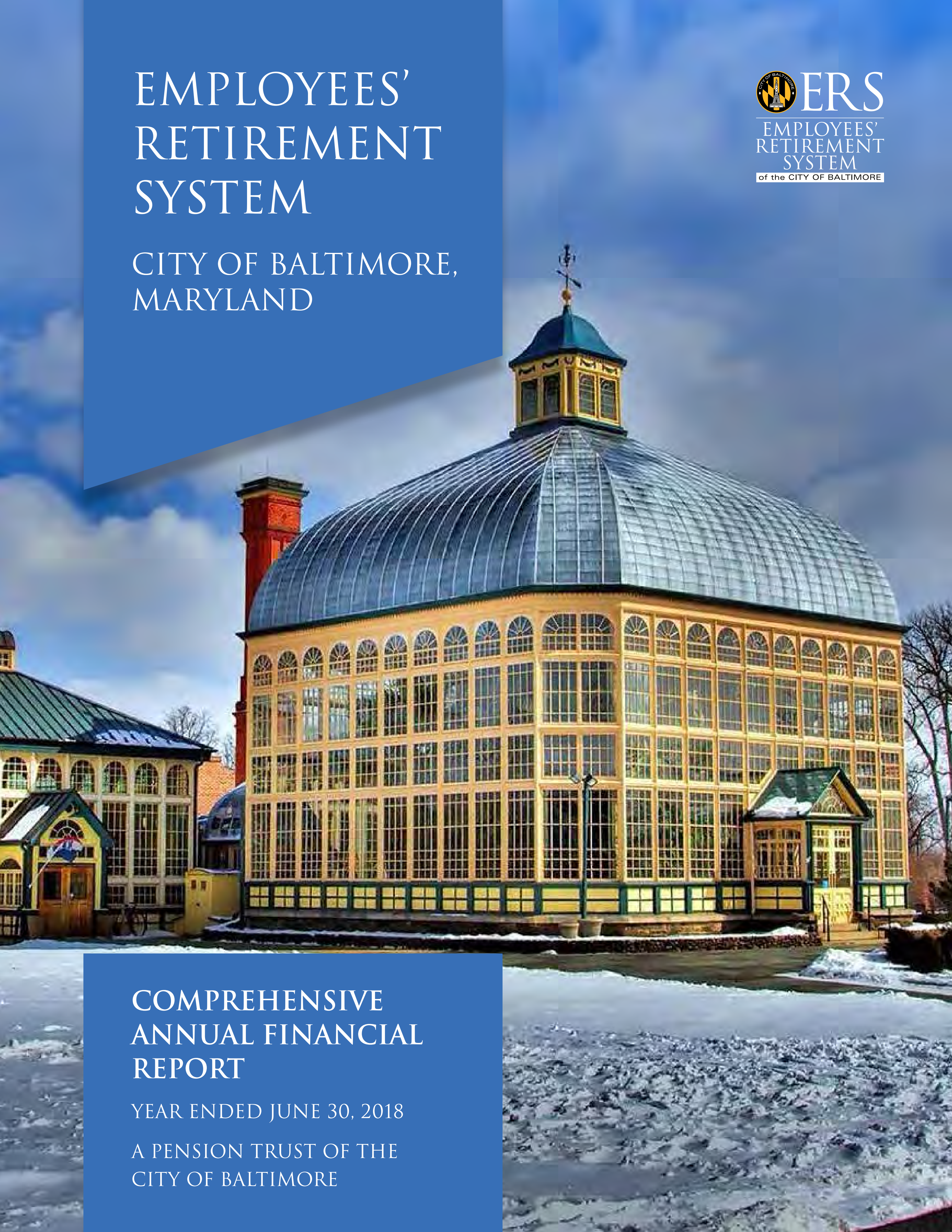
EMPLOYEES' RETIREMENT SYSTEM

CITY OF BALTIMORE, MARYLAND

EMPLOYEES' RETIREMENT SYSTEM of the CITY OF BALTIMORE



COMPREHENSIVE ANNUAL FINANCIAL REPORT

YEAR ENDED JUNE 30, 2018

A PENSION TRUST OF THE CITY OF BALTIMORE

EMPLOYEES' RETIREMENT SYSTEM

CITY OF BALTIMORE, MARYLAND

COMPREHENSIVE ANNUAL FINANCIAL REPORT

YEAR ENDED JUNE 30, 2018

A PENSION TRUST OF THE CITY OF BALTIMORE

ERS
EMPLOYEES' RETIREMENT SYSTEM
of the CITY OF BALTIMORE

PREPARED BY

DAVID A. RANDALL
ACTING EXECUTIVE DIRECTOR

ADETUTU TALABI
ACCOUNTING MANAGER

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Employees' Retirement System

Mission Statement

The System is committed to protecting and prudently investing member assets and providing accurate and timely retirement benefits with quality service to members and beneficiaries.

Standards of Conduct

As Trustees and Staff, we are committed to:

Safeguard the members' assets.

Strive for continuous improvement.

Maintain confidentiality as appropriate.

Effectively communicate accurate information.

Provide accountable and proactive leadership.

Conduct all business in a fair and respectful manner.

Foster an atmosphere of cooperation and teamwork.

Value members as clients and advocate on their behalf.

Comply with the System's plan provisions, policies and guidelines.

Work efficiently, simplify procedures, and minimize bureaucratic hurdles.

Form alliances and partnerships to benefit the membership and the System.

We expect all who interact with us to adhere to these standards of conduct.

Approved by the Board of Trustees February 12, 2002

Employees' Retirement System
City of Baltimore, Maryland
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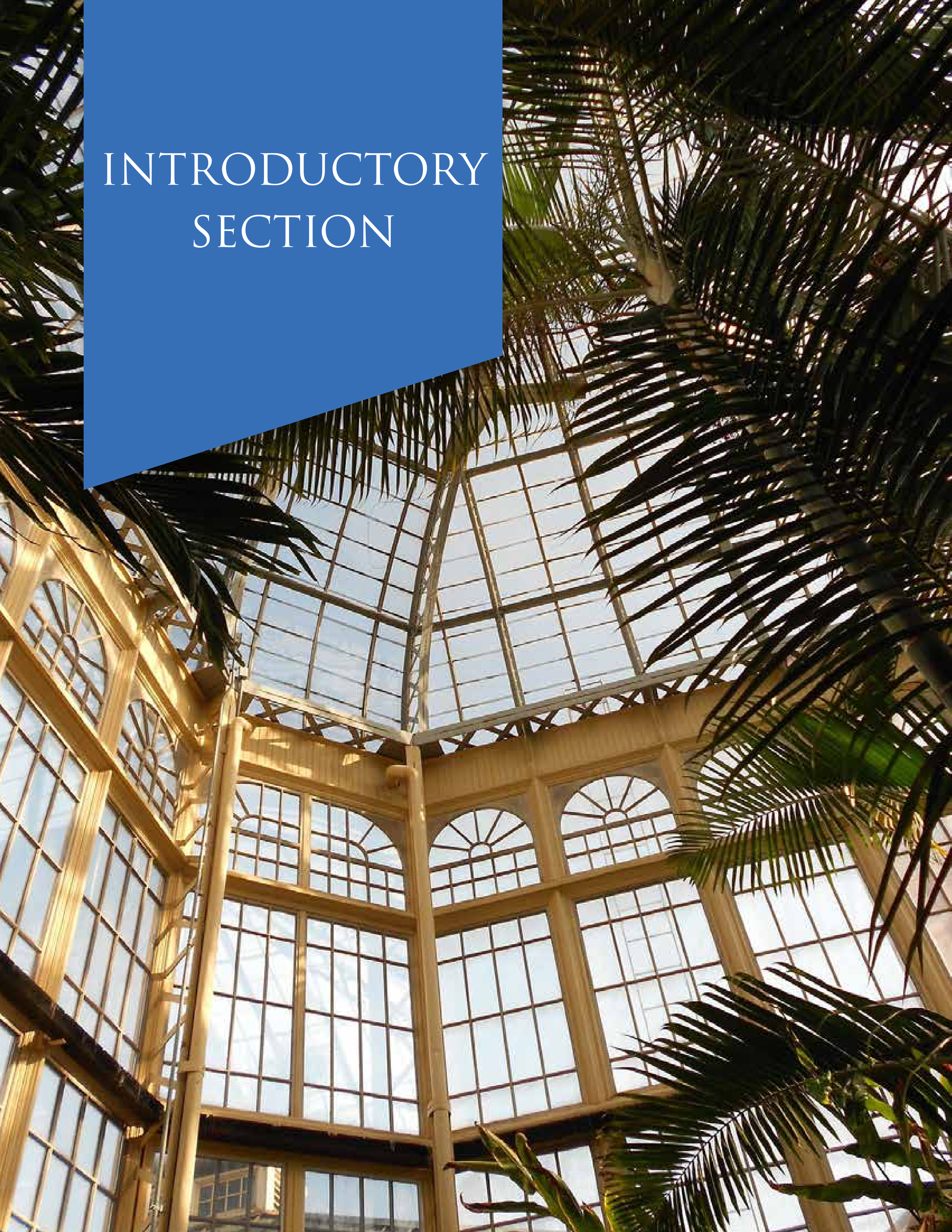
INTRODUCTORY SECTION



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Employees' Retirement System

City of Baltimore, Maryland

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

CITY OF BALTIMORE
CATHERINE E. PUGH, Mayor

EMPLOYEES' RETIREMENT SYSTEM and
ELECTED OFFICIALS' RETIREMENT SYSTEM
7 E. Redwood Street
12th and 13th Floors
Baltimore, Maryland 21202

November 21, 2018

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

It is with great pleasure that we present the Comprehensive Annual Financial Report (CAFR) of the Employees' Retirement System of the City of Baltimore, Maryland (ERS), a pension trust of the City of Baltimore, Maryland, for the fiscal year ended June 30, 2018. Responsibility for the accuracy of the data and the completeness of the presentation, including all disclosures, rests with the management. We believe this report is accurate in all material respects and reported in a manner designed to present fairly, the financial position and results of ERS' operations.

For financial reporting purposes, the System adheres to accounting principles generally accepted in the United States, which requires that management provide a narrative introduction, overview and analysis of the financial statements of the System in the form of a Management Discussion and Analysis (MD&A).The System applies all applicable pronouncements of the Governmental Accounting Standards Board (GASB). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report in the Financial Section, on page 18.

Profile of the Plan

The ERS is a defined benefit contributory plan established January 1, 1926 by legislation, for eligible members who are employed in the general administrative service of the City and for certain non-teacher employees of the Baltimore City Public School System. All System-related administrative and benefit provisions are established by City Ordinance, as contained in Article 22 of the Baltimore City Code, and are amended only by the Mayor and City Council. A summary of Plan provisions is presented on pages 72 through 81. The number of active, retired and deferred members, as well as beneficiaries of the Plan can be found in the Notes to Basic Financial Statements starting on page 24.

Major Initiatives

Recap of Legislative Mandate: Ordinance 16-488 was signed into law on June 21, 2016. The Ordinance changed the assumed interest rate for the Plan investments for fiscal years beginning 7/1/16 and 7/1/17 from 7.75% (for assets covering active members), and 6.55% (for assets covering the liabilities of retired members) to 7.50% (pre-retirement) and 6.50% (post-retirement). In fiscal year beginning on 7/1/18 and thereafter, the assumed interest rate will be 7.00% (pre-retirement) and 6.50% (post-retirement).

"Class C" Member's contributions intended to provide cost savings to the City was scheduled to be at 5% for fiscal year 2018. Due to inconclusive union negotiations, the employee contributions started at 3% but peaked at 4.576% of pay at end of the fiscal year. The contribution rate was subsequently increased to 5% for fiscal year 2019.

Accounting System: In fiscal year 2018, the agency's accounting system was upgraded to the latest version of Microsoft Dynamics SL. The upgraded version includes a management-reporting tool that allows for more efficient management of the department.

Securities Lending: The plan moved from a 90-day reinvestment guideline to the custodian's core strategy, which allows reinvestment up to 397 days for all approved investments with the exception of U.S Government Securities, which allows reinvestment up to 762 days. The strategy is similar to Rule 2a-7 of the Investment Company Act of 1940. Rule 2a-7 seeks to limit the risk associated with money market funds and the percentage a portfolio manager can invest in any one security as well as the average maturity date.

Alternative Investment Consultant: The Board of Trustees retained the services of Pension Consulting Alliance to provide specialized consulting for private equity and other alternative investments. The consultant rendered the first full year of services in fiscal year 2018.

Investment Summary

The System's investment objective is to earn or exceed the actuarial assumption rate of 7.50% and to outperform its policy benchmark. The Board of Trustees (Board) who serves as fiduciary is responsible for investment of the System's assets in accordance with the approved asset allocation. Asset allocation for investment of the Plan's assets is comprised of: 22% fixed income, 27% US equity, 20% non-US equity, 3% defensive equity, 2% absolute return (hedge funds), 13% real estate and 13% private equity. The Board is also responsible for: establishing reasonable investment objectives and policy guidelines, selecting investment managers and evaluating performance results to assure adherence to guidelines, and achievement of the System's objectives. The Board has a fiduciary duty to exercise its investment authority prudently and solely in the interest of the System's participants and beneficiaries.

The System posted an overall return of 8.5%, outperforming both its policy benchmark return of 7.2% and actuarial assumption rate of 7.5% for the fiscal year by 1.30% and 1.0% respectively. ERS' diverse investment strategy, designed to maximize returns for the long-term, is on the right track for achieving its objective. Current investment performance for the three, five and ten year periods are also strong with annualized returns of 7.8%, 8.8% and 6.8% respectively. The Board utilizes external portfolio managers in active and passive strategies for investment of the System's assets. The managers are monitored and evaluated by the Board and the Investment Consultants. Further analysis available in investment section beginning on page 45 of this report.

Actuarial and Funding Results

An actuarial valuation report is prepared annually by the Board's Actuary, Cheiron Inc., to apply appropriate assumptions and determine funding requirements. As of June 30, 2018, the System's market value of assets increased from $1.627 billion to $1.714 billion or a 5.36% increase over the fiscal year 2017 value of assets. The Total Pension Liability (TPL) at June 30, 2018 was $2.410 billion. Compared with the market value of assets of $1.714 billion, there is a Net Pension Liability (NPL) of $0.696 billion as provided on *page 34*. This represents a decrease of $37 million in NPL from fiscal year 2017. Investment gains and contributions contributed to the decrease. The NPL is the Total Pension Liabilities (TPL) less the Plan Fiduciary Net Position (FNP). All data related to GASB 67 is provided in the required supplemental section and in the notes to the basic financial statements.

For funding purposes, the actuarial liability of $2.410 billion, was based on a discount rate assumption of 7.50% for active members and 6.50% for retired members. The actuarial value of assets, which is a smoothed asset value used for funding purposes was $1.785 billion as of June 30, 2018. When compared to the actuarial liability, there was an unfunded actuarial liability of $0.625 billion. The System's funded ratio, which is the ratio of actuarial assets to actuarial liability, increased from 72.7% last year to 74.1%.

Normal cost, which is the cost for earning an additional year of pension service, decreased from 7.40% to 7.27%. The fixed 20-year amortization period of 100% funding scheduled through the plan year beginning July 21, 2031, is now in the seventh year, with 13 years of amortization periods remaining.

The required employer contribution is determined actuarially, based on the normal cost of accrual of benefits and amortization of the unfunded actuarial liability offset by employee contributions. The recommended net lump sum City contribution increased by \$3.1 million from \$84,474,451 in fiscal year 2017, to \$87,541,882 for fiscal year 2018. The City's contribution is also expected to increase by \$2.3 million to \$89,866,171 for fiscal year 2019. Overall, this represents an increase as a percentage of payroll from 20.70% to 21.91% in fiscal year 2018 and then to 22.98% in fiscal year 2019.

Accounting Systems and Internal Control

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

The System's administration assumes full responsibility for establishing and maintaining adequate internal controls and for the financial information contained in this report. Proper internal accounting and control exists to provide reasonable, but not absolute, assurance regarding the security of assets and the fair presentation of the financial statements and supporting schedules. Documented procedures, use of control cycles of work duties and other internal control policies are available for major job functions and operating processes. They are implemented thoughtfully and consistently. Management also understands that executing reasonable assurance of an internal control framework, the cost of control should not exceed the anticipated benefits, and that the reasonable cost benefit framework requires management to make some estimates and/ or justifications.

Other Information

Independent Auditor: The Baltimore City Code requires that the City's Board of Estimates select an independent auditor for the Retirement System, and that the auditor report 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 as to the fairness of the System's financial statements. The auditor's report is contained in the Financial Section of this report.

Professional Services: The Board appoints consultants and investment managers, subject to approval by the City's Board of Estimates. These professionals are chosen based on their ability to provide services that are essential to the effective and efficient operation of the System. Trustees are also required to monitor and terminate investment managers as necessary for underperformance, or for other material reasons as determined by the Board. All of the professionals that provide services to the Board are listed on pages 13 and 56 through 57 in the Introductory and Investment Sections of this report.

Awards and Acknowledgements

The Government Finance Officers Association of the United States and Canada (GFOA) awarded ERS a Certificate of Achievement for Excellence in Financial Reporting by for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017. This was the 35th consecutive year (fiscal years 1983-2017) that the ERS has received this prestigious award. A Certificate of Achievement is valid for a period of one year only. We believe that our current annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

The annual report was prepared by the System's staff, with contributions from our investment consultants and actuary. It is intended to provide complete and reliable information as a basis for making management decisions, and as a means of determining compliance with legal provisions.

Copies of this report are provided to the Elected City Officials, City Agency Heads and other interested parties. Copies are also filed with the Baltimore City Office of Legislative Reference. Other interested parties may obtain the report through the ERS website located at www.bcers.org.

Finally, our appreciation goes to the Board, staff and advisors for their significant contributions in overseeing the successful management of the System.

David A. Randall

Acting Executive Director

Adetutu Talabi

Accounting Manager

CITY OF BALTIMORE
CATHERINE E. PUGH, Mayor

EMPLOYEES' RETIREMENT SYSTEM and
ELECTED OFFICIALS' RETIREMENT SYSTEM

7 E. Redwood Street
12th and 13th Floors
Baltimore, Maryland 21202

December 31, 2018

To: All Members, Retirees and Beneficiaries of the
City of Baltimore Employees' Retirement System (ERS)

The past year produced good news for the ERS. Investments for fiscal year ending June 30, 2018 returned 8.5%, outperforming the assumed actuary rate and the policy benchmark. Strong investment returns also contributed to the increase in the market value funded ratio of 71.1%.

All eligible ERS retirees received their customary annual COLA of 1.5% for members and beneficiaries under age 65 and 2.0% for members and beneficiaries age 65 and older.

Throughout this year we have continued to implement the asset allocation strategy developed last year. We continue to take a long view of the market and have broadened our diversification and downside protection. To achieve greater diversification, we are committed to grow our investments in infrastructure and alternative asset classes. As the stock market continues to reach new highs we have taken some of the gains and increased our downside protection by increasing our Defensive Equity positions and adding a Risk Premia asset class.

There was a change to the Board of Trustees lineup for fiscal year 2018. I have been tasked with maintaining the positive momentum the plan has achieved under the leadership of former Board Chairs Ms. Deborah Moore-Carter and Ms. Joan Pratt. In 2018, we also added several new members to the Board of Trustees. Former City Councilwoman Helen Holton brings her substantial legislative and accounting skills to the board. Also, Mr. John Beasley joined the Board and brings solid analytical, quantitative and technical skills. Notwithstanding our changes, the primary objectives of the Board remain the same: ensuring timely monthly pensioner payroll; protecting the assets with which we have been entrusted; and growing the assets prudently to reduce the overall City liability.

I would also like to thank the entire Retirement System staff for their never-ending commitment to servicing the Board and the Plan participants. Due to staff dedication and Board commitment, ERS will continue to be a preeminent plan in its sector and to sustain the needs of our City pensioners.

