Ohio Deferred Compensation

Ohio Public Employees Deferred Compensation Program

Comprehensive Annual Financial Report

For the years ended December 31, 2018 and 2017

OHIO PUBLIC EMPLOYEES DEFERRED COMPENSATION PROGRAM

Comprehensive Annual Financial Report
For the years ended December 31, 2018 and 2017

R. Keith Overly, Executive Director
Paul D. Miller, Assistant Director-Finance

257 East Town Street, Suite 400, Columbus, Ohio 43215-4623

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CERTIFICATE OF ACHIEVEMENT

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Ohio Public Employees Deferred Compensation Program

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

December 31, 2017

Christopher P. Morrill

Executive Director/CEO

ORGANIZATIONAL CHART
AS OF DECEMBER 31, 2018

DEFERRED COMPENSATION BOARD

Julie Albers, County Employees
Robert Blair, Director of Administrative Services
Richard D. Brown, Ohio House of Representatives
Randy Desposito, State College and University Employees
Jay Hottinger, Ohio Senate
Christopher Mabe, State Employees
Seth Metcalf, Investment Expert, Appointed by Ohio Treasurer
Cinthia Sledz, Miscellaneous Employees
Timothy Steitz, Retired Group
Ken Thomas, Municipal Employees
James R. Tilling, Investment Expert, Appointed by Ohio General Assembly
Steve Toth, Retired Group
Vacant, Investment Expert, Appointed by Ohio Governor

EXECUTIVE DIRECTOR
R. Keith Overly

ASSISTANT DIRECTOR-ADMINISTRATION
James Heagen

ASSISTANT DIRECTOR-FINANCE
Paul D. Miller

ADVISORS TO THE BOARD

Independent Public Accountants
Rea & Associates (under contract with the Auditor of State)

Legal Counsel
Mike DeWine, Attorney General

Investment Consultant
RVK

See pages 29-30 for a list of external investment managers.

OHIO DEFERRED COMPENSATION

OHIO PUBLIC EMPLOYEES DEFERRED COMPENSATION PROGRAM

May 14, 2019

Dear Chair and Members of the Board:

We are pleased to present the Comprehensive Annual Financial Report (CAFR) for the Ohio Public Employees Deferred Compensation Program (the Program) for the years ended December 31, 2018 and 2017. The CAFR was prepared to assist the user in understanding the Program's functions and how participants use the Program to supplement their retirement income. Program management is responsible for the contents of this report. Management's Discussion and Analysis (MD&A) complements this letter of transmittal and should be read in conjunction with it.

The Deferred Compensation Board (the Board) was established pursuant to Ohio Revised Code Section 145 (currently 148) to administer the Program for all eligible employees. The Program provides services to more than 237,000 participant accounts from 1,949 State and local government employers. The State created the Program as a separate legal entity and does not appoint a voting majority of the Program's governing Board. The Program is self-funded and governed by its own Board. The State does not approve the Program's budget or set Program rates or charges. Therefore, the Program is not part of the State of Ohio reporting entity.

Program History and Overview

The Program first received deferrals in 1976 pursuant to Internal Revenue Code (IRC) Section 457 and ORC Section 148. All public employees who are eligible to participate in one of Ohio's statutory retirement systems (including the Cincinnati Retirement System) can contribute, on a pre-tax basis, a portion of their annual includable compensation. Withdrawals may be made at retirement, death, termination of employment, or due to certain qualifying unforeseeable emergencies. Participation is strictly voluntary, and the Program is intended to supplement retirement benefits from the other statutory retirement systems.

During 2018, the ORC and Program's Plan Document were amended to allow after-tax Roth contributions in addition to pre-tax deferrals. Education materials and recordkeeping systems need to be updated before Roth contributions can be processed, so the target to begin accepting Roth contributions is late-2019.

Economic Conditions and Outlook

All Program participants are members of one of the State's statutory retirement systems and contribute to this Program on a voluntary basis to supplement their retirement income. As a self-directed plan, participants are responsible for their own savings and investment decisions, but most of their retirement planning success depends on the amount of their contributions and the overall direction of the financial markets.

The U.S. stock markets were down 4.4 percent in 2018, as tracked by the S&P 500 index, after achieving nine consecutive years of positive performance. The long positive market trend gave many participants the confidence to maintain or increase their payroll contributions, and it encouraged other public employees to enroll. With only one year of negative performance, the expectations are that participants will not react negatively to this one-year decline, and the current savings trend will continue.

The Program achieved these all-time high levels in 2018:

- 1,949 contributing employers
- 237,100 participant accounts
- 120,990 total actively contributing participants
- $496,300,000 total annual contributions
- $387,300,000 total annual benefit distributions

However, the Program also faces several challenges. The number of public employees eligible to participate in the Program has generally declined over the past ten years. The Program's growth potential has been restrained by this downward trend in public employment. As more baby boomers reach retirement age, this large group of participants now has access to their deferred compensation savings. Accordingly, the annual amounts distributed to participants and transferred to other retirement plans has risen dramatically over the past ten years.

Major Initiatives 2018

The Program's daily recordkeeping system continues to function adequately, but a project to improve and modernize the system's software and hardware began in 2015. DXC Technology (formerly Hewlett-Packard Enterprise Services) is a consulting firm providing management and computer programming services for the modernization project. The first phase of the project was expected to take several years to complete and cost approximately $9.5 million (excluding capitalization of internal IT salaries). This phase was nearing completion and under budget at year-end, and was implemented in the first quarter of 2019.

Planning and programming has already begun on the second phase of the recordkeeping modernization project. The second phase of recordkeeping modernization is targeted for late 2019 or early 2020, and it will add functionality to the recordkeeping system including:

- New participant website
- After-tax (Roth) accounts
- End-result exchange capability
- Automatic account rebalancing feature

In order for the Program to offer an after-tax savings plan (Roth 457), the ORC was amended in 2017, and the Program's Plan Document was amended in 2018. Once the recordkeeping system is updated to accommodate Roth 457 accounts, the Program will begin educational campaigns for employers and employees about the differences between pre-tax and after-tax investing.

Changes were made to the Program investment line-up during 2018 to improve portfolio management and net returns to participants.

- The Program moved investors in the LifePath target date options from class L shares to class N shares. The class N shares have the same investment strategy, but lower fees, and participants invested in the LifePath options will save over $550,000 annually in investment fees.

- The Program moved investors in the Fidelity Contrafund and Growth Company collective investment trusts from class 2 shares to class 3 shares. The class 3 shares have the same investment strategy, but lower fees, and participants invested in the Fidelity options will save over $750,000 annually in investment fees.

- The Program reallocated assets among the Stable Value Option portfolios to reduce exposure to passive investment strategy by approximately 50 percent.

Financial Information and the Internal Control Structure

Program management is responsible for the information in this report and for establishing and maintaining a system of internal controls sufficient to provide integrity to all financial information and to permit reporting in conformity with accounting principles generally accepted in the United States of America. We believe the information presented in this CAFR is accurately and fairly presented in all material respects. Internal controls can provide reasonable, but not absolute assurance that Program objectives will be met. The concept of reasonable assurance implies a high degree of assurance, constrained by the costs and benefits of establishing incremental control procedures.

The “Plan Net Position Available for Benefits” and “Changes in Plan Net Position Available for Benefits” are included as a “Pension Fund” in the Financial Section of this presentation. The Program reports all financial activity on the accrual basis of accounting. Additions are recorded in the period in which they are earned, and deductions are recorded in the period in which the liability is incurred.

During 2018, excess Administration Fund cash was held in money market accounts, certificates of deposit, StarOhio, and federal agency securities. Cash is held for capital acquisitions and is used to supplement monthly operations if administrative expenses exceed revenues during a given month. Program management seeks to maintain sufficient cash reserves to cover six to 18 months of operating expenses. The Program held about 17 months of operating expenses in cash reserve as of December 31, 2018.

Program Additions

Program additions come from participant contributions, transfers from other plans, investment income earned on participant accounts, and recordkeeping rebates/income. Employee contributions and transfers from other plans are the largest sources of Program additions in 2018.

Total employee contributions were $496 million in 2018 compared to $476 million in 2017 and $447 million in 2016. More employees are participating each year, and their average annual deferral keeps increasing. Net investment performance was negative in 2018 compared to large positive returns in 2017 and 2016, which represents the cyclical nature of investing. Transfers of other retirement assets into the Program were up slightly in 2018 compared to 2017 and 2016.

Program Deductions

Long-term positive investment performance and higher participant contributions have increased participant account balances, resulting in more funds available for retirement income. Distributions to participants increased by 10.2 percent between 2018 and 2017. With the ongoing retirement of the baby boomer generation, the number of people taking distributions increased 97 percent between 2009 and 2018.

The amounts transferred to other eligible retirement plans, including transfers to defined benefit plans to purchase service credit, increased by 9 percent between 2018 and 2017. The reasons for the increased transfer volume are the same as noted above – more participants have retired and have access to their funds, and investment earnings and continued contributions have increased participants’ balances.

Investments

The Program is a self-directed plan, so participants choose the investment options for their current deferrals and balances. The Board has adopted an investment policy to ensure that a suitable number of diverse investment options are offered and regularly monitored.

The Stable Value Option (SVO) continues to be the most popular investment choice and accounts for 35 percent of all invested assets. The one-year return on SVO investments was 2.3 percent in 2018. In addition to the SVO, participants can select from 15 investment options, including a series of target date funds, to create a diversified portfolio. The target date funds are the default investment option of the Program's EZ Enrollment plan, and accordingly have seen a steady increase in asset growth over recent years. Investment performance results and related investment expense ratios are reported to participants in their Annual and Quarterly Statements and in the Program's newsletter and website. A listing of investment options and their performance returns is included in the Investment Section of this report.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) most recently awarded a Certificate of Achievement for Excellence in Financial Reporting to the Ohio Public Employees Deferred Compensation Program for the fiscal year ended December 31, 2017. The Certificate of Achievement is the highest form of recognition for excellence in State and local government financial reporting. To be awarded a Certificate of Achievement, a governmental 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 United States of America and applicable legal requirements.

A Certificate of Achievement is valid for a one-year period. We believe our current CAFR continues to conform to Certificate of Achievement program requirements, and the CAFR will be submitted to the GFOA to determine its eligibility for another Certificate of Achievement.

Independent Auditors

The Program financial statements for the year ended December 31, 2018 and 2017 were audited by Rea & Associates under contract with the Auditor of State of Ohio.

Acknowledgments

The preparation of this report reflects the combined efforts of the Program's staff under the direction of the Board and its Audit Committee. The purpose of this report is to provide complete and reliable information as a basis for making decisions and as a means for determining responsible stewardship over the assets contributed by participants.

Respectfully submitted,

R. Keith Overly	Paul D. Miller, CPA
Executive Director	Assistant Director-Finance

PLAN SUMMARY

Ohio Revised Code Section 148 established the Ohio Public Employees Deferred Compensation Plan (the Plan), which will at all times comply with the current Internal Revenue Code and Internal Revenue Service Regulations. The Plan is effective as to each eligible employee (i.e. public employees as defined in Section 148.01(A)(1) of the Ohio Revised Code) upon the date he or she becomes an active participant by executing a participation agreement with the employer. During 2018, the Plan was amended to allow after-tax Roth contributions. Throughout this Plan Summary, deferrals are defined as the aggregate pre-tax deferrals and after-tax Roth contributions.

This Plan summary includes all Plan revisions approved by the Board as of December 31, 2018. Participants should refer to the Plan Document for complete Plan information.

Delegation by Employer - The participating employers have delegated their administrative powers, duties, and responsibilities under the Plan to the Ohio Public Employees Deferred Compensation Board.

Commencement of Participation - Each eligible employee shall be permitted to participate under this Plan. An eligible employee shall elect to participate and become an active participant by executing a participation agreement with their employer, or by being enrolled automatically by their employer. A participation agreement shall specify:

a. The amount of the active participant's compensation, which the employer and the participant agree to defer, subject to limitations;

b. The date as of which reduction and deferral of compensation pursuant to the participation agreement shall begin, which date shall be as early as administratively practicable, but no earlier than the first day of the first calendar month following the execution of the participation agreement; and

c. The investment option(s) selected by the participant unless automatically enrolled and defaulted into a LifePath portfolio.

Maximum and Minimum Deferrals - Normally, the maximum amount that may be deferred by an active participant into the Plan in any Plan year shall not exceed the lesser of (A) $18,500 for the year 2018, and then indexed as allowed by law in future years or (B) 100 percent of an active participant's includable compensation (as defined by the Internal Revenue Code). In addition, for the year 2018, participants who have attained age 50 may defer an additional $6,000, which amount may increase in future years as indexed as allowed by law.

Under certain circumstances, participants may defer up to two times the normal annual deferral limit ($37,000 in 2018) during each of the last three years prior to normal retirement age, if the participant contributed less than the maximum amount during earlier years.

The limitations on the maximum amount of deferral above shall be reduced by any amount excluded from the participant's gross income for the Plan year under another Section 457 plan maintained by any employer.

The Plan administrator may establish a minimum deferral amount or minimum allocation to any investment

Amendments of Participation Agreements - The election of an eligible employee to participate under the Plan is irrevocable as to all amounts actually deferred under the participation agreement. The participant may, by amendment of the participation agreement or other forms authorized by the administrator, do any of the following: (a) change the specification of any investment option as to the amounts to be deferred in the future; (b) terminate the election to be an active participant; or (c) change the amount of compensation to be deferred. An amendment or termination shall be effective as early as administratively practicable, but not earlier than the first day of the following calendar month.

Exchanges - A participant (or beneficiary, if the participant has died) may make exchanges between investment options. Any such exchange shall be effective at the price next computed following receipt of the exchange request and shall be subject to such restrictions as are established by the Plan administrator or its investment managers. Participants with four exchanges in any 45-day period will lose their electronic trading privilege, and will be restricted to one mail-in exchange every five days for the following twelve-month period.

Maintenance of Accounts - The Plan administrator shall establish an account for each participant to which shall be credited or charged, as the case may be, amounts deferred under the Plan and any increase or decrease of the account value of the investment options specified in the participation agreement or any amendment thereto. All investment options offered under this Plan must be offered by persons, companies, or entities authorized and duly licensed by the State of Ohio and appropriate Federal agencies regulating such investments to do business in the State of Ohio. The Plan and the employer shall not be responsible for any decrease in value of a participant's account resulting from capital or market changes or any other changes occurring in the investment option or the participant's account. The Plan administrator may from time to time assess reasonable service charges against all or any portion of the deferred amounts or accounts to defray costs associated with the implementation and administration of the Plan.

Crediting of Accounts - Each participant's account shall be credited with amounts authorized for deferral and received by the Plan administrator.

Report - A report of the total amount credited to a participant's account, in such form as the Plan administrator determines, shall be furnished to the participant not more than 60 days after the end of each calendar quarter. All reports to a participant shall be based on the net fair market value of the investment options as of the end of the reporting period, to the extent such values are available to the Plan administrator.

Assets Held in Trust - Plan assets are not the property of participating employees. All Plan assets and income shall be held by the Board in trust on behalf of the employer for the exclusive benefit of participants and their beneficiaries. All assets, whenever contributed to the Plan, are assigned to the trust established by the Board.

Rollovers - Any participant (or spousal beneficiary) who has separated from service with an employer with which the participant maintained an account under an eligible retirement plan may, upon proper written request, rollover the account value from that account to the participant's Ohio Public Employees Deferred Compensation Plan account.

Any participant (or beneficiary) who has separated from service with an employer with which the participant maintained an account with the Ohio Public Employees Deferred Compensation Plan may, upon proper written request, rollover the account value from that account directly to another eligible retirement plan or account.

Service Credit Purchase - Participants may use all or a portion of their account balances as a direct trustee-to-trustee transfer to a governmental defined benefit system, which permits the purchase of permissive service credit or the repayment of service credits.

In-Service Transfers - If an employer offers multiple IRC 457 deferred compensation plans, which meet certain conditions, the Plan will allow participants to move their account balances between reciprocating plans as an in-service transfer prior to severance from employment.

Election of Benefit Payment Date - (a) Participant - Upon severance from employment, a participant may elect a date to begin receiving benefit payments from the Plan. Benefit payments may begin after verification of severance, receipt of final deferral, and completion of the Withdrawal Election Form. Payments must begin no later than December 31 of the year in which the participant reaches age 70½. If the participant has not had a severance from employment as of this date, then payments must begin no later than December 31 of the year in which the participant has a severance from employment.

(b) Beneficiary - If a participant or spousal beneficiary dies before his or her account has been exhausted, then the remaining account balance shall be paid to the designated beneficiary. The beneficiary shall have the right to elect a benefit option, subject to the following limitations. (1) If a participant dies on or after the required minimum distribution date, payments shall continue to be paid to the beneficiary at least as rapidly as they were being paid to the participant. (2) If a participant dies before the required minimum distribution date, the beneficiary may choose a payment option subject to the following requirements: (a) if the beneficiary is the participant's surviving spouse, distribution may be delayed until December 31 of the year in which the participant would have reached age 70½, or (b) if the beneficiary is someone other than the surviving spouse, distribution of the account must begin by December 31 of the year following the participant's death, or (c) if the beneficiary is not a person, such as a trust or estate, the entire account must be distributed by the end of the calendar year which contains the fifth anniversary of the participant's death. (3) If a spousal beneficiary dies after the participant, but before the full account value is distributed, any remaining account value will be paid to the spousal beneficiary's designated beneficiaries in a lump-sum payment.

