

The Employees' Retirement System A Blended Component Unit of The Maryland-National Capital Park and Planning Commission

Annual Comprehensive Financial Report

For the Fiscal Years Ended June 30, 2021 and 2020



Annual Comprehensive Financial Report

For the Fiscal Years Ended June 30, 2021 and 2020



Prepared by the Employees' Retirement System A Blended Component Unit of The Maryland-National Capital Park and Planning Commission 6611 Kenilworth Avenue, Suite 100 Riverdale, Maryland 20737

MISSION STATEMENT

The Mission of the Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS) is to prudently manage, protect, diversify, and administer the funds for the sole benefit of the members and beneficiaries to ensure sufficient assets are available to pay the promised benefits.

OUR COREVALUES

Quality Customer Service Accountability and Transparency Professionalism and Respect Trustworthiness and Stewardship

Annual Comprehensive Financial Report

For the Fiscal Years Ended June 30, 2021 and 2020

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LETTER OF TRANSMITTAL



EMPLOYEES' RETIREMENT SYSTEM The Maryland-National Capital Park and Planning Commission 6611 Kenilworth Avenue, Suite 100 Riverdale, Maryland 20737 (301) 454-1415 - Telephone (301) 454-1413 - Facsimile <u>http://ers.mncppc.org</u>

Andrea L. Rose Administrator

October 7, 2021

The Board of Trustees:

The Maryland-National Capital Park and Planning Commission ("Commission") Employees' Retirement System's (ERS) Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2021 is hereby submitted. The responsibility for the accuracy of the data and completeness and fairness of the presentation, including disclosures, rests with the ERS' staff. We believe all data in the report is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of the operation of the ERS. All disclosures necessary to enable the reader to gain an understanding of the ERS' financial activities are included.

The Management's Discussion and Analysis immediately follows the Report of Independent Public Accountants and provides a narrative introduction with an overview of the basic financial statements. The Management's Discussion and Analysis complements this letter of transmittal and is suggested to be read in conjunction with this letter.

This ACFR has been prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board (GASB). The accrual basis of accounting has been used to record assets, liabilities, additions and deductions. Revenues are recorded when earned, regardless of the date of collection, and expenses are recorded when incurred, regardless of when payment is made. The independent public accounting firm of SB & Company, LLC was selected to conduct the ERS' audit. I am pleased to inform that the auditors issued an unmodified opinion, the highest possible outcome of the audit process.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting for the ERS' ACFR for the fiscal year ended June 30, 2020. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting, and its attainment represents a significant accomplishment. We believe our ACFR continues to conform to the Certificate of Achievement program requirements, and we will submit our ACFR for fiscal year 2021 to the GFOA.

The Public Pension Coordinating Council (PPCC) recognizes public pension systems that meet the professional standards for public retirement system management and administration as set forth by the PPCC. The ERS was awarded the Public Pension Standards Award for Funding and Administration for 2020. The Award recognizes achievement of high professional standards in the area of plan funding and administration. The PPCC encourages all state and local governments to meet these standards.

Reporting Entity and Plan History

The ERS covers employees of the Commission, a body corporate of the State of Maryland, established by the Maryland General Assembly in 1927. The Commission is the bi-county agency empowered to acquire, develop, and administer a regional system of parks in the defined Metropolitan District, and to prepare and administer a general plan for the physical development of a defined Regional District for Montgomery and Prince George's Counties. The ERS was established as a single employer defined benefit pension plan effective, July 1, 1972, in accordance with the Trust Agreement between the Commission and the Board of Trustees ("Board"). Prior to that date, Commission employees were covered under Maryland's State Retirement System ("Maryland State"). Employees who were covered by Maryland State were given the option of remaining with Maryland State or transferring to the ERS' Plan. Revisions to the Social Security tax structure and other fiscal considerations made it prudent to develop a new retirement plan, based on the principle of Social Security excess. Therefore, effective January 1, 1979, the Plan became The Maryland-National Capital Park and Planning Commission Employees' Retirement System, encompassing three defined benefit plans: Plan A, the original plan; Plan B, for non-police, integrated with Social Security; and Plan C, only for Park Police. Commission Park Police are not covered by Social Security.

On July 1, 1990, a collectively bargained Plan D replaced Plan C, which was closed, and all members transferred to the new Park Police Plan D. Effective July 1, 1993, again as a result of collective bargaining with the Park Police union, Plan D was closed to new employees, and Plan C was amended and reopened to provide benefits for Park Police Officers hired after July 1, 1993. Pursuant to a 2002 collective bargaining agreement, Plan D members were given a one-time election to transfer to Plan C on or before October 25, 2002.

Faced with continued fiscal challenges, the Commission approved a new defined benefit plan designated as Plan E for all non-police employees, Commissioners and appointed officials hired on or after January 1, 2013. Therefore, effective December 31, 2012, Plan B was closed to new employees.

Today, the ERS consists of five defined benefit pension plans: Plan A, the original plan; Plan B, for non-police, Plans C and D, for park police; and, Plan E, for non-police and appointed officials hired on or after January 1, 2013.

The administrative operations of the ERS are the responsibility of the Administrator and Staff employed by the Board. The Plan Document establishes all benefit provisions. The Commission reserves the right to amend the provisions of the ERS, consistent with the Trust Agreement, provided that no amendments may adversely affect the benefits that have accrued prior to the effective date of such amendment, except as may be legally required to continue to qualify the ERS under section 401(a) of the Internal Revenue Code, or any successor thereto of similar importance.

Benefits and Services Provided

The ERS provides normal and early retirement benefits, spouse and children survivor benefits, ordinary death benefits, and post-retirement death benefits for members of the ERS. Disability retirement benefits were prospectively removed in August 1982, with income replacement provided to employees through a long-term disability (LTD) insurance program administered by the Commission. Members on LTD receive free credited service until their normal retirement date. Annual cost-of-living adjustments are provided for ERS annuitants. The ERS has a comprehensive membership education program, which includes on-site workshops and one-on-one counseling. In accordance with the Uniform Management of Public Employees Retirement Systems Act, the ERS provides Annual Benefit Statements that project benefits at normal retirement; a Popular Annual Financial Report, which contains a summary of key financial and actuarial information; and Summary Plan Descriptions, which describe the provisions and benefits of the ERS. The ERS communicates with members via *LifeTimes*, which is published monthly in the Commission's Update newsletter. One-on-one counseling is available to all active members to discuss benefits and retirement options. Employees are encouraged to take advantage of a retirement counseling session, which is provided for all those retiring from the Commission. The session includes a review of retirement benefits, options, and assistance is provided in completing the necessary paperwork

in order to begin benefits. Due to the COVID-19 pandemic some services have been temporarily suspended while others have been modified to ensure the health and safety of staff and members. Information can also be accessed via the ERS' website, <u>http://ers.mncppc.org</u>.

Investment Results

For the year ended June 30, 2021, the ERS fund had a return of 21.5% versus its policy benchmark of 20.4%. The ERS fund return was 9.6% for the three-years ended June 30, 2021 and 10.3% for the fiveyears ended June 30, 2021 versus the policy index which returned 9.8% and 9.5%, respectively. Refer to the Investment Consultant's Report on page 51 for a market overview with investment results by asset class and a portfolio review highlighting the ERS' restructuring activities.

Initiatives & Accomplishments

For the ninth consecutive year, the ERS considered a reduction in the investment return assumption. Changes in economic and financial conditions caused public plans to continue lowering the investment return assumption. The Board determined decreasing the investment return assumption from 6.80% to 6.75%, effective July 1, 2021, was prudent and consistent with continued trends across the U.S.

The Board selected HarbourVest Credit Opportunity Fund II, LP to manage a private credit strategy; approved the transition from Loomis Sayles Full Discretion Trust to the Loomis Sayles US High Yield Bond Trust; and approved a third private equity commitment with Wilshire Private Markets.

As a result of the new pension system implementation in 2021 with Levi, Ray & Shoup, Phase 2, a document imaging solution with viewing, scanning and storing capabilities, is well underway with completion in FY 2022. Phase 3, Member Direct, a self-service portal for members to view account information and perform benefit estimate calculations is in progress and expected to rollout in FY 2022.

Additional initiatives and accomplishments for fiscal year 2021 included awarding a new Auditing Services Agreement to SB & Company, LLC for three years from May 4, 2021 to May 4, 2024; approving an amended fee schedule with the Northern Trust Company effective July 1, 2021 to June 30, 2025; and approving new economic and demographic assumptions as a result of a five-year experience study.

Internal Controls

It is the responsibility of management to develop and maintain systems of internal controls, which are designed to provide reasonable, but not absolute, assurances for the safeguarding of assets and the reliability of financial records. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits derived, and the valuation of costs and benefits requires estimates and judgments by management. Controls are also put in place to limit the risk of collusion. However, it should be recognized that all internal controls have inherent limitations.

The Trust Agreement requires an annual accounting of the ERS' operations and activities and that the results of this analysis be reported to the Commission. The ERS' Independent Public Accountants' unmodified opinion is the highest possible result of the audit process and their report on the basic financial statements is included in the ACFR on pages 16-17.

Annually, the Board prepares and presents an operating budget setting forth projected expenditures for the operations of the ERS for the Commission's review and approval. The Board also prepares certain projected expenses, including banking, investment consulting and investment manager fees for the Commission's information. The Board closely monitors the fees and expenses from consultants and professional advisors to ensure comparability to other public funds of the ERS' size and complexity. Although there is no formal restriction or budget guideline imposed by parties outside the Board, the Board is sensitive to the limitations imposed on the Commission by the two counties.

The revenues necessary to finance retirement benefits are accumulated through employee and employer contributions and income on investments. The Board establishes investment objectives and policies; determines appropriate asset allocation strategies; selects investment managers for appointment by the Commission; and evaluates investment performance. The ERS' investments are diversified, recognizing that a prudent policy preserves assets and maximizes earnings with appropriate risk, to provide asset growth consistent with long-term needs. For 2021 and 2020, the gains net of investment expense, were \$194,757,724 and \$10,900,156, respectively. Total contributions increased from \$27,041,395 in 2020 to \$30,397,604 in 2021. The increase can be attributed primarily to a loss on the actuarial value of assets. Total deductions increased by 4.6% from \$57,369,843 in 2020 to \$60,022,030 in 2021. Pension and disability benefits and refunds account for \$58,037,999 and the remainder of \$1,984,031 was attributed to administrative expenses (see page 22).

Funding Status

The ultimate test for a retirement system is the level of funding achieved. The better the level of funding, the larger the ratio of assets accumulated to pay liabilities and the greater the level of investment income potential. The Schedule of Funding Progress directly illustrates the financial stability of the ERS and presents a standardized measure of projected plan liabilities (see page 65). This measure allows the reader to assess the funding status of the ERS on a going concern basis, and to assess progress made in accumulating sufficient assets to pay benefits when due. The measure is the actuarial present value of credited projected benefits and independent of the funding method used to determine contributions. An actuarial valuation performed as of July 1, 2020, indicated that the funded ratio of the actuarial value of assets to the actuarial accrued liability for benefits was 91.18%. As of July 1, 2020, the actuarial value of assets was \$995,043,914 and the actuarial accrued liability was \$1,091,238,867.

Acknowledgments

The preparation of this ACFR reflects combined efforts of the ERS' staff. Special recognition is extended to Sheila Joynes for her lead role. This ACFR is intended to provide complete and reliable information as a basis for making management decisions, determining compliance with legal provisions, and for determining responsible stewardship for the assets contributed by the members of the Commission. I thank the Board, staff, consultants and service providers who have worked so diligently to assure the successful operation of the ERS.

Respectfully Submitted,

andrea X. Rose,

Andrea L. Rose Administrator



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

The Maryland-National Capital Park

and Planning Commission Employees'

Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2020

Christophen P. Monill

Executive Director/CEO



Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2020

Presented to

The Maryland-National Capital Park and Planning Commission Employees' Retirement System

In recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)

alon Helinkle

Alan H. Winkle Program Administrator

BOARD OF TRUSTEES

Elizabeth M. Hewlett, Chairman

Prince George's County Commissioner Term expires: 6/30/2022

Gerald R. Cichy, Vice Chairman Montgomery County Commissioner Term expires: 6/30/2023

Caroline McCarthy Montgomery County Open Trustee Term expires: 6/30/2024

Asuntha Chiang-Smith Executive Director Ex-Officio

Sheila Morgan-Johnson Prince George's County Public Member Term expires: 6/30/2023

Melissa D. Ford Prince George's County Open Trustee Term expires: 6/30/2024 Amy Millar MCGEO Represented Trustee Term expires: 6/30/2022

Howard Brown FOP Represented Trustee Term expires: 6/30/2022

Pamela F. Gogol Montgomery County Public Member Term expires: 6/30/2023

Elaine A. Stookey Bi-County Open Trustee Term expires: 6/30/2023

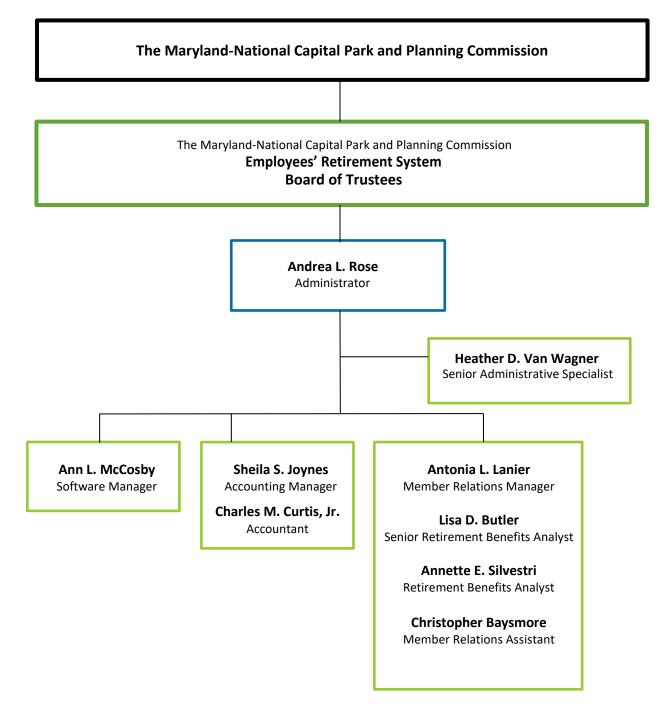
Joseph C. Zimmerman, CPA Secretary-Treasurer Ex-Officio

The Board consists of 11 appointed and elected members as adopted by the Commission on July 24, 2001:

- Two Commissioners, one each from Montgomery and Prince George's counties, appointed by the Commission.
- The Commission's Executive Director, Ex-Officio, concurrent with tenure in office.
- The Commission's Secretary-Treasurer, Ex-Officio, concurrent with tenure in office.
- Three Open Trustees, one each from Montgomery and Prince George's counties and one from the Bi-County office (effective July 2003), as a result of an election conducted by the ERS.
- Two Public Members, one each from Montgomery and Prince George's counties, appointed by the Commission.
- Two Represented Trustees, one each from the Municipal and County Government Employees' Organization (MCGEO) and the Fraternal Order of Police (FOP). The MCGEO Representative is selected by the Chief Executive Officer of MCGEO and the FOP Representative is selected pursuant to an internal election process established by the FOP. Represented trustees continue in office until replaced by their successors.

Trustees serve for three-year terms. Trustees elect a chairman and vice chairman to serve for a two-year term. Generally, the Board meets on the first Tuesday of every month, except for August. Board meetings are open to all employees and members of the public. Members of the Board may be contacted in writing through the ERS. Announcements regarding the Board of Trustees are posted on the ERS' website <u>http://ers.mncppc.org</u> and in the Commission's monthly newsletter, *Update*.

ORGANIZATIONAL AND REPORTING STRUCTURE



STAFF, CONSULTANTS AND PROFESSIONAL SERVICE PROVIDERS

<u>STAFF</u>

Andrea L. Rose Administrator

Heather D. Van Wagner Senior Administrative Specialist

Member Relations

Antonia L. Lanier Member Relations Manager

Lisa D. Butler Senior Retirement Benefits Analyst

Annette E. Silvestri Retirement Benefits Analyst

Christopher Baysmore Member Relations Assistant

Technical and Accounting Services

Sheila S. Joynes Accounting Manager

Ann L. McCosby Software Manager

Charles M. Curtis Jr. Accountant

Note: For the Investment Manager Directory see page 50, and for the Schedule of Broker Commissions see page 60.

Employees' Retirement System The Maryland-National Capital Park and Planning Commission 6611 Kenilworth Avenue, Suite 100 Riverdale, Maryland 20737 Telephone (301) 454-1415 Fax (301) 454-1413 <u>http://ers.mncppc.org</u> <u>contactERS@mncppc.org</u>

Hours of Service Monday-Friday 8 a.m. to 5 p.m.

CONSULTANTS & PROFESSIONAL SERVICE PROVIDERS

<u>Actuary</u> Cheiron

Auditor SB & Company, LLC

Banking The Northern Trust Company Bank of America

Investment Consultant Wilshire Associates, Inc.

<u>Legal</u> GROOM Law Group, Chartered M-NCPPC Legal Department Robbins Geller Rudman & Dowd, LLP





REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Board of Trustees The Maryland-National Capital Park and Planning Commission Employees' Retirement System

Report on the Financial Statements

We have audited the accompanying financial statements of the Maryland-National Capital Park and Planning Commission Employees' Retirement System (the ERS), as of June 30, 2021 and 2020, and for the years then ended, and the related notes to the financial statements, which collectively comprise the ERS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The ERS' 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 controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the plan'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 plan's internal controls. 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 respective fiduciary net position of the ERS, as of June 30, 2021 and 2020, and the respective changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.



Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Money-Weighted Rate of Returns, and Notes to Required Supplementary Information be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the ERS' basic financial statements. The Schedule of Administrative Expenses, Schedule of Investment expenses, and Schedule of Payments to Consultants, the Introductory Section, Investment Section, Actuarial Section, and Statistical Section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of 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 basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements themselves, and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information as listed in the previous paragraph is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory Section, Investment Section, Actuarial Section, and Statistical Section have not been subjected to the auditing procedures applied in the audits of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Owings Mills, Maryland October 7, 2021

SB + Company, SfC

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section of the Report provides readers with a narrative overview and analysis of the financial activities of the Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS) for the fiscal years ended June 30, 2021, 2020 and 2019. We encourage readers to consider the information presented here in conjunction with basic financial statements to enhance their understanding of the ERS' financial performance.

FINANCIAL HIGHLIGHTS

- The ERS' assets exceeded liabilities by \$1.1 billion and \$942.6 million as of June 30, 2021 and 2020, respectively. Of this amount, \$1.1 billion and \$942.6 million may be used to meet the obligations of current and future retirees and beneficiaries. The total fiduciary net position held in trust for pension benefits increased in 2021 by \$165.1 million (17.5%) due primarily to investment gains and in 2020 decreased by \$19.4 million (2.0%) due to a significant decrease in investment gains resulting from the COVID-19 global pandemic.
- The ERS' Net Pension Liability as of June 30, 2021 was \$19,432,079. The ratio of the Fiduciary Net Position to the Total Pension Liability was 98.3%.

OVERVIEW OF THE FINANCIAL STATEMENTS

The Management's Discussion & Analysis is intended to serve as an introduction to the ERS' basic financial statements. The basic financial statements contain two components: the ERS' Financial Statements and the Notes to the Financial Statements. In addition to the basic financial statements, this report also contains the following additional supplementary information required by the Governmental Accounting Standards Board: a Schedule of Changes in Net Pension Liability and Related Ratios, a Schedule of Employer Contributions, a Schedule of Money-Weighted Rate of Returns, and Notes to Required Supplementary Information.

The Statements of Fiduciary Net Position present information on all of the ERS' assets and liabilities, with the difference between the two reported as fiduciary net position restricted for pensions. Over time, increases or decreases in net position may serve as a useful indicator of whether the ERS' financial position is improving or deteriorating.

The Statements of Changes in Fiduciary Net Position present information showing how the ERS' net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, additions to and deductions from net position are reported in the statements for some items that will only result in cash flows in future fiscal periods (e.g. unrealized gains or losses on investments).

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

The Schedules of Changes in Net Pension Liability and Related Ratios, Employer Contributions and Money-Weighted Rate of Returns present historical trend information about the ERS. This information is intended to improve financial reporting for decision making, accountability and transparency.

MANAGEMENT'S DISCUSSION AND ANALYSIS

Financial Analysis of the System

Fiduciary Net Position and Changes in Fiduciary Net Position: The following table reflects the ERS' net position and changes in net position as of and for the years ended June 30, 2021, 2020 and 2019 (in thousands).

	June 30, 2021		June 30, 2020		Jun	e 30, 2019
Assets						
Current assets	\$	1,150,280	\$	986,921	\$	1,000,916
Other assets		838		245		38
Total assets		1,151,118		987,166		1,000,954
Liabilities						
Total liabilities		43,396		44,577		38,937
Fiduciary net position restricted						
for pensions	\$	1,107,722	\$	942,589	\$	962,017
		une 30, 2021	lun	e 30, 2020	lun	e 30, 2019
Changes in fiduciary net position		une 30, 2021	Jun	e 30, 2020	Jun	2013
Total additions, net	\$	225,155	\$	37,942	\$	94,772
Total deductions, net		60,022		57,370		53,506
Net (decrease) increase in fiduciary net position	\$	165, 133	\$	(19,428)	\$	41,266

Assets

The largest component of fiduciary net position is the ERS' investments. As of June 30, 2021, 2020 and 2019, investments amounted to approximately \$1.1 billion, \$986.0 million, and \$999.9 million, respectively. In 2021 the increase in fiduciary net position was as a result of the net gain in the fair value of investments. In 2020 the net decrease in fiduciary net position was as result of a \$51.5 million decrease in the net gain from investing activities compared to the prior fiscal year. The portfolio's return was significantly impacted by the COVID-19 pandemic particularly in the first quarter 2020 resulting in a -10.1% return during that quarter. All other quarters during fiscal year 2020 had positive absolute investment returns. In 2019 the net increase in fiduciary net position was as a result of the net gain in the fair value of investments. Total receivables of \$0.7 million, \$0.8 million and \$0.9 million represent accrued income on investments and receivables of member contributions as of June 30, 2021, 2020 and 2019, respectively.