Sincerely,

H Raymond

Henry J. Raymond
Chair, Board of Trustees

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

Both appointed and elected trustees serve four-year terms. Appointed trustees continue to serve until replaced by the Mayor, or until the expiration of two consecutive full terms. There are no limitations on the number of terms an elected trustee may serve.

LEGAL COUNSEL, GENERAL COUNSEL, ACTUARY, AND INDEPENDENT AUDITOR

LEGAL COUNSEL

City of Baltimore
Law Department
Andre M. Davis, Esq.

GENERAL COUNSEL

City of Baltimore
Employees' Retirement System
Abraham Schwartz (Acting)
Michael Schrock (Acting)

ACTUARY

Cheiron, Inc.
Kenneth Kent, FSA, FCA, MAAA, EA
Anu Patel, FSA, MAAA, EA
McLean, Virginia

INDEPENDENT AUDITOR

CliftonLarsonAllen, LLP
Jason Ostroski, CPA

See pages 56 to 57 in the Investment Section for a list of investment professionals.

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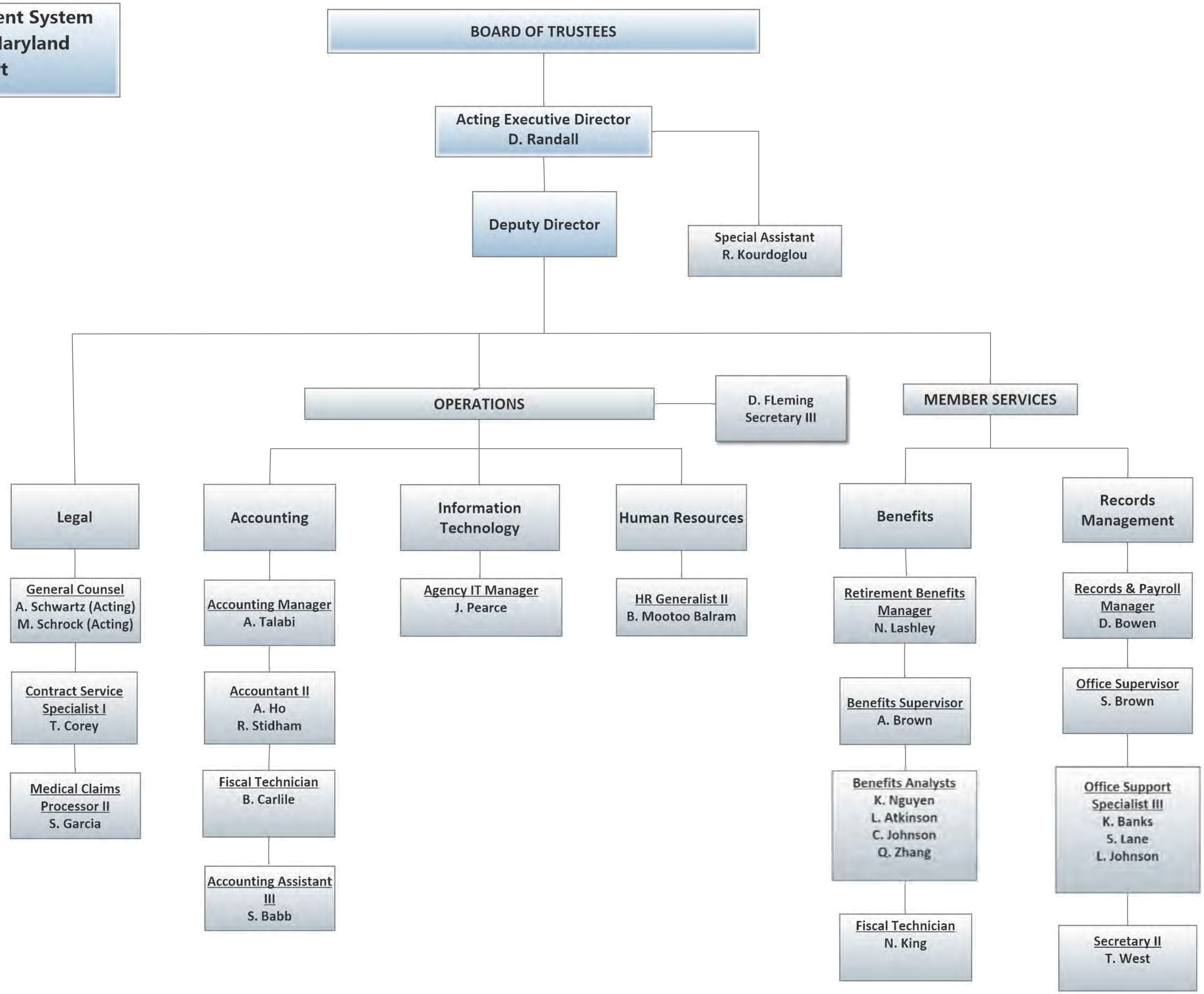
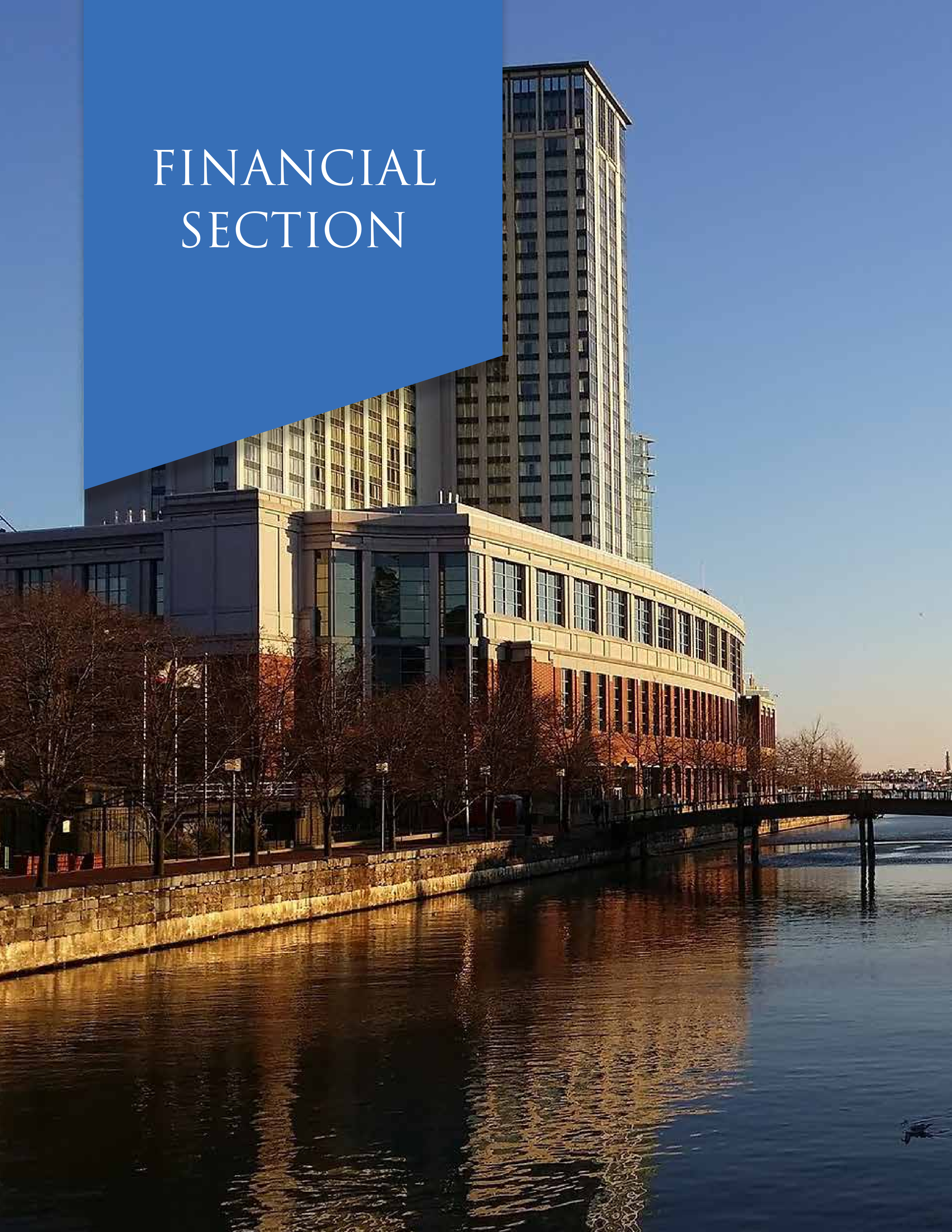
Employees' Retirement System City of Baltimore, Maryland Organizational Chart



FINANCIAL SECTION



INDEPENDENT AUDITORS' REPORT

The Honorable Joan M. Pratt, Comptroller
Other Members of the Board of Estimates of the City of Baltimore and the
Board of Trustees of the Employees' Retirement System
Baltimore, Maryland

Report on the Financial Statements

We have audited the accompanying financial statements of the Employees' Retirement System of the City of Baltimore (the System), which comprise the statement of fiduciary net position as of June 30, 2018, 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 fiduciary net position of the System as of June 30, 2018, and the respective changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

The financial statements include alternative investments valued at $255 million (15% percent of net position), and as explained in Note 2, their fair values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners.

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, employer contributions and investment returns 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 a required part 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 20, 2018 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 20, 2018

We are pleased to provide this overview of the financial activities of the Employees' Retirement System (ERS) for the fiscal years ended June 30, 2018 and 2017. ERS is the administrator of a cost-sharing multiple employer defined benefit local government retirement plan (the Plan). Readers are encouraged to consider the information presented here in conjunction with additional information furnished in the transmittal letter, which begins on page 7 of this report.

Financial Highlights

- The net position restricted for pensions at the close of the fiscal year 2018 was $1.714 billion. The net position is available to meet the Plan's ongoing obligations to plan participants and their beneficiaries.

- The Plan's total position restricted for pensions increased by $87 million during fiscal year 2018 compared to the prior fiscal year's increase of $110 million. The increase was due to positive investment returns, (though lower than FY2017) as well as increased contributions from the employer and employees.

- Revenues (Additions to Fiduciary Net Position) for the year were $240.0 million. Revenues include employer contributions of $87.5 million, plan member contributions of $12.9 million, net investment income of $139.1 million, and net securities lending income of $0.4 million.

- Expenses (Deductions from Fiduciary Net Position) were $152.8 million. Expenses include retirement allowances, refund of member contributions, death benefits and lump sum payments of $149.2 million as well as administrative expenses $3.6 million.

- The time weighted rate of return for the fiscal year ended June 30, 2018 was 8.5% compared to the fiscal year ended June 30, 2017 return of 11.8%. The 3.3% decrease from 2017 attributed to decreased performance of all funds except real estate investment, which had a slight increase in returns.

- The Plan's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2018, the System's funded ratios are 74.1% and 71.1% based on actuarial and market values of assets respectively. Both funded ratios increased by 1.4% and 2.1% respectively when compared with their June 30, 2017 values. The plan's net position as a percentage of the total pension liability of 71.1% indicates that the Plan has approximately $0.71 of assets to cover every dollar of benefits due.

Overview of Financial Statements

The following discussion and analysis intended to serve as an introduction to the Plan's financial statements and the financial section of this report.

The **Statement of Fiduciary Net Position** presents the Plan's assets and liabilities and the net position restricted for pensions at June 30, 2018. The assets comprise cash and cash equivalents, receivables (mainly from investment activities), investments at fair market value, securities lending collateral and net capital assets; while the liabilities comprise of payables, also mainly from investment activities.

The **Statement of Changes in Fiduciary Net Position**, presents information showing how the Plan's net position changed during the year. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when a formal commitment has been made by the City to provide the contributions. All investment gains and losses are shown at trade date. Both realized and unrealized gains and losses are reported in investments. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

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 statements and the notes are in conformity with the 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, as well as revenues and expenses.

The **Statement of Fiduciary Net Position** and the **Statement of Changes in Fiduciary Net Position** are on pages 22 and 23 of this report.

The **Required Supplementary Information** that follows immediately after the notes to the basic financial statements includes the Schedules of Changes in Net Pension Liability and Related Ratios, Employer Contributions, Investment Returns and Notes to Required Supplementary Information. See the Required Supplementary Information beginning on page 37 of this report. The remaining supplemental schedules provide additional detailed information concerning administrative expenses, investment expenses and payments to consultants. All of this information is considered useful in understanding and evaluating the financial activities of the Plan.

Financial Analysis

Net position may serve over time as a useful indicator of the Plan's financial position. As at June 30, 2018, assets exceeded liabilities by $1.714 billion. The net position is available to meet the Plan's ongoing obligation to Plan participants and their beneficiaries. As of June 30, 2018, total net position increased by 5% from $1.627 billion to $1.714 billion. The increase in total net position when compared with last fiscal year ended June 30, 2017 is mainly from net investment income. Management believes that the Plan remains in a strong financial position to meet its obligations to the members, retirees, and their beneficiaries.

Fiduciary Net Position	Fiscal Year 2018	Fiscal Year 2017	Increase / (Decrease)	Percentage Change
Investments	$1,728,957,376	$1,587,514,722	$141,442,654	9%
Other assets	188,230,180	175,709,749	12,520,431	7%
Total assets	1,917,187,556	1,763,224,471	153,963,085	9%
Total liabilities	202,934,836	136,197,973	66,736,863	49%
Total net position	$1,714,252,720	$1,627,026,498	$87,226,222	5%

Investment Assets

ERS is a long-term investor and manages the Plan's assets with long-term objectives in mind. A primary element of the Plan's investment philosophy is to employ a diversification of assets as the best possible way to achieve its goals. After conducting an asset-liability study with the Plan's investment consultant, the Board of Trustees established an asset allocation plan taking into account the risk associated with each asset class as well as the financial objectives of the Plan. Investments are stated at fair value rather than at cost and include the recognition of unrealized gains and losses in the current period.

The rate of return on investments for the year ended June 30, 2018 was 8.5%, a decrease of 3.3% compared to the fiscal year 2017 rate of return of 11.8%. The decline in investment return is attributable to all portfolios that performed lower than fiscal year 2017 with the exception of real estate that returned 8.4% compared to 8.0% in 2017. Despite the decline in returns, fixed income and international equity both outperformed their respective benchmarks. The annualized rate of return for the last three, five and ten year periods ended June 30, 2018 were 7.8%, 8.8% and 6.8% respectively. The Plan's long-term actuarial investment return assumption remained at 7.50% for fiscal year 2018.

The Investment Section beginning on page 45 gives detailed information on the Plan's Investment Policies. See page 52 of this report for charts showing the asset allocation targets established by the Board of Trustees and the actual asset allocation of System assets at June 30, 2018.

Liabilities

The liabilities are payables incurred by the transaction activity of the investment assets, securities lending, the retirement benefit expenses, and administrative expenses of the Plan.

Changes in Fiduciary Net Position	Fiscal Year 2018	Fiscal Year 2017	Increase / (Decrease)	Percentage Change
Additions				
Net investment income	139,091,994	162,916,164	(23,824,170)	-15%
Employer contribution	87,541,882	84,474,451	3,067,431	4%
Employee contribution	12,942,622	10,656,243	2,286,379	21%
Net Securities Lending Income	420,277	240,674	179,603	75%
Total additions	239,996,775	258,287,532	(18,290,757)	-7%
Deductions				
Retirement allowances	148,219,211	142,957,078	5,262,133	4%
Administrative expenses	3,616,054	3,584,506	31,548	1%
Death benefits	497,011	1,225,559	(728,548)	-59%
Refund of member's contribution	410,189	348,412	61,777	18%
Lump Sum cash payments	28,088	77,861	(49,773)	-64%
Total deductions	152,770,553	148,193,416	4,577,137	3%
Net increases (decreases)	87,226,222	110,094,116	(22,867,894)	-21%

Contributions and Investment Income

Employer contributions increased by 4% over last year's contributions. The employer's contributions are determined by an actuary and are calculated two fiscal years in advance. Plan member contributions increased by $2.3 million (21%). The decrease in net investment income of $24 million was primarily due to lower returns from all portfolios except real estate, although, some outperformed their respective benchmarks. Net investment income includes investment expenses as a deduction. Investment expenses were $8.6 million for fiscal year 2018, 3% lower than fiscal year 2017.

Retirement Benefits and Administrative Expenses

The Plan was created to provide lifetime service retirement benefits, survivor benefits and disability benefits to eligible members and their beneficiaries. The cost of such programs include recurring benefit payments, lump sum death benefits, payments to terminated members, and the administrative expenses of the Plan. The primary source of expense during fiscal year 2018 was for the payment of continuing retirement benefits totaling $148.2 million, compared to $142.9 million for fiscal year 2017. Retirement allowances increased $5.3 million due to an increase in the number of benefit recipients as well as the annual cost of living adjustment of 1.5% for participants under age 65 and 2.0% for participants age 65 and over.

Requests for Information

This financial report is designed to provide a general overview of the Plan's finances and to account for the money it receives to the Board of Trustees, the Mayor and City Council, the Plan's membership and the City's taxpayers. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

David A. Randall
Acting Executive Director,
Employees' Retirement System,
7 E. Redwood Street, 12th Floor,
Baltimore, Maryland 21202.

Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018

Assets		
Cash and cash equivalents		$ 84,370,149
Receivables and other assets:		
Investments sold	$ 73,432,553	
Foreign currency contracts	23,333,195	
Accrued income	3,446,144	
Other receivables	3,165,329	
Prepayments	45,427	
Total receivables and other assets		103,422,648
Investments		
Domestic equities	504,903,459	
Domestic fixed income	433,087,840	
International equities	377,136,969	
Real estate	157,097,461	
Private equities	98,045,566	
Defensive equities	39,999,956	
Total investments		1,610,271,251
Securities lending collateral		118,686,125
Capital assets	2,467,473	
Accumulated depreciation of capital assets	(2,030,090)	
Net capital assets		437,383
Total assets		1,917,187,556
Liabilities		
Obligations under securities lending	118,686,125	
Investments purchased	58,773,579	
Foreign currency contracts	23,119,144	
Investment management fees payable	1,302,370	
Other accounts payable	748,941	
Administrative expenses payable	304,677	
Total liabilities		202,934,836
Net position restricted for pensions		$ 1,714,252,720

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

Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
For the Year Ended June 30, 2018

Additions		
Contributions		
Employers	87,541,882	
Plan members	12,942,622	
Total contributions		100,484,504
Investment income		
Net appreciation in value of investments	106,021,152	
Interest, dividend and other income	41,710,664	
Less: Investment expenses	(8,639,822)	
Net investment income		139,091,994
Securities lending income	580,304	
Less: Securities lending fees	(160,027)	
Net securities lending income		420,277
Total additions		239,996,775
Deductions		
Retirement allowances	148,219,211	
Adminstrative expenses	3,616,054	
Death benefits	497,011	
Refund of members contributions	410,189	
Lump sum cash payments	28,088	
Total deductions		152,770,553
Net increase		87,226,222
Net position restricted for pensions		
Beginning of year		1,627,026,498
End of year		1,714,252,720

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

1. Plan Description:

The Employees' Retirement System of the City of Baltimore (ERS) is the administrator of a cost-sharing multiple employer defined benefit local government retirement plan (the Plan). Established January 1, 1926, the Plan covers City employees and the Baltimore City Public School System employees with the exception of those required to join the Maryland State Retirement System, or the two other Baltimore City retirement systems, the Fire and Police Employees' Retirement System and the Elected Officials' Retirement System. Based on criteria established by the Governmental Accounting Standards Board, the ERS is a pension trust of the City of Baltimore and is included in the City's financial report as a Public Employees' Retirement System (PERS).

At June 30, 2018, the ERS membership consisted of:

Membership Status as at June 30, 2018	Class A	Class C	Class D	Total
Active Plan Members	12	6,680	1,321	**8,013**
Retirees and Beneficiaries (currently receiving benefits	-	9,203	-	**9,203**
Terminated Plan members (entitled but not yet reciving benefits)	-	1,030	-	**1,030**
Total	**12**	**16,913**	**1,321**	**18,246**

The Plan provides service retirement benefits as well as death and disability benefits in accordance with the Plan Provisions, Article 22 of the Baltimore City Code. Only the Mayor and City Council may amend the Plan Provisions. The reduction of benefits is precluded by the City Code.