Election of Benefit Payment Options - All distributions are subject to the requirements of IRC Sections 457(d) and 401(a)(9) and the regulations there under. The Plan administrator will annually determine if the participant's or beneficiary's annual distributions meet their minimum distribution requirements and adjust the amount, if necessary, to comply with these provisions.

Initial benefit payment elections and subsequent changes will be effective only if made on forms provided or in the manner prescribed by the Plan administrator and received by the date determined by the Plan administrator. Purchased annuity benefit payments options may not be changed once payments have begun. No benefit payment option shall be available which is not provided for on the benefit payment election form provided by the Plan administrator or is not permitted by the Plan Document. Benefit payments are taxable income to participants and beneficiaries in the year of distribution and are subject to the applicable tax withholding rules.

Require Elections for Benefit Payment Date and Option - (a) Participant - If a participant does not choose a benefit payment date, benefit payments shall begin by December 31 of the year the participant reaches age 70½. Benefits shall be paid for a fixed time period over the maximum number of years allowed by the required minimum distribution tables.

(b) Beneficiary - If a spousal beneficiary of a participant who dies before the required minimum distribution date does not elect a benefit payment date, benefit payments shall begin by December 31 of the year the participant would have reached age 70½. If a non-spousal beneficiary of a participant does not choose a benefit payment date, benefit payments shall begin by December 31 of the year following the participant's death. Benefits shall be paid for a fixed time period for the maximum number of years allowed by the required minimum distribution tables.

Emergency Withdrawals - A participant may request an unforeseeable emergency withdrawal by submitting that request in writing on the approved form to the Plan administrator's staff. An unforeseeable emergency is a severe financial hardship of the participant or beneficiary resulting from a sudden and unexpected illness or accident. If the participant request is denied, a request for review of the staff determination may be made in writing. If this review fails to confirm a claim of unforeseeable emergency, an appeal may be made to the Ohio Public Employees Deferred Compensation Board. The decision of the Board shall be final and not subject to further appeal. If at any time a request for withdrawal is approved, the Plan administrator may thereupon distribute so much of the participant's account as is necessary to provide the amount approved to meet the unforeseeable emergency.

Acceleration - If upon a participant's separation from service and the Board's receipt of the last deferral, the participant's account value is less than $1,000, the Plan administrator may accelerate the payment of benefits otherwise due in the future and pay to such participant the full account value in a lump sum less the required tax withholding.

Qualified Domestic Relations Order - The Plan administrator shall comply with the provisions of a domestic relations order which the Plan administrator determines to constitute a Qualified Domestic Relations Order, as defined by the Internal Revenue Code. The Plan permits distributions at any time to an alternative payee under a Qualified Domestic Relations Order.

Small Balance Distribution - A participant may elect a small balance distribution if the account value is $5,000 or less, the full value of the account is to be distributed, the participant has not deferred into the Plan for two years, the participant agrees not to recommence deferrals to the Plan for one year, and there has been no prior distribution under this Plan provision.

Benefit Payment Options - The following benefit payment options are available under the Plan. Definitions of each are provided on the benefit payment election form.

1. Payments of an annual percent
2. Payments of a dollar amount
3. Systematic withdrawals for a fixed-time period
4. Partial lump sum payout
5. Lump sum payout

Designation of Beneficiaries - At any time after commencing participation in the Plan, a participant, or spousal beneficiary may designate a beneficiary or joint annuitant for any benefits that the participant or spousal beneficiary is entitled to receive under the Plan and which are unpaid at the time of the participant's death, on a form filed with and accepted by the Plan administrator. If a participant or spousal beneficiary die without having a proper beneficiary form completed and on file, the benefits payable on or after the date of death shall be paid to the fiduciary of the probate estate, provided that if the Plan administrator does not receive notice that a fiduciary has been appointed, payment may be made to those persons making claims to receive the property under intestacy laws of the jurisdiction of their residence at the time of the participant's death.

If a non-spousal beneficiary dies while receiving Plan benefits, any remaining benefits which the non-spousal beneficiary is entitled to receive under the Plan and which are unpaid at the time of the beneficiary's death shall be paid in a lump sum amount determined under each applicable investment option to the fiduciary of the beneficiary's probate estate, provided that if the Plan administrator does not receive notice that a fiduciary has been appointed, payment shall be made to those persons making claims to receive the beneficiary's property under the intestacy laws of the jurisdiction of the beneficiary's residence at the time of death.

If a trust is named as beneficiary, satisfactory evidence must be furnished to the Plan that the trust is the only beneficiary qualified to receive payment. The Plan will be fully discharged of liability for any action taken by the trustee and for all amounts paid to the trustee. In all dealings with the trust, the Plan will be fully protected against the claims of every other person. The Plan will not recognize a change in the trust as beneficiary unless the change is documented on forms provided by the Plan administrator.

Designation Forms - A participant may change any beneficiary or joint annuitant at any time by filing with the Plan administrator a dated change of beneficiary form or joint annuitant form. These designations shall be on forms provided by the Plan administrator and shall be effective on the date filed with and accepted by the Plan administrator. Any change of joint annuitant must be made prior to commencement of annuity payments.

OHIO DEFERRED COMPENSATION

OHIO PUBLIC EMPLOYEES DEFERRED COMPENSATION PROGRAM

FINANCIAL SECTION

May 14, 2019

To the Ohio Public Employees Deferred Compensation Program Board
Franklin County, OH
257 East Town St., Suite 400
Columbus, Oh 43215

Independent Auditor's Report

Report on the Financial Statements
We have audited the accompanying financial statements of the Ohio Public Employees Deferred Compensation Program, Franklin County, Ohio (the Program) as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Program's basic financial statements as listed in the table of contents.

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 financial statements referred to above present fairly, in all material respects, the plan net position available for benefits of the Ohio Public Employees Deferred Compensation Program, Franklin County, Ohio as of December 31, 2018 and 2017, and the changes in its plan net position available for benefits for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of a Matter
As described in Note 3, the Program restated the net position balance to account for the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits other than Pensions*. Our opinion is not modified with respect to this matter.

Other Matters.

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of the program's proportionate share of the net pension liability, the schedule of program's pension contributions, the schedule of the program's proportionate share of the net OPEB liability and the schedule of the program's contributions – OPEB on pages 20-26, 66, 67, 68 and 69, respectively, 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 the Program's basic financial statements. The introductory section, supplemental schedules, investment section, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplemental schedules are the responsibility of management and were derived from and relate 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 supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory section, investment section, and statistical section 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 May 14, 2019 on our consideration of the Program'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 the effectiveness of the Program's 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 the Program's internal control over financial reporting and compliance.

Rea & Associates, Inc.

Dublin, Ohio

MANAGEMENT'S DISCUSSION AND ANALYSIS

Management of the Ohio Public Employees Deferred Compensation Program (the Program) offers this narrative overview of the financial statements contained in this CAFR. The financial statements consist of the Statements of Plan Net Position Available for Benefits and the Statements of Changes in Plan Net Position Available for Benefits. All assets, deferred outflows, liabilities, and deferred inflows associated with the Program's operations are included on the Statement of Plan Net Position Available for Benefits. The Program's financial activities for the periods are reported on the Statement of Changes in Plan Net Position Available for Benefits. Additional information is presented in the Notes to the Financial Statements and the Supplemental Information Schedules.

GASB 68 AND GASB 75

The net pension liability (NPL) is reported by the Program at December 31, 2018 and is reported pursuant to GASB Statement 68, *Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement 27*. During 2018, the Program adopted GASB Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which significantly revises accounting for costs and liabilities related to other postemployment benefits (OPEB). For reasons discussed below, many end users of this financial statement will gain a clearer understanding of the Program's actual financial condition by adding deferred inflows related to pension and OPEB, the net pension liability and the net OPEB liability to the reported net position and subtracting deferred outflows related to pension and OPEB.

Governmental Accounting Standards Board standards are national and apply to all government financial reports prepared in accordance with generally accepted accounting principles. Prior accounting for pensions (GASB 27) and postemployment benefits (GASB 45) focused on a funding approach. This approach limited pension and OPEB costs to contributions annually required by law, which may or may not be sufficient to fully fund each plan's *net pension liability* or *net OBEP liability*. GASB 68 and GASB 75 take an earnings approach to pension and OPEB accounting; however, the nature of Ohio's statewide pension/OPEB plans and state law governing those systems requires additional explanation in order to properly understand the information presented in these statements.

GASB 68 and GASB 75 require the net pension liability and the net OPEB liability to equal the Program's proportionate share of each plan's collective:

1. Present value of estimated future pension/OPEB benefits attributable to active and inactive employees' past service
2 Minus plan assets available to pay these benefits

GASB notes that pension and OPEB obligations, whether funded or unfunded, are part of the "employment exchange" – that is, the employee is trading his or her labor in exchange for wages, benefits, and the promise of a future pension and other postemployment benefits. GASB noted that the unfunded portion of this promise is a present obligation of the government, part of a bargained-for benefit to the employee, and should accordingly be reported by the government as a liability since they received the benefit of the exchange. However, the Program is not responsible for certain key factors affecting the balance of these liabilities. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by State statute. A change in these caps requires action of both Houses of the General Assembly and approval of the Governor. Benefit provisions are also determined by State statute. The Ohio revised Code permits but does not require the retirement systems to provide healthcare to eligible benefit recipients. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

The employee enters the employment exchange with the knowledge that the employer's promise is limited not by contract but by law. The employer enters the exchange also knowing that there is a specific, legal limit to its contribution to the retirement system. In Ohio, there is no legal means to enforce the unfunded liability of the pension/OPEB plan *as against the public employer.* State law operates to mitigate/lessen the moral obligation of the public employer to the employee, because all parties enter the employment exchange with notice as to the law. The retirement system is responsible for the administration of the pension and OPEB plans.

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 net pension liability or the net OPEB liability. As explained above, changes in benefits, contribution rates, and return on investments affect the balance of these liabilities, but are outside the control of the local government. In the event that contributions, investment returns, and other changes are insufficient to keep up with required payments, State statute does not assign/identify the responsible party for the unfunded portion. Due to the unique nature of how the net pension liability and the net OPEB liability are satisfied, these liabilities are separately identified within the long-term liability section of the statement of net position.

In accordance with GASB 68 and GASB 75, the Program's statements prepared on an accrual basis of accounting include an annual pension expense and an annual OPEB expense for their proportionate share of each plan's *change* in net pension liability and net OPEB liability, respectively, not accounted for as deferred inflows/outflows.

As a result of implementing GASB 75, the Program is reporting a net OPEB liability and deferred inflows/outflows of resources related to OPEB on the accrual basis of accounting. This implementation had the effect of restating net position at December 31, 2017, from $13,584,133,531 to $13,583,066,692.

In order to compare 2018 administrative expenses to 2017, the following adjustments are needed:

Total 2018 Expenses under GASB 75	$	10,389,667
OPEB Expense under GASB 75		(96,162)
2018 Contractually Required Contributions		0
Adjusted 2018 Expenses		10,293,505
Total 2017 Expenses under GASB 45		10,565,698
Increase/(Decrease) in Expenses not Related to OPEB	$	(272,193)

Administrative operations did not change much between 2017 and 2018, which is reflected by administrative expenses not related to pension decreasing by 0.9 percent in 2018 compared to 2017.

PROGRAM ADDITIONS

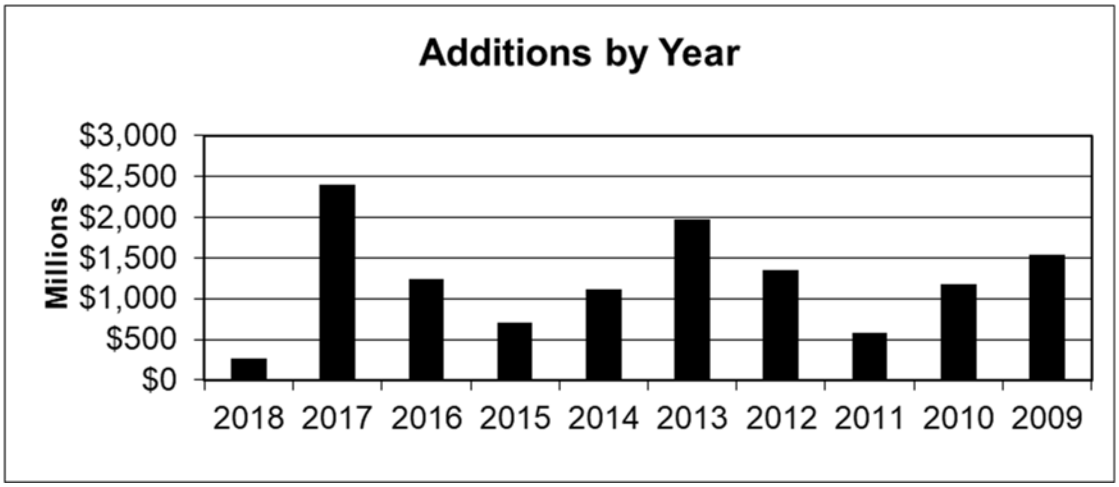
Over most recent periods, the largest item in Program additions has been investment income, which is mainly determined by the overall performance of the U.S. equity and fixed income markets. In 2018, U.S. equity markets generally produced negative annual returns for the first time since 2008. Net investment results in 2018 were investment losses of $342 million, compared to net earnings of $1.8 billion in 2017 and $685 million in 2016.

Participant contributions in 2018 increased 4.3 percent compared to 2017 and 11 percent compared to 2016. The number of actively contributing employees in 2018 increased to nearly 121,000, and the average annual contribution exceeded $4,100. The IRS determines the annual maximum limit that employees may contribute based on inflation indices, and the annual limits in 2018 were incrementally higher than 2016 and 2017. The annual IRS limit for 2018 was $18,500 for most participants, $24,500 for participants aged 50 and over, and $37,000 for participants in catch-up status. The annual limits are increasing again in 2019, which usually generates higher contributions into the Program.

Annual enrollments into the Program remain relatively high, which has led to greater participant contributions, and more transfers from other retirement savings accounts into the Program. Transfers from other retirement plans during 2018 increased 0.4 percent compared to 2017, and increased 15.1 percent compared to 2016. The Program has removed most investments options that pay recordkeeping reimbursements, and in 2018, only one investment option pays a recordkeeping reimbursement. The Program rebates that reimbursement entirely to the investors in that option.

	2018	2017	2016
Net investment income (loss)	($341,828,165)	$1,798,830,803	$684,494,068
Participant contributions	496,296,253	475,928,694	447,140,841
Transfer from other plans	117,389,189	116,925,187	101,975,571
Recordkeeping income/rebates	1,149,560	1,394,036	5,137,820
Total Additions	$273,006,837	$2,393,078,720	$1,238,748,300

The following graph shows a 10-year history of total Program additions. While participant contributions have trended up over this period, investment income has the greatest impact on total additions and the year-to-year fluctuations.



PROGRAM DEDUCTIONS

Total deductions continue to trend upwards. A long run of positive investment performances from 2009 to 2017 drove account values higher, resulting in more funds available to retirees. As waves of baby boomers are retiring, more participants have access to these higher account balances.

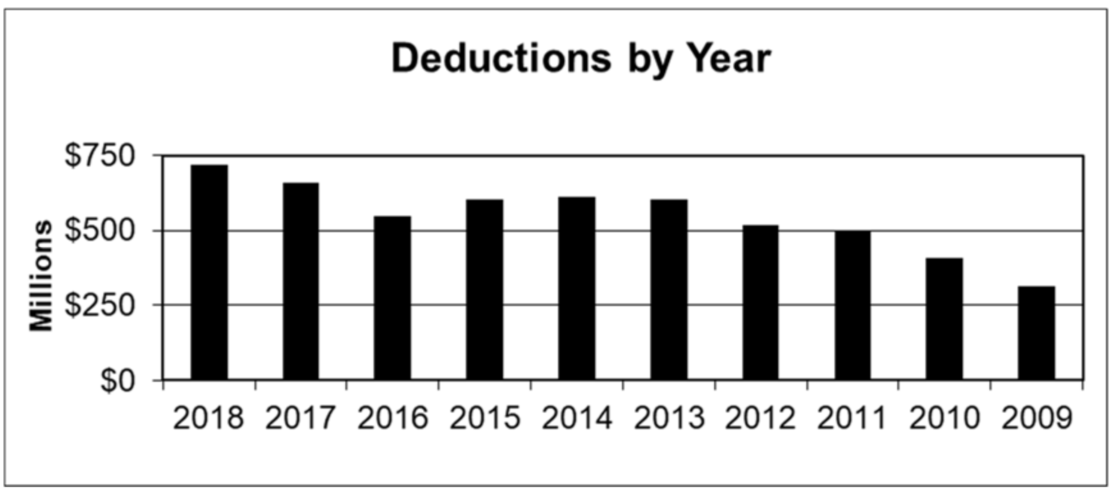
Distributions to participants increased by 10.2 percent in 2018 compared to 2017 and 21.8 percent compared to 2016. The number of participants taking a distribution in 2018 increased by 3 percent compared to 2017 and by 15 percent compared to 2016, and the average annual distribution per participant rose by 7 percent in 2018 compared to 2017.

