FIRE & POLICE

EMPLOYEES' RETIREMENT SYSTEM
CITY OF BALTIMORE, MARYLAND

COMPREHENSIVE ANNUAL FINANCIAL REPORT

A COMPONENT UNIT OF THE CITY OF BALTIMORE, MARYLAND

YEAR ENDED JUNE 30, 2021

BALTIMORE CITY FIRE DEPARTMENT

http://fire.baltimorecity.gov/

For more than 160 years the Baltimore City Fire Department has provided fire protection and emergency medical services to the citizens of the City of Baltimore. The Baltimore City Fire Department is a diverse and evolving extension of the community, committed to providing excellent service to all they serve, in a professional and humanitarian way.

BALTIMORE POLICE DEPARTMENT

www.baltimorepolice.org

The Baltimore Police Department is the 8th largest municipal police force in the United States, staffed by nearly 3,100 civilian and sworn personnel. The men and women of the Baltimore Police Department are dedicated to upholding the Constitution and enforcing laws in a fair, impartial, and ethical manner.

The F&P would like to give special thanks to Gino Inocentes, of the Office of Public Information, from the Baltimore Police Department and freelance photographer Stan Jaworski for the use of all the photographs in the Comprehensive Annual Financial Report.

FIRE & POLICE

EMPLOYEES' RETIREMENT SYSTEM
CITY OF BALTIMORE, MARYLAND

COMPREHENSIVE ANNUAL FINANCIAL REPORT

A COMPONENT UNIT OF THE
CITY OF BALTIMORE, MARYLAND

YEAR ENDED JUNE 30, 2021

PREPARED BY:
N. ANTHONY CALHOUN, EXECUTIVE DIRECTOR
HOWARD I. MOSSOVITZ, DEPUTY EXECUTIVE DIRECTOR
VENERANDO E. IGNACIO III, ACCOUNTING MANAGER

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
Comprehensive Annual Financial Report
For the Year Ended June 30, 2021

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Certificate of Achievement for Excellence in Financial Reporting

Presented to

Fire and Police Employees' Retirement System
City of Baltimore, Maryland

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2020

Christopher P. Morrill

Executive Director/CEO

CITY OF BALTIMORE
BRANDON M. SCOTT, Mayor

FIRE AND POLICE EMPLOYEES' RETIREMENT SYSTEM
N. Anthony Calhoun, Executive Director
7 E. Redwood Street
18th Floor
Baltimore, Maryland 21202

November 16, 2021

The Honorable Members of the Board of Trustees
Fire and Police Employees' Retirement System
Baltimore, Maryland

The Fire and Police Employees' Retirement System of the City of Baltimore (F&P, Plan, System) has just completed fifty-eight years of service to the uniformed officers of the Baltimore City Fire and Police Departments. On behalf of the dedicated staff that serves the System's membership, I am pleased to submit the Comprehensive Annual Financial Report of the F&P for the fiscal year ended June 30, 2021. The System's administration is responsible for both the accuracy of the data and the completeness of the presentation, including all disclosures. To the best of my knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the F&P. The F&P is a component unit of the City of Baltimore.

Established July 1, 1962, by City ordinance, the F&P is a defined benefit plan that covers all uniformed officers of the Baltimore City Fire and Police Departments. The Plan also covers certain Maryland Aviation Administration firefighter/paramedics. These State of Maryland employees were grandfathered into F&P plan coverage by State law.

All System-related administrative and benefit provisions are established by City ordinance, as contained in Article 22 of the Baltimore City Code, and may be amended only by the Mayor and City Council. The F&P provides normal service retirement benefits for members who attain the required age and/or service requirements, and now due to plan amendments passed in June 2010, early service retirement benefits. Coverage for line-of-duty disability benefits is immediate upon entry into the System. Disability benefits for non-duty-related injury or illness are provided after the attainment of five years of membership. Line-of-duty death benefits are provided upon membership for any member whose death results from an injury occurring in the actual performance of duty. After one year of System service, members are also covered for non-duty-related death benefits. Members who do not reach normal or early service retirement benefit eligibility remain vested only in their accumulated member contributions and interest credits which are payable to the member upon termination from employment. A Deferred Retirement Option Plan (DROP) is available to members who entered the F&P prior to July 1, 2003, and who attained twenty or more years of service as of December 31, 2009. Members who do not meet the eligibility requirements for DROP may become eligible to participate in DROP 2 that commenced January 1, 2010. More information concerning the benefit provisions, DROP, and DROP 2, can be found in the Summary of Plan Provisions beginning on page 87.

Major Initiatives

The COVID-19 pandemic continued to be a challenge, which required all of us to think and act in new ways. I have heightened the F&P safety and security measures by having all software upgraded and improved the F&P's virtual private network (VPN) encryption in order to protect all F&P data. I also increased our teleworking capabilities, by ensuring that all employees had every tool possible at their disposal. All F&P employees have the ability to telework through VPN and were given improved teleworking tools including upgraded laptops and monitors. We also have electronic signature signing access and remote notarization in order for the business of the F&P to continue smoothly.

I continue to remain in close communication with NEPC, the F&P's investment advisor, and managers to determine any allocation shifts or adjustments to our investment lineup, as the COVID-19 crisis lingers exposing both areas for improvement and areas of opportunity. As such, I have pivoted the F&P investment portfolio where necessary. We increased the internal portfolio analytical capabilities and engaged an outside firm to implement a comprehensive, in-house, risk management system for the Investment Portfolio. We also regularly stress test the investment portfolio to determine maximum probability of loss at any given juncture. This has improved the Plan's ability to forecast and reserve for cash/liquidity needs. Also, we have updated in-house asset allocation model to conform to new target allocations. We implemented video conferencing solutions to allow prospective managers to present to trustees at Board meetings, maintaining the Plan's ability to continue to commit capital to higher-returning assets in the private investment universe.

In addition, the Government Finance Officers Association of the United States and Canada (GFOA) has given an Award for Outstanding Achievement in Popular Annual Financial Reporting to the Fire and Police Employees' Retirement System for the City of Baltimore, Maryland for its Popular Annual Financial Report for the fiscal year ended June 30, 2020. This was the sixth time that the F&P has submitted a PAFR for review. The Award for Outstanding Achievement in Popular Annual Financial Reporting is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government popular reports.

Financial Information

This report has been prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board. The accrual basis of accounting is used to record assets, liabilities, revenues, and expenses. Revenues are recorded when earned, regardless of the date of collection. Expenses are recorded when liabilities are incurred, regardless of when payment is made.

Accounting principles generally accepted in the United States require that management provide a narrative introduction, an overview, and an analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The MD&A begins on page 18 immediately following the report of the independent auditor in the Financial Section of this report.

The System's administration is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the F&P are protected from loss, theft, or misuse and to ensure that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with accounting principles generally accepted in the United States of America. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and that the valuation of costs and benefits requires estimates and judgments by the System's management. Sufficient internal accounting controls exist to provide reasonable assurance regarding the safekeeping of assets and the fair presentation of the financial statements and supporting schedules.

The Board of Trustees November 16, 2021
Fire and Police Employees' Retirement System
Baltimore, Maryland

Investments

As provided for in the plan provisions, the Board of Trustees is authorized to invest the System's assets and to take appropriate action regarding the investment, management, and custodianship of plan assets. The investment responsibilities of the Board include establishing reasonable investment objectives, developing investment policy guidelines, selecting investment managers, and evaluating performance results to assure adherence to guidelines and the achievement of objectives.

The portfolio's rate of return of 29.3% was slightly below the median of 29.4% which ranked the F&P portfolio in the 25th percentile of the Investment Metrics Public Defined Benefit > $1 Billion Universe at June 30, 2021. The three year, five year, and ten year performance numbers for the portfolio were 10.9% which ranked in the 52nd percentile, 10.7% which ranked in the 67th percentile, and 8.4% which ranked in the 65th percentile, respectively.

Plan Funding

As of June 30, 2021, the date of the F&P's last actuarial valuation, the System's funded ratio was 71.6% on an actuarial value of assets basis, compared to a 69.1% actuarial value basis at June 30, 2020. As of June 30, 2021, the market funded ratio was 79.5%, compared to a 65.0% market funded ratio at June 30, 2020. As required by GASB 67, the market funding ratio is calculated using the Entry Age Normal cost method. The required supplementary information that follows immediately after the notes to the basic financial statements provides new information and schedules due to the GASB 67 implementation. The schedules beginning on page 44 show the changes in net pension liability and related ratios as well as the schedule of investment returns. These schedules will have eight years of information as of June 30, 2021, but eventually will build up to ten years of information. Also provided is the schedule of required contributions made by the employer.

As a result of the actuarial valuation performed for the fiscal year ended June 30, 2019, a total City and State contribution due to the F&P for fiscal year 2021 was $150.2 million which was paid in full.

Litigation

On August 19, 2016, the fire and police unions and several plan participants and retirees filed a class action lawsuit against the City in the Circuit Court for Baltimore City, claiming that passage by the City of Ordinance 10-306, which became effective June 30, 2010, wrongfully breached the City's pension contract with the plan membership. Plaintiffs requested judgment against the City awarding monetary damages, equitable relief, and specific performance – including restoration of pre-Ordinance plan provisions - attorneys' fees, costs, and pre-judgment interest.

On August 16, 2021, the Court of Appeals concluded the litigation by affirming the decision of the Circuit Court for Baltimore City upholding the enactment of Ordinance 10-306, effective June 30, 2010, by the City of Baltimore.

In its decision, the Court of Appeals affirmed the decision of the Circuit Court Final Order of Judgment effective March 20, 2020, in all respects, finding that:

1) the City of Baltimore unlawfully breached its contract with the retired and retirement-eligible members by eliminating the variable benefit feature of the plan and replacing it with an age-tiered COLA,

2) the Circuit Court correctly calculated damages for such breach and properly ordered the City to pay approximately $35,500,000 to a named Plaintiff and 5,885 retired and retirement-eligible members, and

3) Ordinance 10-306's prospective changes were legal and, consequently, the City did not breach its contract with the plan's active members.

See Note 10 of the Notes to Basic Financial Statements on page 40 for more information.

Independent Audit

The Baltimore City Code stipulates that the Board of Estimates shall select an independent auditor for the F&P and that the auditor shall report their findings annually to the Board of Estimates and to the Board of Trustees. The Board of Estimates elected to have CliftonLarsonAllen, LLP render an opinion on the System's financial statements. The auditor's report is contained in the Financial Section of this report.

Professional Services

The Board of Trustees appoints consultants and investment managers subject to approval by the City's policy making and approval body, the Board of Estimates. These professionals have been chosen based on their ability to provide services that are essential to the effective and efficient operation of the System. All of the professionals who provide service to the Board of Trustees are listed in the Introductory Section on page 14 and in the Investment Section on pages 66 to 69**.**

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Fire and Police Employees' Retirement System, City of Baltimore, Maryland for its comprehensive annual financial report for the fiscal year ended June 30, 2020. This was the thirty-eighth consecutive year (fiscal years 1983-2020) that the F&P has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both accounting principles generally accepted in the United States and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. I believe that this current report continues to meet the Certificate of Achievement Program requirements. I am submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgments

The preparation of this report could not be accomplished without the dedicated efforts of the System's accounting and communication support staff, investment consultant, and actuarial consultant. I would like to express my appreciation to all who assisted and contributed to its preparation.

This report is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship for the assets contributed by the members and the City of Baltimore.

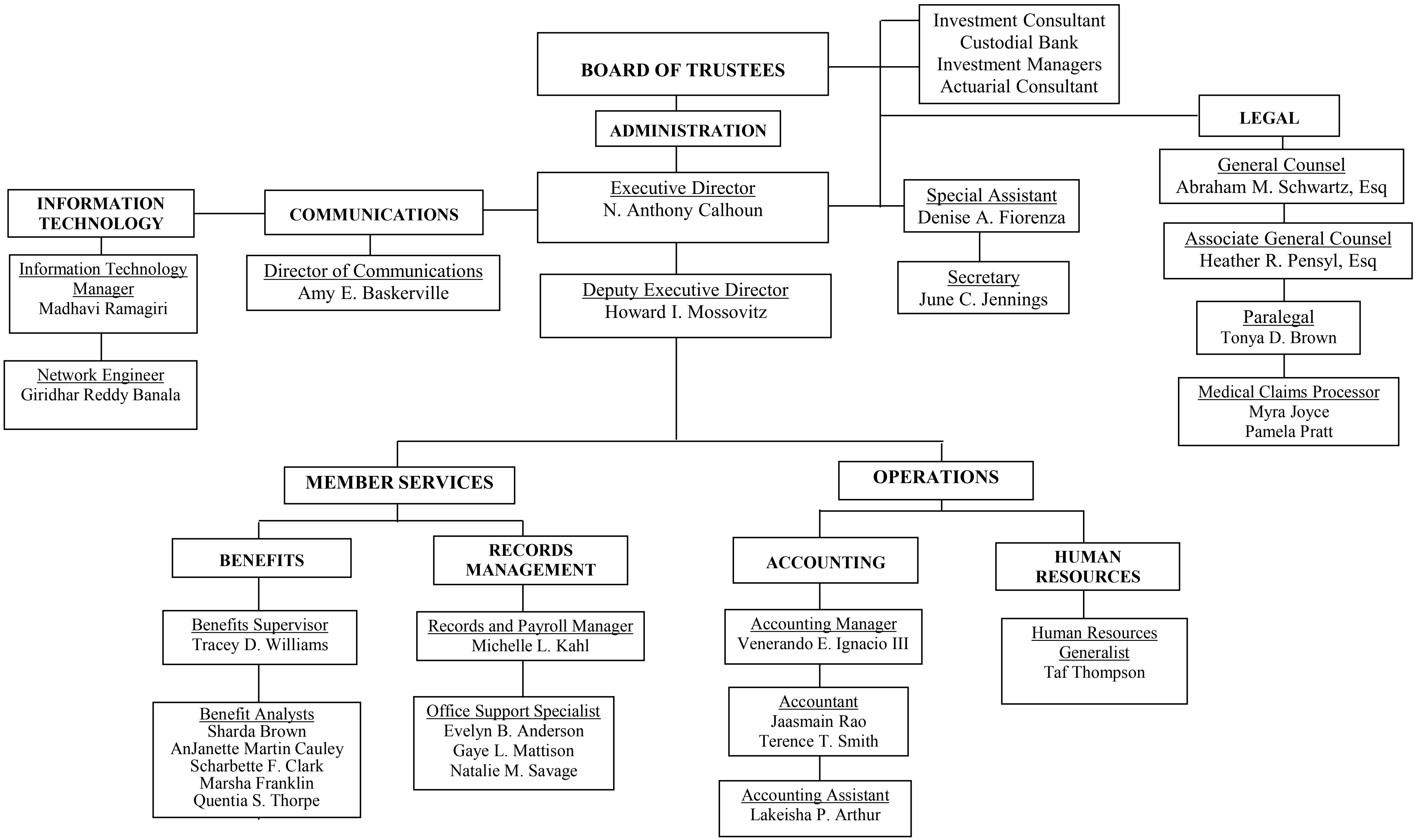
This report is being forwarded to the Mayor, the President of the City Council, the Comptroller, and other members of the Board of Estimates, to all members of the City Council, and to the Fire and Police Departments so that all members of the F&P will have the opportunity to review it. Hopefully, the administration of the City and the membership of the System will find this report both informative and helpful.

I would like to take this opportunity to express my gratitude to the Board of Trustees, the dedicated F&P staff, the System's consultants, investment managers and advisors, all of whom continue to work diligently to assure the successful operation of the System.

Respectfully submitted,

N. Anthony Calhoun
Executive Director

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
ORGANIZATION CHART



Fire and Police Employees' Retirement System
City of Baltimore, Maryland
BOARD OF TRUSTEES

The Board Chairman, Vice-Chairman, and members of the Investment Committee are elected by the members of the Board of Trustees. The ex-officio members to the Board are the City Comptroller, the Director of Finance, the Police Commissioner and the Fire Chief, all of whom may appoint a Deputy to represent her or him on the Board. Trustees appointed by the Mayor serve terms concurrent with the Mayor's term. Appointed Trustees continue to serve until replaced by the Mayor, or until the expiration of two consecutive full terms. Elected active and retired member Trustees serve four-year terms. There are no term limits for Trustees elected by the active or retired members.

CITY OF BALTIMORE
BRANDON M. SCOTT, Mayor

FIRE AND POLICE EMPLOYEES' RETIREMENT SYSTEM
N. Anthony Calhoun, Executive Director
7 E. Redwood Street
18th Floor
Baltimore, Maryland 21202

October 29, 2021

To All Members, Retirees, and Beneficiaries
Fire and Police Employees' Retirement System
Baltimore, Maryland

This comprehensive financial report covers the fiscal year ending June 30, 2021.

This past year has been a remarkable one for the F&P and all of our members. All of us were forced to deal with the devastation of the COVID pandemic, which has caused much suffering throughout the world, including sickness and death of active and retired F&P members, family members, and even F&P staff. We grieve for all who have suffered and died from COVID. Our heartfelt thanks go out to our F&P active members, who have served the City so well during the pandemic and put their lives at risk each day in carrying out their duties. Despite the pandemic and restrictions, the F&P staff worked tirelessly to serve our members throughout the year. Hopefully the coming year will see far fewer COVID-related illnesses and deaths, as the level of vaccinations increases and medical knowledge of how best to combat the virus advances.

The past fiscal year was also extraordinary from a financial perspective. Over the past year our highly-diversified investment portfolio earned a positive 29.3% return, the highest annual return ever achieved by the F&P. As a result, in a single year our funded status based on the fair value of assets increased dramatically, from 65.0% to 79.5%. The value of our portfolio as of June 30, 2021 was approximately $3.33 billion, the highest ever. During the fiscal year the F&P paid nearly $268.6 million in benefits to our retired members and their beneficiaries, again the highest amount ever.

We should not expect to reap such enormous investment returns in the coming year. Instead, the F&P Board is conservative and we assume that investment returns will be lower over the next decade. The financial markets are volatile and unpredictable, as demonstrated by our investment returns over the past several years:

2014 – 16.5%	2018 – 8.5%
2015 – 2.3%	2019 – 5.7%
2016 – 0.6%	2020 – (0.2%)
2017 – 12.1%	2021 – 29.3%

We also continue to face demographic challenges, based upon a reduced number of active employees contributing to our system, increased number of retirees, and longer life spans. Over the past year we again experienced a decline in the number of our active members (from 3,927 to 3,840) and an increase in our number of retirees (now 6,359). Despite these challenges, the F&P remains in a strong position.

During the fiscal year ending June 30, 2021, the City contributed $150.2 million to the F&P. This was the largest annual contribution ever made by the City. The annual City contribution will continue and it will be challenging for the City to fund these contributions. Our principal long-term goal continues to be to make our plan fully-funded, so that our active members, retirees and beneficiaries will continue to receive their full benefits in the years to come.

Along with achieving a 29.3% positive return on our investments, over the past year the F&P Board and staff took additional steps to help ensure our system continues to be financially strong in the years to come. First, the Board voted to again reduce our assumed rate of return going forward, consistent with the trend nationally among retirement plans in the face of projections anticipating lower returns in the stock and bond markets in the coming decade. Second, the F&P will be doing its part over the next several years to support environmental sustainability and address climate change, by carrying out the mandate of recent City legislation directing City agencies to divest from fossil fuels. Third, despite the challenges of COVID, over the past year the F&P staff successfully implemented a comprehensive risk management system that will help protect our investment portfolio. Finally, in the coming year the F&P will be assisting the City as needed in the Court-ordered distribution of damage payments to certain F&P members following the Maryland Court of Appeals decision in the Cherry v. Mayor & City Council lawsuit, decided in August 2021. The lawsuit had been ongoing for more than 11 years and is now finally concluded.

Our Executive Director, Mr. N. Anthony Calhoun; our Deputy Executive Director, Mr. Howard Mossovitz; and the F&P staff appreciate the privilege of working with you. The F&P staff will continue to do its best to serve you well, even in the face of the global COVID-19 public health crisis. Hopefully you have visited the website for the F&P at www.bcfpers.org, where you will find useful information about your retirement, including the Active Member Benefits Advanced Estimator to help you calculate your future benefits.

On behalf of the F&P Board of Trustees and the F&P staff, thank you for your dedicated service to the City in these very challenging times. We will continue to work hard to protect your retirement benefits. We know that the past year has been difficult for you and your families, and we wish all of you good health in the coming year.

Sincerely,

Peter E. Keith, Esq.
Chairman
Board of Trustees

LEGAL AND GENERAL COUNSEL, ACTUARY, AND INDEPENDENT AUDITOR

LEGAL COUNSEL

Law Department
City of Baltimore
James L. Shea, Esq.

GENERAL COUNSEL

Fire and Police Employees' Retirement System
City of Baltimore
Abraham M. Schwartz, Esq.

ACTUARY

Cheiron
Fiona E. Liston, F.S.A.
McLean, Virginia

INDEPENDENT AUDITOR

CliftonLarsonAllen
Thomas Rey, CPA
Timonium, Maryland

See page 65 in the Investment Section for a list of fees and commissions.
See pages 66 to 69 in the Investment Section for a list of investment professionals.

FINANCIAL SECTION

CliftonLarsonAllen LLP
CLAconnect.com

INDEPENDENT AUDITORS' REPORT

The Honorable Bill Henry, Comptroller,
Other Members of the Board of Estimates of the City of Baltimore and the
Board of Trustees of the Fire and Police Employees' Retirement System
Baltimore, Maryland

Report on the Financial Statements

We have audited the accompanying financial statements of the Fire and Police Employees' Retirement System of the City of Baltimore (the System), which comprise the statement of fiduciary net position as of June 30, 2021, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the 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.

Auditors' 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 auditors' 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 financial position of the System as of June 30, 2021, and the respective changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

The Honorable Bill Henry, Comptroller,
Other Members of the Board of Estimates of the City of Baltimore and the
Board of Trustees of the Fire and Police Employees' Retirement System

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming an opinion on the System's financial statements. The schedules of administrative expenses, investment expenses and payments to consultants, and the introductory, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not required parts of the financial statements.

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

The introductory, investment, actuarial and statistical sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the 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 November 16, 2021 on our consideration of the System'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 solely 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 System'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 System's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
November 16, 2021

The following overview and analysis of the financial activities of the Fire and Police Employees' Retirement System (F&P, Plan, System) is provided for the fiscal year ended June 30, 2021. Readers are encouraged to consider the information presented here in conjunction with additional information furnished in the Transmittal Letter, which begins on page 5 of this report.

Financial Summary

- The net position restricted for pension benefits increased by $683.4 million during the fiscal year from $2,645.5 million at June 30, 2020, to $3,328.8 million at June 30, 2021. The increase in fiscal year 2021 was mainly due to the strong performance across the entire investment portfolio.

- Additions to Net Position (Revenues) for the year were $956.9 million, an increase of $793.8 million from the prior year revenues of $163.1 million. The increase in revenues was caused by higher investment earnings that were uniformly up across all asset classes for fiscal year 2021 compared to the prior year.

- Deductions from Net Position (Expenses) were $273.5 million in the current year, an increase of $5.6 million from the prior year expenses of $267.9 million. The increase in expenses was driven by post-retirement benefit increases, effective January 2021, and increased retirement allowance payments.

- The investment portfolio's total time-weighted rate of return of 29.3% for the one year period ended June 30, 2021, was slightly below the median public fund performance of 29.4%. The performance placed the F&P in the 25^{th} percentile of the Investment Metrics Public Defined Benefit $1-5 Billion Universe.

- The portfolio performance for the three year period ended June 30, 2021, was 10.9% which was below the median public plan performance of 11.4%.

- The System's real estate portfolio composite performance had a return of 7.0% for fiscal year 2021. The real estate composite underperformed the NCREIF Property Index of 0.4%.

- The energy master limited partnership (MLP) portfolio composite provided a return of 51.3% for fiscal year 2021. The energy MLP composite underperformed the S&P MLP Index by 10.9%.

- The U.S. equity composite provided a 42.8% rate of return which ranked below the median 46.0% rate of return for the Investment Metrics Public Defined Benefit > $1 Billion US Equity Gross.

- The international equity composite provided a 41.6% rate of return which outperformed the MSCI All Country World Ex-U.S. Index by 5.9%.

- The System's fixed income composite portfolio provided a 2.8% rate of return which ranked above the 1.1% median portfolio performance of the Investment Metrics Public Defined Benefit > $1 Billion Fixed Income Gross.

- The System's private equity fund-of-funds portfolio composite and the direct hedge funds portfolio composite provided returns of 65.0% and 23.0%, respectively, for fiscal year 2021.

- Employer contributions made to the F&P were $151.1 million in fiscal year 2021, up from the employer contribution made in fiscal year 2020.

- Member contributions to the F&P increased by $0.3 million in fiscal year 2021 due to an increase in the member's covered payroll.

- The F&P's funding objective is to meet benefit obligations through investment income, employer contributions, and member contributions. The earnings assumption rate for FY 2021 was 7.0%.

- As of June 30, 2021, the date of the F&P's last actuarial valuation, the System's funded ratio is 71.6% on an actuarial value of assets basis compared to 69.1% at June 30, 2020. The System's Plan Fiduciary Net Position as a percentage of the Total Pension Liability at June 30, 2021 is 79.5% compared to 65.0% at June 30, 2020. Both ratios are calculated using the Entry Age Normal cost method.

