	3,886	2,827	3,659	2,785
2009	3,626	3,810	2,807	2,966	2,697
2008	3,509	3,424	2,874	2,696	2,511
2007	3,301	3,611	2,846	2,959	2,634

* Source: Numbers calculated by taking an average of final placements for retirees as listed in OP&F Board of Trustees monthly reports.

MEMBER HEALTH CARE CONTRIBUTIONS (DOLLARS IN MILLIONS)

Year	Contributions	Percentage Change in Contributions Received	Number of Covered Lives*	Health Care Benefit Payments	Percentage of Benefit Payments Covered by Member Contributions	Net Benefit Payment Per Covered Life
2016	$73.2	3%	26,319	$223.6	33%	$0.00571
2015	71.2	2%	26,822	213.2	33%	0.00529
2014	70.0	5%	26,794	199.6	35%	0.00484
2013	66.6	2%	26,723	191.3	35%	0.00467
2012	65.1	4%	26,044	187.4	35%	0.00470
2011	62.5	6%	25,396	176.3	35%	0.00448
2010	58.9	-%	25,308	159.9	37%	0.00399
2009	59.1	4%	25,366	168.7	35%	0.00432
2008	57.0	2%	26,786	153.4	37%	0.00360
2007	56.0	(5)%	26,787	149.2	38%	0.00348

* In 2012 OP&F restated the number of covered lives column using Buck Consultants, LLC actuarially certified number of covered lives.

STATE OF OHIO SUBSIDY PAYMENTS

Year	Subsidy Amount	Percentage Change
2016	$398,161	(11)%
2015	446,735	(11)%
2014	500,152	(6)%
2013	530,573	(9)%
2012	580,657	(9)%
2011	639,099	(8)%
2010	692,634	(11)%
2009	782,060	(9)%
2008	856,413	(12)%
2007	968,373	(10)%

EMPLOYER CONTRIBUTION RATES (1967–PRESENT)*

	Employer Rates	
Time Frame of Rates	Police	Fire
Jan. 1, 1986 thru Present	19.50%	24.00%
Jan. 1, 1985 thru Dec. 31, 1985	20.03%	24.59%
Jan. 1, 1984 thru Dec. 31, 1984	21.35%	24.59%
Jan. 1, 1983 thru Dec. 31, 1983	18.45%	23.57%
Jan. 1, 1982 thru Dec. 31, 1982	16.62%	22.39%
Jan. 1, 1981 thru Dec. 31, 1981	15.60%	20.72%
Jan. 1, 1980 thru Dec. 31, 1980	15.70%	19.87%
Jan. 1, 1979 thru Dec. 31, 1979	18.40%	20.11%
Jan. 1, 1978 thru Dec. 31, 1978	17.53%	18.90%
Jan. 1, 1977 thru Dec. 31, 1977	15.34%	16.77%
Jan. 1, 1976 thru Dec. 31, 1976	14.02%	15.57%
Jan. 1, 1975 thru Dec. 31, 1975	12.49%	13.78%
Jan. 1, 1974 thru Dec. 31, 1974	12.88%	13.60%
Jan. 1, 1973 thru Dec. 31, 1973	12.85%	13.41%
Jan. 1, 1972 thru Dec. 31, 1972	12.96%	13.26%
Jan. 1, 1971 thru Dec. 31, 1971	12.81%	12.96%
Jan. 1, 1970 thru Dec. 31, 1970	15.52%	15.52%
Jan. 1, 1969 thru Dec. 31, 1969	14.68%	14.49%
Jan. 1, 1968 thru Dec. 31, 1968	13.66%	13.50%
Jan. 1, 1967 thru Dec. 31, 1967	13.55%	13.13%

* For employer billing purposes, the September 1988 billing was carried through Sept. 30, 1988 and was not cut off at Sept. 8, 1988. The same goes for the employee rates for the most part.

MEMBER CONTRIBUTION RATES

	Member Rates	
Time Frame of Rates	Police	Fire
July 2, 2015 and thereafter	12.25%	12.25%
July 2, 2014 thru July 1, 2015	11.50%	11.50%
July 2, 2013 thru July 1, 2014	10.75%	10.75%
Sept. 9, 1988 thru July 1, 2013	10.00%	10.00%
Aug. 1, 1986 thru Sept. 8, 1988	9.50%	9.50%
March 1, 1980 thru July 31, 1986	8.50%	8.50%
Jan. 1, 1968 thru Feb. 28, 1980	7.00%	7.00%
Jan. 1, 1967 thru Dec. 31, 1967	6.00%	6.00%

HEALTH CARE ALLOCATION RATES FROM EMPLOYER CONTRIBUTIONS

Time Frame of Rates	Percentage
Jan. 1, 2014 thru Present	0.50%
June 1, 2013 thru Dec. 31, 2013	2.85%
Jan. 1, 2013 thru May 31, 2013	4.69%
Jan. 1, 2007 thru Dec. 31, 2012	6.75%
Jan. 1, 2002 thru Dec. 31, 2006	7.75%
Jan. 1, 2001 thru Dec. 31, 2001	7.50%
Jan. 1, 2000 thru Dec. 31, 2000	7.25%
Jan. 1, 1999 thru Dec. 31, 1999	7.00%
Jan. 1, 1992 thru Dec. 31, 1998	6.50%
Jan. 1, 1974 thru Dec. 31, 1991	Rate equal to dollar of Benefits Paid