The ERS Plan is divided into three Classes: A, C, and D for amendments of membership and benefit changes of the Plan Provisions.

The Class "A" contributory plan consists of all members hired prior to July 1, 1979 who did not elect to transfer to Class C, the non-contributory class at the time it was created. Membership was mandatory on the member's second anniversary of employment. However, the member could voluntarily enroll within the first two years of employment.

The Class "C" Plan consists of all employees hired on or after July 1, 1979 who automatically become members on the first anniversary of employment, and all members hired prior to July 1, 1979 who elected to transfer from the Class "A" contributory class. Effective July 1, 2013, Ordinance 13-144 was enacted by the Mayor and City Council introducing contributions for active ERS non-contributory members and eliminating the post retirement variable benefit increase. The Ordinance provides that effective July 1, 2013 members will contribute 1% of pay, to continue each year at 1% increments provided that 2% compensation is received for each year of contribution until employee contributions reaches 5% of compensation. The ERS defined benefit class "C" Plan was closed to new members on June 30, 2014 to establish the City of Baltimore's Retirement Savings Plan (RSP).

The RSP consists of a 401a contributory non-hybrid and a hybrid contributory defined benefit "D" Plan. The Class "D" Plan consists of all employees hired on or after July 1, 2014. The waiting period of entry for the contributory non-hybrid plan is 180 days. The hybrid contributory defined benefit Plan's waiting period is one year. Employees hired as of July 1, 2014, have 150 days of employment to select between the two Plans. Employees who do not select a Plan after 150 days of employment automatically default into the hybrid contributory defined benefit "D" plan. The mandatory contribution to each of the Plan's is 5%. Members have an option in both Plans to contribute to the City of Baltimore's 457 Deferred Compensation Plan and will receive a 50% match on the first two percent of their contributions.

2. Summary of Significant Accounting Policies:

Basis of Presentation:
For accounting and financial reporting purposes, the Plan conforms with 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 (Public Employee Retirement System). This report includes solely the accounts of the Plan, a pension trust of the City of Baltimore. There are no component units of the Plan 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. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

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, hedge, and risk parity funds, where no readily ascertainable fair value exists, management, in consultation with the general partner and investment advisors, has determined these investments be measured at net asset value per share. The values for these investments are determined by the Plan's proportionate share of the partnership’s most recent available financial information. Foreign exchange contracts are marked-to-fair value daily based on published fair value 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 value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Net investment income consists of realized and unrealized appreciation (depreciation) in the value of investments, 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.

Tax Status:
The System is a tax-exempt governmental plan qualified under Section 401 and exempt under Section 501(a) of the Internal Revenue Code. IRS qualification letters have been received.

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.

3. Contributions:

Article 22 of the Baltimore City Code grants the authority to establish and amend the contributions of the active plan members to the Mayor and City Council of Baltimore.

The contributions required by the Plan provisions for each membership class are as follows:

Membership class	Percentage of compensation
A	4.0%
C	5.0%
D	5.0%

The employer contributions are determined through an actuarial valuation. The valuation method is stipulated in the Plan provisions.

All contributions are transferred to BNY Mellon, the ERS custodian for safekeeping and investment.

4. Post retirement increases:

Post-retirement benefit increases are granted each year to eligible retirees and beneficiaries in pay status for 12 months as at year end. The minimum guaranteed benefit increase is 1.50% for participants in pay status under age 65 and 2.00% for participants in pay status age 65 and over, effective June 22, 2010. Eligible retired members and beneficiaries with a pension entry date on or before June 30, 2017 will receive the minimum guaranteed benefit increase and is payable on January 1, 2019.

5. Cash and Investments:

The Plan's cash deposits are covered up to statutory limits by the federal depository insurance at all times.

The Board of Trustees (the Board) 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 Plan’s investments through external investment advisors who acts as fiduciaries for the Plan and through external investment managers. The Board invests the assets of the Plan 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. Investments of the Plan are held under custodial agreement with BNY Mellon Financial Corporation.

ERS Plan investments as of June 30, 2018, are listed below:

Investment type	
Debt Securities:	
Commingled fixed income	$ 211,090,490
Corporate Bonds	123,877,079
US/Canadian Government Agency Bonds	65,731,841
Non-US Government Bonds and agencies	22,451,287
US Treasury Notes and Bonds	9,937,143
Total Debt Securities	433,087,840
Equities:	
Domestic equities	504,903,459
International equities	377,136,969
Real estate	157,097,461
Private equities	98,045,566
Defensive equities	39,999,956
Total equities	1,177,183,411
Total investments	$ 1,610,271,251

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rate of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2018, are summarized in the following table:

Assets Class	Asset Allocation	Long-Term Expected Real rate of Return
Domestic Equity	27%	7.3%
Defensive Equity	3%	6.9%
International Equity	20%	7.7%
Fixed Income	22%	3.2%
Real Estate	13%	7.4%
Risk Premia	2%	6.3%
Private Equity	13%	11.2%
	100%	

Rate of Return

For the year ended June 30, 2018, the annual money-weighted rate of return of the Plan was 8.1%. The money-weighted rate of return expresses the Plan's investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of investments. The Plan has selected the duration method to disclose the debt securities exposure to changes in interest rates for all debt securities. The duration years for the commingled fixed income funds are not available. The Plan fixed income interest rate policy limits the average duration of the portfolio within one to two years of the Barclay's Capital Bond index benchmark.

Investment Type		*Fair Value*	*Option Adjusted Duration (in years)*
Debt Securities:			
Aggregate Bond Index Fund	$	143,564,221	6.01
Corporate Bonds		123,877,079	3.24
Bank Loan Fund		67,526,269	0.30
US/Canadian Government Agency Bonds		65,731,841	3.11
Non-US Government Bonds and agencies		22,451,287	4.29
US Treasury Notes and Bonds		9,937,143	10.75
Total Debt Securities	$	433,087,840	

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. ERS-rated debt investments as of June 30, 2018, were rated by Standard & Poor's (S&P) and for securities with no S&P rating, the Moody's quality ratings were used.

Investments at Fair Value / Credit Risk by Quality Rating

Investment Type	*AAA-A*	*BBB-B*	*CCC-C*	*DDD-D*	*Not Rated*	*Total*
Aggregate Bond Index Fund	$ -	$ -	$ -	$ -	$ 143,564,221	$ 143,564,221
Corporate Bonds	50,545,957	56,361,662	396,172	223,477	16,349,811	123,877,079
Bank Loan Fund	-	-	-	-	67,526,269	67,526,269
US/Canadian Government Agency Bonds	25,816,819	1,173,420	-	-	38,741,602	65,731,841
Non-US Government Bonds and agencies	15,025,470	5,984,897	-	-	1,440,920	22,451,287
US Treasury Notes and Bonds	9,937,143	-	-	-	-	9,937,143
Total Debt Securities	$ 101,325,389	$ 63,519,979	$ 396,172	$ 223,477	$ 267,622,823	$ 433,087,840

Foreign Currency Exposure Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. At June 30, 2018, the Employees' Retirement System did not hold any hedging foreign investment positions. ERS does not have a formal policy to limit foreign currency risk.

ERS foreign currency risk as at June 30, 2018 is presented in the following table:

Currency Name	Domestic Fixed Income	International Equity	Real Estate	Total
Australian Dollar	$ 716,673	$ 15,245,795	$ -	$ 15,962,468
Brazil Real	635,545	1,752,593	-	2,388,138
Canadian Dollar	1,798,526	22,375,001	18,981	24,192,508
Chilean Peso	-	847,345	-	847,345
Chinese Yuan Renminbi	-	(1,064,117)	-	(1,064,117)
Colombian Peso	354,523	674,849	-	1,029,372
Czech Koruna	-	1,093	-	1,093
Danish Krone	306	1,821,630	-	1,821,936
Euro Currency Unit	6,394,144	75,223,743	-	81,617,887
Hong Kong Dollar	-	18,353,736	-	18,353,736
Hungarian Forint	-	283,967	-	283,967
Indian Rupee	854,318	-	-	854,318
Indonesian Rupiah	2,304,698	1,398,961	-	3,703,659
Israeli Shekel	-	628,271	-	628,271
Japanese Yen	8,202	54,397,776	-	54,405,978
Malaysian Ringgit	1,006,342	354,372	-	1,360,714
Mexican Peso	888,513	1,400,177	-	2,288,690
New Zealand Dollar	717,638	1,772,513	-	2,490,151
Norwegian Krone	1,484,823	4,245,143	-	5,729,966
Peruvian Sol	-	315,679	-	315,679
Philippines Peso	1,179,498	513,081	-	1,692,579
Polish Zloty	-	834,692	-	834,692
Pound Sterling	11,993	41,587,843	-	41,599,836
Russian Ruble (New)	-	27,673	-	27,673
Singapore Dollar	817,128	11,214,992	-	12,032,120
South African Rand	-	4,831,398	-	4,831,398
South Korean Won	-	484,053	-	484,053
Swedish Krona	-	11,738,455	-	11,738,455
Swiss Franc	-	15,755,968	-	15,755,968
Thailand Baht	-	376,698	-	376,698
Turkish Lira	-	816,439	-	816,439
UAE Dirham	-	64,743	-	64,743
Total Foreign Currency Exposure	$ 19,172,870	$ 288,274,562	$ 18,981	$ 307,466,413

Fair Value Measurements

The Plan 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 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

Level 1	Unadjusted quoted prices for identical instruments in active markets.
Level 2	Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
Level 3	Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The Plan's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset. The table on page 30 shows the fair value leveling on the investments for the Plan.

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Debt securities classified in Level 1, Level 2 and Level 3 are valued using either a bid evaluation, mid evaluation, last trade or official close. Bid evaluations are an estimated price at which a dealer would pay for a security. Mid evaluations are when a bid and ask evaluation are both present. Last trade is the most recent trade price of a security at market close time. Official close is the closing price as defined by the exchange.

The Employees' Retirement System's invested assets measured at fair value as at June 30, 2018 are presented below:

Investments by fair value level	Base Amount	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	$ 123,877,079	$ 1,864,408	$ 114,675,977	$ 7,336,694
US Govt Agency Bonds	65,731,841	-	65,731,841	-
Non-US Govt Agency Bonds	22,451,287	-	22,451,287	-
U.S. Treasury Notes and Bonds	9,937,143	9,937,143	-	-
Total debt securities at fair value level	$ 221,997,350	$ 11,801,551	$ 202,859,105	$ 7,336,694
Equity securities				
International equities	$ 340,534,380	$ 340,534,380	$ -	$ -
Domestic equities	324,336,064	324,336,064	-	-
Total equity securities at fair value level	$ 664,870,444	$ 664,870,444	$ -	$ -
Total investments by fair value level	$ 886,867,794	$ 676,671,995	$ 202,859,105	$ 7,336,694
Investments measured at the net asset value (NAV)				
Commingled fixed income	$ 211,090,490			
Domestic equities	180,567,395			
Real estate	157,097,461			
Private equity	98,045,566			
Defensive Equity	39,999,956			
International equities	36,602,589			
Total investments measured at the NAV	$ 723,403,457			
Total investments	$ 1,610,271,251			
Investment derivative instruments				
Foreign currency contract receivable	$ 23,347,010	$ -	$ 23,347,010	$ -
Foreign currency contract payable	(23,065,535)	-	(23,065,535)	-
Total investment derivative instruments	$ 281,475	$ -	$ 281,475	$ -

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

Investment Measured at the NAV	Market Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled fixed income	$ 211,090,490	$ -	Daily, weekly & monthly	0 - 30 days
Domestic equities	180,567,395	-	Daily, weekly & monthly	0 - 30 days
Real estate	157,097,461	-	Quarterly	90-100 days
Private equity	98,045,566	48,596,094	Not eligible	N/A
Defensive Equity	39,999,956	-	Quarterly	90-100 days
International equities	36,602,589	-	Daily, weekly & monthly	0 - 30 days
Total investments measured at the NAV	$ 723,403,457	$ 48,596,094		

(1) Commingled fixed income investments are in two (2) funds. The first investment is in high quality corporate bond securities with long durations in line with the profile of invested funds. A fundamentals-based, quantitative credit modeling process is used to screen out riskier securities securities and determine credit quality. The second investment is in a fund whose philosophy is to participate in the upside while seeking to mitigate downside risk through a selective approach focused on the larger issuers.

(2) Domestic Equity investments are in funds that are actively managed. The Funds invest in stocks of small, mid and large capitalizations. The Funds seek to outperform the S&P 500 index while maintaining a similar level of market risk over the long term.

(3)The System's real estate investments consist of 2 core real estate funds and 2 real estate partnerships. The real estate partnerships consist of non-core, value added and opportunistic strategies. For the most part, the real estate investments are illiquid and redemptions are restricted, however the core funds of $142 million are liquid and the redemption frequency is quarterly, and a 90-100 days notice period.

(4) The System's private equity investments are with 7 managers, invested in Diversified, Venture Capital, Distressed Debt, Buyouts, International and Special Situations strategies. These investments are considered illiquid as redemptions are restricted over the life of the investment.

(5) Defensive equity investment is in a fund that seeks long-term growth of capital. The fund employs a strategy of writing collateralized put options on the S&P 500 Index. The collateral generally consists of short duration, high quality fixed income positions with a focus on U.S. Treasuries.

(6) International equity investments are also in actively managed funds. About half of the investments are in securities where rigorous dividend discount analysis is used to identify value in terms of long term flow of income. The other half of the investments are in funds which employs strategy that seeks to outperform the MSCI World index (half-hedged) while maintaining a similar level of market risk over the long term.

6. Securities Lending:

The Plan's Securities Lending Authorization Agreement with BNY Mellon Bank (the Custodian) was reviewed during fiscal year 2018. Cash collateral received by the custodian is held and maintained in a separately managed cash collateral account. The cash collateral account is operated on a cost basis and the plan assumes responsibility for the risk of loss arising from the difference between the cost and market value of securities in the collateral account.

Approved Investments:

- Obligations of the U.S. treasury as well as agencies and instrumentalities and establishments of the U.S. Government.
- Repurchase transactions (including tri-party repurchase transactions). Collateralized at 102% or greater at the time of purchase and marked to market on each business day.
- Obligations issued by the central government of any OECD country and any of their respective agencies, instrumentalities or establishments.
- Obligations issued by supranational organizations.
- Commercial paper, notes, bonds and other debt obligations, whether or not registered under the Securities Act of 1933, as amended.
- Certificates of deposit, time deposits and other bank obligations.
- Asset-backed securities, including asset-backed commercial paper.
- Shares of money market funds registered with the Securities and Exchange Act of 1940, including affiliated funds of the Bank.
- Units of unregistered, collective investment vehicles sponsored or advised by the lending agent or an affiliate of the lending agent.

All approved investments may have fixed or floating interest rate provisions. Floating rate notes will reset no less frequently than quarterly. Cash collateral may be deposited at a central bank at the prevailing overnight interest rate (which may be negative or zero).

Credit Quality: The new guidelines provide that repurchase transaction counterparties must have executed a written agreement with custodian and will be limited to those counterparties on the custodian's approved repo counterparty list. Obligations of supranational organizations should be rated minimum AAA by at least one NRSRO. Asset-Backed securities must be rated AAA by at least one NRSRO, if rated by more than one NRSRO the rating must AAA, Aaa, or AAA by two. Short-term ratings must be A-1, P-1, or F1 or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO.
All other obligations must have short-term ratings of A-1, P-1, or F1 or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO and long-term ratings of A, A2, or A or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO.
U.S Government Securities do not require a rating by NRSRO and registered money market funds must be rated in the highest category available.

Concentration guidelines: Concentration of any approved investment in the cash collateral account does not exceed 5% per issuer with the exception of U.S Government securities, repurchase agreements, shares of money market funds and collective investment vehicles.

Maturity: Investments have a maximum final maturity of 397 days except U.S Government securities that have maturity not to exceed 762 days. The weighted average of investments in cash collateral account for shorter maturities does not exceed 60 days while longer maturity does not exceed 120 days.

Liquidity: All approved investments are deemed to be liquid at the time of purchase with the exception of time deposits and repurchase agreements with maturity greater than 7 days, which are deemed illiquid. Illiquid approved investments does not exceed 5% of the total amount of approved investments in the cash collateral account.

In fiscal year 2018, the collateral held was almost double the prior year due to the new guidelines and all the provisions of the new securities lending investment guidelines were complied with.

The following table presents the fair values of the underlying loaned securities, and the fair value of collateral pledged at June 30, 2018.

Securities Lent	Fair Value of Loaned Securities	Collateral Fair value	Collateral Percentage %
Lent for cash collateral:			
Equity	$ 104,498,649	$ 107,567,998	103
Corporate	8,937,837	9,166,600	103
U.S. Agencies	1,911,100	1,951,527	102
Total Cash Collateral	115,347,586	118,686,125	
Lent for non cash collateral:			
Equity	16,694,892	17,155,670	103
U.S. Treasury Notes & Bonds	289,786	295,758	102
Corporate	206,775	211,311	102
Total non cash collateral	17,191,453	17,662,739	
Total Securities on Loan	$ 132,539,039	$ 136,348,864	

7. Derivatives Instruments:

A derivative is a unique and often complex financial arrangement entered with another party, typically a private-sector financial firm. The value or cash flows of a derivative are determined by how the fair value prices of the hedged item change. The System has classified the following as hedging investment instruments.

The System enters into forward currency contracts to manage exposure to fluctuations in foreign currency exchange rates on portfolio holdings. The System also enters into forward exchange contracts to settle future obligations. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. A contract is classified as forward contract when the settlement date is more than two days after the contract date. Risk associated with such contracts includes movement in the value of a foreign currency relative to the U.S. dollar. The contracts are valued at forward exchange rates and include net appreciation/depreciation in the statement of plan position. Realized gain or loss on forward currency contracts is the difference between the original contract and the closing value of such contract and is included in the statement of changes in fiduciary net position.

The table below summarizes the fair value of foreign currency contracts as of June 30, 2018:

Currency	Receivable at Cost	Receivable at Fair Value	Payable at Cost	Payable at Fair Value	Net Unrealized Gain/(Loss)
Australian Dollar	$ 2,632,927	$ 2,632,927	$ (2,632,927)	$ (2,535,367)	$ 97,560
Brazil Real	970,000	970,000	(970,000)	(962,174)	7,826
Canadian Dollar	144,790	144,790	(144,790)	(145,954)	(1,164)
Chinese Yuan Renminbi	1,091,000	1,091,000	(1,091,000)	(1,064,118)	26,882
Danish Krone	432,396	432,396	(432,396)	(431,231)	1,165
Euro Currency Unit	3,624,686	3,606,579	(3,624,686)	(3,643,761)	(37,182)
Hong Kong Dollar	152,901	152,901	(152,901)	(152,933)	(32)
Japanese Yen	447,821	447,821	(447,821)	(446,797)	1,024
Mexican Peso	1,296,693	1,296,693	(1,296,693)	(1,339,953)	(43,260)
New Zealand Dollar	6,132,958	6,132,958	(6,132,958)	(5,890,845)	242,113
Pound Sterling	419,618	419,618	(419,618)	(415,982)	3,636
Singapore Dollar	122,335	122,335	(122,335)	(119,813)	2,522
Swiss Franc	264,064	264,064	(264,064)	(265,640)	(1,576)
U.S. Dollar	5,650,967	5,632,928	(5,650,967)	(5,650,967)	(18,039)
Grand Total	$ 23,383,156	$ 23,347,010	$ (23,383,156)	$ (23,065,535)	$ 281,475

8. Net Pension Liability:

The following schedules include the Net Pension Liability (NPL) as of June 30, 2018, and the sensitivity of the NPL to the discount rate.