- Capital assets are recorded at cost, net of depreciation, and include leasehold improvements, computer equipment, and office furniture.

Overview of Financial Statements

The following discussion and analysis is intended to serve as an introduction to the F&P financial statements and the Financial Section of this report. The statements and the notes are in conformity with accounting principles generally accepted in the United States. These principles require certain financial statement presentations and disclosures including the use of the accrual basis of accounting to record assets and liabilities, and revenues and expenses.

The **Statement of Fiduciary Net Position** provides a snapshot of the financial position of the F&P at June 30, 2021, the end of the plan's financial year. It indicates the total assets, current liabilities, and the net position available for future payment of retirement benefits and operating expenditures at June 30, 2021. The assets comprise cash and cash equivalents, which are fixed income instruments with a maturity date of three months or less; receivables, which are primarily from investment activity; investments at fair value; securities lending collateral; and capital assets, which includes leasehold improvements, computer equipment, and office furniture. Securities traded on national or international exchanges are valued at the last reported sale price at current exchange rates. Purchases and sales of investments are recorded on a trade date basis. The current liabilities comprise of payables for securities lending collateral, certain investment activity, retirement benefits, lump sums payable to members, and administrative expenses.

The **Statement of Changes in Fiduciary Net Position** summarizes the F&P financial activities that occurred during the plan's fiscal year from July 1, 2020, through June 30, 2021. Employer contributions are recognized when a formal commitment has been made by the employer to provide the contributions. Member contributions are recognized in the period in which the contributions are due. The net appreciation (depreciation) in fair value of investments consists of the realized gains or losses and the unrealized increase or decrease in fair value of investments during the year. Realized gains and losses on sales of investments are computed based on the difference between the sales price and the original cost of the investment sold. Realized gains and losses on investments that had been held in more than one fiscal year and sold in the current fiscal year were included as a change in the fair value of investments reported in the prior year(s) and the current year. Unrealized increase or decrease is computed based on changes in the fair value of investments between years. Security transactions are accounted for on a trade date basis. Interest income is recognized when earned and dividend income is recorded on the ex-dividend date. Retirement benefits and refunds are recognized when due and payable in accordance with the terms of the plan provisions.

The **Notes to Basic Financial Statements** provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes are an integral part of the financial statements and include detailed information not readily evident in the basic financial statements.

The **Required Supplementary Information** that follows immediately after the notes to the basic financial statements provides information and schedules required by GASB 67. The schedules on page 44-47 show the changes in net pension liability and related ratios as well as the schedule of investment return. Also provided is the schedule of required contributions made by the employer. See the Required Supplementary Information beginning on page 43 of this report.

The remaining supplemental schedules provide additional detailed information concerning operating expenses, investment expenses and payments to consultants. All of this information is considered useful in understanding and evaluating the financial activities of the F&P.

Financial Analysis

The examination of fiduciary net position over time may serve as a useful indicator of the financial position of the F&P. At June 30, 2021, assets, as displayed below, exceeded current liabilities by $3.33 billion, an increase of $683.4 million over the prior year. Prior to the passage of Ordinance 10-306 of June 2010, it was mandated that the total assets of two reserves, the Paid-Up Benefit Reserve and the Contingency Reserve, were to be segregated and separately invested from the general plan assets. As required, the assets of these two reserves were dedicated to the payment of certain post-retirement benefit increases. With the passage of Ordinance 10-306, the assets of the two aforementioned reserves are to be included in the general asset pool as there is no longer a requirement to maintain those reserves and invest those assets separately. As of June 30, 2021, total assets increased by 27.8% from the prior year mainly due to the increase in investments at fair value. Total current liabilities were higher at June 30, 2021, from the prior fiscal year, mainly due to an increase in investments purchased and forward foreign contracts.

Fiduciary Net Position
June 30, 2021 and 2020

	2021	2020	Increase (Decrease)	Percentage Change
Cash and receivables	$ 325,892,853	$ 166,919,943	$ 158,972,910	95.2
Investments	3,090,503,953	2,506,890,835	583,613,118	23.3
Capital assets	296,819	388,814	(91,995)	(23.7)
Total Assets	**3,416,693,625**	**2,674,199,592**	**742,494,033**	27.8
Current liabilities	87,861,896	28,741,239	59,120,657	205.7
Total Liabilities	**87,861,896**	**28,741,239**	**59,120,657**	**205.7**
Net Position	**$ 3,328,831,729**	**$2,645,458,353**	**$ 683,373,376**	25.8

Investment Assets

The asset portfolio is invested in domestic and foreign fixed income, domestic and international equities, real estate limited partnerships, direct hedge funds, private equity fund-of-funds and energy master limited partnerships. All assets are managed by external investment management firms selected by the Board of Trustees and approved by the City's policy making body, the Board of Estimates. BNY Mellon Asset Servicing, the F&P's custodian bank, holds in custody all marketable securities except securities held in commingled management accounts, direct hedge funds, private equity fund-of-funds, and the assets held by the real estate portfolios. The System participates in a securities lending program that is managed by BNY Mellon Asset Servicing. The Board of Trustees retains the services of NEPC, an investment consulting services firm that provides investment allocation advice, manager selection advice, manager and portfolio performance calculations and peer comparisons, performance analytics, asset-liability studies, and other related services. As the result of an asset-liability study concluded in fiscal year 2019, the Board expanded its investment opportunity set to include target allocations for direct hedge fund investments. The Board filled its direct hedge funds allocation targets and restructured the dedicated variable benefit portfolios.

All investments are stated at fair value and include the recognition of unrealized gains and losses in the current period. The time-weighted rate of return on the total assets for the year ended June 30, 2021, was 29.3%. The median public plan performance was 29.4%. The portfolio annualized rates of return for the last three-year, five-year, and ten-year periods ended June 30, 2021, were 10.9%, 10.7%, and 8.4%, respectively.

The Board has diversified the assets across multiple classes and strategies as it seeks to maximize investment opportunities and return at an acceptable level of investment risk. However, as evidenced by the variation in rates of return from year to year, the Board's investment allocation plan is not immune to market volatility. The F&P's long-term actuarial investment return assumption was 7.0% for fiscal year 2021, as the result of an actuarial experience study concluded in fiscal year 2020, and as recommended and adopted by the Mayor and City Council.

Beginning on page 53 of this report, the Investment Section gives detailed information on the F&P investment policies. See page 62 for the comparison of the asset allocation targets established by the Board of Trustees to the actual asset allocation at June 30, 2021.

Liabilities

Reported on the Statement of Fiduciary Net Position, the current liabilities are payables incurred mainly from investment portfolio transaction activity. Liabilities at June 30, 2021, were $87.9 million, $59.2 million more than the $28.7 million in liabilities at June 30, 2020. Securities lending collateral payable decreased by $10.2 million from $21.6 million at June 30, 2020, to $11.4 million at June 30, 2021. In contrast, payables for the settlement of investment purchases increased by $32.9 million to $37.0 million, likewise, forward foreign contracts increased by $36.0 million to $37.0 million and served as a reason for the overall increase in current liabilities at June 30, 2021.

Changes in Fiduciary Net Position
For Fiscal Years Ended June 30, 2021 and 2020

	2021	2020	Increase (Decrease)
Additions			
Net investment income (loss)	$ 773,849,131	$ (15,374,965)	$ 789,224,096
Employer contributions	151,088,173	146,795,520	4,292,653
Member contributions	31,656,700	31,353,065	303,635
Net securities lending income	310,735	300,068	10,667
Total Additions	**956,904,739**	**163,073,688**	**793,831,051**
Deductions			
Retirement allowances	248,221,929	240,918,629	7,303,300
Lump sum DROP payments	16,749,254	18,399,435	(1,650,181)
Administrative expenses	4,927,777	4,967,444	(39,667)
Refunds of member contributions	3,444,357	3,291,482	152,875
Death benefits	188,046	295,728	(107,682)
Total Deductions	**273,531,363**	**267,872,718**	**5,658,645**
Net Increase (Decrease)	**$ 683,373,376**	**$ (104,799,030)**	**$ 788,172,406**

Investment Income

The F&P’s total composite portfolio achieved 29.3% time-weighted rate of return which ranked the F&P asset performance in the 25th percentile when compared to other public pension plans in the Investment Metrics Public Defined Benefit > $1 Billion Universe. Strong performance across the entire portfolio was a major contributor to the overall rate of return.

The System’s U.S. equity composite returned 42.8% for fiscal year 2021, which ranked the domestic equity composite in the 95th percentile of the Investment Metrics Public Defined Benefit > $1 Billion US Equity Gross. The domestic equity composite underperformed its Russell 3000 comparative index of 44.2%.

The international equity composite posted a 41.6% rate of return which ranked in the 18th percentile of the Investment Metrics Public Defined Benefit > $1 Billion Global ex-US Equity Gross. The international equity composite outperformed its MSCI All Country World Ex-U.S. comparative index of 35.7% by 5.9%.

The fixed income composite earned 2.8% for the fiscal year which ranked in the 87th percentile of the Investment Metrics Public Defined Benefit > $1 Billion Fixed Income Gross. The fixed income portfolio outperformed its Barclays Capital Aggregate index benchmark of negative 0.3% by 3.1%.

The real estate composite portfolio continued to earn good rates of return with performance of a 7.0% for the fiscal year. The real estate portfolio slightly underperformed the comparative NCREIF Property Index, which returned 7.4% this fiscal year, by 0.4%.

The System’s alternative asset portfolios, direct hedge funds, and private equity fund-of-funds, had positive performance. The direct hedge funds composite earned 23.0%, and performed 4.7% above its comparative HFRI Fund-of-Funds Composite Index of 18.3% for the fiscal year ended June 30, 2021. The direct hedge funds composite portfolio is expected to provide investment returns which, over a market cycle, generally are greater than bonds and less than stocks, but with less volatility than that of stocks and more like that of fixed income investments.

The System invests in various private equity fund-of-funds. The private equity composite achieved a 65.0% return for the fiscal year and outperformed the S&P 500 plus 200 bps Index performance of 42.8% for the same time period. The private equity portfolio funds are diversified by strategy and vintage year; and many of the underlying investments are still very young in their investment lifecycle. The goal of the private equity portfolio is to outperform the S&P 500 index over a market cycle. The private equity composite is reviewed over rolling three and five year periods and the composite performance outperformed the index in both of the last three and five year period.

For the year ended June 30, 2021, the MLPs composite achieved a 51.3% rate of return and underperformed the S&P MLP Index by 10.9%. The MLPs are expected to have low correlation to other asset classes which makes them a good diversifier for overall portfolio performance. Long term, the Board expects the MLPs to continue to outperform the domestic equity composite with lower risk.

The investment income is reduced by investment expenses which include the fees paid to firms hired by the Board to manage the System’s assets, the Board’s investment consulting firm, and the System’s custodian bank which tracks the investment activity of the F&P’s investment managers, values the System’s assets, and provides accounting reports to System staff and the Board’s investment consultant. Investment expenses increased from $12.8 million in fiscal year 2020 to $35.3 million in fiscal year 2021. The increase in investment expenses was caused by the increase in the System’s assets and private equity’s carried interest costs.

Member and Employer Contributions

Member contributions were made at 10.0% of regular compensation during fiscal year 2021. During the current fiscal year, the member's contributions increased by $0.3 million due to an increase in the covered payroll of active members. Overtime pay is not subject to the mandatory member contribution rate and it is not included in the member's average final compensation calculation. The number of active members decreased from 3,927 at June 30, 2020, to 3,389 at June 30, 2021. Should the active member population remain stable, member contributions are expected to increase, in conjunction with increased salaries.

Employer contributions requirements are determined by the results of an actuarial valuation process which is performed following the end of each fiscal year. The valuation results determine the contribution requirements due on July 1 two fiscal years hence. The employer contribution is comprised of the contribution made by the City of Baltimore and the contribution made by the State of Maryland for a small fixed number of State employees whose F&P coverage is mandated by State law. The contribution required from the City of Baltimore for fiscal year 2021 was $150.2 million.

The City's employer contribution requirement will increase to $160.6 million for fiscal year 2022 and decrease to $153.6 million for fiscal year 2023, the latter mainly due to the decrease in the unfunded actuarial liability and the actuarial gains.

Retirement Benefits and Administrative Expenses

The F&P was created to provide lifetime service retirement and permanent disability retirement benefits for eligible members and survivor benefits and death benefits to eligible beneficiaries. The cost of such programs includes recurring retirement benefit payments, post-retirement benefit increases, lump-sum payments to Deferred Retirement Option Plan (DROP and DROP 2) participants, lump sum death benefits, refunds of accumulated member contributions and interest to non-retirement eligible members who leave F&P covered employment, and the costs of administering the System.

The primary expense during fiscal year 2021 was for the payment of continuing retirement benefits totaling $248.2 million, an increase of $7.3 million over the $240.9 million in retirement allowances paid in fiscal year 2020. The increase in retirement allowances was mainly due to higher benefit levels paid to newly retired members, post-retirement increases, and minimum benefit amounts paid to certain beneficiaries.

Lump sum DROP and DROP 2 distributions decreased $1.6 million from $18.4 million in fiscal year 2020 to $16.7 million in fiscal year 2021 due to a decrease in the number of DROP and DROP 2 participant service retirements. The number of DROP participants continues to decrease as the eligibility for DROP was frozen in 2009. DROP 2 became effective January 1, 2010; the number of DROP 2 participants decreased in FY 2021.

Administrative expenses are comprised primarily of personnel costs and other professional services costs including information technology consultants. Administrative expenses decreased by $39,667 from fiscal year 2020 to fiscal year 2021. The decrease in administrative expenses was mainly due to a decrease in payroll and other personnel costs. The retirement system had vacant positions that are in the process of filling.

Litigation

On August 19, 2016, the fire and police unions and several plan participants and retirees filed a class action lawsuit against the City in the Circuit Court for Baltimore City, claiming that passage by the City of Ordinance 10-306, which became effective June 30, 2010, wrongfully breached the City's contract with plan membership under the contract clause of the plan. Plaintiffs requested judgment against the City awarding monetary damages, equitable relief, specific performance – including restoration of pre-Ordinance plan provisions - attorney's fees, costs, and judgment interest.

On August 16, 2021, the Court of Appeals concluded the litigation by affirming the decision of the Circuit Court for Baltimore City upholding the enactment of Ordinance 10-306, effective June 30, 2010, by the City of Baltimore.

In its decision, the Court of Appeals affirmed the decision of the Circuit Court Final Order of Judgment effective March 20, 2020, in all respects, finding that:

1) the City of Baltimore unlawfully breached its contract with the retired and retirement-eligible members by eliminating the variable benefit feature of the plan and replacing it with an age-tiered COLA,
2) the Circuit Court correctly calculated damages for such breach and properly ordered the City to pay approximately $35,500,000 to a named Plaintiff and 5,885 retired and retirement-eligible members, and
3) Ordinance 10-306's prospective changes were legal and, consequently, the City did not breach its contract with the plan's active members.

See Note 10 of the Notes to Basic Financial Statements on page 40 for more information.

Requests for Information

This report is designed to provide a general overview of the F&P's financial activity. Questions concerning information provided in this report or requests for additional financial information should be addressed to:

N. Anthony Calhoun
Executive Director
Fire and Police Employees' Retirement System
7 East Redwood Street, 19th Floor
Baltimore, Maryland 21202

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2021

Assets		
Cash and cash equivalents		$ 163,357,718
Receivables		
Investments sold	$ 118,897,492	
Forward foreign contracts	38,313,087	
Accrued income	5,324,220	
Receivable - members	336	
Total receivables		162,535,135
Investments, at fair value		
Stocks	1,733,068,391	
Private equity funds	497,532,369	
Bonds	407,711,977	
Real estate funds	240,647,427	
Hedge funds	200,138,020	
Total investments		3,079,098,184
Capital assets, net of depreciation		
Leasehold improvements	165,410	
Computer equipment	111,491	
Office furniture	19,918	
Total capital assets, net of depreciation		296,819
Securities lending collateral		11,405,769
Total assets		3,416,693,625
Liabilities		
Investments purchased	37,036,055	
Forward foreign contracts	37,001,951	
Securities lending collateral	11,405,769	
Investment management fees payable	1,450,151	
Other accounts payable	425,315	
Lump sums payable to members	137,194	
Administrative expenses payable	405,461	
Total liabilities		87,861,896
Fiduciary Net Position Restricted for Pension Benefits		$ 3,328,831,729

The notes to the basic financial statements are an integral part of this statement.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF CHANGES IN FICUCIARY NET POSITION
For the Year Ended June 30, 2021

Additions		
Contributions		
Employer	$ 150,170,214	
Plan members	31,656,700	
State of Maryland/Airport	917,959	
Total contributions		$ 182,744,873
Investment income		
Net appreciation in fair value of investments	627,899,097	
Private equity income	130,804,272	
Interest and dividends	22,393,022	
Real estate income	18,218,768	
Hedge funds income	9,822,051	
Less: investment expenses	(35,288,079)	
Net investment income		773,849,131
Securities lending income	414,270	
Less: securities lending expenses	(103,535)	
Net securities lending income		310,735
Total additions		956,904,739
Deductions		
Retirement allowances	248,221,929	
Lump sum DROP payments	16,749,254	
Administrative expenses	4,927,777	
Refunds of member contributions	3,444,357	
Death benefits	188,046	
Total deductions		273,531,363
Net Increase (Decrease) in Fiduciary Net Position		683,373,376
Fiduciary Net Position Restricted for Pension Benefits		
June 30, 2020		2,645,458,353
June 30, 2021		$ 3,328,831,729

The notes to the basic financial statements are an integral part of this statement.

1. Plan Description:

The Fire and Police Employees' Retirement System of the City of Baltimore (F&P, Plan, System) is the administrator of a single employer defined benefit local government retirement plan. Established July 1, 1962, the Plan covers all uniformed personnel of the Baltimore City Fire and Police Departments. In addition, the Plan includes one active fire officer who is an employee of the State of Maryland; this contingent emanated from when the City of Baltimore owned the Baltimore/Washington International Thurgood Marshall Airport. Based on criteria established by the Governmental Accounting Standards Board, the F&P is a component unit of the City of Baltimore and is included in the City's financial report as a public employees' retirement system (PERS).

At June 30, 2021, the F&P membership consisted of:

Retirees and beneficiaries currently receiving benefits	6,360
Active plan members	3,839
Total	10,199

The F&P provides normal service retirement benefits, as well as, death and disability benefits in accordance with Article 22 of the Baltimore City Code, which may be amended only by the Mayor and City Council. Certain provisions were amended by Ordinance 11-444, as noted in the Summary of Plan Provisions beginning on page 86. Membership in the System is mandatory upon employment. The System does not have a vested benefit plan; however, members have vested rights to their contributions and interest.

Post-retirement benefit increases are provided to retirees and beneficiaries based on age, type of retirement and having received benefits for two or more years as of each June 30 eligibility determination date.

2. Summary of Significant Accounting Policies:

Basis of Presentation:
The accounting and financial reporting policies of the F&P included in this report conform to accounting principles generally accepted in the United States and reporting standards as promulgated by the Governmental Accounting Standards Board, which designates accounting principles and financial reporting standards applicable to PERS. This report includes solely the accounts of the F&P, a component unit of the City of Baltimore.

There are no component units of the F&P based on the nature of operational or financial relationships.

Basis of Accounting:
These financial statements have been prepared on the accrual basis of accounting, whereby revenues are recorded when they are earned, expenses are recorded when liabilities are incurred, and investment purchases and sales are recorded as of their trade date. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Use of Estimates in Preparing Financial Statements:
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Board to make estimates and assumptions that affect the reported amounts of assets, liabilities, additions and deductions to net position held in trust for pension benefits and disclosure of contingent assets and liabilities at the date of the financial statements and during the reporting period. Actual results could differ from those estimates.

Method Used to Value Investments:
Investments are reported at fair value. Securities traded on national or international exchanges are valued at the last reported sales price at the current exchange rates. The real estate holdings are based on the most recent appraisal (either internal to the manager or third party) as then presently available. For alternative investments, which include private equity, private energy, and hedge funds where no readily ascertainable fair value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Foreign exchange contracts are marked-to-market daily based on published market prices and quotations from national securities exchanges or securities pricing services. The changes in fair value are recognized as part of net appreciation/depreciation in the fair value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Investment income consists of realized and unrealized appreciation (depreciation) in the fair value of investments, and interest and dividend income earned, less investment expenses. Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date. Securities and securities transactions are reflected in the financial statements on a trade-date basis.

3. Contributions and Reserves:

F&P members are required to contribute 10.0% of their regular compensation through payroll deduction. The employer contributions are determined through an actuarial valuation. According to the plan provisions, contribution requirements of the plan members and the City are established and may be amended by the Mayor and City Council. The valuation method is stipulated in the plan provisions. An expense load of 1.5% of covered payroll is included in the annual employer contribution requirement to cover administrative plan costs.

The plan provisions, Article 22 of the Baltimore City Code, established the following reserves:

Annuity Savings Reserve - Accumulated in this reserve are members' contributions inclusive of interest credits, less amounts distributed upon termination of employment or death, or transferred to another reserve for retirement.

Annuity Reserve - Upon retirement, the accumulated contributions of members are transferred to this reserve. From this reserve, the members' accumulated contributions are paid as a life annuity.

Pension Accumulation Reserve - Employer contributions are credited and accumulated with earnings in this reserve. DROP benefits and certain death benefits are paid from here. In addition, when a member retires, an amount equal to the member's pension reserve is transferred from this reserve to the Pension Reserve.

Pension Reserve - From this reserve is paid the pension portion of the retirement allowance. The pension represents benefits for life derived from employer contributions and investment income.

At June 30, 2021, the balances in the legally required reserves are as follows:

Reserves	Balance
Annuity savings reserve	$ 347,437,305
Annuity reserve	447,973,161
Pension accumulation reserve	200,300,060
Pension reserve	2,333,121,203
Total Reserves	$ 3,328,831,729

4. Securities Lending:

The Board of Trustees (the Board) entered into a Securities Lending Authorization Agreement with the System's custodian bank, BNY Mellon Asset Servicing. All individual securities which are readily marketable and which are not restricted due to an outstanding short option are eligible for loan at the discretion of the custodian bank. The investment manager may loan securities held in custody of commingled accounts if authorized in the manager's contract with the F&P.

Collateral received in exchange for securities loaned is collected in an escrow account for the F&P's benefit for the duration of the loan. At no time will the System lose custody of the loaned securities. Collateral in exchange for the principal loaned may be in the form of cash, or securities issued or guaranteed by the U.S. government, its agencies or instrumentalities**.** Irrevocable Letters of Credit from banks approved by the custodian may not be used as collateral**.** The minimum levels of collateral are set at 102% of the fair value of domestic securities loaned, including all accrued income**,** and 105% of the fair value of international securities loaned, including all accrued income. If the fair value of the collateral falls below 100% of the loaned securities, additional collateral will be collected to maintain the appropriate minimum level. All collateral amounts will be marked to market daily. The F&P does not have the right to sell or pledge securities received as collateral without borrower default.

At June 30, 2021, the F&P had no credit risk exposure to borrowers because the amounts the F&P owed borrowers exceeded the amounts the borrowers owed the F&P. The fair value of securities on loan at June 30, 2021, was $151,387,660 and the fair value of the collateral received for those securities on loan was $166,967,313. The securities purchased with cash collateral are reported at amortized cost. The terms of the Securities Lending Authorization Agreement require that the custodian indemnify the F&P against: (1) the failure to demand adequate and appropriate collateral from a borrower; (2) the failure to comply with the investment guidelines in connection with the investment and reinvestment of cash collateral; (3) the failure to obtain and perfect a security interest or rights equivalent thereto in and to the collateral; and (4) the failure to make a reasoned determination of the creditworthiness of any borrower.

Substantially all securities loans can be terminated on demand either by the custodian or by the borrower, although generally the average term of these loans is one week. Cash collateral is invested in the custodian's short-term investment account, specific to the F&P. The short-term investment account guidelines specify that a minimum of 20.0% of the invested cash collateral is to be available each business day and the dollar weighted average maturity of holdings should not exceed 90 days.

The custodian's lending program does not operate the collateral investments as a "matched program" where the length of the loaned assets would be specifically matched to the length of the portfolio investments. Because the System's active investments are currently engaged in the overnight investment fund, all assets in the portfolio mature within a 24 hour period.

The following represents the balances relating to the securities lending transactions as of June 30, 2021:

Types of Securities On Loan	Fair Value of Securities On Loan	Fair Value of Collateral Received	Type of Collateral
Domestic equities	$4,889,546	$5,070,164	Cash
International equities	2,723,073	2,855,939	Cash
U.S. treasury notes and bonds	2,157,135	2,196,742	Cash
U.S. Government agency bonds	180,668	183,544	Cash
Corporate Bonds	1,455,347	1,493,640	Cash
Total cash collateral	11,405,769	11,800,029	
International equities	$59,482,471	$67,301,435	Securities
Domestic equities	68,056,499	74,958,933	Securities
U.S. treasury notes and bonds	9,354,977	9,740,442	Securities
U.S. Government agency bonds	2,170,585	2,226,528	Securities
Corporate Bonds	917,359	939,946	Securities
Total securities collateral	139,981,891	155,167,284	
Total Securities on Loan	$151,387,660	$166,967,313	

5. Cash and Investments:

Custodial Credit Risk for Deposits is the risk that in the event of a bank failure, the Systems' deposits may not be returned to them. The deposits are held in one financial institution with an insured balance of $250,000. Deposits in the bank in excess of $250,000 are uninsured and uncollateralized. The System classifies cash on deposit in the custodian institution, BNY Mellon, as well as the cash management pool held by BNY Mellon as cash and cash equivalents. The System also classifies certain short-term highly liquid securities as cash equivalents if the date of maturity is three months or less from the date of acquisition.