Liabilities

Liabilities are primarily comprised of amounts payable on securities lending transactions and investments payable. Securities lending liabilities amounted to approximately \$40.6 million, \$29.9 million, and \$37.2 million as of June 30, 2021, 2020 and 2019, respectively. These outstanding balances are offset with cash and investments being held as collateral on securities lending transactions. Investments payable represent purchases not settled by June 30 of each year. Investments payable were approximately \$1.2 million, \$13.2 million, and \$0.4 million as of June 30, 2021, 2020 and 2019, respectively.

Additions

The primary sources of net additions for the ERS include employer and member contributions and investment income. The following table reflects the source and amount of additions during the fiscal years ended June 30, 2021, 2020 and 2019 (in millions):

	June	June 30, 2021		30, 2020	June 30, 2019	
Employer contributions	\$	22.3	\$	19.2	\$	24.8
Member contributions		8.1		7.8		7.5
Net investment gain		194.8		10.9		62.4
Net Additions	\$	225.2	\$	37.9	\$	94.7

MANAGEMENT'S DISCUSSION AND ANALYSIS

Contributions

During 2021, the actuarially determined employer contribution to the ERS increased from \$19,244,687 to \$22,312,947. An increase in the actuarially determined contribution can be attributed to 1) a loss on the actuarial value of assets; 2) experience varied from assumptions; and 3) an increase in liabilities due to a decrease in the investment return assumption.

During 2020, the actuarially determined employer contribution to the ERS increased from \$17,514,943 to \$19,244,687. An increase in the actuarially determined contribution can be attributed to a reduction in the interest rate assumption and a modification to the active member death benefits.

Effective July 1, 2007, employer contributions are paid based on the prior year's valuation. For the calculation of the required employer contributions, the ERS uses a five-year asset smoothing method to determine the actuarial value of plan assets. During the period July 1, 2019 through June 30, 2020, investment performance on the actuarial value of assets was 5.74%. Over the five-year period ending on the valuation date, July 1, 2020, the return on the actuarial value of assets was 6.15%.

Net Investment Income

The net investment gain for the ERS totaled \$194.8 million in 2021, \$10.9 million in 2020, and \$62.4 million in 2019. In 2021, the \$194.8 million investment gain was comprised of a net appreciation in fair value of investments of \$182.6 million, \$15.3 million in dividends and interest, \$0.1 million from securities lending and \$3.2 million advisory and management fees. In 2020, the \$10.9 million in dividends and interest, \$0.1 million from securities of a net appreciation in fair value of investments of \$0.9 million, \$12.9 million in dividends and interest, \$0.1 million from securities lending, 0.1 million from other investment income and \$3.1 million advisory and management fees. In 2019, the \$62.4 million investment gain was comprised of a net appreciation in fair value of investment gain was comprised of a net appreciation in fair value of s52.7 million, \$13.0 million in dividends and interest, \$0.1 million from securities lending, and \$3.4 million advisory and management fees.

Deductions

The deductions from the ERS include the payment of retiree and survivor benefits, participant refunds and administrative expenses. Deductions for 2021, 2020 and 2019 totaled \$60.0 million, \$57.4 million, and \$53.5 million, respectively. Such amounts represent increases of 4.6% and 7.2% over 2020 and 2019 respectively. At the beginning of fiscal year 2021, eligible retirees received a 1.8% cost-of-living adjustment which contributed to the 4.6% increase in deductions from 2020 to 2021. At the beginning of fiscal year 2020, eligible retirees received a 2.4% cost-of-living adjustment which contributed to the 7.2% increase in deductions from 2019 to 2020. The following table reflects the ERS' deductions by type in 2021, 2020, and 2019 (in thousands):

	2021	2020	2019
Benefits	\$ 57,660	\$ 55,068	\$ 51,057
Refunds	378	580	745
Administrative expenses	 1,984	 1,722	1,704
Total Deductions	\$ 60,022	\$ 57,370	\$ 53,506

Request for Information

This financial report is designed to provide an overview of the ERS. Questions concerning any of the information provided in this report should be addressed to Andrea L. Rose, Administrator, The Maryland-National Capital Park and Planning Commission Employees' Retirement System, 6611 Kenilworth Avenue, Suite 100, Riverdale, Maryland 20737.

STATEMENTS OF FIDUCIARY NET POSITION

June 30, 2021 and 2020

	2021	2020
INVESTMENTS AT FAIR VALUE (note 3)		
Fixed income securities	\$ 231,300,499	\$ 210,237,172
International fixed income securities	7,625,831	7,394,333
Venture capital/alternative investments	277,066,810	234,115,360
Corporate stock	426,549,360	332,767,108
International corporate stock	77,233,352	64,495,247
Real estate	68,440,536	65,610,521
Short term investments	21,772,477	42,136,972
Securities lending short term collateral investment pool	39,501,241	29,250,404
Total investments at fair value	1,149,490,106	986,007,117
CASH	60,881	65,117
RECEIVABLES		
Accounts receivable-member contributions	6,684	6,792
Accrued income on investments	722,836	842,073
Total receivables	729,520	848,865
OTHER ASSETS		
Prepaid expenses	310	310
Equipment at cost, net of accumulated depreciation/amortization	837,330	244,538
of \$101,158 and \$254,436	837,640	244,848
Total assets	1,151,118,147	987,165,947
LIABILITIES		
Investments related payable	1,172,168	13,176,486
Accrued expenses	750,142	621,732
Refunds payable	917,732	845,813
Payable for securities lending collateral	40,556,217	29,933,326
Total liabilities	43,396,259	44,577,357
FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS	\$ 1,107,721,888	\$ 942,588,590

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

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

For the Years Ended June 30, 2021 and 2020

	2021	2020
ADDITIONS		
Contributions (note 2)		
Employer	\$ 22,312,947	\$ 19,244,687
Employees	8,084,657	7,796,708
Total contributions	30,397,604	27,041,395
Investment income		
Interest	12,170,998	10,340,034
Dividends	3,152,182	2,589,151
Net appreciation in fair value of investments	182,573,906	886,552
Other	1,621	88,782
Less - investment advisory and management fees	(3,228,153)	(3,116,235)
Net gain from investing activities	194,670,554	10,788,284
Securities lending activity (note 3)		
Securities lending income	116,026	579,475
Borrower rebate	8,452	(412,686)
Securities lending expenses:		
Less - Management fees	(37,308)	(54,917)
Net income from securities lending	87,170	111,872
Net investment gain	194,757,724	10,900,156
Total additions	225,155,328	37,941,551
DEDUCTIONS		
Benefits and other payments		
Pension benefits	52,051,950	49,426,895
Disability benefits	83,272	81,800
Survivor and death benefits	5,524,510	5,559,158
Refunds of contributions	378,267	579,629
Administrative expenses (note 6)	1,984,031	1,722,361
Total deductions	60,022,030	57,369,843
NET INCREASE/(DECREASE) IN FIDUCIARY NET POSITION	165,133,298	(19,428,292)
FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS		
Beginning of year	942,588,590	962,016,882
	\$ 1,107,721,888	\$ 942,588,590

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

1. Summary of Significant Accounting Policies

The Maryland-National Capital Park and Planning Commission Employees' Retirement System (ERS), although a legally separate entity, is considered to be a blended component unit of the Maryland-National Capital Park and Planning Commission ("Commission"). Accordingly, the financial statements of the ERS are included as a pension trust fund in the Commission's basic financial statements.

The ERS is a retirement benefit trust organized by the Commission and is a qualified retirement plan pursuant to, and within the meaning of Section 401(a) of the Internal Revenue Code of 1986. The ERS is considered a single "pension plan" for purposes of financial reporting in accordance with accounting principles generally accepted in the United States of America, as no assets are legally restricted to the payment of certain benefits.

Basis of Accounting

The financial statements of the ERS are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred; revenues are recorded in the accounting period in which they are earned and become measurable; and investment purchases and sales are recorded as of their trade date. Employee contributions for active members are established by the plan sponsor; set forth in the ERS' plan document; and, recognized when due. Employer contributions are recognized when due pursuant to formal commitments as recommended by the actuary and approved by the plan sponsor. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Use of Estimates

Management of the ERS has made certain estimates and assumptions relating to the reporting of assets and liabilities, and the disclosure of contingent assets and liabilities, to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

Fair Value

The ERS' investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. The investments in short-term investment funds are reported at cost plus allocated interest, which approximates fair value. The securities lending collateral pool, which is a fund operated by the securities lending agent, also is accounted for at fair value, which represents the net position of the collateral received. U.S. government obligations, corporate and foreign bonds and notes, and common and preferred stocks, are generally valued based on published market prices and quotations from national security exchanges and securities pricing services.

For alternative investments, which include venture capital, private equity and real estate investments where no readily ascertainable fair value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Securities that are not traded on a national security exchange are valued by the asset manager or third parties based on similar sales.

The pricing services used for fixed income securities uses the Interactive Data Corporation by Institutional Bid Evaluation daily; international fixed income securities uses the PC Bond Group or IBOXX by Institutional Mid Evaluation daily; corporate stock uses the Interactive Data Corporation as of the official close of NASDAQ daily; international corporate stock uses Telekurs by the Last Trade daily; venture capital uses the Limited Partnership by the Institutional Bid Evaluation or Valuation as Priced for U.S. and international; and real estate uses the Investment Managers by Evaluation as priced.

1. Summary of Significant Accounting Policies (continued)

Fair Value (continued)

Investment expenses consist of investment managers' fees and those expenses directly related to the ERS' investment operations. GASB only requires disclosure of investment management fees which are "readily separable" from investment income. Due to the diversified investments, not all investment expenses are transparently disclosed in the statements. Partnership fees for private equity are drawn from committed capital; therefore, these fees are included within the net asset value and reported in the net appreciation/(depreciation) in fair value of investments.

Capital Assets

Capital assets are stated at cost value at the time received less accumulated depreciation/amortization. Donated capital assets, donated works of art, similar items and capital assets received in a service concession arrangement are reported at acquisition value rather than fair value. Repairs and maintenance are expensed as incurred. Assets with a cost greater than \$5,000 are capitalized.

Depreciation/amortization is recorded over the following estimated useful lives using the straight-line method:

Computer software systems	5 to 15 years
Furniture, fixtures, and equipment	3 to 5 years

2. Organization and Plan Description

The Board of Trustees ("Board") administers the ERS in accordance with the Trust Agreement between the Commission and the Board and delegates the day-to-day operations to the Administrator. The Board's main responsibility is to administer the ERS for the sole benefit of the members and to pay the promised benefits. The assets of the ERS are invested with the objective of ensuring that sufficient funds will be available for meeting benefit payments. The Board consists of 11 appointed and elected members as follows: two Commissioners (one each from Montgomery and Prince George's counties); three employee trustees (one each from Montgomery and Prince George's counties); two public members (one each from Montgomery and Prince George's counties); two Represented Trustees (one MCGEO Representative and one Fraternal Order of Police Representative); and, the Commission's Executive Director and Secretary-Treasurer, who serve as Ex-Officio.

The ERS consists of five contributory, single employer defined benefit pension plans sponsored by the Commission. Three of the plans, Plan A, B and D are closed to new entrants, and two, Plan C and E are open for park police and general employees, respectively. The following description of the ERS provides general information. Participants should refer to the Plan Document for more complete information.

General Employees. General employees may be members of Plans A, B, or E. Plan A, the original plan effective July 1, 1972, is applicable to all employees who enrolled on a voluntary basis as of December 31, 1978, when membership was closed. Plan B became mandatory for all new full-time career general employees effective January 1, 1979, and ERS staff hired on or after March 1, 1994. Effective January 1, 2009, membership was mandatory for part-time Merit System employees, Commissioners and Appointed Officials of the Commission. Plan B is integrated with Social Security and members vest after five years of credited service, with the exception of Commissioners and Appointed Officials who receive full and immediate vesting. Membership in Plan B closed effective December 31, 2012. Under the terms of Plans A and B, the normal retirement date for participating general employees is the first day of the month coinciding with or immediately following the date on which a participant attains age 60 with at least 5 years of credited service, or upon completion of 30 years of credited service regardless of age. Plan E became mandatory for all full-time and part-time general career employees, ERS Staff, Commissioners and Appointed Officials hired on or after January 1, 2013. Plan E is integrated with Social Security and members of credited service, with the exception of Commissioners and Appointed Officials hired on or after January 1, 2013. Plan E is integrated with Social Security and members fully vest after ten years of credited service, with the exception of Commissioners and Appointed Officials hired on or after January 1, 2013. Plan E is integrated with Social Security and members fully vest after ten years of credited service, with the exception of Commissioners and Appointed Officials hired on or after January 1, 2013. Plan E is age 62 with 10 years of credited service or 30 years of credited service, regardless of age.

2. Organization and Plan Description (continued)

Park Police. Park Police may be members of Plans C or D. On July 1, 1990, a collectively bargained Plan D replaced Plan C, which was closed and all members transferred to the new Park Police Plan D. Effective July 1, 1993, again as a result of collective bargaining, Plan D was closed to new employees, and Plan C was amended and reopened to provide benefits for Park Police hired after July 1, 1993. Pursuant to a 2002 collective bargaining agreement, Plan D members were given a one-time election to transfer to Plan C on or before October 25, 2002.

The normal retirement date for Plan D members is the first day of the month coinciding with or immediately following the date on which the participant attains age 55 and has completed 5 years of credited service, or has completed 22 years of credited service, regardless of age. The normal retirement date for Plan C members is the first day of the month coinciding with or immediately following the date on which the participant attains age 55 and has completed 5 years of credited service, regardless of age.

Benefit Payments. Benefit payments for Plans A, B, C, and D are determined by application of a benefit formula considering the average of an employee's annual base pay during the three consecutive years that produce the highest total earnings prior to retirement, and the number of years of credited service, up to 40 years for members of Plan A, 35 years for members of Plan B, 30 years for members of Plan C, and 32 years for members of Plan D. Benefit payments in Plan E are determined by application of a benefit formula considering the average of an employee's annual base pay during the five consecutive years that produce the highest total earnings prior to retirement and credited service up to 35 years. Under certain conditions, participants may elect to take early retirement at a reduced benefit level. Joint and survivor options are also available under all the plans.

Disability. Prior to August 1, 1982, disability benefits were available under the plans. Effective August 1, 1982, applications for disability retirement benefits were discontinued. All members who were receiving disability benefits, or who applied for disability benefits prior to August 1, 1982, continue to be covered under the terms of Plans A, B, and C. All applications for disability benefits subsequent to August 1, 1982, are covered under the Commission's Long-Term Disability Insurance Plan, which is not part of the ERS.

<u>Cost-of-Living Adjustment (COLA)</u>. On July 1 each year, retirement income for participants retired at least six months is adjusted for changes in the cost-of-living as determined by the Consumer Price Index-All Items Annual Average, Urban Index for Major U. S. Cities (CPI). Plans A, B, C and D provide COLAS at 100% of the change in the CPI up to 3%, plus half of the change in the CPI in excess of 3%, up to a 5% maximum COLA for the portion of a member's benefit attributable to credited service earned prior to July 1, 2012, including earned and unused sick leave prior to January 1, 2013. The portion of a member's benefit attributable to credited service earned after July 1, 2012, including earned and unused sick leave on and after January 1, 2013, are subject to a maximum COLA of 2.5%. Plan E provides COLAs at 100% of the change in the CPI up to a maximum COLA of 2.5%.

Death Benefit. The ERS provides a \$10,000 post-retirement death benefit to beneficiaries of current and future retired members.

<u>Sick Leave Integration</u>. The ERS permits members to use up to a maximum of 301 days of earned and unused sick leave to meet the length of service requirements for retirement qualification.

Plan Termination. Although the Commission has not expressed any intent to terminate the Plans, it may do so at any time. In the event that the Plans are terminated, beneficiaries receiving benefits at the date of termination shall be entitled to an allocation of the remaining assets based upon the relationship of each individual's actuarial reserve to total actuarial reserves, the balance to be allocated (pro rata) to the remaining members or beneficiaries.

2. Organization and Plan Description (continued)

Membership by Plan

As of July 1, 2020, membership in the ERS was as follows:

	Plan A	Plan A					
	(General)	(Police)	Plan B	Plan C	Plan D	Plan E	Total
Inactive Plan Members (or their beneficiaries) Currently Receiving Benefits	263	16	1,220	82	104		1,687
Derients	205	10	1,220	02	104	2	1,007
¹ Inactive Plan Members Entitled to but Not Yet Receiving Benefits	-	-	498	43	3	136	680
Active Plan Members	-	-	1,068	214	2	941	2,225
Total membership	263	16	2,786	339	109	1,079	4,592

¹ As of July 1, 2020, there were 449 terminated non-vested participants due a refund of member contributions.

As of July 1, 2019, membership in the ERS was as follows:

	Plan A	Plan A					
	(General)	(Police)	Plan B	Plan C	Plan D	Plan E	Total
Inactive Plan Members (or their beneficiaries) Currently Receiving Benefits	274	16	1,163	81	108	3	1,645
¹ Inactive Plan Members Entitled to but Not Yet Receiving Benefits	-	-	509	37	3	112	661
Active Plan Members	-	-	1,142	205	2	774	2,123
Total membership	274	16	2,814	323	113	889	4,429

¹ As of July 1, 2019, there were 426 terminated non-vested participants due a refund of member contributions.

Contributions

The Commission has agreed to make actuarially determined periodic contributions sufficient to provide the ERS with assets for payment of pension benefits. The rate for the Commission's employee group as a whole is expected to remain level as a percentage of annual covered payroll. The contribution rate is based on current service cost plus amortization of the unfunded actuarial accrued liability.

Employee contributions are established and amended by the Commission and set forth in the ERS' Plan Document. Employees participating in Plan A contribute 7% of their base pay. Park Police participating in Plans C and D contribute 9% and 8%, respectively, of their base pay. Employees participating in Plan B and E contribute 4% of their base pay up to the Social Security covered wage base and 7% and 8%, respectively, thereafter.

The total contributions to the ERS for 2021 and 2020 were \$30,397,604 and \$27,041,395, respectively. In 2021, the Commission contributed \$22,312,947 (12.9% of covered payroll). Employees contributed \$8,084,657 (4.7% of covered payroll). In 2020, the Commission contributed \$19,244,687 (12.0% of covered payroll). Employees contributed \$7,796,708 (4.9% of covered payroll). Refer to the Schedule of Employer Contributions (page 44).

The Commission's actuarially determined contributions increased 15.94% from \$19,244,687 in 2020 to \$22,312,947 in 2021. An increase in the actuarially determined contribution can be primarily attributed to 1) a loss on the actuarial value of assets; 2) experience varied from assumptions; and 3) an increase in liabilities due to a decrease in the investment return assumption.

3. Investments

The Board is authorized by the Trust Agreement to invest and reinvest the Trust Fund, as may be determined by the investment consultant selected by the Commission. The Board is authorized to formulate investment policies, develop investment manager guidelines and objectives, and approve the retention of qualified advisors and investment managers.

Trust Fund assets are invested to obtain an appropriate long-term total return consistent with prudent risk taking. The Trust Fund shall be diversified across investment classes and among investment managers in order to achieve return as compensation for investment risk. The Board established target allocations for each asset class, as well as ranges of expected exposure as follows:

Target Exposure	Expected Range
15.00%	10%-20%
15.00%	10%-20%
10.00%	5%-15%
7.50%	0%-10%
47.50%	40%-55%
11.50%	8.5%-14.5%
7.50%	5%-10%
7.50%	5%-10%
4.00%	2%-6%
5.00%	3%-7%
35.50%	30%-41%
2.00%	0%-10%
15.00%	5%-20%
17.00%	12%-25%
	15.00% 15.00% 10.00% 7.50% 47.50% 11.50% 7.50% 4.00% 5.00% 2.00% 15.00%

The Board approved revisions to the Statement of Investment Policy on July 7, 2020. The Policy was amended to update the asset allocation changes adopted July 9, 2019 and to update the long-term assumptions.

Each investment manager has a set of guidelines, which contain investment objectives, and risk control provisions, which are appropriate for each manager's mission. Investment managers have discretion within the constraints of these guidelines and are subject to regular review by the Board. Investment manager assignments may be implemented with pooled vehicles. In such circumstances, the ERS may not have control with respect to the investment guidelines and objectives as they are written broadly for multiple investors. The Trust Fund has guidelines, which apply broadly to each asset class as follows:

Public Equity Guidelines (U.S. and International)

- Under normal conditions, no more than 5% of the value of the U.S. and International composites should be held in cash equivalents at any time.
- The U.S. and International equity composites are expected to remain broadly diversified by economic sector, industry and individual securities at all times.
- The composites should match the asset class benchmark in terms of capitalization and growth characteristics and be like the asset class benchmark in terms of risk.

Private Equity Guidelines

• The portfolio is expected to be diversified by geographic location with the following weightings: North America (approximately 50%), Europe (approximately 30%), and the Asia-Pacific region and other emerging markets (approximately 20%).

3. Investments (continued)

Private Equity Guidelines (continued)

- The composite is expected to be diversified by the following investment types: buyouts, venture capital, growth equity, distressed, and special situations (private equity-like investments, such as mezzanine debt, assetintensive assets or royalty streams and other opportunistic funds).
- Secondary fund investments and direct co-investments are permitted on an opportunistic basis with a combined maximum limit of 20%.
- Investments should be diversified by vintage year.
- No single partnership investment is expected to be more than 20% of the private equity composite. This guideline shall not apply during initial funding.

Fixed Income Guidelines

- The fixed income portfolio is structured to include exposures to the following sub-classes: core fixed income, high yield fixed income, global opportunistic fixed income, emerging markets, and bank loans.
- The fixed income composite may have up to 20% of its value in cash equivalents at any time.
- Except for securities issued by the U.S. Government and/or its agencies, any single issuer is not expected to exceed 5% of the fair value of the fixed income composite at any time.
- Duration of each fixed income sub-class should typically remain with +/- 1.5 years of the sub-class benchmark.
- Credit quality for each sub-class is expected to be like that of the designated sub-class benchmark, as measured by a recognized rating agency (Standard & Poor's or Moody's).
- Build America Bonds issued by Montgomery County and Prince George's County are prohibited.
- Flexible global opportunistic fixed income guidelines allow managers to invest globally, seeking to add value through duration management, yield curve positioning, sector/issue selection, country market selection and currency.