Transfers to other plans increased 9 percent between 2018 and 2017, but transfers were up 46 percent between 2018 and 2016. The Program continues to offer communication materials promoting the benefits of keeping account balances in the Program after retirement, but as account balances rise, there are greater efforts by other plans to attract these accounts.

Other deductions are primarily administrative expenses, and the amount of these deductions did not change substantially between 2016 and 2018.

	2018	2017	2016
Distributions to participants	$387,336,401	$351,506,917	$317,951,713
Transfers to other plans	321,205,624	295,491,754	219,798,499
Other deductions	10,389,667	10,565,698	10,484,578
Total Deductions	$718,931,692	$657,564,369	$548,234,790

The graph below shows the 10-year history of total Program deductions. The general trend over this period has been a steady increase in Program deductions. These increases were generated by more people taking distributions (larger numbers of baby boomers retired) and greater amounts available (larger account balances resulting from generally positive market performance and increased contributions). There was a slight dip in total deductions in 2016 as transfers out of the plan decreased, but the longer-term trends resumed in 2017 and total deductions increased.



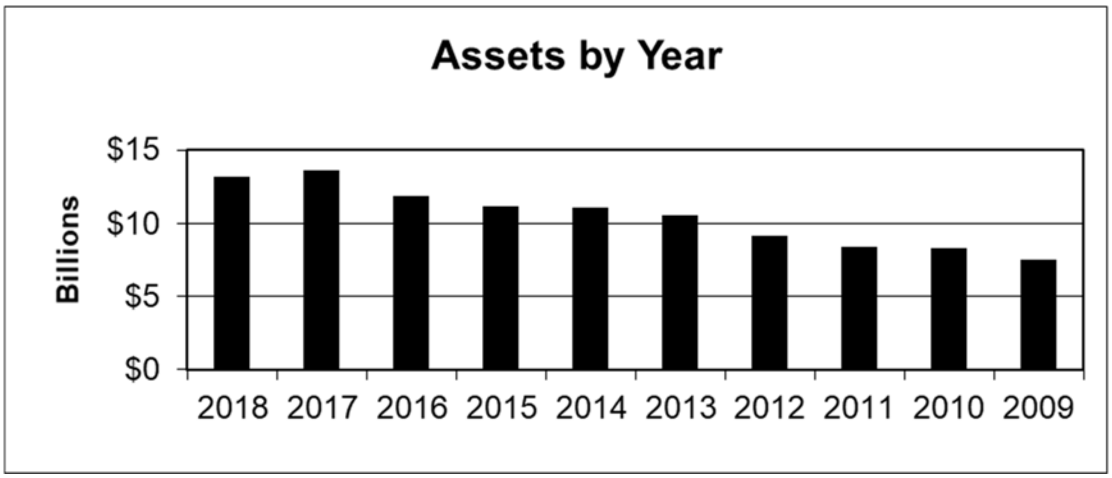
PLAN NET POSITION AVAILABLE FOR BENEFITS

Total assets and deferred outflows at December 31, 2018 decreased $446 million compared to the prior year-end. The primary reason for this decrease was net investment losses of $342 million. In addition, participant cash flows were negative $95 million (distributions and transfers to other plans exceeded contributions and transfers from other plans).

Program liabilities and deferred inflows are generally unpaid operating expenses at year-end, trade settlement payments due for investments purchased on the final business day of the year, and net pension/OPEB liability. Total liabilities can vary depending on the volume of participant account activity (contributions and exchanges) on the final business day of the year.

	2018	2017	2016
Total Assets and Deferred Outflows	$13,144,092,691	$13,590,083,206	$11,853,250,969
Total Liabilities and Deferred Inflows	6,950,854	5,949,675	4,631,789
Net Position Available for Benefits	$13,137,141,837	$13,584,133,531	$11,848,619,180
Change in Net Position	($445,924,855)	$1,735,514,351	$690,513,510

As shown in the graph below, total assets available for benefits have trended up over the past 10 years, representing an improvement to the overall financial position of the Program. The negative investment performance of 2018 produced a slight dip in this upward trend.



CAPITAL ASSETS

At the end of 2018, the Program had $10,113,468 (net of accumulated depreciation) in furniture and fixtures, office equipment, leasehold improvements and computer software under development. See note 13 for further description of capital assets. The following table shows 2018 balances compared to 2017 and 2016:

	2018	2017	2016
Non-Depreciable:			
Computer Software Development	$10,075,778	$6,999,664	$4,469,238
Depreciable:			
Furniture and fixtures	18,228	23,172	29,091
Office equipment	18,672	20,738	27,600
Leasehold Improvements	791	5,446	10,101
Total Capital Assets	$10,113,468	$7,049,020	$4,536,030

PROGRAM ACTIONS

The Program continues to manage the investment line-up to lower participant costs and improve portfolio management. During 2018, investments in the Fidelity and BlackRock collective trust funds were moved to lower-costing share classes of the respective investment options. Collectively, these investors will save approximately $1.3 million annually in investment management costs.

The Program continues to build a replacement system to the existing recordkeeping system. New hardware and software should modernize the system making it more reliable, secure, and flexible to better meet the needs of our participants and employers. The new system will be implemented in phases. The first phase was implemented on March 25, 2019. The first phase will essentially replace the existing recordkeeping system, and future phases will include new features and enhancements.

CONTACTING THE PROGRAM'S FINANCIAL MANAGEMENT

This financial report is designed to provide participants, beneficiaries, employers, trustees, investment managers, and the public with a general overview of the Program's finances and to show the Program's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Program's administrative offices at 614-466-7245.

STATEMENTS OF PLAN NET POSITION AVAILABLE FOR BENEFITS

As of December 31, 2018 and 2017

	2018	2017
Assets:		
Investments:		
Stable value option	$4,575,037,252	$4,491,239,577
Collective trust funds	4,525,906,162	4,674,001,858
Mutual funds	3,286,709,101	3,666,921,335
Separate account	710,188,803	711,721,676
Purchased annuities	14,390,450	16,110,926
Total investments	13,112,231,768	13,559,995,372
Cash and cash equivalents	14,771,228	14,273,965
Contributions receivable and cash held for investment	5,877,871	7,316,040
Accounts receivable and prepaids	586,937	460,155
Property and equipment, net	10,113,468	7,049,020
Total assets	13,143,581,272	13,589,094,552
Deferred Outflows of Resources:		
Pension: OPERS	426,019	988,654
OPEB: OPERS	85,400	0
Total deferred outflows of resources	511,419	988,654
Liabilities:		
Accounts payable	2,797,529	2,549,590
Accrued expenses	750,118	859,773
Net Pension Liability	1,745,641	2,525,283
Net OPEB Liability	1,160,495	0
Total liabilities	6,453,783	5,934,646
Deferred Inflows of Resources:		
Pension: OPERS	409,165	15,029
OPEB: OPERS	87,906	0
Total deferred inflows of resources	497,071	15,029
Plan Net Position Available for Benefits	$13,137,141,837	$13,584,133,531

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

STATEMENTS OF CHANGES IN PLAN NET POSITION AVAILABLE FOR BENEFITS

For the years ended December 31, 2018 and 2017

	2018	2017
Additions:		
Net Investment Income:		
Net gain (loss) on funds	($446,867,608)	$1,700,353,203
Stable value income	117,369,603	111,496,883
Investment expenses	(12,330,160)	(13,019,283)
Net investment income (loss)	(341,828,165)	1,798,830,803
Participant contributions	496,296,253	475,928,694
Transfers from other plans	117,389,189	116,925,187
Recordkeeping income	45,685	109,924
Recordkeeping rebates	1,103,875	1,284,112
Total additions	273,006,837	2,393,078,720
Deductions:		
Distributions to participants	387,336,401	351,506,917
Transfers to other plans	321,205,624	295,491,754
Administrative expenses	10,389,667	10,565,698
Total deductions	718,931,692	657,564,369
Change in Net Position	(445,924,855)	1,735,514,351
Plan Net Position Available for Benefits:		
Beginning of Year	13,584,133,531	11,848,619,180
Cumulative Effect of GASB 75 Implementation	(1,066,839)	-
Beginning of Year as Restated	13,583,066,692	11,848,619,180
End of Year	$13,137,141,837	$13,584,133,531

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

NOTES TO THE FINANCIAL STATEMENTS

1. General Description of the Program:

The following description of the Ohio Public Employees Deferred Compensation Program (the Program) is provided for general information only. Participants should refer to the Plan Document for complete information.

The Program is a voluntary defined contribution pension plan established pursuant to Ohio Revised Code (ORC) Section 148, which permits the Board to maintain and alter the Program as necessary. Under the Program provisions, any public employee within Ohio (as defined in ORC Section 148.01(A)(1)) is eligible to contribute into the Program, through payroll deductions, any amount up to the maximum permitted under Section 457 of the Internal Revenue Code. Amounts contributed by employees are deferred for Federal and State income tax purposes until such amounts are distributed by the Program. As of December 31, 2018, and 2017, there were 1,949 and 1,909 respectively, State and local governments in the Program, and 120,990 and 117,005 respectively, actively deferring participant accounts in the Program.

Plan assets are not the property of the participating employees. All Plan assets and income are held by the Board in trust on behalf of the employers for the exclusive benefit of participants and their beneficiaries. All assets, whenever contributed to the Plan, are assigned to the trust established by the Board.

As of December 31, 2018, Program participants have the following investment options:

- A Stable Value Option administered by the Program. Investment portfolios are managed by Goldman Sachs Asset Management (GSAM); Dodge & Cox (Dodge & Cox); Earnest Partners (Earnest); JP Morgan Asset Management (JP Morgan); Jennison Associates LLC (Jennison); Nationwide Asset Management LLC (Nationwide); Payden & Rygel (Payden); and State Street Bank and Trust (State Street). The Stable Value Option also invests in a guaranteed investment contract issued by New York Life Insurance Co.

- Mutual funds managed by Dodge & Cox (Dodge & Cox); Franklin Templeton Funds (Templeton); and The Vanguard Group, Inc. (Vanguard).

- Separate accounts managed by Fiera Capital (Fiera), T. Rowe Price (Price), Westfield Capital Management (Westfield), and Westwood Management (Westwood).

- Collective trust funds managed by BlackRock Institutional Trust Company (BlackRock); Fidelity Investment Company (Fidelity); and TCW Investment Management Company (TCW).

Participants may withdraw the value of their deferred account upon termination of employment, retirement, disability, or unforeseeable financial emergency. Participants may select various payout options including lump sum payments or payments over various periods. If a purchased annuity option was selected, the payments may be actuarially determined.

2. Summary of Significant Accounting Policies:

Organization:

The Ohio Revised Code Section 148.02 created the Deferred Compensation Board (the Board) to administer the Program for all eligible employees. However, under the criteria set forth in governmental accounting standards, the Program is not considered a component unit of the State of Ohio, because of the following:

- The Program is a separate legal entity.
- The State does not appoint a voting majority of the Program's Board.
- The State does not approve the Program budget or set Program rates or charges.
- The Program provides services to Ohio local governments as well as to the State of Ohio.

The Ohio Deferred Compensation Board is constructed of the members of the Ohio Public Employees Retirement System (OPERS) Board, a member of the Ohio Senate, and a member of the Ohio House of Representatives. The two members from the Ohio General Assembly must be of different political parties and are appointed by their respective leadership. Seven members of the OPERS Board are elected by the groups they represent: retired employees (2), State employees, municipal employees, county employees, non-teaching employees of State colleges and universities, and miscellaneous employees. The four statutory Board members are the Director of the Ohio Department of Administrative Services and investment experts appointed by the Governor of Ohio, Treasurer of State, and Ohio General Assembly.

Basis of Accounting and Measurement Focus:

The activities of the Program are accounted for as a Pension Fund and follow the accrual basis of accounting and reporting for defined contribution plans recommended by the Governmental Accounting Standards Board. The Program is accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets, deferred outflow, liabilities, and deferred inflows associated with the Program's operations are included on the Statement of Plan

Net Position Available for Benefits. Activities of the Program are accounted for in two funds, which are combined for financial reporting:

Program Fund:

The Program Fund reflects all employee contributions, earnings, or losses on investments and distributions to participants.

Administration Fund:

The Administration Fund is used to account for customer service and administrative costs incurred by Program operations. The Administration Fund recovers the costs of its operations through fees charged to the participant accounts in the Program Fund.

Deferred Outflows/Inflows of Resources:

In addition to assets, the statements of financial position will sometimes report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense/expenditure) until then. For the Program, deferred outflows of resources are reported on the Statement of Net Position Available for Plan Benefits for pension and OPEB. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The deferred outflows of resources related to pension and OPEB are explained in Notes 15 and 16.

In addition to liabilities, the statements of financial position report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. For the Program, deferred inflows of resources include pension and OPEB. Deferred inflows of resources related to pension and OPEB plans are reported on the Statement of Net Position Available for Plan Benefits. (See Notes 15 and 16).

Stable Value Option:

The Program administers the Stable Value Option (SVO), the stable value investment option offered to participants. As of December 31, 2018, the Program has stable value funds invested with eight professional investment managers and in three guaranteed investment contracts. The Program determines the quarterly interest rate credited to participants by calculating the net weighted average return of these investments. The Program is also responsible for calculating daily account balances, disbursing funds for benefit withdrawals, and processing investment exchanges.

As of December 31, 2018, the investment portfolios of the SVO are managed by GSAM; Dodge & Cox; Earnest; JP Morgan; Jennison; Nationwide; Payden; and State Street. The remaining guaranteed investment contract is managed by New York Life Insurance Co. The Program's Stable Value Investment Policy specifies investment guidelines, including asset class, credit rating, portfolio diversification, and duration. The GSAM portfolio includes a cash reserve account to buffer the other investment portfolios from daily cash flows into and out of the SVO.

Funds invested in the SVO portfolios are covered by guarantee agreements with banks and insurance companies. These agreements provide the formulas for determining the quarterly interest rate earned by the stable value investment portfolio and provide for benefit withdrawals at the guaranteed value. As of December 31, 2018, the Program's guarantee agreements are with Metropolitan Life Insurance Co.; Transamerica Premier Life Insurance Co.; Prudential Insurance Co. of America; Reinsurance Group of America; and the Royal Bank of Canada.

Investments Valuation:

The SVO contains benefit responsive synthetic guaranteed investment contracts that are valued at contract value, which represents contributions received, plus the interest credited, less applicable charges and amounts withdrawn. Traditional guaranteed investment contracts are valued at fair value.

Mutual fund investments are valued at the share prices of mutual funds as reported by the fund providers, which represent contributions received, plus appreciation (depreciation) of the underlying portfolio, less applicable charges and amounts withdrawn.

Separate account investments are valued at the fair value of the underlying assets as reported by the fund custodian, which represent contributions received, plus appreciation (depreciation) of the underlying portfolio, less applicable charges and amounts withdrawn.

Collective trust fund investments are valued at the unit prices of the collective trust funds as reported by the fund providers, which represent contributions received, plus appreciation (depreciation) of the underlying portfolio, less applicable charges and amounts withdrawn.

Assets held for purchased annuities are valued at amounts reported by Nationwide, which are actuarially determined. These amounts represent reserves established by Nationwide and are based on actuarial assumptions as to anticipated mortality, withdrawals, and investment yield. Nationwide periodically adjusts and updates these assumptions.

The Program categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs. See note 7 for additional information.

Stable Value Income:

Stable value income is recorded as earned for each of the investment components of the SVO. The gross crediting rates for each portfolio were adjusted quarterly and ranged from 1.89 percent to 2.86 percent during 2018, and from 1.74 percent to 2.59 percent during 2017.

The assets held for purchased annuities were credited interest based on reserve assumptions used by Nationwide at the participant’s annuitization date. The annuitization rates ranged from -2.3 percent to +2.5 percent during 2018 and 2017.

Net Gain or Loss on Invested Funds:

Investment income or loss consists of dividends and capital gains paid, and appreciation or depreciation on mutual funds, collective trust funds, and separate accounts.

Historical Trend Information:

Unaudited historical trend information designed to provide information about the Program's progress is presented in the accompanying Statistical Section of this report.

Property and Equipment:

Property and equipment of the Board are stated at cost less accumulated depreciation. Depreciation on property and equipment is calculated using the straight-line method over the estimated useful lives of the assets.