The Board of Trustees of the F&P is authorized by the Baltimore City Code to make investments in accordance with the guidelines and limitations set forth in the Code. The Board accomplishes the daily management of the System's investments through an external investment consultant who acts as a fiduciary for the System and through external investment managers. The Board invests the assets of the F&P using the "prudent person standard" which allows the Board to consider the probable safety of investments, avoid speculative investments, and invest as people of prudence, discretion, and intelligence would in a similar situation. The Board has adopted an investment policy and guidelines to formally document its investment objectives and responsibilities.

Fair Value Measurements

The System categorizes their 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 and give the highest priority to unadjusted quoted prices in active markets for identical assets (level 1) and the lowest priority to unobservable inputs (level 3). The categorization of investments within the hierarchy is based upon the pricing transparency of the instruments and should not be perceived as the particular investment risk.

The F&P invested assets measured at fair value at June 30, 2021 are presented below:

Investment by Fair Value Level		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Debt Securities:				
Corporate bonds	$ 92,797,098		$ 92,797,098	
U.S. treasury notes and bonds	80,643,855	$ 80,643,855		
U.S. Government agency bonds	20,610,280		20,610,280	
Total debt securities	194,051,233	80,643,855	113,407,378	
Equity securities:				
International equities	630,381,132	630,381,132		
Domestic equities	502,233,596	502,233,596		
Dynamic US equity fund	154,040,212	154,040,212		
Total equity securities	1,286,654,940	1,286,654,940		
Total Investments by Fair Value Level	1,480,706,173	$ 1,367,298,795	$ 113,407,378	
Investments Measured at the Net Asset Value (NAV)				
Commingled equity funds	446,413,450			
Real estate funds	240,647,427			
Hedge funds	200,138,020			
Private equity funds	401,691,124			
Commingled debt funds	213,660,744			
Private energy funds	95,841,246			
Total investments measured at the net asset value	1,598,392,011			
Total investments	$ 3,079,098,184			

Investments classified as level 1 in the above table are U.S. treasury notes and bonds and exchange traded equity securities whose values are based on published fair value prices and quotations from national security exchanges as of the appropriate market close, as of each reporting period end.

Investments classified as level 2 in the above table are primarily comprised of publicly traded debt securities. Publicly traded debt securities are sourced from reputable pricing vendors using models that are market-based measurements representing their good faith opinion as to the exit value of a debt security, in an orderly transaction under current market conditions. Such models take into account quoted prices, nominal yield spreads, benchmark yield curves, prepayment speeds, and other corroborated inputs.

The valuation method for investments measured at the net asset value (NAV) per share, or equivalent, is presented in the table below:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Investments Measured at the Net Asset Value (NAV)				
Commingled debt funds (6)	$ 446,413,450	-	Daily, bi-monthly, monthly	2 - 30 days
Private equity funds (3)	401,691,124	$259,726,147	Not eligible	N/A
Real estate funds (2)	240,647,427	67,170,762	Not eligible, quarterly	N/A, 45 days
Commingled equity funds (5)	213,660,744	-	Daily, monthly	2 - 30 days
Hedge funds (1)	200,138,020	-	Daily, quarterly, semi-annual, annual	3 - 90 days
Private energy funds (4)	95,841,246	81,429,363	Not eligible	N/A
Total investments measured at the net asset value	$ 1,598,392,011			

(1) The System invests in direct hedge funds utilizing 7 direct hedge fund managers. The investment strategies consist of event driven composites, relative value composites and tactical trading composites. These investments are eligible for redemption with various frequency terms ranging from daily to annual and a 3 - 90 day notice period.

(2) The System's real estate investments consist of 2 core real estate funds and 12 real estate partnerships. The real estate partnerships consist of non-core, value added and opportunistic stratgies. For the most part, the real estate investments are illiquid and redemptions are restricted, however the core funds of $145 million are liquid and the redemption frequency is quarterly, and a 45 day notice period.

(3) The System's private equity investments consist of 44 funds, invested in Diversified, Venture Capital, Distressed Debt, Buyouts, International, Growth Equity and Special Situations strategies. These investments are considered illiquid as redemptions are restricted over the life of the investment.

(4) The System's private energy investments consist of 13 funds, invested in Natural Resources and Energy Partnerships. These investments are considered illiquid as redemptions are restricted over the life of the investment.

(5) The System's commingled equity funds consist of 2 index funds. These investments are liquid.

(6) The System's commingled debt funds consist of 1 index fund, 1 mortgage backed securities fund, 1 commingled bank loan fund, 1 TIPS fund, 2 emerging markets equity funds, and 1 emerging markets debt fund. These investments are liquid.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a plan's investment in a single issuer. As of June 30, 2021, the F&P has no single issuer that exceeds 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are excluded.

Foreign Currency Risk Exposure

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. It is the Board's policy that external managers demonstrate sensitivity to foreign currency risk. The foreign currency exposure of the System may be hedged back to the U.S. dollar using forward foreign exchange contracts. From 0% to 100% of the foreign currency exposure of a portfolio may be hedged. Cross-hedging to currency other than the U.S. dollar may reach 25% of the total portfolio. Currency speculation is not permitted.

The F&P exposure to foreign currency risk is presented on the following table:

Euro Currency Unit	$ 198,631,029
British Pound Sterling	77,796,074
Swiss Franc	56,375,116
Japanese Yen	55,088,287
Hong Kong Dollar	42,411,097
Swedish Krona	22,631,642
Danish Krone	15,118,824
Canadian Dollar	11,413,769
New Taiwan Dollar	6,640,151
South Korean Won	4,636,524
Brazil Real	4,476,626
Indonesian Rupiah	3,707,553
Australian Dollar	3,061,766
Norwegian Krone	2,272,647
Polish Zloty	1,010,327
Thailand Baht	486,521
Total Foreign Currency	$ 505,757,953
U.S. Dollars (held in International Equity)	$ 390,620,393

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. F&P uses the Option Adjusted Duration as a measure of interest rate sensitivity for bonds. Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The Board's fixed income interest rate policy states that the effective duration of a portfolio may not exceed 120% of the effective duration of the underlying Barclay Capital Aggregate benchmark.

Asset Type	Option Adjusted Duration (in years)	Fair Value
MCM TIPS	7.72	$119,936,472
Corporate bonds	3.56	92,797,098
U.S. treasury notes and bonds	3.98	80,643,855
Barclay aggregate index	6.59	30,851,395
Emerging markets debt fund	3.07	29,033,166
NHIT agency mbs trust	4.69	27,733,657
U.S. Government agency bonds	4.95	20,610,281
Senior floating rate fund	N/A	6,106,053
Total debt securities		$407,711,977

Credit Risk by Quality

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Board has not adopted a formal policy to limit credit risk. The F&P's rated debt investments as of June 30, 2021, were rated by Standard & Poor's, and for securities with no S&P rating, the Moody Quality ratings were used.

Asset Type	Quality Ratings	Fair Value
Corporate bonds	AAA	$ 6,309,623
	AA	3,197,460
	A	13,279,861
	BBB	43,026,867
	BB	10,427,524
	B	3,264,017
	Not Rated	13,291,746
Total corporate bonds		92,797,098
Emerging markets debt fund	BB	29,033,166
U.S. treasury notes and bonds	AA	80,643,855
U.S. Government agency bonds	AA	19,041,343
U.S. Government agency bonds	Not Rated	1,568,938
NHIT agency mbs trust	AAA	27,733,657
MCM TIPS	AAA	119,936,472
Barclay aggregate index	AA	30,851,395
Senior floating rate fund	B	6,106,053
		314,914,879
Total debt securities		$ 407,711,977

Investment Policy

The System's investment policy is to preserve the capital value of the System adjusted for inflation; to ensure adequate liquidity to meet benefit liabilities as they fall due; to meet the actuarial interest rate assumptions over the longer term while maintaining appropriate risk levels; and to exceed the investment return by the astute management of System assets. The System's investment policy is designed to provide broad diversification among asset classes in order to maximize returns at a prudent level of risk. In addition, asset allocation ranges, target allocations and a process of periodic rebalancing are used to maintain compliance with policy. The long-term expected rate of return was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of 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 following is the Board's adopted target asset allocation and the best estimates of arithmetic real rates of return by asset class.

Asset Class	**Allocation Target**	**Long-Term Expected Real Rate of Return**
US Equity	23.5%	5.4%
International Equity	23.5%	7.2%
Private Equity	11.0%	10.2%
Fixed Income	14.0%	1.6%
Real Estate	11.0%	5.7%
Hedge Funds	5.0%	3.3%
Private Energy	5.0%	7.6%
Private Debt	5.0%	5.8%
Cash	2.0%	-0.3%
Total Portfolio	***100.0%***	

Rate of return

For the year ended June 30, 2021, the annual money-weighted rate of return of the Plan, calculated as the internal rate of return on investments, net of investment expenses, was 28.82%. The money-weighted rate of return expresses the Plan's investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

6. Deferred Retirement Option Program (DROP):

The System has two DROP programs, DROP and DROP 2. DROP became effective July 1, 1996 and DROP 2 became effective January 1, 2010. The DROP balance as of June 30, 2021, is $32,507,746. The DROP 2 balance as of June 30, 2021, is $56,501,273.

DROP

Members with more than 20 years of service on or before December 31, 2009 can elect to participate in DROP at any time. A member's DROP participation period can be for one, two or three years. During that time the member will accrue no

additional service. A member who continues employment at the end of his/her DROP participation period shall begin to earn additional service credit.

If a member retires during his/her DROP participation period or immediately at the end of this period, he/she shall be entitled to a Basic DROP Retirement Benefit. This shall equal:

1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP participation, plus

2) A lump sum equal to the member's DROP account. This equals the accumulation of the annuity payments the member would have received had he/she retired at the time his/her DROP participation began receiving benefits, plus the member contributions paid during his/her DROP participation period, plus interest at 8.25%.

If a member retires later than the end of the three-year DROP period but less than 18 months after the conclusion of his/her DROP participation period, he/she is entitled to an Intermediate DROP Retirement Benefit. This shall equal:

1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP participation, plus

2) Benefit accrual of 2% plus an extra 1.5% per year (not to exceed 18 months) for service after the DROP participation period.

3) A lump sum equal to the DROP account. No additions (other than interest) are added after the conclusion of the DROP participation period.

If a member retires more than 18 months after the conclusion of his/her DROP participation period, he/she is entitled to a Full DROP Retirement Benefit. This shall equal:

1) The retirement benefit based on current average final compensation and all service excluding service while a participant is in DROP.

2) Benefit accrual includes an extra 1.5% per year (not to exceed four years) for service after the DROP participation period.

3) A lump sum equal to the DROP account. No additions (other than interest) are added after the conclusion of the DROP participation period.

DROP 2

Members with more than 20 years of service on or after January 1, 2010, but not before December 31, 2009, can elect to participate in DROP 2. Effective July 1, 2010, the 20-year requirement was moved to 25 years for non-grandfathered members. A member’s DROP 2 participation period can be for one, two or three years. The participant must remain in DROP 2 for at least one year. Those participants who retire prior to the end of the first year are not entitled to receive any amounts accumulated in the DROP 2 account. No additional service is accrued during DROP 2 participation. A member who continues employment at the end of the DROP 2 participation period shall begin to earn additional service credit.

If a member retires during the DROP 2 participation period or immediately at the end of this period, the member is entitled to an Early DROP 2 Retirement Benefit. This is equal to:

1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP 2 participation, plus

2) A lump sum equal to the member’s DROP 2 account. This equals the accumulation of the annuity payments the member would have received had he/she retired at the time his/her DROP 2 participation began plus the member contributions paid during his/her DROP 2 participation period, plus interest at 5.5% for grandfathered participants and 3.0% for non-grandfathered participants.

If a member retires later than the end of the three-year DROP 2 period but less than 3.5 years for police employees or five years for fire employees after the conclusion of his/her DROP 2 participation period, he/she is entitled to a Mid DROP 2 Retirement Benefit. This is equal to:

1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP 2 participation, plus

2) Benefit accrual of 2% for service after the DROP 2 participation period began.

3) An additional benefit accrual of 1.5% per year (not to exceed four years) for service after the DROP 2 participation period for fire employees only. Police employees do not receive an additional benefit accrual.

4) A lump sum equal to the DROP 2 account. No additions (other than interest) are added after the conclusion of the DROP 2 participation period.

If a member retires more than 3.5 years for police employees or five years for fire employees after the conclusion of his/her DROP 2 participation period, he/she is entitled to a Complete DROP 2 Retirement Benefit. This shall equal:

1) The retirement benefit based on current average final compensation and all service excluding service while a participant is in DROP 2.

2) Benefit accrual includes an extra 1.5% per year (not to exceed four years) for service after the DROP 2 participation period for fire employees only. Police employees do not receive an additional benefit accrual.

3) A lump sum equal to the DROP 2 account. No additions (other than interest) are added after the conclusion of the DROP 2 participation period.

7. Capital Assets:

Capital Assets consisting of furniture and equipment, computer equipment and leasehold improvements are recorded at cost. Depreciation on computer equipment is calculated on a straight-line basis over a five year useful life; depreciation on leasehold improvements and office furniture is calculated on a straight-line basis over fifteen years, the life of the building lease.

Depreciable Capital Assets	July 1, 2020 Balance	Capital Acquisitions	Dispositions	June 30, 2021 Balance
Computer equipment	$ 1,028,285			$ 1,028,285
Office furniture / equipment	420,385		$ 22,810	397,575
Leasehold improvements	1,592,763			1,592,763
Totals	3,041,433		22,810	3,018,623

Accumulated Depreciation	July 1, 2020 Balance	Increases	Decreases	June 30, 2021 Balance
Computer equipment	(853,717)	(63,075)		(916,792)
Office furniture / equipment	(390,656)	(9,812)	22,810	(377,658)
Leasehold improvements	(1,408,246)	(19,108)		(1,427,354)
Totals	(2,652,619)	(91,995)	22,810	(2,721,804)
Capital Assets, net	$ 388,814	$ (91,995)		$ 296,819

8. Net Pension Liability:

The following schedules show the Net Pension Liability as of June 30, 2021, and the sensitivity of the NPL to the discount rate. The discount rate used to measure the total pension liability was 7.0 percent. The projection of cash flows used to determine the discount rate assumed that member and employer contributions will be made at rates equal to those based on the June 30, 2021, Actuarial Valuation Report. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service cost of future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, F&P's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members as of July 1, 2021. Therefore, the long-term expected rate of return on F&P investments was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2021.

Net Pension Liability

Total Pension Liability	$ 4,189,757,772
Plan Fiduciary Net Position	3,328,831,729
Net Pension Liability	$ 860,926,043
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	79.5%

Sensitivity of Net Pension Liability to Changes in Discount Rate

	1% Decrease 6.00%	Discount Rate 7.00%	1% Increase 8.00%
Total Pension Liability	$4,677,966,351	$4,189,757,772	$3,782,609,617
Plan Fiduciary Net Position	3,328,831,729	3,328,831,729	3,328,831,729
Net Pension Liability	$1,349,134,622	$ 860,926,043	$ 453,777,888
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	71.2%	79.5%	88.0%

Valuation Date 6/30/2021

The total pension liability was determined by an actuarial valuation as of June 30, 2021, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method	Entry Age Normal
Discount rate	7.00%
Price inflation	2.75%
Salary increases	2.75% plus merit component based on employee classification and years of service
Mortality	RP-2014 Mortality Tables projected generationally using an adjusted RPEC_2014 model

The last experience study covered the period July 1, 2017 through June 30, 2020. An actuarial experience study is generally conducted every five years, however, the F&P conducts an experience study every three years.

9. Derivatives:

Derivatives are generally defined as an investment contract or security with a value that depends on, or is derived from, the value of an underlying asset, reference rate or financial index. The F&P has classified the following instruments as forward foreign contracts:

Forward Currency Contracts

Certain F&P investment managers enter into forward currency contracts to manage exposure to fluctuations in foreign currency exchange rates on portfolio holdings. Those managers also enter into forward exchange contracts to settle future obligations. A forward exchange contract is a commitment to purchase (payable) or sell (receivable) a foreign currency at a future date at a negotiated forward rate. Risk associated with such contracts includes movement in the value of a foreign currency relative to the U.S. dollar. Unrealized gain or loss on forward currency contracts is the difference between the contract and the closing fair value of such contract and is included in the statement of changes in fiduciary net position as net appreciation/depreciation in fair value of investments. The table below summarizes the fair value of foreign currency contracts as of June 30, 2021

Currency	Forward Foreign Contracts Cost Receivable	Forward Foreign Contracts Cost Payable	Forward Foreign Contracts Fair Value Receivable	Forward Foreign Contracts Fair Value Payable
Australian Dollar	$ 224,817	$ 224,817	$ 224,817	$ 225,111
Canadian Dollar	115,260	115,260	115,260	115,353
Danish Krone	1,345,900	1,345,900	1,345,900	1,347,016
Euro Currency Unit	15,720,008	15,720,008	15,720,008	15,729,729
Hongkong Dollar	3,249,536	3,249,536	3,249,536	3,249,757
Japanese Yen	4,297,786	4,297,786	4,297,786	4,284,890
Norwegian Krone	167,836	167,836	167,836	167,894
Polish Zloty	79,172	79,172	79,172	79,364
Pound Sterling	433,523	433,523	432,580	433,523
Pound Sterling	4,202,710	4,202,710	4,202,710	4,204,988
Swedish Krona	1,003,226	1,003,226	1,003,226	1,004,042
Swiss Franc	6,152,645	6,152,645	6,152,645	6,160,284
Totals	$ 36,992,419	$ 36,992,419	$ 36,991,476	$ 37,001,951

10. Litigation:

The City enacted changes to the plan, through Ordinance 10-306, effective June 30, 2010: 1) replacing the “variable benefit” increases based on investment performance with tiered post-retirement COLAs based on the attained age of the retiree or beneficiary, 2) increasing the months used for the average final compensation calculation, 3) lengthening the eligibility requirements for normal service retirement and DROP 2 participation, and 4) increasing member contribution rates. In 2010, the fire and police unions and several plan participants and beneficiaries filed suit in U.S. District Court, claiming that the City wrongfully impaired the pension contract with the plan membership and violated the “Contract Clause” and the “Takings Clause” of the U.S. Constitution when it enacted the changes.

On September 20, 2012, after holding a three-phase trial, the court ultimately decided that: 1) the City impaired its contract with plan members by its replacement of the variable benefit with a tiered post-retirement COLA, 2) the impairment was substantial, and 3) although it was reasonable and necessary for the City to eliminate the "variable benefit" in order to sustain the plan, the tiered, post-retirement fixed COLAs granting older retirees higher COLAs than younger retirees rendered the change unconstitutional under the federal constitution.

The City and the unions both appealed the decision. On December 28, 2012, the judge issued an order staying the effects of his ruling pending appeals to the Fourth Circuit U.S. Court of Appeals. On August 6, 2014, the U.S. Court of Appeals overturned the District Court's 2012 ruling. The Court of Appeals concluded that the provision in the Ordinance did not impair the federal constitutional rights of F&P members because they could have contested the Ordinance under State law. The Fourth Circuit remanded the case to the District Court to reconsider the "Takings Clause" issue. Upon remand, the Plaintiffs sought to add state law claims to their federal suit and the City objected. After a July 22, 2016 hearing, the District Court ruled that the unions had to bring their state law claims in a Maryland State court. The District Court stayed the remaining federal "Takings Clause" claim and closed the case.

On August 19, 2016, the police and fire unions and several individuals filed a class action complaint in the Circuit Court for Baltimore City alleging that passage of the Ordinance by the City wrongfully breached its pension contract with the plan membership. The Plaintiffs requested judgment against the City awarding Plaintiffs monetary damages, equitable relief, and specific performance – including restoring pre-Ordinance F&P provisions - attorneys' fees, costs, and pre-judgment interest.

On May 13, 2019, after holding various hearings and a trial, the Circuit Court certified the lawsuit as a class action for purposes of providing relief to 3 sub-classes of aggrieved plaintiffs: (1) F&P retirees as of June 30, 2010; (2) F&P retirement-eligible members as of June 30, 2010; and (3) F&P members who had not retired and were not yet eligible to retire as of June 30, 2010. First, the Circuit Court ruled that, by enacting Ordinance 10-306 and withdrawing the variable benefit, the City breached its contract with members of the retired sub-class and retirement-eligible sub-class. Nevertheless, the court declined to restore the variable benefit that existed immediately prior to the enactment of Ordinance 10-306 but instead ruled that the City is obligated to compensate retired sub-class and retirement-eligible sub-class members to the extent of any monetary losses owing to the unlawful withdrawal of variable benefit in accordance with the method of calculating damages proposed by the City. The court also ruled that by enacting Ordinance 10-306, the City lawfully modified the pension plan and did not breach its contract with active sub-class members; therefore, the City is not obligated to restore any pre-Ordinance 10-306 benefits to active sub-class members.

In a Final Order of Judgment effective March 20, 2020, the Circuit Court ordered the City to pay a total of approximately $31 million to a named Plaintiff and 5,885 members of the retired and retirement-eligible subclasses plus statutory post-judgment interest, which has been stayed by Order of the Circuit Court. Any attorneys' fees awarded to counsel for plaintiffs will be deducted from the total damages award.

Both the unions and the City filed, respectively, an appeal and cross-appeal of the Circuit Court's Order.

On August 16, 2021, the Court of Appeals concluded the litigation by affirming the decision of the Circuit Court for Baltimore City upholding the enactment of Ordinance 10-306, effective June 30, 2010, by the City of Baltimore.

In its decision, the Court of Appeals affirmed the decision of the Circuit Court Final Order of Judgment effective March 20, 2020, in all respects, finding that:

1) the City of Baltimore unlawfully breached its contract with the retired and retirement-eligible members by eliminating the variable benefit feature of the plan and replacing it with an age-tiered COLA,
2) the Circuit Court correctly calculated damages for such breach and properly ordered the City to pay approximately $35,500,000 to a named Plaintiff and 5,885 retired and retirement-eligible members, and
3) Ordinance 10-306's prospective changes were legal and, consequently, the City did not breach its contract with the plan's active members.

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REQUIRED SUPPLEMENTARY INFORMATION AND SUPPORTING SCHEDULES

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
SCHEDULE OF INVESTMENT RETURNS
For the Year Ended June 30

Schedule of Changes in Net Pension Liability and Related Ratios

	2021	2020	2019	2018
Total Pension Liability:				
Interest (includes interest on service cost)	$ 290,605,684	$ 283,200,806	$ 277,539,987	$ 275,197,368
Service cost	71,089,400	68,969,296	69,279,116	70,244,396
Changes of assumptions	45,988,331			86,384,050
Differences between expected and actual experience	(18,538,927)	13,550,622	(9,038,719)	(20,544,752)
Benefit payments, including refunds of member contributions	(268,603,585)	(262,905,274)	(255,996,204)	(246,970,565)
Net change in total pension liability	**120,540,903**	**102,815,450**	**81,784,180**	**164,310,497**
Total pension liability - beginning	**4,069,216,869**	**3,966,401,419**	**3,884,617,239**	**3,720,306,742**
Total pension liability - ending	**$ 4,189,757,772**	**$ 4,069,216,869**	**$ 3,966,401,419**	**$ 3,884,617,239**
Plan fiduciary net position				
Net investment income	$ 774,159,864	$ (15,074,897)	$ 148,059,369	$ 211,667,943
Contributions - employer	151,088,173	146,795,520	141,325,667	137,738,323
Contributions - members	31,656,700	31,353,065	30,710,887	31,285,881
Benefit payments, including refunds of member contributions	(268,603,585)	(262,905,274)	(255,996,204)	(246,970,565)
Administrative expense	(4,927,776)	(4,967,444)	(5,144,352)	(4,984,228)
Net change in total pension liability	**683,373,376**	**(104,799,030)**	**58,955,367**	**128,737,354**
Plan fiduciary net position - beginning	**2,645,458,353**	**2,750,257,383**	**2,691,302,016**	**2,562,564,662**
Plan fiduciary net position - ending	**$ 3,328,831,729**	**$ 2,645,458,353**	**$ 2,750,257,383**	**$ 2,691,302,016**
Net pension liability - ending	**$ 860,926,043**	**$ 1,423,758,516**	**$ 1,216,144,036**	**$ 1,193,315,223**

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS (continued)
SCHEDULE OF INVESTMENT RETURNS (continued)
For the Year Ended June 30

	2021	2020	2019	2018
Plan fiduciary net position as a percentage of the total pension liability	**79.45%**	**65.01%**	**69.34%**	**69.28%**
Covered payroll	**$ 330,599,791**	**$ 326,639,940**	**$ 322,382,165**	**$ 323,350,763**
Net pension liability as a percentage of covered payroll	**260.41%**	**435.88%**	**377.24%**	**369.05%**

Schedule of Investment Returns

	2021	2020	2019	2018
Annual money-weighted rate of return, net of investment expense	28.82%	-0.76%	5.44%	7.99%

These schedules are presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Fire and Police Employees' Retirement System will present information for those years for which information is available.