OP&F'S COST OF LIVING ALLOWANCE (COLA) HISTORY - PART 1 OF 2

COLA Payment Dates	Members who are 55 years old with less than 15 years of service credit as of July 1, 2013 and have been receiving Benefits for at least one year COLA Paid	Members who are 55 years old with 15 or more years of service credit as of July 1, 2013 and have been receiving Benefits for at least one year COLA Paid	EDOR* July 1, 2000 to June 30,2012 COLA Paid	EDOR* July 1, 1999 to June 30,2000 COLA Paid	EDOR* July 1, 1998 to June 30,1999 COLA Paid	EDOR* July 1, 1997 to June 30,1998 COLA Paid	EDOR* July 1, 1996 to June 30,1997 COLA Paid
Nov. 1, 2016 - Oct. 31, 2017	1.20%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2015 - Oct. 31, 2016	-%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2014 - Oct. 31, 2015	1.70%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2013 - Oct. 31, 2014	1.20%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2013 - Oct. 31, 2013	2.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2012 - June 30, 2013			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2011 - June 30, 2012			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2010 - June 30, 2011			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2009 - June 30, 2010			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2008 - June 30, 2009			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2007 - June 30, 2008			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2006 - June 30, 2007			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2005 - June 30, 2006			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2004 - June 30, 2005			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2003 - June 30, 2004			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2002 - June 30, 2003			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2001 - June 30, 2002			3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2000 - June 30, 2001				2.20%	2.20%	2.20%	2.20%
July 1, 1999 - June 30, 2000					1.30%	1.30%	1.30%
July 1, 1998 - June 30, 1999						2.30%	2.30%
July 1, 1997 - June 30, 1998							2.90%
July 1, 1996 - June 30, 1997							
July 1, 1995 - June 30, 1996							
July 1, 1994 - June 30, 1995							
July 1, 1993 - June 30, 1994							
July 1, 1992 - June 30, 1993							
July 1, 1991 - June 30, 1992							
July 1, 1990 - June 30, 1991							
July 1, 1989 - June 30, 1990							
July 1, 1988 - June 30, 1989							

* EDOR = Effective Date of Retirement

Additional Notes:

1) First COLAs were paid July 1, 1988 through June 30, 1989
2) July 1, 2002 COLAs were a flat 3 percent (regardless of the CPI)
3) Beginning July 1, 2013
   A. Retired members who are at least 55 years old and have been receiving benefits for at least one year may be eligible for a cost-of-living allowance adjustment.
   B. The age 55 provision for receiving a COLA does not apply to those who are receiving a permanent and total disability benefit, statutory survivors and annuity beneficiaries.
   C. Members with less than 15 years of service credit on July 1, 2013, will receive a COLA equal to either three percent or the percent increase, if any, in the Consumer Price Index (CPI-W) over the 12-month period ending on Sept. 30 of the immediately preceding year, whichever is less.
   D. The COLA amount for members with at least 15 years of service credit as of July 1, 2013 is equal to three percent of their base pension or disability benefit.

OP&F'S COST OF LIVING ALLOWANCE (COLA) HISTORY - PART 2 OF 2

COLA Payment Dates	EDOR* July 1, 1995 to June 30, 1996 COLA Paid	EDOR* July 1, 1994 to June 30, 1995 COLA Paid	EDOR* July 1, 1993 to June 30, 1994 COLA Paid	EDOR* July 1, 1992 to June 30, 1993 COLA Paid	EDOR* July 1, 1991 to June 30, 1992 COLA Paid	EDOR* July 1, 1990 to June 30, 1991 COLA Paid	EDOR* July 1, 1986 to June 30, 1990 COLA Paid
Nov. 1, 2016 - Oct. 31, 2017	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2015 - Oct. 31, 2016	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2014 - Oct. 31, 2015	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Nov. 1, 2013 - Oct. 31, 2014	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2013 - Oct. 31, 2013	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2012 - June 30, 2013	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2011 - June 30, 2012	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2010 - June 30, 2011	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2009 - June 30, 2010	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2008 - June 30, 2009	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2007 - June 30, 2008	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2006 - June 30, 2007	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2005 - June 30, 2006	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2004 - June 30, 2005	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2003 - June 30, 2004	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2002 - June 30, 2003	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2001 - June 30, 2002	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 2000 - June 30, 2001	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	3.00%
July 1, 1999 - June 30, 2000	1.30%	2.90%	2.70%	2.70%	1.30%	2.90%	3.00%
July 1, 1998 - June 30, 1999	2.30%	3.00%	3.00%	3.00%	2.40%	3.00%	3.00%
July 1, 1997 - June 30, 1998	2.90%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 1996 - June 30, 1997	2.90%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 1995 - June 30, 1996		-%	3.00%	3.00%	3.00%	3.00%	3.00%
July 1, 1994 - June 30, 1995			-%	-%	3.00%	3.00%	3.00%
July 1, 1993 - June 30, 1994				3.00%	3.00%	3.00%	3.00%
July 1, 1992 - June 30, 1993					3.00%	3.00%	3.00%
July 1, 1991 - June 30, 1992						3.00%	3.00%
July 1, 1990 - June 30, 1991							3.00%
July 1, 1989 - June 30, 1990							3.00%
July 1, 1988 - June 30, 1989							3.00%