Board Employees' Deferred Compensation Benefits:

All employees of the Board are eligible to participate in the Program, which it administers. The Deferred Compensation Board employees' assets in the Program were valued at fair value and are included as Plan Net Position Available for Benefits.

Reclassifications:

Certain prior year amounts may have been reclassified to conform to the current year's presentation.

Pensions/Other Postemployment Benefits (OPEB):

For purposes of measuring the net pension/OPEB liability, deferred outflows of resources and deferred inflows of resources related to pensions/OPEB, and pension/OPEB expense, information about the fiduciary net position of the pension/OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the pension/OPEB plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The pension/OPEB plans report investments at fair value.

3. Implementation of New Accounting Principles and Restatement of Net Position

For the fiscal year ended December 31, 2018, the Program has implemented Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial reporting for Postemployment Benefits other than Pensions*, GASB Statement No. 85, *Omnibus 2017* and GASB Statement No. 86, *Certain Debt Extinguishments.*

GASB Statement No. 75 requires recognition of the entire net postemployment benefits other than pensions (other postemployment benefits or OPEB) liability and a more comprehensive measure of postemployment benefits expense for OPEB provided to the employees of state and local governmental employers through OPEB plans that are administered through trusts or equivalent arrangements. The implementation of GASB Statement No. 75 resulted in the inclusion of net OPEB liability and OPEB expense components on the accrual financial statements. See below for the effect on net position as previously reported.

Plan Net Position, December 31, 2017	$	13,584,133,531
Adjustments:		
Net OPEB Liability		(1,081,544)
Deferred Outflow-Payments		
Subsequent to Measurement Date		14,705
Restated Plan Net Position, January 1, 2018	$	13,583,066,692

Other than employer contributions subsequent to the measurement date, the Program made no restatement for deferred inflows/outflows of resources as the information needed to generate these restatements was not available. The comparative information presented in the 2017 columns are as previously reported. The information necessary to restate the prior years amounts in not available.

GASB Statement No. 85 addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and other postemployment benefits (OPEB). These changes were incorporated in the Program's fiscal year 2018 financial statements; however, there was no effect on beginning net position.

GASB Statement No. 86 addresses the reporting and disclosure requirements of certain debt extinguishments including in-substance defeasance transactions and prepaid insurance associated with debt that is extinguished. The implementation of GASB Statement No. 86 did not have an effect on the financial statements of the Program.

4. Tax Status:

The Program is an eligible deferred compensation program as defined by Section 457 of the Internal Revenue Code. Accordingly, any amount of compensation deferred under the Program and any income attributable to the amounts so deferred shall be included in the taxable income of the participant only for the taxable year in which such compensation or other income is paid or otherwise made available to the participant or his beneficiary.

5. Participant Contributions:

Participant Contributions Receivable and Cash Held for Investment represent amounts withheld from participants, but not remitted to the investment providers at year-end. The Program maintains a bank account for the purpose of consolidating the deposit of all participant contributions. Contributions are subsequently remitted to the investment providers as designated by the participants. Funds deposited but not remitted to the investment providers were $2,123,040 and $2,697,200 at December 31, 2018 and 2017, respectively.

6. Cash and cash equivalents:

The Board's policy is to invest excess Administrative Fund cash in bank checking and money market accounts, certificates of deposit, or issues of the U.S. Government and its agencies, all with maturities of five years or less. The Program also may invest in StarOhio, investment pools managed by the State Treasurer's Office that allows governments within the State to pool their funds for investment purposes. StarOhio is not registered with the Securities Exchange Commission as an investment company, but StarOhio operates in a manner similar to Rule 2a-7 of the Investment Company Act of 1940. Investments in StarOhio are valued at StarOhio's share price, which is the price the investment could be sold for on December 31, 2018. The weighted average maturity of the portfolio held by StarOhio as of December 31, 2018, is 45 days and carries a rating of AAAm from S&P Global Rating.

During 2018, the Program invested in STAR Ohio. STAR Ohio (the State Treasury Asset Reserve of Ohio), is an investment pool managed by the State Treasurer's Office which allows governments within the State to pool their funds for investment purposes. STAR Ohio is not registered with the SEC as an investment company, but has adopted Governmental Accounting Standards Board (GASB), Statement No. 79, *Certain External Investment Pools and Pool Participants*. The Program measures their investment in STAR Ohio at the net asset value (NAV) per share provided by STAR Ohio. The NAV per share is calculated on an amortized cost basis that provides an NAV per share that approximates fair value.

For 2018, there were no limitations or restrictions on any participant withdrawals due to redemption notice periods, liquidity fees, or redemption gates. However, notice must be given 24 hours in advance of all deposits and withdrawals exceeding $25 million. STAR Ohio reserves the right to limit the transaction to $100 million, requiring the excess amount to be transacted the following business day(s), but only to the $100 million limit. All accounts of the participant will be combined for these purposes.

At December 31, 2018 and 2017, the bank carrying value balances were $14,771,228 and $14,273,965 respectively. The bank balances were insured up to $250,000 by the Federal Deposit Insurance Corporation. The remaining bank deposits are covered by collateral held in the name of the Program's pledging financial institution, as required by State statute.

7. Program Investments:

A summary of Program investments is as follows:

	December 31, 2018	
	Carrying Value	Fair Value
Stable Value Option	$4,575,037,252	$4,545,960,552
Collective Trust Funds	4,525,906,162	4,525,906,162
Mutual Funds	3,286,709,101	3,286,709,101
Separate Account	710,188,803	710,188,803
Purchased Annuities	14,390,450	14,390,450
Total Investments	$13,112,231,768	$13,083,155,068

	December 31, 2017	
	Carrying Value	Fair Value
Collective Trust Funds	$4,674,001,858	$4,674,001,858
Stable Value Option	4,491,239,577	4,526,263,210
Mutual Funds	3,666,921,335	3,666,921,335
Separate Account	711,721,676	711,721,676
Purchased Annuities	16,110,926	16,110,926
Total Investments	$13,559,995,372	$13,595,019,005

Stable Value Option:

The investments of the Stable Value Option (SVO) are governed by the Stable Value Investment Policy enacted by the Board. The SVO invests in a diversified portfolio of bonds and fixed income investments including U.S. government and agency securities, residential and commercial mortgage-backed securities, asset-backed securities, and corporate securities. The SVO also invests in stable value contracts that may include wrapper contracts, and separate and general account group annuity and other types of investment contracts (SV Contracts). SV Contracts, which are contractual agreements issued by banks, insurance companies, and other financial institutions, are purchased by the SVO with the objective of providing principal stability. The SVO may also invest in commingled bank trust funds or insurance company funds that own bonds or fixed income securities described above.

Fully benefit responsive guaranteed investment contracts (SV Contracts) are normally valued using a book value record determined by the contract's terms, which is intended to help reduce principal fluctuations and provide for certain transactions at book value. SV Contracts credit a stated interest rate that is determined periodically and may vary from period to period. SV Contract issuers are typically paid ongoing fees from the assets of the SVO. These fees are calculated based on a percentage of the SV Contract's book value. The SVO's returns are affected by cash flows including employee contributions, withdrawals and transfers, and the total return performance of the associated fixed income account portfolios.

At December 31, 2018, investments in separate account portfolios managed by Dodge & Cox, Earnest, JP Morgan, Jennison, Payden, and State Street were held in custody for the Program by State Street Bank and Trust. A separate account managed by Nationwide was held in custody by Bank of New York Mellon. The quoted market prices of these investments have been used for disclosure purposes.

Funds managed by GSAM were in GSAM commingled bond funds and are disclosed at fair value. Funds were invested in a guaranteed investment contract (GIC) issued by New York Life Insurance Co. The fair value of a GIC is calculated by discounting the expected future cash flows of the investment based on current market yields of similar investments with comparable durations. These investments are valued using level 2 inputs, which consist of other observable means, including quoted prices for similar items in an active market.

The Program has entered into SV Contracts to fund qualified withdrawals at contract value for participant driven transactions as allowed by the normal operation of the Program. These investments are reported at contract value. The contract value represents participant contributions plus earnings based on the credited rate of interest stipulated under the terms of the various SV Contracts. As of December 31, 2018, the fair value of the SVO assets was less than the book value by $29 million or 0.6 percent. The crediting rate formula under many of the SV Contracts is intended to converge the fair value and book value of SVO assets over time, although changing market conditions, combined with participant activity, may affect the feasibility and timing of converging the carrying and fair values of the SVO.

A summary of the fair value of investments in the Stable Value Option by investment manager at December 31, 2018 and 2017 is as follows:

	2018	2017
Goldman Sachs	$1,491,192,992	$1,296,108,425
Dodge & Cox	658,987,175	529,476,472
JP Morgan Investment Advisors	522,836,793	523,990,365
Nationwide Life Insurance Co.	520,440,215	461,643,461
Jennison	441,581,264	542,793,431
State Street Bank and Trust	379,205,841	775,256,735
Payden & Rygel	259,453,857	111,500,703
Earnest Partners	255,900,422	107,816,741
New York Life Ins. Co.	16,361,993	80,708,204
Jackson National Life Ins Co.	0	48,543,750
Principal Life Ins. Co.	0	48,424,923
Total Fair Value	4,545,960,552	4,526,263,210
Total Carrying Value	4,575,037,252	4,491,239,577
Difference	-$29,076,700	$35,023,633

The SVO is typically expected to maintain a relatively stable principal value. However, in some circumstances the SVO's principal value may fluctuate up or down without advance notice. Therefore, it is possible to lose money investing in the SVO. An investment in the SVO is not insured or guaranteed by the Program, SVO managers, the FDIC, or any other government agency. Some of the primary risks that may impact the SVO are described below.

Credit Risk – The Program's investment policy requires the average quality of the SVO structure to be A-/A3 or better and restricts the amount of investments in securities rated below BBB-/Baa3 to 10 percent or less of assets. In addition, no more than one percent of the assets will be invested in any single high yield (below BBB) issuer.

As of December 31, 2018, the overall average credit quality of the SVO portfolio was AA. The market value weighted average credit quality of the SVO investments are determined by S&P Global Ratings ("S&P"), Moody's Investor Services, Inc. ("Moody's"), and/or Fitch Ratings ("Fitch") are shown in the table below as of December 31, 2018, and 2017. Investments in U.S. government securities or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk.

Credit Rating	2018 Fair Value	2018 Portfolio %	2017 Fair Value	2017 Portfolio %
AAA	$1,709,941,889	37.6%	$1,320,923,498	29.2%
AA	159,265,610	3.5%	327,820,514	7.2%
A	509,273,458	11.2%	609,719,615	13.5%
BBB	637,347,385	14.0%	583,823,366	12.9%
BB	7,232,798	0.2%	2,519,167	0.1%
B and below	0	0.0%	1,188,145	0.0%
Subtotal	3,023,061,140	66.5%	2,845,994,305	62.9%
U.S. Treasury Securities	1,522,899,412	33.5%	1,680,268,905	37.1%
Fair Value Stable Value Investments	$4,545,960,552	100.0%	$4,526,263,210	100.0%

Concentration of Credit Risk – The Program's investment policy precludes investments in any one corporate issuer from exceeding 5 percent of the SVO assets.

Interest Rate Risk – Interest rate risk is the chance that changes in market interest rates will adversely affect the fair value of the investments. The Program's investment policy segments the SVO into three different categories: a liquidity buffer, a fixed maturity schedule, and an open maturity structure. The Program does not have an investment policy that addresses interest rate risk.

Within the liquidity buffer, the SVO will primarily invest in short-term investment funds or money market instruments but may also invest in high-quality buffer stable value contracts that provide same day liquidity for withdrawals.

The investments within the fixed maturity schedule will normally pursue a passive laddered maturity structure, whereby the dollar-weighted duration of the structure will be no more than 3.5 years.

The underlying portfolios within the open market structure will be kept within +/- 20.0 percent of the duration of the Bloomberg Intermediate Aggregate Bond Index, Bloomberg Intermediate Government/Credit Index, or a blend of the Bloomberg Aggregate Bond Index and Bloomberg Stable Income Market Index.

The segmented time distribution reflects fixed-income maturities over different time intervals. The longer the maturity, the more susceptible the value of the investment is to fluctuate in market interest rates.

The following tables show the maturity of the SVO investments segmented by time period and sector.

As of December 31, 2018:

Investment	Less than 1 Year	1-5 Years	6-10 Years	More than 10 Years	Total
U.S. Treasury Securities	$234,816,143	$1,151,482,813	$70,058,605	$66,541,851	$1,522,899,412
Corporate Bonds	207,928,748	1,031,780,495	155,992,659	8,758,758	1,404,460,660
Mortgage Obligations	41,657,273	609,108,640	57,424,653	0	708,190,566
U.S. Government Agency Securities	31,669,942	249,662,249	32,548,440	651,473	314,532,104
Cash Equivalents	261,800,393	0	0	0	261,800,393
Asset Backed Securities	127,272,940	132,223,321	0	0	259,496,261
Other Government Related Securities	2,301,715	44,978,676	8,712,790	0	55,993,181
Traditional GICs	2,225,982	16,361,993	0	0	18,587,975
Fair Value Stable Value Investments	$909,673,136	$3,235,598,187	$324,737,147	$75,952,082	$4,545,960,552

As of December 31, 2017:

Investment	Less than 1 Year	1-5 Years	6-10 Years	More than 10 Years	Total
U.S. Treasury Securities	$227,846,173	$1,214,308,284	$155,763,228	$82,351,220	$1,680,268,905
Corporate Bonds	120,174,346	1,022,093,915	248,318,721	6,949,249	1,397,536,231
Mortgage Obligations	68,142,365	542,586,890	47,924,820	0	658,654,075
Asset Backed Securities	104,441,852	139,073,986	-	0	243,515,838
U.S. Government Agency Securities	19,278,601	154,964,548	20,729,357	698,000	195,670,506
Traditional GICs	0	177,676,877	0	0	177,676,877
Cash Equivalents	118,030,832	0	0	0	118,030,832
Other Government Related Securities	-	46,947,880	6,918,968	1,043,098	54,909,946
Fair Value Stable Value Investments	$657,914,169	$3,297,652,380	$479,655,094	$91,041,567	$4,526,263,210

The Stable Value Option investments include collateralized mortgage obligations (CMO) and asset-backed securities (ABS). These types of securities are purchased for their predictable cash flow characteristics and for favorable yields compared to similar investments. However, these investment vehicles are based on cash flows from interest and principal payments from the underlying investments that are sensitive to prepayments, which may result from a decline in interest rates. At December 31, 2018, the Program had investments in CMO and ABS totaling $31 million and $260 million, respectively.

Collective Trust Funds:

The non-SVO investment options are governed by an investment policy adopted by the Board. This policy covers the responsibility to offer a sufficient range of investment options to allow participants to diversify their balances and construct portfolios that reasonably span the risk/return spectrum. Selection and monitoring of the investment options is also covered by this policy.

A collective trust fund is a professionally managed investment fund that pools money from many investors to purchase securities. A collective trust fund is similar to a mutual fund, but is monitored by state banking regulators, instead of the SEC. Collective trust funds generally have lower fees than mutual funds, so they may offer the opportunity for greater account growth.

The Program utilizes a series of collective trust funds as target date funds. A target date fund is a single investment option that provides a diversified mix of investments (equities, fixed income, cash, commodities, etc.). The fund initially invests aggressively and then becomes more conservative over time as the portfolio ages and nears the retirement date within the fund name. When the target date fund reaches the retirement year within the fund name, the fund is closed, and all assets are moved to the Retirement target date fund.

In February 2018, the Program moved investors in the BlackRock LifePath target date fund series from class L shares to class N shares of the respective investments. Program investors in the BlackRock LifePath target date fund series continue to receive the same investment managers and strategies, but at a reduced cost of over $550,000 annually.

In December 2018, the Program moved investors in the Fidelity collective trust funds from class 2 shares to class 3 shares of the respective investments. Program investors in Fidelity Contrafund and Growth Company continue to receive the same investment managers and strategies, but at a reduced cost of over $750,000 annually.

Shares of collective trust funds are priced at the net asset value as calculated by the fund provider. Collective Trust Funds are valued using level 2 inputs which consist of other observable means, including quoted prices for similar items in an active market. There are no unfunded commitments or restrictions on redemptions.