Starting FYE 2018, the covered payroll is reported as beginning on the valuation date. In prior years, it was reported as ending on the valuation date.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS (continued)
SCHEDULE OF INVESTMENT RETURNS (continued)
For the Year Ended June 30

Schedule of Changes in Net Pension Liability and Related Ratios

	2017	2016	2015	2014
Total Pension Liability:				
Interest (includes interest on service cost)	$ 269,479,447	$ 261,805,511	$ 257,871,163	$ 250,480,374
Service cost	70,986,959	71,220,766	66,665,615	66,034,831
Changes of assumptions			35,744,707	
Differences between expected and actual experience	(17,476,659)	11,431,589	28,263,161	1,405,813
Benefit payments, including refunds of member contributions	(245,080,080)	(238,842,513)	(224,934,312)	(221,439,237)
Net change in total pension liability	**77,909,667**	**105,615,353**	**163,610,334**	**96,481,781**
Total pension liability - beginning	**3,642,397,075**	**3,536,781,722**	**3,373,171,388**	**3,276,689,607**
Total pension liability - ending	**$ 3,720,306,742**	**$ 3,642,397,075**	**$ 3,536,781,722**	**$ 3,373,171,388**
Plan fiduciary net position				
Net investment income	$ 274,387,604	$ 3,002,726	$ 53,902,299	$ 314,449,271
Contributions - employer	129,688,977	121,115,085	119,020,291	113,843,250
Contributions - members	29,901,791	30,549,801	30,341,796	28,265,556
Benefit payments, including refunds of member contributions	(245,080,080)	(238,842,513)	(224,934,310)	(221,439,237)
Administrative expense	(4,328,135)	(4,407,296)	(4,297,773)	(3,907,539)
Net change in total pension liability	**184,570,157**	**(88,582,197)**	**(25,967,697)**	**231,211,301**
Plan fiduciary net position - beginning	**2,377,994,505**	**2,466,576,702**	**2,492,544,399**	**2,261,333,098**
Plan fiduciary net position - ending	**$ 2,562,564,662**	**$ 2,377,994,505**	**$ 2,466,576,702**	**$ 2,492,544,399**
Net pension liability - ending	**$ 1,157,742,080**	**$ 1,264,402,570**	**$ 1,070,205,020**	**$ 880,626,989**

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS (concluded)
SCHEDULE OF INVESTMENT RETURNS (concluded)
For the Year Ended June 30

	2017	2016	2015	2014
Plan fiduciary net position as a percentage of the total pension liability	**68.88%**	**65.29%**	**69.74%**	**73.89%**
Covered payroll	**$ 296,356,741**	**$ 300,855,075**	**$ 298,354,900**	**$ 284,210,233**
Net pension liability as a percentage of covered payroll	**390.66%**	**420.27%**	**358.70%**	**309.85%**

Schedule of Investment Returns

	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	11.29%	-0.10%	2.00%	13.60%

These schedules are presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Fire and Police Employees' Retirement System will present information for those years for which information is available.

Starting FYE 2018, the covered payroll is reported as beginning on the valuation date. In prior years, it was reported as ending on the valuation date.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
Required Supplementary Information

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended June 30	City Contribution Per Actuarial Valuation	Contributions Required From State of Maryland	Additional City Contributions	Total Contributions Required	Total Contributions Made	Covered Payroll	Contribution Rate of Covered Payroll
2012	98,895,949	790,190	7,802,264	99,686,139	107,488,403	284,601,473	37.77
2013	101,291,889	786,970	5,700,000	102,078,859	107,778,859	277,524,356	38.84
2014	113,003,944	839,306		113,843,250	113,843,250	284,210,233	40.06
2015	118,190,306	829,985		119,020,291	119,020,291	298,354,900	39.89
2016	120,275,610	839,475		121,115,085	121,115,085	300,855,075	40.26
2017	128,806,072	882,905		129,688,977	129,688,977	296,356,741	43.76
2018	136,832,361	905,962		137,738,323	137,738,323	323,350,763	42.60
2019	140,453,144	872,523		141,325,667	141,325,667	322,382,165	43.84
2020	145,883,576	911,944		146,795,520	146,795,520	326,639,940	44.94
2021	150,170,214	917,959		151,088,173	151,088,173	330,599,791	45.70

Notes:

Covered payroll is defined as the pensionable wages on which contributions are based.

Starting in FYE 2018, the covered payroll is reported as beginning on the valuation date. In prior years, it was reported as ending on the valuation date.

See notes to required supplementary information.

1. Ordinance 10-306, signed by the Mayor on June 22, 2010, provided amendments and clarifications to the plan that affect current and future members and retirees. The Ordinance, which was clarified by Ordinance 10-357 and signed by the Mayor on August 10, 2010: (1) modified the plan's variable post-retirement increase benefit provisions by changing to a guaranteed, fixed increase: 1% for eligible retirees and beneficiaries aged 55 to 64 who have been receiving periodic benefit payments for 2 or more years as of June 30, 2011, beginning in January 2012; and 2% for eligible retirees and beneficiaries aged 65 and older and for 100% line-of-duty disability retirees and their beneficiaries who have been receiving periodic benefit payments for 2 or more years as of June 30, 2010, beginning in January 2011; and no increases for retirees less than 55 years of age; (2) changed the age and service requirements for a normal service retirement benefit for all non-grandfathered members (members who, as of June 30, 2010, did not meet the eligibility requirements for a service retirement benefit or had fewer than 15 years of service) to the earlier of 25 years of service or age 55, with at least 15 years of service as an F&P member; (3) established a new early service retirement benefit for non-grandfathered members by allowing members who are not eligible for the new normal service retirement to retire at or after their former retirement eligibility date and receive a reduced early retirement benefit; (4) changed the definition of "average final compensation" for non-grandfathered members to mean a member's salary over 36 consecutive months during which pay was highest; (5) increased DROP 2 eligibility to 25 years of service as a contributing F&P member for non-grandfathered members with less than 15 years of service as of June 30, 2010; (6) increased the percentage of compensation contributable by all members to 7% effective July 1, 2010; 8% effective July 1, 2011; 9% effective July 1, 2012; and 10% effective July 1, 2013; (7) reduced interest paid by the plan on withdrawal of accumulated contributions and lump-sum death benefits from 5.5% to 3.0% for all members; (8) reduced interest paid by the plan on DROP 2 accounts from 5.5% to 3.0% for members with less than 15 years of service; (9) established a new minimum annual benefit of $16,000 payable to spousal beneficiaries of sworn members who, before August 1, 1996, retired or died in service with 20 or more years of service; (10) allowed pre-employment military service to be used to satisfy eligibility for a normal service, DROP, or DROP 2 retirement for all members; (11) lowered the plan's long-term investment earnings assumption from 8.25% to 8.0%; and (12) expanded the plan's Board of Trustees to add the City's Director of Finance and a third Mayoral appointee and established new professional qualifications for the Mayoral appointees.

   Due to the aforementioned plan changes, the June 30, 2009 actuarial valuation report was revised. The actuarial accrued liability was reduced by $88.8 million and the fiscal year 2011 employer contribution due July 1, 2010 was reduced from $101.8 million to $90.6 million

2. The June 30, 2010, unfunded actuarial liability increased $134.1 million from a revised $374.9 million at June 30, 2009, due to the above noted changes in plan provisions, to $509.0 million mainly due to the recognition of prior year investment losses.

3. Ordinance 11-444, signed by the Mayor on May 19, 2011, established a new minimum annual benefit of $16,000 payable to spousal beneficiaries of sworn members who, before August 1, 1996, retired on account of a Line-of-Duty Disability with less than 20 years of service. The unfunded actuarial liability increased $49.6 million to $558.6 million at June 30, 2011; the increase included $5.6 million due to the minimum benefit improvement which commenced in January 2012.

4. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, 2018. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule:

Valuation date	6/30/2019
Timing	Actuarially determined contribution are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year.

Key methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal Cost Method
Asset valuation method	5-year smoothed market
Amortization method	Closed 25-year level dollar amortization of unfunded liability as of July 1, 2014
Discount rate	7.25%
Price inflation	2.75%
Salary increases	2.75% plus merit component based on employee classification and years of service
Mortality	RP-2014 Mortality Table projected generationally using an adjusted RPEC_2014 model.

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2021 can be found in the June 30, 2019 actuarial valuation report.

5. Ordinance 15-381, signed by the Mayor on June 15, 2015, authorized all retirement allowances shall be paid monthly rather than bi-weekly, effective January 1, 2016. Service retirements for all members and beneficiaries take effect on the 1st day of the calendar month and shall be paid on the 15th day of that calendar month. Death and survivorship benefits take effect on the 1st day of the calendar month following the month in which the member dies and shall be paid on the 15th day of that calendar month. For the calendar month in which the death of a retired member or beneficiary occurs, the F&P shall owe and pay the entire monthly allowance due to a retired member or beneficiary.

6. Ordinance 19-254, signed by the Mayor on June 10, 2019, decreased the assumed earnings rate from 7.5% to 7.25%. The formula changed for members entering the system on or after July 1, 2019 for calculating the cost of purchases and transfers of pension plan credited service. The ordinance changed the definition of “minor child” for purposes of being eligible to receive death benefits to include any child who has not attained age 22, with no condition of school attendance and updated the survivorship allowance language. Allowing spousal beneficiaries age 70 and over to remarry without penalty of losing certain survivorship benefits. Benefit payments initially paid after January 1, 2020, requiring that periodic benefit payments be made through direct deposit.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ADMINISTRATIVE EXPENSES
For the Year Ended June 30, 2021

Salaries and Wages:		
Permanent full-time salaries	$2,233,252	
Overtime	-	
Total Salaries and Wages		$2,233,252
Other Personnel Costs:		
Medical insurance and health care	283,588	
Retirement	196,585	
Social security	159,104	
Other employee benefits	25,178	
Total Other Personnel Costs		664,455
Contractual Services:		
Technology systems support	1,045,371	
Lease payments	276,449	
Retirement payroll processing	126,239	
Actuarial services	141,460	
Printing	61,369	
Financial audit fees	46,000	
Postage	30,725	
Other professional services	23,247	
Staff training	22,230	
Equipment rental	16,996	
Dues and publications	10,313	
Equipment maintenance	9,489	
Telephone systems	8,782	
Board meeting expense	4,468	
Legal Fees	2,706	
Trustee education	1,033	
Total Contractual Services		1,826,877
Depreciation expense		91,995
Computer equipment		78,502
Office supplies		20,859
Office furniture		11,837
Total Administrative Expenses		$4,927,777

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF INVESTMENT EXPENSES
SCHEDULE OF PAYMENTS TO CONSULTANTS
For the Year Ended June 30, 2021

Schedule of Investment Expenses

Investment Expenses	Fees
Investment management fees	$34,563,424
Investment consultant fees	491,658
Custodial fees	232,997
Securities lending fees	103,535
Total Investment Expenses	**$35,391,614**

Schedule of Payments to Consultants

Firm	Fees	Nature of Service
Magothy Technology	$387,446	Technology systems support
BITH Group	248,767	Technology systems support
Cheiron	141,460	Actuarial services
CliftonLarsonAllen	46,000	Financial audit
Venable, LLP	2,706	Legal fees
Total Paid to Consultants	**$826,379**	

Notes:

(1) Several of the alternative investment managers provide account valuations on a net of fee basis. Manager fees are netted against investment income and because they are not separable for specific investment income, amounts are recorded and reported net of fees.

(2) A schedule of fees and commissions is also illustrated in the Investment Section on page 65.

INVESTMENT SECTION

Kevin Leonard
Partner

October 20, 2021

To the Board of Trustees of the
Fire & Police Employees' Retirement System of the City of Baltimore

Introduction

NEPC provides the City of Baltimore Fire & Policy Employees' Retirement System (the "System") with quarterly economic and investment market updates, performance reviews, investment manager monitoring and selection advice, and related investment services for traditional and non-traditional asset classes. In preparing our performance analysis for the Systems, we rely on the accuracy of financial data provided by the Systems' custodian bank and investment managers. BNY Mellon holds assets in safe-keeping for the System, regularly values the assets for the System, and provides NEPC with beginning and ending fair values, cash flows, securities transactions and positions for the System as well as each manager monthly. Third-party custodians or administrators for pooled investment vehicles such as mutual funds, collective investment trusts, hedge funds and other commingled funds provide BNY Mellon and the System with fair values. Private partnerships provide the System and NEPC capital account statements and audited financial statements for those investments. BNY Mellon audits the information contained in its monthly accounting reports. NEPC uses BNY Mellon's monthly reports to independently calculate performance returns for the System and the System's Board of Trustees (the "Trustees"). The Systems' goals are measured against stated policy objectives, appropriate benchmarks and comparative universes over multiple time periods. This review process allows the Boards to evaluate whether established goals are being achieved on an absolute, relative and risk-adjusted basis.

Distinction of Responsibilities

The Trustees are responsible for the investment and administration of the System's assets. This includes establishing the strategic asset allocation that, over time, is the primary determinant of the investment return on assets. A thorough understanding of both the System's assets and liabilities is essential for determining an appropriate asset allocation. The key drivers of this analysis are the projections of the System's liabilities and of expected future returns and risk for each asset class, as well as correlation between asset classes. The liability projections include all critical metrics of the System's pension plan including: membership, benefits structure, contributions, liquidity needs, projected asset growth and funding requirements. Every three years, an asset-liability study is conducted. Subsequent to an asset-liability study, NEPC annually reviews the target asset allocation, expected asset class returns, and relative valuation with the Trustees and modifies the target asset mix if necessary. In March 2021, NEPC conducted and presented an update to the target asset allocation at which time the Trustees adopted a strategic target asset allocation. The following page shows the target asset allocation, as modified by the Trustees, as of fiscal year-end ("FYE") 2021.

Investment Policy and Structure

The target asset allocation adopted by the Trustees is included in the System's Statement of Investment Objectives and Policies. The System employs various investment managers to implement the asset allocation within the guidelines and limitations contained in the Statement of

Investment Objectives and Policies, Asset Class Guidelines and Manager Instructions (together, the "Investment Policy"). The System's Investment Policy is designed to provide broad diversification among asset classes and investment strategies in order to maximize return at a prudent level of risk as determined by the Trustees, and to minimize the risk of large losses to the System. Within each asset class, the Trustees employ several investment managers to further diversify the investment approach and to minimize style biases. In addition, asset allocation ranges, target allocations, and a process of periodic rebalancing are used to maintain compliance with the Investment Policy and to increase the likelihood the System will achieve its long-term risk and return objectives. The System's assets are invested using both active and passive investment managers to obtain the desired asset allocation mix in a cost effective and efficient manner. Each investment manager is delegated full investment discretion for its respective portfolio including the discretion to purchase, hold, and sell individual securities or other investment positions and control industry, economic sector, and geographic exposure subject to the Investment Policy.

The following table outlines the System's long-term target asset allocation as of FYE 2021:

US Equity	23.5%
International Equity	23.5%
Total Fixed Income	14.0%
Private Equity	11.0%
Private Debt	5.0%
Hedge Fund	5.0%
Real Estate	11.0%
Natural Resource/Private Energy	5.0%
Cash	2.0%

Investment Objectives

The System's Investment Policy contains the following objectives (in order):

1. To preserve the inflation-adjusted fair value of the System;
2. To ensure adequate liquidity is available to meet benefit payments as they fall due;
3. To meet the actuarial rate of return assumptions over time while maintaining an appropriate risk level; and
4. To exceed the investment return objective without unduly jeopardizing objectives 1-3.

The FYE 2021 investment policy return objective is based on a hypothetical portfolio that includes the following allocations: 23.5% Russell 3000 Index, 23.5% MSCI All Country World Ex-US Index; 14% Bloomberg Barclays US Universal Index; 11% Private Equity Composite; 5% Private Debt Composite; 5% HFRI Fund of Funds Composite Index; 11% NCREIF Property Index; 5% Natural Resources/Private Energy Composite and 2% 91-Day T-Bills. In addition, the System's investment performance is evaluated relative to the Investment Metrics Public Defined Benefit $1-5 Billion universe, which represents the performance of 52 public pension plans with an aggregate fair value of $116.7 billion as of June 30, 2021. Finally, each investment manager is compared to its relevant market index and style peer universe.

Fiscal Year 2021 Market Review

The U.S. economic recovery took hold in the fiscal year ended 6/30/2021, a result of re-opening measures enacted in the wake of the COVID-19 pandemic, along with optimism surrounding the vaccine rollout to combat the virus. Global governments supported their economies through continued fiscal stimulus measures, including the $1.9 trillion American Rescue Plan passed in March 2021. The Federal Reserve remained accommodative, leaving the Fed Funds Rate in a targeted range of 0.00% -to- 0.25%, and continued its quantitative easing program. Similar actions were taken by central banks globally. These stimulus measures, along with the vaccine rollout for COVID-19 and easing of lockdown restrictions, provided strong tailwinds for risk assets during the fiscal year. U.S. stocks posted their twelfth consecutive year of positive returns and outperformed international equities, returning a robust 40.8% as measured by the S&P 500 Index. International developed-markets equities (+32.3% for the year) performed well but lagged domestic equities significantly. Emerging markets equities returned 40.9%, outperforming both U.S. equities and international-developed markets equities. U.S. equity outperformance was driven in large part by economically sensitive sectors like Financials, Industrials, and Energy which were expected to benefit from re-opening measures. Reflecting a steepening yield curve over the year, U.S. high quality fixed income returns were modestly negative, returning -0.3% in the fiscal year as measured by the Bloomberg U.S. Aggregate Bond Index.

Investment Performance

NEPC provides investment performance on a monthly basis for the Systems. The underlying information is collected directly from the custodian (BNY Mellon). This information is then compared to information received from each investment management firm. The performance measurement analyst assigned to the account then reviews all of the relevant information in our performance measurement system, checking it for accuracy and reasonableness. A preliminary version of this report is then sent to the senior analyst assigned to the relationship for review. A final review is then conducted by the assigned consultant to the System. Accordingly, all performance returns are calculated using a time-weighted methodology for all investment managers which eliminate the effect of cash flows on a monthly basis. A Weighted Average performance calculation method is used for all composite returns which. This calculation attempts to eliminate the effects of cash flows on a monthly basis and geometrically links monthly returns.

The total return for the fiscal year ending June 30, 2021, on all assets was 29.3% (gross of fees), which underperformed its Policy index benchmark of 29.4% and ranked in the 25th percentile of the Investment Metrics Public Defined Benefit > $1 Billion Universe. The System’s Investment Policy calls for measuring performance over rolling 3- to 5-year periods. Prior to FYE 2016 for Investment performance measurement purposes, total System assets were separated into “actively managed” accounts and “other” assets. The “actively managed” portion of the System’s total assets referred to the assets diversified according to the Investment Policy. The “other” assets consisted of the cash reserve held for payment of benefits and administrative expenses, Contingency Reserve assets, and Variable Benefit assets held in an immunized portfolio dedicated solely to paying post-retirement benefit increases. This distinction has since been eliminated, but still affects trailing 5-year returns. Accordingly, the System’s diversified assets have compounded at annual rates of return of 10.9% and 10.7% for the last 3 and 5 years, underperforming the benchmark return of 11.4% over 3 years and 10.8% over 5 years, and ranking in the 52nd and 67th percentiles for those periods, respectively. Over the longer time-period of the trailing 7 years the System’s diversified portfolio returned 8.0%, outperforming the benchmark return of 7.9% and ranking in the 61st percentile. Over the trailing 10 years, the System’s diversified portfolio returned 8.4%, performing in line with the benchmark return of 8.4%, and ranking in the 65th percentile of the peer universe. The System’s assets produced positive absolute returns over all trailing time periods. Peer rankings are reflective of the System’s investment objectives and risk-adverse positioning.

Contributive and detractive factors for FY 2021 were:

- Strong absolute returns in domestic equities, international equities, MLPs, private equity and private debt contributed to absolute performance;
- Strong relative performance in international equities and hedge funds contributed to relative performance;
- Above-target weight to cash and below-target weight to private equity and international equities detracted from relative performance and below-target weight in private real assets contributed to relative performance; and
- Poor relative performance in domestic equities and MLPs detracted from relative performance.

The market value of all assets increased from $2.63 billion on June 30, 2020 to $3.33 billion on June 30, 2021, net of all cash flows. Time weighted returns for the asset class composites and total fund are shown below.

			Fiscal Year Rate of Return	
	Market Value ($ in millions)	% of Portfolio	System	Benchmark
US Equity	$932.8	28.0%	42.8%	44.2%
International Equity	$896.4	26.9%	41.6%	35.7%
Total Fixed Income	$412.5	12.4%	2.8%	1.1%
Private Equity	$314.9	9.5%	65.0%	N/A
Private Debt	$78.6	2.4%	31.6%	N/A
Hedge Fund	$200.4	6.0%	23.0%	18.3%
Real Estate	$254.6	7.6%	7.0%	7.4%
Energy Limited Partnership	$47.9	1.4%	51.3%	62.2%
Natural Resource/Private Energy	$104.0	3.1%	-1.4%	N/A
Cash	$89.0	2.7%	0.3%	N/A
Total Assets	$3,331.2	100.0%	29.3%	29.4%

Sincerely,

OUTLINE OF INVESTMENT OBJECTIVES AND POLICIES

Investment Objectives

The primary investment objectives of the Board of Trustees (Board) of the Fire and Police Employees' Retirement System (F&P, System) are set forth below. It is recognized that maximizing any one objective may compromise the achievement of other objectives. For example, maximizing liquidity may reduce investment return; seeking maximum investment return may subject capital preservation to higher risk. Accordingly, the investment objectives are given in descending order of priority:

1. To preserve the capital value of the System assets adjusted for inflation;
2. To ensure adequate System liquidity to meet benefit liabilities as they fall due;
3. To meet the actuarial interest rate assumption; and
4. Without unduly jeopardizing the above objectives, to exceed the investment return objective by the astute management of funds.

General Investment Policy

The Board must comply with investment restrictions imposed by the laws of the City of Baltimore and any other State or Federal laws dealing with investment of public retirement plan assets. System investment managers are expected to familiarize themselves with these laws.

Investment policy for the System relates to the portfolio of all assets that comprise the total holdings of the System. The Board recognizes that the objective of a sound and prudent policy is to produce investment results that will preserve the assets of the System, as well as to maximize earnings of the F&P consistent with its long-term needs. These long-term needs have been ascertained through various studies performed on behalf of the Board by its actuary and its investment advisor. Investment policy and the long-term average allocation of plan assets to which they refer are deemed to be consistent with the projected pattern of cash flows to the F&P and its projected benefit payments. Should the projected finances of the System change significantly, the applicable Federal or State statutes be amended, or changes in the System's asset valuation methods be adopted, these policies and average asset allocations will be reviewed and modified by the action of the Board, if appropriate.

The Board recognizes that its investment portfolio must be diversified over several different asset classifications in order to reduce risk. The following asset allocation has been established as an overall objective for the total holdings of the System:

Asset Category	Percentage of Total Fund at Fair Value Target
Domestic Equity	23.5%
International Equity	23.5%
Private Equity	16.0%
Real Assets	5.0%
Fixed Income	14.0%
Cash	2.0%
Real Estate	11.0%
Hedge Funds	5.0%

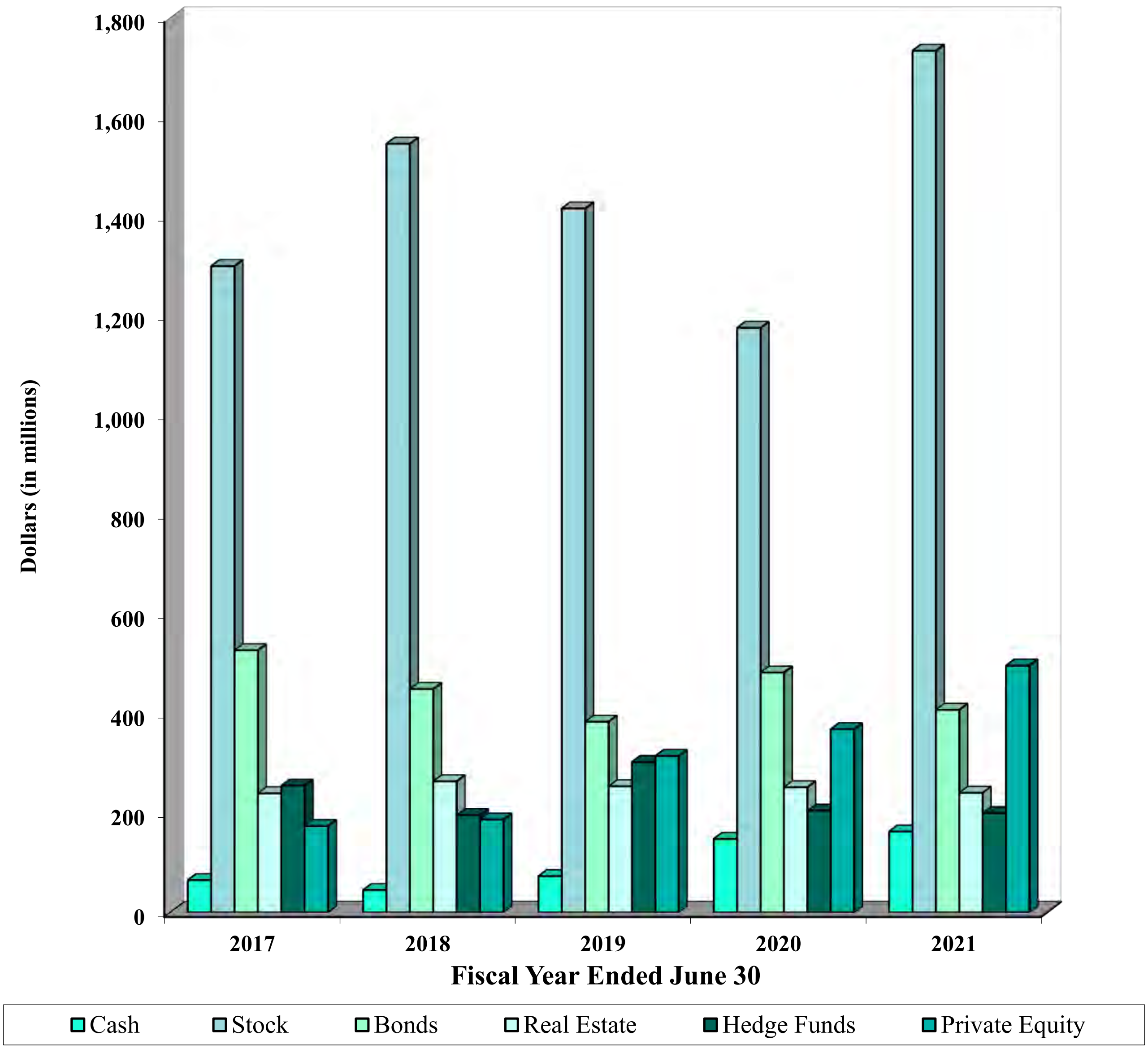
Within each major asset classification, investments are further diversified. Excessive concentration in any particular security, company or industry is to be avoided. Investment guidelines have been supplied to each of the System's investment managers. Subject to these objectives and guidelines, and the System laws, the investment managers have full discretion in investment decisions. Managers are advised to notify the Board in writing if these objectives cannot be met or if the guidelines constrict performance. The investment managers are encouraged to suggest changes to the guidelines at any time.

