ANNUAL COMPREHENSIVE FINANCIAL REPORT

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

A Pension Trust Fund of Arlington County, Virginia

PRESENTED BY THE BOARD OF TRUSTEES

For the Fiscal Year Ended June 30, 2023

Produced by the Arlington County Employees' Retirement System Office 2100 Clarendon Boulevard Suite 504 Arlington, Virginia 22201 (703) 228-3321



ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

Suite 504 2100 Clarendon Blvd. Arlington, VA 22201
TEL 703.228.3900 FAX 703.228.3902 TOLL FREE 800.296.9510 www.arlingtonva.us/retirement

Retirement Board of Trustees
Jonathan C. Kinney, President
Richard Alt, Vice President
Michelle Cowan, Treasurer
Michael-dharma Irwin, Secretary
William Ross, Assistant Treasurer
Barbara Donnellan
Brian Lynch

December 7, 2023

Substitute Trustees Emily Hughes Matt Martin Carl Newby

Executive Director
Susie Ardeshir

Assistant Director Randee Stenroos To: The County and School Boards of Arlington County

Dear Board Members:

The Board of Trustees of the Arlington County Employees' Retirement System (ACERS) respectfully submits its annual report for the fiscal year ended June 30, 2023 as required in § 21-18, § 35-17 and § 46-18 of the Arlington County Code.

The Board's mission is to protect and preserve the assets of the Trust and provide prudent investment management and oversight. We act primarily in an investment capacity and have no role in setting benefit levels.

Annual investment performance was 7.8%; underperforming the portfolio benchmark return of 10.8%. With net position of \$2.976 billion at year end, the System remains well positioned to meet its obligations to members.

The financial and actuarial information included in the report show that the Retirement System is financially sound and has a funded ratio of actuarial assets to actuarial liabilities of 109.0%, an increase over fiscal year 2022's funded ratio of 108.5%.

A copy of this report is available on the Arlington County web site (Annual Reports – Official Website of Arlington County Virginia Government (arlingtonva.us)). A summary of the report will be distributed to each participant in January 2024.

On behalf of the Board of Trustees and the ACERS staff, I would like to express our appreciation for your continued support and leadership.

Respectfully,

Jónathan C. Kinney

President

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Introductory Section

ARLINGTON VIRGINIA

ARLINGTON COUNTY
EMPLOYEES' RETIREMENT SYSTEM
(ACERS)



Government Finance Officers Association

Certificate of
Achievement for
Excellence in
Financial
Reporting

Presented to

Arlington County Employees' Retirement System Virginia

For its Annual Comprehensive Financial Report For the Fiscal Year Ended

June 30, 2022

Christopher P. Morrill

Executive Director/CEO

Introductory Section



ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

Suite 504 2100 Clarendon Blvd. Arlington, VA 22201 TEL 703.228-3321 FAX 703.228.0646 TOLL FREE 800.296.9510 www.careers.arlingtonva.us/retirement-investment-office

Retirement Board of Trustees

Jonathan C. Kinney, President Richard Alt, Vice President Michelle Cowan, Treasurer Michael-dharma Irwin, Secretary William Ross, Assistant Treasurer Barbara Donnellan Brian Lynch

November 6, 2023

Substitute Trustees

Emily Hughes Matt Martin Carl Newby

Executive Director

Susie Ardeshir

Assistant Director Randee Stenroos

To: The Board of Trustees of the Arlington County Employees' Retirement System

Dear Retirement Board Members:

The annual report of the Arlington County Employees' Retirement System ("the System") for the fiscal year ended June 30, 2023 is enclosed. Responsibility for both the accuracy of the financial information contained herein and for the completeness and fairness of the presentation rests with System management.

The Retirement Board's primary responsibility is the sound management and investment of the System's assets. The Retirement Board has no role in determining the size and type of benefits.

As of June 30, 2023, the fiduciary net position of the System was \$2.976 billion, an increase of \$162 million during the fiscal year. The year's 7.9% gross investment return was 2.9% below the portfolio benchmark return of 10.8%. This performance placed the System in the 53rd percentile of the TUCS Public Plan universe for the year. The ten-year gross investment return is 7.8% and compares to the portfolio benchmark return of 6.7%. Over the long term, ACERS outperforms its benchmarks and ranks in the top half of public fund peers. The System is financially and actuarially sound with a funded ratio of the actuarial value of assets to actuarial accrued liabilities of 109.0% as of June 30, 2023. Current employer contribution levels from the County are consistent with the funding guidelines provided for in the Arlington County Code.

System History

The System was established as a defined benefit plan, under authority of an act of the General Assembly of Virginia, in Chapter 21 of the County Code (for Uniform and General Employees) as of December 21, 1953 and in Chapter 35 (for School Board Employees) as of January 1, 1969. System provisions were modified such that all County employees hired on or after February 8, 1981 are covered by the provisions of Chapter 46 of the County Code. While different County employees have different benefits depending on their date of hire or type of employment, the System utilizes a single fund for all participants and there is no segregation of assets for individual classes of employees. A formal Trust was adopted for the System as of December 2001 and all assets are now held under the Trust.