Real Assets Guidelines

- The real assets portfolio includes private real assets and public real assets.
- Any un-invested portion of the private real assets allocation should remain invested in public real assets.

Private Real Assets Guidelines

- Investments will be structured privately in the form of commingled or pooled vehicles, such as limited partnerships and diversified among the following investment types: real estate, energy, mining, timber, agriculture, and infrastructure.
- The private real assets portfolio is expected to be diversified by geographic location with a minimum of 50% invested in the United States and no more than 30% invested in emerging markets.
- Investments should also be diversified by vintage year. No single partnership commitment is expected to be more than 20% of the real assets portfolio or more than 20% of the portfolio of a fund-of-funds manager.

Public Real Assets Guidelines

 Investments structured in public real assets include natural resource stocks, real estate securities (including REITs), commodities, inflation indexed bonds, and global infrastructure that are broadly diversified, such that each sub-asset class may contribute to the portfolio's real return and risk profile.

3. Investments (continued)

Fair Value Measurements

The fair value of all invested assets, based on the fair value hierarchy, and categorized based upon the lowest level of input that was significant to the fair value measurement which represents the price that would be received if sold on the measurement date, were as follows:

Investments and Derivative Instruments Measured at Fair Value (\$ in thousands)

in thousands)			Fair Val	ue Mea	asurements	: Usina	
			uoted ices in			<u> </u>	
	 r Value 30/2021	Ma Id	Active rkets for entical Assets evel 1)	Ob	nificant Other servable nputs evel 2)	Unobs In	nificant ærvable puts vel 3)
Investments by fair value level							
Cash and invested cash	\$ 2,861	\$	2,861	\$	-	\$	-
Short Term Bills and Notes	818				818		-
Short-term investment funds	-		-		-		-
Debt securities							
Asset backed securities	4,401		-		4,401		-
Commercial mortgage-backed	3,477		-		3,477		-
Non-Government Backed C.M.O.S.	265		-		265		-
Corporate bonds	43,759		-		43,759		-
Government agencies	4,280		-		4,280		-
Government bonds	29,130		-		29,130		-
Government mortgage-backed securities	19,984		-		19,984		-
Government-issued commercial mortgage-backed	283		-		283		-
Other fixed income	1,289		-		1,289		-
Index linked government bonds	 1,064		-		1,064		-
Total debt securities	 107,932		-		107,932		-
Equity investments							
Common stock	70,749		70,746		3		-
Preferred stock	268		268		-		-
Equity exchange traded fund	-		-		-		-
Total equity investments	71,017		71,014		3		-
Securities lending short term							
collateral investment pool	39,501		39,501		-		-
Total investments by fair value level	\$ 222,129	\$	113,376	\$	108,753	\$	-

Investments Measured at the net asset value (NAV) (\$ in thousands)

	2021	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Short-term investment funds	\$ 18,094	None	Monthly	1-6 days
Funds-corporate bonds	43,763	None	Monthly	7-15 days
Funds-other fixed income	87,232	None	Monthly	7-15 days
Funds-common stock	432,765	None	Monthly	7-15 days
Venture capital and partnerships	277,067	112,577	Monthly, Quarterly	Frequent Changes
Real estate	68,440	1,500	Monthly	1-15 days
Total investments measured at NAV	 927,361			
Total investments	\$ 1,149,490			

3. Investments (continued)

Investments and Derivative Instruments Measured at Fair Value (\$ in thousands)

	Fair Value Measurements Using							
				Quoted Prices in				
		ir Value 30/2020	I	Active arkets for dentical Assets (Level 1)	Ob	gnificant Other oservable Inputs Level 2)	Unobs In	ificant ærvable puts vel 3)
Investments by fair value level								
Cash and invested cash	\$	1,341	\$	1,341	\$	-	\$	-
Short-term investment funds		34,334		34,334		-		-
Debt securities								
Asset backed securities		8,075		-		8,075.00		-
Commercial mortgage-backed		3,546		-		3,546.00		-
Non-Government Backed C.M.O.S.		328		-		328.00		-
Corporate bonds		49,922		-		49,922.00		-
Government agencies		4,575		-		4,575.00		-
Government bonds		9,563		-		9,563.00		-
Government mortgage-backed securities		26,098		-		26,098.00		-
Government-issued commercial mortgage-backed		1,538		-		1,538.00		-
Other fixed income		5,776		-		5,776.00		-
Index linked government bonds		7,676		-		7,676.00		-
Total debt securities		117,097		-		117,097		-
Equity investments								
Funds-common stock		-		-				
Equity exchange traded fund		58,613		58,610		3		-
Total equity investments		58,613		58,610		3		-
Securities lending short term								
collateral investment pool		39,501		39,501		-		-
Total investments by fair value level	\$	240,635	\$	123,535	\$	117,100	\$	-

Investments Measured at the net asset value (NAV)

(\$ in thousands)

		Unfunded	Redemption Frequency (If	Redemption
	 2020	Commitments	Currently Eligible)	Notice Period
Short-term investment funds	\$ 6,462	None	Monthly	1-6 days
Funds-corporate bonds	34,473	None	Monthly	7-15 days
Other fixed income-funds	66,062	None	Monthly	7-15 days
Funds-common stock	338,649	5,000	Monthly	7-15 days
Venture capital and partnerships	234,115	85,274	Monthly, Quarterly	Frequent Changes
Real estate	 65,611	5,500	Monthly	1-15 days
Total investments measured at NAV	745,372			
Total investments	\$ 986,007			

The pricing services used for fixed income securities (level 2) uses the Interactive Data Corporation by Institutional Bid Evaluation daily; international fixed income securities (level 2) uses the PC Bond Group or IBOXX by Institutional Mid Evaluation daily; corporate stock (level 1) uses the Interactive Data Corporation as of the official close of NASDAQ daily; international corporate stock (level 1) uses Telekurs by the Last Trade daily; venture capital (level 2) uses the Limited Partnership by the Institutional Bid Evaluation or Valuation as Priced for U.S. and international; and, real estate (level 2) uses the Investment Managers by Evaluation as priced.

Level 1 - Unadjusted quoted prices for identical instruments in active markets for identical assets or liabilities. Fair values of stocks are determined by utilizing quoted market prices.

Level 2 - Reflects measurements based on other observable inputs. Quoted prices for similar instruments in active markets; identical or similar instruments in markets that are not active; and models in which all significant inputs are observable.

3. Investments (continued)

Investments Measured at the net asset value (NAV) (continued)

Level 3 - Valuations are based on methods in which significant inputs are unobservable.

The carrying value of cash equivalents and short-term investments approximates fair value due to the short maturities of these investments.

Money-Weighted Rate of Return

For the years ended June 30, 2021 and 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 21.85% and 2.29%, respectively for one year. The money- weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Investment Risks

The ERS has investments that are subject to various risks. Among these risks are custodial credit risk, interest rate risk, credit risk, and foreign currency risk. Each one of these risks is discussed in more detail below.

For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the ERS will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either a) the counterparty or b) the counterparty's trust department or agent but not in the government's name. The ERS requires that all investments be clearly marked as to ownership and to the extent possible, shall be registered in the name of the ERS. As of June 30, 2021, the ERS held \$1,606 in investments whose exposure to custodial credit risk could not be determined.

Of the ERS' \$1.15 billion in investments as of June 30, 2021, \$39.5 million were cash collateral reinvestment securities acquired by the custodian, whom is also the lending agent/counterparty. This is consistent with the ERS' securities lending agreement in place with the custodian.

For short term investments, custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned to it.

The amount of the ERS' total cash and short-term investments as of June 30, 2021 and 2020 was \$21,833,358 and \$42,202,089, respectively. Cash deposits that were insured and collateralized in the bank account totaled \$60,881 and \$65,117 as of June 30, 2021 and 2020, respectively. As of June 30, 2021, and 2020, the ERS held \$21,772,477 and \$42,136,972, respectively, of short-term investments in its custodial investment accounts.

As of June 30, 2021, the ERS did not hold any short-term investments exposed to custodial credit risk.

Each investment manager has duration targets and bands that control interest rate risk; however, the ERS does not have a policy relating to interest rate risk.

3. Investments (continued)

As of June 30, 2021, the ERS had the following fixed income investments and short-term investments with the following maturities:

Investment Type	Fair Value	Weighted Average Maturity-Years
Asset backed securities	\$ 4,401,287	14.579074
Commercial mortgage-backed	3,476,979	16.486332
Corporate bonds	87,522,075	10.315763
Government agencies	4,280,167	8.469907
Government bonds	29,129,505	8.786643
Government mortgage-backed securities	19,984,262	23.604682
Government-issued commercial mortgage-backed	283,073	8.033769
Index linked government bonds	1,063,728	5.793695
Non-government backed collateralized morgaged obligations	264,679	21.171650
Fixed income mutual funds	88,520,575	N/A
Short-term investment funds	18,093,642	N/A
TOTAL	\$ 257,019,972	12.449246

As of June 30, 2020, the ERS had the following fixed income investments and short-term investments with the following maturities:

		Weighted Average
Investment Type	Fair Value	Maturity-Years
Asset backed securities	\$ 8,074,743	9.730221
Commercial mortgage-backed	3,545,803	17.109969
Corporate bonds	84,394,829	9.368838
Government agencies	4,575,379	8.276334
Government bonds	9,562,684	19.592590
Government mortgage-backed securities	26,098,128	24.446849
Government-issued commercial mortgage-backed	1,537,566	8.757722
Index linked government bonds	7,676,286	8.211445
Non-government backed collateralized morgaged obligations	327,980	13.007745
Fixed income mutual funds	71,836,502	N/A
Short-term investment funds	40,795,495	N/A
TOTAL	\$ 258,425,394	13.426605

<u>Asset-backed securities (ABS)</u> are bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other providers of credit. The originator of the loan or accounts receivable paper sells it to a specially created trust, which repackages it as securities. Brokerage firms underwrite the securities and reoffer them to the public. The ERS held \$4,401,287 and \$8,074,743 in ABS as of June 30, 2021 and 2020, respectively.

<u>Credit risk</u> is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by a nationally recognized statistical rating agency such as Standard & Poor's Services. Individual manager guidelines require investment managers to follow certain controls, documentation and risk management procedures. Managers are required to measure and monitor exposure to counterparty credit risk; however, there is no formal policy relating to a specific investment-related risk. All counterparties must have commercial paper credit ratings of at least A1 or equivalent rating.

3. Investments (continued)

Individual investment manager guidelines include limitations on the percentage of securities below investment grade and various types of securities including derivatives. A Derivatives Policy Statement identifies and allows common derivative investments and strategies which are consistent with the Statement of Investment Policy.

Credit Quality Ratings as of June 30, 2021:

Credit Quality Distribution for Services		% of Total Portfolio
Agency	AGY	4.26%
Government Agencies	AA	0.32%
Government Bonds	NR	0.16%
Government Mortgage Backed Securities	BBB	0.02%
Government Mortgage Backed Securities	NR	0.02%
Asset Backed Securities	AAA	0.11%
Asset Backed Securities	A	0.09%
Asset Backed Securities	BBB	0.09%
Asset Backed Securities	NR	0.09%
Commercial Mortgage-Backed	AAA	0.15%
Commercial Mortgage-Backed	BBB	0.01%
Commercial Mortgage-Backed	BB	0.02%
Commercial Mortgage-Backed	NR	0.12%
Corporate Bonds	AA	0.29%
Corporate Bonds	A	1.29%
Corporate Bonds	BBB	1.84%
Corporate Bonds	BB	0.25%
Corporate Bonds	В	0.02%
Corporate Bonds	NR	0.12%
Funds - Corporate Bond	NR	3.81%
Funds - Other Fixed Income	NR	7.59%
Funds - Short Term Investment	NR	1.57%
Non-Government Backed C.M.O.s	NR	0.02%
Other Fixed Income	NR	0.11%

Credit Quality Ratings as of June 30, 2020:

Credit Quality Distribution for Services		% of Total Portfolio
Agency	AGY	4.45%
Government Agencies	AA	0.22%
Government Bonds	NR	0.28%
Government Mortgage Backed Securities	BBB	0.01%
Government Mortgage Backed Securities	BB	0.01%
Government Mortgage-Backed Securities	NR	0.05%
Asset-Backed Securities	AAA	0.23%
Asset-Backed Securities	AA	0.14%
Asset-Backed Securities	А	0.12%
Asset-Backed Securities	BBB	0.11%
Asset-Backed Securities	NR	0.23%
Commercial Mortgage-Backed	AAA	0.17%
Commercial Mortgage-Backed	А	0.02%
Commercial Mortgage-Backed	BBB	0.04%
Commercial Mortgage-Backed	NR	0.13%
Corporate Bonds	AAA	0.03%
Corporate Bonds	AA	0.40%
Corporate Bonds	A	1.98%
Corporate Bonds	BBB	2.28%
Corporate Bonds	BB	0.21%
Corporate Bonds	В	0.05%
Corporate Bonds	NR	0.12%
Funds - Corporate Bonds	NR	3.50%
Funds - Other Fixed Income	NR	6.70%
Funds - Short Term Investment	NR	4.14%
Non-Government Backs C.M.O.s	NR	0.03%
Other Fixed Income	NR	0.59%

3. Investments (continued)

The ERS does not have a policy for foreign currency risk. Foreign currency is intentionally unhedged. The ERS' exposure to foreign currency risk as of June 30, 2021 was as follows:

Investment Type	Currency	Fair Value
Common stock	Brazilian real	\$ 1,364,484
Common stock	British pound sterling	6,709,359
Common stock	Canadian dollar	1,680,352
Common stock	Euro	21,302,015
Common stock	Hong Kong dollar	3,649,621
Common stock	Japanese yen	6,464,295
Common stock	Mexican peso	1,048,291
Common stock	New Taiwan dollar	2,872,936
Common stock	Norwegian krone	2,918,306
Common stock	Singapore dollar	1,115,491
Common stock	South Korean won	1,269,028
Common stock	Swiss franc	1,322,782
Total		\$ 51,716,960

The ERS' exposure to foreign currency risk as of June 30, 2020 was as follows:

Investment Type	Currency	Fair Value
Common stock	Brazilian real	\$ 1,581,956
Common stock	British pound sterling	4,858,044
Common stock	Canadian dollar	1,030,483
Common stock	Euro	16,831,345
Common stock	Hong Kong dollar	3,567,546
Common stock	Japanese yen	4,361,477
Common stock	Mexican peso	1,018,106
Common stock	New Taiwan dollar	2,040,556
Common stock	Norwegian krone	1,935,977
Common stock	Singapore dollar	958,704
Common stock	South Korean won	993,405
Common stock	Swiss franc	1,547,928
Total		\$ 40,725,527

Note: These schedules do not agree with the total international obligations and international equities as listed on the Statements of Fiduciary Net Position due to international obligations valued in U.S. dollars but classified as international.

3. Investments (continued)

Cash Received as Securities Lending Collateral

The ERS accounts for securities lending transactions in accordance with GASB No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, which established standards of accounting and financial reporting for securities lending transactions.

The Board authorized the lending of fixed income securities, which activity is managed by the custodian bank. The Board authorized a securities lending loan cap of 50%, effective February 1, 2011. There were no violations of legal or contractual provisions, and no borrower or lending agent default losses known to the securities lending agent as of June 30, 2021 and 2020.

Securities are loaned against collateral that may include cash, U.S. government securities, and irrevocable letters of credit. U.S. government securities are loaned against collateral valued at 102% of the fair value of the securities plus any accrued interest. Non-U.S. government securities are loaned against collateral valued at 105% of the fair value of the securities plus any accrued interest. Non-cash collateral cannot be pledged or sold unless the borrower defaults. Consequently, the non-cash collateral has not been reported as an asset or liability on the Statements of Fiduciary Net Position. All securities loans can be terminated on demand by either the lender or the borrower, although the average term of overall loans were approximately 92 days in 2021 and 93 days in 2020.

Cash open collateral is invested in a short-term investment pool, the Northern Trust Collective Securities Lending Core Short Term Investment Fund, which had an interest sensitivity of 30 days as of June 30, 2021, and 31 days as of June 30, 2020. Cash collateral may also be invested separately in "term loans", in which case the are no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited to the ERS' accounts on approximately the fifteenth day of the following month.

The custodial bank's responsibilities include performing appropriate borrower and collateral investment credit analysis; demanding adequate types and levels of collateral; and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. Loss indemnification is provided when securities are not returned due to the insolvency of a borrower and the trustee bank fails to fulfill its contractual responsibilities relating to the lending of those securities to that borrower.

The following table presents the fair values of the underlying securities, and the value of the collateral pledged as of June 30, 2021:

			Cas	h Collateral
Securities Lent	F	air Value	F	Received*
Fixed income securities	\$	26,878,086	\$	27,576,390
Domestic equities		12,623,155		12,979,827
Total	\$	39,501,241	\$	40,556,217

3. Investments (continued)

Cash Received as Securities Lending Collateral (continued)

The following table presents the fair values of the underlying securities, and the value of the collateral pledged as of June 30, 2020:

Securities Lent	F	air Value	 sh Collateral Received*
Fixed income securities	\$	23,296,968	\$ 23,888,724
Domestic equities		5,862,781	5,949,016
Global equities		90,655	95,586
Total	\$	29,250,404	\$ 29,933,326

*The securities collateral value is based on the ERS' pro rata share of the value of the securities collateral

4. Derivatives Policy Statement

A Derivatives Policy Statement identifies and allows common derivative investments and strategies, which are consistent with the Statement of Investment Policy. The guidelines identify transaction-level and portfolio-level risk control procedures and documentation requirements. Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have commercial paper credit ratings of at least A1 or equivalent rating. The duration and other risk exposure limits specified in the managers' guidelines are expected to be satisfied on an ongoing basis. Investment managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures, to replicate the risk/return profile of an asset or asset class, and to tactically change country exposure. Derivative securities such as "plain vanilla" collateralized mortgage obligations (CMOs) and structured notes are allowed. CMOs which are not "plain vanilla" are restricted to 5% of a manager's portfolio. Any use of derivatives not listed above is prohibited without written approval of the Board. As of June 30, 2021, and June 30, 2020, the ERS did not hold any derivatives. Gains and losses are determined based on quoted fair values and recorded in the Statements of Changes in Fiduciary Net Position. The objective of Statement No. 53, Accounting and Financial Reporting for Derivative Instruments is to enhance the usefulness and comparability of derivative instrument information reported by state and local governments.

The following uses of derivatives are prohibited:

- Leverage. Derivatives shall not be used to magnify exposure to an asset beyond that which would be allowed by the guidelines.
- **Unrelated Speculation**. Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial variable, unless such exposures would be allowed by the manager's guidelines if created with non-derivative securities.

Typically, investment advisors enter into foreign exchange contracts to make payment for international investments. Foreign exchange contracts are agreements to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. The investment advisor uses these contracts primarily for its international investments to settle pending trades. To reduce the risk of counterparty nonperformance, the investment advisors generally enter into these contracts with institutions meeting high standards of credit worthiness. The realized and unrealized gain/loss on contracts are included in the ERS' net position and represents the fair value of the contracts as of June 30, 2021 and June 30, 2020, the ERS' contracts to purchase and sell by foreign currencies as follows:

4. Derivatives Policy Statement (continued)

Foreign Exchange Contracts Settled as of June 30, 2021:

Currency	Purchases	Realized Gain/(Loss)	Sells	Realized Gain/(Loss)			
Brazilian real	\$ 99,001	\$ 904	\$ (714,012)	\$ 3,947			
British pound sterling	2,098,364	5,756	(3,183,586)	8,270			
Canadian dollar	-	-	(403,617)	(1,155)			
Euro	2,051,588	363	(5,681,014)	651			
Hong Kong dollar	473,883	(14)	(2,886,636)	(254)			
Japanese yen	1,830,700	(1,150)	(1,853,560)	2,575			
Mexican peso	-	-	(718,826)	3,086			
New Taiwan dollar	1	-	(883,172)	(44)			
Norwegian krone	-	-	(822,961)	(3,007)			
Singapore dollar	-	-	(311,331)	88			
South Korean won	-	-	(390,107)	(133)			
Swiss franc	190,419	(1,074)	(587,522)	(534)			

Foreign Exchange Contracts Settled as of June 30, 2020:

		R	ealized		R	ealized
Currency	Purchases	Gai	in/(Loss)	Sells	Gai	in/(Loss)
Brazilian real	\$ 1,253,060	\$	(16,501)	\$ (1,423,118)	\$	1,534
British pound sterling	3,647,697		3,188	(3,158,556)		(14,038)
Canadian dollar	-		-	(135,683)		272
Czech koruna	-		-	(404,033)		(235)
Euro	3,385,087		6,790	(5,194,310)		(2,665)
Hong Kong dollar	1,630,220		(122)	(1,468,104)		(216)
Indonesian rupiah	-		-	(122,234)		(166)
Japanese yen	437,408		(50)	(2,502,596)		(3,514)
Mexican peso	497,475		(3,412)	(91,508)		(545)
New Taiwan dollar	48,611		-	(2,494,717)		(36)
Norwegian krone	476,852		(902)	(519,475)		(5,254)
Singapore dollar	-		-	(369,437)		(347)
South Korean won	-		-	(369,042)		(97)
Swiss franc	127,363		(1,381)	(904,998)		4,488

Foreign Exchange Contracts Pending June 30, 2021

		Unrealized						alized
Currency	Pu	rchases	Gain	/(Loss)	Sel	s	Gain/	(Loss)
Japanese yen	\$	51,676	\$	(85)	\$	-	\$	-

There were no foreign exchange contracts pending as of June 30, 2020.