Proxy Voting

Pursuant to a U.S. Department of Labor directive, the Board has a long standing policy that, when solicitations of proxies with respect to securities are received by an investment manager, the decisions as to whether and how to vote such proxies are delegated to that investment manager.

The Board also recognizes, however, that the investment manager's decisions must be made in accordance with applicable legal standards and that the Board has an obligation to ensure that those standards are being observed. Therefore, the Board requests that annually (June 30) each management firm furnish the System with a written statement of their policy and practices with respect to the voting of securities held in their employee benefit plan asset portfolios, together with their written assurance that such policies and practices are being followed. These statements and assurances will be included, and will be given appropriate weight, in the Board's continuing evaluation of each manager's overall investment performance.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
TOTAL PORTFOLIO COMPOSITION
FAIR VALUE OF INVESTMENTS



	2017		2018		2019		2020		2021	
Cash	$ 65	2%	$ 45	2%	$ 73	3%	$ 148	6%	$ 163	5%
Stock	1,300	45	1,546	57	1,416	52	1,176	45	1,733	53
Bonds	528	26	450	17	384	14	483	18	408	13
Real Estate	240	10	264	10	254	9	252	9	241	7
Hedge Funds	255	10	196	7	303	11	205	8	200	6
Private Equity	174	7	187	7	315	11	369	14	497	16
Total	$ 2,562	100%	$ 2,688	100%	$ 2,745	100%	$ 2,633	100%	$ 3,242	100%

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT RESULTS - TIME WEIGHTED RATE OF RETURN

		Annualized		
Total Returns	**FY 2021**	**3 Years**	**5 Years**	**10 Years**
TOTAL PORTFOLIO	29.3%	10.9%	10.7%	8.4%
Composite Benchmark	29.4	11.4	10.8	8.4
DOMESTIC EQUITIES	42.8	18.7	18.0	14.6
S&P 500 Index	40.8	18.7	17.6	14.8
Russell 1000	43.1	19.6	18.0	15.0
Russell 2000	62.0	13.5	16.5	12.3
Russell 3000	44.2	18.7	17.9	14.7
INTERNATIONAL EQUITIES	41.6	11.2	12.3	7.0
MSCI AC World ex USA (Net)	35.7	9.4	11.1	5.4
DOMESTIC FIXED INCOME	2.8	4.9	3.5	3.0
Barclays Capital US Government/Credit	(0.4)	6.0	3.3	3.7
Barclays Capital Aggregate	(0.3)	5.3	3.0	3.4
PRIVATE EQUITY	65.0	29.1	24.6	17.4
S&P 500 Index Plus 200 bps	42.8	20.7	19.6	16.8
HEDGE FUND	23.0	8.5	8.0	6.5
HFRI FOF Composite Index	18.3	6.3	6.1	3.9
REAL ESTATE	7.0	6.0	8.1	10.3
NCREIF Property Index	7.4	5.5	6.1	8.8
ENERGY MLP	51.3	(0.7)	0.3	4.7
S&P MLP Index	62.2	0.1	0.3	1.8

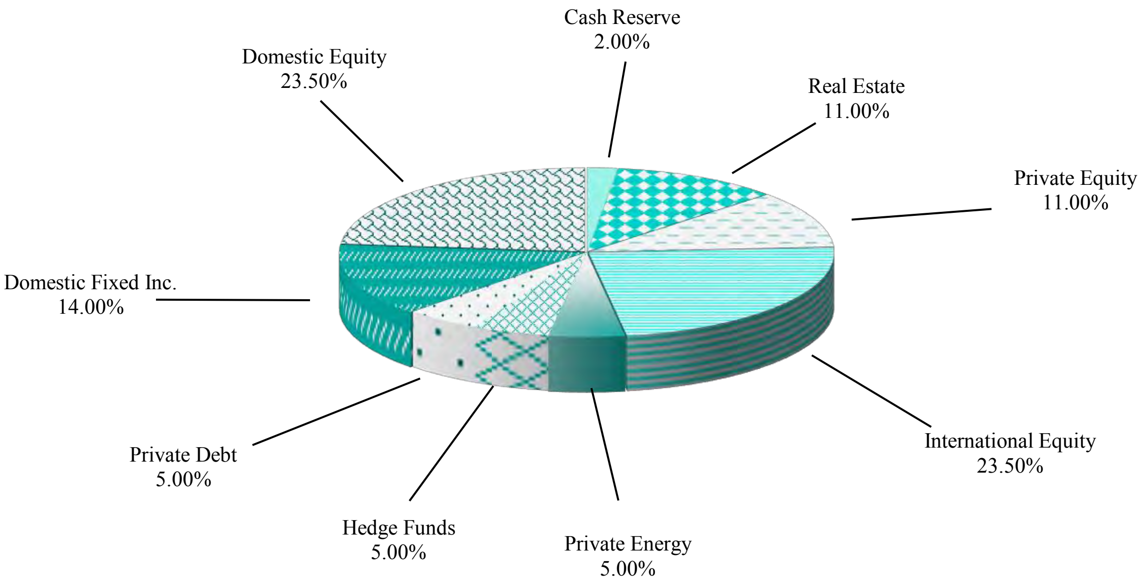
Notes:

The Composite Benchmark exhibits the overall rate of return for a sample unmanaged portfolio. At fiscal year end 2021, the Composite Benchmark is comprised of 23.5% Russell 3000 Index, 23.5% MSCI All Country World Ex-US Index; 14% Bloomberg Barclays US Universal Index; 11% Private Equity Composite; 5% Private Debt Composite; 5% HFRI Fund of Funds Composite Index; 11% NCREIF Property Index; 5% Natural Resources/Private Energy Composite and 2% 91-Day T-Bills.

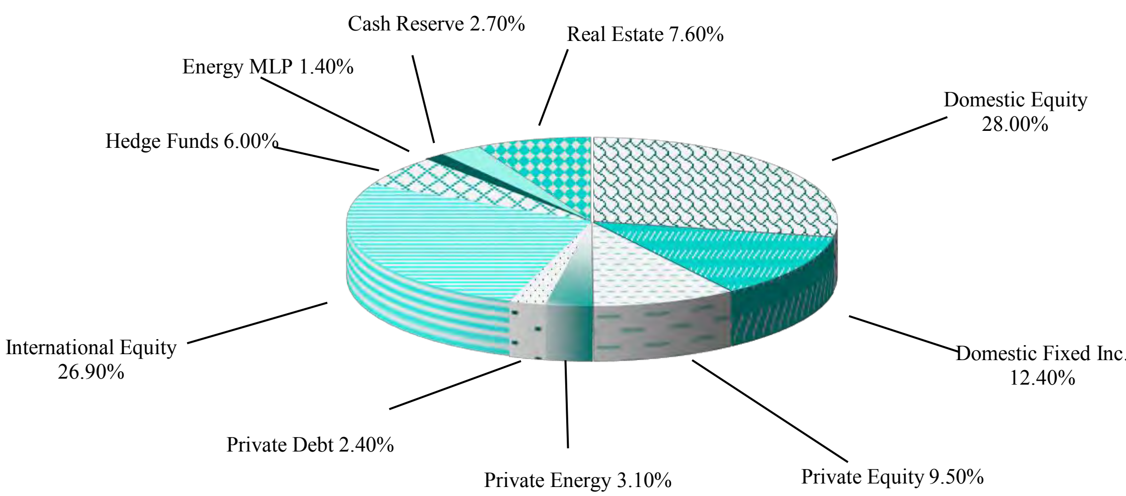
The composite returns above were calculated by the System's investment consultant, who used a time weighted rate of return based on fair value.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
ASSET ALLOCATION - ACTIVELY MANAGED ACCOUNTS
For the Period Ended June 30, 2021

TARGET ASSET ALLOCATION



ACTUAL ASSET ALLOCATION



Fire and Police Employees' Retirement System
City of Baltimore, Maryland
TOP TEN DOMESTIC AND INTERNATIONAL STOCK HOLDINGS BY FAIR VALUE
TOP TEN BOND HOLDINGS BY FAIR VALUE
June 30, 2021

Top Ten Domestic Stock Holdings

	Shares	Stock	Fair Value
1)	173,300	Metlife Inc	10,372,005.00
2)	113,800	Cvs Health Corp	9,495,472.00
3)	65,100	Allstate Corp/The	8,491,644.00
4)	130,800	Exxon Mobil Corp	8,250,864.00
5)	156,500	Walgreens Boots Alliance Inc	8,233,465.00
6)	148,600	Cisco Systems Inc/Delaware	7,875,800.00
7)	73,600	Chevron Corp	7,708,864.00
8)	2,686	Alphabet Inc-Cl C	6,731,975.52
9)	40,238	Match Group Inc	6,488,377.50
10)	23,817	Microsoft Corp	6,452,025.30

Top Ten International Stock Holdings

	Shares	Stock	Fair Value
1)	2,486,796	Fiam Select Eme Pool	107,081,447.08
2)	536,294	Ubs Emerging Markets Equity	95,114,805.22
3)	161,959	Amadeus It Group Sa	11,393,425.00
4)	83,078	Airbus Se	10,683,747.39
5)	6,053,604	Rolls-Royce Holdings Plc	8,272,433.54
6)	88,012	Novartis Ag	8,028,530.15
7)	670,123	Unicredit Spa	7,907,253.71
8)	72,117	Sanofi	7,556,860.90
9)	212,100	Takeda Pharmaceutical Co Ltd	7,106,945.90
10)	18,628	Roche Holding Ag	7,024,167.69

Top Ten Bond Holdings

	Par	Bonds	Fair Value
1)	25,270,000	U S Treasury Note	25,206,825.00
2)	7,505,000	U S Treasury Note	7,492,992.00
3)	2,085,000	U S Treasury Note	2,081,017.65
4)	1,455,000	U S Treasury Note	1,455,000.00
5)	290,000	U S Treasury Note	289,637.50
6)	257,404	Wells Fargo Commercial Rc1 A2	259,347.45
7)	250,000	Credit Acceptance Au 3A B 144A	253,862.50
8)	240,000	U S Treasury Note	239,474.40
9)	234,159	Americredit Automobile Re 3 A3	236,233.37
10)	220,000	Honda Auto Receivables 20 4 A3	222,318.80

A complete list of portfolio holdings is available upon request.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT SUMMARY
June 30, 2021

	Fair Value	Percent of Total Investments
Stock:		
U.S. Common Stock		
Technology	$ 139,717,634	4.54%
Financial	92,102,364	2.99
Health care	67,161,586	2.18
Consumer durables	60,644,181	1.97
Consumer services	59,620,702	1.94
Consumer nondurables	34,989,446	1.14
Energy	28,086,099	0.91
Basic industries	11,694,437	0.38
Transportation	8,217,148	0.26
Total U.S. Common Stock	502,233,597	16.31
Other		
International Stock	630,381,132	20.47
Equity index funds	446,413,450	14.50
Dynamic US Equity fund	154,040,212	5.00
Total Other	1,230,834,795	39.97
Total Stock	**1,733,068,391**	**56.28**
Bonds:		
U.S. Securities and Agencies		
U.S. Agencies	80,643,855	2.62
Treasury notes and bonds	3,673,067	0.12
Total U.S. Securities and Agencies	84,316,922	2.74
Corporate		
Financial	94,584,835	3.07
Utilities	7,369,975	0.24
Transportation	6,282,597	0.20
Industrial	1,496,904	0.05
Total Corporate	109,734,311	3.56
Emerging markets debt fund	148,969,638	4.84
Barclay Aggregate Index	30,851,395	1.00
MBS trust fund	27,733,657	0.90
Senior floating rate fund	6,106,053	0.20
	213,660,743	6.94
Total Bonds	**407,711,977**	**13.24**
Other Investments:		
Private equity funds	497,532,369	16.16
Real estate funds	240,647,427	7.82
Hedge funds	200,138,020	6.50
Total Other Investments	**938,317,816**	**30.48**
Total Investments	**$3,079,098,184**	**100.00%**

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SUMMARY SCHEDULE OF FEES AND COMMISSIONS
For the Year Ended June 30, 2021

	Assets Under Management	Fees
Investment Managers' Fees		
Domestic equity	$1,084,725,197	$4,012,816
International equity	896,378,346	2,094,189
Fixed income	412,486,971	749,300
Private equity	393,540,813	26,484,460
Real estate	254,647,427	769,384
Hedge Funds	200,138,020	453,274
Securities lending		103,535
Total Investment Managers' Fees		**$34,666,958**
Other Investment Service Fees:		
Investment consultant fees		$491,658
Custodian bank fees		232,998
Total Other Investment Service Fees		**$724,656**

Brokerage Fees

Broker's fees on investment transactions for the year ended June 30, 2021 amounted to $601,085. Brokerage firms receiving more than $3,600 in fees are listed below.

Brokerage Firms	Fees Paid	Shares/ Units	Average Commission per Share	Brokerage Firms	Fees Paid	Shares/ Units	Average Commission per Share
Instinet Corp	$91,581	1,952,687	$0.04690	Raymond James & Associates	$14,078	562,540	$0.02503
J P Morgan Securities, Inc.	34,590	2,539,868	0.01362	Nothern Trade Securities	13,638	454,600	0.03000
Percival Financal Partners	33,692	1,093,906	0.03080	INTL Trading	12,961	432,025	0.03000
UBS	32,134	10,988,218	0.00292	Barclays Capital	12,273	858,033	0.01430
Merrill Lynch	31,676	4,648,448	0.00681	Sanford C Bernstein & Co.	11,744	2,271,119	0.00517
Morgan Stanley & Co.	27,987	2,831,362	0.00988	Interactive Brokers LLC	7,519	201,265	0.03736
Jefferies & Company, Inc.	26,595	1,657,592	0.01604	HSBC Bank PLC	7,311	489,529	0.01493
Credit Suisse	24,448	2,462,402	0.00993	Pershing LLC	7,244	641,126	0.01130
B Riley and Co	23,886	771,578	0.03096	Exane	6,206	956,753	0.00649
Cowen and Co	21,459	1,084,446	0.01979	Needham and Co LLC	5,541	138,528	0.04000
Citigroup Global Markets, LTD	19,619	1,552,046	0.01264	Credit Lyonnais Securities	5,460	294,754	0.01852
Stifel Nicolaus	19,133	620,334	0.03084	Capital Institutional Services,	4,922	140,626	0.03500
Goldman Sachs & Co.	17,196	1,527,980	0.01125	Keybanc Capital	4,442	126,900	0.03500
RBC Capital Markets, LLC	16,477	2,350,795	0.00701	Piper Jaffray and Co	4,355	435,822	0.00999
Wells Fargo Securities, LLC	15,618	2,367,737	0.00660	Redburn Partners LLP	3,617	829,027	0.00436

Brokerage Commissions

Because of the highly visible nature of the Fire and Police Employees' Retirement System, it is important that the investment managers have best execution as their primary objective. While the managers are permitted to direct a portion of brokerage commissions for research, it is expected that each manager will receive commission discounts which are commensurate with current discount practice. Investment managers are expected to give preference whenever possible to brokerage firms with offices located in the Baltimore Metropolitan Area. However, the managers are expected to negotiate commission rates, and local brokerage firms should be given preference only when commission rates and transaction services are competitive with those available from other firms.

DOMESTIC EQUITY MANAGERS

Large Cap

The Edgar Lomax Company
Randall Eley
Springfield, VA

Mellon Capital Management
Brian Hock
Boston, MA

Rhumbline Advisors
Julie Lind
Boston, MA

Brown Advisory
Ken Stuzin
Baltimore, MD

Small and Mid Cap

Pinnacle Associates, Ltd.
Peter Marron
New York, NY

Rothschild Asset Management Inc
Tina Jones
New York, NY

INTERNATIONAL EQUITY MANAGERS

William Blair & Co.
Doug Kryscio
Chicago, IL

Causeway Capital Management, LLC
Sarah Ketterer
Los Angeles, CA

UBS Asset Management
Drew Gieger
Chicago, IL

Fidelity Institutional Asset Management
Tom Turenne
Smithfield, RI

DIRECT HEDGE FUND

Cantab Capital Partners
Dr. Ewan Kirk
Cambridge, UK

Voya Alternative Asset Management
Peter Guan
Atlanta, GA

Waterfall Asset Management
Jack Ross
New York, NY

Capstone Investment Advisors
Margaret Lucas
New York, NY

KKR Credit Oppertunities Fund
Andrew Clerico
New York, NY

Nut Tree
Ben Dominguez
New York, NY

400 Capital Management
Kevin McAdams
New York, NY

REAL ASSETS

Harvest Fund Advisors, LLC
Eric Conklin
Wayne, PA

Tortoise Capital Advisors, LLC
Zach Hamel
Leawood, KS

FIXED INCOME MANAGERS

Loomis Sayles & Company, L.P.
Clifton Rowe
Boston, MA

Mellon Capital Management
Brian Hock
Boston, MA

Blackrock
Melissa Cahill
Boston, MA

Pugh Capital Management
Mary Pugh
Seattle, WA

C. S. McKee
Brian Allen
Pittsburg, PA

PRIVATE ENERGY

Aether Investment Partners
David Rhoades
Denver, CO

Park Street Capital
Kristine Dailey
Boston, MA

Aberdeen Flag Energy & Resource Partners III
Jim Gasperoni
Boston, MA

EnCap Investments
Douglas Swanson
Houston, TX

JLC Capital Partners
Rob Keough
New York, NY

Brookfield Asset Management
Mark Weinberg
New York, NY

Carlyle Group
Curtis Johnson
New York, NY

REAL ESTATE MANAGERS

Principal Global Investors
John Berg
De Moines, IA

ARES Management
Julie Solomon
New York, NY

REAL ESTATE MANAGERS

LaSalle Investment Management, Inc.
James Hutchinson
Chicago, IL

Alex Brown Realty
John M. Prugh
Baltimore, MD

Clarion
Jeb Belford
New York, NY

Angelo Gordon Real Estate
Adam Schwartz
New York, NY

DLJ Real Estate
Andy Rifkin
New York, NY

ARES Management
John Ruane
London, England

Equus Capital Partners
Arthur Pasquarella
Philadelphia, PA

Meridian Realty Partners
Gary Block
Bethesda, MD

Dalfen
Keith Mposi
Dallas, TX

IPI Partners
Lee Lesley
Chicago, IL

Torchlight
Jennifer Yuen
New York, NY

PRIVATE EQUITY

Pantheon
Yokasta Segura-Baez
New York, NY

Adams Street Partners
Scott C. Hazen
Chicago, IL

BlackRock
Leo Chenette
Princeton, New Jersey

Aberdeen Squadron Asia Pacific
Jim Gasperoni
Boston, MA

Capital Dynamics
Cynthia Duda
New York, NY

Siguler Guff
Ralph Jaeger
New York, NY

LGT Capital Partners
Sasha Gruber
New York, NY

Greenspring Global Partners
Hunter Somerville
Owings Mills, MD

Castlelake
Evan Carruthers
Minneapolis, MN

Centana Management
Eric Byunn
New York, NY

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT PROFESSIONALS

PRIVATE EQUITY

DC Capital Partners
Thomas J. Campbell
Alexandria, VA

RLJ Partners
Jesse M. Burwell
Bethesda, MD

Lexington Capital Partners
Mark M. Andrew
Boston, MA

Varde´ Management
Kimberly Steinberg
Minneapolis, MN

Brookfield Asset Management
Mark Weinberg
New York, NY

CarVal Investors
Katie Hubbard
Minneapolis, MN

Columbia Capital
Don Doering
Alexandria, VA

Greenspring Diversity 1
Garabed Koosherian
Boston, MA

Drum Capital Management, LLC
Scott Vollmer
Stamford, CT

Grain Management
Kathlika Fontes
Washington, DC

Permira Debt Managers
Jennifer Collard
London, UK

Vista Equity Partners
Jessica Segal
San Francisco, CA

Nexus Capital Management
Jamie Brown
Los Angeles, CA

Vista Credit Partners
Jeff Russell
San Francisco, CA

One Rock Capital
Deepa Patil Madhani
New York, NY

AE Industrial Partners
Wayne Garrett
Boca Raton, FL

Bernhard Capital Partners
Tim Poche
Rouge, LA

GLOBAL CUSTODIAN

BNY Mellon Asset Servicing
Sarah Baulch
Pittsburgh, PA

SECURITIES LENDING

BNY Mellon Asset Servicing
Mike McDermott
Pittsburgh, PA

INVESTMENT CONSULTANT

NEPC (New England Pension Consultants)
Kristin Finney-Cooke
Boston, MA

ACTUARIAL SECTION

Via Electronic Mail

November 17, 2021

Board of Trustees
Fire and Police Employees' Retirement System
of the City of Baltimore
7 East Redwood Street, 18th Floor
Baltimore, Maryland 21202-3470

Re: 2021 Comprehensive Annual Financial Report

Honorable Members of the Board of Trustees:

Cheiron has performed an actuarial valuation of the Fire and Police Employees' Retirement System (BCFPERS) as of June 30, 2021. This valuation is used to determine the City's contribution to be made in Fiscal Year 2023 for BCFPERS. The contribution actually made during Fiscal Year 2021 was developed in the 2019 actuarial valuation, and the contribution for Fiscal Year 2022 was developed in the 2020 actuarial valuation.

The funding method used in this annual valuation is the entry age normal funding method. Under this funding method, a normal cost rate is determined as a level percentage of pay for each active member, net of employee contributions. The normal cost rate multiplied by payroll at the valuation equals the total normal cost for each member. The employer's contribution is then increased or decreased from the sum of these normal cost amounts to amortize the unfunded actuarial liability, the difference between the actuarial value of assets and the actuarial accrued liability, as a level dollar amount. The initial unfunded actuarial liability as of July 1, 2020 is amortized as a level dollar figure over a closed 20-year period beginning on July 1, 2020. Subsequent changes in the UAL after July 1, 2020 due to experience gains and losses, assumption and methodology changes, or plan changes are amortized over individual annual closed 20-year periods.

The actuarial value of assets for the System was set equal to the market value of assets as of June 30, 2014. Beginning with the plan year ending June 30, 2015, the actuarial value of assets is the current market value of assets, adjusted by a five-year smoothing of investment gains and losses on a market value basis. However, if the actuarial value of assets is less than 80% or more than 120% of the market value, an adjustment is made to the actuarial value if necessary to bring the value within this corridor.

The results presented in this Comprehensive Annual Financial Report reflect the assumptions from the June 30, 2021 actuarial valuation. Article 22 of the Baltimore City Code specifies a number of these assumptions and requires a review of all of the assumptions by the actuary at least once every three years. The most recent such review examined experience from 2014 to 2020 and resulted in assumption changes that were first reflected in the June 30, 2021 actuarial valuation. The assumptions and methods reflected in the results of this valuation are listed in the Actuarial Assumptions and Methods section of this report. In addition, the assumptions and methods used for funding purposes meet the parameters set forth by Governmental Accounting Standards Board Statement Nos. 67 and 68.

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Membership data used for the actuarial valuation was supplied by the System. An informal examination of the obvious characteristics of this data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23 was performed. Asset information was provided on an unaudited basis.

