OHIO POLICE & FIRE PENSION FUND



GASB STATEMENTS
NO. 67 & 68 REPORT

PREPARED FOR DECEMBER 31, 2024
FINANCIAL REPORTING





May 21, 2025

Mr. Scott K. Miller Chief Financial Officer Ohio Police & Fire Pension Fund 140 East Town Street Columbus, OH 43215-5164

Dear Scott:

Presented in this report is certain pension information and collective amounts for contributing employers to assist the Ohio Police & Fire Pension Fund (OP&F) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67 and No. 68 for the December 31, 2024 Measurement Date. The calculations in this report have been made on a basis that is consistent with our understanding of these accounting standards (GASB 67 and 68).

The information is based on an actuarial valuation performed as of January 1, 2024, with actuarial liabilities rolled forward to December 31, 2024. Plan asset information was provided by OP&F for its fiscal year ended December 31, 2024. The actuarial liability valuation is used for accounting purposes and is different than the actuarial valuation presented to the Board of Trustees in October 2024, which was used for funding purposes.

The valuation was based upon data, furnished by OP&F staff, concerning active, inactive and retired members along with pertinent financial information. This information was reviewed for completeness and internal consistency but was not audited by us. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete our results may be different and our calculations may need to be revised. Please see the January 1, 2024 actuarial valuation report for additional details on the funding requirements for OP&F including actuarial assumptions and methods and the funding policy.

In order to prepare the results in this report we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results. To the best of our knowledge, the information contained in this report is complete and accurate. The calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of OP&F, and on actuarial



assumptions that are internally consistent and individually reasonable based on the actual experience of OP&F. In addition, the calculations were completed in compliance with applicable law and, in our opinion, meet the requirements of GASB 67 and 68.

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 and 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

We, Larry F. Langer, ASA and Wendy T. Ludbrook, FSA are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate.

Respectfully submitted,

Larry F. Langer, ASA, EA, FCA, MAAA Principal and Consulting Actuary Wendy T. Ludbrook, FSA, EA, FCA, MAAA Consulting Actuary

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Ryan Gundersen Senior Consultant

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SUMMARY OF PRINCIPAL RESULTS



Valuation Date (VD): Prior Measurement Date: Measurement Date (MD): Reporting Date (RD):	January 1, 2024 December 31, 2023 December 31, 2024 December 31, 2025
Membership Data: Retirees and Beneficiaries Inactive Vested Members Inactive Nonvested Members Active Employees Total	31,708 291 4,587 <u>30,291</u> 66,877
Single Equivalent Interest Rate (SEIR): Long-Term Expected Rate of Return Municipal Bond Index Rate at Prior Measurement Date Municipal Bond Index Rate at Measurement Date Year in which Fiduciary Net Position is Projected to be Depleted Single Equivalent Interest Rate at Prior Measurement Date Single Equivalent Interest Rate at Measurement Date	7.50% 3.38% 4.04% N/A 7.50% 7.50%
Net Pension Liability: Total Pension Liability (TPL) Fiduciary Net Position (FNP) Net Pension Liability (NPL = TPL – FNP) FNP as a percentage of TPL	\$ 27,480,847,455 17,933,112,832 9,547,734,623 65.26%
Pension Expense:	\$ 1,206,366,889
Deferred Outflows of Resources:	\$ 2,145,885,265
Deferred Inflows of Resources:	\$ 1,058,176,026



INTRODUCTION



The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), "Financial Reporting for Pension Plans", and Statement No. 68 (GASB 68), "Accounting and Financial Reporting for Pensions" in June 2012. GASB 67's effective date was the plan year beginning after June 15, 2013, and GASB 68's effective date was the plan year beginning after June 15, 2014. For the Ohio Police & Fire Pension Fund (the "Fund") the effective date for reporting under GASB 67 was the plan year ending December 31, 2014 and for GASB 68 was the plan year ending December 31, 2015.

Based on the provisions of GASB 67 and 68, the Fund is a cost-sharing, multiple-employer public employee retirement system. The GASB 68 information is for disclosure by contributing employers and the State of Ohio for their fiscal years ending in 2025, including December 31, 2025. The allocation of the collective amounts by employer is performed by OP&F and is not part of this report.

This report, prepared as of December 31, 2024 (the Measurement Date), presents information to assist the Ohio Police & Fire Pension Fund in meeting the requirements of GASB 67 and GASB 68 and is different than the actuarial valuation, presented to the Board of Trustees in October 2024, which was used for funding purposes. The information is based on an actuarial valuation performed as of January 1, 2024 (the Valuation Date), with actuarial liabilities rolled forward to December 31, 2024, and plan asset information provided by OP&F for its fiscal year ended December 31, 2024.

GASB 67 discloses the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial cost method. The Net Pension Liability (NPL) is equal to the TPL minus OP&F's Fiduciary Net Position (FNP) (basically the fair (market) value of assets). The plan provisions recognized in the calculation of the TPL are summarized in Appendix C.

Among the items needed for the liability calculation is the discount rate, or Single Equivalent Interest Rate (SEIR), as described by GASB 67. To determine the SEIR, the FNP must be projected using GASB 67 guidelines into the future for as long as there are anticipated benefits payable under the plan's provisions applicable to the members and beneficiaries of OP&F on the Measurement Date. If the FNP is not projected to be depleted at any point in the future, the long-term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.

If, however, the FNP is projected to be depleted at a future measurement date, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long-term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate (Municipal Bond Index Rate). The rate used, if necessary, for this purpose is the monthly average of the Bond Buyers General Obligation 20-year Municipal Bond



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Index Rate (formerly published monthly by the Board of Governors of the Federal Reserve System).

Our calculations indicate that the FNP is not projected to be depleted, so the Municipal Bond Index Rate is not used in the determination of the SEIR for either the December 31, 2023 or the December 31, 2024 TPL. The SEIR for both the Measurement Date and the Prior Measurement Date is 7.50 percent, the long-term assumed rate of return on investments. Please see Paragraph 31.b.(1) for more explanation of the development of the SEIR.

GASB 68 requires the inclusion of a Net Pension Liability (NPL) on the employer's Statement of Net Position and a determination of a Pension Expense (PE) in the Notes to the Financial Statements that may bear little relationship to the employer's funding requirements. In fact, it is possible in some years for the NPL to be an asset or the PE to be an income item. The NPL is set equal to the Total Pension Liability (TPL) minus the Fiduciary Net Position (FNP).

PE includes amounts for Service Cost (the Normal Cost under Entry Age Normal (EAN) for the year), interest on the TPL, employee contributions, administrative expenses, other cash flows during the year, recognition of increases/decreases in the TPL due to changes in the benefit structure, actual versus expected experience, actuarial assumption changes, and recognition of investment gains/losses. The actual experience and assumption change impacts are recognized over the average expected remaining service life of OP&F membership as of the beginning of the measurement period, while investment gains/losses are recognized equally over five years. The development of the PE is shown in Section III.