* EDOR = Effective Date of Retirement
Additional Notes:
1) First COLAs were paid July 1, 1988 through June 30, 1989
2) July 1, 2002 COLAs were a flat 3 percent (regardless of the CPI)
3) Beginning July 1, 2013

A. Retired members who are at least 55 years old and have been receiving benefits for at least one year may be eligible for a cost-of-living allowance adjustment.
B. The age 55 provision for receiving a COLA does not apply to those who are receiving a permanent and total disability benefit, statutory survivors and annuity beneficiaries.
C. Members with less than 15 years of service credit on July 1, 2013, will receive a COLA equal to either three percent or the percent increase, if any, in the Consumer Price Index (CPI-W) over the 12-month period ending on Sept. 30 of the immediately preceding year, whichever is less.
D. The COLA amount for members with at least 15 years of service credit as of July 1, 2013 is equal to three percent of their base pension or disability benefit.

ACTUARIAL INTEREST RATES

	Actuarial Interest Rates	
Time Frame of Rates	Police	Fire
Jan. 1, 1989 thru Present	8.250%	8.250%
Jan. 1, 1986 thru Dec. 31, 1988	7.750%	7.750%
Jan. 1, 1983 thru Dec. 31, 1985	7.500%	7.500%
Jan. 1, 1980 thru Dec. 31, 1982	6.375%	6.375%
Jan. 1, 1979 thru Dec. 31, 1979	6.000%	6.000%
Jan. 1, 1974 thru Dec. 31, 1978	5.000%	5.000%
Jan. 1, 1972 thru Dec. 31, 1973	4.750%	4.750%
Jan. 1, 1970 thru Dec. 31, 1971	4.625%	4.625%
Jan. 1, 1967 thru Dec. 31, 1969	4.250%	4.250%

DROP AND RE-EMPLOYED INTEREST RATES

	Drop and Re-employed Interest Rates	
Time Frame of Rates*	Police	Fire
April 1, 2017 thru June 30, 2017	2.40%	2.40%
Jan. 1, 2017 thru March 31, 2017	2.45%	2.45%
Oct. 1, 2016 thru Dec. 31, 2016	1.60%	1.60%
July 1, 2016 thru Sept. 30, 2016	1.49%	1.49%
April 1, 2016 thru June 30, 2016	1.78%	1.78%
Jan. 1, 2016 thru March 31, 2016	2.27%	2.27%
Oct. 1, 2015 thru Dec. 31, 2015	2.06%	2.06%
July 1, 2015 thru Sept. 30, 2015	2.35%	2.35%
April 1, 2015 thru June 30, 2015	1.94%	1.94%
Jan. 1, 2015 thru March 31, 2015	2.17%	2.17%
Oct. 1, 2014 thru Dec. 31, 2014	2.52%	2.52%
July 1, 2014 thru Sept. 30, 2014	2.53%	2.53%
April 1, 2014 thru June 30, 2014	2.73%	2.73%
Jan. 1, 2014 thru March 31, 2014	3.04%	3.04%
Oct. 1, 2013 thru Dec. 31, 2013	2.64%	2.64%
July 1, 2013 thru Sept. 30, 2013	2.52%	2.52%
April 1, 2013 thru June 30, 2013	1.87%	1.87%
Jan. 1, 2013 thru March 31, 2013	1.78%	1.78%
Oct. 1, 2012 thru Dec. 31, 2012	1.65%	1.65%
July 1, 2012 thru Sept. 30, 2012	1.67%	1.67%
April 2, 2012 thru June 30, 2012	2.23%	2.23%
Jan. 19, 2003 thru April 1, 2012	5.00%	5.00%

* Effective April 2, 2012 the interest rate is equal to the 10-year U.S. Treasury Note Business Day Series, as published by the United States Department of the Treasury, with a cap of five percent.