The Government Finance Officers Association (GFOA) maintains a checklist of items to be included in a public retirement plan's Comprehensive Annual Financial Report in order to receive recognition for excellence in financial reporting. All supporting schedules in the Actuarial Section and the Schedule of Funding Progress in the Financial Section have been prepared by the System and reviewed by Cheiron.

We have prepared the following exhibits:

- Actuarial Funding Method and Actuarial Assumptions
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Schedule of Funded Liabilities by Type
- Analysis of Financial Experience
- Summary of Plan Provisions

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared solely for the Fire and Police Employees' Retirement System of the City of Baltimore for the purposes described herein, except that the System auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. This report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron

Elizabeth Wiley, FSA, MAAA
Consulting Actuary

Brett Warren, FSA, MAAA
Consulting Actuary

Attachments

A. Actuarial Methods

1. Funding Method:

Liabilities and contributions shown in this report are computed using the entry age normal method of funding. Under this funding method, a normal cost rate is determined as a level percentage of pay for each active member. The normal cost rate times payroll equals the total normal cost for each member. The normal cost plus member contributions will pay for projected benefits at retirement for each active System member.

The actuarial liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is referred to as the unfunded actuarial liability (UAL).

The portion of the actuarial liability in excess of System assets, the UAL, is amortized to develop an additional cost or savings that is added to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. The amortization method is described as item 3 below.

2. Asset Valuation Method:

Effective June 30, 2014, the actuarial value of assets was set to equal the fair value of assets. The deferral of investment gains and losses only applies after June 30, 2014.

The actuarial value has been calculated by taking the fair value of assets less 80% of the investment gain (loss) during the preceding year, less 60% of the investment gain (loss) during the second preceding year, less 40% of the investment gain (loss) during the third preceding year, and less 20% of the investment gain (loss) in the fourth preceding year.

The investment gain (loss) is calculated by taking the difference between the expected value of assets based on an investment return assumption and the actual value of assets. If the actuarial value of assets is less than 80% or more than 120% of the fair value, an adjustment is made to the actuarial value to bring the value within this corridor.

3. Amortization Method:

The initial unfunded actuarial liability is amortized as a level dollar figure over a closed 20-year period beginning on July 1, 2020. Subsequent changes in the UAL due to experience gains and losses, assumption changes, or plan changes are amortized over new closed 20-year periods.

4. Changes Since Last Valuation:

The amortization method changed from a single closed 25-year period beginning on July 1, 2014 to a 20-year layered approach with an initial unfunded liability set as a closed 20-year period beginning on July 1, 2020.

B. Actuarial Assumptions

1. Rate of Investment Return:

7.00% compounded annually.

2. Rates of Salary Increase:

Salary increases are split into a static inflation assumption of 2.75% and a merit scale based on department and service, shown below.

Years of Service	Police	Fire
0	0.25%	0.25%
1	0.25%	10.00%
2	1.50%	15.00%
3	18.25%	15.00%
4	6.25%	1.75%
5	5.50%	1.75%
6	1.25%	0.25%
7	4.25%	0.25%
8	1.25%	0.25%
9	2.25%	1.75%
10	1.25%	1.75%
11-13	1.25%	0.25%
14	1.25%	1.75%
15	4.00%	1.75%
16 – 18	1.25%	0.25%
19 – 20	1.25%	2.50%
20+	0.75%	0.75%

3. System Expenses:

All expenses are paid from the fund. Administrative expenses are added to the contribution in the amount of 1.5% of covered payroll.

4. Disability:

Age	Rate
25	0.0035
30	0.0050
35	0.0065
40	0.0075
45	0.0080
50	0.0070
55	0.0040
60	0.0040

5. **Pre-Retirement Mortality:**
Actives and DROPs: 125% and 130% of the Pub-2010 Safety Employee Mortality Table for males and females, respectively, with generationally mortality improvement using the RPEC_2014_v2020 model, with an ultimate rate of 1.00% for ages 20-80, an ultimate rate of 0.05% for ages 80-95, an ultimate rate of 0.00% for ages 95-120, convergence to the ultimate rate in year 2027, and using the committee selected weighing assumption.

	Actives and DROPs[1]	
Age	**Male**	**Female**
20	0.000534	0.000229
25	0.000553	0.000322
30	0.000718	0.000485
35	0.000860	0.000640
40	0.000945	0.000741
45	0.001063	0.000848
50	0.001406	0.001114
55	0.002126	0.001647
60	0.003438	0.002309

[1] Assumes 20% of all deaths are Line of Duty and 80% are Non-Line of Duty.

6. **Post-Retirement Mortality:**

Retirees and Beneficiaries: 125% and 130% of the RP-2010 Safety Healthy Retiree Mortality Table for males and females, respectively, with generationally mortality improvement using the RPEC_2014_v2020 model (same as described in pre-retirement morality above).

Disabled members: 120% of the Pub-2010 Safety Disabled Retiree Mortality Table with generationally mortality improvement using the RPEC_2014_v2020 model (same as described in pre-retirement morality above).

	Retirees and Beneficiaries		Disabled Members	
Age	**Male**	**Female**	**Male**	**Female**
55	0.003717	0.003455	0.005598	0.005698
60	0.006615	0.006130	0.009188	0.008868
65	0.011149	0.009599	0.014408	0.012209
70	0.018284	0.015429	0.021347	0.017254
75	0.031957	0.026945	0.035184	0.026476
80	0.058303	0.048206	0.061400	0.044498
85	0.106579	0.085296	0.103189	0.078734
90	0.188062	0.148462	0.180539	0.137042
95	0.282587	0.237137	0.271284	0.218895

7. Withdrawal:

Years of Service[1]	Police	Fire
0	7.0%	14.0%
1	10.0%	5.0%
2	12.0%	4.0%
3	9.0%	2.5%
4	7.0%	2.5%
5	5.5%	2.5%
6	4.0%	2.0%
7	3.5%	2.0%
8	3.0%	2.0%
9	2.5%	2.0%
10	2.0%	2.0%
11	1.8%	1.2%
12	1.6%	1.2%
13	1.4%	1.2%
14 – 19	1.2%	1.2%
20+	0.0%	0.0%

[1]Withdrawal decrements are reduced to zero when member is eligible to retire.

8. Service Retirement:

The valuation uses retirement rates that vary according to member plan (police or firefighter) and whether a member is eligible for DROP, grandfathered DROP2, or non-grandfathered DROP2.

Members with 20 or more years of service on or before December 31, 2009 are eligible for DROP.

Members who had less than 20 years of service on December 31, 2009, but had either 15 or more years of service on June 30, 2010 or were age 50 or older as of June 30, 2010, can elect to participate in grandfathered DROP2 when they have 20 or more years of service.

Members who were not age 50 or older as of June 30, 2010, and also had less than 15 years of service on June 30, 2010, can participate in non-grandfathered DROP2 when they have 25 or more years of service.

Non-grandfathered members, who are not eligible for DROP or grandfathered DROP2, can take early retirement, with a reduced benefit. Prior to reaching normal retirement eligibility, these non-grandfathered members are assumed to take early retirement according to the following table:

Non-grandfathered Early Retirement Rate for Police and Firemen

Age	Service <10	10	11	12	13	14	15	16	17	18	19	20	21-24	25+
<45												5.00%	5.00%	
45												5.00%	5.00%	
46	Members Not Yet Eligible for Early Retirement											5.00%	5.00%	
47												5.00%	5.00%	
48												5.00%	5.00%	
49												5.00%	5.00%	
50	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
51	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
52	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
53	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
54	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
55	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%								
56	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%								
57	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%								
58	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%								
59	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%								
60	18.00%	18.00%	18.00%	18.00%	18.00%	18.00%	Members Eligible for Unreduced Benefits							
61	18.00%	18.00%	18.00%	18.00%	18.00%	18.00%								
62	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%								
63	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%								
64	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%								
65	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%								

Once members reach eligibility for normal retirement, they are expected to follow one of two paths: they either enter the DROP/DROP2 program and follow the appropriate post-DROP or post-DROP2 retirement assumptions for their group, or they never enter the DROP/DROP2 program and follow the appropriate non-DROP or non-DROP2 retirement assumptions for their group. Active members who are beyond their applicable DROP or DROP2 program eligibility as of the valuation date are assumed to have already made this decision and so are valuing only with the applicable DROP/DROP2 or non-DROP/non-DROP2 retirement assumptions. Those who are not yet normal retirement eligible are valued under both options and the resulting liabilities are blended according to the following probabilities table:

	Police and Fire
DROP Members	
DROP	80%
Non-DROP	20%
Grandfathered DROP2 Members	
Grandfathered DROP2	80%
Grandfathered Non-DROP2	20%
Non-Grandfathered DROP2 Members	
Non-Grandfathered DROP2	80%
Non-Grandfathered Non-DROP2	20%

<u>Non-DROP/Grandfathered Non-DROP2 Retirement Probabilities</u>

Members who do not join DROP or grandfathered DROP2 are assumed to have retirement rates that vary by service until age 50. After age 50, the rates are assumed to vary solely by age.

Ages Less Than 50	
Years of Service	Probability of Retirement
20	40%
21+	20%

Ages 50 and Higher	
Age	Probability of Retirement
50	10.00%
51	8.00%
52	8.00%
53	5.00%
54	4.00%
55	4.00%
56	4.00%
57	3.00%
58	6.00%
59	12.00%
60	18.00%
61	18.00%
62	25.00%
63	25.00%
64	35.00%
65	100.00%

<u>Non-Grandfathered Non-DROP2 Retirement Probabilities</u>

Assumptions vary between the rate applicable in the first year of eligibility for unreduced retirement and those for subsequent years for those who do not join non-grandfathered DROP2.

	Police and Fire	
Age	First Eligible	Subsequent
Less than 65	45.0%	25.0%
65 and up	100.0%	100.0%

DROP and Grandfathered/Non-Grandfathered DROP2 Retirement Probabilities

Years After Electing DROP	DROP and DROP2 Exit Rates	
	Police	Fire
1	10.0%	5.0%
2	10.0%	5.0%
3	15.0%	10.0%
4	10.0%	5.0%
5	10.0%	5.0%
6	20.0%	5.0%
7	25.0%	5.0%
8	28.0%	20.0%
9-14	18.0%	13.0%
15+	20.0%	20.0%

NOTE: In all cases once the member reaches age 65, there is 100% probability of leaving DROP to commence benefit receipt.

9. Line-of-Duty Disability:

Benefit Types: 1% of line-of-duty disability retirements are assumed to receive a pension equal to 100% of compensation at the time of retirement. The rest are assumed to receive a pension equal to 66 2/3% of Average Final Compensation.

Form of Payment: All future withdrawal benefits are assumed to be paid in the form of a lump sum refund of member contributions.

All future retirement benefits are assumed to be paid in the form of a 50% Joint and Survivor Annuity. In addition, members participating in DROP are assumed to receive their DROP account balance in the form of a lump sum upon retirement.

Future non-line-of-duty disability retirement benefits for current active members with fewer than five years of service (i.e., eligible only for the refund of member contributions) are assumed to be paid in the form of a lump sum. All other disability retirement benefits are assumed to be paid in the form of a 50% Joint and Survivor Annuity. In addition, members participating in DROP are assumed to receive their DROP account in the form of a lump sum upon disability retirement.

Future death benefits for current active members who have not reached service retirement eligibility are assumed to be paid in the form of a lump sum. Certain line of duty death benefits for refund of member contributions are assumed to be paid in the form of a lump sum. All other death benefits are assumed to be paid in the form of a single life annuity equal to the member’s accrued benefit. Beneficiaries of members participating in DROP are assumed to additionally receive the member’s DROP account in the form of a lump sum.

10. Cost-of-Living Adjustment Assumption:
Assumed to follow System provisions – 0%, 1%, or 2% depending on age and type of retirement

11. **Percent Married:**

    Males 70%, females 70% for actives and current retirees and disabled who elect 50% Joint & Survivor Form

12. **Spouse Age:**

    A husband is assumed to be four years older than his wife.

13. **Remarriage Rates:**

    None

14. **Children Loads:**

    All benefits with Joint & Survivor Forms of Payments for retirees and disabled members and all future retirement and disability benefits for actives were increased by 0.3% to account for children's benefits.

15. **Benefit Loads:**

    75% of Line-of-Duty death benefits assumed to have future beneficiary (additional 5% above percent married assumption) to allow for contingent beneficiaries.

    Benefits payable in the form of a Joint and Survivor 100% Pop-Up or Joint and Survivor 50% Pop-Up were valued, respectively, as 100% Joint and Survivor with a 2.70% load and 50% Joint and Survivor with a 1.50% load to account for the additional value of the Pop-Up form of benefit in the absence of data on the amount to which the benefit would increase.

16. **Disclosures regarding Models Used:**

    In accordance with Actuarial Standard of Practice (ASOP) No. 56 Modeling, the following disclosures are made:

Valuation Software: Cheiron utilizes ProVal, an actuarial valuation software program leased from Winklevoss Technologies (WinTech), to calculate liabilities and projected benefit payments. We have reviewed the underlying workings of this model to the degree feasible and consistent with ASOP No. 56 and believe them to be appropriate for the purposes of the valuation.

Projections: This valuation report includes projections of future contributions and funded status for the purpose of assisting the Board of Trustees and the sponsors of the System with the management of the Fund.

The projections are based on the same census data and financial information as of June 30, 2021 as disclosed in this actuarial valuation. The projections assume continuation of the plan provisions and actuarial assumptions in effect as of June 30, 2021 and do not reflect the impact of any changes in benefits or actuarial assumptions that may be adopted after June 30, 2021.

The projections assume that all future assumptions are met except where specifically indicated. The future outcomes become increasingly uncertain over time, and therefore the general trends and not the absolute values should be considered in the review of these projections. Further, for the purpose of these projections, we have only reflected the impact of new entrants entering the plan in aggregate and have not developed individual liabilities or detailed profiles related to these potential new entrants. We feel this is appropriate for the purpose of these projections, but if they were to be used for other purposes, this may not be appropriate and alternative projections may need to be developed.

Mortality Improvement Model:

Cheiron utilized the RPEC_2014_v2020 Model Implementation Tool for the purposes of developing the customized version of MP-2020 used in this report. This tool is updated and published annually by the Society of Actuaries and their Retirement Plans Experience Committee and allows actuaries to develop customized versions of mortality improvement scales based on the parameters and data underlying the published MP-2020 scale but allowing practitioners to vary parameters from those used in the published MP-2020 scale.

We have reviewed this model and believe it is appropriate to our intended use in developing a customized mortality improvement scale for the Programs. Further, we are aware of no material inconsistencies that would limit our ability to use this model for its intended purpose.

17. Funding Policy:

The City's funding policy is to contribute the amount equal to the net normal cost, a provision for anticipated administrative expenses, plus the accrued liability contribution or less the amortization of the excess assets, as the case may be. However, the aggregate payment by the City must be sufficient, when combined with the amount in the Fund, to provide the pensions and other benefits payable out of the Fund during the then-current year.

18. Changes Since Last Valuation:

Demographic assumptions (mortality rates, termination rates, non-grandfathered retirement rates, disability rates, DROP/DROP2 exit rates, merit salary increases, and percent married) and economic assumptions (investment return) were updated to reflect the most recent experience study.

19. Rationale for Assumptions:

The actuarial assumptions were chosen by the Board of Trustees, upon the recommendation of the actuaries, based on an experience study conducted on the System's experience from the 2014-2020 valuations. The results of this study were presented in May 2021 and went into effect starting with the June 30, 2021 valuation.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date June 30	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
2012	4,624	$284,601,473	$61,549	2.2
2013	4,439	277,524,356	62,520	1.6
2014	4,317	284,210,233	65,835	5.3
2015	4,248	298,354,900	70,234	6.7
2016	4,094	300,855,075	73,487	4.6
2017	4,012	296,356,741	73,868	0.5
2018	4,049	305,372,850	75,419	2.1
2019	3,983	308,631,746	77,487	2.7
2020	3,927	312,258,826	79,516	2.6
2021	3,839	314,488,595	81,919	3.0

Annual payroll is considered pensionable payroll.

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Added to Rolls		Removed from Rolls		Rolls - End of Year			
Year Ended June 30	No.	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
2012	234	9,614,994	198	4,747,538	6,136	194,706,019	2.6	31,732
2013	291	10,232,591	221	3,318,082	6,206	201,620,528	3.6	32,488
2014	258	9,180,339	196	3,095,964	6,268	207,704,903	3.0	33,137
2015	236	8,840,349	236	3,780,142	6,268	212,765,110	2.4	33,945
2016	234	9,612,277	211	3,046,582	6,291	219,330,805	3.1	34,864
2017	264	10,870,255	236	4,279,497	6,319	225,921,564	3.0	35,753
2018	220	8,784,970	243	4,794,782	6,296	229,911,753	1.8	36,517
2019	256	11,071,267	218	3,844,598	6,334	237,138,421	3.1	37,439
2020	233	10,804,933	216	3,727,576	6,351	244,215,779	3.0	38,453
2021	256	11,148,599	247	4,806,315	6,360	250,558,062	2.6	39,396

* Includes post-retirement adjustments.
The annual allowances were adjusted to incorporate the $16,000 minimum benefit for certain beneficiaries under Ordinances 10-306 and 11-444.

SOLVENCY TEST

The Retirement System's funding objective is to meet long-term benefit promises through contributions which spread the cost over the employees' service base. If the contributions to the System are soundly executed, the System will pay all promised benefits when due - the ultimate test of financial soundness.

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

The schedule below illustrates the System's history of liability 3.

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Assets		
Valuation Date June 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
2012	$261,776,304	$2,134,597,319	$792,288,436	$2,475,874,446	100%	100%	10.0%
2013	270,077,058	2,208,521,089	788,974,354	2,502,405,754	100	100	3.0
2014	283,377,044	2,266,741,330	810,330,710	2,492,544,399	100	97.5	0.0
2015	300,379,071	2,372,231,709	864,170,942	2,575,515,725	100	95.9	0.0
2016	314,005,394	2,440,488,840	887,902,841	2,602,544,409	100	93.8	0.0
2017	325,140,922	2,510,032,318	885,133,502	2,644,643,773	100	92.4	0.0
2018	341,791,801	2,567,142,559	975,682,879	2,712,246,895	100	92.3	0.0
2019	352,872,611	2,644,117,357	969,411,451	2,767,718,705	100	91.3	0.0
2020	363,557,369	2,719,431,005	986,228,495	2,811,813,190	100	90.0	0.0
2021	347,437,305	2,782,953,817	1,059,366,650	3,000,052,456	100	95.3	0.0

Gains and Losses in Accrued Liabilities During Fiscal Year
Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain or (Loss) for Fiscal Year 2020	Gain or (Loss) for Fiscal Year 2021
Age and Service Retirements If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher pays, a loss.	$ (550,000)	$ 9000,000
Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, a loss.	3,610,000	5,370,000
Death-in-Service Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	400,000	710,000
Withdrawal From Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	4,540,000	4,150,000
Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	(3,280,000)	890,000
Investment Income If there is greater investment income than assumed, there is a gain. If less, a loss.	(69,060,000)	72,830,000
Death After Retirement If retirees live longer than assumed, there is a loss. If not as long, a gain.	(4,130,000)	2,530,000
New Entrants New entrants create a loss because they were not assumed in the previous evaluation.	(1,380,000)	(1,600,000)
Data System Change Gains and losses from data changes in the methodology for the System	(13,780,000)	-
Continuing Inactives Gains and losses from continuing inactives from causes other than death.	(660,000)	30,000
Other Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	1,680,000	5,560,000
Loss During Year From Financial Experience	$ (82,610,000)	$ 91,370,000

1. **EFFECTIVE DATE:**

   The System was established July 1, 1962, and has been amended periodically.

2. **ELIGIBILITY:**

   Any uniformed officer of the Police or Fire Departments shall become a member as a condition of employment.

3. **MEMBER CONTRIBUTIONS:**

   Prior to July 1, 2010, members contributed at the rate of 6% of regular compensation. Effective July 1, 2010, the rate increased to 7% of regular compensation; effective July 1, 2011, the rate increased to 8% of regular compensation; effective July 1, 2012, the rate is 9% of regular compensation; and, effective July 1, 2013, the rate will be 10% of regular compensation.

   Contributions are treated as made by the employer and are made to the System pre-tax according to Section 414(h)(2) of the Internal Revenue Code.

   Members of the Baltimore City Employees' Retirement System who transferred to this System after July 1, 1967, and did not make up the contributions which would have been made from July 1, 1962, are to have their retirement allowance reduced by the actuarial equivalent of the deficient contributions with interest.

4. **AVERAGE FINAL COMPENSATION:**

   Average Final Compensation (AFC) shall mean the average annual compensation based on eighteen consecutive months of service during which the member's compensation was highest.

   Effective July 1, 2010, for members hired on or after July 1, 2010, and for members who, as of June 30, 2010, did not meet the eligibility requirements for a service retirement benefit and had fewer than 15 years of service, AFC means the average annual compensation based on 36 consecutive months of service during which the member’s compensation was highest.

5. **MILITARY SERVICE CREDIT:**

   (A) **Military Service Prior to Employment:** A maximum of three years service credit is granted provided the member has acquired:

      (1) 10 years of service and attained the age of 50; or

      (2) 20 years of service, regardless of age; or

      (3) 15 years of service, regardless of age for a member removed from his/her position.

      Effective July 1, 2010, eligible military service credit prior to employment also can be used to satisfy the eligibility requirements for a normal service retirement benefit, early service, DROP, or DROP 2. To qualify to receive F&P service credit, a member may not be eligible to receive retirement benefits for the military service from any other retirement system except for a Reserve Component Retirement benefit for Reserve service and National Guard members nor be eligible for a regular military pension.

   (B) **Military Service Within Employment:** Upon retirement or death, any member who had a break in employment due to military duty, shall receive service credit for the period of absence as provided by the Uniformed Services Employment and Reemployment Rights Act, provided the member leaves his/her accumulated contributions and interest on deposit with the F&P, does not take any other employment, and returns to F&P covered employment within 1 year following the military service.

6. **SERVICE RETIREMENT BENEFIT:**

(A) **Normal Retirement Eligibility Requirements:**

(1) Effective June 30, 2010, members who entered the System on or before June 30, 2003, and who had acquired 15 or more years of service as of June 30, 2010, or who met the following age or service requirements as of June 30, 2010, may retire based on the following eligibility requirements:

(a) age 50, regardless of years of service credit; or

(b) regardless of age, 20 years of service credit.

(2) Effective June 30, 2010, members who entered the System on or after July 1, 2003, and who had acquired 15 or more years of service as of June 30, 2010, or who met the following age and service requirements as of June 30, 2010, may retire based on the following eligibility requirements:

(a) age 50, with at least 10 years of service as a contributing member of this System; or

(b) regardless of age, 20 years of service with at least 10 years as a contributing member of this System.

(3) Effective July 1, 2010, members who, as of June 30, 2010, did not meet the applicable eligibility requirements in (1) or (2) above and had fewer than 15 years of service, are eligible for a normal retirement benefit upon the earlier of:

(a) age 55, with at least 15 years of service as a contributing member of this System; or

(b) regardless of age, 25 years of service with at least 15 years as a contributing member of this System.

(B) **Normal Retirement Benefit Amount:** The sum of:

(1) an annuity of the actuarial equivalent of the member's accumulated contributions and interest; and

(2) a pension, which together with the annuity, shall be equal to 2.5% of the member's average final compensation for each of the first 20 years of service; plus

(3) 2.0% of the member's average final compensation for each year of service in excess of 20 years.

(C) **Early Retirement Eligibility Requirements:**

Effective July 1, 2010, members who, as of June 30, 2010, did not meet the applicable eligibility requirements (A)(1) or (2) above and had fewer than 15 years of service, are eligible for an early retirement benefit upon attaining the applicable eligibility requirements in (A)(1) or (2) above.

(D) **Early Retirement Benefit Amount:**

(1) The amount determined under (B) above, reduced by:

(2) The applicable percentage shown below for each month (or fraction of a month) by which the member's benefit commencement date proceeds the date the member would have first met eligibility requirements for a normal retirement benefit under (A)(3) above had the member continued in employment with the City:

(a) 6.5/12% per month for the first 60 months or fraction of a month immediately preceding the member's normal service retirement date;

(b) 4.5/12% per month for the next 60 months or fraction of a month;

(c) ¼% per month for the next 60 months or fraction of a month; and

(d) 1/6% per month for any additional month or fraction of a month.

7. **NON-LINE-OF-DUTY DISABILITY RETIREMENT BENEFIT:**

(A) **Non-Line-of-Duty Disability Eligibility Requirements:** Five years of membership service and determined by a hearing examiner to be mentally or physically incapacitated for the further performance of duty and that such incapacity is likely to be permanent.

(B) **Non-Line-of-Duty Disability Benefit Amount:** The sum of:

(1) an annuity of the actuarial equivalent of the member's accumulated contributions and interest; and

(2) a pension, which together with the annuity, shall be equal to 2.5% of the member's average final compensation for each year of service up to 20 years; plus

(3) 2.0% of the member's average final compensation for each year of service in excess of 20 years.

(4) the total of this benefit shall not be less than 25% of the member's average final compensation.

(C) **Offset to Retirement Allowance:** This allowance is offset by workers' compensation, if the member entered the System after July 1, 1970.