The unrecognized portions of each year's experience, assumption changes and investment gains/losses are used to develop Deferred Outflows of Resources and Deferred Inflows of Resources, which also must be included on the employer's Statement of Net Position.

The FNP projections are based upon OP&F's financial status on the Measurement Date, the indicated set of methods and assumptions, and the requirements of GASB 67/68. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of OP&F, or OP&F's ability to make benefit payments in future years.

The benefit structure of OP&F includes a Deferred Retirement Option Plan (DROP). For details on the provisions of the DROP, please see Paragraph 30.f.(1) in Section 1 of this report. In accordance with Paragraph 46(d) of GASB 67, the date of entry into the DROP is the member's retirement date for purpose of attributing the actuarial present value of projected benefit payments. Note that this is a different approach than is used in the funding valuation. For the funding valuation the member's actual retirement date, not the DROP entry date, is the member's retirement date for purpose of attributing the actuarial present value of projected benefit payments.



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The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 67 and GASB 68 for note disclosure and Required Supplementary Information (RSI).





The material presented herein will follow the order presented in GASB 67. Paragraph numbers are provided for ease of reference.

Paragraph 30.a.(1): The name of the pension plan is the Ohio Police & Fire Pension Fund (OP&F) and it is a cost-sharing multiple employer defined benefit pension plan. The Fund is administered by the Ohio Police & Fire Pension Fund Board of Trustees.

Paragraph 30.a.(2): All contributions required, other than member contributions, are paid by the Ohio municipalities, townships (fire only), villages, joint fire districts or political subdivisions on behalf of their full-time firefighters or full-time police officers.

Paragraph 30.a.(3): The Board of Trustees is composed of nine members. There are six employee members elected to four-year terms by their respective member groups: two active representatives of police departments, two active representatives of fire departments, one retired police officer and one retired firefighter. The Board of Trustees also includes three statutory members. Each statutory member – one appointed by the Governor of Ohio, one by the Ohio Treasurer of State and one appointed jointly by the Ohio Senate President and the Ohio Speaker of the House – must have investment expertise.

Paragraph 30.a.(4): The data required regarding the membership in OP&F were furnished by OP&F. The following table summarizes the membership of OP&F as of January 1, 2024, the Valuation Date.

Number as of January 1, 2024								
Retired Members or Their Beneficiaries Currently Receiving Benefits	31,708							
Inactive Members Entitled to But Not Yet Receiving Benefits	291							
Inactive Nonvested Members	4,587							
Active Members	30,291							
Total	66,877							

Paragraphs 30.a.(5): Benefit terms for the Ohio Police & Fire Pension Fund are established in Chapter 742 of the Ohio Revised Code (ORC), as amended by Senate Bill No. 340 of 2013, and can only be amended by the Ohio General Assembly. OP&F provides pension, deferred retirement option plan (DROP), pre-retirement death benefits, survivor benefits, duty and non-duty related disability benefits, and termination benefits to qualified members.





Paragraph 30.a.(6):

- (a) State statutes set out the funding requirements for OP&F. Member contribution rates are set by Ohio law. State law permits the Board of Trustees to adjust the member contribution rate if, in consultation with the actuary following an actuarial review, OP&F determines that an adjustment to the rate is appropriate. Employer contribution rates are also set by Ohio law. A change in the employer rates requires action by both Houses of the General Assembly and approval by the Governor.
- **(b) Members:** Each member contributes 12.25 percent of base pay.

Employers: Employers of police officers pay 19.50 percent of salary; employers of firefighters pay 24.00 percent of police salary. The State of Ohio also provides a subsidy which is less than 0.05 percent of the total contributions made to OP&F.

OP&F allocates a portion of the contributions to the Health Care Stabilization Fund (HCSF) and the rest to the pension fund. The allocation to the HCSF for 2023 was 0.50 percent of salary.

These contribution rates, minus the allocation to the HCSF, are used in the projection of the fiduciary net position in Schedule A in the Appendix, which is used for determining the crossover point for the development of the discount rate.

Paragraphs 30.b.- e.: This information will be supplied by the Fund.

Paragraphs 30.f. (1): The benefit structure of OP&F includes a Deferred Retirement Option Plan (DROP). Members must be eligible to retire under normal service retirement to participate in the DROP. The maximum DROP period is eight years. The monthly benefit amount is computed as of the DROP election date based on the Final Average Salary and years of service as of that date. The benefit is paid into the member's notional DROP account during the deferral or DROP period. The Member continues to make the required contributions during the DROP period. A portion of these contributions are credited to the Member's DROP account, the remaining contributions are credited to the Fund assets to improve OP&F's funding. Interest at a rate equal to the 10-year U.S. Treasury Note Business Day Series, with a cap of 5.0 percent, is credited to the notional DROP account. This variable interest rate will be adjusted quarterly to match the published 10-year U.S. Treasury Note rate for the last business day of each quarter and will be in effect for the subsequent quarter. Voluntary termination of employment during the DROP period results in the loss of accrued interest. When the Member terminates employment, the balance in the DROP account is paid as a lump sum or converted to a monthly annuity and the monthly Normal Service Retirement benefits are paid to the member.

Paragraphs 30.f. (2): The balance of the notional DROP accounts as of the Measurement Date is \$2,252,937,901.





Paragraph 31.a.(1)-(4): As stated earlier, the NPL is equal to the TPL minus the FNP. That result, as of December 31, 2024, is presented in the following table.

Fiscal Year Ending December 31, 2024									
Total Pension Liability Fiduciary Net Position	\$	27,480,847,455 17,933,112,832							
Net Pension Liability Ratio of Fiduciary Net Position to Total Pension Liability	\$	9,547,734,623 65.26%							

Paragraph 31.b: This paragraph requires information to be disclosed regarding the actuarial assumptions and other inputs used to measure the TPL. The complete set of actuarial assumptions and other inputs utilized in developing the TPL are outlined in Appendix B. The TPL as of December 31, 2024 was determined based on an actuarial valuation, prepared as of January 1, 2024, rolled forward one year to December 31, 2024, using the following actuarial assumptions and other inputs:

Price Inflation 2.75 percent

Wage Inflation 3.25 percent

Salary increases, including wage inflation 3.75 to 10.50 percent

Long-term Rate of Return, net of investment

expense, including price inflation

7.50 percent

Municipal Bond Index Rate

Prior Measurement Date 3.38 percent Measurement Date 4.04 percent

Year FNP is projected to be depleted N/A

Single Equivalent Interest Rate, net of plan investment expense, including inflation

Prior Measurement Date 7.50 percent
Measurement Date 7.50 percent

Post-retirement benefit increases Simple COLA of 2.2 percent per year





Mortality

Svc Retiree/Vested Former Member Pub-2010 Below-Median Safety Amount-

Weighted Healthy Retiree mortality table with rates adjusted by 96.2 percent for males and 98.7 percent for females. All rates are projected using the MP-2021

Improvement Scale.