5. Net Pension Liability

The measurement date for implementation of GASB 67 is the ERS' fiscal year end, June 30, 2021. Plan assets (Fiduciary Net Position) are measured as of this date. The Total Pension Liability (TPL) as of this date is based on an actuarial valuation as of July 1, 2020, with adjustments made for the one-year difference. Adjustments include service cost, interest on total pension liability, and expected benefit payments during the year. Under GASB 67, the Net Pension Liability (NPL) is established as the difference between the Total Pension Liability and the Plan Fiduciary Net Position.

The components of the net pension liability of the System as of June 30, 2021 and 2020 are as follows:

	Tot	al for ERS 2021	Total for ERS 2020		
Total Penion Liability	\$	1,127,153,967	\$	1,077,413,617	
Plan Fiduciary Net Position		1,107,721,888	_	942,588,590	
Net Pension Liability	\$	19,432,079	\$	134,825,027	
Plan Fiduciary Net Position as a percentage of Total Pension Liability		98.3%		87.5%	

Actuarial Assumptions

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

COLA: 2.4% compounded annually for benefits accrued until July 1, 2012, 2.0% compounded annually thereafter

Inflation: 2.5%

Salary Increases: Varies by service from 2.50% to 6.50% per year

Mortality rates were based on the RP-2000 Mortality Table with male rates set forward 1 year and female rates set forward 2 years with generational adjustments for mortality improvements based on Scale BB. An alternate table was used for the valuation of disabled members.

The actuarial assumptions used in the July 1, 2019 valuation were based on the results of an actuarial experience study dated April 2016 for the period July 1, 2011 through June 30, 2015. The board agreed to annually review the investment return assumption.

Actuarial Cost Method

For financial reporting purposes, the July 1, 2020 actuarial valuation was performed using the Entry-Age Normal Actuarial Cost Method.

Assumed Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each asset class, based on inputs from a survey of investment professionals. These allocations are combined to produce a 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. This is then modified through a Monte-Carlo simulation process, by which returns are simulated over a 30-year period, and a risk adjustment is applied to the baseline expected return. This method accounts for not only expected returns but adjusts for volatility of returns by asset class as well as correlations between the different classes.

5. Net Pension Liability (continued)

Assumed Rate of Return (continued)

Best estimates of geometric mean real rates of return and risk for each major asset class included in the pension plan's target asset allocation, and the aggregate expected investment return assumption and expected risk, are summarized in the following table:

	Expected Real	Expected
Asset Class	Return	Risk
U.S Equity	6.75%	17.00%
International Equity- (non-U.S.)	7.50%	18.95%
Low Volatility Equity	7.15%	13.40%
Private Equity	8.40%	28.00%
U.S. Core Fixed Income	1.80%	5.15%
High-Yield Fixed Income	5.40%	10.00%
Bank Loans	4.60%	6.00%
Emerging Market Debt ("EMD")	5.30%	8.50%
Global Opp. Fixed Income	8.00%	12.15%
Public Real Assets	3.40%	7.60%
Private Real Assets	7.80%	11.25%
Total Fund	6.38%	10.65%
Inflation Assumption	2.50%	
Total Return without Adjustment	8.88%	
Risk Adjustment	-2.03%	
Total Expected Return	6.85%	

Discount Rate

The discount rate used to measure the total pension liability was 6.80%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that Commission 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 rates of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Commission, calculated using the discount rate of 6.80%, as well as what the Commission's net pension liability would be if it were calculated using a discount rate that is 1.00% lower and 1.00% higher than the current rate:

	1% Decrease C			ent Discount Rate	1% Increase		
		5.80%		6.80%		7.80%	
Total Pension Liability	\$	1,266,172,310	\$	1,127,153,967	\$	1,011,226,358	
Plan Net Position		1,107,721,888		1,107,721,888		1,107,721,888	
Net Pension Liability	\$	158,450,422	\$	19,432,079	\$	(96,495,530)	
Ratio of Plan Fiduciary Net Position							
to Total Pension liability		87.5%		98.3%		109.5%	

6. Administrative Expenses

The Board employs internal staff to perform all accounting and administrative services. Administrative expenses are primarily comprised of salaries and related costs, professional fees, and office expenses. In accordance with a Trust Agreement and Memorandum of Understanding between the ERS and the Commission, the administrative expenses are determined by the ERS and paid from the ERS' Trust Fund within the limits of the budget approved by the Commission. The cost of such services for the years ended June 30, 2021 and 2020 was \$1,984,031 and \$1,722,361, respectively. The administrative expenses are financed by the employer contributions.

The liability for accrued leave as of June 30, 2021 and 2020, was \$173,417 and \$162,884 respectively, and has been included in accrued expenses in the accompanying financial statements.

Administrative expenses charged to the ERS by the Commission for 2021 were: computer services of \$137,533, legal of \$64,200, rent of \$108,680, postage of \$27, telephone charges of \$967, and copier leasing costs of \$2,847. In 2020, the expenses were: computer services of \$135,500, legal of \$64,200, rent of \$108,680, postage of \$2,812, telephone charges of \$1,624, and copier leasing costs of \$1,555.

7. Federal Income Taxes

The ERS obtained its latest determination letter on November 20, 2014, in which the Internal Revenue Service (IRS) stated that the ERS, as amended, is in compliance with the applicable requirements of the Internal Revenue Code and the related trust is tax exempt.

In Announcement 2015-19, the IRS announced elimination of the staggered 5-year determination letter remedial amendment cycles for individually designed plans effective January 1, 2018.

8. Retirement Contributions for ERS Employees

Effective March 1, 1994, new employees of the ERS are required to participate in the ERS. Those employees remaining in the Board established 401(a) Defined Contribution Plan (the "401(a) Plan") receive an ERS contribution at the rate of 8% of base pay, and the employee contribution is at the rate of 6% of base pay.

Upon termination of employment, the amount accumulated in the 401(a) Plan shall be made available to the employee or designee, in accordance with the policies and procedures of the 401(a) Plan and in compliance with IRS regulations. The payroll for the one employee covered by the 401(a) Plan for the year ended June 30, 2021 was \$167,574 and the total payroll was \$863,645. The ERS' contribution to the 401(a) Plan was \$16,693 (1.9% of covered payroll) for the year ended June 30, 2021.

The payroll for the one employee covered by the 401(a) Plan for the year ended June 30, 2020 was \$165,299 and the total payroll was \$817,492. The ERS' contribution to the 401(a) Plan was \$15,341 (1.9% of covered payroll) for the year ended June 30, 2020.

In addition, employees are eligible to participate in a Section 457 Deferred Compensation Plan (the 457 Plan). Participation is voluntary, and the ERS does not contribute to the 457 Plan. Upon termination of employment, the amount accumulated in the 457 Plan shall be made available to the employee or designee, in accordance with the policies and procedures of the 457 Plan and in compliance with IRS regulations. ERS employees electing to participate, do so in the Commission's Section 457 deferred compensation plan. The contributions made to this plan are held in trust for the exclusive benefit of participants and their beneficiaries.

9. Other Post-Employment Benefits (OPEB)

Plan Description

In addition to the pension benefits provided for the ERS, the Commission provides post-retirement health care benefits under a cost sharing plan, in accordance with Commission approval, to all full-time and part-time career employees of the ERS who have been insured under any Commission-sponsored group medical plan during the three years immediately preceding the date of retirement or ability to prove similar coverage in another plan immediately prior to retirement. These benefits are administered through a separate trust of the Commission. Currently, 3 ERS retirees are participating in the Commission's medical plans. The ERS contributes 80% of the amount of medical, dental, prescription and vision insurance rates for retirees. For ERS active employees, the ERS contributes 82.5% of the amount of all medical and dental insurance rates, except for the lowest cost medical plan and the prescription plan. The cost share for the lowest cost medical plan and the prescription plan remains at 85% paid by the ERS. The ERS contributes 80% of the low vision option. Detailed information of the plan may be accessed via the Commission's ACFR.

Funding Policy

The ERS pays the contributions for Other Post-Employment Benefits (OPEB) in connection with the implementation of the accounting requirements of GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, based on requested actuarial amounts from the Commission and plan sponsor. For the years ended June 30, 2021 and 2020, the ERS contributed \$24,723 and \$26,321, respectively. The total OPEB liability is reported within the Commission's reporting entity and is not allocated to the ERS. The OPEB is documented as a part of the Commission's ACFR. Questions concerning the OPEB information may be addressed to the Department of Finance, Office of the Secretary-Treasurer, The Maryland-National Capital Park and Planning Commission, 6611 Kenilworth Avenue, Suite 204, Riverdale, Maryland 20737 or via the Commission's website, http://www.mncppc.org (See Budget/ACFR).

10. Risk Management

The ERS is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; natural disasters; and identity theft. The ERS addresses these risks by purchasing workers' compensation (Maryland state mandatory limits) insurance, unemployment insurance, fiduciary liability, theft, business owners, and cyber liability insurance. The ERS did not pay any claims settlements in excess of insurance coverage in 2021 or 2020, nor was any insurance coverage reduced in 2021 or 2020. The ERS' employees have various options in their selection of health insurance benefits that are offered through the Commission's self-insurance program. The Commission self-insures the following medical plans: a health maintenance organization (HMO), an exclusive provider organization (EPO), a point of service (POS) as well as the prescription drug plan. All other group health insurance plans are fully insured including a dental plan and a vision plan with three coverage options.

11. Accounting Pronouncements

The Governmental Accounting Standards Board (GASB) issued GASB Statement No. 90, Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61, to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. This amendment was effective for reporting periods beginning after December 15, 2019 and was adopted by the ERS.

11. Accounting Pronouncements (continued)

Management is in the process of evaluating the impact of GASB Statement Nos. 87, 92 and 93, and will implement these by the required implementation dates.

12. Subsequent Changes

The ERS Board approved the Limited Partnership Agreement Wilshire Private Market Series III at the September 14, 2021 board meeting. The ERS Board approved new Plan Amendments which are effective August 1, 2021.

REQUIRED SUPPLEMENTARY INFORMATION

UNDER GASB 67 Schedule of Changes in Net Pension Liability and Related Ratios¹ For Years Ended June 30

						Fiscal	Year					
	2021		2020	2019		2018		2017	2016		2015	2014
Total Pension Liability	 				_							
Service Cost	\$ 20,074,646	\$	18,144,368	\$ 17,097,809	\$	18,834,451	\$	20,196,060	\$ 18,125,110	\$	19,015,744	\$ 16,635,683
Interest	73,223,067		70,945,812	67,607,637		65,346,751		66,311,451	61,280,153		64,188,829	60,003,715
Changes in benefit terms ²	-		-	5,196,837		-		(6,233)	(4,863)		-	-
Difference between expected and actual experience	8,179,363		540,274	12,366,940		(51,028,919)		(9,213,536)	(20,701,234)		610,807	-
Changes in assumptions	6,301,273		6,015,186	5,808,280		5,434,643		34,368,804	(13,818,623)		9,147,692	-
Benefit payments, including refunds	 (58,037,999)		(55,647,482)	 (51,801,905)		(48,088,129)		(45,189,395)	 (42,718,801)		(40,382,818)	 (38,407,073)
Net Change in Total Pension Liability	\$ 49,740,350	\$	39,998,158	\$ 56,275,598	\$	(9,501,203)	\$	66,467,151	\$ 2,161,742	\$	52,580,254	\$ 38,232,325
Total Pension Liability - Beginning of Year	 1,077,413,617		1,037,415,459	 981,139,861		990,641,064		924,173,913	 922,012,171		869,431,917	 831,199,592
Total Pension Liability - End of Year	\$ 1,127,153,967	\$	1,077,413,617	\$ 1,037,415,459	\$	981,139,861	\$	990,641,064	\$ 924,173,913	\$	922,012,171	\$ 869,431,917
Plan Fiduciary Net Position												
Contributions – employer	\$ 22,312,947	\$	19,244,687	\$ 24,792,093	\$	24,822,301	\$	20,268,189	\$ 27,191,305	\$	28,149,976	\$ 28,750,323
Contributions – member	8,084,657		7,796,708	7,541,076		7,201,130		6,751,196	6,418,154		6,339,732	5,413,595
Net investment income	194,757,724		10,900,156	62,438,427		70,470,948		111,662,056	(4,851,526)		3,340,520	107,897,795
Benefit payments, including refunds	(58,037,999)		(55,647,482)	(51,801,905)		(48,088,129)		(45,189,395)	(42,718,801)		(40,382,818)	(38,407,073)
Admin. expenses	 (1,984,031)		(1,722,361)	 (1,704,098)		(1,810,777)		(1,674,654)	 (1,696,334)		(1,587,371)	 (1,487,210)
Net Change in Plan Fiduciary Net Position	\$ 165,133,298	\$	(19,428,292)	\$ 41,265,593	\$	52,595,473	\$	91,817,392	\$ (15,657,202)	\$	(4,139,961)	\$ 102,167,430
Plan Fiduciary Net Position - Beginning of Year	\$ 942,588,590	\$	962,016,882	\$ 920,751,289	\$	868,155,816	\$	776,338,424	\$ 791,995,626	\$	796,135,587	\$ 693,968,157
Plan Fiduciary Net Position - End of Year	\$ 1,107,721,888	\$	942,588,590	\$ 962,016,882	\$	920,751,289	\$	868,155,816	\$ 776,338,424	\$	791,995,626	\$ 796,135,587
-		_		 			_		 	_		
Net Pension Liability - Beginning of Year	\$ 134,825,027	\$	75,398,577	\$ 60,388,572	\$	122,485,248	\$	147,835,489	\$ 130,016,545	\$	73,296,330	\$ 137,231,435
Net Pension Liability - End of Year	19,432,079		134,825,027	75,398,577		60,388,572		122,485,248	147,835,489		130,016,545	73,296,330
Plan Fiduciary Net Position as a percentage												
of Total Pension Liability	98.3%		87.5%	92.7%		93.8%		87.6%	84.0%		85.9%	92.0%
Covered Payroll ³	\$ 172,387,068	\$	160,221,081	\$ 156,412,817	\$	143,534,600	\$	141,670,765	\$ 135,041,803	\$	129,134,125	\$ 129,911,593
Net Pension Liability as a percentage												
of Covered Payroll	11.3%		84.2%	48.2%		42.1%		86.5%	109.5%		100.7%	56.0%

¹Data for 2012-2013 is not readily available.

²Effective January 1, 2016, Employee contributions for Plan C were changed from 8.5% of Base Pay to 9.0% of Base Pay and for Plan D were changed from 7.5% of Base Pay to 8.0% of Base Pay. ³Covered payroll for FYE 2019 and later is as of beginning of fiscal year. Covered payroll for years prior to FYE 2019 is as of the valuation date one year prior to the beginning of the fiscal year.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Employer Contributions (unaudited)

Year	De E	termined Contributions in Relation termined to the Actuarially nployer Determined ntribution Contribution		Defic	bution iency :ess)	_ C ov	vered Payroll	Contributi Percenta Covered	age of	
2012	\$	32,182,287	\$	32,182,287	\$	-	\$	140,407,414		22.90%
2013		23,806,058		23,806,058		-		132,490,722		18.00%
2014		28,750,323		28,750,323		-		129,911,593		22.13%
2015		28,149,976		28,149,976		-		129, 134, 125		21.80%
2016		27,191,305		27,191,305		-		135,041,803		20.14%
2017		20,268,189		20,268,189		-		141,670,765		14.31%
2018		19,422,872		24,822,301	(5,3	399,429)		143,534,600		17.29%
2019		17,514,943		24,792,093	(7,2	277, 150)		156,412,817		15.85%
2020		19,244,687		19,244,687		-		160,221,081		12.01%
2021		22,312,947		22,312,947		-		172,387,068		12.94%

Covered payroll for FYE 2019 and later is as of beginning of fiscal year. Covered payroll for years prior to FYE 2019 is as of the valuation date one year prior to the beginning of the fiscal year.

Notes to Schedule	
Valuation Date	July 1, 2019
Timing	Actuarially determined contribution rates are calculated as of the July 1 preceding the fiscal year in which contributions are made

Key Methods and Assumptions Used to Determine Contribution Rates for FYE 2021:

· · · · ·	
Actuarial cost method	Entry Age Normal
Amortization method	Level dollar, open 15-year period
Asset valuation method	5-year smoothed market
Discount rate	6.85% net of investment expenses
Salary increases	Varies by service from 2.50% to 6.50% per year
Cost-of-living adjustments	2.40% compounded annually for benefits based on credited service accrued up to July 1, 2012 and sick leave accrued until January 1, 2013; 2.00% compounded thereafter
Inflation	2.50% per year
Mortality	Post-Retirement Healthy: RP-2000 Healthy Mortality Table with male rates set forward one year and female rates set forward two years, projected generationally with Scale BB
	Disabled: RP-2000 Disabled Annuitant Table, with male rates set forward one year and female rates set forward two years, projected generationally with Scale BB
	Pre-Retirement: 50% of the RP-2000 Healthy Mortality Table with male rates set forward one year and female rates set forward two years, projected generationally with Scale BB

REQUIRED SUPPLEMENTARY INFORMATION

UNDER GASB 67 Schedule of Money-Weighted Rate of Returns for Years Ended June 30

2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
21.85%	2.29%	7.38%	8.03%	14.62%	0.21%	0.70%	15.30%	12.35%	3.01%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The **Schedule of Changes in Net Pension Liability and Related Ratios** shows the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service and the liability of the Commission to plan members for benefits provided by the plan.

The **Schedule of Employer Contributions** highlights the historical actuarially determined contribution less the actual Commission contribution and reflects the actual contributions as a percentage of covered payroll for the 10-year period ended June 30, 2021. The Commission has consistently contributed 100% of the actuarially determined employer contribution.

The **Schedule of Money-Weighted Rate of Returns** expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

SUPPLEMENTARY SCHEDULE

Schedule of Administrative Expenses Fiscal Years Ended June 30

	Actual 2021	Actual 2020
PERSONNEL SERVICES		
Salaries and wages	\$ 863,645	\$ 817,492
Social Security contributions	62,699	57,314
Retirement contributions	83,115	76,183
Insurance contributions	126,542	113,286
Other employee benefits	60,465	58,198
Unemployment compensation	420	336
TOTAL PERSONNEL SERVICES	1,196,886	1,122,809
Professional and contractual services		
Actuarial	70,460	43,913
Auditing & Tax services	28,143	23,101
Legal	134,067	147,080
Computer services	202,617	176,707
Payroll & Miscellaneous Services	11,134	3,866
Total professional and contractual services	446,421	394,667
Communication costs		
Advertising	-	375
Telephone	967	1,624
Postage	362	2,812
Travel, conference and meetings	1,500	1,386
Total communication costs	2,829	6,197
Other services and charges		
Office space rental	108,680	108,680
Equipment leasing	2,847	1,555
Supplies	2,260	4,408
Maintenance	118,562	34,073
Bonding and insurance	58,280	45,239
Dues and subscriptions	2,135	1,635
Other services	3,265	3,098
Total other services and charges	296,029	198,688
Amortization	41,866	
Total	\$ 1,984,031	\$ 1,722,361

SUPPLEMENTARY SCHEDULE

Schedule of Investment Expenses Fiscal Years Ended June 30

	2021	2020
Investment managers		
Fixed income	\$ 1,559,282	\$ 1,429,139
U.S. Equity	190,332	231,242
International equity	911,484	879,218
Private equity	2,483	3,414
Real assets	71,787	78,522
Total investment managers' fees	2,735,368	2,621,535
Other investment service fees		
Custodian fees	289,658	292,885
Investment consulting fees	203,127	201,815
Security lending fees:		
Borrower rebate	(8,452)	412,686
Management fees	37,308	54,917
Total other investment service fees	521,641	962,303
Total	\$ 3,257,009	\$ 3,583,838

Schedule of Payments to Consultants Fiscal Years Ended June 30

	Nature		
Firm Name	of Service	2021	2020
SB & Company, LLC	Auditor	\$ 28,143	\$ 23,101
Wilshire Associates, Inc.	Investment Consultant	203,127	201,815
Cheiron	Actuary	70,460	43,913
GROOM Law Group	Legal	69,867	82,880
The Maryland-National Capital Park and Planning Commission Legal Department	Legal	64,200	64,200
The Maryland-National Capital Park and Planning Commission Finance Department	Computer Services	 137,533	 135,500
Total		\$ 573,330	\$ 551,409



INVESTMENT MANAGER DIRECTORY

<u>U.S. EQUITY</u>

J.P. Morgan Investment Management The Northern Trust Company RhumbLine Advisors, L.P.

INTERNATIONAL EQUITY

Capital Group Earnest Partners, L.L.C.

GLOBAL MINIMUM VOLATILITY

BlackRock Institutional Trust Company, N.A.

PRIVATE EQUITY

Wilshire Associates Inc.

FIXED INCOME

<u>Core Fixed Income</u> CSM Advisors, LLC Eaton Vance Management

<u>High Yield Fixed Income</u> Loomis Sayles & Company, L.P. Neuberger Berman Fixed Income, LLC

Opportunistic Fixed Income Golub Capital Western Asset Management Company Oaktree Capital Management, L.P. White Oak Partners 3, LLC HarbourVest Credit Opp. Fund II

Bank Loans Voya Investment Management

Emerging Market Debt Prudential Trust Company

PRIVATE REAL ASSETS

Aberdeen Capital Management, LLC Grosvenor Capital Management Principal Global Investors, LLC

PUBLIC REAL ASSETS

State Street Global Advisors

INVESTMENT CONSULTANT'S REPORT Wilshire

To:	Andrea Rose, Administrator
	The Maryland-National Capital Park and Planning Commission
	Employees' Retirement System Board of Trustees
From:	Bradley A. Baker, Vice President
	Wilshire Associates ("Wilshire")
Date:	August 20, 2021
Subject:	Annual Investment Consultant's Review

Overview

The overall goal of Maryland-National Capital Park and Planning Commission Employees' Retirement System ("ERS") is to provide benefits, as anticipated under the ERS' governing plan document, to its participants and their beneficiaries through a carefully planned and executed investment program. Through this program, the ERS seeks to produce a return on investment commensurate with levels of liquidity and investment risk that are prudent and reasonable given the financial status of the ERS and the prevailing capital market conditions. While the ERS recognizes the importance of the preservation of capital, it also recognizes the critical importance of a reasonable investment return in meeting the long-term financial requirements of the ERS. It adheres to the theory of capital market pricing that maintains that varying degrees of investment risk should be rewarded with varying levels of compensating return. Consequently, prudent risk-taking is both necessary and justifiable.