DROP MEMBER COUNT ROLL FORWARD *(as of Dec. 31)*

Police		2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Balance Beginning of Year		2,001	1,918	1,883	1,795	1,801	1,985	1,990	1,893	1,797	1,683
Number of members that entered into DROP	Increases	369	364	322	384	329	356	289	289	258	272
Number of members that terminated DROP	Decreases	(320)	(281)	(287)	(296)	(335)	(540)	(294)	(192)	(162)	(158)
SUB-TOTAL AT YEAR END - POLICE		2,050	2,001	1,918	1,883	1,795	1,801	1,985	1,990	1,893	1,797
Fire											
Balance Beginning of Year		1,887	1,907	1,862	1,741	1,740	1,888	1,744	1,648	1,541	1,375
Number of Members that entered into DROP	Increases	301	290	346	369	283	315	349	258	249	285
Number of members that terminated DROP	Decreases	(286)	(310)	(301)	(248)	(282)	(463)	(205)	(162)	(142)	(119)
SUB-TOTAL AT YEAR END - FIRE		1,902	1,887	1,907	1,862	1,741	1,740	1,888	1,744	1,648	1,541
Police and Fire											
Balance Beginning of Year		3,888	3,825	3,745	3,536	3,541	3,873	3,734	3,541	3,338	3,058
Number of members that entered into DROP	Increases	670	654	668	753	612	671	638	547	507	557
Number of members that terminated DROP	Decreases	(606)	(591)	(588)	(544)	(617)	(1,003)	(499)	(354)	(304)	(277)
TOTAL AT YEAR END - POLICE AND FIRE		3,952	3,888	3,825	3,745	3,536	3,541	3,873	3,734	3,541	3,338

ACTUARIAL VALUATION INFORMATION - PENSION TRUST FUND (DOLLARS IN MILLIONS)*

As of Jan. 1	Valuation Assets*	Actuarial Accrued Liabilities (AAL)	Unfunded/ (Overfunded) Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$13,653.0	$19,135.9	$5,482.9	71.3%	$2,060.9	266.1%
2015	13,029.3	18,395.6	5,366.3	70.8%	1,986.6	270.1%
2014	11,063.2	16,577.8	5,514.6	66.7%	1,942.3	283.9%
2013	10,278.0	16,007.9	5,729.9	64.2%	1,913.4	299.5%
2012	10,309.0	16,346.7	6,037.7	63.1%	1,897.4	318.2%
2011	10,681.0	15,384.4	4,703.4	69.4%	1,868.5	251.7%
2010	10,794.1	14,830.7	4,036.6	72.8%	1,895.2	213.0%
2009	9,309.2	14,307.1	4,997.9	65.1%	1,900.9	262.9%
2008	11,212.9	13,727.8	2,514.9	81.7%	1,831.4	137.3%
2007	10,158.0	12,987.5	2,829.5	78.2%	1,782.9	158.7%

* The amounts reported in this schedule do not include assets or liabilities for post-employment health care benefits.

ACTUARIAL VALUATION INFORMATION - RETIREE HEALTH CARE TRUST FUND (DOLLARS IN MILLIONS)

As of Jan. 1	Valuation Assets	Actuarial Accrued Liabilities (AAL)	Unfunded/ (Overfunded) Actuarial Accrued Liabilities (UAAL)	Ratio of Assets to AAL	Active Member Payroll	UAAL as Percentage of Active Member Payroll
2016	$929.4	$5,166.6	$4,237.2	18.0%	$2,060.9	205.6%
2015	1,031.9	5,399.6	4,367.7	19.1%	1,986.6	219.9%
2014	1,053.5	5,244.5	4,191.0	20.1%	1,942.3	215.8%
2013	935.6	4,234.8	3,299.2	22.1%	1,913.4	172.4%
2012	780.1	3,698.7	2,918.6	21.1%	1,897.4	153.8%
2011	717.7	3,295.3	2,577.6	21.8%	1,868.5	137.9%
2010	573.4	3,232.4	2,659.0	17.7%	1,895.2	140.3%
2009	438.7	3,163.6	2,724.9	13.9%	1,900.9	143.3%
2008	527.0	3,623.5	3,096.5	14.5%	1,831.4	169.1%
2007	436.6	3,273.7	2,837.1	13.3%	1,782.9	159.1%

HISTORICAL ANNUAL INVESTMENT RESULTS

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
U.S. Equity										
OP&F	15.60%	0.53%	11.27%	35.53%	15.88%	0.94%	22.43%	32.82%	(38.02)%	5.37%
International Equity*										
OP&F	2.75%	(0.77)%	(5.56)%	21.01%	19.96%	(12.37)%	15.11%	39.58%	(45.71)%	20.61%
Fixed Income										
OP&F–Core	4.14%	1.45%	4.07%	(1.05)%	6.31%	6.41%	9.72%	11.76%	0.37%	6.50%
OP&F–High Yield	12.80%	(0.95)%	2.81%	6.15%	15.64%	6.00%	15.02%	47.02%	(20.17)%	2.91%
OP&F–GIPS	18.76%	0.26%	19.43%	(10.62)%	14.93%	35.50%	15.28%	9.84%	2.04%	11.72%
OP&F–Commercial Mortgage**	5.63%	3.21%	8.56%	6.72%	5.28%	4.99%	16.63%	(0.63)%	0.68%	2.31%
Master Limited Partnerships										
OP&F	20.42%	(29.31)%	16.91%	32.25%	N/A	N/A	N/A	N/A	N/A	N/A
Real Estate **										
OP&F	13.14%	16.83%	18.57%	15.11%	13.06%	18.01%	4.86%	(37.27)%	2.07%	20.67%
Private Markets **										
OP&F	14.37%	12.06%	18.34%	11.50%	9.58%	17.66%	12.57%	(11.61)%	(2.32)%	31.88%
Timber **										
OP&F	2.99%	1.03%	8.99%	3.37%	N/A	N/A	N/A	N/A	N/A	N/A
Total Portfolio										
OP&F	11.51%	0.65%	6.79%	16.94%	15.41%	2.57%	15.85%	20.73%	(28.06)%	10.47%
Policy Index***	11.45%	(2.18)%	6.87%	14.61%	14.94%	2.43%	12.61%	22.81%	(28.89)%	9.16%