Disabled Mortality Pub-2010 Safety Amount-Weighted

Disabled Retiree mortality table with rates adjusted by 135 percent for males and 97.9 percent for females. All rates are projected using the MP-2021 Improvement

Scale.

Contingent Annuitant Mortality Pub-2010 Below-Median Safety Amount-

Weighted Contingent Annuitant Retiree mortality table with rates adjusted by 108.9 percent for males and 131 percent for females. All rates are projected using the

MP-2021 Improvement Scale.

Pre-Retirement Mortality Pub-2010 Below-Median Safety Amount-

Weighted Employee mortality table. All rates are projected using the MP-2021

Improvement Scale.

The actuarial assumptions used in the valuation were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. The next review of the actuarial assumptions is to be completed for adoption with the January 1, 2027 valuation.

Paragraph 31.b.(1)

- (a) Discount rate (SEIR): The discount rate used to measure the TPL as of December 31, 2024 was 7.50 percent. The SEIR on the Prior Measurement Date was 7.50 percent.
- (b) Projected cash flows: The projection of cash flows used to determine the discount rate assumed that plan contributions from members and employers will be made at the current contribution rate as set out in state statute, each year:
 - a. Employee contribution rate: 12.25 percent of base pay.
 - Employer contribution rate: Employers of police officers pay 19.50 percent of salary; Employers of firefighters pay 24.00 percent of salary. OP&F allocates a portion of the contributions to the Health Care Stabilization Fund (HCSF) and the





- rest to the pension fund. The allocation to the HCSF for 2024 was 0.50 percent of salary and was assumed for all future years.
- c. Administrative expenses in the prior year were projected forward with price inflation as an estimate for administrative expenses in current and future years. The portion of expenses in future years allocated to the current members was based on the proportionate share of covered payroll in each year for the remainder of the existing members to the total covered payroll for all members.

Based on those assumptions, OP&F's FNP was projected to be available to make all projected future benefit payments of current OP&F members. Therefore, the long-term expected rate of return on OP&F's investments of 7.50 percent was applied to all periods of projected benefit payments to determine the TPL.

The FNP projections are based upon OP&F's financial status on the Measurement Date, the indicated set of methods and assumptions, and the requirements of GASB 67. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. The FNP does include the member and Fund contributions in excess of future new member's normal costs for expected future new members as allowed by the Standard. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of OP&F, or OP&F's ability to make benefit payments in future years.

- (c) Long-term rate of return: The long-term expected rate of return on pension plan investments is reviewed as part of regular experience studies prepared for OP&F about every five years. The current long-term expected rate of return was adopted by the Board of Directors in February 2022. The rate was determined using a building- block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The assumption is intended to be a long-term assumption (30 to 50 years) and is not expected to change absent a significant change in the asset allocation, a change in the underlying inflation assumption, or a fundamental change in the market that alters expected returns in future years.
- **(d) Municipal bond rate:** A municipal bond rate was not used in determining the discount rate. If it were required, the rate would be 4.04 percent on the Measurement Date.
- **(e) Periods of projected benefit payments:** Future benefit payments for all current plan members were projected through at least 2124.





(f) Assumed asset allocation: The target asset allocation and best estimates of geometric real rates of return for each major asset class as of the Measurement Date, as provided by OP&F's investment consultant, Wilshire, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return**
Domestic Equity	18.6%	3.8%
Non-U.S. Equity	12.4%	4.6%
Private Markets	10.0%	5.6%
Core Fixed Income*	25.0%	2.6%
High Yield Fixed Income	7.0%	4.3%
Private Credit	5.0%	6.7%
U.S. Inflation Linked Bonds*	15.0%	2.4%
Midstream Energy Infrastructure	5.0%	5.2%
Real Assets	8.0%	6.1%
Gold	5.0%	3.2%
Private Real Estate	12.0%	5.3%
Commodities	<u>2.0%</u>	2.5%
Total	125.0%	

^{*}Levered 2x

(g) Sensitivity analysis: This paragraph requires disclosure of the sensitivity of the NPL to changes in the discount rate. The following presents the NPL of OP&F, calculated using the discount rate of 7.50 percent, as well as OP&F's NPL calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than the current rate:

	1% [Decrease (6.50%)	e (6.50%) Current Discour Rate (7.50%)		1%	Increase (8.50%)
Total Pension Liability Fiduciary Net Position Net Pension Liability	\$ 	30,718,421,788 17,933,112,832 12,785,308,956	\$ 	27,480,847,455 17,933,112,832 9,547,734,623	\$	24,788,274,198 17,933,112,832 6,855,161,366

Paragraph 31.c: The actuarial valuation, upon which the TPL is based, was performed as of January 1, 2024. The valuation results were first used to determine the TPL at January 1, 2024 using the SEIR, then the liabilities were rolled forward one year to December 31, 2024 using standard actuarial techniques. The roll-forward begins with the TPL at January 1, 2024, adds the annual normal cost (also called Service Cost), subtracts the benefit payments and refunds for the plan year and then applies interest to December 31, 2024 using the discount rate as of the Measurement Date. The DROP provisions were valued where the date of entry into the DROP is the member's retirement date for purpose of attributing the actuarial present value of projected benefit payments, as required by GASB.



^{**}Geometric mean, net of expected inflation

SECTION II - GASB 67 REQUIRED SUPPLEMENTARY INFORMATION



There are several tables of Required Supplementary Information (RSI) that need to be included in OP&F's financial statements:

Paragraphs 32.a.- b.: The required tables of schedules are provided in Appendix A.

Paragraph 32.c.: Because OP&F is funded with fixed statutory contribution rates, an Actuarially Determined Contribution is not calculated.

Paragraph 32.d: The money-weighted rates of return were provided by OP&F and are shown below.

Year Ending	Annual Money-Weighted
December 31:	Rate of Return
2024	10.75%
2023	9.65%
2022	-10.70%
2021	19.23%
2020	9.21%
2019	17.28%
2018	-2.85%

Paragraph 34: There have been no changes in plan provisions and actuarial assumptions since the January 1, 2023 actuarial valuation.

All actuarial assumptions were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. The next review of the actuarial assumptions is to be completed for adoption with the January 1, 2027 valuation. Please see Appendix B for a description of the assumptions.



SECTION III - PENSION EXPENSE



As noted earlier, the Pension Expense (PE) consists of a number of different items. GASB 68 refers to the first item as Service Cost, which is the Normal Cost using the Entry Age Normal (EAN) actuarial cost method. The second item is interest on the TPL at 7.50 percent the SEIR in effect as of the Prior Measurement Date.

The next three items refer to any changes that occurred in the TPL due to:

- benefit changes,
- · actual versus expected experience, or
- changes in actuarial assumptions or other inputs.