The current asset allocation policy is based on data and calculations resulting from the Actuarial Valuation conducted by the actuary, Boomershine Consulting Group, and a subsequent Asset/Liability study conducted by the investment consultant, Wilshire Associates, presented in March 2016.

Asset Class	Target %	Range %
U.S Equities	19.0	14-24
International Equities	19.0	14-24
Low Volatility Equities	8.0	4-12
Private Equities	5.0	0-8
Total Equities	51.0	46-56
U.S Core Fixed Income	10.0	7-13
High Yield Fixed Income	7.5	5-10
Bank Loans	4.0	2-6
Gobal Opportunistic Fixed Income	7.5	5-10
Total Fixed Income	29.0	24-34
Public Real Assets	5.0	0-15
Private Real Assets	15.0	5-20
Total Real Assets	20.0	10-25

A new Asset/Liability study was completed in March 2019 based upon the November 2018 Actuarial Valuation conducted by the actuary, Cheiron. A new asset allocation policy was subsequently approved in July 2020 with an inclusion of a dedicated allocation to the Emerging Market Debt ("EMD") asset class and offsetting reduction to Global Equity (U.S. and Non-U.S. Equity) allocations. This asset allocation policy has been fully implemented as of the end of FY2020. Private market investments will be evaluated on a continual basis and will fund gradually over time.

Asset Class	Target %	Range %
U.S. Equities	15.0	10 – 20
International Equities	15.0	10 – 20
Low Volatility Equities	10.0	5 – 15
Private Equities	7.5	0 - 10
Total Equities	47.5	40 - 55
U.S. Core Fixed Income	11.5	8.5 - 14.5
High Yield Fixed Income	7.5	5 - 10
Bank Loans	4.0	2 - 6
Emerging Market Debt ("EMD")	5.0	3 - 7
Global Opportunistic Fixed Income	7.5	5 - 10
Total Fixed Income	35.5	30 - 41
Public Real Assets	2.0	0 - 10
Private Real Assets	15.0	5 - 20
Total Real Assets	17.0	12 - 25

Outline of Investment Policies

The policies and procedures of the investment program guide its implementation and outline the specific responsibilities of the ERS.

Therefore, it is the policy of the ERS to:

- 1. Base the investment of the assets of the ERS on a financial plan that will consider:
 - a. The financial condition of the ERS
 - b. The expected long-term capital market outlook
 - c. The ERS' risk tolerance
 - d. Future changes of active and retired participants
 - e. Projected inflation and the rate of salary increases
 - f. Cash flow requirements
 - g. Targeted funding level as a percentage of the actuarial funding target.

In developing its financial plan, the Board has relied on the ERS' investment consultant, as one of the ERS' expert fiduciaries, to advise the Board as to the long-term capital market outlook and the Board's options available to meet its investment objectives in light of that investment outlook. The investment consultant has advised the Board as to the potential impact on the funding level of alternative investment policies in terms of risk and return based on various levels of asset diversification and the current and projected liability structure of the ERS. Based on this advice, the Board has adopted an overall investment performance goal commensurate with the level of risk necessary to reach those goals.

2. Based on the financial plan and the advice of the investment consultant, the Board shall determine the specific allocation of the investments among the various asset classes considered prudent given the ERS' liability structure. The long-term asset allocation shall be expressed in terms of a target and ranges for each asset class to provide sufficient flexibility to take advantage of short-term market

opportunities as they may occur. Asset allocation shall be sufficiently diversified to maintain a prudent level of risk, as determined by the Board, based on the investment consultant's expert opinion and projections that utilize reasonable, generally accepted capital market assumptions to ensure the current asset mix has a high probability of achieving the long-term goals of the retirement program.

- 3. In accordance with the asset allocation guidelines so adopted, the ERS' investment consultant shall advise and recommend to the Board external investment managers with demonstrated experience and expertise whose investment styles collectively will implement the planned asset allocation. Based on these recommendations, the Board will select the investment advisors that it deems most capable of carrying out the ERS' investment objectives. Upon the advice of the investment consultant, the Board will set guidelines for these managers and regularly review their investment performance against stated objectives.
- 4. It is the responsibility of the Board to administer the investments of the ERS at the lowest reasonable cost, taking into account the need to ensure quality. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs, and other administrative costs chargeable to the ERS.

The Board of the ERS has general supervision of the investment and reinvestment of the funds of the ERS (the "Funds"). The specific investment-related duties of the Board and, by delegation, of its investment consultant and advisors, include but are not limited to:

- 1. Selection and appointment of investment consultant and management professionals to assist the Board to carry out its duties;
- 2. Establishment and implementation of investment policy with the advice and assistance of the Board's investment consultant and investment advisors;

3. Review and general supervision of the activities of the Board's investment consultant and investment advisors with regard to the ERS' assets.

Investment Results

The ERS' investment consultant, Wilshire Associates, calculates the investment results provided. The returns are accurate and representative of the actual performance of the Plan. The following describes the performance measurement process that is used to arrive at the investment results:

Performance measurement reporting begins with the monthly collection of data from three sources:

- Banks Wilshire obtains transaction and asset information from trustee banks electronically. These
 transactions and security holdings are then loaded into client files on Wilshire's performance
 measurement system. Wilshire also tracks the availability and timeliness of statements sent by trustee
 banks. In addition, Wilshire has a dedicated team of data analysts responsible for maintaining statement
 receipts and portfolio data feeds, and loading asset portfolios into the performance system.
- Investment Managers Wilshire receives investment manager returns and detailed account statement information to use in the return reconciliation process.
- External Data Vendors and Wilshire Data Sources Wilshire's centralized security data division collects extensive security level data from external data vendors, while the index department collect returns and portfolios on over 800 benchmarks. Wilshire's manager research department collects manager returns and portfolios for the construction of universes. This data is also loaded into the performance system.

Monthly rates of return are calculated by Wilshire software using a time-weighted rate of return methodology based upon fair values. Wilshire's calculation procedure is consistent with the recommendations of both the CFA Institute and the Bank Administrative Institute.

Tolerance ranges have been established for each asset class for return variance with the manager. When returns fall outside this tolerance range, Wilshire will review individual holdings, prices, accruals, cash flows and fees to determine where the discrepancies lie. If an error has been made, Wilshire will work with appropriate parties to correct the error. If the difference is due to structural differences in the way the sources perform their calculations, Wilshire will include an explanation in the reconciliation. Reconciliation work is documented and can be provided to the client for its records.

Market Overview

Major Asset Class Returns for Periods Ending June 30, 2021

			1	3	5	10
	QTR	YTD	Year	Year	Year	Year
Equity						
Wilshire 5000 Index	8.42	15.45	44.24	18.89	17.96	14.76
Standard & Poor's 500 Index	8.55	15.25	40.79	18.67	17.65	14.84
MSCI EAFE (N) Index	5.17	8.83	32.35	8.27	10.27	5.89
MSCI ACWI ex-U.S. (N) Index	5.48	9.16	35.72	9.38	11.08	5.45
MSCI Emerging Market (N) Index	5.05	7.45	40.90	11.27	13.03	4.28
Fixed Income						
Bloomberg Barclays Aggregate Bond Index	1.83	-1.60	-0.33	5.34	3.03	3.39
Merrill Lynch High Yield BB/B Index	2.60	2.92	13.52	7.48	7.05	6.46
S&P LSTA Leverage Loan Index	1.54	3.44	12.22	4.44	5.11	4.57
Bloomberg Barclays Global Aggregate Index	1.31	-3.21	2.63	4.23	2.34	2.05
Treasury Bills (91 Day)	0.00	0.02	0.09	1.34	1.17	0.63
Real Assets						
Barclays U.S. TIPS Index	3.25	1.73	6.51	6.53	4.17	3.40
Bloomberg Barclays Commodity Index	13.30	21.15	45.61	3.90	2.40	-4.44
Wilshire Global REIT Index	11.68	19.84	37.04	8.60	6.02	8.26
NCREIF ODCE (EW) Index	4.39	6.77	8.84	6.07	6.98	9.79
U.S. CPI	2.57	4.31	5.39	2.54	2.43	1.87

U.S. Equity

The U.S. stock market, represented by the Wilshire 5000 Total Market IndexSM, was up 8.4% for the second quarter. Nearly all eleven sectors were in positive territory, with Energy (+12.8%) and Communication Services (+12.1%) representing the best performing sectors. From a size perspective, large-cap outperformed small-cap while style-based results were mixed as large-growth outperformed value while growth underperformed within the small-cap space.

Inflation continues to accelerate in 2021, and it is unclear as to whether this is the beginning of a persistent trend or one effect of a rapidly reopening economy. U.S. CPI is up 6.5% (annualized) YTD through May, largely

due to a spike in energy prices, with oil up more than 50%. Fed Chair Jerome Powell believes that price increases will wane, saying that current pressure points "don't speak to a broadly tight economy."

Non-U.S. Equity

Economic conditions are rapidly improving in the U.K., led by the services sector as retail and hospitality businesses are benefitting from an economy that has almost totally reopened. Conditions in Germany, Europe's largest economy, are also improving as pandemic-related restrictions are being lifted.

Fixed Income

The U.S. Treasury yield curve flattened during the quarter with yields beyond a 3-year maturity falling and shorterterm rates generally rising. The 10-year Treasury yield ended the quarter at 1.47%, down 27 basis points from March. The Federal Open Market Committee (FOMC) recently opened the conversation on possible tapering of bond purchases and their median forecast for the future overnight rate moved from no change to a 0.5% increase – albeit in 2023. However, Chair Jerome Powell indicated that the Fed would not raise rates "preemptively" on possible inflation fears.

Portfolio Review

The ERS' net of fee investment performance as of June 30, 2021 is detailed in the following table:

Maryland-NCPPC ERS	\$000	Comp %	Calendar YTD %	1 Year %	3 Year %	5 Year %	Inception %
Total Fund (9/30/89)	1,109,565	100.0%	8.2	21.5	9.6	10.3	7.8
Policy Index/Blended Benchmark			6.4	20.4	9.8	9.5	7.9
Domestic Equity Comp (9/30/89)	173,402	15.6%	15.7	45.5	17.8	17.4	10.4
Wilshire 5000 Index			15.5	44.2	18.9	18.0	10.7
International Equity Comp (3/31/95)	165,628	14.9%	10.1	43.4	13.0	15.1	7.1
Policy Index			9.2	35.7	9.4	11.1	5.4
Global Min. Volatility Comp (6/30/17)	89,854	8.1%	7.3	19.8			9.7
MSCI ACWI Min. Volatility Index (N)			7.1	19.4			9.2
Private Equity Comp (6/30/13)	111,253	10.0%	21.6	26.8	18.2	18.5	9.3
MSCI ACWI Index (N)			14.0	43.4	18.0	18.0	14.0
Fixed Income Comp (9/30/89)	373.546	33.7%	2.1	10.4	7.1	6.0	6.3
Bloomberg Barclays Global Agg. Index	,		-3.2	2.6	4.2	2.3	2.5
Private Real Asset Comp (9/30/07)	161,949	14.6%	5.4	6.5	4.0	5.6	2.7
Policy Index	- ,		6.9	10.7	7.7	7.6	2.6
Public Real Asset Comp (3/31/13)	24,839	2.2%	15.7	33.2	7.0	5.4	2.8
Policy Index	,		15.9	33.2	7.0	5.5	2.9
Managed Cash	9.096	0.7%					

The chart above displays the calendar year to date (YTD), one, three, five and inception-to-date returns for the total fund and each of the underlying composites (Periods greater than one-year represent annualized figures). Monthly rates of return are calculated by Wilshire software using a time-weighted rate of return methodology based upon fair values. Wilshire's calculation procedure is consistent with the recommendations of both the CFA Institute and the Bank Administrative Institute. The chart shows the relevant broad market benchmark for the asset classes. As applicable, it also shows the policy index, which is a blend of benchmarks used currently and historically; and in some cases, represents a weighted benchmark consisting of multiple indexes.

The ERS' total portfolio posted a positive return of +21.5% over the trailing one-year period ending June 30, 2021.

During this period, the portfolio exceeded its policy index, which returned +20.4%. Over the past one-year period, all asset classes posted positive returns, which attributed to strong absolute investment performance. Total portfolio returns have been +9.6% and +10.3% over the three year and five year periods, respectively, which are on an average annualized basis. Strong U.S. and Non-U.S. Equity markets combined with a maturing Private Equity portfolio have contributed to absolute returns during these longer-term periods.

Within equity markets, the domestic equity composite posted a +45.5% return compared to that of +44.2% for the Wilshire 5000 Index over the trailing one-year period ending June 30, 2021. Longer-term results over the three- and five-year periods were guite strong, posting a +17.8% and +17.4% return, respectively, during each of those time periods. The international equity portfolio posted strong absolute and relative investment returns over the past year. The portfolio returned +43.4% while the MSCI ACWI ex-U.S. Index, comprised of both developed and emerging market stocks, was up +35.7% over the trailing one-year period in U.S. Dollar terms. The addition of the Global Low Volatility strategy back in mid-2017 has benefited the portfolio as this segment was up +19.8% in absolute terms over the past one-year period. Lastly, private equity investments continue to mature while posting strong returns of +26.8% in this segment of the portfolio over the past year.

The fixed income composite returned +10.4% during the past year, while the domestic investment grade market represented by the Bloomberg Barclays Global Aggregate Index returned 2.6%. "Non-core" investments within the fixed income portfolio including high yield and global/opportunistic returned +15.9% and +22.7%, respectively, with these strategies positively influenced the total fixed income portfolio outperforming the broader investment grade fixed income market. The investment opportunities within the Global Opportunistic segment of the portfolio will continue to be evaluated and considered as legacy investments continue to mature and provide a return of capital.

Within the real asset segment of the portfolio, both Private and Public investments posted positive trailing oneyear absolute returns of +6.5% and +33.2%, respectively. The public real assets composite has underlying exposures to real estate securities, commodities, global natural resource/energy stocks and global infrastructure. All the underlying exposures within the Public Real Asset segment of the portfolio are implemented through passively managed index funds. The private real assets composite returned +6.6% for the trailing one-year period. A portion of this portfolio has benefited from the continued bull market within the commercial real estate market since the global financial crisis. The remaining portion of the portfolio provides exposure to various natural resource, energy, and infrastructure related investments, some of which are returning positively while others are still early in their lifecycles and results are not fully meaningful at this stage.

The ERS Board continued its efforts in maintaining best practices with its investment monitoring, focused on competitive fees and ongoing education. Current portfolio investments are reviewed and monitored on ongoing basis, while due diligence on potential investments opportunities are conducted on a regular basis.

If you have any questions or need any further information regarding the Plan or investment results, please do not hesitate to contact me.