8. **LINE-OF-DUTY DISABILITY RETIREMENT BENEFIT:**

(A) **Line-of-Duty Disability Eligibility Requirements:** Immediate eligibility upon membership in the System and determined by a hearing examiner to be incapacitated for the further performance of duty, and the incapacity resulted from an injury occurring while in the actual performance of such duty without willful negligence on the part of the member.

Should such disability further result in extensive brain damage causing total incapacity or in the loss of or the use of both hands or both arms or both feet or both legs or both eyes or any two thereof, an additional pension will be payable.

(B) **Line-of-Duty Disability Benefit Amount:**

(1) The sum of:

(a) an annuity of the actuarial equivalent of the member's accumulated contributions and interest; plus

(b) a pension equal to 66.667% of the member's average final compensation.

(2) If the member's disability results in extensive brain damage causing total incapacity or in the loss of or the use of both hands or both arms or both feet or both legs or both eyes or any two thereof, an additional pension is paid so that the retirement allowance is equal to 100% of the member's current annual

compensation at the time of retirement. The member will also receive a lump-sum refund of the member's accumulated contributions and interest.

(C) **Offset to Retirement Allowance:** This allowance is offset by workers' compensation, if the member entered the System after July 1, 1970.

9. **TERMINATION OF EMPLOYMENT:**

(A) **Eligibility Requirements:** If removed from a position without fault upon acquiring 15 years of service, the member is eligible for an immediate benefit; otherwise a refund of accumulated contributions and interest if not eligible for any other benefits.

(B) **Benefit Amount:** The sum of:

(1) an annuity of the actuarial equivalent of the member's accumulated contributions and interest; plus

(2) a pension, which together with the annuity, shall be equal to 2.5% of the member's average final compensation for each of the first 20 years of service; plus

(3) 2.0% of the member's average final compensation for each year of service in excess of 20 years.

10. **MAXIMUM ALLOWANCE AND OPTIONAL METHODS OF RECEIVING BENEFIT PAYMENTS:**

(A) **Maximum Allowance:** Upon retiree's death, 50% of the retiree's maximum allowance is paid to the spouse provided they had been married for at least one year prior to retirement or five years beginning before or after retirement. A spouse remains eligible for the maximum benefit unless she or he remarries before age 70 or until death. If there is no eligible spouse, the allowance will be paid to any minor and unmarried children until the last child marries, dies, or attains age 22. All other options will result in a lesser amount paid.

(B) **Reserve Guarantee Option:** Upon retiree's death, a cash refund to retiree's designated beneficiary based on present value of allowance at retirement less payments made.

(C) **100% Joint and Survivor Option:** Upon retiree's death, 100% of retiree's allowance to continue to designated beneficiary until death.

(D) **50% Joint and Survivor Option:** Upon retiree's death, 50% of retiree's allowance to continue to designated beneficiary until death.

(E) **100% Pop-up Joint and Survivor Option:** Upon retiree's death, 100% of retiree's allowance to continue to designated beneficiary until death. If the beneficiary predeceases member, the member's benefit "pops-up" to the maximum allowance.

(F) 5**0% Pop-up Joint and Survivor Option:** Upon retiree's death, 50% of retiree's allowance to continue to designated beneficiary until death. If the beneficiary predeceases member, the member's benefit "pops-up" to the maximum allowance.

These options are available for service, termination, non-line-of-duty disability, and line-of-duty disability retirement. The option and/or beneficiary may be changed within thirty days after retirement, or if the member's designated beneficiary predeceases the member within 30 days after the retirement date, within 30 days after the designated beneficiary's death.

11. **NON-LINE-OF-DUTY DEATH BENEFIT:**

(A) **Non-Line-of-Duty Death Benefit Eligibility Requirements:** Member who dies while actively employed but whose death does not qualify as a line-of-duty death.

(B) **Non-Line-of-Duty Death Benefit Amount:**

(1) Lump-sum benefit: The member's accumulated contributions and interest and if the member has one or more years of service, 50% of the greater of the member's current annual compensation or average final compensation shall be payable to the member's designated beneficiary or as specified by the plan provisions.

(2) 25% plus benefit: In lieu of (1) above, if the member had at least two years of continuous service, an annual sum equal to 25% of the member's current annual compensation, plus 1.5% of the member's current annual compensation for each year of service in excess of two years. This benefit is not to exceed 50% of the member's current annual compensation. This benefit shall be payable to:

(a) the member's spouse until the spouse remarries or dies; or

(b) the member's minor and unmarried children equally until the last child marries, dies, or attains age 22.

(3) 100% survivorship benefit: If the member was eligible for a service retirement and the member's designated beneficiary is his/her spouse to whom she/he was married for at least one year prior to the date of death, or surviving parent, such beneficiary may elect to receive in lieu of (1) and (2) above, an allowance equal to the amount that would have been paid under the 100% Joint and Survivor Option.

(C) **Offset to Retirement Allowance:** This allowance is offset by workers' compensation, if the member entered the System after July 1, 1970.

12. **LINE-OF-DUTY DEATH BENEFIT:**

(A) **Line-of-Duty Death Benefit Eligibility Requirements**:

(1) Immediate eligibility upon membership in the System and determined by a hearing examiner that the member's death arose out of and in the course of the actual performance of duty, without willful negligence on the part of the member; or

(2) A member had been granted a line-of-duty disability and dies within five years as a result of the last injury that resulted in a line-of-duty disability retirement.

(B) **Line-of-Duty Death Benefit Amount:** This benefit will consist of:

(1) A refund of the member's accumulated contributions and interest to the member's designated beneficiary or as specified by the plan provisions, and

(2) A pension of 100% of member's current annual compensation to be paid to:

(a) the member's surviving spouse to continue for life; or

(b) if no surviving spouse or the spouse dies, then equally to the member's minor and unmarried children equally until the last child marries, dies, or attains age 22; or

(c) if no surviving spouse or eligible minor child or children, then to the member's surviving dependent parents to continue for life.

(C) **Offset to Retirement Allowance:** This allowance is offset by workers' compensation, if the member entered the System after July 1, 1970.

13. **DEFERRED RETIREMENT OPTION PLAN (DROP):**

The Deferred Retirement Option Plan became effective July 1, 1996.

(A) **Eligibility: a member who did not meet the following eligibility requirements as of December 31, 2009, is not eligible for DROP participation and is not entitled to DROP benefits effective January 1, 2010. Such member may be eligible for participation in the Deferred Retirement Option Plan 2 (DROP 2) that became effective January 1, 2010.**

(1) For members who entered the System on or before June 30, 2003, a member must acquire 20 or more years of service, regardless of age on or before December 31, 2009. Eligible military service credit prior to employment also can be used to satisfy the eligibility requirements.

(2) For members who entered the System on or after July 1, 2003, a member must acquire 20 or more years of service with at least 10 years of service as a contributing member of this System, regardless of age, on or before December 31, 2009. Eligible military service credit prior to employment also can be used to satisfy the eligibility requirements.

(3) An application must be filed not less than 30 days nor more than 90 days prior to the date the DROP participation will begin.

(4) A member who terminates employment immediately becomes ineligible to participate or to continue to participate in the DROP.

(B) **Term of DROP:**

The maximum period of time that a member can participate in the DROP is a single term of three consecutive years beginning on the member's DROP start date.

(C) **No Service Credit While in DROP:**

A DROP participant remains a member of the F&P but is not credited with F&P service.

Except for Intermediate DROP Retirement Benefits, compensation during the member's DROP participation period shall be disregarded in calculating the member's AFC.

(D) **Discontinuation of DROP Participation:**

(1) If a member terminates service anytime during or at the end of the three year DROP period, participation in the DROP ends automatically.

(2) A member may elect to end participation in the DROP on either the first or second anniversary of the DROP participation start date. The election must be made by filing an application with the System not less than 30 days nor more than 90 days prior to the first or second anniversary of the member's DROP start date.

(3) A member who continues employment after terminating participation in the DROP shall resume earning service credit in the F&P.

(4) Once a member terminates participation in the DROP, the member cannot again participate in the DROP at a later date.

(5) If a member retires at the end of the DROP participation period, begins receiving DROP retirement benefits, and is then reemployed in a position covered by the F&P or any Baltimore City sponsored retirement system, all DROP retirement benefit payments will be suspended until the member's later retirement.

(E) **DROP Account:** The member's DROP account shall consist of:

(1) For each full year of a member's DROP participation, an amount equal to the maximum annual service retirement allowance the member would have received had the member retired from service and began receiving the maximum retirement allowance;

(2) For each partial year of a member's DROP participation, an amount equal to a member's pro-rated maximum annual service retirement allowance;

(3) A separate sub-account consisting of the member's regular mandatory contributions made during the member’s DROP participation period; and

(4) Interest compounded annually at 8.25% until the member terminates from service.

(F) **DROP Retirement Benefit:**

(1) BASIC DROP:

A member who terminates service during or at the conclusion of the DROP participation period will receive:

(a) the service retirement benefit the member would have received if the member had retired on the date the DROP participation began; and

(b) the balance in the member's DROP account.

(2) INTERMEDIATE DROP:

A member who continues working following the conclusion of the DROP participation period and terminates service within 18 months following the DROP participation period will receive:

(a) all benefits under the Basic DROP Benefit; plus

(b) 2.0% of the member’s AFC, calculated as of the member’s date of termination from employment covered by this System, for each year of service credit, prorated for partial years, earned by employment following the DROP participation period (taking into account the member's annual compensation while in DROP), not to exceed 18 months; plus

(c) a recovery rate of 1.5% of the member’s AFC, calculated as of the member’s date of termination from employment covered by this System, for each year of service credit, prorated for partial years, earned by employment following the DROP participation period (taking into account the member's annual compensation while in DROP), not to exceed 18 months, but limited to a “recovery” of 2.0% if the member discontinued participation in DROP after 1 year or limited to a “recovery” of less than 2.25% if the member discontinued participation in DROP after 2 years; plus

(d) 2.0% of the member's AFC, calculated as of the member’s termination date from employment covered by this System, for each year of service not already included in the calculation of the member's retirement benefit under (a) and (b).

(3) FULL DROP:

A member who continues working following the conclusion of the DROP participation period and terminates service 18 or more months following the DROP participation period will receive:

(a) an annuity of the actuarial equivalent of the member's accumulated contributions and interest; plus

(b) a pension, which together with the annuity, shall be equal to 2.5% of the member’s AFC, calculated as of the member’s date of termination from employment covered by this System for each of the first 20 years of service; plus

(c) 2.0% of the member’s AFC, calculated as of the member’s date of termination from employment covered by this System for each year of service in excess of 20 years; plus

(d) a recovery rate of 1.5% of the member’s AFC, calculated as of the member’s date of termination from employment covered by this System, for each year of service credit, prorated for partial years, earned by employment following the DROP participation period, not to exceed 4 years, but limited to a “recovery” of 2.0% if the member discontinued participation in DROP at 1 year or limited to a “recovery” of 4.0% if the member discontinued participation in DROP at 2 years; plus

(e) the balance in the member's DROP account.

(G) **Non-Line-of-Duty Disability:**

(1) any member who retires on account of a non-line-of-duty disability during or at the end of the DROP participation period will receive the Basic DROP Retirement Benefit.

(2) any member who retires on account of a non-line-of-duty disability within 18 months following the DROP participation period will receive the Intermediate DROP Retirement Benefit.

(3) any member who retires on account of a non-line-of-duty disability 18 or more months following the DROP participation period will receive the Full DROP Retirement Benefit.

(H) **Line-of-Duty Disability**:

Any member who retires on account of a line-of-duty disability during or following the DROP participation period will receive the line-of-duty disability retirement benefit consisting of: an annuity of the member's accumulated contributions and interest, plus 66.667% of current AFC. This benefit will be paid instead of any DROP retirement benefits and the member will not receive the balance in the DROP account.

(I) **Non-Line-of-Duty Death:**

Due to the non-line-of-duty death of a member who dies during or following the DROP participation period, the beneficiary will receive the non-line-of-duty death benefit according to the DROP provisions. The member's DROP account is payable according to the form of the non-line-of-duty death benefit as follows:

(1) Lump-sum benefit: The beneficiary of a deceased DROP participant will receive the balance of the deceased member's DROP account in a lump sum payment.

(2) 25% plus benefit: The beneficiary can elect to receive the balance of the deceased member's DROP account in a lump sum payment or in periodic payments.

(3) 100% survivorship benefit: The beneficiary can elect to receive the balance of the deceased member's DROP account in a lump sum payment or in periodic payments.

(J) **Line-of-Duty Death:**

The line-of-duty death benefit payable due to the death of a member who dies during or following the DROP participation period will equal either of the following as elected by the member's beneficiary:

(1) the non-line-of-duty death benefit including DROP benefits as described above; or

(2) the line-of-duty death benefit payable as though the member had never participated in the DROP.

(K) **Benefits for Reemployed DROP Participants:**

(1) if a member receiving DROP retirement benefits is reemployed in a position covered by the F&P, the member's DROP retirement benefits shall be suspended. When the member later retires again on a service or non-line-of-duty disability retirement, the member will resume receiving the DROP benefits which had been suspended at the time of reemployment, plus, the member will receive 2.0% (prorated for partial years) of the member's current AFC for each year of service credit earned during the reemployment period.

(2) if a member receiving DROP retirement benefits is reemployed in a position covered by the F&P, and then dies during the reemployment period, beneficiary eligibility for either non-line-of-duty death benefits or line-of-duty death benefits will be determined according to the DROP provisions.

(3) if a member receiving DROP retirement benefits is reemployed in a position covered by another Baltimore City sponsored retirement system, the member's DROP retirement benefits shall be suspended. When the member later retires again, the member will resume receiving the DROP retirement benefits which had been suspended at the time of reemployment,

(L) **DROP Post-Retirement Benefit Increases:**

(1) A member who retires during or at the end of the DROP participation period will have that DROP participation period credited toward the eligibility requirement for post-retirement benefit increases.

(2) A member who continues working following the DROP participation period will not have that DROP participation period credited toward the eligibility requirement for post-retirement benefit increases.

(3) Post-retirement benefit increases for former DROP participants are applied prospectively.

(M) **Form of Payment of Benefits from DROP Account:**

A member (or a beneficiary after the death of the member in service) can choose to receive the total balance of the DROP account as:

(1) One lump sum which can be:

(a) rolled over to an IRA or similar account; or
(b) taken in pocket; or

(2) Periodic payments in the same form as the retirement benefit.

14. **DEFERRED RETIREMENT OPTION PLAN 2 (DROP 2):**

DROP 2 became effective January 1, 2010. A member who is a DROP participant or who is entitled to DROP benefits is not entitled to DROP 2 participation or DROP 2 benefits. DROP 2 provisions differ for fire department and police department personnel.

(A) **Eligibility:**

(1) For members who entered the System on or before June 30, 2003, a member must acquire 20 or more years of service regardless of age.

(2) For members who entered the System on or after July 1, 2003, and on or before December 31, 2009, a member must acquire 20 or more years of service with at least 10 years of service as a contributing member of this System, regardless of age.

(3) For members who entered the System on or after January 1, 2010, a member must acquire 20 or more consecutive years of service credit through City employment and as a contributing member of the System, regardless of age.

(4) Effective July 1, 2010, members who had 15 or more years of service as of June 30, 2010, must acquire 20 or more years of service, and members who had less than 15 years of service as of June 30, 2010, must acquire 25 or more years of service as a contributing member of this System.

(5) For members who entered the System on or after July 1, 2010, a member must acquire 25 or more years of service credit as a contributing member of the System, regardless of age.

(6) An application must be filed not less than 30 days nor more than 90 days prior to the date the DROP 2 participation will begin.

(7) A member who terminates employment immediately becomes ineligible to participate or to continue to participate in the DROP 2.

(B) **Term of DROP 2:**

The maximum period of time that a member can participate in the DROP 2 is a single term of three consecutive years beginning on the member's DROP 2 start date.

A member must remain in DROP 2 for a minimum of 1 year to be eligible for DROP 2 benefits.

(C) **No Service Credit While in DROP 2:**

A DROP 2 participant remains a member of the F&P but is not credited with F&P service.

Except for Mid DROP 2 retirement benefits, compensation during the member's DROP 2 participation period shall be disregarded in calculating the member's AFC.

(D) **Discontinuation of DROP 2 Participation:**

(1) If a member terminates service anytime during or at the end of the three year DROP 2 period, participation in the DROP 2 ends automatically.

(2) A member may elect to end participation in the DROP 2 on either the first or second anniversary of the DROP 2 participation start date. The election must be made by filing an application with the System not less than 30 days nor more than 90 days prior to the first or second anniversary of the member's DROP 2 start date.

(3) A member who continues employment after terminating participation in the DROP 2 shall resume earning service credit in the F&P.

(4) Once a member terminates participation in the DROP 2, the member cannot again participate in the DROP 2 at a later date.

(5) If a member retires at the end of the DROP 2 participation period, begins receiving DROP 2 retirement benefits, and is then reemployed in a position covered by the F&P or any Baltimore City sponsored retirement system, all DROP 2 retirement benefit payments will be suspended until the member's later retirement.

(E) **DROP 2 Account:** The member's DROP 2 account shall consist of:

(1) For each full year of a member's DROP 2 participation, an amount equal to the maximum annual service retirement allowance the member would have received had the member retired from service and began receiving the maximum retirement allowance;

(2) For each month of a member's DROP 2 participation, an amount equal to one-twelfth of a member's maximum annual service retirement allowance;

(3) For each day not included in (1) or (2), an amount equal to 1/365 of the member’s maximum annual service retirement allowance;

(4) Documentation requirements must be met prior to the member’s DROP 2 start date for inclusion of pre-employment military service credit in the DROP 2 benefit calculation.

(5) A separate sub-account consisting of the member's regular mandatory contributions made during the member’s DROP 2 participation period; and

(6) Interest compounded annually at 5.50% until the member terminates from service. Effective July 1, 2010, for members who had fewer than 15 years of service as of June 30, 2010, interest is compounded annually at 3.0% until the member terminates from service.

(F) **DROP 2 Retirement Benefit - FIRE DEPARTMENT MEMBERS:**

(1) EARLY DROP 2:

A member must complete a minimum of 1 year of DROP 2 participation to be eligible for Early DROP 2 benefits. A member who terminates service during year 2 or year 3 or at the conclusion of the DROP 2 participation period will receive:

(a) the following percentages of the member's AFC calculated as of the day before the member's DROP 2 start date:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service in excess of 20 years, prorated for partial years, prior to the member's DROP 2 start date; no service credit is earned during the member's DROP 2 participation period; plus

(b) the balance in the member's DROP 2 account.

(2) MID DROP 2:

A member who continues working, resumes earning service credit for employment covered by this System following the conclusion of the member's DROP 2 participation period, and terminates service anytime within 5 years following the member's DROP 2 participation period will receive:

(a) the following percentages of the member's AFC calculated as of the day before the member's DROP 2 start date:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service in excess of 20 years, prorated for partial years, prior to the member's DROP 2 start date, plus
(iii) 2.0% for each full year of service, prorated for partial years, purchased during or following the member's DROP 2 participation period, if any; no service credit is earned during the member's DROP 2 participation period; plus

(b) the following percentages of the member's AFC calculated as of the member's termination date from employment covered by this System:

(i) 2.0% for each full year of service, prorated for partial years, for up to 5 years of employment as a contributing member of this System following the member's DROP 2 participation period; no service credit is earned during the member's DROP 2 participation period, plus
(ii) A recovery rate of 1.5% for each of the first four years of employment covered by this System immediately following the member's DROP 2 participation period, subject to the following limitations:

1. if the member discontinued DROP 2 participation at 1 year, the recovery rate is limited to 2.0%.

2. if the member discontinued DROP 2 participation at 2 years, the recovery rate is limited to 4.0%.

plus,

(c) the balance in the member's DROP 2 account.

(3) COMPLETE DROP 2:

A member who continues working, resumes earning service credit for employment covered by this System following the conclusion of the member's DROP 2 participation period, and terminates service 5 or more years following the DROP 2 participation period will receive:

(a) the following percentages of the member's AFC calculated as of the member's termination date from employment covered by this System:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service, prorated for partial years, for service in excess of 20 years, excluding employment covered by this System during the member's DROP 2 participation period, plus
(iii) A recovery rate of 1.5% for each of the first four years of employment covered by this System immediately following the member's DROP 2 participation period, subject to the following limitations:

1. if the member discontinued DROP 2 participation at 1 year, the recovery rate is limited to 2.0%.

2. if the member discontinued DROP 2 participation at 2 years, the recovery rate is limited to 4.0%.

plus,

(b) the balance in the member's DROP 2 account.

(G) **DROP 2 Retirement Benefit – POLICE DEPARTMENT MEMBERS:**

(1) EARLY DROP 2:

A member must complete a minimum of 1 year of DROP 2 participation to be eligible for Early DROP 2 benefits. A member who terminates service during year 2 or year 3 or at the conclusion of the DROP 2 participation period will receive:

(a) the following percentages of the member's AFC as of the day before the member's DROP 2 start date:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service in excess of 20 years, prorated for partial years, prior to the member's DROP 2 start date; no service credit is earned during the member's DROP 2 participation period; plus

(b) the balance in the member's DROP 2 account.

(2) MID DROP 2:

A member who continues working, resumes earning service credit for employment covered by this System following the conclusion of the member's DROP 2 participation period, and terminates service anytime within 3½ years following the DROP 2 participation period will receive:

(a) the following percentages of the member's AFC as of the day before the member's DROP 2 start date:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service in excess of 20 years, prorated for partial years, prior to the member's DROP 2 start date, plus
(iii) 2.0% for each full year of service, prorated for partial years, purchased during or following the member's DROP 2 participation period, if any; no service credit is earned during the member's DROP 2 participation period; plus

(b) the following percentage of the member's AFC calculated as of the member's termination date from employment covered by this System:

2.0% for each full year of service, prorated for partial years, for up to 3½ years of employment as a contributing member of this System following the member's DROP 2 participation period; no service credit is earned during the member's DROP 2 participation period; and

(c) the balance in the member's DROP 2 account.

(3) COMPLETE DROP 2:

A member who continues working, resumes earning service credit for employment covered by this System following the conclusion of the member's DROP 2 participation period, and terminates service 3½ or more years following the DROP 2 participation period will receive:

(a) the following percentages of the member's AFC calculated as of the member's termination date from employment covered by this System:

(i) 2.5% for each of the first 20 years of service, plus
(ii) 2.0% for each full year of service, prorated for partial years, for service in excess of 20 years excluding employment covered by this System during the member's DROP 2 participation period; plus

(b) the balance in the member's DROP 2 account.

(H) **Non-Line-of-Duty Disability:**

(1) the member must complete a minimum of 1 year of the DROP 2 participation period to be eligible for any DROP 2 benefits.

(2) any member who retires prior to the first anniversary of the member's DROP 2 start date is not entitled to any benefits under DROP 2. The benefit will be calculated as though the member had never participated in DROP 2.

(3) any member who retires on account of a non-line-of-duty disability during or at the end of the DROP 2 participation period will receive the Early DROP 2 retirement benefit.

(4) any Fire department member who retires within 5 years following the end of the DROP 2 participation period or any Police department member who retires within 3½ years following the end of the DROP 2 participation period on account of a non-line-of-duty disability will receive the Mid DROP 2 Retirement Benefit.

(5) any Fire department member who retires with 5 or more years following the end of the DROP 2 participation period or any Police department member who retires with 3½ or more years following the end

of the DROP 2 participation period on account of a non-line-of-duty disability will receive the Complete DROP 2 Retirement Benefit.

(I) **Line-of-Duty Disability:**

Any member who retires on account of a line-of-duty disability during or following the DROP 2 participation period will receive the line-of-duty disability retirement benefit consisting of: an annuity of the member's accumulated contributions and interest, plus 66.667% of current AFC. This benefit will be paid instead of any DROP 2 retirement benefits and the member will not receive the balance in the DROP 2 account.

(J) **Non-Line-of-Duty Death:**

Due to the non-line-of-duty death of a member who dies after completing a minimum of one year of DROP 2 participation or following the DROP 2 participation period, the beneficiary will receive the non-line-of-duty death benefit according to the DROP 2 provisions. The member’s DROP 2 account is payable according to the form of the non-line-of-duty death benefit as follows:

(1) Lump-sum benefit: The beneficiary of a deceased DROP 2 participant will receive the balance of the deceased member’s DROP 2 account in a lump sum payment.

(2) 25% plus benefit: The beneficiary can elect to receive the balance of the deceased member’s DROP 2 account in a lump sum or in periodic payments.

(3) 100% survivorship benefit: The beneficiary can elect to receive the balance of the deceased member’s DROP 2 account in a lump sum payment or in periodic payments.

If the member dies within the first year of the DROP 2 participation period, the benefit will be calculated as though the member had never participated in DROP 2.

(K) **Line-of-Duty Death:**

The line-of-duty death benefit payable due to the death of a member who dies after completing a minimum of one year of DROP 2 participation or following the DROP 2 participation period will equal either of the following as elected by the member's beneficiary:

(1) the non-line-of-duty death benefit including DROP 2 benefits as described above; or

(2) the line-of-duty death benefit payable as though the member had never participated in the DROP 2.

If the member dies within the first year of the DROP 2 participation period, the benefit will be calculated as though the member had never participated in DROP 2.