Benefit changes, which are recognized immediately, will increase PE if there is a benefit improvement for existing OP&F members, or decrease PE if there is a benefit reduction. For the year ended December 31, 2024 there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire OP&F membership at the beginning of the measurement period. The average expected remaining service life of active members is the average number of years the active members are expected to remain in covered employment. At the beginning of the measurement period, this number is 13.60 years. The average expected remaining service life of the inactive members is zero. Therefore, the recognition period is the weighted average of these two amounts, or 6.16 years.

The last item under changes in TPL is changes in actuarial assumptions or other inputs. All actuarial assumptions were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. Please see Appendix C for a description of the assumptions and changes. The change in actuarial assumptions is recognized over the average expected remaining service life of the entire OP&F membership, using the same approach that applied to experience gains and losses as described earlier.

Employee contributions for the year and projected earnings on the FNP at the long-term expected rate of return are subtracted from the amount determined thus far. One-fifth of current-period differences between projected and actual earnings on the FNP is recognized in the PE.

The current year portions of previously determined experience, assumption changes and earnings amounts, recognized as Deferred Outflows of Resources and Deferred Inflows of Resources are included next. Deferred Outflows of Resources are added to the PE while Deferred Inflows of Resources are subtracted from the PE. Finally, administrative expenses and other miscellaneous items are included.

To the extent OP&F determines there are any employer-specific liabilities and related pension expense, the collective pension expense may need to be reduced to reflect those employer specific amounts before allocating the remainder of the pension expense to all employers.



SECTION III - PENSION EXPENSE



The calculation of the Pension Expense for the year ended December 31, 2024 is shown in the following table.

December 31, 2024									
Service Cost at end of year	\$	452,862,069							
Interest on the Total Pension Liability		1,963,294,640							
Benefit term changes		-							
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability		34,314,738							
Expensed portion of current-period assumption changes -									
Employee contributions		(395,474,143)							
Projected earnings on plan investments		(1,242,284,037)							
Expensed portion of current-period differences between projected and actual earnings on plan investments		(95,784,529)							
Administrative expenses		22,407,505							
Other		-							
Recognition of beginning Deferred Outflows of Resources		998,183,736							
Recognition of beginning Deferred Inflows of Resources		(531,153,090)							
Total Pension Expense	\$	1,206,366,889							

Note: Average expected remaining service life for all members is 6.16 for December 31, 2024 and 6.03 years for December 31, 2023.





The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference.

Paragraph 74: The information required is to be prepared by OP&F and/or the individual employer.

Paragraph 75: The information required is to be prepared by OP&F and/or the individual employer.

Paragraph 76(a): The name of the pension plan is the Ohio Police & Fire Pension Fund (OP&F) and it is a cost-sharing, multiple-employer public employee retirement system. The Fund is administered by the Ohio Police & Fire Pension Fund Board of Trustees.

Paragraph 76(b):

- (1) Classes of employees covered: All full-time police officers or firefighters are eligible for membership in OP&F immediately upon commencement of employment as a full-time police officer or firefighter.
- **(2) Types of benefits:** The main benefits provided are retirement benefits. However, OP&F also provides ancillary benefits in the event of pre-retirement death, disability, or termination of employment prior to meeting the eligibility requirements to retire. OP&F also offers a deferred-retirement option plan (DROP).
- (3) Key elements of the pension formulas:

<u>Police members</u>: Police members have key elements of their pension formulas that vary based on their membership group. The three groups are members with 15 or more years of service as of July 1, 2013, members with less than 15 years of service as of July 1, 2013, and members hired after July 1, 2013. Retirement eligibility, pensionable compensation and benefit percentages vary based on age, service and group. See Appendix C for more detail.

<u>Fire members</u>: Key elements of the pension formulas for fire members vary based on their group. The three groups are members with 15 or more years of service as of July 1, 2013, less than 15 years of service as of July 1, 2013 and members hired after July 1, 2013. Retirement eligibility, pensionable compensation and benefit percentages vary based on age, service and group. See Appendix C for more detail.

(4) Terms with respect to automatic postemployment benefit changes, including automatic COLAs and ad hoc COLAs: OP&F provides for annual Cost of Living Increases to members. Key elements of these COLAs vary based on groups of members. See Appendix C for more detail.





(5) Authority under which benefit terms are established or may be amended: Benefit terms for the Ohio Police & Fire Pension Fund are established in Chapter 742 of the Ohio Revised Code (ORC), as amended by Senate Bill No. 340 of 2013, and can only be amended by the Ohio General Assembly.

Paragraph 76(c): Please see GASB 67 Paragraph 30.a.(6). Also, the amount of contributions recognized by the pension plan from the employers during the reporting period for the fiscal year ending December 31, 2024 OP&F received \$646,758,070 in contributions from employers and \$149,644 in contributions from State of Ohio subsidies.

Paragraph 76(d): The pension plan issues a stand-alone financial report that can be found at:

https://www.op-f.org/Information/Reports.aspx

Paragraph 77: This paragraph requires information to be disclosed regarding the significant actuarial assumptions and other inputs used to measure the TPL. The summary of the key actuarial assumptions can be found in GASB 67, Paragraph 31.b.

Paragraph 78: Please see GASB 67 Paragraph 31.b.(1)(a)-(g).





Paragraph 79: This paragraph requires a schedule of changes in NPL. The necessary information is in the table below for fiscal year ended December 31:

	Total Pension Liability (a)	P	lan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Balances at December 31, 2023	\$ 26,564,551,513	\$	16,903,171,353	\$ 9,661,380,160
Changes for the year:				
Service Cost at end of year	452,862,069			452,862,069
Interest on TPL	1,963,294,640			1,963,294,640
Benefit term changes	-			-
Differences between expected and expected experience	211,378,788			211,378,788
Assumption/SEIR changes	-			-
Employer and State contributions			646,907,714	(646,907,714)
Employee contributions			395,474,143	(395,474,143)
Net investment income			1,721,206,682	(1,721,206,682)
Benefit payments, including member refunds	(1,711,239,555)		(1,711,239,555)	-
Administrative expenses			(22,407,505)	22,407,505
Other			-	-
Net changes	916,295,942		1,029,941,479	 (113,645,537)
Balances at December 31, 2024	\$ 27,480,847,455	\$	17,933,112,832	\$ 9,547,734,623

Paragraph 80:

- (a) (b): This information will be supplied by OP&F.
- **(c)** The Measurement Date of the collective NPL is December 31, 2024. The TPL at December 31, 2024 is based upon an actuarial valuation prepared as of January 1, 2024, rolled forward one year using standard actuarial techniques. Because the funding valuation attributes the present value of future benefits through the end of the DROP period, an adjustment is made to value the DROP benefits as if the date of entry into DROP is the member's retirement date, as required by GASB.
- (d) The actuarial assumptions used in the valuation were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. The next review of the actuarial assumptions is to be completed for adoption with the January 1, 2027 valuation.
- (e) There were no changes in the benefit terms since the Prior Measurement Date.