Sincerely,

Bradley A. Baker

Brack A. 3.4

Managing Director

INVESTMENT MANAGER MATRIX As of June 30, 2021

U.S. Equity U.S. Equity J.P. Morgan Commingled Pension Trust Fund 130/30 Short Extension \$ 16,680,932 Northern Trust Collective Russell 2000 Index Fund Small Cap 31,627,693 RhumbLine S&P 500 Pooled Index Trust Large Core \$ 173,401,620 Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. \$ 83,895,855 Earnest Partners, LLC. Global Mimimum Volatility \$ 89,853,699 Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility \$ 89,853,699 Wilshire MNCPPC Employee Retirement System Global, LP. (I) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, LP. (I) Other \$ 111,252,918 Title Social 1 Global Mimimum Volatility Mide Market Direct Lending \$ 51,70,763 Solub Capital 1 Middle Market Direct Lending 17,500,000 Loomis Sayles High Yield Hull Discretion Trust High Yield 43,752,931 Vestern Asset Global Mult-Sector 1,666 43,752,921 Vestern Asset Global Mult-Sector 1,666 43,752,931 Vestern Asset Global Mult-Sector 1,666 43,752,931 Vestern Asset	Manager Name and/or Fund Name	Style	Ma	rket Value ¹	% of Fund	
J.P. Morgan Commingled Pension Trust Fund 130/30 Short Extension \$ 16,660,932 Northern Trust Collective Russell 2000 Index Fund Small Cap 31,627,693 RhumbLine S&P 500 Pooled Index Trust Large Core \$ 173,401,620 1 Commingled Pension Trust Fund ACWI ex-U.S. \$ 83,895,855 Commingled Pension Trust Fund Private Equity Wilshire MNCCPC Employee Retirement System Global, LP. (I) Other S 17,256,544 State Totace Management Core \$ 54,819,386 Eaton Vance Management Core \$ 54,819,386 Global Aulti-Sector 1,606 Global Aulti-Sector 1,606	-					
Northern Trust Collective Russell 2000 Index Fund RhumbLine S&P 500 Pooled Index Trust Large Core 125,092,995 173,401,620 1 Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. ACWI ex-U.S. ACWI ex-U.S. ACWI ex-U.S. 173,2009 1 65,627,864 1 Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. ACWI ex-U.S. 10,55,029 1 65,627,864 1 Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. 10,55,029 1 65,627,864 1 Capital Group Institutional All Countries Equity Wilshire MNCPPC Employee Retirement System Global, LP. (II) Cher Core Core Core Core Core Core S 48,819,386 5,1758,544 1 1,1252,918 1 Comis Sayles High Yield Full Discretion Trust High Yield Capital 1 Middle Market Direct Lending 17,500,000 Globa Capital 1 Middle Market Direct Lending 17,500,000 Columic Sayles High Yield Sond Fund, LLC High Yield Capital 3 Columic Sayles High Yield Sond Fund, LLC Core Core Core Core S 48,819,386 S5,288 Neuberger Berman High Yield Sond Fund, LLC High Yield Columic Sayles High Yield Sond Fund, LLC Middle Market Direct Lending 17,500,000 Colktree Opportunities Fund Wil-Sector 1,606 Coktree Opportunities Fund Wil-Sector 1,607 2,524 Watern Asset Debt Fund, LP. Real Estate Debt Coktree Opportunities Fund Wil-Sector 1,606 Coktree Opportunities Fund Wil-Sector 1,606 Coktree Opportunities Fund Wil-Sector 1,606 Coktree Opportunities Fund Wil-Sector 1,607 2,524,135 Com Core S 65,717,819 Aberdeen Energing Market Debt Fund, LP. Real Estate Debt Com Core S 65,717,819 Aberdeen Real Estate Patrners IL LP. Real Assets 1,464,1821 2,625,738 Aberdeen Real Estate Patrners IL LP. Real Assets 1,464,182		130/30 Short Extension	\$	16,680,932	1.50%	
RhumbLine S&P 500 Pooled Index Trust Large Core 125,092,995 1 International Equity Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. 83,895,855 Earnest Partners, LLC. Global Minimum Volatility Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility S 99,893,699 Private Equity Wilshire MNCPPC Employee Retirement System Global, L.P. (I) Other S 94,94,374 Sited Income Core S 4,819,386 Eaton Vance Management Core Golub Capital 11 Middle Market Direct Lending Middle Market Direct Lending Other S 4,819,386 Eaton Vance Management Core S 5,170,763 Globul Capital 11 Middle Market Direct Lending Neuberger Berman High Yield A3,755,924 Middle Market Direct Lending <td cols<="" td=""><td></td><td></td><td></td><td></td><td>2.85%</td></td>	<td></td> <td></td> <td></td> <td></td> <td>2.85%</td>					2.85%
International Equity Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. \$ 83,895,855 Earnest Partners, LLC. ACWI ex-U.S. \$ 165,627,864 1 Global Mimimum Volatility Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility \$ 89,853,699 Private Equity Wilshire MNCPPC Employee Retirement System Global, LP. (I) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, LP. (II) Other \$ 59,494,374 State Stat	RhumbLine S&P 500 Pooled Index Trust				11.27%	
Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. \$ 83,895,855 Earnest Partners, L.L.C. ACWI ex-U.S. \$ 165,627,864 1 Clobal Minimum Volatility MSCI ACWI Minimum Volatility \$ 89,853,699			\$		15.62%	
Capital Group Institutional All Countries Equity Trust ACWI ex-U.S. \$ 83,895,855 Earnest Partners, L.L.C. ACWI ex-U.S. \$ 165,627,864 1 Clobal Minimum Volatility MSCI ACWI Minimum Volatility \$ 89,853,699			_			
Earnest Partners, LLC. ACWI ex-U.S. 81,732,009 S 165,627,864 1 Global Minimum Volatility Blackrock MSCI ACWI Minimum Volatility Make MSCI ACWI Minimum Volatility Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility Private Equity Wilshire MNCPPC Employee Retirement System Global, LP. (II) Other S 59,494,374 S 111,222,918 1 Core S 54,819,386 Eaton Vance Management Core Core S 54,819,386 Core S 54,819,386 Eaton Vance Management Core Core S 54,819,386 Core S 54,819,386 Eaton Vance Management Core S 54,819,386 Golub Capital 9 Middle Market Direct Lending T,500,000 Golub Capital 9 Middle Market Direct Lending T,500,000 Golub Capital 10 Loomis Sayles High Yield Full Discretion Trust High Yield Coaktree Optorunities Coaktree Optorunities Western Asset Global Multi-Sector, LLC Global Multi-Sector High Yield Spectrum Fund, LP. D bitressed Opportunities HarbourVest Credit Opp. Fund II Opportunities HarbourVest Credit Opp. Fund II Come Private Real Assets T,401,483 Aberdeen Real Estate Debt S 65,717,819 Aberdeen Real Estate Debt S 7,401,483 Aberdeen Real Estate Poth S 65,717,819 Aberdeen Real Estate Poth S 65,50,718 Ab			<u> </u>			
Global Minimum Volatility Blackrock MSCI ACWI Minimum Volatility \$ 89,853,699 MSCI ACWI Minimum Volatility Private Equity \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, LP. (I) Other \$ 111,252,918 1 S 54,819,386 Core \$ 54,819,386 Core \$ 54,819,386 Global Market Direct Lending 17,500,000 Global Capital 9 Middle Market Direct Lending 17,500,000 Global Fund, LP High Yield 43,555,928 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,762,931 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,762,931 Very Senior Locan Fund Bank Loans 43,675,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Opportunities Fund VIIL LP. Poistesed Opportunities 49,575,524 Western Real Estate Debt Fund, LP. S 373,546,397 3 Private Real Assets 7,401,483 Aberdeen Energy & Resources Partners II, LP.			\$		7.56%	
Global Mimimum Volatility Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility \$ 89,853,699 Private Equity Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 59,494,374 Style Minimum Volatility Mishire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 59,494,374 \$ 111,252,918 Image: System Global, L.P. (II) Other \$ 54,819,386 Core \$ 54,819,386	Earnest Partners, L.L.C.	ACWI ex-U.S.	<u> </u>		7.37%	
Blackrock MSCI ACWI Minimum Volatility Index MSCI ACWI Minimum Volatility \$ 89,853,699 Private Equity Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 59,494,374 S 111,252,918 Imployee Retirement System Global, LP. (II) Other S 54,819,386 Gold Core S 54,819,386 Gold Gold Multi-Se			\$	165,627,864	14.93%	
Private Equity Wilshire MNCPPC Employee Retirement System Global, L.P. (I) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 111,252,918 1 Core \$ 54,819,386 Core \$ 54,819,386 Core \$ 54,819,386 Golub Capital 9 Middle Market Direct Lending 17,500,000 Golub Capital 9 Middle Market Direct Lending 17,500,000 Loomis Sayles High Yield Full Discretion Trust High Yield 43,575,928 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,575,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Real Estate Debt Fund, L.P. Poistesed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Middle Market Direct Lending 18,964,419 Private Real Assets Frincipal U.S. Property Account Real Estate Debt Fund Emerging Market Debt 59,254,135 Aberdeen Real Estate Partners II, L.P. Real Estate 2,625,738	Global Mimimum Volatili	ity				
Wilshire MNCPPC Employee Retirement System Global, L.P. (I) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 117,58,544 Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 111,252,918 1 Fixed Income CSM Advisors, LLC Core \$ 54,819,386 Eaton Vance Management Core \$ 56,170,763 Golub Capital 9 Middle Market Direct Lending 17,500,000 Golub Capital 11 Middle Market Direct Lending 17,500,000 Loomis Sayles High Yield Full Discretion Trust High Yield 43,765,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Opportunities 48,675,924 49,679 Oaktree Opportunities 49,555 49,555 White Oak Yield Spectrum Fund, L.P. Distressed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Distressed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Distressed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Baal Assets 7,401,483 Aberdee Real Estate Partners II, L.P.			\$	89,853,699	8.10%	
Wilshire MNCPPC Employee Retirement System Global, L.P. (I) Other \$ 59,494,374 Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other \$ 117,58,544 Image: State	Director Provider					
Wilshire MNCPPC Employee Retirement System Global, L.P. (II) Other 51,758,544 \$ 111,252,918 1 CSM Advisors, LLC Core \$ 54,819,386 Eaton Vance Management Core \$ 54,819,386 Golub Capital 9 Middle Market Direct Lending 17,500,000 Golub Capital 10 Middle Market Direct Lending 17,500,000 Loomis Sayles High Yield Full Discretion Trust High Yield 43,555,928 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,675,924 Voya Senior Loan Fund Bank Loans 43,675,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Real Estate Debt Fund, L.P. Real Estate Debt 96,979 Oaktree Opportunities Fund VIII, L.P. Distressed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Middle Market Direct Lending 18,194,771 GIM Emerging Market Debt Fund Emerging Market Debt 59,254,135 18,194,771 PGIM Emerging Market Debt Fund Emerging Market Debt 59,254,135 14,641,821 Aberdeen Energy & Resources Partners II, L.P. Real Estate 2,625,738 Aberdeen Energy & Resources Partners II, L.P. </td <td>• •</td> <td>Other</td> <td>¢</td> <td>59 494 374</td> <td>5.36%</td>	• •	Other	¢	59 494 374	5.36%	
Fixed Income CSM Advisors, LLC Eaton Vance Management Core \$ 54,819,386 Golub Capital 9 Middle Market Direct Lending 17,500,000 Golub Capital 11 Middle Market Direct Lending 17,500,000 Loomis Sayles High Yield Full Discretion Trust High Yield 43,555,928 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,675,924 Voya Senior Loan Fund Bank Loans 43,675,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Real Estate Debt Fund, L.P. Real Estate Debt 96,979 Oaktree Real Estate Debt Fund, L.P. Distressed Opportunities 49,555 Whide Market Direct Lending 18,964,419 99,254,135 PGIM Emerging Market Debt Fund Emerging Market Debt 59,254,135 HarbourVest Credit Opp. Fund II Opportunistic 18,194,771 Aberdeen Energy & Resources Partners II, L.P. Real Estate 2,625,738 Aberdeen Energy & Resources Partners II, L.P. Real Estate 2,625,738 Aberdeen Real Estate Partners III, L.P. Real Estate 14,641,821 Aberdeen Renergy & Resources Partners			Ψ		4.66%	
Fixed Income Core Core Solution Core		Other	\$		10.02%	
CSM Advisors, LLCCore\$ 54,819,386Eaton Vance ManagementCore56,170,763Golub Capital 9Middle Market Direct Lending17,500,000Golub Capital 11Middle Market Direct Lending17,500,000Loomis Sayles High Yield Full Discretion TrustHigh Yield43,755,928Neuberger Berman High Yield Bond Fund, LLCHigh Yield43,762,931Voya Senior Loan FundBank Loans43,675,924Western Asset Global Multi-Sector, LLCGlobal Multi-Sector1,606Oaktree Opportunities Fund, L.P.Real Estate Debt96,979Oaktree Opportunities Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners III, L.P.Real Estate14,641,821Aberdeen Real Estate Partners III, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Assets14,641,821Aberdeen Real Estate Non-Lending StrategyDiversified\$ 24,838,533						
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Golub Capital 11Middle Market Direct Lending17,500,000Loomis Sayles High Yield Full Discretion TrustHigh Yield43,555,928Neuberger Berman High Yield Bond Fund, LLCHigh Yield43,762,931Voya Senior Loan FundBank Loans43,675,924Western Asset Global Multi-Sector, LLCGlobal Multi-Sector1,606Oaktree Real Estate Debt Fund, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunitic18,194,771 Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners II, L.P.Real Estate14,641,821Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners II, L.P.Real Assets56,630,615GCM Grosvenor Real Asset Investments, L.P.Feal Assets56,630,615\$ 16,1948,7041SgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533	Eaton Vance Management	Core		56,170,763	5.06%	
Loomis Sayles High Yield Full Discretion Trust High Yield 43,555,928 Neuberger Berman High Yield Bond Fund, LLC High Yield 43,762,931 Voya Senior Loan Fund Bank Loans 43,675,924 Western Asset Global Multi-Sector, LLC Global Multi-Sector 1,606 Oaktree Real Estate Debt Fund, L.P. Real Estate Debt 96,979 Oaktree Opportunities Fund VIII, L.P. Distressed Opportunities 49,555 White Oak Yield Spectrum Fund, L.P. Middle Market Direct Lending 18,964,419 PGIM Emerging Market Debt Fund Emerging Market Debt 59,254,135 HarbourVest Credit Opp. Fund II Opportunistic 18,194,771 \$ 373,546,397 3 1 1 1 1 1 1 1 1	Golub Capital 9	Middle Market Direct Lending		17,500,000	1.58%	
Neuberger Berman High Yield Bond Fund, LLCHigh Yield43,762,931Voya Senior Loan FundBank Loans43,675,924Western Asset Global Multi-Sector, LLCGlobal Multi-Sector1,606Oaktree Real Estate Debt Fund, L.P.Real Estate Debt96,979Oaktree Opportunities Fund VIII, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 * Private Real Assets 7,401,483Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners II, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Estate14,931,228SgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533	Golub Capital 11	Middle Market Direct Lending		17,500,000	1.58%	
Voya Senior Loan FundBank Loans43,675,924Western Asset Global Multi-Sector, LLCGlobal Multi-Sector1,606Oaktree Real Estate Debt Fund, L.P.Real Estate Debt96,979Oaktree Opportunities Fund VIII, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 * Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Energy & Resources Partners II, L.P.Real Assets14,641,821Aberdeen Energy & Resources Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets56,630,615GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615SgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533	Loomis Sayles High Yield Full Discretion Trust	High Yield		43,555,928	3.93%	
Western Asset Global Multi-Sector, LLCGlobal Multi-Sector1,606Oaktree Real Estate Debt Fund, L.P.Real Estate Debt96,979Oaktree Opportunities Fund VIII, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 * Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners II, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 * 161,948,704 1Public Real AssetsSgA Custom Real Asset Non-Lending StrategyDiversified	Neuberger Berman High Yield Bond Fund, LLC	High Yield		43,762,931	3.94%	
Oaktree Real Estate Debt Fund, L.P.Real Estate Debt96,979Oaktree Opportunities Fund VIII, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 * Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners II, L.P.Real Assets56,630,615GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 * 161,948,704 1 ***********************************	Voya Senior Loan Fund	Bank Loans		43,675,924	3.94%	
Oaktree Opportunities Fund VIII, L.P.Distressed Opportunities49,555White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 * Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets56,630,615GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 * Dublic Real Assets SggA Custom Real Asset Non-Lending StrategyDiversified	Western Asset Global Multi-Sector, LLC	Global Multi-Sector		1,606	0.00%	
White Oak Yield Spectrum Fund, L.P.Middle Market Direct Lending18,964,419PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 Private Real Assets Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Estate2,625,738Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821Aberdeen Real Estate Partners II, L.P.Real Assets14,641,821GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 S 161,948,7041SgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533	Oaktree Real Estate Debt Fund, L.P.	Real Estate Debt		96,979	0.01%	
PGIM Emerging Market Debt FundEmerging Market Debt59,254,135HarbourVest Credit Opp. Fund IIOpportunistic18,194,771\$ 373,546,3973Principal U.S. Property AccountReal AssetsAberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Estate2,625,738Aberdeen Energy & Resources Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Assets56,630,615\$ 161,948,7041Public Real Assets56,630,615\$ 161,948,7041	Oaktree Opportunities Fund VIII, L.P.	Distressed Opportunities		49,555	0.00%	
HarbourVest Credit Opp. Fund IIOpportunistic18,194,771 Private Real Assets Principal U.S. Property AccountReal EstateAberdeen Energy & Resources Partners II, L.P.Real EstateAberdeen Real Estate Partners II, L.P.Real EstateAberdeen Energy & Resources Partners II, L.P.Real AssetsAberdeen Real Estate Partners II, L.P.Real AssetsAberdeen Real Asset Investments, L.P.Real AssetsSgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533Investified	White Oak Yield Spectrum Fund, L.P.	Middle Market Direct Lending		18,964,419	1.71%	
Private Real AssetsPrincipal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Estate2,625,738Aberdeen Energy & Resources Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 Public Real Assets SgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533	PGIM Emerging Market Debt Fund	Emerging Market Debt		59,254,135	5.34%	
Private Real AssetsPrincipal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Estate2,625,738Aberdeen Energy & Resources Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 Public Real Assets SgA Custom Real Asset Non-Lending StrategyDiversified \$ 24,838,533	HarbourVest Credit Opp. Fund II	Opportunistic		18,194,771	1.64%	
Principal U.S. Property AccountReal Estate\$ 65,717,819Aberdeen Energy & Resources Partners II, L.P.Real Assets7,401,483Aberdeen Real Estate Partners II, L.P.Real Estate2,625,738Aberdeen Energy & Resources Partners III, L.P.Real Assets14,641,821Aberdeen Real Estate Partners III, L.P.Real Estate14,931,228GCM Grosvenor Real Asset Investments, L.P.Real Assets56,630,615 161,948,704 1Public Real AssetsSSgA Custom Real Asset Non-Lending StrategyDiversified\$ 24,838,533			\$	373,546,397	33.67%	
Aberdeen Energy & Resources Partners II, L.P. Real Assets 7,401,483 Aberdeen Real Estate Partners II, L.P. Real Estate 2,625,738 Aberdeen Energy & Resources Partners III, L.P. Real Assets 14,641,821 Aberdeen Real Estate Partners III, L.P. Real Estate 14,931,228 GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 1 161,948,704 1 Public Real Assets Sgg Custom Real Asset Non-Lending Strategy	Private Real Assets					
Aberdeen Energy & Resources Partners II, L.P. Real Assets 7,401,483 Aberdeen Real Estate Partners II, L.P. Real Estate 2,625,738 Aberdeen Energy & Resources Partners III, L.P. Real Assets 14,641,821 Aberdeen Real Estate Partners III, L.P. Real Estate 14,931,228 GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 y 161,948,704 1 Public Real Assets SgA Custom Real Asset Non-Lending Strategy	Principal U.S. Property Account	Real Estate	\$	65,717,819	5.92%	
Aberdeen Energy & Resources Partners III, L.P. Real Assets 14,641,821 Aberdeen Real Estate Partners III, L.P. Real Estate 14,931,228 GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 \$ 161,948,704 1 Public Real Assets SgA Custom Real Asset Non-Lending Strategy Diversified \$ 24,838,533	Aberdeen Energy & Resources Partners II, L.P.	Real Assets		7,401,483	0.67%	
Aberdeen Real Estate Partners II, L.P. Real Estate 14,931,228 GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 \$ 161,948,704 1 Public Real Assets SgA Custom Real Asset Non-Lending Strategy	Aberdeen Real Estate Partners II, L.P.	Real Estate		2,625,738	0.24%	
Aberdeen Real Estate Partners II, L.P. Real Estate 14,931,228 GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 \$ 161,948,704 1 Public Real Assets SgA Custom Real Asset Non-Lending Strategy	Aberdeen Energy & Resources Partners III, L.P.	Real Assets			1.32%	
GCM Grosvenor Real Asset Investments, L.P. Real Assets 56,630,615 \$ 161,948,704 1 Public Real Assets SSgA Custom Real Asset Non-Lending Strategy Diversified \$ 24,838,533		Real Estate			1.35%	
Public Real Assets 1 SSgA Custom Real Asset Non-Lending Strategy Diversified \$ 24,838,533					5.10%	
SSgA Custom Real Asset Non-Lending Strategy Diversified \$ 24,838,533			\$		14.60%	
SSgA Custom Real Asset Non-Lending Strategy Diversified \$ 24,838,533	Public Real Assets					
Cash \$ 9.095.576		Diversified	\$	24,838,533	2.24%	
<u> </u>	Cash		\$	9,095,576	0.82%	
					100.00%	

¹ Net of Accrued Income on Investments and Investments Payable

LIST OF LARGEST HELD DOMESTIC EQUITIES As of June 30, 2021

	No. of	Fair
Equity Income Securities	Shares	Value
BARCLAYS PLC ORD GBP0.25	768,492	\$1,816,667
EUROFINS SCIENTIFI EUR0.01	14,958	1,710,010
TAIWAN SEMICON MAN TWD10	80,000	1,708,389
DENSO CORP NPV	25,000	1,707,136
MAGNA INTL INC COM NPV	18,130	1,680,352
SHANGHAI FOSUN PHARMACEUTICAL GROUP CNY1 H	206,500	1,667,242
AMADEUS IT GROUP EUR0.01	23,600	1,660,203
ADR RIO TINTO PLC SPONSORED ADR	19,398	1,627,298
MERCK KGAA NPV	8,117	1,556,516
INTERCONTL HOTELS ORD GBP0.208521303	23,224	1,543,183
HITACHI NPV	26,900	1,541,679
ADR PETROLEO BRASILEIRO SA PETROBRAS SPONSORED ADI	124,367	1,521,008
DNB ASA NOK10	67,574	1,473,165
CAPGEMINI EUR8	7,592	1,458,543
NORSK HYDRO ASA NOK1.098	226,351	1,445,141
DIAGEO ORD PLC	30,213	1,444,544
CONTINENTAL AG ORD NPV	9,334	1,372,358
AMBEV SA COM NPV	401,100	1,364,484
ASML HOLDING NV EUR0.09	1,983	1,362,540
HEINEKEN NV EUR1.60	10,994	1,332,462

A complete list of assets can be obtained at the office of the Employees' Retirement System.

LIST OF LARGEST HELD FIXED INCOME EQUITIES

As of June 30, 2021

Fixed Income Securities	Par	Fair Value
UNITED STATES TREAS NTS 1.375% DUE 08-31-2023 REG	3,711,000	\$3,798,701
UNITED STS TREAS NTS 1.125% DUE 02-15-2031 REG	1,767,000	1,715,370
UNITED STS TREAS NTS DTD 01/31/2021 .125% 01-31-2023	1,542,000	1,540,494
UNITED STATES TREAS BDS DTD 00218 3.875%DUE 08-15-2040 REG	1,144,000	1,504,047
UNITED STATES OF AMER TREAS NOTES DTD 10/31/2020 .25% 10-31-2025	1,410,000	1,378,550
UNITED STATES TREAS BDS 1.875% DUE 02-15-2041 REG	1,362,000	1,333,270
UNITED STATES TREAS BDS 1.875% DUE 02-15-2051 REG	1,234,000	1,177,699
UNITED STS TREAS NTS .25% DUE 08-31-2025 REG	1,101,000	1,078,894
UNITED STS TREAS 0.375% 12-31-2025	1,054,000	1,034,032
UTD STATES TREAS 1.5% DUE 10-31-2021	950,000	954,550
UNITED STS TREAS NTS DTD 06/15/2021 .25%06-15-2024	943,000	937,254
UNITED STS TREAS NTS DTD 04/30/2021 1.25% 04-30-2028	913,000	915,853
FNMA POOL #BH7620 3.5% 08-01-2047 BEO	861,664	915,393
VNDO 2012-6AVE MTG TR SER 2012-6AVE CL A2.9950 144A DUE 11-15-2030	848,000	871,094
FEDERAL HOME LN BKS CONS BD DTD 04/26/2021 1% 04-26-2029	840,000	840,016
UNITED STATES OF AMER TREAS NOTES DTD 08/15/2020 .625% 08-15-2030	875,000	815,186
FNMA POOL #BM1144 2.5% 03-01-2047 BEO	735,575	764,308
UNITED STS TREAS 1.125% 02-29-2028	750,000	747,773
UNITED STATES TREASURY 1.25% DUE 10-31-2021 REG	727,000	729,879
PVTPL STACK INFRASTRUCTURE ISSUER LLC 4.54% DUE 02-25-2044 BEO	669,017	708,219

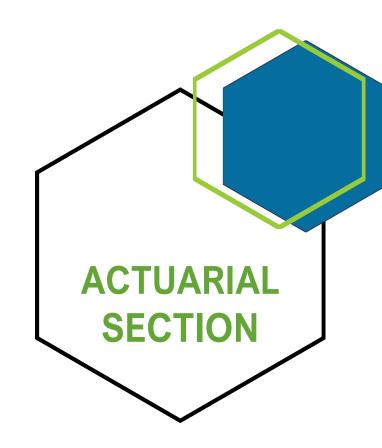
A complete list of assets can be obtained at the office of the Employees' Retirement System.

SCHEDULE OF BROKERS COMMISSIONS

As of June 30, 2021

Broker	Shares	Commissions	Commission per share
BANK OF AMERICA CORPORATION	293	\$ 10	3.50%
BANK OF AMERICA MERRILL LYNCH SECS	86,000	پ 10 2,465	2.87%
BARCLAYS CAPITAL INC	1,235	43	3.50%
BNP PARIBAS SECURITIES SERVICES SA	14,900	458	3.08%
BNY CONVERGEX EXECUTION SOLUTIONS	45,323	3,221	7.11%
CAPITAL INSTITUTIONAL SERV NEW YORK	721	25	3.50%
CITIGROUP GLOBAL MARKETS INC	298	10	3.50%
CREDIT SUISSE AG, NEW YORK BRANCH	3,683	129	3.50%
CREDIT SUISSE SECURITIES (USA) LLC	3,000	87	2.89%
DIRECT TRADING INSTITUTIONAL INC	46	2	3.50%
GOLDMAN, SACHS AND CO.	24,125	547	2.27%
INVESTMENT TECHNOLOGY GROUP INC.	437	15	3.50%
INVESTMENT TECHNOLOGY GROUP LTD.	1,619	50	3.12%
J.P. MORGAN SECURITIES LLC	3,291	115	3.50%
JEFFERIES HONG KONG LIMITED	29,000	378	1.30%
JEFFERIES INTERNATIONAL LTD	3,870	54	1.39%
JEFFERIES LLC.	25,888	623	2.41%
JOH. BERENBERG, GOSSLER UND CO.KG	98,872	2,189	2.21%
JONES TRADING INSTITUTIONAL SERVICE	6,825	239	3.50%
JONESTRADING INSTITUTIONAL SERVICES	71,000	231	0.32%
JPMORGAN SECURITIES (ASIA PACIFIC)	56,000	169	0.30%
LEERINK SWAN & COMPANY	2,026	71	3.50%
LIQUIDNET EUROPE LIMITED	4,740	50	1.05%
LIQUIDNET INC	5,781	202	3.50%
MKM PARTNERS	8,965	179	2.00%
MORGAN STANLEY AND CO., LLC	36,831	710	1.93%
OPPENHEIMER AND CO, INC.	5,065	177	3.50%
PERSHING SECURITIES LIMITED	16,775	361	2.15%
PIPER JAFFRAY & CO.	4,052	142	3.50%
RAYMOND JAMES AND ASSOCIATES	6,078	213	3.50%
RBC EUROPE LIMITED	3,988	151	3.79%
ROBERT W. BAIRD CO.INCORPORATED	1,149	40	3.50%
STIFEL NICOLAUS & CO, INCORORATED	4,558	160	3.50%
	576,434	\$ 13,518	

The above table is a condensed version of brokers' commissions. A complete list can be obtained at the office of the Employees' Retirement System.