The components of the net pension liability of the Plan at June 30, 2018 were as follows:

Total Pension Liability	$ 2,410,614,058
Less: Plan Fiduciary Net Position	1,714,252,720
Net pension Liability	$ 696,361,338
Plan Fiduciary net position as a percentage of Total Pension Liability	71.1%

The discount rates used to measure the total pension liability were 7.50% and 6.50%, for active and retired members, respectively. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the contribution rate and that Employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The sensitivity of the pension liability schedule presents the net pension liability of the Plan calculated using the discount rate 7.50 percent for active participants and 6.5% for retired participants as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50 percent) or 1-percentage-point higher (8.50 percent) than these current discount rates.

Sensitivity of the pension liability to changes in the discount rate.

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate - Active Participants	6.5%	7.5%	8.5%
Discount Rate - Retired Participants	5.5%	6.5%	7.5%
Plan's Net Pension Liability	$2,667,558,670	$2,410,614,058	$2,192,089,577
Plan Fiduciary Net Position as a Percentage of Total pension Liability	64.3%	71.1%	78.2%

The actuarial methods and assumptions presented below are determined as part of the actuarial valuation dated June 30, 2018. The information presented below is in the required supplementary schedules of this report on page 37.

Actuarial funding method:	Entry Age Normal Method.	
Actuarial assumptions:	Effective 7/1/1989, Revised 7/1/2012	
Investment rate of return:	Pre-retirement	7.50%
	Post-retirement	6.50%
Projected salary increases:	Inflation rate approximately 2.65%.	
Cost-of-living adjustments:	1.5% for participants in pay status under age 65 and 2.0% for participants in pay status age 65 and over.	

Pre-Retirement Mortality:

1. Non-line-of-Duty - RP 2000 Healthy Mortality with projections using 50% of the AA scale projected 15 years with a three-year set forward for both males and females (effective 6/30/15).
2. Line-of-Duty - 0.005% at all ages (effective 6/30/1999).

Post-Retirement Mortality:

1. Retirees and Beneficiaries - RP 2000 Health Mortality with projections using 50% of the AA scale project 15 years with a two-year set forward for both males and females. Given the requirement for experience studies performance every five years, these projections are sufficient until the next measurement period.
2. Disabled members - RP 2000 Disabled mortality with generational projections using 50% of the AA scale projected 15 years with a four-year set forward for both males and females.

The last actuarial experience study covered the period 7/1/2010 through 6/30/2014. Generally, an experience study is conducted every four years, unless requested by the ERS Board of Trustees.

9. Capital Assets:

The capital assets purchased as of the fiscal year ending June 30, 2018 consist of leasehold improvements, office equipment and office furniture. All capital assets are recorded at cost less accumulated depreciation.

Capital Assets	July 1, 2017 Balance	Capital Acquisitions	Capital Dispositions	June 30, 2018 Balance
Leasehold Improvements	$ 1,660,538	0	0	$ 1,660,538
Office Furniture	387,222	24,138	0	411,360
Office Equipment	385,987	0	0	385,987
Computer & Computer Equipments	0	9,588	0	9,588
Totals	$ 2,433,747	$ 33,726	0	$ 2,467,473

Accumulated Depreciation	July 1, 2017 Balance	Increases	Decreases	June 30, 2018 Balance
Leasehold Improvements	$ 1,166,830	$ 110,702	0	$ 1,277,532
Office Furniture	358,179	10,053	0	368,232
Office Equipment	378,756	3,652	0	382,408
Computer & Computer Equipments	0	1,918	0	1,918
Totals	$ 1,903,765	$ 126,325	0	$ 2,030,090
Net Capital Assets	$ 529,982	$ (92,599)	$ -	$ 437,383

10. Subsequent Events:

The Plan evaluated subsequent events through November 21, 2018 the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2018, but prior to November 21, 2018 that provided additional evidence about conditions that existed at June 30, 2018, have been recognized in the financial statements for the year ended June 30, 2018. Events or transactions that provided evidence about conditions that did not exist at June 30, 2018, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended June 30, 2018.

REQUIRED SUPPLEMENTARY INFORMATION AND SUPPORTING SCHEDULES

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Year Ended June 30

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost (MOY)	$ 28,939,927	$ 25,736,202	$ 25,507,759	$ 26,107,551	$ 26,483,854
Interest (includes interest on service cost)	159,875,336	157,784,730	155,822,464	152,621,503	148,861,690
Changes of benefit terms	-	-	-	-	(1,001,048)
Difference between expected and actual experience	11,347,778	(6,869,329)	11,578,209	2,052,377	13,956,452
Changes of assumptions	-	-	20,850,001	(3,828,646)	-
Benefit payments, including refund of members contributions	(149,154,499)	(144,608,910)	(139,197,716)	(134,270,657)	(129,973,970)
Net change in pension liability	51,008,542	32,042,693	74,560,717	42,682,128	58,326,978
Total pension liability - beginning	**2,359,605,516**	**2,327,562,823**	**2,253,002,106**	**2,210,319,978**	**2,151,993,000**
Total pension liability - ending	**$ 2,410,614,058**	**$2,359,605,516**	**$2,327,562,823**	**$2,253,002,106**	**$ 2,210,319,978**
Plan fiduciary net position					
Contributions - employer	$ 87,541,882	$ 84,474,451	$ 77,100,573	$ 97,170,796	$ 94,917,886
Contributions - members	12,942,622	10,656,243	10,350,709	6,728,131	3,623,467
Net investment income	139,512,271	163,156,838	40,260,042	66,818,040	209,647,169
Benefit payments, including refund of member contributions	(149,154,499)	(144,608,910)	(139,197,716)	(134,270,658)	(129,973,970)
Administrative expense	(3,616,054)	(3,584,506)	(3,515,492)	(3,748,434)	(3,711,975)
Net change in plan fiduciary net position	$ 87,226,222	$ 110,094,116	$ (15,001,884)	$ 32,697,875	$ 174,502,577
Plan fiduciary net position - beginning	**1,627,026,498**	**1,516,932,382**	**1,531,934,266**	**1,499,236,391**	**1,324,733,814**
Plan fiduciary net position - ending	**1,714,252,720**	**1,627,026,498**	**1,516,932,382**	**1,531,934,266**	**1,499,236,391**
Net pension liability - ending	**$ 696,361,338**	**$ 732,579,018**	**$ 810,630,441**	**$ 721,067,840**	**$ 711,083,587**
Plan fiduciary net postion as a percentage of the total pension liability	71.10%	68.95%	65.17%	68.00%	67.83%
Covered payroll	$ 403,454,892	$ 391,121,606	$ 399,465,753	$ 408,095,216	$ 401,291,783
Net pension liability as a percentage of covered payroll	172.60%	187.30%	202.93%	176.69%	177.20%

Note: This schedules is intended to present information for 10 years. However until a full 10-year trend is compiled, the System will present information for those years for which information is available.

Employees' Retirement System
City of Baltimore, Maryland
Required Supplementary Information
SCHEDULE OF EMPLOYER CONTRIBUTIONS AND INVESTMENT RETURNS

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarial determined contribution	$ 87,541,882	$ 84,474,451	$ 75,862,000	$ 90,489,000	$ 91,286,000	$ 88,300,214	$ 77,995,003	$ 62,374,396	$ 48,748,397	$ 43,673,027
Contributions in relations to actuarially determined contribution	87,541,882	84,474,451	77,100,573	97,170,796	94,917,886	88,300,214	77,995,003	62,374,396	48,748,397	43,673,027
Contribution deficiency (excess)	$ -	$ -	$ (1,238,573)	$ (6,681,796)	$ (3,631,886)	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 403,454,892	$ 391,121,606	$ 399,465,753	$ 408,095,216	$ 401,291,783	$ 392,868,271	$ 390,557,576	$ 392,941,135	$ 401,328,980	$ 398,009,463
Contributions as a percentage of payroll	21.70%	21.60%	19.30%	23.81%	23.65%	22.48%	19.97%	15.87%	12.15%	10.97%

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Annual money-weighted rate of return, net of investment expense	8.1%	11.7%	2.7%	4.6%	15.2%	12.8%	-1.7%	19.9%	-11.3%	-18.1%

1. The total recommended contributions increased by 13.08% from $43,673,028 for fiscal year 2009 to $48,748,396 for fiscal year 2010 as a reflection of the prior year's experience and increased unfunded actuarial liability as of June 30, 2008. This represents a projected increase in cost as a percent of pay from 12.61% to 13.26%.

   The valuation for fiscal year 2009 reflects a significant increase in the number of active participants for the Baltimore City Public School System that will be covered under the Plan. The membership increased from 1,548 in 2008 to 1,787 in 2009.

2. The total recommended contribution increased by 28% from $48,748,397 for fiscal year 2010 to $62,374,396 for fiscal year 2011 as a reflection of the prior years' experience and increased unfunded actuarial liability as of June 30, 2009. This represents a projected increase in cost as a percent of pay from 13.26% to 15.67%.

3. The total recommended contribution increased by 25.0% from $62,374,396 for fiscal year 2011 to $77,995,003 for fiscal year 2012 as a reflection of the prior years' experience and increased unfunded actuarial liability as of June 30, 2011. This represents a projected increase in a cost as a percent of pay from 15.67% to 19.43%.

4. The total recommended contribution increased by 13.2% from $77,995,003 for fiscal year 2012 to $88,300,214 for fiscal year 2013 as a reflection of the prior years' experience and increased unfunded actuarial liability as of June 30, 2011. The experience study changes increased the recommended contributions by $10,305,211. This represents a projected increase in cost as a percent of pay from 19.43% to 22.47%.

   The newly adopted funding policy of the Board provides for the unfunded actuarial liability to be amortized over a fixed period of 20 years targeting 100% funding by the fiscal year ending 2032.

5. The total recommended contribution increased by 7.5% from $88,300,214 for fiscal year 2013 to $94,917,886 for fiscal year 2014 as a reflection of the prior years' experience and increased unfunded actuarial liability as of June 30, 2012.

   The actuarial funding method was changed from the Projected Unit Cost Method to the Entry Age Normal Method to make funding measures consistent with anticipated accounting measures required under new accounting standards issued by the Governmental Accounting Standard Board (GASB). This change resulted in an increase of the unfunded actuarial liability of $100.2 million.

6. The total recommended contribution increased by 2.4% from $94,917,886 for fiscal year 2014 to $97,170,796 for fiscal year 2015 as a reflection of the prior years' experience and increased unfunded actuarial liability as of June 30, 2013. Fiscal year 2013 contributions were paid in two installments. Interest receivable on the installments will be calculated with the actuarial results.

   Ordinance 13-144 was enacted by the Mayor and City Council introducing contributions for active ERS members and eliminating the post retirement variable benefit increase. The Ordinance provides that effective July 1, 2013 members will contribute 1% of pay, to continue each year at 1% increments provided that 2% compensation is received for each year of contribution until employee contributions reach 5% of compensation.

7. Plan C member contributions were contingent upon increases in pay which were yet to be negotiated at the time the July 1, 2013 valuation was completed and when the City made the contribution for fiscal year 2014, the City contribution was not offset for Plan C member contributions. To account for member contributions and credits to the City funding requirement, the fiscal year 2015 contribution of $97,170,796 previously calculated as of July 1, 2013 valuation was adjusted to account for expected Plan C member contributions of 2% of pay resulting in a net City contribution of 90,489,236. The City contribution is further reduced for

payments made in excess of required contribution after adjusting for member contributions actually received. This results in a net recommended City contribution of $86,857,159 for FYE 2015.

8. The actuarial value of assets is offset by the normal cost reserve from plan change, due to the continued recognition of prior year's investment losses; the rate of return is below expectation with an asset rate of return for the year of 6.10%, which is compared to the expected investment return of 7.75% for the prior year. As of June 30, 2016, previous investment losses are partially being recognized and further offset by investment gains, which are being deferred for recognition in the future.

9. The unfunded actuarial liability (Actuarial Liability minus Actuarial Assets) decreased from $670.38 million on June 30, 2016 to $644.11 million on June 30, 2017. This decrease is primarily attributable to contributions toward the unfunded actuarial liability of $70.6 million and the liability gain of $11.3 million offset by the asset loss of $14.2 million (based on actuarial assets) and interests costs of the unfunded. The total recommended contribution for FYE 2018 was revised from $87,541,882 to $90,743,732 because the expected member contribution rate increase of 1% did not occur since the City did not increase pay by the required 2%. This resulted in a shortfall of contributions of $3.2 million for FYE 2018. The revision represents an increase in cost as a percent of pay from 21.91% to 22.72% for FYE 2018.

10. The unfunded actuarial liability (Actuarial Liability minus Actuarial Assets) decreased from $644.11 million on June 30, 2017 to $625.26 million on June 30, 2018. This decrease is primarily attributable to contributions being paid into the system to pay down the unfunded liability. The total recommended contributions decreased from $89,866,171 for FYE 2019 to $86,953,791 for FYE 2020. This represents a decrease in cost as a percent of payroll from 22.98% to 21.55% for FYE 2020.

11. 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 the contribution rates reported in the schedule:

Valuation Date	July 1, 2016
Timing	Actuarial determined contribution rates are calculated based on the actuarial valuation two years prior to the beginning of the plan year.

<u>Key methods and assumptions used to determine contribution rates:</u>

Actuarial cost method	Entry Age Normal Cost Method
Asset valuation method	Market Value
Amortization method	Level percent of pay closed period with 15 years remaining as of July 1, 2016
Discount rate	7.5% until retirement, 6.5% after retirement.
Investment return	7.5%, which is net of all expenses. While this is the same rate used for funding purposes which includes administrative expenses, for consistency in measurement, we have used the same rate for the expected future asset return.
Social Security Wage Base	3.00%
Inflation	2.65%
Salary increases	Age based salary scale
Mortality	RP 2000 Combined Mortality Table set forward 2 years with projections using 50% of the AA scale projected 15 years for healthy lives. RP 2000 Combined Mortality Table set forward 4 years with projections using 50% of the AA scale projected 15 years for disabled lives.

A complete description of the methods and assumptions used to determine contribution rates for the fiscal year ending June 30, 2018 can be found in July 1, 2016 actuarial valuation report.

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ADMINISTRATIVE EXPENSES
For the Year Ended June 30, 2018

Salaries and wages:		
Permanent full-time salaries	$ 1,775,402	
Overtime & Contracts	25,447	
Total salaries and wages		$ 1,800,849
Other personnel costs:		
Social security	359,620	
Medical insurance and health care	296,785	
Others	15,639	
Total other personnel costs		672,044
Contractual services:		
Rent (Lease agreement)	260,150	
Retirement payroll processing	201,615	
Computer network services and supplies	147,297	
Actuarial services	111,866	
Computer Equipments	86,721	
Professional services	13,773	
Audit Fees	38,280	
Postage	25,525	
Telephone systems	23,754	
Printing	19,561	
Lease of business machines	12,595	
Dues and publications	5,180	
Total contractual services		946,317
Others:		
Depreciation expense	126,325	
Trustee Education and meetings	41,300	
Office Supplies	11,910	
Miscellaneous	10,986	
Maintenance and repairs	6,323	
		196,844
Total administrative expenses		$ 3,616,054

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF INVESTMENT EXPENSES
SCHEDULE OF PAYMENTS TO CONSULTANTS
For the Year Ended June 30, 2018

Schedule of Investment Expenses

Investment expenses:	**Fees**
Investment management fees	$ 8,144,192
Investment consultant fees	381,171
Custodial fees	114,459
Subtotal	8,639,822
Securities lending fees	160,027
Total investment expenses	**$ 8,799,849**

Schedule of Payments to Consultants

Firm	**Fees**	**Nature of Service**
Cheiron, Inc.	111,866	Actuarial Services
W&K Systems Inc.	78,809	Computer Network Services
DocPoint Solutions	70,698	Document management
Pension Technology, Inc.	66,835	Benefits Adminstration System
CliftonLarsonAllen, LLP	38,280	Financial Audit
RSM US Product Sales	23,123	Accounting System Upgrade
MEDI	21,844	Document management
Quality associates Inc.	13,070	Document management
Total of payments to consultants	**$ 424,525**	

Note: A schedule of fees and commissions is also illustrated in the Investment Section on page 55.

INVESTMENT SECTION

MarquetteAssociates

INVESTMENT CONSULTANT'S REPORT

Introduction

This report, prepared for the City of Baltimore Employees' Retirement System (ERS) by Marquette Associates, Inc. is based on information supplied by the System's custodian, Mellon Bank, N.A (Mellon). Mellon provides Marquette Associates, Inc. with beginning and ending market values, cash flows, transactions, and positions for the ERS as well as each manager, where applicable. Mellon audits the information contained in its accounting reports monthly. The rates of return are calculated using a time-weighted rate of return methodology based upon market values. The returns are reported on both net of fees and gross of fees to provide comparisons with the appropriate benchmarks. Investment information is reported to the greatest degree possible in conformance with the presentation standards of Global Performance Investment Standards (GIPS) formerly known as AIMR.

Distinction of Responsibilities

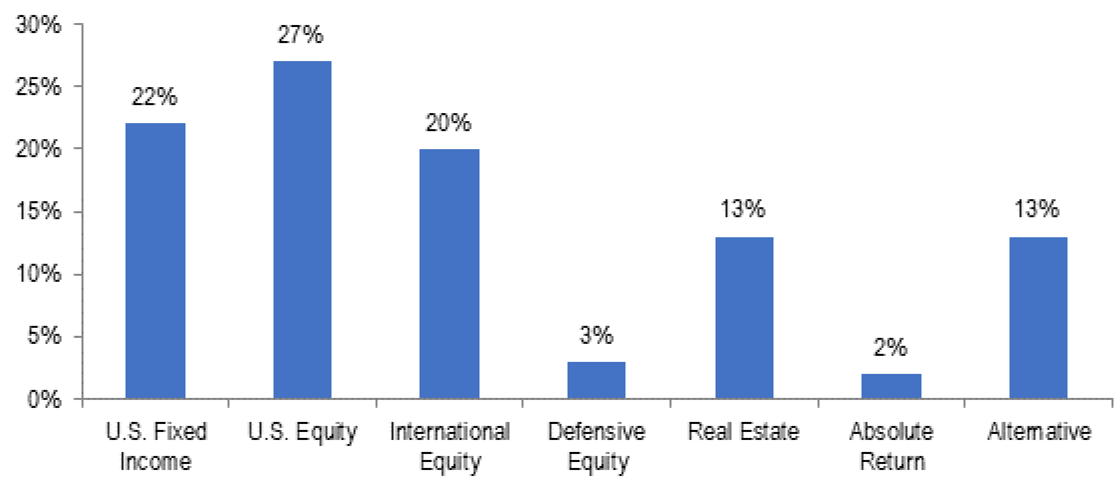
In recognition of the importance of prudent investment of System assets to both the City and the System's members, the Board, as primary fiduciary of the System, shall periodically review the asset management and actuarial characteristics of the System to ensure that investments are managed in a manner that is consistent with the retirement objectives of the System's members. These responsibilities are detailed in the Investment Guidelines.

The primary investment objectives of the System are to preserve the capital value of the System assets adjusted for inflation, to ensure adequate liquidity to meet benefit liabilities as they fall due, to meet the actuarial interest rate assumptions, and without unduly jeopardizing the above objectives, to exceed the investment return objective by the astute management of System assets.

The investment managers appointed to execute the policy will invest ERS assets in accordance with the policy guidelines and with their judgment concerning relative investment values. In particular, the investment managers are accorded full discretion to: (1) select individual securities, (2) make periodic strategic adjustments to the mix of the common stock and fixed income securities, where applicable and (3) diversify their portfolios.

Investment Asset Allocation Structure

The goal of the asset allocation structure is to provide a favorable rate of return coupled with a prudent level of risk. The System implemented a new Asset Allocation during the year to achieve long term return objectives while reducing risk. As a result, the System implemented strategies within the fixed income and international equity programs. The following table outlines the ERS's investment policy targets:



Investment Objective

The investment return is evaluated against a policy benchmark consisting a pro rata representation of the asset allocation utilizing indices outlined in the Investment Policy. In addition, the ERS's performance is evaluated relative to the Investorforce Public Fund Universe, a universe representing the performance of 249 Public Funds. Marquette utilizes the InvestorForce Performance Reporting network, an advanced and comprehensive analysis and performance management platform, comprised of over 40 different investment consulting firms located throughout the United States.