- (f) Based on the available information, OP&F believes that there are no changes between the Measurement Date of the NPL (December 31, 2024) and the employer's reporting date (December 31, 2025) that are expected to have a significant effect on the NPL.
- **(g)** Please see Section III of this report for the development of the collective Pension Expense. OP&F will provide the individual employer amounts.
- (h) Since certain expense items are recognized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce PE they are labeled Deferred Inflows of Resources. If they will increase PE they are labeled Deferred Outflows of Resources. The recognition of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are recognized over the average expected remaining service life of the active and inactive Plan members at the beginning of the measurement period. Investment gains and losses are recognized equally over a five-year period.





The following table provides a summary of the amounts of the collective Deferred Outflows of Resources and collective Deferred Inflows of Resources as of the Measurement Date (December 31, 2024). Per GASB 68, reporting of the differences between projected and actual earnings should be on a net basis, with only one Deferred Outflow or Inflow. This information is provided in the following table:

	ferred Outflows of Resources	Det	ferred Inflows of Resources	Οι	Net Deferred atflows/(Inflows) of Resources
Differences between expected and actual experience	\$ 405,066,871	\$	48,280,561	\$	356,786,310
Changes of assumptions	376,646,672		108,210,371		268,436,301
Differences between projected and actual earnings	1,364,171,722		901,685,094		462,486,628
Total	\$ 2,145,885,265	\$	1,058,176,026	\$	1,087,709,239





The following table shows the collective Deferred Outflows of Resources to provide additional detail.

		Deferred C	utflo	ws of Resources				
	Dec	ember 31, 2023		Additions	I	Recognition	Dec	cember 31, 2024
Differences between expected								
and actual experience								
FY 2019 Base	\$	0	\$	0	\$	0	\$	0
FY 2020 Base		36,946,028		0		24,467,568		12,478,460
FY 2021 Base		0		0		0		0
FY 2022 Base		52,963,355		0		13,901,143		39,062,212
FY 2023 Base		220,249,282		0		43,787,133		176,462,149
FY 2024 Base		<u>0</u>		211,378,788		34,314,738		177,064,050
Total	\$	310,158,66 5	\$	211,378,788	\$	116,470,582	\$	405,066,871
Changes of assumptions								
FY 2019 Base	\$	0	\$	0	\$	0	\$	0
FY 2020 Base		0		0		0		0
FY 2021 Base		610,588,704		0		233,942,032		376,646,672
FY 2022 Base		0		0		0		0
FY 2023 Base		0		0		0		0
FY 2024 Base		<u>0</u>		<u>0</u> 0		<u>0</u>		<u>0</u>
Total	\$	610,588,704	\$	0	\$	233,942,032	\$	376,646,672
Differences between projected								
and actual earnings								
FY 2019 Base	\$	0	\$	0	\$	0	\$	0
FY 2020 Base		0		0		0		0
FY 2021 Base		0		0		0		0
FY 2022 Base		2,046,257,582		0		682,085,860		1,364,171,722
FY 2023 Base		0		0		0		0
FY 2024 Base		<u>0</u>		<u>0</u> 0		<u>0</u>		<u>0</u>
Total	\$	2,046,257,582	\$	0	\$	682,085,860	\$	1,364,171,722
Total	\$	2,967,004,951	\$	211,378,788	\$	1,032,498,474	\$	2,145,885,265





The following table shows the collective Deferred Inflows of Resources to provide additional detail.

		Deferred l	nflow	s of Resources				
	Dec	ember 31, 2023	1, 2023 Additions Recognition		Recognition	Dec	cember 31, 2024	
Differences between expected								
and actual experience								
FY 2019 Base	\$	29,783,021	\$	0	\$	29,783,021	\$	0
FY 2020 Base		0		0		0		0
FY 2021 Base		78,268,487		0		29,987,926		48,280,561
FY 2022 Base		0		0		0		0
FY 2023 Base		0		0		0		0
FY 2024 Base		0		0		0		0
Total	\$	108,051,508	\$	<u>0</u> 0	\$	59,770,94 7	\$	48,280,561
Changes of assumptions								
FY 2019 Base	\$	0	\$	0	\$	0	\$	0
FY 2020 Base		0		0		0		0
FY 2021 Base		0		0		0		0
FY 2022 Base		146,719,399		0		38,509,028		108,210,371
FY 2023 Base		0		0		0		0
FY 2024 Base		0		0		0		0
Total	\$	146,719,399	\$	<u>0</u> 0	\$	38,509,028	\$	108,210,371
Differences between projected								
and actual earnings								
FY 2019 Base	\$	0	\$	0	\$	0	\$	0
FY 2020 Base		26,994,079		0		26,994,079		0
FY 2021 Base		699,090,128		0		349,545,064		349,545,064
FY 2022 Base		0		0		0		0
FY 2023 Base		225,335,886		0		56,333,972		169,001,914
FY 2024 Base		<u>0</u>		478,922,645		95,784,529		383,138,116
Total	\$	951,420,093	\$	478,922,645	\$	528,657,644	\$	901,685,094
Total	\$	1,206,191,000	\$	478,922,645	\$	626,937,619	\$	1,058,176,026

OP&F will provide the individual employers' balances of the collective Deferred Inflows of Resources and collective Deferred Outflows of Resources.





(i) Collective amounts reported as Deferred Outflows or Deferred Inflows of Resources related to pensions will be recognized in the Pension Expense in future fiscal years as follows:

Fiscal Year Ending December 31:	ferred Outflows of Resources	Def	erred Inflows of Resources	Out	Net Deferred tflows/(Inflows) of Resources
2025	\$ 1,020,509,366	\$	570,160,519	\$	450,348,847
2026 2027	916,793,516 89,361,797		208,920,164 183,310,814		707,873,352 (93,949,017)
2028 2029	78,101,871 35,628,355		95,784,529 -		(17,682,658) 35,628,355
Thereafter	5,490,360		-		5,490,360

OP&F will provide the individual employers' balances of the collective Deferred Inflows of Resources and collective Deferred Outflows of Resources.

(j) This information will be provided by OP&F.



SECTION V - GASB 68 REQUIRED SUPPLEMENTARY INFORMATION



Under GASB 68, there are several tables of Required Supplementary Information (RSI) that need to be included in OP&F's financial statements. This information can be found in Section II.

Paragraphs 81(a) and (b): This information will be provided by OP&F.

Paragraph 82: There have been no changes in plan provisions since the January 1, 2023 actuarial valuation.

All actuarial assumptions were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. The next review of the actuarial assumptions is to be completed for adoption with the January 1, 2027 valuation. Please see Appendix B for a description of the assumptions and changes.