(L) **Benefits for Reemployed DROP 2 Participants:**

(1) if a member receiving DROP 2 retirement benefits is reemployed in a position covered by the F&P, the member’s DROP 2 retirement benefits shall be suspended. When the member later retires again on a service or non-line-of-duty disability retirement, the member will resume receiving the DROP 2 benefits which had been suspended at the time of reemployment, plus, the member will receive 2.0% (prorated for partial years) of the member's current AFC for each year of service credit earned during the reemployment period.

(2) if a member receiving DROP 2 retirement benefits is reemployed in a position covered by the F&P, and then

dies during the reemployment period, beneficiary eligibility for either non-line-of-duty death benefits or line-of-duty death benefits will be determined according to the DROP 2 provisions.

(3) if a member receiving DROP 2 retirement benefits is reemployed in a position covered by another Baltimore City sponsored retirement system, the member's DROP 2 retirement benefits shall be suspended. When the member later retires again, the member will resume receiving the DROP 2 retirement benefits which had been suspended at the time of reemployment,

(M) **Pre-employment Military Service Credit for DROP 2 Participants:**

A member may receive up to 3 years of membership service credit for military service prior to employment with the City of Baltimore if the requirements are met according to the plan provisions. Credit for pre-employment military service may be used in the calculation of the member's maximum service retirement benefit credited to the member's DROP 2 account.

The member must apply and provide the F&P proper and complete documentation of pre-employment military service prior to the member's DROP 2 participation start date in order for the pre-employment military service to be used in the calculation of the members DROP 2 benefit credited to the DROP 2 account.

If the member fails to properly apply and provide the F&P with complete documentation of pre-employment military service prior to the member's DROP 2 participation start date, the pre-employment military service credit will not be included in the calculation of the member's maximum service retirement benefit that is credited to the member's DROP 2 account.

(N) **Form of Payment of Benefits from DROP 2 Account:**

A member (or an eligible beneficiary after the death of the member in service) can choose to receive the total balance of the DROP 2 account as:

(1) One lump sum which can be:

(a) rolled over to an IRA or similar account; or
(b) taken in pocket; or

(2) Periodic payments in the same form as the retirement benefit.

15. **POST-RETIREMENT BENEFIT INCREASES:**

Effective June 30, 2010, post-retirement benefit increases are fixed rather than based on investment performance. Retirees and beneficiaries who have been receiving periodic benefit payments for two or more years as of the June 30 determination date may be eligible for such an increase. An exception exists for DROP participants who retire during or at the end of their DROP participation period. Basic DROP retirees will have their DROP participation period credited toward the eligibility requirements for post-retirement benefit increases. The increase is payable commencing in the January following the June 30 determination date.

The amount and eligibility of the post-retirement benefit increase is as follows:

(1) Eligible retirees (or their beneficiaries) who have not attained age 55 as of the June 30 determination date will not receive an increase payable the following January.

(2) Eligible retirees (or their beneficiaries) who have attained age 55 but have not attained age 65 and have been retired

for two or more years as of the June 30 determination date will receive a 1.0% increase payable the following January. This increase was first payable in January 2012.

(3) Eligible retirees (or their beneficiaries) who have attained age 65 and have been retired for two or more years as of June 30 determination date will receive a 2.0% increase payable the following January. This increase was first payable in January 2011.

(4) Eligible retirees (or their beneficiaries) who are receiving a 100% line-of-duty disability regardless of age and have been retired for two or more years as of the June 30 determination date will receive a 2.0% increase payable the following January. This increase was first payable in January 2011.

16. **MINIMUM BENEFIT FOR CERTAIN SPOUSAL BENEFICIARIES**

Effective July 1, 2010, a minimum annual benefit of $16,000 is provided to the spousal beneficiary of a sworn member who, before August 1, 1996, retired or died in service with 20 or more years of service.

Effective January 1, 2012, a minimum annual benefit of $16,000 is provided to the spousal beneficiary of a sworn member who, prior to August 1, 1996, retired on account of line-of-duty disability with less than 20 years of service.

17. **BENEFIT PAYMENTS**

Effective January 1, 2016:

A.	**Monthly Payments:**	All retirement allowances or other benefits paid by this System shall be paid monthly rather than bi-weekly.
B.	**Retirement Allowances:**	Service retirements for all members and beneficiaries of this System take effect on the 1st day of a calendar month and shall be paid on the 15th day of that calendar month.
C.	**Death and Survivorship Benefits:** `	(1) Death and survivorship benefits for beneficiaries take effect on the 1st day of the calendar month following the month in which the member dies and shall be paid on the 15th day of that calendar month. (2) For the calendar month in which the death of a retired member or beneficiary occurs, this System shall owe and pay the entire monthly allowance due to a retired member or beneficiary.

18. **ELECTRONIC PAYMENTS**

Effective January 1, 2020, all benefit payments are required to be paid electronically through direct deposit.

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STATISTICAL SECTION

STATISTICAL SECTION NARRATIVE

The Statistical Section of this Comprehensive Annual Financial Report presents information to add historical perspective, context, and detail to the financial statements, notes to financial statements, and required supplementary information presented in the preceding sections. To provide historical perspective and a sense of trends, most exhibits in this Section are presented in multiple-year formats. The information is categorized into two topical groups: Financial Trends and Demographic and Economic Information.

Financial Trends

These schedules contain trend information to help the reader understand how the F&P's financial performance has changed over time.

Statement of Changes in Fiduciary Net Position - Fiscal Years 2012 - 2021
Revenues by Source - Fiscal Years 2012 - 2021
Expenses by Type - Fiscal Years 2012 - 2021
Benefit Expenses by Type - Fiscal Years 2012 - 2021
Average Monthly Service Retirement Benefit Payments - Fiscal Years 2012 - 2021

Demographic and Economic Information

These schedules offer demographic indicators to help the reader understand trends in F&P membership.

Active Members by Years of Service - Fiscal Years 2012 – 2021
Active Members and Active DROP / DROP 2 Members by Years of Service and Department
Active DROP / DROP 2 Members by Fiscal Year of DROP / DROP 2 Entry and Department – Fiscal Years 1997 – 2021
Retirees and Beneficiaries by Attained Age and Type of Retirement
DROP / DROP 2 Retirees and DROP / DROP 2 Beneficiaries by Attained Age and Type of Retirement

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
CHANGES IN FIDUCIARY NET POSITION

	2012	2013	2014	2015	2016
Additions					
Net investment income (loss)	$ 80,339,513	$ 200,073,582	$ 313,953,904	$ 53,442,809	$ 2,533,389
Employer contributions	107,488,403	107,778,859	113,843,250	119,020,291	121,115,085
Member contributions	22,866,939	25,381,635	28,265,556	30,341,796	30,549,801
Net securities lending income	594,933	463,706	495,366	459,490	469,337
Total Additions	211,289,788	333,697,782	456,558,076	203,264,386	154,667,612
Deductions					
Retirement allowances	193,082,852	198,640,360	205,591,968	210,318,274	217,821,498
Lump sum DROP payments	10,816,700	13,625,797	12,373,388	11,477,573	17,062,244
Administrative expenses	3,672,958	3,568,855	3,907,539	4,297,773	4,407,296
Refunds of member contributions	1,309,010	2,393,838	3,129,650	2,796,110	3,094,838
Death benefits	385,167	163,838	344,230	342,353	863,933
Total Deductions	209,266,687	218,392,688	225,346,775	229,232,083	243,249,809
Net Increase (Decrease)	$ 2,023,101	$ 115,305,094	$ 231,211,301	$ (25,967,697)	$ (88,582,197)

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
CHANGES IN FIDUCIARY NET POSITION (Concluded)

	2017	2018	2019	2020	2021
Additions					
Net investment income (loss)	$ 273,800,787	$ 211,182,141	$ 147,653,214	$ (15,374,965)	$ 773,849,131
Employer contributions	129,688,977	137,738,323	141,325,667	146,795,520	151,088,173
Member contributions	29,901,791	31,285,881	30,710,887	31,353,065	31,656,700
Net securities lending income	586,818	485,802	406,155	300,068	310,735
Total Additions	433,978,373	380,692,147	320,095,923	163,073,688	956,904,739
Deductions					
Retirement allowances	223,772,460	228,774,485	234,078,058	240,918,629	248,221,929
Lump sum DROP payments	17,790,724	14,429,983	17,853,224	18,399,435	16,749,254
Administrative expenses	4,328,135	4,984,228	5,144,352	4,967,444	4,927,777
Refunds of member contributions	3,069,464	3,542,713	3,777,811	3,291,482	3,444,357
Death benefits	447,433	223,384	287,111	295,728	188,046
Total Deductions	249,408,216	251,954,793	261,140,556	267,872,718	273,531,363
Net Increase (Decrease)	$ 184,570,157	$ 128,737,354	$ 58,955,367	$ (104,799,030)	$ 683,373,376

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
REVENUES BY SOURCE

Fiscal Year	Net Investment Income	Employer Contributions		Member Contributions	Total
		Amount	% of Covered Payroll		
2012	80,934,446	107,488,403	37.8	22,866,939	211,289,788
2013	200,537,288	107,778,859	38.8	25,381,635	333,697,782
2014	314,449,270	113,843,250	40.1	28,265,556	456,558,076
2015	53,902,299	119,020,291	39.9	30,341,796	203,264,386
2016	3,002,726	121,115,085	40.3	30,549,801	154,667,612
2017	274,387,605	129,688,977	43.8	29,901,791	433,978,373
2018	211,667,943	137,738,323	42.6	31,285,881	380,692,147
2019	148,059,369	141,325,667	43.8	30,710,887	320,095,923
2020	(15,074,897)	146,795,520	44.9	31,353,065	163,073,688
2021	774,159,866	151,088,173	45.7	31,656,700	956,904,739

Notes: Employer contributions were made in accordance with actuarially determined contribution requirements.

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
EXPENSES BY TYPE

Fiscal Year	Retirement Benefits	DROP Payments	Refunds	Administrative Expenses	Total
2012	193,468,019	10,816,700	1,309,010	3,672,958	209,266,687
2013	198,804,198	13,625,797	2,393,838	3,568,855	218,392,688
2014	205,936,198	12,373,388	3,129,650	3,907,539	225,346,775
2015	210,660,627	11,477,573	2,796,110	4,297,773	229,232,083
2016	218,685,431	17,062,244	3,094,838	4,407,296	243,249,809
2017	224,219,893	17,790,724	3,069,464	4,328,135	249,408,216
2018	228,997,869	14,429,983	3,542,713	4,984,228	251,954,793
2019	234,365,169	17,853,224	3,777,811	5,144,352	261,140,556
2020	241,214,357	18,399,435	3,291,482	4,967,444	267,872,718
2021	248,409,975	16,749,254	3,444,357	4,927,777	273,531,363

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
BENEFIT EXPENSES BY TYPE

						Disability Benefits			
Year	Age and Service Benefits		Death Benefits			Retirees			
Ending	Retirees	Beneficiaries	Duty	Non-Duty	Lump Sum	Duty	Non-Duty	Beneficiaries	Total
2012	147,421,816	13,916,530	3,010,331	3,269,163	385,167	24,626,399	5,192,927	6,462,386	204,284,719
2013	154,203,276	14,539,747	2,972,662	3,238,196	163,838	25,229,266	5,136,984	6,946,026	212,429,995
2014	158,233,244	15,372,751	2,908,705	3,229,061	344,230	25,992,206	5,061,399	7,167,990	218,309,586
2015	160,757,738	16,006,666	2,870,887	3,289,067	342,353	26,604,387	5,025,575	7,241,527	222,138,200
2016	173,404,322	16,629,410	2,893,842	3,202,861	863,933	26,937,043	4,895,300	6,920,964	235,747,675
2017	179,232,723	17,497,593	2,880,489	3,188,438	447,433	27,142,330	4,986,095	6,635,516	242,010,617
2018	182,298,749	16,130,843	2,775,501	3,201,695	223,384	27,518,518	4,822,082	6,457,080	243,427,852
2019	192,170,222	17,130,326	2,644,852	3,078,499	287,111	27,943,706	4,717,351	4,246,327	252,218,393
2020	196,244,629	17,507,523	2,728,263	3,209,574	295,728	28,369,051	4,859,807	6,399,219	259,613,793
2021	199,414,253	20,502,773	2,631,877	3,231,586	188,046	28,144,338	4,633,006	6,413,349	265,159,229

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
AVERAGE MONTHLY SERVICE RETIREMENT BENEFIT PAYMENTS

Retirement Effective Dates	Years of Credited Service				
From July 1, 2011 to June 30, 2021	<15	16-20	21-25	26-30	31+
Period 7/1/11 to 6/30/12					
Average Monthly Benefit	3,029	3,035	3,417	4,358	5,188
Average-Average Final Compensation	61,530	69,233	70,981	72,658	75,409
Number of Active Retirees	9	36	33	23	14
Period 7/1/12 to 6/30/13					
Average Monthly Benefit	3,011	2,922	3,582	4,762	5,222
Average-Average Final Compensation	58,539	65,438	71,752	76,472	69,186
Number of Active Retirees	19	44	72	36	16
Period 7/1/13 to 6/30/14					
Average Monthly Benefit	2,905	3,086	3,724	4,557	5,275
Average-Average Final Compensation	59,037	71,445	74,337	74,437	76,000
Number of Active Retirees	21	49	60	20	10
Period 7/1/14 to 6/30/15					
Average Monthly Benefit	3,523	3,282	3,587	5,043	6,311
Average-Average Final Compensation	63,971	73,791	75,700	78,764	82,728
Number of Active Retirees	11	43	58	16	14
Period 7/1/15 to 6/30/16					
Average Monthly Benefit	3,284	3,169	3,918	5,180	6,689
Average-Average Final Compensation	64,087	74,099	81,477	84,253	92,377
Number of Active Retirees	7	21	66	26	23

Fire and Police Employees' Retirement System
City of Baltimore, Maryland

AVERAGE MONTHLY SERVICE RETIREMENT BENEFIT PAYMENTS (Concluded)

	Years of Credited Service				
	≤15	16-20	21-25	26-30	31+
Period 7/1/16 to 6/30/17					
Average Monthly Benefit	2,954	3,030	3,880	6,135	6,673
Average-Average Final Compensation	67,871	80,918	82,361	93,180	91,393
Number of Active Retirees	23	33	44	31	27
Period 7/1/17 to 6/30/18					
Average Monthly Benefit	3,728	4,799	4,232	4,104	4,752
Average-Average Final Compensation	78,047	88,930	84,308	86,400	90,005
Number of Active Retirees	16	20	59	30	10
Period 7/1/18 to 6/30/19					
Average Monthly Benefit	3,810	3,744	3,990	5,874	6,604
Average-Average Final Compensation	72,581	79,454	88,272	99,545	93,882
Number of Active Retirees	13	13	73	43	17
Period 7/1/19 to 6/30/20					
Average Monthly Benefit	2,504	3,828	4,478	5,716	7,268
Average-Average Final Compensation	73,875	89,317	95,596	97,611	101,534
Number of Active Retirees	12	15	68	34	22
Period 7/1/20 to 6/30/21					
Average Monthly Benefit	3,771	3,094	5,091	5,359	6,814
Average-Average Final Compensation	74,528	87,564	98,156	93,892	95,196
Number of Active Retirees	8	23	74	27	26
Period 7/1/11 to 6/30/21					
Average Monthly Benefit	3,198	3,264	3,961	5,186	6,302
Average-Average Final Compensation	66,864	75,546	82,802	87,338	88,704
Number of Active Retirees	139	297	607	286	179

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ACTIVE MEMBERS BY YEARS OF SERVICE

Years of Credited Service	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0-4	987	824	787	801	640	670	802	817	814	817
5-9	982	997	934	883	854	689	573	571	573	502
10-14	770	791	765	739	742	821	832	777	717	681
15-19	853	763	686	651	688	693	709	678	647	657
20-24	504	575	668	633	650	625	569	554	542	574
25-29	313	294	275	334	313	290	356	397	392	362
30+	215	195	202	207	207	224	208	189	242	246
Total Members	4,624	4,439	4,317	4,248	4,094	4,012	4,049	3,983	3,927	3,839
Average Service Credit	12.73	13.09	13.42	13.62	13.98	14.06	13.99	13.99	14.30	14.31
Average Age	39.23	39.62	39.94	40.24	40.69	40.95	41.02	41.14	41.26	41.38

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CURRENT ACTIVE MEMBERS BY YEARS OF SERVICE AND DEPARTMENT
SCHEDULE OF CURRENT ACTIVE DROP AND DROP 2 MEMBERS BY YEARS OF SERVICE AND DEPARTMENT
For the Year Ended June 30, 2021

Schedule of Current Active Members By Years of Service and Department

Years of Credited Service	Police Department	Fire Department	School Crossing Guards	Airport Employees	Total
0-4	598	219			817
5-9	351	151			502
10-14	382	299			681
15-19	347	310			657
20-24	379	195			574
25-29	248	114			362
30+	83	161	1	1	246
Total Members	2,388	1,449	1	1	3,839

Schedule of Current Active DROP Members By Years of Service and Department

Years of Credited Service	Police Department	Fire Department	School Crossing Guards	Airport Employees	Total
25-29					0
30+	35	78	1	1	115
Total DROP Members	35	78	1	1	115

Schedule of Current Active Grandfathered DROP 2 Members By Years of Service and Department

Years of Credited Service	Police Department	Fire Department	Total
20-24		3	3
25-29	133	64	197
30+	42	82	124
Total DROP 2 Members	175	149	324

Schedule of Current Active Non-Grandfathered DROP 2 Members By Years of Service and Department

Years of Credited Service	Police Department	Fire Department	Total
25-29	42	26	68
30+			
Total DROP 2 Members	42	26	68

SCHEDULE OF CURRENT ACTIVE DROP AND DROP 2 MEMBERS BY FISCAL YEAR OF DROP / DROP 2 ENTRY AND DEPARTMENT

Year of DROP Entry	Police Department	Fire Department	School Crossing Guards	Airport Employees	Total
7/1/96 - 6/30/97	2	5			7
7/1/97 - 6/30/98					0
7/1/98 - 6/30/99		1	1		2
7/1/99 - 6/30/00	2	1			3
7/1/00 - 6/30/01	2	3			5
7/1/01 - 6/30/02	4	3			7
7/1/02 - 6/30/03	4	7			11
7/1/03 - 6/30/04	4	3			7
7/1/04 - 6/30/05	1	5			6
7/1/05 - 6/30/06	5	8			13
7/1/06 - 6/30/07	3	9			12
7/1/07 - 6/30/08	4	19			23
7/1/08 - 6/30/09	3	6		1	10
7/1/09 - 6/30/10	1	7			8
7/1/10 - 6/30/11		1			1
Total DROP Members	35	78	1	1	115

Year of Grandfathered DROP 2 Entry	Police Department	Fire Department	Total
7/1/09 - 6/30/10	6	8	14
7/1/10 - 6/30/11	9	50	59
7/1/11 - 6/30/12	14	8	22
7/1/12 - 6/30/13	33	15	48
7/1/13 - 6/30/14	39	32	71
7/1/14 - 6/30/15	17	7	24
7/1/15 - 6/30/16	32	21	53
7/1/16 - 6/30/17	17		17
7/1/17 - 6/30/18	2	2	4
7/1/18 - 6/30/19	3	3	6
7/1/19 - 6/30/20	1	2	3
7/1/20 - 6/30/21	2	1	3
Total DROP 2 Members	175	149	324

Year of Non-Grandfathered DROP 2 Entry	Police Department	Fire Department	Total
7/1/17 - 6/30/18	2	4	6
7/1/18 - 6/30/19	13	4	17
7/1/19 - 6/30/20	4	3	7
7/1/20 - 6/30/21	23	15	38
Total DROP 2 Members	42	26	68

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF RETIREES BY ATTAINED AGE AND TYPE OF RETIREMENT
For the Year Ended June 30, 2021

		TYPE OF RETIREMENT*					
Age	Number of Recipients	0	1	2	3	4	9
Under 25							
25-29							
30-34	7				2	5	
35-39	27				5	22	
40-44	73	1	6	1	14	51	
45-49	256	103	38		23	92	
50-54	594	411	23	1	32	126	1
55-59	680	518	7	9	32	113	1
60-64	678	602	2	1	15	57	1
65-69	666	594	2	1	14	55	
70-74	781	708		1	18	54	
75-79	512	442			23	47	
80-84	322	264			18	40	
85-89	178	139			16	22	1
90 and up	71	53			5	13	
Totals	4,845	3,835	78	14	217	697	4
Average Annual Benefit	$44,931	$47,255	$39,289	$32,885	$21,534	$40,117	$77,250

*Type of Retirement
0 - Normal retirement for age and service
1 - Early Retirement
2 - Discontinued service
3 - Non-line-of-duty disability
4 - Line-of-duty disability
9 - Line-of-duty disability, 100% of compensation

Fire and Police Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF BENEFICIARIES BY ATTAINED AGE AND TYPE OF RETIREMENT
For the Year Ended June 30, 2021

Age	Number of Recipients	TYPE OF RETIREMENT* 0	1	3	4	6	7	8	9
Under 20	13	2		1	4		6		
20-24	3				1		1	1	
25-29	1	1							
30-34	1	0						1	
35-39	2	0			1		1		
40-44	11	2	2	2	2		2	1	
45-49	24	10	2		2		7	3	
50-54	57	42		2	4	3	2	4	
55-59	104	74		8	10	3	6	3	
60-64	125	96		3	15	6	3	2	
65-69	165	123		12	12	11	3	4	
70-74	227	162		9	24	10	12	10	
75-79	214	143	1	17	33	7	7	7	
80-84	220	129		28	45	8	4	4	1
85-89	200	116		29	42	7	3	3	
90 and up	148	85		17	36	4	1	5	
Totals	1,515	985	5	128	231	59	58	48	1
Average Annual Benefit	$21,694	$20,986	$14,818	$14,984	$19,162	$33,939	$21,447	$51,828	$42,852

*Type of Retirement
0 - Normal retirement for age and service
1 - Early Retirement
3 - Non-line-of-duty disability
4 - Line-of-duty disability
6 - Non-line-of-duty death, member eligible for service retirement at death
7 - Non-line-of-duty death with 25% of compensation
8 - Line-of-duty death
9 - Line-of-duty disability, 100% of compensation

SCHEDULE OF DROP RETIREES BY ATTAINED AGE AND TYPE OF RETIREMENT

SCHEDULE OF DROP BENEFICIARIES BY ATTAINED AGE AND TYPE OF RETIREMENT

For the Year Ended June 30, 2021

Schedule of DROP Retirees by Attained Age and Type of Retirement

		TYPE OF RETIREMENT*	
Age	Number of Recipients	0	4
40-44			
45-49			
50-54	91	91	
55-59	304	297	7
60-64	494	484	10
65-69	473	462	11
70-74	479	474	5
75-79	230	228	2
80-84	77	76	1
85+	12	12	
Totals	2,160	2,124	36
Average Annual Benefit	$52,737	$52,794	$49,357

Schedule of DROP Beneficiaries by Attained Age and Type of Retirement

		TYPE OF RETIREMENT*					
Age	Number of Recipients	0	1	4	6	7	8
40-44							
45-49	3	3					
50-54	17	16			1		
55-59	55	52		1	2		
60-64	73	69			3		1
65-69	83	75			7		1
70-74	74	63		2	5	1	3
75-79	47	45			2		
80-84	22	21	1				
85+	6	6					
Totals	380	350	1	3	20	1	5
Average Annual Benefit	$23,554	$21,721	$28,232	$21,668	$40,961	$29,399	$81,276

*Type of Retirement

0 - Normal retirement for age and service

1 - Early Retirement

4 - Line-of-duty disability: Member not eligible for DROP benefits

6 - Non-line-of-duty death, member eligible for service retirement at death

7 - Non-line-of-duty death with 25% of compensation

8 - Line-of-duty death: Beneficiary not eligible for DROP benefits

SCHEDULE OF DROP 2 RETIREES / BENEFICIARIES BY ATTAINED AGE AND TYPE OF RETIREMENT

For the Year Ended June 30, 2021

Schedule of DROP 2 Retirees by Attained Age and Type of Retirement

		TYPE OF RETIREMENT*			
Age	Number of Recipients	0	1	3	4
40-44	1	1			
45-49	46	46			
50-54	184	179	1	1	3
55-59	104	102			2
60-64	34	34			
65-69	19	19			
70-74	5	5			
75+					
Totals	393	386	1	1	5
Average Annual Benefit	$46,893	$46,931	$38,795	$30,469	$48,867

Schedule of DROP 2 Beneficiaries by Attained Age and Type of Retirement

		TYPE OF RETIREMENT*			
Age	Number of Recipients	0	4	6	7
< 20	1	1			
40-44	1	1			
45-49	6	4	1		1
50-54	12	10		2	
55-59	8	5		1	2
60-64	5	5			
65-69	1	1			
70-74					
75+					
Totals	34	27	1	3	3
Average Annual Benefit	$18,879	$13,805	$14,537	$44,449	$40,423

*Type of Retirement
0 - Normal retirement for age and service
1 - Early Retirment
3 - Non-line-of-duty disability
4 - Line-of-duty disability
6 - Non-line-of-duty death, member eligible for service retirement at death
7 - Non-line-of-duty death with 25% of compensation

FIRE & POLICE

EMPLOYEES' RETIREMENT SYSTEM
CITY OF BALTIMORE, MARYLAND






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