* International Equity benchmark is a blend of the MSCI ACWI ex U.S. (Net) through June 30, 2011, the MSCI ACWI ex U.S. Iran/Sudan Free from July 1, 2011 through Sept. 30, 2012 and the MSCI ACWI ex U.S. Iran/Sudan Free IMI Index from Oct. 1, 2012 forward.

** One quarter in arrears.

*** Interim Policy Index: 19.8 percent Wilshire 5000, 19.1 percent MSCI ACWI ex-U.S. Iran/Sudan Free IMI index, 10.2 percent Barclays Aggregate, 14.1 percent CS First Boston High Yield, 9.4 percent Global Treasury Inflation Protected Securities (TIPS) Custom, 11.2 percent NCREIF ODCE Index (Net) Lagged, 5.6 percent Wilshire 5000 + 3 percent Lagged, 3.1 percent CPI + 5 percent (Net), 7.5 percent Alerian MLP Index.

Long-Term Policy: 16 percent Wilshire 5000, 16 percent MSCI ACWI ex-U.S. Iran/Sudan Free IMI Index, 20 percent Barclays Aggregate, 15 percent CS First Boston High Yeild, 20 percent Global TIPS Custom, 12 percent NCREIF ODCE Index (Net) Lagged, 8 percent Wilshire 5000 + 3 percent Lagged, 5 percent NCREIF Timberland Lagged, 8 percent Alerian MLP Index (adds to 120 percent as "Risk Parity" approach uses 2x levered Global Inflation-Protected Securities and 2x levered Core Fixed Income).

Time Weighted methodology, based upon fair values, is used when calculating performance.

DEBT CAPACITY INFORMATION

OP&F does not have any outstanding debt, nor are there any plans to ever pursue issuing debt anytime in the future.

DEMOGRAPHIC AND ECONOMIC INFORMATION

NUMBER OF EMPLOYER UNITS

	Municipalities		Townships		Villages		Total		Total
Year	Police	Fire	Police	Fire	Police	Fire	Police	Fire	Both
2016	248	221	-	130	279	37	527	388	915
2015	249	220	-	131	280	37	529	388	917
2014	249	221	-	129	283	36	532	386	918
2013	249	223	-	124	282	33	531	380	911
2012	249	225	-	122	288	33	537	380	917
2011	250	227	-	123	283	34	533	384	917
2010	252	229	-	123	284	33	536	385	921
2009	252	229	-	121	287	32	539	382	921
2008	251	228	-	123	287	34	538	385	923
2007	251	229	-	122	289	33	540	384	924

OPERATING INFORMATION

RETIRED MEMBERSHIP BY TYPE OF BENEFITS AND AVERAGE ANNUAL ALLOWANCE (SOURCE: ACTUARIAL VALUATION) AS OF JAN. 1, 2016

Age Last Birthday	Number	Annual Allowance	Average Annual Allowance
Service Retirees			
Under 60	2,673	$129,526,580	$48,457
60 - 64	3,008	152,232,733	50,609
65 - 69	3,148	153,877,185	48,881
70 - 74	2,261	102,454,468	45,314
75 - 79	1,435	58,296,837	40,625
Over 79	1,730	53,207,695	30,756
TOTAL	**14,255**	**$649,595,498**	**$45,570**
Survivors and Beneficiaries			
Under 60	1,237	$12,199,343	$9,862
60 - 64	610	7,642,278	12,528
65 - 69	904	10,714,979	11,853
70 - 74	1,028	11,262,329	10,956
75 - 79	1,131	11,679,165	10,326
Over 79	2,920	28,592,094	9,792
TOTAL	**7,830**	**$82,090,188**	**$10,484**
Disability Retirees			
Under 60	2,401	$94,738,406	$39,458
60 - 64	1,065	44,908,368	42,167
65 - 69	1,178	47,423,477	40,258
70 - 74	796	29,815,038	37,456
75 - 79	502	17,252,440	34,367
Over 79	375	10,105,502	26,948
TOTAL	**6,317**	**$244,243,231**	**$38,664**

SCHEDULE OF AVERAGE BENEFITS*

This schedule displays the number of new retirees each year, grouped by years of credited service. Prior year numbers are not adjusted as members roll off the rolls. Retirement benefits are calculated based on the Final Average Salary (FAS) of the member. For members with 15 years or more of service credit as of July 1, 2013, FAS represents the member's three highest years of allowable earnings. For members with less than 15 years of service credit as of July 1, 2013, FAS represents the member's five highest years of allowable earnings.