Exhibit A

GASB 67 Paragraph 32(a)-(b) SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY

		2024		2023		2022		2021		2020		2019		2018		2017
Total Pension Liability Service Cost Interest	\$	452,862,069 1,963,294,640	\$	428,771,868 1,892,722,255	\$	432,828,079 1,851,865,191	\$	360,427,328 1,826,859,097	\$	357,200,509 1,763,487,122	\$	343,991,701 1,741,126,879	\$	331,600,261 1,663,040,537	\$	289,911,106 1,623,441,004
Benefit term changes Differences between expected and actual experience Assumption/SEIR changes		211,378,788 - (1.711,239,555)		264,036,415 - (1.627.583,986)		80,765,641 (223,737,455)		(168,232,265) 1,312,414,800		134,816,300 - (1.400.413.884)		(421,664,871) - (1.394,027,927)		322,601,323 - (1.314.608.496)		109,199,474 318,479,524 (1,256,254,446)
Benefit payments, including member refunds Net change in Total Pension Liability	\$	916,295,942	\$	957,946,552	\$	(1,559,456,438) 582,265,018	\$	(1,535,344,021) 1,796,124,939	\$	855,090,047	\$	269,425,782	\$	1,002,633,625	\$	1,084,776,662
Total Pension Liability - beginning Total Pension Liability - ending (a)	\$ \$	26,564,551,513 27,480,847,455	\$ \$	25,606,604,961 26,564,551,513	\$ \$	25,024,339,943 25,606,604,961	\$ \$	23,228,215,004 25,024,339,943	\$	22,373,124,957 23,228,215,004	\$ \$	22,103,699,175 22,373,124,957	\$	21,101,065,550 22,103,699,175	\$ \$	20,016,288,888 21,101,065,550
Plan Fiduciary Net Position Employer and State contributions Employee contributions Net investment income Benefit payments, including member refunds Administrative expenses Other	\$	646,907,714 395,474,143 1,721,206,682 (1,711,239,555) (22,407,505)	\$	606,606,416 373,663,497 1,465,085,965 (1,627,583,986) (22,174,839)	\$	575,675,549 352,964,203 (2,025,855,021) (1,559,456,438) (12,672,374)	\$	539,335,665 337,025,068 3,034,386,114 (1,535,344,021) (9,609,702)	\$	518,430,203 312,628,926 1,362,818,981 (1,400,413,884) (18,929,776)	\$	502,303,770 303,413,682 2,305,254,776 (1,394,027,927) (21,410,301)	\$	478,595,785 295,472,374 (458,734,784) (1,314,608,496) (16,234,396) (7,047,680)	\$	462,394,203 282,006,793 1,812,565,572 (1,256,254,446) (19,487,358)
Net change in Plan Fiduciary Net Position	\$	1,029,941,479	\$	795,597,053	\$	(2,669,344,081)	\$	2,365,793,124	\$	774,534,450	\$	1,695,534,000	\$	(1,022,557,197)	\$	1,281,224,764
Plan Fiduciary Net Position – beginning Plan Fiduciary Net Position - ending (b)	\$ \$	16,903,171,353 17,933,112,832	\$ \$	16,107,574,300 16,903,171,353	\$ \$	18,776,918,381 16,107,574,300	\$ \$	16,411,125,257 18,776,918,381	\$ \$	15,636,590,807 16,411,125,257	\$ \$	13,941,056,807 15,636,590,807	\$ \$	14,963,614,004 13,941,056,807	\$ \$	13,682,389,240 14,963,614,004
Net Pension Liability - ending (a) - (b)	\$	9,547,734,623	\$	9,661,380,160	\$	9,499,030,661	\$	6,247,421,562	\$	6,817,089,747	\$	6,736,534,150	\$	8,162,642,368	\$	6,137,451,546
Plan Fiduciary Net Position as a percentage of the Total Pension Liability Covered payroll	\$	65.26% 2,990,057,908	\$	63.63% 2,823,066,800	\$	62.90% 2,654,917,807	\$	75.03% 2,526,179,170	\$	70.65% 2,475,784,283	\$	69.89% 2,373,429,623	\$	63.07% 2,302,436,015	\$	70.91% 2,224,675,422
Net Pension Liability as a percentage of covered payroll		319.32%		342.23%		357.79%		247.31%		275.35%		283.83%		354.52%		275.88%

Note: Schedule is intended to show 10-year trend. Additional years will be reported as they become available.





The actuarial assumptions were adopted as of January 1, 2022, based on a quinquennial experience review covering the period 2017 through 2021. The next review of the actuarial assumptions is to be completed for adoption with the January 1, 2027 valuation.

Interest Rate

7.50 percent per annum, compounded annually.

Salary Increase Rates

Assumed annual salary increases are as follows:

Years of Service	Salary Increase Rate
Less than 1	10.50%
1	9.00%
2	8.00%
3	6.00%
4	4.50%
5 or more	3.75%

Payroll Growth

3.25 percent per annum, compounded annually, consisting of inflation rate of 2.75 percent plus productivity increase rate of 0.5 percent.

DROP Interest Crediting Rate

3.75 percent per annum, compounded annually.

CPI-Based COLA

2.2 percent simple for increases based on the lesser of the increase in CPI and three percent.





Withdrawal Rates

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

Years of Service	Firefighters	Police
0	5.00%	14.00%
5	1.00%	2.00%
10	0.75%	1.50%
15	0.50%	1.00%
20	0.20%	0.65%
24	0.20%	0.25%

Rates of Disability

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

Age	Firefighters	Police
20	0.0004%	0.0005%
25	0.0020%	0.0032%
30	0.0088%	0.0401%
35	0.0364%	0.0693%
40	0.0816%	0.1814%
45	0.1388%	0.2399%
50	0.5348%	0.6080%
55	0.8100%	0.5036%
60	1.2240%	0.9351%
64	2.8760%	1.3946%

Type of Disability	
On duty permanent and total	17%
On duty partial	58%
Off duty ordinary	25%





Retirement Rates

The following rates apply to members who are not currently in DROP, but either have reached DROP eligibility or may become eligible for DROP in the future. Upon first eligibility for retirement, the rate is 15 percent for Firefighters and 20 percent for Police. After first eligibility the rates are as follows:

Years of Service	Firefighters	Police
25	15%	20%
26	5%	8%
27	5%	8%
28	5%	8%
29	5%	8%
30	5%	8%
31	5%	15%
32	5%	15%
33	5%	15%
34	5%	15%
35+	100%	100%

The following rates apply to members who will not reach retirement eligibility prior to age 62:

Firefighters

	Years of Service			
Age	15-23	24+		
62	25%	15%		
63	25%	15%		
64	25%	15%		
65	100%	100%		

Police

	Years of Service			
Age	15-23	24+		
62	25%	20%		
63	25%	20%		
64	25%	20%		
65	100%	100%		





Deferred Retirement Option Plan Elections

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

DROP Retirement Rates

The following rates of retirement apply to members in DROP as of the valuation date:

Years of Service	Firefighters	Police
OCIVICO		
25	4.75%	7.25%
26	4.75%	6.00%
27	4.75%	6.25%
28	6.00%	6.00%
29	9.00%	8.50%
30	15.75%	16.75%
31	11.00%	16.25%
32	44.00%	50.00%
33+	100.00%	100.00%

Retirement Age for Inactive Vested Participants

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





Service Retiree and Vested Former Member Mortality

Mortality for service retirees is based on the Pub-2010 Below-Median Safety Amount-Weighted Healthy Retiree mortality table with rates adjusted by 96.2 percent for males and 98.7 percent for females. All rates are projected using the MP-2021 Improvement Scale.