LETTER OF TRANSMITTAL

September 24, 2021

Board of Trustees Employees' Retirement System 6611 Kenilworth Avenue, Suite 100 Riverdale, Maryland 20737

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Maryland-National Capital Park and Planning Commission (the Commission) Employees' Retirement System as of July 1, 2020. The valuation is organized as follows:

The primary purpose of the actuarial valuation and this report is to measure, describe and identify as of the valuation date:

- The financial condition of the System,
- Past and expected trends in the financial progress of the System,
- The employers' contributions for Fiscal Year ending 2022,
- The risks of the System, and
- Information required for accounting statements.

This July 1, 2020 valuation represents Cheiron's second valuation performed for The Maryland-National Capital Park and Planning Commission (the Commission) Employees' Retirement System (ERS or the System).

Cheiron prepared the following schedules for inclusion in the Actuarial Section of the Comprehensive Annual Financial Report, based on the July 1, 2020 actuarial valuation.

- Schedule of Funding Progress
- Schedule of Funded Liabilities by Type (formerly referred to as the Solvency Test)
- Summary of Current Actuarial Assumptions and Methods

All results and information shown for years prior to July 1, 2019 were based on the prior actuary's valuation results.

The results of this report rely on future System experience conforming to the underlying assumptions. To the extent that actual System experience deviates from the underlying assumptions, the results will vary accordingly. The actuarial assumptions, with the exception of the discount rate, were adopted by the Board based on the recommended demographic assumptions shown in the Actuarial Assumption Review and Experience Study Covering July 1, 2011 through June 30, 2015, dated April 2016, prepared by the prior actuary. Cheiron has reviewed this experience study and considers these assumptions to be generally reasonable. An actuarial experience study covering July 1, 2015 through June 30, 2020 was recently completed and the resulting assumptions were approved by the Board of Trustees on May 4, 2021. These assumptions will first be implemented for the July 1, 2021 actuarial valuation and the June 30, 2022 GASB reporting requirement. The Board of Trustees approved a discount rate of 6.80% effective with the July 1, 2020 actuarial valuation.

Actuarial funding is based on the Entry Age Normal Actuarial Cost Method. The actuarially determined contribution consists of the employer normal cost (cost of benefits for the upcoming year) and an amortization of the unfunded actuarial liability. An administrative expense rate of 0.20% of actuarial liabilities is added to the normal cost. The unfunded actuarial liability is amortized as a level dollar over an open 15-year period.

The actuarially determined contribution increased from 13.93% of payroll for fiscal year ending 2021 to 15.18% of payroll for fiscal year ending 2022. The actuarially determined contribution for the fiscal year ending June 30, 2022

is \$26,174,744. The System's unfunded actuarial liability increased from \$75.7 million as of July 1, 2019 to \$96.2 million as of July 1, 2020. During the year there was an investment loss of \$10.5 million and a liability loss of \$2.9 million. Additionally, there was a liability increase of \$4.8 due to updates in the benefit programming to better reflect the total liabilities of the System. Finally, the discount rate was reduced from 6.85% to 6.80% which increased the actuarial liability by \$6.2 million.

The following table shows a breakdown of the employer contributions for the fiscal year ending 2022 between Park Police and Non-Police members:

Police and Non-Police Contributions							
Contribution for Contribution							
	FYE	June 30, 2022	20	20 Payroll	as % of Payroll		
Non-Police	\$	21,564,734	\$	153,930,444	14.01%		
Park Police		4,610,010		18,456,624	24.98%		
Total	\$	26,174,744	\$	172,387,068	15.18%		

The Net Employer Normal Cost payable at the beginning of the year increased from \$13,179,673 (8.2% of payroll) to \$14,743,524 (8.6% of payroll). The amortization of the Unfunded Actuarial Liability increased from \$7,702,822 to \$9,764,664 due to the investment loss, liability loss, programming change, and change in the discount rate.

The following table shows a breakdown of the actuarial (gain)/loss by source:

Sources of (Gain)/Loss						
	(Gain)/Loss	% of Liability				
New members entering System	\$ 560,518	0.1%				
Salary increases greater than expected	1,838,588	0.2				
Active member decrements	4,230,467	0.4				
Inactive mortality	(1,458,219)	-0.1				
Retiree COLA less than expected	(2,018,227)	-0.2				
Benefit Payments less than expected	466,776	0.0				
Miscellaneous changes	(716,722)	-0.1				
Total	\$ 2,903,181	0.3%				

For this System, the actuarial value has been calculated by taking the fair value of assets less 80% of the investment gain (loss) during the preceding year, less 60% of the investment gain (loss) during the second preceding year, less 40% of the investment gain (loss) during the third preceding year, and less 20% of the investment gain (loss) in the fourth preceding year. The investment gain (loss) is calculated by taking the difference between the expected value of assets, based on an expected return of 6.85% for the year ended June 30, 2020, and the actual value of assets. If the actuarial value of assets is less than 80% or more than 120% of the fair value, an adjustment is made to the actuarial value to bring the value within this corridor.

As of June 30, 2020, the Actuarial Valuation of Assets including the receivable contribution was \$995,043,914 while the Fair Value of Assets including the receivable contribution was \$964,901,537. The return on the Fair Value of Assets during the year was 1.14%, which was less than the assumed investment return. The return on the Actuarial Value of Assets was 5.74%, which was less than the assumed rate of return. Over the five year period ending June 30, 2020, the Fair Value of Assets returned an average of 5.82%.

The purpose of this report is to present the annual actuarial valuation of the Maryland-National Capital Park and Planning Commission Employees' Retirement System. This report is for the use of Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. The report does not include calculations related to GASB Statements No. 67 and 68, which are provided in a separate report.

In preparing our report, we relied on information supplied by the Maryland-National Capital Park and Planning Commission Employees' Retirement System staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

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

This actuarial report was prepared exclusively for the Maryland-National Capital Park and Planning Commission Employees' Retirement System for the purpose described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely, Cheiron

Janet Cranna, FSA, FCA, EA, MAAA Principal Consulting Actuary

Attachment

Patrick Nelson, FSA, CERA, EA, MAAA Consulting Actuary

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF FUNDING PROGRESS

(Unaudited)

Ten-year historical trend information about the ERS is presented below. This information is intended to help users assess the ERS' funding status on a going-concern basis, assess progress made in accumulating assets to pay benefits when due and make comparisons with other public employee retirement systems.

		(1)	(2)		(3)	(4)		(5)	(6) UAAL as a
Actuarial Valuation Date July 1	Ac	ctuarial Value of Assets	arial Accrued ability (AAL)	Un	funded AAL (UAAL) (2) – (1)	Funded Ratio % (1)/(2)	Co	vered Payroll	Percentage of Covered Payroll (3) / (5)
2011	\$	659,362,107	\$ 761,343,000	\$	101,980,893	86.61%	\$	132,490,722	76.97%
2012		660,231,611	802,077,365		141,845,754	82.32%		129,911,593	109.19%
2013		690,539,998	831,199,592		140,659,594	83.08%		129,134,125	108.93%
2014		766,531,514	879,190,389		112,658,875	87.19%		135,041,803	83.43%
2015		830,052,104	887,487,374		57,435,270	93.53%		141,670,765	40.54% (1)
2016		856,279,531	949,298,226		93,018,695	90.20%		143,534,600	64.81% ⁽¹⁾
2017		899,336,519	991,624,737		92,288,218	90.69%		150,820,889	61.19% ⁽¹⁾
2018		943,070,635	993,322,340		50,251,705	94.94%		156,444,006	32.12% (1)
2019		968,142,434	1,043,820,211		75,677,777	92.75%		160,221,081	47.23% (1)
2020		995,043,914	1,091,238,867		96,194,953	91.18%		172,387,068	55.80% (1)

¹ This ratio is now reported based on the Net Pension Liability, as defined in GASB 67. The UAAL as a percentage of payroll is no longer required but is shown here for historical comparison.

Analysis of the dollar amounts of plan net assets, actuarial accrued liability and unfunded actuarial accrued liability in isolation can be misleading. Expressing plan net assets as a percentage of the actuarial accrued liability provides one indication of the system's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system's funding is becoming stronger or weaker. Generally, the greater the funded ratio is, the stronger the system.

Trends in the unfunded actuarial accrued liability (or excess of) and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and enables analysis of the system's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage is the stronger the funding of the system.

Notes:

Actuarial valuations are completed annually.

The Entry Age Normal actuarial cost method is used for both funding and for financial reporting purposes. All actuarial assumptions are the same for both funding and accounting/GASB purposes.

SOLVENCY TEST

	Actu	arial Accrued Liabi	_				
		Vested	Active Members	_			
		Terminations,	(Employer				
Valuation	Member	Retirees and	Financed	Actuarial Value	Portion of	Accrued Lia	bilities
Date	Contributions	Beneficiaries	Portion)	of Assets	Covered by F	Reported As:	sets (%)
7/1/2011	\$ 57,659,169	\$ 461,475,412	\$ 242,208,419	\$ 659,362,107	100	100	57.9
7/1/2012	61,843,880	466,927,776	273,305,709	660,231,611	100	100	48.1
7/1/2013	64,747,601	501,072,738	265,379,253	690,539,998	100	100	47.0
7/1/2014	68,872,476	516,903,400	293,414,513	766,531,514	100	100	61.6
7/1/2015	72,702,687	531,683,180	283,101,507	830,052,104	100	100	79.7
7/1/2016	74,857,685	541,562,389	332,878,152	856,279,531	100	100	72.1
7/1/2017	77,964,472	576,223,626	337,436,639	899,336,519	100	100	72.7
7/1/2018	79,764,769	619,013,482	294,544,089	943,063,291	100	100	82.9
7/1/2019	81,289,107	669,986,483	292,544,621	968,142,434	100	100	74.1
7/1/2020	86,481,783	697,496,428	307,260,656	995,043,914	100	100	68.7



August 30, 2021

Board of Trustees The Maryland-National Capital Park and Planning Commission Employees' Retirement System 6611 Kenilworth Avenue, Suite 100 Riverdale, Maryland 20737

Dear Members of the Board:

The purpose of this report is to provide accounting and financial disclosure information for The Maryland-National Capital Park and Planning Commission (the Commission) Employees' Retirement System (the System) in accordance with GASB 67 and 68. This information includes:

- Determination of the discount rate as of June 30, 2021
- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Calculation of the Net Pension Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate,
- Changes in the Net Pension Liability,
- Schedule of Employer Contributions,
- Disclosure of Deferred Inflows and Outflows, and
- Calculation of the Annual Pension Expense for the System.

In preparing our report, we relied on information (some oral and some written) supplied by the System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

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

This report was prepared for The Maryland-National Capital Park and Planning Commission Employees' Retirement System for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

If you have any questions about the report or would like additional information, please let us know.

Sincerely, Cheiron

Janet Cranna, FSA, FCA, EA, MAAA Principal Consulting Actuary

Patrick Nelson, FSA, CERA, EA, MAAA Consulting Actuary

ACTUARIAL ASSUMPTIONS AND VALUATION METHODS

Actuarial Cost Method	The Entry Age Normal Actuarial Cost Method divides the cost of funding benefits into two parts: the normal cost and the actuarial accrued liability.
Actuarial Value of Assets	The actuarial value of assets has been calculated by taking the value of assets less 80% of the investment gain/(loss) during the preceding year, less 60% of the investment gain/(loss) during the second preceding year, less 40% of the investment gain/(loss) during the third preceding year, and less 20% of the investment gain/(loss) during the fourth preceding year.
Amortization Method	Amortize the unfunded actuarial accrued liability over an open 15-year period.
Valuation Date	July 1, 2020
Investment Rate of Return	6.80% compounded annually, net of investment expenses.
Salary Increases	Wage inflation is assumed to be 2.5%. Individual salaries are expected to increase according to the table below which includes wage inflation and merit.

Years of Service	Park Police	Non-Police
0	6.50%	5.00%
5	5.50	4.75
10	4.75	4.50
15	4.50	4.00
20	4.50	3.50
25	4.50	2.50

Mortality

Healthy Retirees	RP-2000 Healthy Mortality Table with male rates set forward one year and female rates set forward two years, projected generationally with scale BB.
Disabled	RP-2000 Disabled Annuitant Table with male rates set forward one year and

Retirees female rates set forward two years, projected generationally with scale BB.

Active 50% of RP-2000 Healthy Mortality Table with male rates set forward one year and female rates set forward two years, projected generationally with scale BB.

For Park Police, 90% of deaths assumed to be service related. Non-Police 33% of deaths are assumed to be service-related.

Withdrawal

Sample
rates:

rates:				
Park Police			Non-Police	
Years of Service	Rates	Years of Service	Males	Females
0	11.00%	0	9.00%	11.70%
2	7.00%	5	4.70%	6.20%
4	4.50%	10	2.50%	3.30%
6	2.90%	15	1.30%	1.70%
8	1.80%	20	0.70%	0.90%
10	1.20%	25+	0.00%	0.00%
15+	0.00%			

ACTUARIAL ASSUMPTIONS AND VALUATION METHODS

(continued) Disability

Sample rates:		
Age	Park Police	Non-Police
25	0.2560%	0.0705%
30	0.3660%	0.1103%
35	0.5080%	0.1643%
40	0.6930%	0.2468%
45	0.9400%	0.3833%
50	1.3540%	0.6285%
55	2.2880%	0.7500%
60	3.4340%	1.5803%

Retirement Rates from Active or Terminated Vested:

Sample

rates:	
Years of	Park Police ¹
Service	Falk Folice
5-19	5%
20-29	10%
30+	100%

¹100% Retirement also assumed at age 65

_	Age	Non Police ¹
	45	2.50%
	50	4.00%
	55	6.50%
	60	10.40%
	65	16.80%
	70	100%
Marriage		90% of male active members and 50% of female active members. The male spouse is assumed to be three years older than the female.
Expenses		Administrative expenses are added to the normal cost and are assumed to be 0.2% of the actuarial accrued liability. The assumed investment rate of return is deemed to be net of investment expenses
Cost-of-Livin Adjustment	ng	2.4% compounded annually for benefits based on credit service accrued until July 1, 2012, and sick leave accrued until January 1, 2013, 2.0% compounded annually thereafter.
Social Secur Wage Base I		3.0% compounded annually.
Non-Service- Benefit Elect	-Connected Death ion	All Plan B participants are assumed to elect the annuity payable for life (default) if eligible for the non-service-connected death benefit.
Unused Sick Service Cred		Accrued at a rate of 0.36 additional months per year of service.
Rationale of actuarial assumptions	5	Adopted by the Board of Trustees based upon recommendations by the prior actuary's actuarial experience study covering July1, 2011 through June 30, 2015. Cheiron reviewed the experience study and consider these assumptions generally reasonable.
Changes in A Assumptions		The assumed rate of return has been lowered from 6.85% to 6.80%.

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

					%
					Increase/
	Total Number of		Ann	ual Average	Decrease in
Valuation Date	Members	Annual Salary		Рау	Average Pay
Employees					
7/1/2011	1,898	\$ 119,358,603	\$	62,887	-0.2
7/1/2012	1,866	116,927,658		62,662	-0.4
7/1/2013	1,874	115,936,747		61,866	-1.3
7/1/2014	1,879	121,352,682		64,584	4.4
7/1/2015	1,901	126,806,443		66,705	3.3
7/1/2016	1,876	128,457,729		68,474	2.7
7/1/2017	1,899	134,573,069		70,865	3.5
7/1/2018	1,937	139,906,333		72,228	2.0
7/1/2019	1,916	142,853,700		74,558	3.2
7/1/2020	2,009	153,930,444		76,620	2.8
Park Police					
7/1/2011	187	\$ 13,132,119	\$	70,225	-1.4
7/1/2012	186	12,983,936		69,806	-0.6
7/1/2013	190	13,197,378		69,460	-0.5
7/1/2014	191	13,689,120		71,671	3.2
7/1/2015	203	14,864,322		73,223	2.2
7/1/2016	197	15,076,871		76,532	4.5
7/1/2017	203	16,247,820		80,039	4.6
7/1/2018	207	16,537,673		79,892	-0.2
7/1/2019	207	17,367,381		83,900	5.0
7/1/2020	216	18,456,624		85,447	1.8
Total					
7/1/2011	2,085	\$ 132,490,722	\$	63,545	-0.3
7/1/2012	2,052	129,911,594		63,310	-0.4
7/1/2013	2,064	129,134,125		62,565	-1.2
7/1/2014	2,070	135,041,802		65,238	4.3
7/1/2015	2,104	141,670,765		67,334	3.3
7/1/2016	2,073	143,534,600		69,240	2.8
7/1/2017	2,102	150,820,889		71,751	3.6
7/1/2018	2,144	156,444,006		72,968	1.7
7/1/2019	2,123	160,221,081		75,469	3.4
7/1/2020	2,225	172,387,068		77,477	2.7

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

-	Add	ed to rolls	Remov	ed fr	om rolls	Rolls	end of year			
As of Date	No.	Annual Allowances	No.		Annual Iowances	No.	Annual Allowances	% Increase in Annual Allowances	A	verage Innual owance
July 1, 2020	84	\$ 2,847,544	31	\$	901,782	1,662	\$ 55,814,206	4.06%	\$	33,583
July 1, 2019	117	4,322,963	40		993,901	1,609	53,638,651	8.17%		33,337
July 1, 2018	104	3,860,862	33		769,236	1,532	49,588,355	7.33%		32,368
July 1, 2017	89	3,145,674	24		465,503	1,461	46,199,983	6.62%		31,622
July 1, 2016	87	2,903,320	15		221,758	1,396	43,331,139	5.70%		31,039
July 1, 2015	76	2,516,877	26		549,556	1,324	40,994,405	5.72%		30,963
July 1, 2014	63	1,827,720	26		622,566	1,272	38,775,456	3.68%		30,484
July 1, 2013	75	2,173,664	16		406,440	1,235	37,399,741	5.92%		30,283
July 1, 2012	68	1,963,919	28		483,565	1,176	35,310,586	7.00%		30,026
July 1, 2011	96	3,425,855	27		528,833	1,136	32,999,162	10.02%		28,691

Additions to the rolls include new retirees and the beneficiaries of an active or retired member's death.

Deletions from the rolls include deaths of retirees, deaths of the surviving beneficiaries, surviving children who have reached the age of 18 or 23 if a full-time student, and the expiration of 10-year certain benefits.



STATISTICAL SECTION NARRATIVE

To assist readers, the Statistical Section of this ACFR presents information to add historical perspective, context, and detail to the Financial Statements, Notes to Financial Statements, and Required Supplementary Information presented in the preceding sections. To provide historical perspective, assess the ERS' overall financial condition, and a sense of trend, the exhibits in this Section are presented in multiple-year formats.

The **Schedule of Changes in Fiduciary Net Position** shows the historical combined effects of the additions and deductions of fiduciary net position over the 10-year period ended June 30, 2021 as well as detailing the ERS' largest source of revenue capacity - investment income June 30, 2012 through 2015, and 2017 through 2021. Investment loss for the year ended June 30, 2016 assists in providing a context on how the ERS' financial position has changed over time.

The **Schedule of Benefit and Refund Deductions from Fiduciary Net Position by Type** provides the general information of payment trends of annuity data by benefit type and refund of contributions for the 10-year period ended June 30, 2021.