Market Overview

Spurred by strong corporate earnings, consumer spending and the positive impact of tax cuts, the U.S. Equity market continued to accelerate over the year to post double digit gains. The stock market, as proxied by the Russell 3000 Index, posted a return of 14.8%. The best performing sectors continued to be dominated by growth styles fueled by the surge in technology stocks. Improving economic fundamentals in Europe led to strong returns in international markets but were tempered by the stronger dollar's currency impact on U.S. investor returns. As bond yields rose and the yield curve flattened, the bond market posted a loss of -0.4%. High yield and bank loan securities led the market with returns above 4%, Core real estate continued to outperform fixed income with more attractive yields and continued investor interest.

Investment Performance

For the fiscal year ending June 30, 2018, the System posted an 8.5% return which outpaced the policy benchmark of 7.2% and ranked in the top half of the peer group, in the 37th percentile. The fixed income portfolio benefited from its higher overall yield and exposure to floating rate issues in a bond market that was negatively impacted by rising rates. Within real estate, an emphasis on the strong performing industrial sector as well as persistent income also positively contributed to returns. The international equity asset class benefited from its small-cap equity names as small companies outpaced their larger counterparts.

The market value of the ERS assets increased from the prior year to finish at $1,714.5 billion. The Total Fund market value for this report included both capital appreciation and cash flow activity. At the end of fiscal year 2018, the System's assets were allocated as follows:

			Fiscal Year Rate of Return	
	Fair Value (in millions)	Percent of Total	ERS	Benchmark
U.S. Equity	$511.6	29.8%	14.2%	14.8%
International Equity	$390.7	22.8%	10.3%	7.8%
U.S. Fixed Income	$453.6	26.5%	1.0%	-0.4%
Real Estate	$158.4	9.2%	8.4%	7.2%
Defensive Equity	$65.0	3.8%	3.9%	7.8%
Private Equity*	$97.4	5.7%	11.5%	12.9%
Hedge Funds**	$2.1	0.1%	---	---
Cash Equivalents	$35.7	2.1%	---	---
Total Fund	$1,714.5	100.0%	8.5%	7.2%

*Private Equity returns are fiscal YTD through March 31, 2018.
**Hedge Funds were defunding at the end of the fiscal year.

Nichole Roman-Bhatty

Nichole Roman-Bhatty
Managing Partner
Marquette Associates, Inc.

Prepared by Marquette Associates, Inc.

Employees' Retirement System
City of Baltimore, Maryland
OUTLINE OF INVESTMENT OBJECTIVES AND POLICIES

Investment Objectives

The primary investment objectives of the Employees' Retirement System (the Plan) 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 following investment objectives are given in descending order of priority:

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

General Investment Policy

The Employees' Retirement System 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. The Plan's investment managers are expected to familiarize themselves with these laws.

Investment policy for the Plan relates to the portfolio of all assets that comprise the total holdings of the Plan. The Board of Trustees (Board) recognizes that the objective of a sound and prudent policy is to produce investment results that will preserve the assets of the Plan, as well as, to maximize earnings of the Plan 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 Plan and its projected benefit payments. Should the projected finances of the Plan change significantly, the applicable Federal or State statutes be amended, or changes in the Plan'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.

In general, the Board recognizes that large pools of assets must be diversified over several different security classifications in order to reduce risk. The following asset allocation has been established as an overall objective for the total holdings of the Plan:

Asset Category	Target Allocation
Domestic equity	27%
Defensive equity	3%
International equity	20%
Fixed Income	22%
Private Equity	13%
Real Estate	13%
Hedge Funds	2%

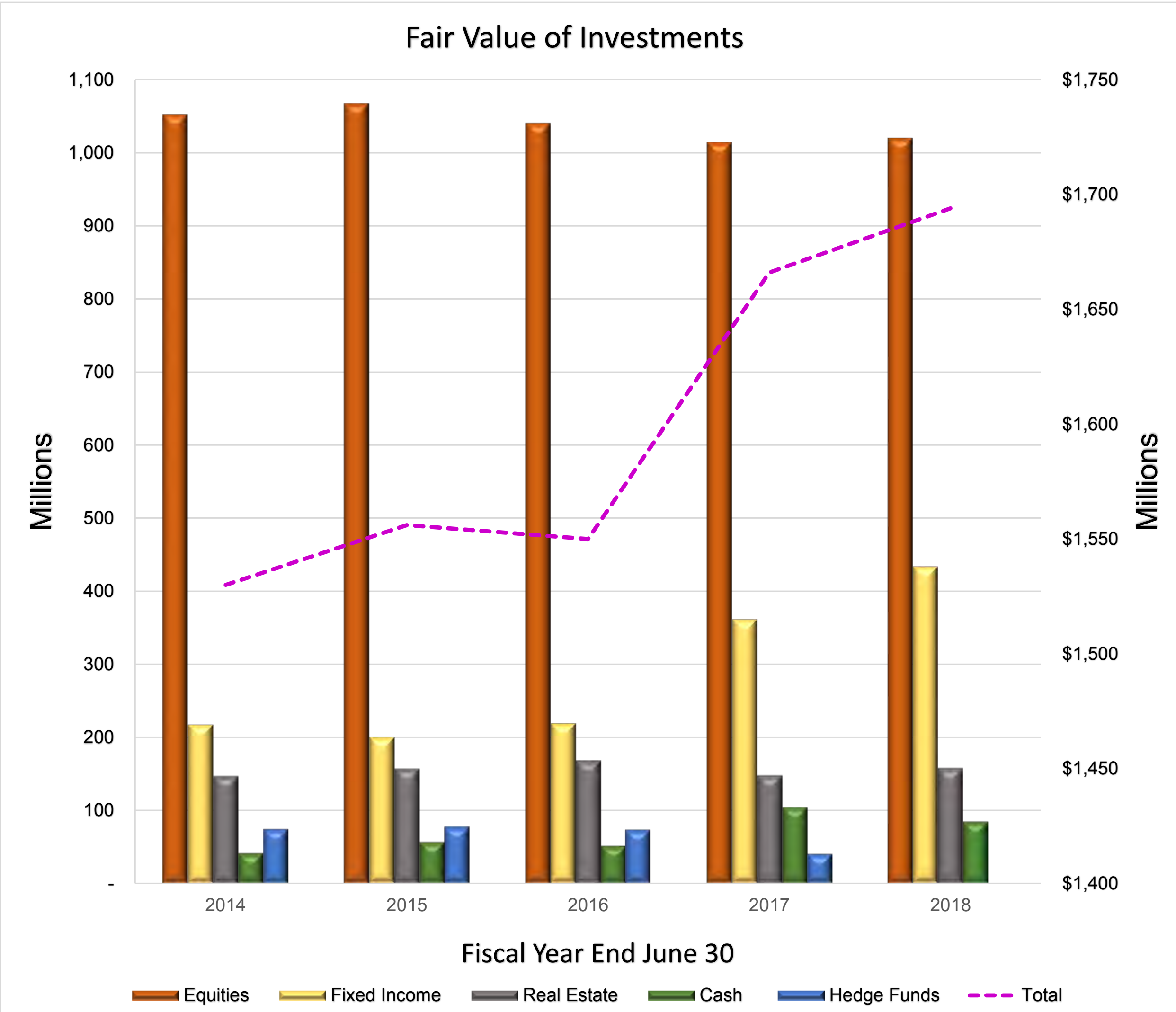
Within each major security classification, investments should be diversified and excessive concentration in any particular security, company or industry is to be avoided. Detailed guidelines in this regard have been supplied to each of the Plan's investment managers. Additionally, each is expected to be familiar with the investment provisions in Article 22 of the Baltimore City Code. Subject to these objectives and guidelines, and the Plan laws referenced herein, the investment managers shall have full discretion of investment decisions. Managers are advised to notify the Board in writing if these objectives cannot be met or if the guidelines constrict performance, and are encouraged to suggest changes in these guidelines at any time.

Proxy Voting

Pursuant to a U.S. Department of Labor directive, the Board of Trustees 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 Plan 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.

PORTFOLIO COMPOSITION



(amounts expressed in millions)

	2014		2015		2016		2017		2018	
Equities	1,052	69%	1,067	69%	1,040	67%	1,014	61%	1,020	60%
Fixed Income	217	14%	200	13%	219	14%	361	22%	433	26%
Real Estate	146	9%	156	10%	167	11%	147	9%	157	9%
Cash	$ 41	3%	$ 56	3%	$ 51	3%	$ 104	6%	$ 84	5%
Hedge Funds	74	5%	77	5%	73	5%	40	2%	0	0%
Total	$ 1,530	100%	$ 1,556	100%	$ 1,550	100%	$ 1,666	100%	$ 1,694	100%

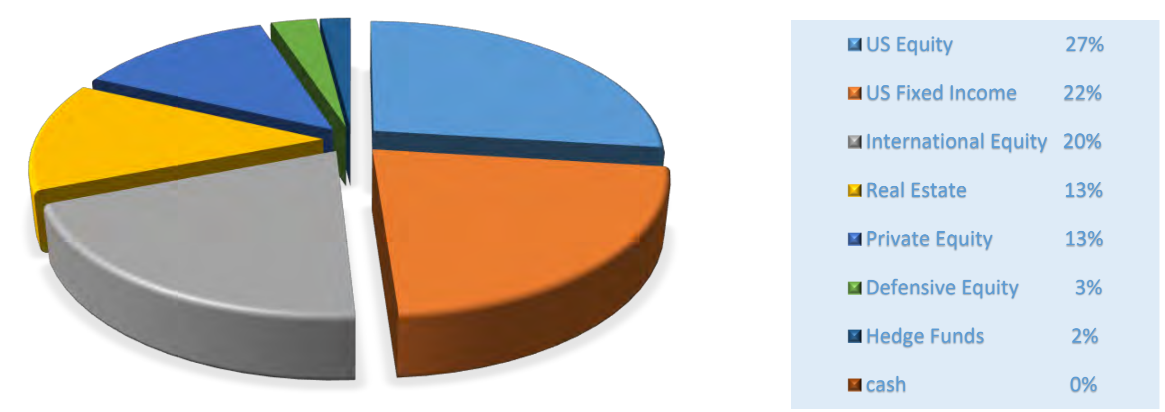
Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT RESULTS
TIME WEIGHTED RATE OF RETURN, CURRENT VALUE BASIS

		Annualized		
	FY 2018	**3 Years**	**5 Years**	**10 Years**
TOTAL PORTFOLIO	8.5 %	7.8 %	8.8 %	6.8 %
Median Public Pension Fund	7.2	6.8	8.0	6.9
DOMESTIC EQUITIES	14.2	11.0	12.8	9.9
Russell 3000	14.8	11.6	13.3	10.2
DEFENSIVE EQUITIES	3.9	-	-	-
CBOE Put Write Index	5.8	7.8	8.0	6.8
50% S&P 500/50% 91 Day T-Bill	7.8	6.3	6.9	5.4
INTERNATIONAL EQUITIES	10.3	8.6	7.9	4.0
MSCI ACWI ex-US	7.8	5.6	6.5	3.0
FIXED INCOME	1.0	2.5	2.8	4.3
Barclays Aggregate	(0.4)	1.7	2.3	3.7
REAL ESTATE	8.4	9.7	11.7	5.3
NPI	7.2	8.3	9.8	6.2
CPI + 5%	8.0	6.9	6.6	6.5
PRIVATE EQUITY COMPOSITE	14.5	12.3	13.6	
Private Equity Benchmark	16.5	11.4	12.6	
CPI + 6%	9.0	7.9	7.6	

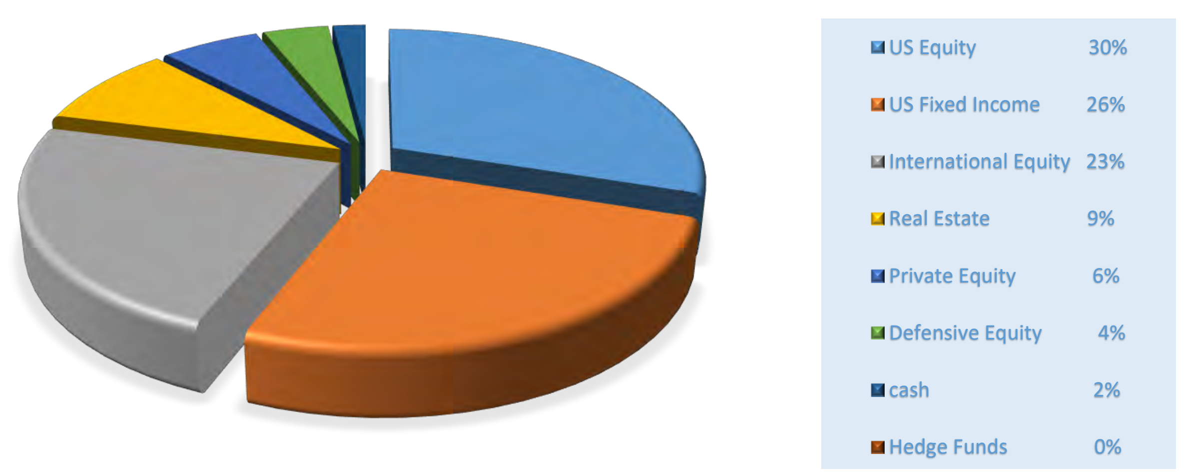
Note: The calculations above were prepared by the Employees' Retirement System's investment advisor, Marquette Associates, Inc. using a time weighted rate of return, based on market rate of return. The performance shown for the Total Portfolio does not include "Other Assets" dedicated to the payment of post-retirement benefit increases. The Median Public Pension Fund exhibits the overall rate of return for the average Public Pension Plan as measured by the Investorforce Public Universe.

Employees' Retirement System
City of Baltimore, Maryland
ASSET ALLOCATION - ACTIVELY MANAGED ACCOUNTS
June 30, 2018

TARGET ASSET ALLOCATION



ACTUAL ASSET ALLOCATION



Employees' Retirement System
City of Baltimore, Maryland
TOP EQUITY AND FIXED INCOME HOLDINGS BY FAIR VALUE
June 30, 2018

		Shares		Fair Value
TOP TEN DOMESTIC EQUITY HOLDINGS				
1	Target Corp	95,100	$	7,239,012
2	Cisco Systems Inc	160,700		6,914,921
3	Allstate Corp	61,000		5,567,470
4	Pfizer Inc	152,908		5,547,502
5	CVS Health Corp	85,600		5,508,360
6	Verizon Communications Inc	104,600		5,262,426
7	Walmart Inc	54,000		4,625,100
8	Walgreens Boots Alliance Inc	73,400		4,405,101
9	Chevron Corp	33,600		4,248,048
10	Exxon Mobil Corp	50,300		4,161,319
	Total		$	53,479,259
TOP TEN INTERNATIONAL EQUITY HOLDINGS				
1	AIA Group Ltd Hk/01299	395,000	$	3,459,095
2	NIFCO Inc/Japan	97,600		3,022,327
3	Deutsche Boerse AG	22,054		2,939,265
4	Cae Inc	140,833		2,923,828
5	AAK AB	182,976		2,916,653
6	Bayer AG	25,326		2,789,870
7	Royal Dutch Shell Plc B SHS	73,081		2,618,126
8	Dassault Systems SE	18,559		2,600,227
9	Spirax-Sarco Engineering Plc	30,117		2,592,480
10	Sats Ltd	692,600		2,539,787
	Total		$	28,401,658
TOP TEN DOMESTIC FIXED INCOME HOLDINGS				
1	Commit To Pur FNMA Sf Mtg 4.000% 08/01/2048 Dd 08/01/18	10,100,000	$	10,282,406
2	Commit To Pur FNMA Sf Mtg 3.00% 08/01/2048 Dd 08/01/18	4,000,000		3,871,080
3	US Treasury Note 2.00% 11/15/2026 Dd 11/15/16	3,400,000		3,186,310
4	Commit To Pur FHLMC Gold Sfm 4.00% 08/01/2048 Dd 08/01/18	1,800,000		1,832,094
5	Commit To Pur FNMA Sf Mtg 4.000% 07/01/2048 Dd 07/01/18	1,600,000		1,631,200
6	Commit To Pur FNMA Sf Mtg 3.00% 07/01/2033 Dd 07/01/18	1,500,000		1,491,195
7	IMC Home Equity Loan Trus 3 A7 Var Rt 08/20/2029 Dd 06/01/98	1,371,009		1,364,359
8	U.S. Treasury Note 2.250% 08/15/2027 Dd 08/15/17	1,400,000		1,332,464
9	FNMA Pool #0Ad0206 5.500% 09/01/2039 Dd 09/01/09	1,178,784		1,272,874
10	US Treasury Note 2.750% 02/15/2028 Dd 02/15/18	1,200,000		1,189,740
	Total		$	27,453,722

A complete list of portfolio holdings is available on request.

Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT SUMMARY
June 30, 2018

	Fair Value	Percentage of Fair Value	Percentage of Total Fair Value
Equities - Corporate Stock			
Financial	$ 144,461,870	14.2%	
Science and Technology	99,975,088	9.8%	
Consumer and Capital Goods	90,533,328	8.9%	
Health Care and Pharmateuticals	60,161,468	5.9%	
Energy	57,334,104	5.6%	
Industrial and Machinery	44,655,569	4.4%	
Commercial Services	37,640,025	3.7%	
Transportation	33,357,025	3.3%	
TELECOMMUNICATIONS	29,115,807	2.9%	
Engineering & Construction	24,496,695	2.4%	
Media and Entertainment	19,718,177	1.9%	
Aerospace/Defense	14,169,733	1.4%	
Agriculture	5,247,487	0.5%	
Others	4,004,068	0.4%	
Total Equties - Corporate Stocks	664,870,444	65.2%	
Others			
Commingled Domestic Equity	180,567,395	17.7%	
Commingled International Equity	36,602,589	3.6%	
Defensive Equity	39,999,956	3.9%	
Private Equity	98,045,566	9.6%	
Total Others	355,215,506	34.8%	
Total equities	**1,020,085,950.0**	100.0%	**63.3%**
Fixed Income:			
U.S. Treasury Notes and Bonds	9,937,143	2.3%	
US Govt Agency Bonds	65,731,841	15.2%	
Non-US Govt Agency Bonds	22,451,287	5.2%	
	98,120,271	22.7%	
Corporate:			
Financial	103,233,631	23.8%	
Industrial and Machinery	5,374,852	1.2%	
Health Care and Pharmateuticals	3,998,163	0.9%	
Energy	3,990,138	0.9%	
Consumer and Capital Goods	2,830,860	0.7%	
Telecommunications	1,838,970	0.4%	
Science and Technology	861,818	0.2%	
Commercial Services	810,380	0.2%	
Transportation	775,103	0.2%	
Aerospace/Defense	108,576	0.0%	
Others	54,588	0.0%	
Total corporate	123,877,079	28.6%	
Commingle fixed income fund	211,090,490	48.7%	
Total fixed income	**433,087,840**	**100.0%**	**26.9%**
Other investments:			
Real estate	157,097,461	100.0%	
Total other investments	**157,097,461**	**100.0%**	**9.8%**
Total investments	**$ 1,610,271,251**		**100.0%**

Employees' Retirement System
City of Baltimore, Maryland
SUMMARY SCHEDULE OF FEES AND COMMISSIONS
For the Year Ended June 30, 2018

Investment managers' fees	**Assets Under Management**	**Fees**
Domestic Equities	$ 504,903,459	$ 2,569,813
Domestic Fixed Income	433,087,840	978,327
International Equities	377,136,969	1,773,839
Real Estate	157,097,461	1,233,580
Private Equities	98,045,566	1,588,633
Defensive Equities *	39,999,956	0
Total investment managers' fees		**$ 8,144,192**

* Defensive equity values presented net of fees.