Disabled Mortality

Mortality for disabled retirees is based on the Pub-2010 Safety Amount-Weighted Disabled Retiree mortality table with rates adjusted by 135 percent for males and 97.9 percent for females. All rates are projected using the MP-2021 Improvement Scale.

Contingent Annuitant Mortality

Mortality for contingent annuitants is based on the Pub-2010 Below-Median Safety Amount-Weighted Contingent Annuitant Retiree mortality table with rates adjusted by 108.9 percent for males and 131 percent for females. All rates are projected using the MP-2021 Improvement Scale.

Pre-Retirement Mortality

Mortality for active members is based on the Pub-2010 Below-Median Safety Amount-Weighted Employee mortality table. All rates are projected using the MP-2021 Improvement Scale.

Credited Service

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

415 Limits

Benefits are limited by the IRC Section 415, assumed to increase 2.75 percent per annum.





Future Expenses

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

Unknown Data for Members

Same as those exhibited by members with similar known characteristics. Deferred benefits are estimated at termination until OP&F has determined the actual amount at retirement. Reported salaries that are less than \$10,000 when annualized are assumed to be anomalous and are reset to \$60,000. The adjustment for late reported salaries is not applied in this case.

Late Reported Salaries

A 1.089 percent load is added to the 2023 reported salaries to account for salaries accrued but not reported for the valuation. This adjustment is based on an average of plan experience from the prior three years. The raw adjustment rates for each year are as follows:

Pay for Calendar Year	Raw Adjustment
2023	0.818%
2022	1.032%
2021	1.418%

This adjustment will be reviewed annually for future late reported salaries.

Percent Married

80 percent of active members are assumed to be married.

Age of Spouse

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





Optional Form Election

40 percent of service retirees and 15 percent of disability retirees are assumed to elect a 45 percent Joint and Survivor pension at retirement. If the joint annuitant predeceases the retiree, the increase, or pop-up, in the retiree's benefit associated with the 45 percent Joint and Survivor pension is assumed to be 14.36 percent for disability retirees and 10.50 percent for all other retirees.

DROP Account Distributions

For currently retired members who have an outstanding DROP balance we assume they will take their balance in installments over 10 years. For members who terminate DROP before the required three or five years, distribution of the account balance is assumed to be made in a lump sum payment at the end of the three- or five-year period. Distributions for active members are assumed to be made in a lump sum or installments at retirements in a pattern equivalent to 25 percent receiving lump sums, 30 percent receiving installments over two years, and 45 percent receiving installments over 10 years.

Dependent Parents

None anticipated, but dependency of any dependent parent in receipt of benefits is assumed to continue for the parent's lifetime.

Dependent Children

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

Medicare Part B Premium Reimbursement

For service and disability retirements, as well as survivors, Ohio Police & Fire reimburses the standard Medicare Part B premium (\$107.00 per month for 2024) provided the retiree is not eligible for reimbursement from any other sources.

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

The Medicare Part B Premium assumptions are only used to determine the cost if the Medicare Part B reimbursement payments were to be paid from the pension trust instead of the Health Care Stabilization Fund.





Changes in actuarial assumptions since the January 1, 2023 valuation:

The assumptions used for the January 1, 2024 actuarial valuation are based on the quinquennial experience review prepared as of December 31, 2021 and adopted by the Board of Trustees on October 26, 2022. Material assumptions and methods that were changed since the prior valuation:

None





Methods

Actuarial Cost Method

Projected benefit method with individual level percentage entry age normal cost and actuarial accrued liability. Gains and losses are reflected in the actuarial accrued liability. Prior to January 1, 2015, to be consistent with the asset methodology employed by OP&F, DROP balances were netted out of the liabilities. In accordance with Paragraph 46(d) of GASB 67, the date of entry into the DROP is considered to be the member's retirement date for purpose of attributing the actuarial present value of projected benefit payments. Note that this is a different approach than is used in the funding valuation. For the funding valuation the member's retirement date is considered to be the member's retirement date for purpose of attributing the actuarial present value of projected benefit payments.

Adjustment for Re-Employed Retirees

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

Adjustment for Employer Accrued Liability

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

Asset Valuation Method

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



APPENDIX B - STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS



Data

Census and Assets

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





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

Membership

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

Eligibility for Membership

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

Contributions

Employer and member contributions are established by statute and both are due monthly. Employers of police officers pay 19.5 percent of salary; employers of firefighters pay 24 percent of salary. The member contribution rate equaled 12.25 percent in 2023.

Employer Contribution Rates – Percentage of Active Member Payroll:

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

Member Contribution Rates – Percentage of Active Member Payroll:

Time Frame of Rates	Police	Fire
July 2, 2015 and Thereafter	12.25%	12.25%





Benefits

Service Retirement

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

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

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

Normal Service Retirement

Eligibility

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

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

Benefit

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





Service Commuted Retirement

Eligibility

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

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

Benefit

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

Age/Service Commuted Retirement

Eligibility

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

Benefit

An annual pension that uses the same formula as for the Normal Service Retirement benefit.

Actuarially Reduced

Eligibility

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

Benefit

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





Rights Upon Separation From Service

Deferred Pension

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

Refund of Employee Contributions

Upon separation from service, a member can receive the contributions that he or she made to the plan or the employee share of member contributions picked-up on the member's behalf by their employer. Employer contributions are not refundable.

Termination before Retirement with 25 Years of Service Credit

Benefit

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

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

Termination before Retirement with 15 Years of Service Credit

Benefit

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

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

Termination Before Retirement With Less Than 15 Years of Service Credit

Benefit

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





Deferred Retirement Option Plan

Eligibility

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

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

Benefit

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

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

The DROP interest rate is set by administrative rule and is subject to change at any time. OP&F credits interest to all DROP balances each month at a rate equal to the 10-year United States (U.S.) Treasury Note Business Day Series, as published by the U.S. Department of the Treasury, with a cap of five percent and a floor of 2.5 percent. This variable interest rate is adjusted quarterly to match the published 10-year U.S. Treasury Note rate for the last trading business day of the preceding quarter and is in effect for the subsequent quarter.

Members whose election to participate in DROP is effective after July 1, 2013 do not qualify for annual cost- of-living allowances (COLA) at any time during DROP.

Member contributions are credited to their DROP account based on the number of years of DROP service. OP&F applies contributions to DROP in the following manner:

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

The minimum participation in DROP, without penalty, is five years and the maximum is eight.