Benefit Provisions

The System provides normal and early service retirement benefits for members who attain age and service requirements as specified in the County Code. Coverage for service-connected disability benefits is immediate upon membership in the System. Ordinary, non-service related disability benefits are provided after the attainment of two years of service. Members are vested in the System after five years of service and are then eligible for benefits at their normal retirement age.

Arlington County's Human Resources Department is responsible for benefits administration and provides annual benefit statements to members. Additionally, counseling to all benefit applicants and others requesting it is provided, as are presentations at new employee orientations, various employee group meetings and training sessions. All retirement handbooks and forms are available in the Human Resources office and on the web. Contact information for both the Retirement Board Investment Office and the Retirement Benefits Office is below.

RETIREMENT BOARD INVESTMENT OFFICE 2100 Clarendon Boulevard, Suite 504 Arlington, VA 22201

(703) 228-3321, Fax (703) 228-0646

RETIREMENT BENEFITS OFFICE

2100 Clarendon Boulevard, Suite 511 Arlington, VA 22201 (703) 228-3900, Fax (703) 228-3902

Major Initiatives

From an investment perspective, the Board acted at several points during the year to manage the portfolio's risk/return profile considering developments in the capital markets. The *Investment Section* of this report includes details on the year's activity.

Other Post Employment Benefits

In February 2009, the Retirement Board voted to act as Trustee with investment oversight for two trusts, one for County funds and one for School funds, invested to prefund Other Postemployment Benefits (OPEB) such as post-retirement health care. Authority for a local retirement board to act as Trustee for OPEB assets is provided for in Virginia Code §15.2-1547. Additional funding of \$6.0 million and \$2.6 million for the County and School trusts, respectively, was made during fiscal year 2023. As of June 30, 2023, the County and School trusts had assets of \$228.0 million and \$94.7 million, respectively. These trusts are separate and independently managed from Retirement System assets. The OPEB trusts are managed in accordance with an Investment Policy Statement tailored to their risks and objectives.

Accounting and Controls

Accounting. This report has been prepared on the full accrual basis of accounting, which is used to record assets and liabilities and additions and deductions to plan net position.

System management is responsible to protect the system assets and to ensure the financial statements are prepared in conformity with generally accepted accounting principles (GAAP). Internal accounting controls are designed to provide reasonable, but not absolute, assurance regarding the safeguarding of assets against loss from unauthorized use or disposition; and the reliability of financial records for preparing financial statements and maintaining accountability for assets. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived. We believe that the System's internal accounting controls adequately safeguard assets and provide reasonable assurance of proper recording of financial transactions.

Generally accepted accounting principles require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The System's MD&A can be found immediately following the independent auditors' report, in the *Financial Section*.

Budgetary Controls. The budget for the System is presented to, and approved by, the Board of Trustees each year. A report of actual versus budgeted expenses is provided to the Board quarterly.

Funded Status

An actuarial valuation of the System is performed annually to determine funding requirements. The actuarial valuation used for this reporting period was completed with payroll data as of June 30, 2023, the last day of fiscal year 2023.

A retirement system is fully funded when the actuarial value of the assets is adequate to meet the expected obligations to participants, or actuarial liabilities. The System's actual liability and investment experience result in a 109.0% funded ratio as of June 30, 2023, an increase over the June 30, 2022 funded ratio of 108.5%. The *Actuarial Section* of this document provides more details on the actuarial valuation report and the critical assumptions used in its preparation.

Investment Process and Performance

The Board operates with the standard of care required in making investments as directed in the Code of Virginia §51.1-803 which states that "funds...shall be invested with the care, skill, prudence and diligence...that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with the same aims." The County Code requires that the assets of the System be invested in accordance with a statement of investment policy adopted by the Board. County Code allows for the engagement of professional investment managers.

The Board adopted investment policy establishes investment objectives and a framework that allows sufficient flexibility to pursue investment opportunities while setting reasonable constraints and performance standards. Specifically, the policy establishes key risk parameters intended to minimize the risk of significant principal loss in the pursuit of the System's stated investment return objective. Additionally, the policy requires, with certain limited exceptions, a minimum of 20% of the total fair value of System assets be held in fixed income investments and no more than 25% of assets be invested in illiquid

investments. Derivative investments are limited such that no more than 15% of assets are subject to risk due to their use.

Under the policy, the Board allocates System assets and hires investment managers to direct the investments. Each manager is given a mandate, agreeing to specific guidelines pertaining to investment style, expected return, portfolio risk exposure, portfolio turnover and other key metrics. Investment managers have full discretion to direct the assets assigned to them in accordance with the manager's guidelines, constrained only by limitations provided in the County Code, the investment policy and provisions of the manager's contract with the Board.

With assistance from System staff and the investment consultant, the Board reviews total Fund and investment manager performance at least quarterly to ensure compliance with stated objectives and policy. With assistance from the investment consultant, staff continuously monitors performance of the Fund and its investment managers and, when conditions warrant, makes recommendations for change to the Board. Authority to adopt these recommendations rests solely with the Board.