A summary of collective trust investments as of December 31, 2018 and 2017 is as follows:

	Collective Trust Funds - 2018			Collective Trust Funds - 2017		
	Fair Value	Share Price	Shares Owned (1,000's)	Fair Value	Share Price	Shares Owned (1,000's)
Fidelity:						
Contrafund	$1,283,193,421	15.69	81,784	$1,369,138,206	15.98	85,678
Growth Company	1,080,963,327	18.26	59,198	1,141,607,849	19.04	59,958
Total Fidelity	2,364,156,748			2,510,746,055		
BlackRock Investments:						
LifePath Retirement	$333,025,375	10.05	33,122	$358,635,338	14.40	24,913
LifePath 2020	399,676,673	10.07	39,696	427,335,531	15.52	27,541
LifePath 2025	293,903,358	10.05	29,248	280,865,716	16.38	17,148
LifePath 2030	374,364,001	10.03	37,312	367,917,432	17.19	21,402
LifePath 2035	161,254,543	10.02	16,098	147,067,037	17.97	8,186
LifePath 2040	199,178,677	10.00	19,919	197,256,477	18.65	10,576
LifePath 2045	78,603,260	9.98	7,880	69,966,706	19.23	3,638
LifePath 2050	82,932,683	9.96	8,326	76,872,398	19.66	3,910
LifePath 2055	52,090,317	9.96	5,232	42,604,273	19.99	2,131
Total BlackRock	1,975,028,887			1,968,520,908		
TCW Investments:						
Ohio DC Intermediate Bond	186,720,527	10.46	17,851	194,734,895	10.42	18,689
Total Collective Trust Funds	$4,525,906,162			$4,674,001,858		

Mutual Funds:

A mutual fund is a professionally managed investment fund that pools money from many investors to purchase securities. Mutual funds are registered and monitored by the U.S. Securities and Exchange Commission (SEC). The Program does not have in-house investment staff, so it often utilizes mutual funds to provide professional investment management.

In June 2017, Program investors in the Templeton Foreign fund were moved from Advisor shares to R6 shares. The Templeton investors continue to receive the same investment manager and strategy, but at a reduced investment cost of about $80,000 annually.

Shares of mutual funds are priced at the net asset value as calculated by the fund provider. Mutual funds are valued using level 1 inputs, which consist of quoted prices in active markets for identical assets.

A summary of year-end investments as of December 31, 2018 and 2017 is as follows:

	Mutual Funds - 2018			Mutual Funds - 2017		
	Fair Value	Share Price	Shares Owned (1,000's)	Fair Value	Share Price	Shares Owned (1,000's)
Vanguard:						
Capital Opportunity	$822,308,931	$132.01	6,229	$886,722,489	$153.61	5,773
Institutional Index	500,995,787	227.57	2,202	538,192,102	243.48	2,210
International Growth	266,143,667	79.22	3,360	316,980,490	95.58	3,316
Small-Cap Index	282,499,988	182.49	1,548	312,539,068	204.30	1,530
Total Bond Market Index	182,990,269	10.45	17,511	181,405,598	10.75	16,875
Total International Stock Index	127,126,144	101.48	1,253	147,195,903	122.05	1,206
Total Vanguard Funds	2,182,064,786			2,383,035,650		
Dodge & Cox Stock Fund	980,516,826	172.81	5,674	1,128,208,014	203.61	5,541
Templeton Foreign Fund	124,127,489	6.55	18,951	155,677,671	7.94	19,607
Total Mutual Funds	$3,286,709,101			$3,666,921,335		

Separate Accounts:

A separate account can be a diversified portfolio of investments similar to a mutual fund. While a mutual fund’s strategy is determined by the mutual fund’s provider, the owner of the separate account has the ability to choose the investment manager(s) and strategy. Because separate accounts are not marketed to the public and do not have the same reporting requirements as a registered mutual fund, they generally have lower operating costs than mutual funds.

The Ohio DC Large-Cap Growth fund has a target allocation of 95 percent actively managed by T Rowe Price and 5 percent passively managed by State Street Global Advisors. The Ohio DC Small-Cap Value fund has a target allocation of 92.5 percent actively managed by Westwood Management Corp. and 7.5 percent passively managed by State Street Global Advisors. The Ohio DC Small-Cap Growth fund has a target allocation of 65.0 percent actively managed by Westfield Capital Management Co., 27.5 percent actively managed by Fiera Capital, and 7.5 percent passively managed by State Street Global Advisors.

A summary of separate account investments as of December 31, 2018 and 2017 is as follows:

	Separate Account - 2018			Separate Account - 2017		
	Fair Value	Share Price	Shares Owned (1,000's)	Fair Value	Share Price	Shares Owned (1,000's)
Ohio DC Large-Cap Growth ***(Manager: T Rowe Price, State Street)***	$433,735,298	112.25	3,864	$396,980,912	107.80	3,683
Ohio DC Small-Cap Value ***(Manager: Westwood, State Street)***	157,826,254	9.41	16,767	188,964,310	10.93	17,282
Ohio DC Small-Cap Growth ***(Managers: Westfield, Fiera, State Street)***	118,627,251	9.95	11,919	125,776,454	11.11	11,318
	$710,188,803			$711,721,676		

Purchased Annuities:

Until 2004, Program participants could annuitize a portion of their account balance after termination. Annuity contracts were purchased from Nationwide Insurance that paid benefits over a participant's remaining life or set term. The annuity investment yield, mortality assumptions, and reserves are all determined by Nationwide Insurance. Purchased annuities are valued using level 2 inputs which consist of other observable means, including quoted prices for similar items in an active market.

The remaining assets held in purchased annuities are valued at amounts reported by Nationwide, which are actuarially determined. Investments in purchased annuities were $14,390,450 and $16,110,926 at December 31, 2018 and 2017, respectively.

8. Investment Expenses:

Investment manager, custodian, and book value guarantee fees are charged against the assets within the Stable Value Option portfolios.

Select mutual fund investments require participants to hold these investments for specified periods or the participant is assessed a redemption fee by the fund. The Program has collected and remitted redemption fees to the mutual funds to benefit the remaining investors of the fund.

Fees associated with the Program investment options are shown below:

	2018	2017
Stable Value - Book Value Guarantee Fees:	$7,846,700	$8,275,164
Stable Value - Management/Custodial Fees:		
Goldman Sachs Asset Management	1,103,462	1,115,355
JP Morgan Asset Management	619,256	883,506
Jennison Associates	603,269	670,523
Nationwide Asset Management	570,470	603,432
Dodge & Cox	588,992	523,284
State Street Bank and Trust	462,491	453,030
Payden & Rygel	271,443	216,138
Earnest Partners	264,077	208,985
Total Stable Value Investment Expenses	12,330,160	12,949,417
Total Mutual Fund Redemption Fees	0	69,866
Total Investment Expenses	$12,330,160	$13,019,283

9. Recordkeeping Reimbursements/Rebates:

In past years, certain mutual fund providers reimbursed the Program for performing recordkeeping services. Through 2015, the Program retained these reimbursements as the primary funding source of administrative operations.

Effective January 1, 2016, the Program began charging a uniform participant fee to fund administrative operations. The annualized fee is 0.14 percent of participant assets, but it is waived for participants with assets below $5,000 and capped at $220 per year per participant. The new participant fee is deducted from accounts quarterly, and the quarterly maximum is $55.

When this fee was implemented, recordkeeping reimbursements received from mutual funds were rebated into participant accounts that invested in the respective mutual funds. As of December 31, 2018, the Dodge & Cox Stock fund is the only remaining investment option that provides a recordkeeping reimbursement. During 2018, rebates to participant accounts were $1,103,875.

10. Customer Service Expense:

The Program has contracted with Nationwide to provide enrollment, education, and customer service to all eligible employees and participants. Nationwide has 15 employees who provide group and individual meeting opportunities while visiting employer worksites throughout Ohio. Nationwide has approximately 30 employees at their Service Center, who provide participants with call center, walk-in, and administrative support services. In addition, Nationwide provides an interactive website and automated phone system for both service and educational purposes.

In 2018, the Program negotiated a contract extension with Nationwide to continue services through June 30, 2022. Costs associated with customer service expenses were $6,834,177 and $6,646,183 for the years ended December 31, 2018 and 2017, respectively, and are included in Administrative Expenses.

11. Vacation and Sick Leave:

As of December 31, 2018, and 2017, the Program had accrued $394,735 and $364,466 respectively, for unused vacation and sick leave for full-time employees of the Board. At termination or retirement, employees are entitled to full compensation for all unused vacation time. With two years or more of employment prior to termination, employees are entitled to 50 percent payment of unused sick leave at termination. Vacation and sick leave accrual is recorded in accrued expenses.

12. Leases:

In 2009, the Board signed a 10-year lease agreement for office space with the Ohio Public Employees Retirement System. This office space houses the Board’s administrative offices and Service Center offices. Base rental payments for this operating lease were $281,175 for both 2018 and 2017, which were allocated to administrative rent and customer service expenses in these financial statements. During 2018, the Board signed a 10-year lease extension to remain in the same office space effective March 1, 2019.

Future scheduled minimum lease payments (base rental expense) under the office operating lease at December 31, 2018, are as follows:

Year-ending December 31	Amount
2019	$304,946
2020	309,700
2021	309,700
2022	309,700
2023	309,700
2024-2028	1,666,675
2029	55,692

13. Property and Equipment:

The Program is nearing completion of a modernization project to update the daily recordkeeping system. The project will improve functionality of the system, as well as update the software language and hardware to current standards. Completion of the project's first phase occurred March 25, 2019, and additional phases are expected to be implemented in 2019 or 2020.

Outside consultant costs associated with the modernization project totaled $2,786,031 and $2,312,016 in 2018 and 2017 respectively. In addition, internal information Internal technology staff costs (salaries and benefits) of $290,084 and $218,410 were allocated and capitalized to this project for 2018 and 2017 respectively.

Property and equipment include purchases of $1,000 or more with a useful life of at least three years. Property and equipment at December 31 are summarized as follows:

	Estimated Useful Life	**2018**	**2017**
Non-Depreciable:			
Computer Software Development	TBD	$10,075,778	$6,999,664
Depreciable:			
Furniture and fixtures	7 years	269,409	269,409
Computer equipment	3 years	143,643	143,643
Office equipment	5 years	98,858	87,849
Leasehold Improvements	7 years	46,551	46,551
		10,634,239	7,547,116
Less accumulated depreciation and amortization		(520,771)	(498,096)
Property and Equipment, Net		$10,113,468	$7,049,020

14. Insurance:

The Program is exposed to various risks of loss related to theft of, damage to, and destruction of assets; injuries to employees; and court challenges to fiduciary decisions. To cover these risks, the Program maintains commercial insurance and holds fidelity bonds on its employees. As required by State law, the Program is registered and insured through the State of Ohio Bureau of Workers' Compensation for injuries to employees. No insurance settlements exceeded coverages in the past three years, and there was no significant reduction in coverage amounts from the prior year.

The Program is self-insured under a professionally administered plan for general health and hospitalization employee benefits. The Program maintains specific stop loss coverage per employee for annual medical benefits in the amount of $250,000 for both 2018 and 2017. The accrual for future health claims was $340,325 and $483,791 as of December 31, 2018 and 2017 respectively. The accrual for future health claims is recorded within accrued expenses.

15. Defined Benefit Pension Plan

Net Pension Liability

The net pension liability reported on the statement of 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 resources 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 the Program’s proportionate share of each pension plan’s collective actuarial present value of projected benefit payments attributable 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, unknowable future events require adjusting this estimate annually.

Ohio Revised Code limits the Program’s obligation for this liability to annually required payments. The Program cannot control benefit terms or the manner in which pensions are financed; however, the Program does receive the benefit of employees’ services in exchange for compensation including pension.

GASB 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*. Any liability for the contractually-required pension contribution outstanding at the end of the year is included in *accounts payable*.

Plan Description – Ohio Public Employees Retirement System (OPERS)

The Program participates in the Ohio Public Employees Retirement System (OPERS). OPERS administers three separate pension plans. The traditional pension plan is a cost-sharing, multiple-employer defined benefit pension plan. The member-directed plan is a defined contribution plan and the combined plan is a cost-sharing, multiple-employer defined benefit pension plan with defined contribution features. While members (e.g. Program employees) may elect the member-directed plan and the combined plan, substantially all employee members are in OPERS' traditional plan; therefore, the following disclosure focuses on the traditional pension plan.

OPERS provides retirement, disability, survivor and death benefits, and annual cost-of-living adjustments to members of the traditional plan. Authority to establish and amend benefits is provided by Chapter 145 of the Ohio Revised Code. OPERS issues a stand-alone financial report that includes financial statements, required supplementary information and detailed information about OPERS' fiduciary net position that may be obtained by visiting https://www.opers.org/financial/reports.shtml, by writing to the Ohio Public Employees Retirement System, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling 800-222-7377.

Senate Bill (SB) 343 was enacted into law with an effective date of January 7, 2013. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. The following table provides age and service requirements for retirement and the retirement formula applied to final average salary (FAS) for the three member groups under the traditional plan as per the reduced benefits adopted by SB 343 (see OPERS CAFR referenced above for additional information, including requirements for reduced and unreduced benefits):

Group A Eligible to retire prior to January 7, 2013 or five years after January 7, 2013	Group B 20 years of service credit prior to January 7, 2013 or eligible to retire ten years after January 7, 2013	Group C Members not in other Groups and members hired on or after January 7, 2013
State and Local	**State and Local**	**State and Local**
Age and Service Requirements: Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	**Age and Service Requirements:** Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	**Age and Service Requirements:** Age 57 with 25 years of service credit or Age 62 with 5 years of service credit
Formula: 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	**Formula:** 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	**Formula:** 2.2% of FAS multiplied by years of service for the first 35 years and 2.5% for service years in excess of 35

Final average salary (FAS) represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career.

Members who retire before meeting the age and years of service credit requirement for unreduced benefits receive a percentage reduction in the benefit amount.

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

Funding Policy - Ohio Revised Code (ORC) provides statutory authority for member and employer contributions as follows:

	State and Local	
	2018	2017
Statutory Maximum Contribution Rates		
Employer	14.00%	14.00%
Employee	10.00%	10.00%
Actual Contribution Rates		
Employer:		
Pension	14.00%	13.00%
Post-Employment Health Care Benefits	0.00%	1.00%
Total Employer	14.00%	14.00%
Employee	10.00%	10.00%

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll. The Program's contractually required contribution was $209,233 and $191,161 for 2018 and 2017, respectively. Of the 2018 amount, $3,359 is reported as *accounts payable*.

Pension Liabilities, Pension Expense, and Deferred Outflows/Inflows of Resources Related to Pensions

The net pension liability for OPERS was measured as of December 31, 2017 and 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Program's proportion of the net pension liability was based on the Program'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:

	2018 OPERS	2017 OPERS
Proportion of the Net Pension Liability:		
Current Measurement Period	0.01112720%	0.01112053%
Prior Measurement Period	0.01112053%	0.01102100%
Change in Proportion	0.00000667%	0.00009953%
Proportionate Share of the Net Pension Liability	$ 1,745,641	$ 2,525,283
Pension Expense	$ 386,362	$ 547,298

Other than contributions made subsequent to the measurement date and differences between projected and actual earnings on investments; deferred inflows/outflows of resources are recognized in pension expense beginning in the current period, using a straight-line method over a closed period equal to the average of the expected remaining services lives of all employees that are provided with pensions, determined as of the beginning of the measurement period. Net deferred inflows/outflows of resources pertaining to the differences between projected and actual investment earnings are similarly recognized over a closed five-year period. At December 31, 2018, the Program reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2018 OPERS	2017 OPERS
Deferred Outflows of Resources		
Net Difference between Projected and Actual Earnings on Pension Plan Investments	$ 0	$ 376,075
Differences between Expected and Actual Experience	1,783	3,423
Changes of Assumptions	208,614	400,541
Changes in Proportionate Share	6,389	17,454
Program Contributions Subsequent to the Measurement Date	209,233	191,161
Total Deferred Outflows of Resources	$ 426,019	$ 988,654
Deferred Inflows of Resources		
Differences between Expected and Actual Experience	$ 34,399	$ 15,029
Net Difference between Projected and Actual Earnings on Pension Plan Investments	374,766	0
Total Deferred Inflows of Resources	$ 409,165	$ 15,029

The $209,233 reported as deferred outflows of resources related to pension resulting from Program contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending December 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ending December 31:	OPERS
2019	$ 162,065
2020	(35,419)
2021	(165,028)
2022	(153,997)
Total	$ (192,379)

Actuarial Assumptions - OPERS

Actuarial valuations of an ongoing plan involve estimates of the values 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 or modification 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. The total pension liability was determined by an actuarial valuation as of December 31, 2017 and 2016, using the following key actuarial assumptions and methods applied to all prior periods included in the measurement in accordance with the requirements of GASB 67. Key methods and assumptions used in the latest actuarial valuation, reflecting experience study results, prepared as of December 31, 2017 and 2016 are presented below.

Valuation Date	December 31, 2017
Wage Inflation	3.25 percent
Projected Salary Increases, including wage inflation	3.25 percent to 10.75 percent (includes wage inflation at 3.25 percent)
Investment Rate of Return	7.50 percent
Actuarial Cost Method	Individual Entry Age
Cost-of-Living Adjustments	Pre-1/7/2013 Retirees: 3.00 percent Simple Post-1/7/2013 Retirees: 3.00 percent Simple through 2018, then 2.15 percent Simple

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described table.

The most recent experience study was completed for the five-year period ended December 31, 2015.

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 real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017 measurement period, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio, and the Defined Contribution portfolio. The Defined Benefit portfolio contains the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan and the annuitized accounts of the Member-Directed Plan. Within the Defined Benefit 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 annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Defined Benefit portfolio was 16.82 percent for 2017.