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

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

If a member dies while participating in DROP, the member's surviving spouse, designated beneficiary or estate will receive the entire DROP account balance determined at the time of death. Also, the member's surviving spouse or contingent dependent beneficiary will receive either a 50 percent joint and survivor annuity or the annuity plan selected by the member, whichever is greater. All other statutory death benefits will apply.

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





Disability Benefits

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

Permanent and Total Disability (On-Duty)

Eligibility

No age or service requirement.

Benefit

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

Partial Disability (On-Duty)

Eligibility

No age or service requirement.

Benefit

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

Non-Service Incurred Disability (off-Duty)

Eligibility

Any age and five years of service credit.

Benefit

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





Pre-Retirement Survivor Annuity

Eligibility

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

Benefit

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

Statutory Survivor Benefits

Eligibility

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

Benefit

• Surviving Spouse's Benefit

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

• Surviving Child's Benefit

An annual amount equal to \$1,800 (\$150 monthly), payable until such child attains age 22 or marries, whichever occurs first. A dependent disabled child, regardless of age at time of member's death, is entitled to a benefit until death or recovery from disability. A COLA of three percent of the original base is payable each July 1.

• Dependent Parents' Benefit

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





Survivors	Monthly Pension	Causes of Termination
Widow/Widower	current amount + future COLA	*Death
Child	current amount + future COLA	*Death *Marriage *Attainment of age 22
Dependent disabled child	current amount + future COLA	*Death *Recovery from disability
One dependent parent	current amount + future COLA	*Death *Re-marriage
Two dependent parents	1/2 current amount (each) + future COLA	*Termination of dependency

Benefit Type	Base Monthly Benefit Amount	Base Monthly Benefit Amount Plus Increases Through July 1, 2023	Monthly Increases Effective July 1, 2024
Spouse	\$550	\$941.50 *	\$16.50
Child	150	256.80 **	4.50
One Parent	200	342.40 ***	6.00
Two Parents	100	171.20	3.00

- * On July 1, 2000 the Statutory Surviving Spouse Benefit increased by \$12.10 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was \$16.50 or three percent of the base benefit.
- ** On July 1, 2000 the Statutory Child Benefit increased by \$3.30 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was \$4.50 or three percent of base benefit.
- *** On July 1, 2000 the Statutory Surviving One Parent Benefit increased by \$4.40 per month. This increase was a percentage of the original benefit amount, equaling the percentage increase in the CPI plus unused prior increases, to a maximum of three percent. Every year after 2000, the monthly increase was \$6.00 or three percent of base benefit.





Lump Sum Death Benefit

Eligibility

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

Benefit

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





State of Ohio Public Safety Officers Death Benefit Fund (DBF)

Benefit

The Death Benefit Fund is funded by the State of Ohio and provides special benefits to eligible survivors of public safety officers who are killed in the line of duty or who die from injuries or disease incurred in the performance of official duties. These eligible survivors are entitled to receive the member's full monthly salary received by the public safety officer prior to his or her death in the line of duty, plus any increases in salary that would have been granted to the deceased public safety officer. The benefit is paid to the public safety officer's eligible survivors as a group until the public safety officer's maximum pension eligibility date. This is the date on which the deceased public safety officer would have become eligible for the maximum annual retirement allowance or pension that may be paid to a member from the member's retirement system (OP&F, OPERS, SHPRS or the Cincinnati Retirement System) had the member continued to accrue service credit from that system, which will be reduced at the member's maximum pension eligibility date. These death benefit payments are in addition to the statutory survivor benefit and any optional payment plan benefits elected by the member.





Annuities

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

Annuity Types

Single Life Annuity

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

Joint and Survivor Annuity (JSA)

Under this plan, a member designates that, upon his or her death, a certain percentage of the member's actuarially reduced benefit is continued to a surviving designated beneficiary for life.

Any percentage between one percent and 100 percent of the member's reduced pension may be continued to the surviving designated beneficiary, but the percent continued may be limited based on the beneficiary's age. If a member is married at the time benefits are elected, the standard plan is a 50 percent JSA continuing one- half of the member's reduced monthly benefit to his or her surviving spouse. If the member wants to select a plan which provides for the continuation of benefits for someone other than the spouse or less than 50 percent JSA to the spouse, the spouse must consent in writing to this choice. This plan automatically terminates upon death of the beneficiary, to be effective the month following OP&F's receipt of notice of death, or it may be cancelled upon divorce with the consent of the member's spouse or a specific court order, at which point the annuity reverts to the single life annuity to the member. Elected option may be cancelled within one year after benefits commence, with the consent of the beneficiary.

Multiple Beneficiary Annuity

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

Life Annuity Certain and Continuous (LACC)

This plan provides a lifetime allowance to the member and will only be paid to a designated beneficiary if the member dies and the period elected by the member has not expired. The minimum guarantee period is five years and the maximum is 20 years. 100 percent of the member's reduced pension continues to the beneficiary for the guarantee period selected. Elected





option may be cancelled within one-year after benefits commence, with the consent of the beneficiary. If the member is married at the time of retirement, the spouse must consent in writing for an annuity selection that provides for less than a 50 percent JSA payable to the spouse.

Tiered Retirement Plan – COLA or Terminal Pay (Non-COLA)

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

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

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

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

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

Re-employed Retiree's Defined Contribution Plan Benefit

Effective June 30, 1991, every person who is retired under an Ohio public pension plan and who is re-employed in an OP&F covered position must contribute to OP&F at the same rate as other police officers or firefighters. The employer pays the normal rate as well. If the re-employed member terminates employment before age 60, Ohio law allows the member to receive a lump sum payment of post-retirement employee contributions made during the period of re-





employment, plus interest. If the member waits until age 60 to receive this benefit, he or she can choose to receive either a lump sum payment in an amount equal to twice his or her contributions, plus interest, or a lifetime annuity paid monthly. If, after calculation, the member's lifetime monthly annuity is less than \$25, the member may only select the lump sum payment option. If the member is married spousal consent is required before payment can occur.

Health Care Stipend and Medicare

Although support for retiree health care is not a vested right and is a discretionary benefit from OP&F subject to change at any time, a stipend funded by OP&F via the Health Care Stabilization Fund (HCSF) is available to eligible members through a Health Reimbursement Arrangement. The stipend can be used to reimburse retirees for qualified health care expenses. This stipend model allows eligible members the option of choosing an appropriate health care plan on the insurance exchange. Implementation of the stipend model has helped OP&F meet the funding goal of a 15-year future solvency projection in the HCSF.

Regardless of a benefit recipient's participation in the health care program, OP&F is required by law to pay eligible recipients of a service pension, disability benefit and spousal survivor benefit for their Medicare Part B insurance premium, up to the statutory maximum provided the benefit recipient is not eligible to receive reimbursement from any other source. Once OP&F receives the necessary documentation, a monthly reimbursement is included as part of the recipient's next benefit payment.

Note: This benefit is not included in the principal valuation results, but it is included in the results of the retiree health care valuation.