The Total New Retirees column represents the average monthly benefit and average FAS for the retiree counts listed in each year.

RETIREMENT EFFECTIVE DATES		YEARS CREDITED SERVICE							
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	TOTAL NEW RETIREES
2016	Average Monthly Benefit	$1,395	$2,314	$2,638	$2,477	$3,234	$4,075	$4,277	$3,925
	Average Final Average Salary	$34,158	$59,041	$59,716	$63,590	$73,762	$75,132	$69,681	$73,889
	Number of Active Recipients	1	6	14	44	40	737	31	873
2015	Average Monthly Benefit	$–	$1,332	$2,387	$2,445	$3,175	$4,127	$4,944	$3,976
	Average Final Average Salary	$–	$49,515	$59,939	$64,106	$71,568	$75,267	$77,280	$74,128
	Number of Active Recipients	–	5	17	48	43	728	40	881
2014	Average Monthly Benefit	$-	$2,243	$2,577	$2,349	$3,096	$4,011	$4,738	$3,910
	Average Final Average Salary	$-	$62,465	$58,188	$62,903	$72,772	$72,161	$76,831	$71,822
	Number of Active Recipients	-	8	9	29	38	708	36	828
2013	Average Monthly Benefit	$2,612	$2,487	$2,736	$2,216	$3,251	$3,994	$4,832	$3,830
	Average Final Average Salary	$52,748	$69,490	$61,462	$61,232	$71,553	$71,014	$74,792	$70,293
	Number of Active Recipients	2	5	25	43	47	638	29	789
2012	Average Monthly Benefit	$879	$2,247	$2,876	$2,783	$2,968	$3,932	$4,398	$3,761
	Average Final Average Salary	$42,089	$55,994	$65,733	$63,252	$68,219	$68,661	$68,067	$67,858
	Number of Active Recipients	1	14	27	69	56	662	73	902
2011	Average Monthly Benefit	$2,042	$2,698	$2,758	$2,582	$3,124	$3,906	$4,722	$3,895
	Average Final Average Salary	$52,736	$56,748	$64,823	$61,478	$68,588	$66,645	$69,404	$66,659
	Number of Active Recipients	2	23	42	61	37	907	215	1,287
2010	Average Monthly Benefit	$1,989	$2,307	$2,923	$2,858	$2,907	$3,653	$4,415	$3,602
	Average Final Average Salary	$52,986	$63,760	$63,148	$64,760	$64,611	$64,545	$67,106	$64,829
	Number of Active Recipients	4	18	41	39	51	452	122	727
2009	Average Monthly Benefit	$2,592	$2,476	$2,878	$3,122	$3,208	$3,533	$4,205	$3,466
	Average Final Average Salary	$50,696	$53,112	$60,367	$61,952	$64,972	$64,170	$67,365	$63,683
	Number of Active Recipients	5	20	39	54	44	380	70	612
2008	Average Monthly Benefit	$2,067	$2,539	$2,958	$2,834	$2,962	$3,402	$4,167	$3,318
	Average Final Average Salary	$51,626	$53,487	$59,789	$60,428	$61,270	$63,520	$65,970	$62,359
	Number of Active Recipients	3	37	40	62	50	291	83	566
2007	Average Monthly Benefit	$2,347	$2,769	$2,934	$2,644	$3,019	$3,378	$4,087	$3,322
	Average Final Average Salary	$47,179	$57,089	$60,319	$58,482	$62,037	$63,478	$65,783	$62,550
	Number of Active Recipients	6	28	50	49	43	306	91	573

* All years begin Jan. 1 and end Dec. 31.

PRINCIPAL PARTICIPATING EMPLOYERS AS OF DEC. 31, 2016

Employer Name	Covered Employees	Rank	Percentage of Total Covered Members
City of Columbus	3,632	1	13.2%
City of Cleveland	2,375	2	8.6%
City of Cincinnati	1,927	3	7.0%
City of Toledo	1,240	4	4.5%
City of Akron	837	5	3.0%
City of Dayton	662	6	2.4%
City of Canton	317	7	1.1%
City of Youngstown	295	8	1.1%
City of Springfield	262	9	0.9%
City of Parma	221	10	0.8%
All Others	15,856		57.4%
TOTAL	**27,624**		**100.0%**

PRINCIPAL PARTICIPATING EMPLOYERS AS OF DEC. 31, 2007

Employer Name	Covered Employees	Rank	Percentage of Total Covered Members
City of Columbus	3,442	1	12.0%
City of Cleveland	2,530	2	8.9%
City of Cincinnati	1,942	3	6.8%
City of Toledo	1,156	4	4.0%
City of Akron	822	5	2.9%
City of Dayton	772	6	2.7%
City of Canton	341	7	1.2%
City of Youngstown	324	8	1.1%
City of Springfield	251	9	0.9%
City of Hamilton	236	10	0.8%
All Others	16,793		58.7%
TOTAL	**28,609**		**100.0%**