During 2016, OPERS managed investments in four investment portfolios: the Defined Benefit portfolio, the 401(h) Health Care Trust portfolio, the 115 Health Care Trust portfolio, and the Defined Contribution portfolio. The 401(h) Health Care Trust portfolio was closed as of June 30, 2016 and the net position transferred to the 115 Health Care Trust portfolio on July 1, 2016. The Defined Benefit portfolio contains the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan, and the annuitized accounts of the Member-Directed Plan. The Defined Benefit portfolio historically included the assets of the Member-Directed retiree medical accounts funded through the VEBA Trust. However, the VEBA Trust was closed as of June 30, 2016 and the net position transferred to the 115 Health Care Trust portfolio on July 1, 2016. Within the Defined Benefit 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 annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Defined Benefit portfolio is 8.3 percent for 2016.

The allocation of investment assets within the Defined Benefit portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	23.00 %	2.20 %
Domestic Equities	19.00	6.37
Real Estate	10.00	5.26
Private Equity	10.00	8.97
International Equities	20.00	7.88
Other Investments	18.00	5.26
Total	100.00 %	5.66 %

The table below displays the Board-approved asset allocation policy for 2016 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	23.00 %	2.75 %
Domestic Equities	20.70	6.34
Real Estate	10.00	4.75
Private Equity	10.00	8.97
International Equities	18.30	7.95
Other Investments	18.00	4.92
Total	100.00 %	5.66 %

Discount Rate The discount rate used to measure the total pension liability was 7.50 percent. 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 benefits payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Program's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate The following table presents the Program's proportionate share of the net pension liability calculated using the current period discount rate assumption of 7.50 percent, as well as what the Program's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one-percentage-point lower (6.50 percent) or one-percentage-point higher (8.50 percent) than the current rate:

	1% Decrease (6.50%)	Current Discount Rate (7.50%)	1% Increase (8.50%)
Program's Proportionate Share of the Net Pension Liability:			
Calendar Year 2018	$ 3,099,814	$ 1,745,641	$ 616,669
Calendar Year 2017	$ 3,857,934	$ 2,525,283	$ 1,414,754

16. Defined Benefit OPEB Plans (2018)

Net OPEB Liability

The net OPEB liability reported on the statement of net position represents a liability to employees for OPEB. OPEB is a component of exchange transactions–between an employer and its employees—of salaries and benefits for employee services. OPEB 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 resources for OPEB is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net OPEB liability represents the Program's proportionate share of each OPEB plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each OPEB plan's fiduciary net position. The net OPEB 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, unknowable future events require adjusting these estimates annually.

Ohio Revised Code limits the Program's obligation for this liability to annually required payments. The Program cannot control benefit terms or the manner in which OPEB are financed; however, the Program does receive the benefit of employees' services in exchange for compensation including OPEB.

GASB 75 assumes the liability is solely the obligation of the employer, because they benefit from employee services. OPEB contributions come from these employers and health care plan enrollees which pay a portion of the health care costs in the form of a monthly premium. The Ohio revised Code permits but does not require the retirement systems to provide healthcare to eligible benefit recipients. Any change to benefits or funding could significantly affect the net OPEB liability. Resulting adjustments to the net OPEB liability would be effective when the changes are legally enforceable. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

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

Plan Description – Ohio Public Employees Retirement System (OPERS)

OPERS administers three separate pension plans: the traditional pension plan, a cost-sharing, multiple-employer defined benefit pension plan; the member-directed plan, a defined contribution plan; and the combined plan, a cost-sharing, multiple-employer defined benefit pension plan that has elements of both a defined benefit and defined contribution plan.

OPERS maintains a cost-sharing, multiple-employer defined benefit post-employment health care trust, which funds multiple health care plans including medical coverage, prescription drug coverage and deposits to a Health Reimbursement Arrangement to qualifying benefit recipients of both the traditional pension and the combined plans. This trust is also used to fund health care for member-directed plan participants, in the form of a Retiree Medical Account (RMA). At retirement or refund, member directed plan participants may be eligible for reimbursement of qualified medical expenses from their vested RMA balance.

In order to qualify for postemployment health care coverage, age and service retirees under the traditional pension and combined plans must have twenty or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of an Other Post Employment Benefit (OPEB) as described in GASB Statement 75. See OPERS' CAFR referenced below for additional information.

The Ohio Revised Code permits but does not require OPERS to provide health care to its eligible benefit recipients. Authority to establish and amend health care coverage is provided to the Board in Chapter 145 of the Ohio Revised Code.

Disclosures for the health care plan are presented separately in the OPERS financial report. Interested parties may obtain a copy by visiting https://www.opers.org/financial/reports.shtml, by writing to OPERS, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling (614) 222-5601 or 800-222-7377.

Funding Policy - The Ohio Revised Code provides the statutory authority requiring public employers to fund postemployment health care through their contributions to OPERS. When funding is approved by OPERS Board of Trustees, a portion of each employer's contribution to OPERS is set aside to fund OPERS health care plans.

Employer contribution rates are expressed as a percentage of the earnable salary of active members. In 2018, state and local employers contributed at a rate of 14.0 percent of earnable salary. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active member contributions do not fund health care.

Each year, the OPERS Board determines the portion of the employer contribution rate that will be set aside to fund health care plans. The portion of employer contributions allocated to health care for members in the Traditional Pension Plan and Combined Plan was 1.0 percent during calendar year 2017. As recommended by OPERS' actuary, the portion of employer contributions allocated to health care beginning January 1, 2018 decreased to 0 percent for both plans. The OPERS Board is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care provided. Payment amounts vary depending on the number of covered dependents and the coverage selected. The employer contribution as a percentage of covered payroll deposited into the RMA for participants in the Member-Directed Plan for 2018 was 4.0 percent.

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll.

The Program's contractually required contribution was $0 for 2018.

OPEB Liabilities, OPEB Expense, and Deferred Outflows/Inflows of Resources Related to OPEB

The net OPEB liability and total OPEB liability for OPERS were determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017, by incorporating the expected value of health care cost accruals, the actual health care payment, and interest accruals during the year. The Program's proportion of the net OPEB liability was based on the Program's share of contributions to the retirement plan relative to the contributions of all participating entities. Following is information related to the proportionate share and OPEB expense:

		OPERS
Proportion of the Net OPEB Liability:		
Current Measurement Period		0.01068668%
Prior Measurement Period		0.01070800%
Change in Proportion		-0.00002132%
Proportionate Share of the Net OPEB Liability	$	1,160,495
OPEB Expense	$	96,162

At December 31, 2018, the Program reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

		OPERS
Deferred Outflows of Resources		
Differences between Expected and Actual Experience	$	904
Changes of Assumptions		84,496
Total Deferred Outflows of Resources	$	85,400
Deferred Inflows of Resources		
Net Difference between Projected and Actual Earnings on OPEB Plan Investments	$	86,449
Changes in Proportionate Share		1,457
Total Deferred Inflows of Resources	$	87,906

No reported as deferred outflows of resources related to OPEB resulting from Program contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in 2019. All amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ending December 31:	OPERS
2019	$ 18,522
2020	18,522
2021	(17,937)
2022	(21,613)
Total	$ (2,506)

Actuarial Assumptions - OPERS

Actuarial valuations of an ongoing plan involve estimates of the values 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 or modification 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 and include the types of coverage provided at the time of each valuation and the historical pattern of sharing of costs between OPERS and plan members. The total OPEB liability was determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017. The actuarial valuation used the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB 74:

Wage Inflation	3.25 percent
Projected Salary Increases, including inflation	3.25 to 10.75 percent including wage inflation
Single Discount Rate:	
Current measurement date	3.85 percent
Prior Measurement date	4.23 percent
Investment Rate of Return	6.50 percent
Municipal Bond Rate	3.31 percent
Health Care Cost Trend Rate	7.5 percent, initial 3.25 percent, ultimate in 2028
Actuarial Cost Method	Individual Entry Age

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

The most recent experience study was completed for the five-year period ended December 31, 2015.

The long-term expected rate of return on health care 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 real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio and the Defined Contribution portfolio. The Health Care portfolio includes the assets for health care expenses for the Traditional Pension Plan, Combined Plan and Member-Directed Plan eligible members. Within the Health Care portfolio, contributions into the plans are assumed to be received continuously throughout the year based on the actual payroll payable at the time contributions are made, and health care-related payments are assumed to occur mid-year. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Health Care portfolio is 15.2 percent for 2017.

The allocation of investment assets with the Health Care portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Assets are managed on a total return basis with a long-term objective of continuing to offer a sustainable health care program for current and future retirees. OPERS' primary goal is to achieve and maintain a fully funded status for the benefits provided through the defined pension plans. Health care is a discretionary benefit. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	34.00 %	1.88 %
Domestic Equities	21.00	6.37
Real Estate Investment Trust	6.00	5.91
International Equities	22.00	7.88
Other investments	17.00	5.39
Total	100.00 %	4.98 %

Discount Rate A single discount rate of 3.85 percent was used to measure the OPEB liability on the measurement date of December 31, 2017. A single discount rate of 4.23 percent was used to measure the OPEB liability on the measurement date of December 31, 2016. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate are not met). This single discount rate was based on an expected rate of return on the health care investment portfolio of 6.50 percent and a municipal bond rate of 3.31 percent. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the health care fiduciary net position and future contributions were sufficient to finance health care costs through 2034. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2034, and the municipal bond rate was applied to all health care costs after that date.

Sensitivity of the Program's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate The following table presents the Program's proportionate share of the net OPEB liability calculated using the single discount rate of 3.85 percent, as well as what the Program's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower (2.85 percent) or one-percentage-point higher (4.85 percent) than the current rate:

	1% Decrease (2.85%)	Current Discount Rate (3.85%)	1% Increase (4.85%)
Program's Proportionate Share of the Net OPEB Liability	$ 1,541,768	$ 1,160,495	$ 852,049

Sensitivity of the Program's Proportionate Share of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate Changes in the health care cost trend rate may also have a significant impact on the net OPEB liability. The following table presents the net OPEB liability calculated using the assumed trend rates, and the expected net OPEB liability if it were calculated using a health care cost trend rate that is 1.0 percent lower or 1.0 percent higher than the current rate.

Retiree health care valuations use a health care cost-trend assumption that changes over several years built into the assumption. The near-term rates reflect increases in the current cost of health care; the trend starting in 2018 is 7.50 percent. If this trend continues for future years, the projection indicates that years from now virtually all expenditures will be for health care. A more reasonable alternative is that in the not-too-distant future, the health plan cost trend will decrease to a level at, or near, wage inflation. On this basis, the actuaries' project premium rate increases will continue to exceed wage inflation for approximately the next decade, but by less each year, until leveling off at an ultimate rate, assumed to be 3.25 percent in the most recent valuation.

	1% Decrease	Current Health Care Cost Trend Rate Assumption	1% Increase
Program's Proportionate Share of the Net OPEB Liability	$ 1,110,346	$ 1,160,495	$ 1,212,297

17. Post-Employment Benefits (2017)

Plan Description – Ohio Public Employees Retirement System (OPERS) administers three separate pension plans: the traditional plan, a cost-sharing, multiple-employer defined benefit pension plan; the member-directed plan, a defined contribution plan; and the combined plan, a cost-sharing, multiple employer defined benefit pension plan that has elements of both a defined benefit and defined contribution plan.

OPERS maintains a cost-sharing, multiple-employer defined benefit post-employment health care trust, which funds multiple health care plans including medical coverage, prescription drug coverage and deposits to a Health Reimbursement Arrangement to qualifying benefit recipients of both the Traditional Pension and the Combined plans. This trust is also used to fund health care for Member-Directed Plan participants, in the form of a Retiree Medical Account (RMA). At retirement or refund, Member-Directed Plan participants may be eligible for reimbursement of qualified medical expenses from their vested RMA balance.

In order to qualify for health care coverage, age-and-service retirees under the traditional and combined plans must have 20 or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of an Other Post-Employment Benefit (OPEB) as described in GASB Statement No. 45. See OPERS CAFR referenced below for additional information.

The Ohio Revised Code permits, but does not require, OPERS to provide health care to its eligible benefit recipients. Authority to establish and amend health care coverage is provided to the Board in Chapter 145 of the Ohio Revised Code.

OPERS issues a stand-alone financial report. Interested parties may obtain a copy by visiting https://www.opers.org/financial/reports.shtml#CAFR, by writing to OPERS, 277 East Town Street, Columbus, OH 43215-4642, or by calling 614-222-5601 or 800-222-7377.

Funding Policy – The Ohio Revised Code provides the statutory authority requiring public employers to fund post-employment health care through contributions to OPERS. A portion of each employer’s contribution to OPERS is set aside to fund OPERS health care plans.

Employer contribution rates are expressed as a percentage of the earnable salary of active members. In 2017, state and local employers contributed at a rate of 14.0 percent of earnable salary. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active member contributions do not fund health care.

Each year the OPERS Board determines the portion of the employer contribution rate that will be set aside to fund health care plans. The portion of employer contributions allocated to health care for members in the Traditional Pension Plan and Combined Plan was one percent during calendar year 2017. As recommended by OPERS’ actuary, the portion of employer contributions allocated to health care beginning January 1, 2018 decreased to 0 percent for both plans. The OPERS Board is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care provided. Payment amounts vary depending on the number of covered dependents and the coverage selected. The employer contribution as a percentage of covered payroll deposited into the RMA for participants in the Member-Directed Plan for 2017 was four percent.

Substantially all of the Program’s contributions allocated to fund postemployment health care benefits relates to the cost-sharing, multiple employer trusts. The corresponding contributions for the years ended December 31, 2017, 2016, and 2015 were $14,705, $28,751, and $28,247, respectively. The full amount has been contributed for 2017, 2016 and 2015.

18. Eliminations:

The Administration Fund recovers some customer service and administrative costs through charges made to the Program Fund. Charges of $13,499,968 and $12,876,209 were made during 2018 and 2017, respectively, for this purpose, including $629,725 and $705,328 payable to the Administrative Fund as of December 31, 2018 and 2017, respectively. These inter-fund charges and payables were eliminated in the Combining Schedule of Plan Net Position Available for Benefits and the Combining Schedule of Changes in Plan Net Position Available for Benefits.

19. Subsequent Event:

In March 2019, the Program implemented a new recordkeeping system, which had been planned and developed over the past five years. The estimated life expectancy of the new system is 20 years, and capitalized costs will be amortized over this period. The new system should provide the Program, its participants, and its employers with a more efficient, flexible, and secure daily recordkeeping system.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE PROGRAM'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY

Last Five Years [1]

	2018	2017	2016	2015	2014
Ohio Public Employees' Retirement System (OPERS)					
Program's Proportion of the Net Pension Liability	0.0111272%	0.0111205%	0.0110210%	0.0108110%	0.0108110%
Program's Proportionate Share of the Net Pension Liability	$ 1,745,641	$ 2,525,283	$ 1,908,976	$ 1,303,927	$ 1,274,476
Program's Covered Payroll	$ 1,470,471	$ 1,437,558	$ 1,371,650	$ 1,325,533	$ 1,305,569
Program's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	118.71%	175.66%	139.17%	98.37%	97.62%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	84.66%	77.25%	81.08%	86.45%	86.36%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2014 is not available.

Note: The amounts presented for each fiscal year were determined as of the measurement date, which is the prior fiscal year.

Notes to the Required Supplementary Information

Changes in Assumptions – OPERS

Amounts reported in calendar year 2017 reflect an adjustment of the rates of withdrawal, disability, retirement and mortality to more closely reflect actual experience. The expectation of retired life mortality was based on RP-2014 Healthy Annuitant mortality table and RP-2014 Disabled mortality table. The following reductions were also made to the actuarial assumptions:

- Discount rate from 8.00 percent to 7.50 percent
- Wage inflation rate from 3.75 percent to 3.25 percent
- Price inflation from 3.00 percent to 2.50 percent

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE PROGRAM'S PENSION CONTRIBUTIONS

Last Six Years (1)

	2018	2017	2016	2015	2014	2013
Ohio Public Employees' Retirement System (OPERS)						
Contractually Required Contribution	$ 209,233	$ 191,161	$ 172,507	$ 164,598	$ 159,064	$ 169,724
Contributions in Relation to the Contractually Required Contribution	(209,233)	(191,161)	(172,507)	(164,598)	(159,064)	(169,724)
Contribution Deficiency (Excess)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Program's Covered Payroll	$ 1,494,521	$ 1,470,471	$ 1,437,558	$ 1,371,650	$ 1,325,533	$ 1,305,569
Contributions as a Percentage of Covered Payroll	14.00%	13.00%	12.00%	12.00%	12.00%	13.00%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2013 is not available.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE PROGRAM'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY

Last Two Years (1)

	2018	2017
Ohio Public Employees' Retirement System (OPERS)		
Program's Proportion of the Net OPEB Liability	0.0106867%	0.0107080%
Program's Proportionate Share of the Net OPEB Liability	$ 1,160,495	$ 1,081,544
Program's Covered Payroll	$ 1,470,471	$ 1,437,558
Program's Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	78.92%	75.23%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	54.14%	54.04%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2017 is not available.