The **Schedule of Average Benefit Payments** provides the summary of statistics relating to the average annuitant's receipt of annuities over the ten-year period ended June 30, 2021

SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION

For Years Ended June 30

(dollars in thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Employer contributions	\$ 22,313	\$ 19,245	\$ 24,792	\$ 24,822	\$ 20,268	\$ 27,191	\$ 28,150	\$ 28,750	\$ 23,806	\$ 32,182
Member contributions	8,084	7,797	7,541	7,201	6,751	6,418	6,340	5,414	5,355	4,396
Investment income gain/(loss)(net of expenses)	 194,758	10,900	62,439	70,471	111,662	(4,851)	3,340	107,898	72,802	14,100
Total Additions	225,155	37,942	94,772	102,494	138,681	28,758	37,830	142,062	101,963	50,678
DEDUCTIONS										
Benefit payments	57,660	55,068	51,057	47,628	44,628	42,258	39,992	38,170	36,263	33,833
Refunds	378	580	745	460	561	461	391	237	369	317
Administrative expenses	 1,984	1,722	1,704	1,811	1,675	1,696	1,587	1,487	1,565	1,453
Total Deductions	60,022	57,370	53,506	49,899	46,864	44,415	41,970	39,894	38,197	35,603
CHANGE IN FIDUCIARY NET POSITION	\$ 165,133	\$ (19,428)	\$ 41,266	\$ 52,595	\$ 91,817	\$ (15,657)	\$ (4,140)	\$ 102,168	\$ 63,766	\$ 15,075

SCHEDULE OF BENEFIT AND REFUND DEDUCTIONS

From Fiduciary Net Position by Type For Years Ended June 30

(dollars in thousands)

	2021	2020		2019	2018	2017	2016	2015	2014	2013	2012
Type of Benefit											
Retirees	\$ 52,052	\$ 49,427	\$	46,584	\$ 42,965	\$ 40,379	\$ 38,268	\$ 35,806	\$ 34,348	\$ 32,618	\$ 30,547
Survivors	5,525	5,559		4,387	4,576	4,163	3,895	4,093	3,730	3,555	3,199
Disability benefits	83	82		86	87	86	95	93	92	90	87
Total Benefits	\$ 57,660	\$ 55,068	\$	51,057	\$ 47,628	\$ 44,628	\$ 42,258	\$ 39,992	\$ 38,170	\$ 36,263	\$ 33,833
Refund of Contributions	\$ 378	\$ 580	\$	745	\$ 460	\$ 561	\$ 461	\$ 391	\$ 237	\$ 369	\$ 317

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

As of July 1, 2020	Years of C								
	0-5	-	5-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	60		188	201 \$ 1,176	218	298	373	324	1662
Average monthly benefit	\$ 528 \$ 49,999		745 50,670	\$ 1,176 \$ 56,197	\$ 1,746 \$ 61,745	\$ 2,886 \$ 71,161	\$ 3,834 \$ 75,005	\$ 4,861 \$ 81,015	\$ 2,800 \$ 67,638
Average final average salary	\$ 49,99 4.(8.1	\$ 30,197 13.0	\$ 01,743 18.0	23.1	\$ 73,003	33.7	\$ 07,038
Average years of service	4.0	,	0.1	13.0	16.0	23.1	20.0	55.7	22.2
As of July 1, 2019	Years of C	redite	ed Servi	ce>					
-	0-5	6	5-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	58	3	188	184	211	296	365	307	1609
Average monthly benefit	\$ 526	5 \$	736	\$ 1,163	\$ 1,722	\$ 2,867	\$ 3,766	\$ 4,889	\$ 2,779
Average final average salary	\$ 50,21	7\$	50,670	\$ 55,597	\$ 60,911	\$ 70,939	\$ 73,696	\$ 80,311	\$ 66,940
Average years of service	4.0)	8.1	13.0	18.0	23.1	28.7	33.7	22.1
As of July 1, 2018	Years of C	redite	ed Servi	ce>					
	0-5	6	5-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	58		181	176	201	287	345	284	1532
Average monthly benefit	\$ 48		719	\$ 1,151	\$ 1,693	\$ 2,822	\$ 3,690	\$ 4,746	\$ 2,697
Average final average salary	\$ 46,368	-	50,103	\$ 55,012	\$ 59,813	\$ 70,473	\$ 72,596	\$ 78,227	\$ 65,629
Average years of service	3.9	ð	8.1	13.0	18.1	23.1	28.7	33.7	22.0
As of July 1, 2017	Years of C	rodite	ad Sorvi	(9)					
As 01 July 1, 2017	0-5		5-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	55		172	164	189	279	325	273	1461
Average monthly benefit	\$ 460	-	692	\$ 1,137	\$ 1,650	\$ 2,764	\$ 3,563	\$ 4,683	\$ 2,642
Average final average salary	\$ 42,26	7 \$	49,019	\$ 53,555	\$ 58,444	\$ 68,913	\$ 70,056	\$ 76,920	\$ 63,877
Average years of service	4.0)	8.1	13.0	18.1	23.1	28.7	33.7	22.0
As of July 1, 2016	Years of C								
	0-5	-	5-10	11-15	16-20	21-25	26-30	>30	Total
Number of Retirees and Survivors	58	-	169	157	184		323	233	1,396
Average monthly benefit	\$ 45		684	\$ 1,144	\$ 1,633	\$ 2,757	\$ 3,537	\$ 4,722	\$ 2,593
Average final average salary	\$ 41,468		48,615 8.1	\$ 53,006 13.1	\$ 57,328 18.1	\$ 68,187 23.1	\$ 68,112 28.8	\$ 77,203 33.7	\$ 62,784 21.8
Average years of service	5.	,	0.1	13.1	10.1	23.1	20.0	55.7	21.0
As of July 1, 2015	Years of C	redite	ed Servi	ce>					
As of July 1, 2015	Years of C 0-5		ed Servi 5-10	ce> 11-15	16-20	21-25	26-30	>30	Total
As of July 1, 2015 Number of Retirees and Survivors		6			16-20 192	21-25	26-30 303	> 30 203	Total 1,324
-	0-5 58 \$ 46	6	5-10	11-15	192 \$ 1,733	260 \$ 2,772			
Number of Retirees and Survivors Average monthly benefit Average final average salary	0-5 58 \$ 467 \$ 42,664	6 3 7 \$ 4 \$	5-10 161 703 48,314	11-15 147 \$ 1,166 \$ 53,111	192 \$ 1,733 \$ 58,300	260 \$ 2,772 \$ 67,077	303 \$ 3,578 \$ 67,205	203 \$ 4,761 \$ 76,338	1,324 \$ 2,580 \$ 62,064
Number of Retirees and Survivors Average monthly benefit	0-5 58 \$ 467	6 3 7 \$ 4 \$	5-10 161 703	11-15 147 \$ 1,166	192 \$ 1,733	260 \$ 2,772	303 \$ 3,578	203 \$ 4,761	1,324 \$2,580
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service	0-5 \$ 46 \$ 42,664 3.9	6 3 7 \$ 4 \$ 9	5-10 161 703 48,314 8.1	11-15 147 \$ 1,166 \$ 53,111 13.0	192 \$ 1,733 \$ 58,300	260 \$ 2,772 \$ 67,077	303 \$ 3,578 \$ 67,205	203 \$ 4,761 \$ 76,338	1,324 \$ 2,580 \$ 62,064
Number of Retirees and Survivors Average monthly benefit Average final average salary	0-5 \$ 463 \$ 42,664 3.9 Years of C	6 3 7 \$ 4 \$ 9	5-10 161 703 48,314 8.1 ed Servi	11-15 147 \$ 1,166 \$ 53,111 13.0	192 \$ 1,733 \$ 58,300 18.2	260 \$ 2,772 \$ 67,077 23.1	303 \$ 3,578 \$ 67,205 28.6	203 \$ 4,761 \$ 76,338 33.4	1,324 \$2,580 \$62,064 21.4
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014	0-5 \$ 46: \$ 42,66 3.9 Years of C 0-5	6 3 7 \$ 4 \$ 9 6 7 7 8 7 8 7 8 7 8 7 8 8 7 8 8 8 8 8 8	5-10 161 703 48,314 8.1 ed Servi 5-10	11-15 147 \$ 1,166 \$ 53,111 13.0 cce> 11-15	192 \$ 1,733 \$ 58,300 18.2 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25	303 \$3,578 \$67,205 28.6 26-30	203 \$ 4,761 \$ 76,338 33.4 > 30	1,324 \$2,580 \$62,064 21.4 Total
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors	0-5 \$ 42,664 3 42,664 3 3.5 Years of C 0-5 54	6 3 7 \$ 4 \$ 9 6 7 6 6 4	5-10 161 703 48,314 8.1 ed Servi	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145	192 \$ 1,733 \$ 58,300 18.2 16-20 173	260 \$ 2,772 \$ 67,077 23.1 21-25 249	303 \$3,578 \$67,205 28.6 26-30 270	203 \$ 4,761 \$ 76,338 33.4 > 30 229	1,324 \$2,580 \$62,064 21.4 Total 1,272
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014	0-5 \$ 46: \$ 42,66 3.9 Years of C 0-5	6 3 7 \$ 1 \$ 9 6 7 7 6 6 6 6 1 2 \$	5-10 161 703 48,314 8.1 ed Servi 5-10 152	11-15 147 \$ 1,166 \$ 53,111 13.0 cce> 11-15	192 \$ 1,733 \$ 58,300 18.2 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25	303 \$3,578 \$67,205 28.6 26-30	203 \$ 4,761 \$ 76,338 33.4 > 30	1,324 \$2,580 \$62,064 21.4 Total 1,272
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit	0-5 \$ 463 \$ 463 \$ 42,664 3.3 Years of C 0-5 \$ 452 \$ 452	6 3 7 \$ 4 \$ 9 6 4 4 2 \$ 4 5	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441	203 \$ 4,761 \$ 76,338 33.4 > 30 229 \$ 4,600	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary	0-5 \$ 46: \$ 42,664 3.3 Years of C 0-5 \$ 45: \$ 41,194	6 3 7 \$ 4 \$ 9 6 4 4 2 \$ 4 5	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568	11-15 147 \$ 1,166 \$ 53,111 13.0 (ce> 11-15 145 \$ 1,082 \$ 50,122	192 1,733 58,300 18.2 16-20 173 1,603 55,644	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary	0-5 \$ 46: \$ 42,664 3.3 Years of C 0-5 \$ 45: \$ 41,194	6 3 7 \$ 4 \$ 9 6 7 6 7 6 6 6 7 6 6 7 6 7 6 7 8 7 8 7 8	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice>	192 1,733 58,300 18.2 16-20 173 1,603 55,644	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average soft service Average final average salary Average final average salary Average soft service Average years of service Average years of service As of July 1, 2013	0-5 5/3 \$ 463 \$ 42,664 3.9 Years of C 0-5 \$ 41,199 3.9 Years of C 0-5	6 3 7 \$ 4 \$ 9 6 7 7 \$ 4 \$ 6 4 2 \$ 4 \$ 9 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15	192 1,733 58,300 18.2 16-20 173 1,603 55,644 18.1 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25	303 \$3,578 \$67,205 28.6 26-30 \$3,441 \$66,475 28.7 26-30	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30	1,324 \$2,580 \$62,064 21.4 Total 1,272 \$2,540 \$60,988 21.7 Total
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average grant of service Average final average salary Average of service Average of July 1, 2013 Number of Retirees and Survivors	0-5 54 467 467 467 467 467 467 467 477 47	6 3 7 5 4 5 7 5 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137	192 1,733 58,300 18.2 16-20 173 55,644 18.1 16-20 176	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475 28.7 26-30 26-30 261	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 229	1,324 \$2,580 \$62,064 21.4 Total 1,272 \$2,540 \$60,988 21.7 Total 1,235
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average grass of service Average final average salary Average nonthly benefit Average of July 1, 2013 Number of Retirees and Survivors Average monthly benefit	0-5 56 467 467 467 467 467 467 467 477 47	6 3 7 8 9 9 7 8 9 9 7 8 9 6 4 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 9 9 7 8 9 9 7 8 9 9 9 7 8 9 9 9 7 8 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 12.9 13.7 13.7 13.7 13.0	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 223 \$ 4,545	1,324 \$2,580 \$62,064 21.4 Total 1,272 \$2,540 \$60,988 21.7 Total 1,235 \$2,524
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average final average salary Average final average salary Average final average salary Average grass of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average final average salary	0-5 56 467 467 467 467 467 467 477 47	6 3 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698 45,897	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 50,122 12.9 ice> 11-15 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 \$ 4,545 \$ 72,293	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average grass of service Average final average salary Average nonthly benefit Average of July 1, 2013 Number of Retirees and Survivors Average monthly benefit	0-5 56 467 467 467 467 467 467 467 477 47	6 3 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 12.9 13.7 13.7 13.7 13.0	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 223 \$ 4,545	1,324 \$2,580 \$62,064 21.4 Total 1,272 \$2,540 \$60,988 21.7 Total 1,235 \$2,524
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average final average salary Average salary Average of Service	0-5 5/3 4/4 4/4 4/4 4/4 4/4 4/4 4/4 4	6 3 7 8 4 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 9 8 9 9 8 9 9 8 9 9 8 9 9 8 9 9 8 9 9 9 8 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698 45,897 8.2	11-15 147 \$ 1,166 \$ 53,111 13.0 (ce> 11-15 145 \$ 1,082 \$ 50,122 12.9 (ce> 11-15 137 \$ 1,064 \$ 48,727 12.9	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 \$ 4,545 \$ 72,293	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average final average salary Average final average salary Average final average salary Average grass of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average final average salary	0-5 56 467 467 467 467 467 467 477 47	6 3 7 8 4 9 7 8 9 7 7 8 9 7 8 9 7 8 9 7 8 9 7 8 9 8 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698 45,897 8.2	11-15 147 \$ 1,166 \$ 53,111 13.0 (ce> 11-15 145 \$ 1,082 \$ 50,122 12.9 (ce> 11-15 137 \$ 1,064 \$ 48,727 12.9	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 >30 \$ 4,545 \$ 72,293	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average final average salary Average salary Average of Service	0-5 5/3 4/40 4/4 4/4	6 3 7 8 9 9 9 9 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9	5-10 161 703 48,314 8.1 48,314 8.1 152 691 147,568 8.1 47,568 8.1 147,568 8.1 147,568 8.1 147,568 8.1 147,568 8.1 148,568 152 168 161 152 152 152 152 152 152 152 15	11-15 147 \$ 1,166 \$ 53,111 13.0 (ce> 11-15 145 \$ 1,082 \$ 50,122 12.9 (ce> 11-15 137 \$ 1,064 \$ 48,727 12.9 (ce>	192 1,733 58,300 18.2 16-20 173 1,603 55,644 18.1 16-20 176 55,496 18.1	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 21-25	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average inal average salary Average monthly benefit Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average of Retirees and Survivors Average nonthly benefit Average final average salary Average sof service Average final average salary Average sof service Average sof service Average sof service	0-5 5/1 \$ 460 \$ 42,660 0-5 Years of C 0-5 Years of C 0-5 402 \$ 41,194 3.0 Years of C 0-5 Years of C 0-5 0-5	6 7 8 9 7 9 7 9 9 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 ed Servi 5-10 146 698 45,897 8.2 ed Servi 5-10	11-15 147 \$ 1,166 \$ 53,111 13.0 (ce> 11-15 145 \$ 1,082 \$ 50,122 12.9 (ce> 11-15 137 \$ 1,064 \$ 48,727 12.9 (ce> 11-15	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 21-25 243 2-25 243 2-25 243 2-25 243 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 2-25 	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total 1,176
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average inal average salary Average monthly benefit Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average monthly benefit Average salary Average nonthly benefit Average of Retirees and Survivors Average final average salary Average salary Average salary Average final average salary Average salary Average salary Average final average salary Average salary Average of service Average of service <td>0-5 5/1 \$ 460 \$ 42,664 0-5 5/5 \$ 452 \$ 41,194 3.3 Years of C 0-5 442 \$ 440,190 3.4 Years of C 0-5 442 \$ 40,664 \$ 42,664 \$ 45,664 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 44,194 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 5,5755 \$ 5,</td> <td>6 7 8 9 7 9 7 9 9 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9</td> <td>5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 146 6998 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.</td> <td>11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 12.9 ice> 12.9 ice> 12.9 ice> 12.9 ice> 12.9 ice> 12.9</td> <td>192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20</td> <td>260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 2,612</td> <td>303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 250</td> <td>203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 >30 223 \$ 4,545 \$ 72,293 33.6 >30</td> <td>1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total 1,176</td>	0-5 5/1 \$ 460 \$ 42,664 0-5 5/5 \$ 452 \$ 41,194 3.3 Years of C 0-5 442 \$ 440,190 3.4 Years of C 0-5 442 \$ 40,664 \$ 42,664 \$ 45,664 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 45,575 \$ 44,194 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 40,190 \$ 5,575 \$ 5,5755 \$ 5,	6 7 8 9 7 9 7 9 9 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 152 691 47,568 8.1 146 6998 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 12.9 ice> 12.9 ice> 12.9 ice> 12.9 ice> 12.9 ice> 12.9	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 2,612	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 250	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 >30 223 \$ 4,545 \$ 72,293 33.6 >30	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total 1,176
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average inal average salary Average monthly benefit Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average final average salary Average nonthly benefit Average of service Average final average salary Average so of service Average so of service Average monthly benefit Average of service Average of service Average monthly benefit Average of service Average monthly benefit	0-5 5/3 4/4 4/4 0-5 0-5 4/4 4/1,19 -3.3 Vears of C 0-5 4/4 4/4 4/4 4/4 4/4 4/4 4/4 4/	6 3 7 4 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5-10 161 703 48,314 8.1 48,314 8.1 15-10 152 691 47,568 8.1 146 698 8.2 146 698 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 12.9 ice> 11-15 12.9 ice> 12.9	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 176 \$ 1,605 \$ 1,605 \$ 55,496 18.1 16-20 166 \$ 1,615	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 2,612	303 \$3,578 \$67,205 28.6 2700 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 \$3,445 26-30	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 >30 223 \$ 4,545 \$ 72,293 33.6 >30	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,272 \$ 2,540 \$ 2,540 \$ 2,524 \$ 60,095 21.8 Total 1,176 \$ 2,508 \$ 59,131
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average final average salary Average monthly benefit Average of Service As of July 1, 2013 Number of Retirees and Survivors Average final average salary Average final average salary Average syears of service As of July 1, 2012 Number of Retirees and Survivors Average wears of service As of July 1, 2012 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average monthly benefit Average years of service	0-5 5/3 4/4 4/4 4/4 4/4 4/4 4/4 4/4 4	6 7 8 7 8 7 8 9 7 7 8 9 9 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 146 698 45,897 8.2 ed Servi 5-10 146 698 45,897 8.2 ed Servi 5-10 137 701 45,665 8.2	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 12.9 ice> 13.0	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 176 \$ 1,605 \$ 5,644 18.1 16-20 177 178 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179 179	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,687 \$ 66,417 23.1 \$ 2,662 \$ 67,593 \$ 2,612 \$ 67,593 \$ 2,612 \$ 66,4336	303 \$3,578 \$67,205 28.6 26-30 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,441 \$65,815 28.7 28.7 26-30 \$3,441 \$65,815 28.7 26-30 \$3,445 \$3,455 \$3,556 \$3,556 \$3,556 \$3,556 \$3,556 \$3,556	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 228 \$ 4,545 \$ 72,293 33.6 \$ 72,293 33.6 \$ 72,293 33.6 \$ 72,293 33.6 \$ 72,293 \$ 33.6 \$ 73,397 \$ 74,397 \$ 74,	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,272 \$ 2,540 \$ 2,540 \$ 2,524 \$ 60,095 21.8 Total 1,176 \$ 2,508 \$ 59,131
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average monthly benefit Average gears of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average nonthly benefit Average salary Average final average salary Average so f service Average vars of service Average monthly benefit Average salary Average monthly benefit	0-5 56 46 46 46 46 46 47 46 47 46 47 47 47 47 47 47 47 47 47 47	6 7 8 7 8 9 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 ed Servi 5-10 147,568 8.1 47,568 8.1 47,568 8.1 47,568 8.2 ed Servi 5-10 146 698 45,897 8.2 ed Servi 5-10 147 5-10 146 698 45,897 8.2 ed Servi 8.2 8.2 8.2 8.2 8.2 8.2 8.2 8.2	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 147 \$ 50,122 12.9 ice> 11-15 137 \$ 1,082 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 129 ice> 11-15 12.9 ice> 12.9 ice> 11-15 12.9 ice> 12.9 ice> 11-15 12.9 ice> 13.0 ice>	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 166 \$ 1,615 \$ 54,389 18.1	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 64,336 23.1	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 250 \$3,405 \$65,415 28.7	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 228 \$ 4,545 \$ 72,293 33.6 >30 218 \$ 4,450 \$ 4,450 \$ 4,450 \$ 71,397 33.6	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total 1,176 \$ 2,508 \$ 59,131 21.9
Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average years of service As of July 1, 2013 Number of Retirees and Survivors Average final average salary Average ginal average salary Average years of service As of July 1, 2012 Number of Retirees and Survivors Average monthly benefit Average monthly benefit Average monthly benefit Average monthly benefit Average final average salary Average so f service Average final average salary Average so f service Average final average salary Average final average salary Average so f service Average final average salary Average final av	0-5 5/3 4/4 4/4 	6 7 8 7 8 9 7 8 9 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 48,314 8.1 152 691 152 691 47,568 8.1 47,568 8.1 147,568 8.1 147,568 8.2 84 5-10 137 701 5-10 147 147 147 147 147 147 147 147	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 137 \$ 1,064 \$ 46,972 12.9 \$ 46,972 13.0 ice> 11-15	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 166 \$ 1,615 \$ 54,389 18.1 16-20	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 64,336 23.1	303 \$3,578 \$67,205 28.6 270 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 \$3,405 \$65,415 28.7 26-30	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 ≥30 ≥30 >30 >30 >30 >30 >30 >30 >30 >	1,324 \$ 2,580 \$ 62,064 21.4 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,272 \$ 2,540 \$ 60,095 21.8 Total 1,176 \$ 2,508 \$ 59,131 21.9 Total
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Number of Retirees and Survivors Average monthly benefit Average final average salary Average years of service As of July 1, 2014 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average years of service As of July 1, 2013 Number of Retirees and Survivors Average monthly benefit Average final average salary Average final average salary Average monthly benefit Average monthly benefit Average ginal average salary Average monthly benefit Average monthly benefit Average monthly benefit Average monthly benefit Average salary Average final average salary Average final average salary Average salary Average final average salary Average salary Average final overage salary <	0-5 5/3 4/4 4/4 4/4 4/4 4/4 4/4 4/4 4	6 7 8 7 8 7 8 9 7 9 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9	5-10 161 703 48,314 8.1 48,314 8.1 152 691 152 691 47,568 8.1 47,568 8.1 166 98 45,897 8.2 ed Servi 5-10 137 701 45,665 8.2 ed Servi 5-10 137 701 45,665 8.2 129 129 129 129 129 129 129 12	11-15 147 \$ 1,166 \$ 53,111 13.0 ice> 11-15 145 \$ 1,082 \$ 50,122 12.9 ice> 11-15 137 \$ 1,064 \$ 48,727 12.9 ice> 11-15 129 \$ 1,035 \$ 46,972 13.0 ice> 11-15	192 \$ 1,733 \$ 58,300 18.2 16-20 173 \$ 1,603 \$ 55,644 18.1 16-20 176 \$ 1,605 \$ 55,496 18.1 16-20 166 \$ 1,615 \$ 54,389 18.1 16-20 160 160	260 \$ 2,772 \$ 67,077 23.1 21-25 249 \$ 2,752 \$ 67,593 23.1 21-25 243 \$ 2,687 \$ 66,417 23.1 \$ 2,612 \$ 66,417 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 64,336 23.1 \$ 2,612 \$ 2,412 \$ 2,417 \$ 2,612 \$ 2,612 \$ 2,612 \$ 2,612 \$ 2,612 \$ 2,612 \$ 2,612 \$ 2,412 \$ 2,612 \$ 2,612	303 \$3,578 \$67,205 28.6 26-30 2700 \$3,441 \$66,475 28.7 26-30 261 \$3,441 \$65,815 28.7 26-30 \$3,445 \$441 \$65,815 28.7 26-30 250 \$3,405 \$65,415 28.7 26-30 250 \$3,405 \$65,415 28.7 26-30 250 \$3,405 \$65,415 28.7 26-30 261 261 28.7 26-30 261 261 262 263 263 263 263 263 263 263	203 \$ 4,761 \$ 76,338 33.4 >30 229 \$ 4,600 \$ 73,373 33.6 >30 223 \$ 4,545 \$ 72,293 33.6 >30 218 \$ 4,450 \$ 71,397 33.6 >30	1,324 \$ 2,580 \$ 62,064 21.4 Total 1,272 \$ 2,540 \$ 60,988 21.7 Total 1,235 \$ 2,524 \$ 60,095 21.8 Total 1,176 \$ 2,504 \$ 59,131 21.9 Total 1,136



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