Other investment service fees:	
Investment consultant fees	$ 381,171
Securities Lending Collateral	160,027
Custodial fees	114,459
Total other investment service fees	**$ 655,657**

Brokerage Fees
Broker's fees on investment transactions for the year ended June 30, 2018 amounted to **$422,123**. The highest 30 paid brokers are listed below.

Brokerage Firms	Amount of Commissions	Number of Shares Traded	Commission per Share	Brokerage Firms	Amount of Commissions	Number of Shares Traded	Commission per Share
Pershing Llc, Jersey City	$ 39,711	2,257,242	$ 0.0176	Morgan Stanley & Co Inc, Ny	$ 6,050	112,410	$ 0.0538
Cowen And Company, Llc, Jersey City	27,144	834,346	0.0325	Hsbc Bank Plc (Midland Bk)(Jac), London	5,867	539,418	0.0109
Merrill Lynch Pierce Fenner Smith Inc NY	25,055	1,065,266	0.0235	Deutsche Bk Secs Inc, Ny (Nwscus33)	5,749	146,178	0.0393
Hilltop Securities Inc, Dallas	20,013	667,100	0.0300	Baird, Robert W & Co Inc, Milwaukee	5,670	165,219	0.0343
Instinet Europe Limited, London	17,983	1,766,395	0.0102	National Finl Svcs Corp, New York	5,641	160,770	0.0351
Jefferies & Co Inc, New York	17,320	423,514	0.0409	Oppenheimer & Co Inc, New York	5,317	113,600	0.0468
Investment Technology Group Ltd,Dublin	14,125	3,124,408	0.0045	Stephens Inc, Little Rock	5,050	126,260	0.0400
Goldman Sachs & Co, Ny	12,681	1,926,102	0.0066	Credit Suisse, New York (Csus)	4,863	131,484	0.0370
Stifel Nicolaus	12,296	458,899	0.0268	Exane, Paris (Exanfrpp)	4,464	219,020	0.0204
Bny Convergex Execution Sol, New York	12,158	2,765,513	0.0044	Wells Fargo Securities Llc, Charlotte	4,297	101,200	0.0425
Sanford C Bernstein & Co Inc, London	10,651	1,244,901	0.0086	Ubs Securities Llc, Stamford	4,254	98,176	0.0433
Bernstein Sanford C & Co, New York	10,079	609,912	0.0165	Virtu Americas Llc, Jersey City	4,180	88,000	0.0475
Bny Capital Markets Inc, New York	8,922	297,400	0.0300	Bnp Paribas Sec Srvs Sa, Singapore	4,117	311,358	0.0132
Raymond James & Assoc Inc, St Petersburg	8,886	566,027	0.0157	Instinet Pacific Ltd, Hong Kong	4,063	11,314,798	0.0004
Rbc Capital Markets Llc, New York	6,139	323,284	0.0190	Cowen And Co Llc, New York	3,765	105,820	0.0356

Brokerage Commissions
Because of the highly visible nature of the Employees' Retirement System, it is important that the investment managers have as a primary objective in investment transactions to obtain the best execution in all cases. While the investment managers are permitted to direct a portion of 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 first 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.

Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT PROFESSIONALS

EQUITY MANAGERS

The Edgar Lomax Company
Randall Eley
Springfield, Virginia

Rothschild Asset Mgmt. Inc.
Mirka Luoto
New York, New York

TimesSquare Capital Mgt.LLC
Joseph B. DeVera, Sr.
New York, New York

DEFENSIVE EQUITY MANAGER

Neuberger Berman
Carter Reynolds
New York, New York

EQUITY FUND OF FUNDS

Group Advisor
FIS Funds Management, Inc.
Shalonda Epps
Philadelphia, Pennsylvania

Activo Capital Management
Michael Brooks
Chicago, Illinois

Algert Global
Michael Wolpert
San Francisco, California

Aubrey Capital Management
Barry McCorkell
Edinburgh, Scotland

Change Global Investment
Nicole Kelleher
Camas, Washington

Decatur Capital Management
Elizabeth Crenshaw
Decatur, Georgia

Denali Advisors
Mike Munson
San Diego, California

Metis Global Partners
Antoinette Bing
San Diego, California

Redwood Investments
Mike Mufson
Newton, Massachusetts

Osmosis Investment Management
Ben Dear
London, England

INTERNATIONAL EQUITY MANAGERS

Ariel Capital Management
Gary L. Rozier
Chicago, Illinois

Harding Loevner, LP
Alec Walsh, CFA
Bridgewater, New Jersey

Lazard Asset Management, LLC
Eric B. McKee
New York, New York

Mondrian Investment Partners
Laura Conlon
Philadelphia, Pennsylvania

HEDGE FUND MANAGERS

Corbin Capital Partners
Craig Bergstrom, CFA
New York, New York

ALTERNATIVE RISK PREMIA

Lombardia Odier
Alkesh Gianchandani
New York, New York

INVESTMENT PROFESSIONALS

FIXED INCOME MANAGERS

Manulife Asset Management
Nancy C. Irving
Boston, Massachusetts

Pacific Asset Management
Michael Spitler
Newport Beach, California

PIMCO
Ignatio Galae
New York, New York

Semper Capital Mgt. (UCM Partners) .
Thomas Mandel
New York, New York

REAL ESTATE MANAGERS

American Realty Advisors
Stanley Iezman
Glendale, California

Ares Capital Mgt. (AREA)
Steven M. Wolf
Atlanta, Georgia

Barings
Pamela McKoin
Hartford, Connecticut

Thor Urban
Joseph J. Sitt
New York, New York

PRIVATE EQUITY & VENTURE CAPITAL MANAGERS

Abbott Capital, Inc.
Charles H. vanHorne
New York, New York

Adams Street Partners, LLC
Eric R. Mansell
Chicago, Illinois

Fairview Capital, LP
Laurence C. Morse
West Hartford, Connecticut

I Squared Capital
David Velasquez
New York, New York

Landmark Partners
Francisco L. Borger
Simsbury, Connecticut

RCP Advisors, LLP
William F. Souder
Chicago, Illinois

Summit Partners
James M. Freeland
Boston, Massachusetts

Warburg Pincus
James W. Wilson, CFA
New York, New York

SECURITIES LENDING

BNY Mellon Global Securities Lending
Michael McDermott
Pittsburgh, Pennsylvania

PASSIVE MANAGEMENT

Mellon Capital Management Corp.
Brian Hock
Pittsburgh, Pennsylvania

GLOBAL CUSTODIAN

BNY Mellon Asset Servicing
Sarah Baulch
Pittsburgh, Pennsylvania

INVESTMENT ADVISOR

Marquette Associates, Inc.
Nichole Roman-Bhatty
Chicago, Illinois

Pension consulting Alliance LLC
Judy Chambers
Portland, Oregon

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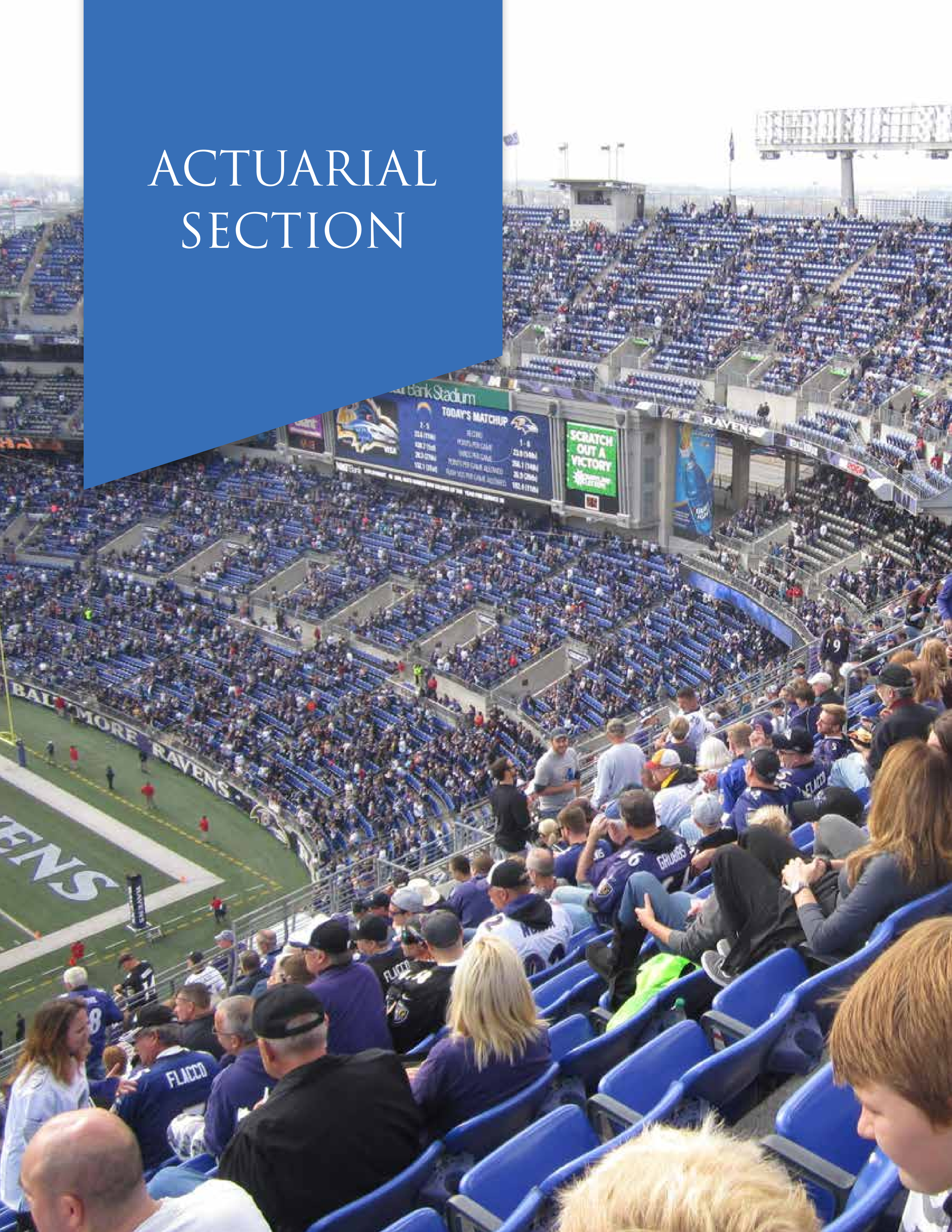
ACTUARIAL SECTION



October 12, 2018

Board of Trustees
Employees' Retirement System
7 East Redwood Street, 12th Floor
Baltimore, Maryland 21202-3470

Re: 2018 CAFR

Honorable Members of the Board of Trustees:

Cheiron Inc. performs an actuarial valuation of the System at the end of each fiscal year. The most recent valuation, as of June 30, 2018, determined the employer's contribution for the plan year beginning July 1, 2019. The contribution is determined for the following year and therefore, it is our understanding the contribution plus interest is historically made during the fiscal year ending 2020.

The Employees' 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.

The funding method used in the annual valuation is the Entry Age Normal Cost method. This method tends to computes level contributions as a percentage of pay over the entire working lifetime of the plan participant. The employer's contribution is increased or decreased to amortize the difference between the actuarial value of assets and the actuarial accrued liability as a level dollar amount over 20 years as of July 1, 2011, targeting 100% funding by the fiscal year ending 2032.

The valuation is based on a closed group of membership; no new hires are assumed. The actuarial value of assets for this disclosure is equal to the market value adjusted for investment performance above or below the assumed rate of return. Such gains or losses are aggregated and recognized at the rate of 20% each year. Membership data used for the actuarial valuation is supplied by the Retirement System. The data is examined by the actuary for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. Asset information is provided on an unaudited basis.

The valuation is based on actuarial assumptions recommended by the Actuary and approved by the Board of Trustees and are subject to formal review every five years. The assumptions and methods used for funding purposes meet the parameters set forth in the disclosures presented in the financial section by Governmental Accounting Standards Board (GASB) Statement No. 67 and the Actuarial Standards of Practice. Some actuarial assumptions are incorporated into Article 22 of the Baltimore City Code. The City Code requires a periodic review of the assumptions by the Actuary. The most recent review examined experience from 2010 to 2014 and resulted in changes that were incorporated in the June 30, 2015 valuation. The current assumptions are a reasonable estimate of the anticipated experience of the System.

www.cheiron.us 1.877.CHEIRON (243.4766)

The assumptions and methods used in determining the assets, liabilities, and the annual required contributions of the employer as defined by the Governmental Accounting Standards Board meet the parameters set by GASB Statement No. 67, *Financial Reporting for Pension Plans.* The supporting schedules that were prepared by Cheiron and reviewed by the System include Actuarial Funding Methods and Actuarial Assumptions, Schedule of Active Member Valuation Data, Schedule of Retirees and Beneficiaries Removed from Rolls, Solvency Test, Analysis of Financial Experience in the Actuarial Section and the Schedule of Employer Contributions and the Schedule of Funding Progress in the Financial Section. The undersigned meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this letter and the actuarial report.

These results were prepared solely for the Employees' Retirement System of the City of Baltimore for the purposes described herein, except that the plan auditor may rely on these results solely for the purpose of completing an audit related to the matters herein. Other users of these results are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

To the best of our knowledge, the exhibits that make up the actuarial section of this report and its contents, including the methods and assumptions used for funding purposes, when taken in context with our full valuation report as of July 1, 2018, have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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.

Sincerely,
Cheiron

Anu Patel

Kenneth A. Kent, FSA, FCA, MAAA, EA
Principal Consulting Actuary

Anu Patel, FSA, MAAA, EA
Principal Consulting Actuary

Attachments

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Actuarial Funding Method

Method of Funding: (Effective 7/1/1989, Revised 7/1/2012)	Liabilities and contributions shown in this report are computed using the Entry Age Normal method of funding. The Plan's normal cost is computed as the level percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement. The actuarial accrued liability is the difference between the present value of future benefits and the present value of future normal cost. The current Unfunded Actuarial Liability, which is the difference between the actuarial liability and the actuarial value of assets, is amortized as a level dollar amount over 20 years. The 20-year period decreases each year from 2011 until 2031, at which time the unfunded liability will be fully paid each year.
Asset Valuation: (Effective 6/30/1982, Revised 6/30/2011)	The actuarial value of assets is equal to the market value, adjusted for investment surpluses and deficits over a five-year period. The actuarial value of assets is the market value less cumulative unallocated earnings. Any contribution receivable for the upcoming fiscal year (as determined in the prior year's valuation) is added to the result. The actuarial value of assets will not be greater than 120% nor less than 80% of the market value of assets as of the valuation date.
Post Retirement Benefit Increases: (Effective 6/30/2011)	Annual post-retirement benefit increases are 1.5% for retirees under age 65 and 2.0% for retirees over age 65.

Actuarial Assumptions

Interest: (Effective 6/30/2016)	7.50% compounded annually until retirement except employee accumulations; 6.50% compounded annually after retirement.
Expenses: (Effective 6/30/2015)	Administrative expenses are expected to be equal to the prior years' actual expenses rounded up to the next hundred thousand dollars and added as part of the annual normal cost for the year. Investment expenses are assumed to be paid out of investment earnings.
Investment Return:	A liability weighted return on assets is expected on the basis that a 7.50% return is achieved on the portion of assets attributable to active and terminated vested participants, and a 6.50% return is assumed for retiree based assets. The weighted expected return this year is 6.93%. The liability weighted return on assets for next year's valuation will be based on the rates listed in the interest rate section above.

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Salary Scale:
(Effective 6/30/2015)

Salary increases are assumed to vary with age. Sample rates are as follows:

Age	Annual Rate of Salary Increase
20	0.0630
25	0.0580
30	0.0530
35	0.0470
40	0.0410
45	0.0370
50	0.0350
55	0.0350
60	0.0350
65	0.0350
69	0.0350

The interest rate and salary assumptions are based on an inflation rate of approximately 2.65% (Effective 6/30/2015).

Social Security:
(Effective 6/30/2011)

3.00% per year compounded annually.

Additional Assumptions:

Inflation: (Effective 6/30/2015)	2.65%
Cost of Living Adjustment: (Effective 7/1/2010)	1.50% for current retirees under age 65 and 2.0% for current retirees over age 65
Percent Married: (Effective 7/1/2011)	Males 90%, Females 80%
Spouse Age:	A husband is assumed to be 4 years older than his wife.
Remarriage rates:	None
Job Elimination Benefit	A liability load of 1.75% is applied to active retirement benefits
New Entrant Assumption:	A liability load of 0.5% is applied to active benefits for future new entrants who may have previous service restored or transferred into the System (effective 6/30/2015)

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Active decrements and service retirement rates are the same as presented in the June 30, 2015 actuarial valuation report. (Effective 6/30/2015) Sample rates follow:

Rates of Retirement

AGE	< 30 yos	30 yos	30 + yos
45 -49	0.00	0.10	0.00
50-54	0.00	0.10	0.05
55	0.03	0.10	0.05
56-57	0.04	0.10	0.05
58	0.05	0.10	0.05
59	0.05	0.10	0.10
60	0.05	0.10	0.10
61	0.07	0.20	0.15
62	0.15	0.20	0.25
63	0.11	0.20	0.20
64	0.14	0.20	0.17
65	0.20	0.30	0.25
66	0.20	0.20	0.25
67	0.17	0.20	0.20
68	0.15	0.20	0.20
69	0.20	0.20	0.20
70	1.00	1.00	1.00

Withdrawals

Service	Rate
0	0.1450
1	0.1350
2	0.1150
3	0.0900
4	0.0800
5	0.0800
6	0.0700
7	0.0600
8	0.0400
9	0.0400
10	0.0400
11	0.0400
12	0.0400
13	0.0300
14	0.0300
15	0.0300

Mortality and Disablity Rates

AGE	Non-Line-of-Duty Disability	Line-of Duty Disability (Classes A&B)	Line-of Duty Disability (Class C)	Non-Line-of-Duty Death * Male	Non-Line-of-Duty Death * Female	Line-of Duty Death*
25	0.00050	0.00004	0.00008	0.00037	0.00021	0.00005
30	0.00059	0.00004	0.00008	0.00061	0.00037	0.00005
35	0.00073	0.00005	0.00010	0.00093	0.00055	0.00005
40	0.00190	0.00006	0.00013	0.00122	0.00084	0.00005
45	0.00332	0.00009	0.00018	0.00169	0.00127	0.00005
50	0.00394	0.00012	0.00023	0.00255	0.00194	0.00005
55	0.00567	0.00013	0.00025	0.00457	0.00369	0.00005
60	0.00715	0.00034	0.00068	0.00888	0.00737	0.00005
65	0.00130	0.00038	0.00076	0.01608	0.01295	0.00005
69	0.00078	0.00039	0.00078	0.02455	0.01990	0.00005

** Rates for individuals who are the age shown as of June 30, 2018*

Mortality Rates for Retired and Disabled Members and Beneficiaries

1. Retirees and Beneficiaries – RP 2000 Healthy Mortality with generational projections using 50% of the AA scale projected 15 years with a two year set forward for both males and females.

2. Disabled Members – RP 2000 Disabled Mortality with generational projections using 50% of the AA scale projected 15 years with a four year set forward for both males and females.