Note: The amounts presented for each fiscal year were determined as of the measurement date, which is the prior fiscal year.

Notes to the Required Supplementary Information

Changes in Assumptions - OPERS

For 2018, the single discount rate changed from 4.23 percent to 3.85 percent.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE PROGRAM'S CONTRIBUTIONS - OPEB

Last Three Years (1)

	2018	2017	2016
Ohio Public Employees' Retirement System (OPERS)			
Contractually Required Contribution	$ 0	$ 14,705	$ 28,751
Contributions in Relation to the Contractually Required Contribution	0	(14,705)	(28,751)
Contribution Deficiency (Excess)	$ 0	$ 0	$ 0
Program's Covered Payroll (2)	$ 1,494,521	$ 1,470,471	$ 1,437,558
Contributions as a Percentage of Covered Payroll	0.00%	1.00%	2.00%

(1) Beginning in 2016, OPERS used one trust fund as the funding vehicle for all health care plans; therefore, information prior to 2016 is not presented.

(2) The OPEB plan includes the members from the traditional plan, the combined plan and the member directed plan.

COMBINING SCHEDULE OF PLAN NET POSITION AVAILABLE FOR BENEFITS

As of December 31, 2018
With Totals for 2017

	2018				
	PROGRAM FUND	ADMINIS-TRATION FUND	COMBINING ENTRIES	TOTAL	2017
Assets:					
Investments:					
Stable value option	$4,575,037,252			$4,575,037,252	$4,491,239,577
Collective trust funds	4,525,906,162			4,525,906,162	4,674,001,858
Mutual funds	3,286,709,101			3,286,709,101	3,666,921,335
Separate account	710,188,803			710,188,803	711,721,676
Purchased annuities	14,390,450			14,390,450	16,110,926
Total investments	13,112,231,768			13,112,231,768	13,559,995,372
Cash and cash equivalents		$14,771,228		14,771,228	14,273,965
Contributions receivable and cash held for investment	5,877,871			5,877,871	7,316,040
Accounts receivable and prepaids		1,216,662	($629,725)	586,937	460,155
Property and equipment, net		10,113,468		10,113,468	7,049,020
Total assets	$13,118,109,639	$26,101,358	($629,725)	$13,143,581,272	$13,589,094,552
Deferred Outflows of Resources:					
Pension: OPERS		426,019		426,019	988,654
OPEB: OPERS		85,400		85,400	0
Total deferred outflows of resources	0	511,419	0	511,419	988,654
Liabilities:					
Accounts payable	2,744,501	682,753	(629,725)	2,797,529	2,549,590
Accrued expenses		750,118		750,118	859,773
Net Pension Liability		1,745,641		1,745,641	2,525,283
Net OPEB Liability		1,160,495		1,160,495	0
Total liabilities	2,744,501	4,339,007	(629,725)	6,453,783	5,934,646
Deferred Inflows of Resources:					
Pension: OPERS		409,165		409,165	15,029
OPEB: OPERS		87,906		87,906	0
Total deferred inflows of resources	0	497,071	0	497,071	15,029
Plan Net Position Available for Benefits	$13,115,365,138	$21,776,699	$0	$13,137,141,837	$13,584,133,531

COMBINING SCHEDULE OF CHANGES IN PLAN NET POSITION AVAILABLE FOR BENEFITS

For the year ended December 31, 2018
With Totals for 2017

	2018				
	PROGRAM FUND	ADMINIS-TRATION FUND	COMBINING ENTRIES	TOTAL	2017
Additions:					
Net Investment Income:					
Net gain (loss) on funds	($446,867,608)			($446,867,608)	$1,700,353,203
Stable value income	117,057,999	311,604		117,369,603	111,496,883
Investment expenses	(12,330,160)			(12,330,160)	(13,019,283)
Net investment income (loss)	(342,139,769)	311,604		(341,828,165)	1,798,830,803
Employee contributions	496,296,253			496,296,253	475,928,694
Transfers from other plans	117,389,189			117,389,189	116,925,187
Recordkeeping income		13,545,653	(13,499,968)	45,685	109,924
Recordkeeping rebates	1,103,875			1,103,875	1,284,112
Total additions	272,649,548	13,857,257	(13,499,968)	273,006,837	2,393,078,720
Deductions:					
Distributions to participants	387,336,401			387,336,401	351,506,917
Transfers to other plans	321,205,624			321,205,624	295,491,754
Administrative expenses	13,499,968	10,389,667	(13,499,968)	10,389,667	10,565,698
Total deductions	722,041,993	10,389,667	(13,499,968)	718,931,692	657,564,369
Change in Net Position	(449,392,445)	3,467,590		(445,924,855)	1,735,514,351
Plan Net Position Available for Benefits:					
Beginning of Year	13,564,757,583	19,375,948	0	13,584,133,531	11,848,619,180
Cumulative Effect of GASB 75 Implementation	0	(1,066,839)	0	(1,066,839)	
Beginning of Year as Restated	13,564,757,583	18,309,109	0	13,583,066,692	
End of Year	$13,115,365,138	$21,776,699	$0	$13,137,141,837	$13,584,133,531

SCHEDULE OF ADMINISTRATION FUND DEDUCTIONS

For the years ended December 31, 2018 and 2017

	2018	2017
Customer Service	$6,834,177	$6,646,183
Salaries and benefits:		
Salaries and wages	1,310,699	1,338,246
Retirement contributions	489,511	568,334
Insurance	11,507	260,843
Other benefits	22,596	21,883
	1,834,313	2,189,306
Administration:		
Postage and delivery	486,168	465,931
Participant statements	157,519	169,762
	643,687	635,693
Professional Services:		
Consulting	348,511	311,875
Information Technology	58,826	41,000
Auditing	41,115	40,509
	448,452	393,384
Information Technology expense	185,021	220,955
Insurance	141,739	156,737
Rent Expense	149,763	149,835
Miscellaneous	72,012	85,013
Office supplies:		
Printing	29,815	24,392
Office supplies	10,633	11,593
Telephone and fax	4,826	7,489
	45,274	43,474
Depreciation and amortization	22,675	26,437
Professional Expense	12,554	18,681
Total Administrative Fund Deductions	$10,389,667	$10,565,698

SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS

For the years ended December 31, 2018 and 2017

	2018	2017
Cash and cash equivalents, beginning of year	$14,273,965	$13,773,657
Receipts:		
Investment redemptions	708,542,025	646,998,671
Employee contributions	498,838,298	475,922,020
Transfers from other plans	117,389,189	116,925,187
Recordkeeping income	306,110	116,811
Total cash receipts	1,325,075,622	1,239,962,689
Disbursements:		
Investment purchases	590,588,031	567,531,192
Distributions to participants	387,336,401	351,506,917
Transfers to other plans	321,205,624	295,491,754
Investment expenses	12,139,488	12,439,806
Administrative expenses	10,221,691	9,953,285
Purchase of property and equipment	3,087,124	2,539,427
Total cash disbursements	1,324,578,359	1,239,462,381
Cash and cash equivalents, end of year	$14,771,228	$14,273,965

SCHEDULE OF INVESTMENT EXPENSES

For the years ended December 31, 2018 and 2017

	2018	2017
Stable Value - Book Value Guarantee Fees:	$7,846,700	$8,275,164
Stable Value - Management/Custodial Fees:		
Goldman Sachs Asset Management	1,103,462	1,115,355
JP Morgan Asset Management	619,256	883,506
Jennison Associates	603,269	670,523
Nationwide Asset Management	570,470	603,432
Dodge & Cox	588,992	523,284
State Street Bank and Trust	462,491	453,030
Payden & Rygel	271,443	216,138
Earnest Partners	264,077	208,985
Total Stable Value Investment Expenses	12,330,160	12,949,417
Total Mutual Fund Redemption Fees	0	69,866
Total Investment Expenses	$12,330,160	$13,019,283

Investment manager, custodian, and book value guarantee fees are charged against the assets within the Stable Value Option portfolios.

Select mutual fund investments require participants to hold certain investments for specified periods, or the participant is assessed a redemption fee by the fund. Between 2006 and 2017, the Program collected and remitted redemption fees to the mutual funds to benefit the remaining long-term investors of the funds.

OHIO DEFERRED COMPENSATION

OHIO PUBLIC EMPLOYEES DEFERRED COMPENSATION PROGRAM

INVESTMENT SECTION

INVESTMENT SUMMARY

The Program is a self-directed plan, allowing participants to choose the investment options for their current contributions and account balances. The Board has adopted an investment policy that ensures that a sufficient number of suitable, diverse investment options are offered to participants. Independent professionals manage all investments, and the Program does not maintain any in-house investment staff, so the Program does not incur any direct investment expenses. The Executive Director is responsible for overseeing investments and preparation of the investment summary section.

	December 31, 2018		December 31, 2017	
	Carrying Value	Allocation	Carrying Value	Allocation
Stable Value Option	$4,575,037,252	34.9%	$4,491,239,577	33.1%
Collective Trust Funds	4,525,906,162	34.5%	4,674,001,858	34.5%
Mutual Funds	3,286,709,101	25.1%	3,666,921,335	27.1%
Separate Account	710,188,803	5.4%	711,721,676	5.2%
Purchased Annuities	14,390,450	0.1%	16,100,926	0.1%
Total Investments	$13,112,231,768	100.0%	$13,559,985,372	100.0%

INVESTMENT FEE RATES

The following table shows the investment fee rates charged by each investment option as of December 31, 2018, as well as the median in a universe of institutional share class mutual funds for the same asset category (according to *Morningstar*). The performance returns reported to participants have been reduced by these investment expenses. The Program pays the Stable Value Option investment related expenses, so those fees are included in the financial statements and footnotes.

	Program Investment Fees	Median Mutual Fund Fees
Templeton Foreign	0.69%	1.00%
Vanguard International Growth	0.32%	1.00%
Vanguard Total International Stock Index	0.07%	0.84%
Ohio DC Small-Cap Growth	0.74%	1.00%
Vanguard Small-Cap Index	0.03%	0.99%
Ohio DC Small-Cap Value	0.63%	1.00%
Vanguard Capital Opportunity	0.37%	0.89%
Fidelity Growth Company Commingled Pool	0.35%	0.78%
Ohio DC Large-Cap Growth	0.36%	0.78%
Fidelity Contrafund Commingled Pool	0.35%	0.78%
Vanguard Institutional Index	0.02%	0.72%
Dodge & Cox Stock	0.52%	0.70%
BlackRock LifePath Retirement	0.06%	0.52%
BlackRock LifePath 2020	0.06%	0.50%
BlackRock LifePath 2025	0.06%	0.51%
BlackRock LifePath 2030	0.06%	0.54%
BlackRock LifePath 2035	0.06%	0.54%
BlackRock LifePath 2040	0.06%	0.56%
BlackRock LifePath 2045	0.06%	0.54%
BlackRock LifePath 2050	0.06%	0.56%
BlackRock LifePath 2055	0.06%	0.55%
Ohio DC Intermediate Bond	0.25%	0.50%
Vanguard Total Bond Market Index	0.03%	0.47%
Stable Value Option *	0.10%	0.14%

Stable Value Option fees include investment management fees, but not guarantee or wrap fees.

SCHEDULE OF PERFORMANCE VERSUS BENCHMARKS

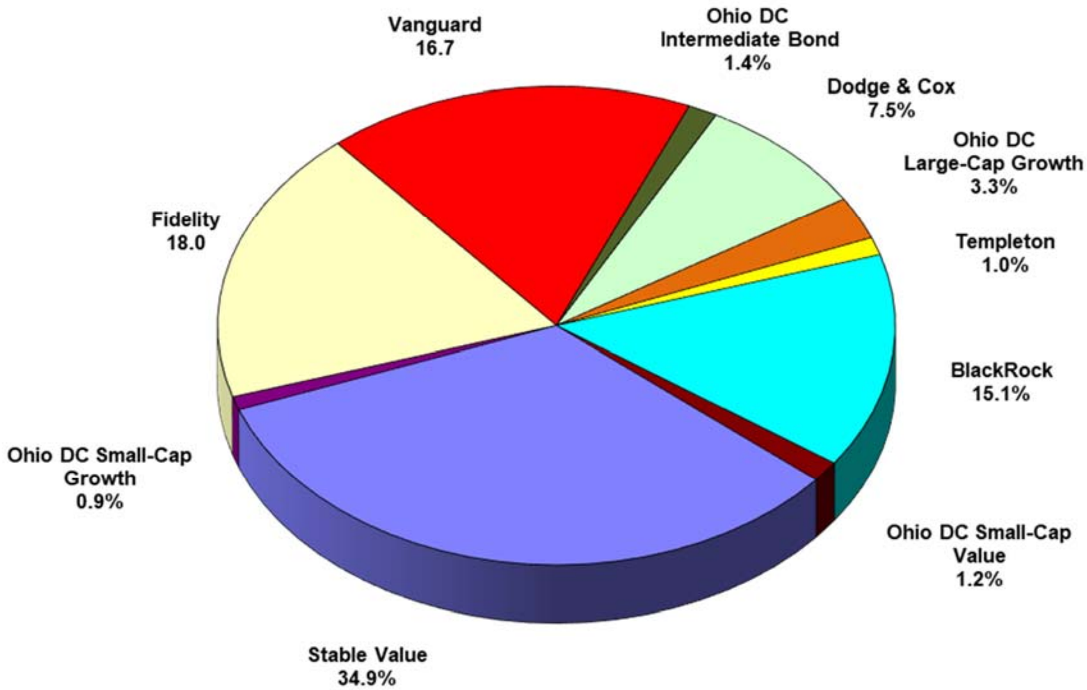
As of December 31, 2018

	1-Year	3-Year	5-Year	10-Year
Templeton Foreign Fund	**-14.9%**	**4.0%**	**-1.2%**	**7.3%**
Vanguard International Growth	**-12.6%**	**8.4%**	**3.7%**	**9.7%**
Benchmark: MSCI All Country World ex-U.S. Index	*-14.2%*	*4.5%*	*0.7%*	*6.6%*
Vanguard Total International Stock Index	**-14.4%**	**4.6%**	**1.0%**	**6.3%**
Benchmark: Vanguard Spliced Custom	*-14.6%*	*4.4%*	*1.1%*	*6.6%*
Ohio DC Small-Cap Growth *(inception 6/2/17)*	**-10.4%**	**n/a**	**n/a**	**n/a**
Benchmark: Russell 2000 Growth Index	*-9.3%*	*7.2%*	*5.1%*	*13.5%*
Vanguard Small-Cap Index	**-9.3%**	**7.7%**	**5.3%**	**13.6%**
Benchmark: Vanguard US Small Cap Composite	*-9.3%*	*7.6%*	*5.2%*	*13.5%*
Ohio DC Small-Cap Value *(inception 6/2/17)*	**-13.9%**	**n/a**	**n/a**	**n/a**
Benchmark: Russell 2000 Value Index	*-12.9%*	*7.4%*	*3.6%*	*10.4%*
Vanguard Capital Opportunity	**-3.7%**	**11.2%**	**11.0%**	**16.0%**
Benchmark: Russell Mid Cap Growth Index	*-4.8%*	*8.6%*	*7.4%*	*15.1%*
Fidelity Growth Company Commingled Pool (inception 12/13/13)	**-4.0%**	**12.1%**	**11.8%**	**n/a**
Ohio DC Large-Cap Growth *(inception 8/1/14)*	**4.1%**	**13.9%**	**12.1%**	**n/a**
Benchmark: Russell 1000 Growth Index	*-1.5%*	*11.2%*	*10.4%*	*15.3%*
Fidelity Contrafund Commingled Pool (inception 1/17/14)	**-1.8%**	**10.6%**	**9.6%**	**n/a**
Vanguard Institutional Index	**-4.4%**	**9.2%**	**8.5%**	**13.1%**
Benchmark: S&P 500 Index	*-4.4%*	*9.3%*	*8.5%*	*13.1%*
Dodge & Cox: Stock	**-7.1%**	**10.1%**	**7.1%**	**13.2%**
Benchmark: Russell 1000 Value Index	*-8.3%*	*7.0%*	*6.0%*	*11.2%*
BlackRock LifePath Retirement	**-3.5%**	**4.1%**	**3.3%**	**6.3%**
Benchmark: BlackRock Custom	*-3.5%*	*4.0%*	*3.3%*	*6.3%*
BlackRock LifePath 2020	**-3.9%**	**4.7%**	**3.7%**	**7.5%**
Benchmark: BlackRock Custom	*-3.9%*	*4.6%*	*3.6%*	*7.5%*
BlackRock LifePath 2025	**-4.9%**	**5.2%**	**3.9%**	**8.1%**
Benchmark: BlackRock Custom	*-4.9%*	*5.0%*	*3.9%*	*8.1%*
BlackRock LifePath 2030	**-5.7%**	**5.6%**	**4.2%**	**8.6%**
Benchmark: BlackRock Custom	*-5.8%*	*5.5%*	*4.1%*	*8.6%*
BlackRock LifePath 2035	**-6.5%**	**6.1%**	**4.5%**	**9.1%**
Benchmark: BlackRock Custom	*-6.6%*	*5.9%*	*4.3%*	*9.1%*
BlackRock LifePath 2040	**-7.2%**	**6.5%**	**4.7%**	**9.6%**
Benchmark: BlackRock Custom	*-7.3%*	*6.2%*	*4.5%*	*9.5%*
BlackRock LifePath 2045	**-7.8%**	**6.6%**	**4.8%**	**9.9%**
Benchmark: BlackRock Custom	*-8.0%*	*6.3%*	*4.6%*	*9.8%*
BlackRock LifePath 2050	**-8.1%**	**6.7%**	**4.8%**	**10.2%**
Benchmark: BlackRock Custom	*-8.3%*	*6.4%*	*4.6%*	*10.2%*
BlackRock LifePath 2055	**-8.1%**	**6.7%**	**4.8%**	**n/a**
Benchmark: BlackRock Custom	*-8.3%*	*6.4%*	*4.6%*	*n/a*
Ohio DC Intermediate Bond *(inception 1/30/2015)*	**0.4%**	**2.1%**	**n/a**	**n/a**
Benchmark: Bloomberg US Aggregate Bond Index	*0.0%*	*2.1%*	*2.5%*	*3.5%*
Vanguard Total Bond Market Index	**0.0%**	**2.1%**	**2.5%**	**3.3%**
Benchmark: Barclays Float Adjusted U.S. Agg. Index	*-0.1%*	*2.1%*	*2.5%*	*n/a*
Stable Value Option	**2.3%**	**2.3%**	**2.2%**	**2.7%**
Benchmark:ICE BofA ML 3 mo US T-Bill + 1.5%	*3.4%*	*2.5%*	*2.1%*	*1.9%*