OP&F EMPLOYEE BUDGETED POSITION COUNTS

Department	2016	2015*	2014	2013	2012**	2011	2010	2009	2008	2007
Administration	19	36	48	47	45	46	46	47	44	45
Finance	21	21	21	22	22	13	13	13	13	13
Business and Technology Solutions (BTS)	44	26	25	24	24	24	24	24	25	25
Investments	15	14	14	14	15	15	15	14	14	14
Member Services	46	46	34	34	38	46	46	51	54	64
TOTAL FULL-TIME POSITIONS	**145**	**143**	**142**	**141**	**144**	**144**	**144**	**149**	**150**	**161**

* In 2015, Customer Service was transitioned to Member Services and Purchasing was transitioned to BTS from Administration.

** In 2012, Employer Services was transitioned to Finance from Member Services.

PERSONNEL SALARIES BY YEAR (DOLLARS IN THOUSANDS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Salaries and Wages	$9,971.3	$9,635.1	$9,054.2	$9,248.5	$8,756.9	$8,807.9	$8,313.9	$8,660.2	$8,866.4	$8,844.4
Average Salary per Budgeted Staff	$68.8	$67.4	$63.8	$65.6	$60.8	$61.2	$57.7	$58.1	$59.1	$54.9

OP&F BUDGET (DOLLARS IN MILLIONS)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Administrative Expenses (Actual)*	$63.6	$59.4	$61.6	$59.4	$52.8	$50.3	$46.5	$41.0	$43.6	$45.9
Administrative Expenses (Budget)*	$66.0	$65.4	$62.6	$62.6	$58.7	$54.5	$45.6	$46.5	$54.6	$61.0
Percentage of Actual vs Budget	96%	91%	98%	95%	90%	92%	102%	88%	80%	75%
* Excludes depreciation expense.										

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Capital (Actual)	$0.5	$1.3	$2.1	$3.1	$2.9	$1.7	$2.0	$0.6	$2.1	$1.2
Capital (Budget)	$4.6	$3.0	$2.8	$3.4	$3.4	$3.7	$4.4	$3.2	$4.6	$3.8
Percentage of Actual vs Budget	11%	43%	75%	91%	85%	46%	45%	19%	46%	32%

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Operating Expenses (Actual)*	$17.9	$14.6	$14.4	$14.3	$13.6	$13.6	$13.1	$14.0	$13.9	$14.3
Investment Expenses (Actual)*	$45.7	$44.8	$47.2	$45.1	$39.2	$36.7	$33.4	$27.0	$29.7	$31.6

* Excludes depreciation expense. Prior year operating expenses and investment expenses were recalculated to properly reflect the exclusion of depreciation expense.

OTHER OPERATING STATISTICS

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total Staff	145	143	142	141	144	144	144	149	150	161
Investment Staff	15	14	14	14	15	15	15	14	14	14
Investment Actual Expenses	$45.7	$44.8	$47.2	$45.1	$39.2	$36.7	$33.4	$27.0	$29.7	$31.6
Investment Income	$1,317.4	$(10.0)	$860.7	$2,053.0	$1,657.9	$229.6	$1,651.8	$1,894.9	$(3,832.9)	$1,163.1
Investment Staff to Investment Expense Ratio	$3.0	$3.2	$3.4	$3.2	$2.6	$2.4	$2.2	$1.9	$2.1	$2.3
Total Staff to Investment Income Ratio	$9.1	$(0.1)	$6.1	$14.6	$11.5	$1.6	$11.5	$12.7	$(25.6)	$7.2
Investment Staff to Investment Income Ratio	$87.8	$(0.7)	$61.5	$146.6	$110.5	$15.3	$110.1	$135.4	$(273.8)	$83.1

DEATH BENEFIT FUND

Pursuant to Section 742.63 of the Ohio Revised Code, the Board of Trustees of OP&F administers the State of Ohio DBF. This program was established by the State of Ohio to provide monthly benefit payments to surviving family members of Ohio fire fighters and law enforcement officers who have been killed in the line of duty or die of a duty-related accident or illness. Funds are disbursed to OP&F, on a quarterly basis, each State fiscal year (July 1-June 30) and benefits are paid monthly by OP&F to eligible recipients. The unused balance at June 30 is returned to the State. The assets and liabilities of the DBF are included in the Fund's combining statement of plan net assets as of Dec. 31, 2016 as an agency fund. The following is a schedule of DBF financial activity:

Balance Jan. 1, 2016	**$721,580**
Less: Survivor Benefits Paid Jan. 1 thru June 30, 2016	(9,298,804)
Balance returned to State of Ohio	(1,422,776)
State Funding Received	20,000,000
Less: Survivor Benefits Paid July 1 thru Dec. 31, 2016	(9,482,949)
BALANCE DEC. 31, 2016	**$517,051**

ECONOMIC IMPACT

In 2006, OP&F commissioned an independent and comprehensive economic study to determine the impact of pension benefits, health care spending and other dollars spent that effected Ohio's economy. The results remain relevant today and show the importance of OP&F's fiscal impact on the state. Two of the principle findings of the study show:

- OP&F activity resulted in more than $1.1 billion in economic output across Ohio.
- OP&F activity resulted in 11,059 jobs in Ohio.