	Retirees and Beneficiaries *		Disabled Members	
AGE	**Male**	**Female**	**Male**	**Female**
55	0.00407	0.00328	0.03524	0.01956
60	0.00776	0.00641	0.04282	0.02562
65	0.01447	0.01172	0.05365	0.03403
70	0.02437	0.01990	0.06924	0.04709
75	0.04222	0.03212	0.09305	0.06384
80	0.07466	0.05341	0.12515	0.08899

** Rates for individuals who are the age shown as of June 30, 2018*

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average	% Increase/ (Decrease) in Average Pay
06/30/2007	9,035	$346,391,734	$38,339	6.2%
06/30/2008	9,280	367,517,242	39,603	3.3
06/30/2009	9,719	398,009,475	40,952	3.4
06/30/2010	9,680	401,328,980	41,460	1.2
06/30/2011	9,393	392,941,135	41,833	0.9
06/30/2012	9,107	390,557,576	42,885	2.5
06/30/2013	9,004	392,868,271	43,633	1.7
06/30/2014	8,904	401,291,783	45,069	3.3
06/30/2015	8,673	408,095,216	47,054	4.4
06/30/2016	8,274	399,465,753	48,280	2.6
06/30/2017	8,043	391,121,606	48,629	0.7
06/30/2018	8,013	403,454,892	50,350	3.5

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Added to Rolls		Removed from Rolls		Rolls - End of Year		% Increase in	Average
		Annual		Annual		Annual	Annual	Annual
Year Ended	No.	Allowances*	No.	Allowances*	No.	Allowances*	Allowances	Allowances
06/30/2007	436	$11,159,559	428	$3,725,576	8,696	$99,593,514	8.1%	$11,453
06/30/2008	382	7,846,827	440	3,953,061	8,638	103,487,280	3.9	11,980
06/30/2009	478	6,819,538	498	4,385,748	8,618	105,921,070	2.4	12,291
06/30/2010	473	8,065,853	454	4,252,838	8,637	109,734,085	3.6	12,705
06/30/2011	493	9,685,011	437	4,966,673	8,693	114,452,423	4.3	13,166
06/30/2012	497	10,860,356	451	4,339,871	8,739	120,972,909	5.7	13,843
06/30/2013	501	10,216,250	432	5,192,731	8,808	125,996,428	4.2	14,305
06/30/2014	421	10,499,144	336	5,588,634	8,893	130,906,938	3.9	14,720
06/30/2015	393	10,089,809	388	6,224,773	8,898	134,771,974	3.0	15,146
06/30/2016	477	14,965,060	368	5,525,068	9,007	140,346,930	4.1	15,582
06/30/2017	436	10,896,681	299	5,283,016	9,144	145,960,595	4.0	15,962
06/30/2018	417	10,795,452	358	5,807,090	9,203	150,948,957	3.4	16,402

* Includes post-retirement adjustments.

SCHEDULE OF FUNDED LIABILITIES BY TYPE

The Employees' 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 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; 3) The liabilities for future benefits to terminated vested members; and, 4) 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), the liabilities for future benefits to present retired lives (liability 2), and the liabilities for future benefits to terminated vested members (liability 3) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 4) will be partially covered by the remainder of present assets. Generally, the funded portion of liability 4 will increase over time.

The schedule below illustrates the System's history of liabilities 1 through 4.

	Aggregate Accrued Liabilities For								
	(1)	(2)	(3)	(4)		Portion of Accrued Liabilities Covered by Report Assets			
Valuation Date	Active Member Contributions	Retirees and Beneficiaries	Terminated Vested Members	Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)	(4)
06/30/2007	$4,891,816	$991,713,294	$33,164,687	$568,912,381	$1,447,196,612	100%	100%	100%	73.4%
06/30/2008	4,265,169	1,023,749,711	37,096,665	598,966,777	1,475,533,717	100	100	100	68.5
06/30/2009	3,875,023	1,039,839,384	40,657,298	640,558,977	1,424,202,643	100	100	100	53.1
06/30/2010	3,419,652	1,103,746,648	46,882,433	676,175,786	1,390,514,840	100	100	100	35.0
06/30/2011	3,013,222	1,169,599,360	43,416,490	724,418,152	1,410,211,059	100	100	100	26.8
06/30/2012	2,977,938	1,228,202,331	44,829,153	835,268,747	1,429,666,081	100	100	100	18.4
06/30/2013	2,688,948	1,270,442,197	44,651,885	834,209,969	1,465,943,503	100	100	100	17.8
06/30/2014	5,070,338	1,312,440,514	52,060,082	840,749,044	1,540,327,375	100	100	100	20.3
06/30/2015	10,682,704	1,356,302,147	48,799,252	837,218,003	1,615,537,148	100	100	100	23.9
06/30/2016	19,415,031	1,408,689,345	48,210,458	851,247,989	1,657,187,748	100	100	100	21.2
06/30/2017	27,652,436	1,449,436,246	52,505,622	830,011,213	1,715,495,626	100	100	100	22.4
06/30/2018	38,220,223	1,484,169,320	52,340,433	835,884,082	1,785,356,033	100	100	100	25.2

ANALYSIS OF FINANCIAL EXPERIENCE

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 Year 2017	Gain/(Loss) for Year 2018
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.	$ (4,022,000)	$ (3,075,000)
Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, a loss.	(2,409,000)	(3,662,000)
Death-in-Service Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(3,745,000)	(3,749,000)
Withdrawal from Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	2,029,000	795,000
Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	13,676,000	(7,289,000)
Investment Income If there is greater investment income than assumed, there is a gain. If less, a loss.	(14,190,000)	(7,933,000)
Death After Retirement If retirees live longer than assumed, there is a loss. If not as long, a gain. (includes PuBF G/(L))	(1,898,000)	828,000
New Entrants New entrants create a loss because they were not assumed in the previous evaluation.	1,500,000	960,000
Plan Changes or Increase in Periodic Pension Plan changes or one time increase in the periodic benefit payments	0	0
Assumption, Method and Plan Changes Changes due to assumption changes and/or changes in accounting and liability.	0	0
Other Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	6,199,000	3,845,000
Gain or (Loss) During Year from Financial Experience	(2,860,000)	(19,280,000)

1. **EFFECTIVE DATE:**

The Employees' Retirement System was established by City Ordinance, effective January 1, 1926, and has been amended periodically.

2. **ELIGIBILITY:**

Any regular and permanent officer, agent, or employee of the City with the exception of those required to join the Maryland State or other Retirement System will become a Class C member until June 30, 2014 and thereafter a Class D member of the Employees' Retirement System upon completion of one year of employment. The Board of Estimates may authorize prospective membership for any class of part-time employees. There are three classes of members as follows:

Class A - Members who were hired before July 1, 1979, and entered membership on or after January 1, 1954, or who were employed and elected prior to April 1, 1954, to contribute at the higher Class A rate.

Class B - Members as of January 1, 1954, who did not elect Class A membership. Any Class B member may elect to become a Class A member by bringing his accumulated contributions and interest up to what they would be if he had elected Class A membership on January 1, 1954.

Class C - Members who were hired on or after July 1, 1979 and before July 1, 2014, or any other members who may have elected to transfer during various open transfer periods to Class C membership.

Class D - Members who were hired or rehired on or after July 1, 2014, and are Retirement Savings Plan "hybrid members".

3. **MEMBER CONTRIBUTIONS:**

Class C members make the following pre-tax contributions as a percentage of earnable compensation:

July 1, 2013 -- June 30, 2014	1%
July 1, 2014 -- June 30, 2015	2%
July 1, 2015 ---June 30, 2016	3%
July 1, 2016 -- June 30, 2017	4%
July 1, 2017 -- June 30, 2018	5%

Year-to-year increases in the contribution rate are conditioned on members' receiving a raise of at least 2%.

Class A and Class B members contribute 4% of earnable compensation. Class A and Class B contributions are not required upon attaining age 60 and completing 35 years of service.

Class D members contribute 5% of earnable compensation.

4. **COMPENSATION:**

Earnable compensation is the annual salary authorized for the member, not including overtime, differential pay, environmental pay, hazardous duty pays for conversion of leave or other fringe benefits, or any like additional payment.

Average final compensation is the average of the member's annual earnable compensation on January 1 for the three successive years of service when the member's earnable compensation is the highest or, if the member is in service on January 1 for less than three successive years, then the average during total service.

Covered compensation (for Class C members only) is the average of the FICA wage base for the 35-year period ending with the calendar year which ends immediately prior to the earlier of: (1) January 1, which is one year prior to January 1 of the calendar year in which member terminates employment; or (2) January 1 of the calendar year in which the member attains age 65.

5. **MILITARY SERVICE CREDIT:**

(A) **Classes A and B**

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

(a) 10 years of service and has reached the age of 60; or
(b) 20 years of service, regardless of age.

(2) **Military Service Within Employment:** Upon retirement or death, any member who had a break in employment due to military duty, will receive service credit for the period of absence as provided by the Veterans' Reemployment Rights Act and the Uniformed Services Employment and Reemployment Rights Act of 1994.

(B) **Classes C** and D

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

(a) 10 years of service and has reached the age of 62; or

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

(2) **Military Service Within Employment:** Upon retirement or death, any member who had a break in employment due to military duty, will receive service credit for the period of absence as provided by the Veterans' Re-Employment Rights Act and the Uniformed Services Employment and Reemployment Rights Act of 1994. For members reemployed after military service, the City will pay their member contributions for the period of military service. If the member terminates City employment before becoming eligible for a retirement benefit or deferred vested benefit, the member will not receive the contributions made by the City for the period of military service.

6. **SERVICE RETIREMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirements:**

(a) Age 60 with five years of service; or

(b) 30 years of membership service, regardless of age.

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

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

(b) a pension, which together with the annuity will be equal to 1.935% for Class A members and 1.785% for Class B members for each year of service, times the member's average final compensation.

(B) **Class C**

(1) **Eligibility Requirements:**

(a) Age 65 with five years of service;

(b) 30 years of service, regardless of age; or

(c) Age 55 with five years of service, payable at age 65 or reduced for payment before age 65.

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

(a) a pension of 1.60% for each year of service (not to exceed 30), times the member's average final compensation; plus

(b) .25% for each year of service not to exceed 30, times member's average final compensation in excess of covered compensation; plus

(c) 1.85% for each year of service in excess of 30, times the member's average final compensation.

If a member elects to have his maximum or optional pension commence prior to normal retirement date, age 65 with less than 30 years, the amount of his pension will be reduced 6.667% for each of the first five years (prorated for shorter periods) and 3.333% for each of the next five years (prorated for shorter periods) by which the commencement of his pension precedes his normal retirement age 65.

(C) **Class D**

(1) **Eligibility Requirements:**

(a) Age 65 with five years of service;

(b) 30 years of service, regardless of age; or

(c) Age 55 with five years of service, payable at age 65 or reduced for payment before age 65.

(2) **Benefit Amount:**

(a) 1.0% for each year of service times the member's average final compensation.

(b) For members who retire at age 62 with at least 20 years of service, 1.1% for each year of service times the member's average final compensation.

If a member elects to have his maximum or optional pension commence prior to normal retirement date, age 65 with less than 30 years, the amount of his pension will be reduced 6.667% for each of the first five years (prorated for shorter periods) and 3.333% for each of the next five years (prorated for shorter periods) by which the commencement of his pension precedes his normal retirement age 65.

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

(A) **Classes A and B**

(1) **Eligibility Requirements:** Five years of service and determined by a hearing examiner to be mentally or physically incapacitated for the performance of duty, and that the incapacity is likely to be permanent.

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

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

(b) a pension which, together with the annuity will equal 1.90% for Class A members and 1.75% for Class B members for each year of service, times the member's average final compensation.

The member will receive, as a minimum, the benefit as stated above or 25% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by:

(a) workers' compensation; and

(b) earnings in excess of base amount (current earnable compensation in same job grade and step adjusted for longevity) with a $1 reduction for each $2 of the first $5,000 of excess and a $2 reduction for each $5 of additional excess earnings.

(B) **Classes C and D**

(1) **Eligibility Requirements:** Five years of service and determination by a hearing examiner to be mentally or physically incapacitated for the performance of duty, and that the incapacity is likely to be permanent.

(2) **Benefit Amount:** The non-line-of-duty disability pension will be the greater of:

(a) a pension equal to the member's accrued service retirement benefit; or

(b) 15% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

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

(A) **Classes A and B**

(1) **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 accident occurring while in the actual performance of duty without willful negligence.

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

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

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

(3) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

(B) **Classes C and D**

(1) **Eligibility Requirements:** Immediate eligibility upon membership in the System and determination by a hearing examiner to be incapacitated for the further performance of duty, and the incapacity resulted from an accident occurring while in the actual performance of duty without willful negligence.

(2) **Benefit Amount:** A pension equal to 66.667% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by wokers' compensation.

9. **DISMEMBERMENT DISABILITY RETIREMENT (Classes C and D only):**

(A) **Eligibility Requirement:** Immediate eligibility upon membership in the System and determination by a hearing examiner that the loss of any two or more of hands, feet, sight of eye(s), or combination thereof, was a direct result of bodily injury from an accident that occurred while in the actual performance of duty.

(B) **Benefit Amount:** A pension equal to 100% of the member's average final compensation.

(C) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

10. **TERMINATION OF EMPLOYMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 60, the completion of:

(i) 15 years of service; or

(ii) Five years of service, if removed from a position without fault or if an elected or appointed official not re-elected or re-appointed.

(b) For a termination retirement allowance payable immediately without reduction for age, the completion of 20 years of service, if removed from a position without fault or if an elected or appointed official not re-elected or re-appointed.

(c) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

(a) Deferred Payment: Determined the same as for service retirement, but based on membership service and average final compensation at the time of termination.

(b) Immediate Payment: Determined the same as if the member had retired with a non-line-of-duty disability retirement allowance.

(B) **Class C**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 65, completion of:

(i) 10 years of service; or

(ii) Five years of service, if removed from a position without fault or if an appointed official not re-appointed.

(b) For a termination retirement allowance payable immediately without reduction for age, the completion of 20 years of service, if removed from a position without fault or if an appointed official not re-appointed.

(c) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

(a) Deferred Payment: Determined the same as for service retirement, but based on membership service and average final compensation at the time of termination.

(C) **Class D**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 65, completion of 10 years of service.

(b) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

Determined the same as for service retirement, but based on membership service and average final compensation at the time of termination.

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

(A) **Lump Sum:** Under $12,500 or as adjusted by the Board of Trustees.

(B) **Maximum Allowance:** Upon retiree's death, 40% of retiree's maximum allowance to unremarried spouse or dependent children until the last dies or attains age 18 (age 22 if a full time student). All other options result in a lesser amount paid.

(C) **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.

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

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

(F) **50% Pop-Up:** Upon retiree's death 50% of retiree's allowance to continue to designated beneficiary.
If designated beneficiary predeceases member, member receives Maximum and no survivorship benefit is paid.

(G) **100% Pop-Up:** Upon retiree's death 100% of retiree's allowance to continue to designated beneficiary. If designated beneficiary predeceases member, member receives Maximum and no survivorship benefit is paid.

(H) **Specific Benefit Option:** Upon the retiree's death and subject to the approval of the Board of Trustees, the member's designated beneficiary will receive:

(1) a specific lump sum amount; or

(2) a specific periodic allowance.

These options are available for service, termination, non-line-of-duty disability, and line of duty disability retirement. Any option and/or beneficiary may be changed by the retired member within 30 days after retirement.

12. **NON-LINE-OF-DUTY DEATH BENEFITS:**

(A) **Classes A and B**

(1) **Lump Sum Benefit:**

(a) **Eligibility Requirements:** Member who

(i) dies while actively employed; and

(ii) whose death does not qualify as a line-of-duty death.

(b) **Benefit Amount:** The designated beneficiary is paid:

(i) the member's accumulated contributions; plus
(ii) if member has one or more years of membership service, 50% of the greater of the member's average final compensation or current annual earnable compensation.

(2) **100% Survivorship Benefit:**

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he/she has been married for at least five years or his/her parent(s), provided the Member:

(i) is eligible for service retirement at the time of death; or

(ii) would have become eligible for service retirement within 90 days of the date of death; or

(iii) retired on account of service, non line of duty disability, or line of duty disability and dies within 30 days of retirement; or

(iv) is entitled to a deferred allowance at age 60 and dies anytime between the effective retirement date at age 60 and no later than 30 days following the attainment of age 60.

(b) **Benefit Amount:** The eligible beneficiary may elect in lieu of the Lump Sum Benefit or the 40% Survivorship Benefit, an allowance equal to the amount that would have been paid under the Service Retirement 100% Joint and Survivor Option.

(3) **40% Survivorship Benefit:**

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse with whom he has been married for at least one year prior to the date of death or to the member's unmarried children if less than age 18 (or age 22 if students), provided the Member:

(i) died in active service; and

(ii) had more than 20 years of service as of the date of death.

(b) **Benefit Amount:** The eligible beneficiary spouse or children may elect in lieu of the Lump Sum Benefit or the 100% Survivorship Benefit, an allowance equal to 40% of the member's accrued service retirement benefit.

(4) **Offset to Death Benefits:** These benefits are offset by any pension benefits paid before the members' death.

(B) **Classes C and D**

(1) Lump Sum Benefit:

(a) **Eligibility Requirements:** Member who:

(i) dies while actively employed; and

(ii) has one or more years of membership service, but whose death does not qualify as a line-of-duty death.

(b) **Benefit Amount:** The designated beneficiary is paid:

(i) the member's accumulated contributions, if any; plus

(ii) one-time payment of 50% of the greater of the member's average final compensation or current annual earnable compensation.

(2) 100% Survivorship Benefit:

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he/she was married for at least 5 years or his parent(s), provided the member:

(i) is eligible for service retirement at the time of death; or

(ii) would have become eligible for service retirement within 90 days of the date of death; or

(iii) retired on account of service, non line of duty disability, or line of duty disability and dies within 30 days of retirement; or

(iv) is entitled to a deferred allowance at age 65 and dies anytime between the effective retirement date at age 65 and no later than 30 days following the attainment of age 65.

(b) **Benefit Amount:** The eligible beneficiary may elect in lieu of the Lump Sum Benefit or the 40% Survivorship Benefit, an allowance equal to the amount that would have been paid under the Service Retirement 100% Joint and Survivor Option.

(3) 40% Survivorship Benefit:

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he has been married for at least one year prior to the date of death or to the member's unmarried children if less than age 18 (or age 22 if students), provided the member:

(i) died in active service; and

(ii) had more than 20 years of service as of the date of death.

(b) **Benefit Amount:** The eligible beneficiary spouse or eligible children may elect in lieu of the Lump Sum Benefit or the 100% Survivorship Benefit, an allowance equal to 40% of the member's accrued service retirement benefit.

(4) Offset to Death Benefits: These benefits are offset by workers' compensation.

13. **LINE-OF-DUTY DEATH BENEFITS:**

(A) **Eligibility Requirements:** A determination by a hearing examiner that the death of a member was:

(1) the direct result of bodily injury though accidental means independent of any pre-existing physical or medical conditions;

(2) occurring while in the actual performance of duty; and

(3) not caused by willful negligence on the part of the member.

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

(1) the member's accumulated contributions (if any); plus

(2) an annual pension of 100% of current earnable compensation, payable to:

(a) the spouse during widow(er)hood, provided: (1) there is no voluntary separation agreement renouncing rights of inheritance; and (2) the member has not designated his children as beneficiaries;

(b) if no eligible spouse, or if the spouse dies or remarries before age 70, the child or children, equally, until age 18 (age 22 if a full-time student);

(c) if no eligible spouse or child surviving, then to the deceased's father and/or mother equally, or to the survivor;

(d) for Classes A and B, any member who retires and dies within 30 days after the effective date of accidental disability retirement will receive the above benefits if death is the result of injuries in the line-of-duty.

If no beneficiary and if intestate without heirs, then contributions will remain part of the System, and no death benefit is paid.

(C) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation, net of legal and medical fees.

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

(A) **Eligibility Requirements;**

Only retirees and their beneficiaries, who have been receiving periodic benefit payments as of the June 30th determination date, and members who have been retired for a minimum of 12 months, are eligible for the increase. The increase is payable commencing in the January after the June 30th determination date.

(B) **Amount:**

(1) **Classes A, B and C**

1.5% for participants in pay status under age 65 and 2.0% for participants in pay status age 65 and over.

(2) **Class D**

(a) In pay status under age 65:

1.5% if Class D funded status is 85% or more.

1.0% if Class D funded status is at least 70% but less than 85%.

No increase if Class D funded status is less than 70%.

(b) In pay status age 65 or older:

2.0% if Class D funded status is 85% or more.

1.0% if Class D funded status is at least 70% but less than 85%.

No increase if Class D funded status is less than 70%.