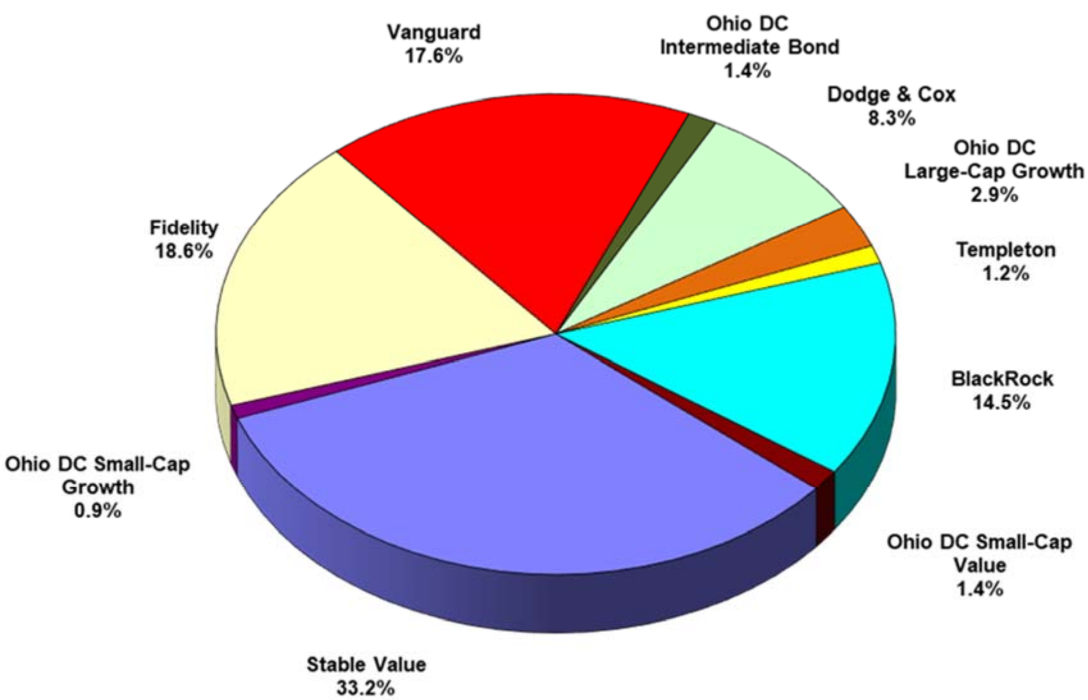
Investment returns are a time-weighted return based on the market rate of return. Returns are shown net of investment management fees. The 3-year, 5-year, and 10-year investment returns are annualized.

INVESTMENT MIX

December 31, 2018

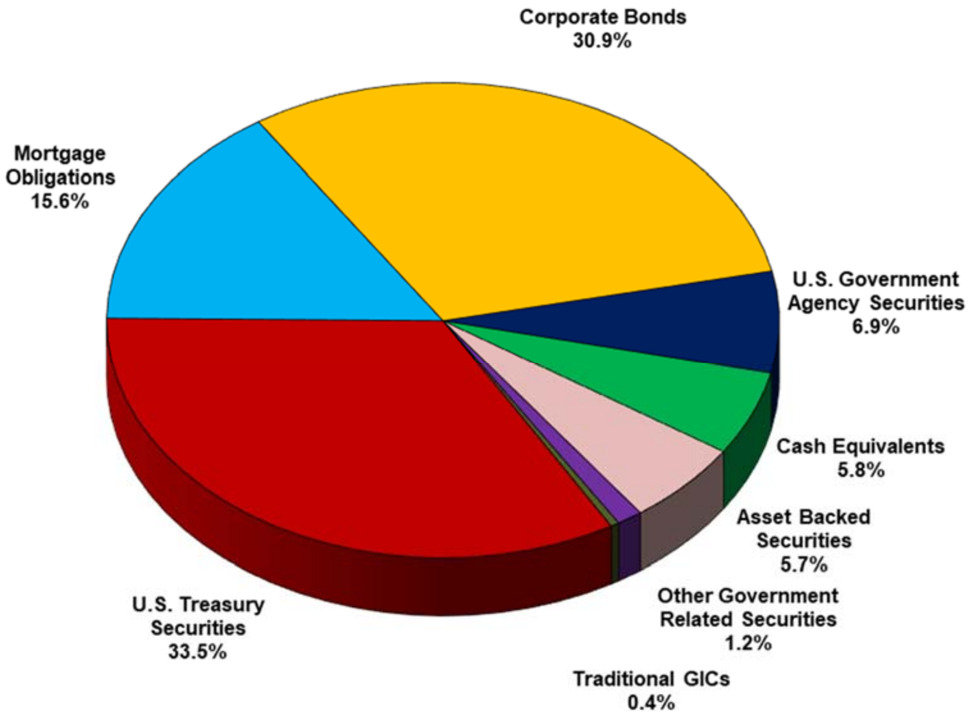


December 31, 2017

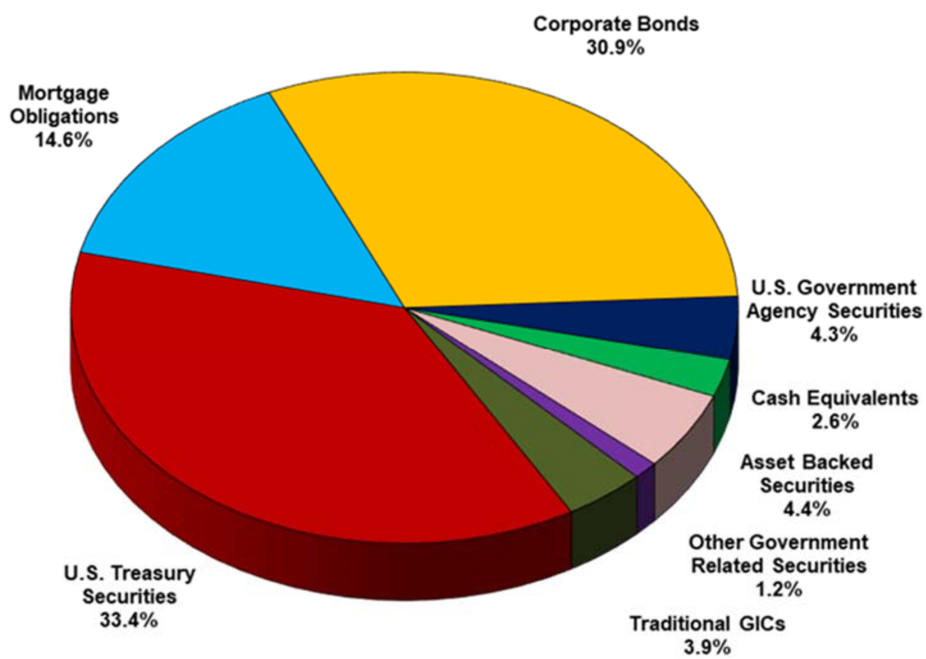


STABLE VALUE OPTION DIVERSIFICATION

December 31, 2018



December 31, 2017



OHIO DEFERRED COMPENSATION

OHIO PUBLIC EMPLOYEES DEFERRED COMPENSATION PROGRAM

STATISTICAL SECTION

STATISTICAL INFORMATION

The objective of the Statistical Section is to provide the financial statement users with historical perspective, context, and detail to assist in using the information in the financial statements and the notes to the financial statements to better understand and assess the Ohio Public Employees Deferred Compensation Program's economic condition. The schedules in the Statistical Section show financial trend information that assists users in understanding how the Ohio Public Employees Deferred Compensation Program's financial position has changed over time. The financial trend schedules presented are:

- Changes in Plan Net Position Available for Benefits
- Employee Participation and Deferral Trends
- Number of Employers Contributing
- Principle Contributing Employers
- Benefit Payments

CHANGES IN PLAN NET POSITION AVAILABLE FOR BENEFITS

Years ending December 31, 2009 – 2018
(In Millions)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additions:										
Net Investment Income:										
Net gain (loss) on funds	($446.9)	$1,700.4	$583.1	$44.4	$498.5	$1,310.0	$666.8	($96.6)	$512.7	$869.3
Stable value income	117.4	111.5	114.5	116.7	117.0	122.2	135.1	144.3	151.5	166.2
Investment expenses	(12.3)	(13.0)	(13.1)	(13.5)	(14.5)	(14.2)	(12.6)	(11.4)	(9.2)	(8.1)
Net investment income (loss	(341.8)	1,798.9	684.5	147.6	601.0	1,418.0	789.3	36.3	655.0	1,027.4
Participant contributions	496.3	475.9	447.1	444.0	427.0	430.0	427.0	447.9	445.6	454.6
Transfers from other plans	117.4	116.9	102.0	107.0	83.5	127.3	126.5	92.5	69.0	52.3
Recordkeeping income	0.0	0.1	0.0	6.5	6.9	6.5	5.8	5.5	5.3	4.3
Recordkeeping rebates	1.1	1.3	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total additions	273.0	2,393.1	1,238.7	705.1	1,118.4	1,981.8	1,348.6	582.2	1,174.9	1,538.6
Deductions:										
Distributions to participants	387.3	351.5	317.9	318.4	308.7	293.4	277.6	261.6	237.4	195.4
Transfers to other plans	321.2	295.5	219.8	273.0	291.9	301.3	232.6	224.0	161.5	108.1
Administrative expenses	10.4	10.6	10.5	10.0	9.9	10.1	9.3	9.1	8.7	8.4
Total deductions	718.9	657.6	548.2	601.4	610.5	604.8	519.5	494.7	407.6	311.9
Change in Net Position	(445.9)	1,735.5	690.5	103.7	507.9	1,377.0	829.1	87.5	767.3	1,226.7
Plan Net Position Available for Benefits:										
Beginning of Year	*13,583.0	11,848.6	11,158.1	*11,054.4	10,547.6	9,170.6	8,341.5	8,254.0	7,486.7	6,260.0
End of Year	$13,137.1	$13,584.1	$11,848.6	$11,158.1	$11,055.5	$10,547.6	$9,170.6	$8,341.5	$8,254.0	$7,486.7

*Note – 2018 and 2015 beginning of year Plan Net Position Available for Benefits were restated due to the implementation of GASB 75 and 68, respectively.

EMPLOYEE PARTICIPATION

	Eligible Employees	Total Participant Accounts	Participants Currently Contributing	Current Participation Rate
2009	699,121	196,063	109,221	15.6%
2010	691,820	199,945	108,098	15.6%
2011	685,612	200,059	104,835	15.3%
2012	675,114	202,901	105,254	15.6%
2013	669,874	206,968	105,856	15.8%
2014	669,382	211,055	107,845	16.1%
2015	666,671	216,892	111,223	16.7%
2016	673,033	222,042	113,810	16.9%
2017	706,108	228,380	117,005	16.6%
2018	665,444	237,100	120,990	18.2%

Note – During 2018, the Ohio Public Employees Retirement System adjusted their calculation of active members downward. During 2017, the School Employees Retirement System of Ohio adjusted their calculation of active members upward. Details are available in the CAFRs of these entities.

DEFERRAL/ACCOUNT TRENDS

	Total Annual Deferrals	Average Annual Deferral	Net Position Available for Benefits	Average Participant Account
2009	$454,645,326	$4,163	$7,486,734,879	$38,185
2010	445,634,894	4,123	8,254,073,274	41,282
2011	447,896,090	4,272	8,341,478,374	41,695
2012	426,982,639	4,057	9,170,536,738	45,197
2013	430,050,916	4,063	10,547,521,260	50,962
2014	426,998,670	3,959	11,055,497,450	52,382
2015	444,027,787	3,992	11,158,105,670	51,445
2016	447,140,841	3,929	11,848,619,180	53,362
2017	475,928,694	4,068	13,584,133,531	59,480
2018	496,296,253	4,102	13,137,141,837	55,408

NUMBER OF EMPLOYERS CONTRIBUTING

	State	County	City	Metro Housing	Village	Library	Medical Center	Education	Misc	Township	Total
2009	1	88	247	49	203	187	25	569	147	248	1,764
2010	1	88	247	49	203	187	25	577	146	249	1,772
2011	1	88	241	50	207	180	24	586	146	243	1,766
2012	1	88	242	51	208	179	23	594	151	247	1,784
2013	1	88	241	51	210	176	23	608	157	247	1,802
2014	1	88	242	51	214	178	20	618	157	248	1,817
2015	1	88	243	51	221	181	19	644	168	260	1,876
2016	1	88	243	51	221	180	18	649	166	265	1,882
2017	1	88	244	51	222	186	16	655	174	272	1,909
2018	1	88	245	51	226	188	16	672	187	275	1,949

PRINCIPAL CONTRIBUTING EMPLOYERS

	2018			2009		
Employer Name	Participant Accounts	Rank	Percent of Total Program	Participant Accounts	Rank	Percent of Total Program
State of Ohio	60,971	1	25.7%	53,097	1	27.1%
City of Columbus	8,962	2	3.8%	8,470	2	4.3%
City of Cleveland	7,421	3	3.1%	7,441	3	3.8%
Cuyahoga County	6,021	4	2.6%	6,326	4	3.2%
Franklin County	4,721	5	2.0%	3,637	6	1.9%
Metrohealth Medical Center	4,361	6	1.8%	2,971	7	1.5%
City of Cincinnati	4,265	7	1.8%	5,348	5	2.7%
Montgomery County	2,866	8	1.2%	2,698	8	1.4%
Ohio State University	2,433	9	1.0%	1,201	11	0.6%
City of Dayton	2,224	10	1.0%	2,078	9	1.1%
All Others	132,855	N/A	56.0%	102,796	N/A	52.4%
Total Participation	237,100		100.0%	196,063		100.0%

BENEFIT PAYMENTS

	Participant Distributions	Beneficiary Distributions	Total Distributions
2009	$181,410,082	$14,031,428	$195,441,510
2010	219,563,337	17,840,136	237,403,473
2011	243,097,948	18,502,095	261,600,043
2012	257,556,646	20,073,638	277,630,284
2013	271,707,261	21,675,324	293,382,585
2014	285,019,349	23,650,622	308,669,971
2015	293,242,254	25,188,391	318,430,645
2016	291,369,661	26,582,052	317,951,713
2017	318,679,103	32,827,814	351,506,917
2018	353,187,404	34,148,997	387,336,401

	Number of Participant Distributions	Number of Beneficiary Distributions	Number of Total Distributions
2009	19,927	1,285	21,212
2010	25,716	2,168	27,884
2011	27,939	2,310	30,249
2012	29,581	2,525	32,106
2013	30,649	2,710	33,359
2014	32,158	2,974	35,132
2015	32,809	3,292	36,101
2016	32,564	3,547	36,111
2017	36,626	3,795	40,421
2018	37,565	4,150	41,715

	Average Participant Distribution	Average Beneficiary Distribution	Average Annual Distribution
2009	$9,104	$10,919	$9,214
2010	8,538	8,229	8,514
2011	8,701	8,010	8,648
2012	8,707	7,950	8,647
2013	8,865	7,998	8,795
2014	8,863	7,952	8,786
2015	8,938	7,651	8,821
2016	8,948	7,494	8,805
2017	8,701	8,650	8,696
2018	9,402	8,229	9,285