When OP&F makes direct payments to retirees and survivors, this income is spent and re-spent on goods and services produced in the local and regional economy where the beneficiaries reside. This spending (often termed "induced" impact by economists) in turn creates additional jobs in the sectors where the beneficiaries spend their benefit payments.

OP&F creates additional economic impact by providing health care and medical prescription insurance to retirees and survivors. Again, the consumption of health care by OP&F beneficiaries leads to ripple effects throughout the local and regional economy as a result of the increased demand for these services. Finally, OP&F contributes to Ohio's economy by paying salaries to OP&F employees and purchasing goods and services that are needed to carry out the day-to-day operations and management of the pension fund.

These economic effects are often referred to as multiplier effects. In other words, any new dollar that is spent will have multiple economic effects throughout the local and regional economy as it leads to new jobs, which through typical economic inter-relationships then lead to other jobs. To provide a comprehensive estimate of the total economic impact of OP&F, both the direct and indirect effects of OP&F expenditures must be captured.

DIRECT IMPACT ON OHIO'S ECONOMY*

Category	Dollar Amount
Benefit Payments to Retirees and Survivors	$495,923,807
OP&F Health Insurance Expenditures	149,162,338
DROP Withdrawals	4,847,766
OP&F Administrative Expenditures	15,120,000
TOTAL DIRECT ECONOMIC IMPACT	**$665,053,911**

* Based on Dec. 31, 2006 data.

IMPACT ON ECONOMIC OUTPUT*

Category	Dollar Amount
Benefit Payments to Retirees and Survivors	$738,628,918
OP&F Health Insurance Expenditures	330,155,792
DROP Withdrawals	7,220,263
OP&F Administrative Expenditures	32,343,192
TOTAL DIRECT ECONOMIC IMPACT	**$1,108,348,165**

* Based on Dec. 31, 2006 data.

LIST OF PROFESSIONAL ACRONYMS AND SYMBOLS

AAL = Actuarial Accrued Liabilities

ACH = Automated Clearing House

ACWI Ex-U.S. = All Country World Index Ex-U.S.

ARC = Annual Required Contributions

B of AMLS U.S. = Bank of America Merill Lynch U.S.

Bps = Basis Points

BTS = Business and Technology Solutions

Buck = Buck Consultants, LLC (now known as Conduent)

CAFR = Comprehensive Annual Financial Report

COLA = Cost of Living Allowance

CPI = Consumer Price Index

DB = Defined Benefits

DBF = Death Benefit Fund

DROP = Deferred Retirement Option Plan

EAFE = Europe, Australia, Far East

EM = Emerging Markets

EU = European Union

€ = Euro

FAS = Final Average Salary

FED = Federal Reserve

FFC = Full Faith and Credit

FHLMC = Federal Home Loan Mortgage Corporation

FNMA = Federal National Mortgage Association

GASB = Government Accounting Standards Board

GDP = Gross Domestic Product

GFOA = Government Finance Officers Association of the U.S. and Canada

GIPS = Global Inflation Protected Securities

GNMA = Government National Mortgage Association

HCSF = Health Care Stabilization Fund

HY = High Yield

IMI = Investable Market Index

IPO = Initial Public Offering

IRR = Internal Rate of Return

I/S Free = Iran and Sudan Free

JSA = Joint and Survivor Annuity

LACC = Life Annuity Certain and Continuous

M&A = Mergers and Acquisitions

MD&A = Management Discussion and Analysis

MLPs = Master Limited Partnerships

MSCI = Morgan Stanley Capital International

NAV = Net Asset Value

NPL = Net Pension Liability

NR = Not Rated

ODCE = Open End Diversified Core Equity

OP&F = Ohio Police & Fire Pension Fund

OPEB = Other Post-Employment Benefit

OPERS = Ohio Public Employees Retirement System

ORC = Ohio Revised Code

ORSC = Ohio Retirement Study Council

PME = Public Market Equivalent

PPCC = Public Pension Coordination Council

Q1 = Quarter 1

Q2 = Quarter 2

REMICs = Real Estate Mortgage Investment Conduits

RFP = Request for Proposal

RSI = Required Supplementary Information

S&P = Standard and Poor's

SB = Senate Bill

STIF = Short Term Investment Fund

TIPS = Treasury Inflation Protected Securities

2x = Two Times

TTY = TeletypeWriter

UAAL = Unfunded Actuarial Accrued Liabilities

U.K. = United Kingdom

U.S. = United States of America

U.S.D. = United States Dollar

Veba Trust = Voluntary Employees' Beneficiary Association Trust

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