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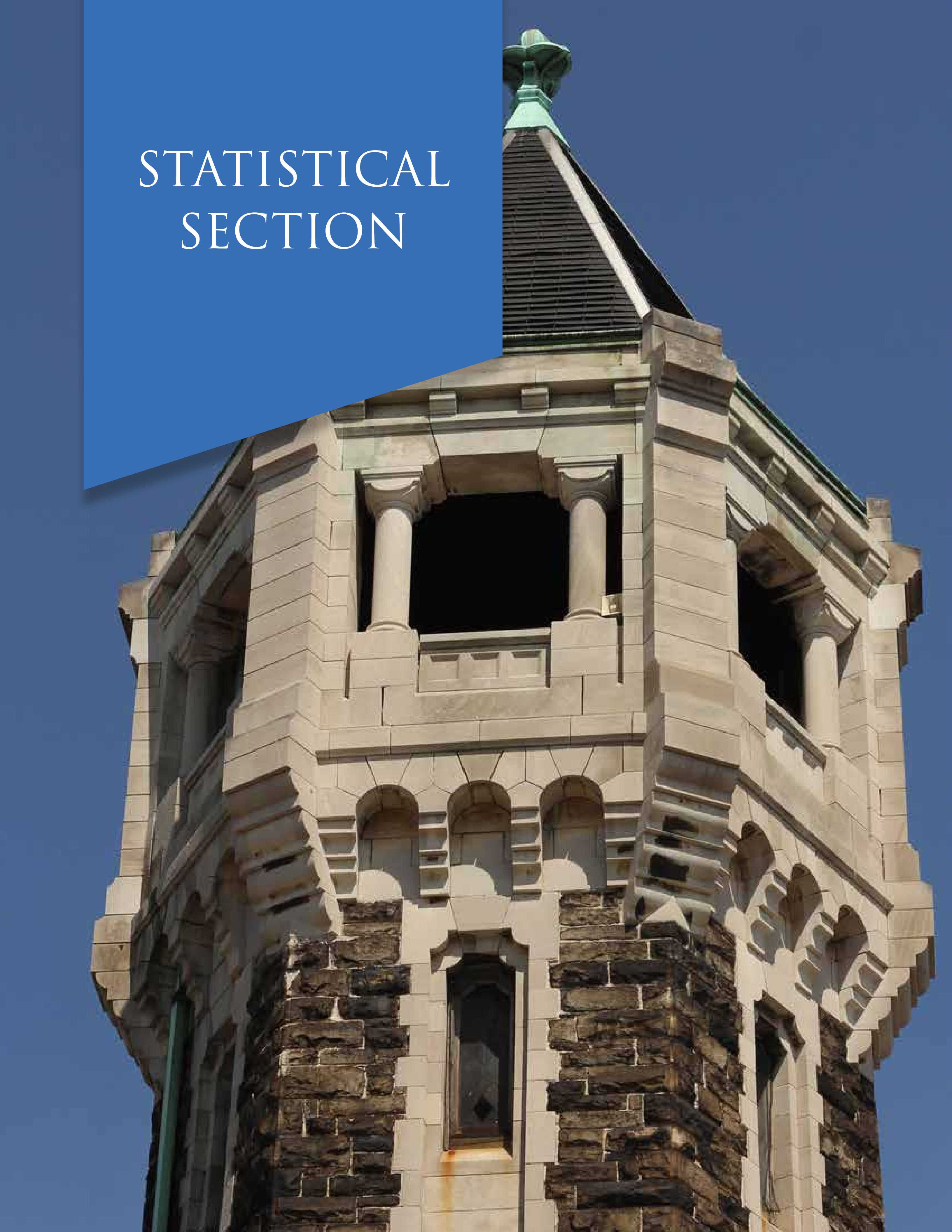
STATISTICAL SECTION



Employees' Retirement System
City of Baltimore, Maryland
STATISTICAL SECTION SUMMARY

The statistical section of the Employees' Retirement System's (System) comprehensive annual financial report presents detailed information as a context for helping the readers understand the information in the financial statements, notes disclosures, required supplementary information, and the System's overall financial health for the last ten fiscal years. The different reports contained in this section are listed below.

Financial Trends

Changes of Plan Net Position schedules detail the System's financial performance from year to year.

Revenue Capacity

The Revenue by Source schedule list the different income streams of the System.

Expenses Capacity

The Expense by Type schedules contains information about the major costs of the System.

Demographic Information

The demographic schedules consist of various membership information used by the Actuary to determine or monitor the demographic assumptions. The tables which are used to compare current assumptions with actual experience to determine recommended assumption changes include:

- The Schedule of Active Members by Years of Service, which provides active membership information including the average service credit and member's age for each fiscal year;
- The Schedule of Retirees by Attained Age and Type of Retirement, provides the number of retirees by age and the type of retirement, and
- The Schedule of Beneficiaries By attained Age and Type of Retirement that provides membership information on beneficiaries by age and type of the member's retirement.

Benefit Expenses by Type: is a report of benefit related expenses by the type of retirement and payment for each year of service.

Average Monthly Benefit Payments: is a schedule of monthly benefit payments based on years of credited service. For each year, the schedule provides the average monthly benefit payment, Average – average Final Compensation and number of retirees grouped in years of credited service.

Employees' Retirement System
City of Baltimore, Maryland
Statement of Changes in Fiduciary Net Position

	2009	2010	2011	2012	2013
Additions					
Contributions					
Employer	$ 43,673,027	$ 48,748,397	$ 62,374,396	$77,995,003	$ 88,300,214
Plan members	172,567	215,669	358,202	359,028	223,720
Total contributions	$ 43,845,594	$ 48,964,066	$ 62,732,598	$ 78,354,031	$ 88,523,934
Investment Income					
Net appreciation in fair value of investments	$ (278,688,103)	$ 91,458,311	$ 195,926,226	$18,948,964	$ 135,498,253
Interest, dividends, and real estate income	28,522,723	26,028,223	20,583,936	6,758,532	19,359,439
Less: investment expenses	(5,406,811)	(5,641,242)	(6,115,531)	(6,155,302)	(6,931,175)
Net investment income	$ (255,572,191)	$ 111,845,292	$ 210,394,631	$19,552,194	$ 147,926,517
Securities lending income	$ 762,206	$ 290,022	$ 283,344	$205,199	$ 359,807
Securities lending fees	(228,479)	(86,970)	(83,849)	(60,244)	(107,623)
Net securities lending income	$ 533,727	$ 203,052	$ 199,495	$144,955	$ 252,184
Total additions	$ (211,192,870)	$ 161,012,410	$ 273,326,724	$98,051,180	$ 236,702,635
Deductions					
Retirement allowances	$ 104,166,249	$ 108,225,770	$ 112,642,028	$118,802,304	$ 124,059,639
Adminstrative expenses	3,138,612	3,061,461	3,189,932	3,297,684	3,554,942
Death benefits	881,569	791,170	546,942	1,289,869	689,223
Lump cash payments	289,626	155,564	123,425	73,596	157,082
Refund of Contributions		334	95,936	9,088	6,381
Total deductions	$ 108,476,056	$ 112,234,299	$ 116,598,263	$123,472,541	$ 128,467,267
Net increases / (decreases)	$ (319,668,926)	$ 48,778,111	$ 156,728,461	($25,421,361)	$ 108,235,368
Net position held in trust for pension benefits					
Beginning Balance	$ 1,356,082,161	$ 1,036,413,235	$ 1,085,191,346	$ 1,241,919,807	$1,216,498,446
Ending Balance	$ 1,036,413,235	$ 1,085,191,346	$ 1,241,919,807	$1,216,498,446	$ 1,324,733,814

Employees' Retirement System
City of Baltimore, Maryland
Statement of Changes in Fiduciary Net Position

(Continued)

	2014	2015	2016	2017	2018
Additions					
Contributions					
Employer	$ 94,917,886	$ 97,170,796	$ 77,100,573	$ 84,474,451	$ 87,541,882
Plan members	3,623,467	6,728,131	10,350,709	10,656,243	12,942,622
Total contributions	$ 98,541,353	$ 103,898,927	$ 87,451,282	$ 95,130,694	$ 100,484,504
Investment Income					
Net appreciation in fair value of investments	$ 192,951,419	$ (14,411,263)	$ 437,788	$ 72,380,195	$ 106,021,152
Interest, dividends, and real estate income	24,639,052	90,342,747	48,604,366	99,449,978	41,710,664
Less: investment expenses	(8,117,367)	(9,321,676)	(9,138,196)	(8,914,009)	(8,639,822)
Net investment income	$ 209,473,104	$ 66,609,808	$ 39,903,958	$ 162,916,164	$ 139,091,994
Securities lending income	$ 788,486	$ 297,447	$ 496,519	$ 340,857	$ 580,304
Securities lending fees	(614,421)	(89,215)	(140,435)	(100,183)	(160,027)
Net securities lending income	$ 174,065	$ 208,232	$ 356,084	$ 240,674	$ 420,277
Total additions	$ 308,188,522	$ 170,716,967	$ 127,711,324	$ 258,287,532	$ 239,996,775
Deductions					
Retirement allowances	$ 129,205,776	$ 133,129,502	$ 138,184,417	$ 142,957,078	$ 148,219,211
Adminstrative expenses	3,711,975	3,748,434	3,515,492	3,584,506	3,616,054
Death benefits	699,991	943,540	652,743	1,225,559	497,011
Lump cash payments	63,979	125,608	124,748	77,861	28,088
Refund of Contributions	4,224	72,008	235,808	348,412	410,189
Total deductions	$ 133,685,945	$ 138,019,092	$ 142,713,208	$ 148,193,416	$ 152,770,553
Net increases / (decreases)	$ 174,502,577	$ 32,697,875	$ (15,001,884)	$ 110,094,116	$ 87,226,222
Net position held in trust for pension benefits					
Beginning Balance	$ 1,324,733,814	$ 1,499,236,391	$ 1,531,934,266	$ 1,516,932,382	$ 1,627,026,498
Ending Balance	$ 1,499,236,391	$ 1,531,934,266	$ 1,516,932,382	$ 1,627,026,498	$ 1,714,252,720

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

		Employer Contributions			
Fiscal Year	Net Investment Income (Loss)	Amount	% of Covered Payroll	Member Contributions	Total Income (Loss)
2009	(255,038,464)	43,673,027	11.0	172,567	(211,192,870)
2010	112,048,344	48,748,397	12.4	215,669	161,012,410
2011	210,594,126	62,374,396	15.9	358,202	273,326,724
2012	19,697,149	77,995,003	20.0	359,028	98,051,180
2013	148,178,701	88,300,214	22.5	223,720	236,702,635
2014	209,647,169	94,917,886	23.7	3,623,467	308,188,522
2015	66,818,039	97,170,796	23.8	6,728,131	170,716,966
2016	40,260,042	77,100,573	19.3	10,350,709	127,711,324
2017	163,156,838	84,474,451	21.6	10,656,243	258,287,532
2018	139,512,271	87,541,882	21.7	12,942,622	239,996,775

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

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

Fiscal Year	Benefits	Refunds	Administrative Expenses	Total
2009	105,337,444	0	3,138,612	108,476,056
2010	109,172,504	334	3,061,461	112,234,299
2011	113,312,395	95,936	3,189,932	116,598,263
2012	120,165,769	9,088	3,297,684	123,472,541
2013	124,905,944	6,381	3,554,942	128,467,267
2014	129,969,746	4,224	3,711,975	133,685,945
2015	134,198,650	72,007	3,748,433	138,019,090
2016	138,961,908	235,808	3,515,492	142,713,208
2017	144,260,498	348,412	3,584,506	148,193,416
2018	148,744,310	410,189	3,616,054	152,770,553

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

Years of Credited Service	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
0-4	2,714	2,675	2,426	2,051	1,811	1,766	1,800	1,678	1,723	1,833
5-9	1,826	1,917	1,929	2,033	2,181	2,215	2,026	1,778	1,523	1,323
10-14	1,406	1,376	1,422	1,426	1,425	1,430	1,451	1,446	1,458	1,538
15-19	724	705	710	817	988	1,054	1,034	1,059	1,072	1,045
20-24	1,320	1,307	1,192	979	721	550	519	547	623	747
25-29	929	794	707	772	892	992	968	887	705	526
30+	800	906	1,007	1,029	986	897	875	879	939	1,001
Total Members	9,719	9,680	9,393	9,107	9,004	8,904	8,673	8,274	8,043	8,013
Average Service Credit	13.17	13.27	13.58	13.92	13.92	13.83	13.88	14.30	14.34	14.16
Average Age	48.61	48.96	49.35	49.74	49.89	49.89	50.10	50.54	50.66	50.57

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF RETIREES BY ATTAINED AGE AND TYPE OF RETIREMENT
June 30, 2018

		TYPE OF RETIREMENT*				
Age	Number of Recipients	0	1	2	3	4
0-29	0	0	0	0	0	0
30-39	7	0	0	0	7	0
40-44	13	0	0	0	12	1
45-49	30	1	0	2	27	0
50-54	103	23	0	14	63	3
55-59	475	124	138	58	149	6
60-64	1,112	354	371	145	231	11
65-69	1,798	954	489	194	153	8
70-74	1,466	873	349	159	77	8
75-79	1,078	609	292	115	54	8
80-84	784	405	251	86	35	7
85 and up	853	497	253	75	22	6
Totals	7,719	3,840	2,143	848	830	58
Average Annual Benefit	$17,848	$24,319	$7,471	$22,198	$9,872	$23,429

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

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF BENEFICIARIES BY ATTAINED AGE AND TYPE OF RETIREMENT
June 30, 2018

		TYPE OF RETIREMENT*						
Age	Number of Recipients	0	1	2	3	4	5	8
0-24	16	4	2	2	4	0	1	3
25-29	1	1	0	0	0	0	0	0
30-34	1	0	0	0	1	0	0	0
35-39	0	0	0	0	0	0	0	0
40-44	1	1	0	0	0	0	0	0
45-49	9	0	0	1	5	0	3	0
50-54	21	4	4	2	8	1	2	0
55-59	67	21	15	2	19	0	10	0
60-64	128	49	17	10	27	1	24	0
65-69	204	85	36	11	54	0	18	0
70-74	201	93	38	22	34	3	11	0
75-79	241	111	48	24	35	3	17	3
80-84	225	119	50	13	30	2	10	1
85 and up	369	213	70	28	25	8	21	4
Totals	1,484	701	280	115	242	18	117	11
Average Annual Benefit	$8,871	$10,556	$4,427	$11,036	$5,426	$10,815	$13,237	$18,193

*Type of Retirement
0 - Normal retirement for age and service
1 - Early retirement
2 - Discontinued service retirement
3 - Non-line of duty disability
4 - Line of duty disability
5 - Non-line of duty death, member eligible for service retirement at death
8 - Line of duty death

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

Year	Age and Service Benefits			Death Benefits			Disability Benefits			
							Retirees			
Ending	Retirees	Beneficiaries	Lump Sum	Duty	Non-Duty	Lump Sum	Duty	Non-Duty	Beneficiaries	Total
2009	86,813,655	6,856,655	289,626	502,613	1,100,267	881,569	1,513,339	6,214,941	1,164,778	105,337,443
2010	90,004,238	7,367,063	155,564	461,609	1,246,067	791,170	1,443,226	6,499,946	1,203,621	109,172,504
2011	94,588,958	7,080,619	123,425	418,549	1,151,890	546,942	1,420,134	6,722,021	1,259,857	113,312,395
2012	99,171,620	8,156,362	73,596	410,158	1,143,187	1,289,869	1,435,552	7,093,318	1,392,106	120,165,768
2013	103,423,042	8,739,976	157,082	388,447	1,187,725	689,223	1,438,353	7,413,884	1,468,211	124,905,943
2014	107,713,150	9,102,520	63,979	404,560	1,236,993	699,991	1,498,018	7,721,421	1,529,114	129,969,746
2015	110,984,187	9,378,946	125,608	416,846	1,274,558	943,540	1,543,510	7,955,905	1,575,550	134,198,650
2016	130,663,656	7,161,289	124,748	270,961	1,059,257	652,743	1,286,253	395,782	1,098,518	142,713,208
2017	122,699,096	7,476,618	77,861	296,229	1,450,454	1,225,559	1,572,777	8,124,459	1,337,445	144,260,498
2018	127,566,983	7,721,573	28,088	235,608	1,547,785	497,011	1,474,081	8,446,982	1,226,199	148,744,310

Employees' Retirement System
City of Baltimore, Maryland
AVERAGE MONTHLY BENEFIT PAYMENTS - NEW RETIREES

Retirement Effective Dates	Years of Credited Service					
	0-10	11-15	16-20	21-25	26-30	31+
Period 7/1/08 to 6/30/09						
Average-Average Final Compensation	$ 4,217	$ 5,490	$ 10,265	$ 14,883	$ 21,556	$ 26,846
Average Monthly Benefit	351	457	855	1,240	1,796	2,237
Total No. of Retirees	60	62	57	31	55	106
Period 7/1/09 to 6/30/10						
Average-Average Final Compensation	$ 4,291	$ 5,915	$ 10,768	$ 16,808	$ 19,971	$ 26,390
Average Monthly Benefit	358	493	897	1,401	1,664	2,199
Total No. of Retirees	52	48	41	55	58	115
Period 7/1/10 to 6/30/11						
Average-Average Final Compensation	$ 5,259	$ 6,584	$ 9,636	$ 17,606	$ 23,588	$ 30,143
Average Monthly Benefit	438	549	803	1,467	1,966	2,512
Total No. of Retirees	46	48	49	55	71	100
Period 7/1/11 to 6/30/12						
Average-Average Final Compensation	$ 4,590	$ 6,510	$ 10,320	$ 15,464	$ 24,619	$ 44,700
Average Monthly Benefit	383	542	860	1,289	2,052	3,725
Total No. of Retirees	69	60	29	52	62	107
Period 7/1/12 to 6/30/13						
Average-Average Final Compensation	$ 4,161	$ 7,014	$ 11,342	$ 13,417	$ 22,068	$ 46,793
Average Monthly Benefit	347	585	945	1,118	1,839	3,899
Total No. of Retirees	65	58	39	63	57	104

Employees' Retirement System
City of Baltimore, Maryland
AVERAGE MONTHLY BENEFIT PAYMENTS - NEW RETIREES

Retirement Effective Dates	Years of Credited Service					
	0-10	11-15	16-20	21-25	26-30	31+
Period 7/1/13 to 6/30/14						
Average-Average Final Compensation	$ 5,365	$ 7,901	$ 10,578	$ 15,161	$ 22,880	$ 29,604
Average Monthly Benefit	447	658	882	1,263	1,907	2,467
Total No. of Retirees	67	69	32	57	60	135
Period 7/1/14 to 6/30/15						
Average-Average Final Compensation	$ 7,428	$ 7,216	$ 12,285	$ 14,845	$ 24,251	$ 29,659
Average Monthly Benefit	619	601	1,024	1,237	2,021	2,472
Total No. of Retirees	71	50	42	31	61	106
Period 7/1/15 to 6/30/16						
Average-Average Final Compensation	$ 5,670	$ 7,286	$ 10,581	$ 13,174	$ 21,873	$ 31,452
Average Monthly Benefit	472	607	882	1,098	1,823	2,621
Total No. of Retirees	79	72	56	38	71	130
Period 7/1/16 to 6/30/17						
Average-Average Final Compensation	$ 7,594	$ 8,897	$ 11,430	$ 18,309	$ 22,205	$ 37,646
Average Monthly Benefit	633	741	953	1,526	1,850	3,137
Total No. of Retirees	92	77	57	30	67	92
Period 7/1/17 to 6/30/18						
Average-Average Final Compensation	$ 5,740	$ 8,660	$ 12,623	$ 16,993	$ 23,636	$ 39,268
Average Monthly Benefit	478	722	1,052	1,416	1,970	3,272
Total No. of Retirees	68	84	65	39	71	72

EMPLOYEES' RETIREMENT SYSTEM

CITY OF BALTIMORE, MARYLAND

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EMPLOYEES' RETIREMENT SYSTEM
of the CITY OF BALTIMORE

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CITY OF BALTIMORE MAYOR'S OFFICE