Securities of the System, with certain limited exceptions including those held by pooled vehicles in which it owns an interest or in partnerships, are held by Northern Trust, the System's master custodian or its appointed sub custodians.

For fiscal year 2023, the System's gross investment return was 7.9% compared to a 10.8% benchmark return. The annualized rates of return for the three and five-year periods were 7.7% and 7.3%, respectively. These compare to benchmark returns of 5.7% and 6.0% for the same periods, respectively. The actuarial assumed rate of return is 6.75%. The System's net of fees returns for the one and three-year periods were 7.8% and 7.5%, respectively. More details on the Fund's asset allocation and historic returns can be found in the *Investment Section* of this report.

Professional Services

Professional consultants are appointed by the Board to perform services essential to the effective and efficient operation of the System. Windmark Investment Partners serves as the general investment consultant to the System while Franklin Park serves as the private equity investment consultant. Opinions from the independent public accountants, CLA, and the actuary, Cheiron, are included in this report.

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a *Certificate of Achievement for Excellence in Financial Reporting* to the Arlington County Employees' Retirement System (ACERS) for its annual comprehensive financial report for the fiscal year ended June 30, 2022. This is the twenty-fourth consecutive year that ACERS has achieved this recognition. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that this current annual comprehensive financial report meets the Certificate of Achievement Program's requirements, and it will be submitted to the GFOA to determine its eligibility for certification.

Acknowledgments

This annual report was prepared by the System's staff under the direction of the Retirement Board of Trustees. The staff of Arlington County provided critical assistance in preparation of the *Statistical Section*, for which we are grateful. I would like to express sincere appreciation to the Board of Trustees for its confidence, guidance, and dedication. Finally, I would also like to thank the County Board and the County Manager for their support and commitment to ensure the continued successful operation and funding of the System.

This report is intended to provide complete and reliable information for determining the financial status of the System. It is respectfully submitted to the Retirement Board and to other interested parties.

Respectfully,

Susie Ardeshir

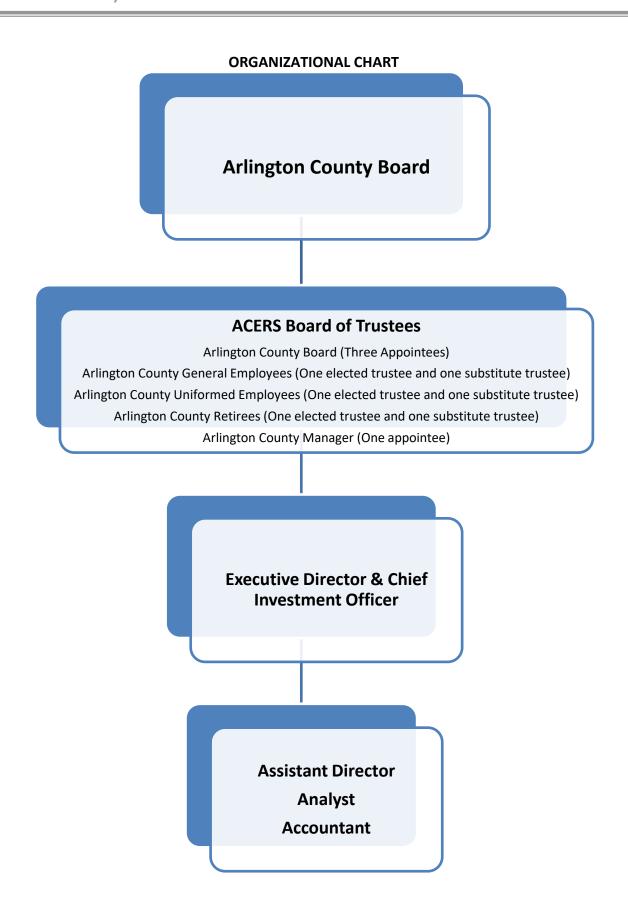
Executive Director & Chief Investment Officer

ACERS STRUCTURE JUNE 30, 2023

| | JUNE 30, 2023 |
|-----------------------------------|---|
| TRUSTEES | PROFESSIONAL STAFF |
| Jonathan C. Kinney, President | Susie Ardeshir, Executive Director & CIO |
| Appointed by County Board | Randee Stenroos, Assistant Director |
| Term Expires 1/31/2025 | Katrina Milne, Investment Analyst |
| | Stephen Euell, Accountant |
| Richard Alt, Vice President | |
| Elected by Retirees | LEGAL ADVISOR |
| Term Expires 1/31/2027 | Virginia Sadler, County Attorney's Office |
| Michelle Cowan, Treasurer | INVESTMENT CONSULTANT |
| Appointed by County Manager | Windmark Investment Partners |
| Term Expires 1/31/2027 | Franklin Park LLC |
| Michael-dharma Irwin, Secretary | CUSTODIAN BANK |
| Elected by General Employees | The Northern Trust Company |
| Term Expires 1/31/2025 | |
| | CONSULTING ACTUARY |
| William Ross, Assistant Treasurer | Cheiron |
| Appointed by County Board | |
| Term Expires 1/31/2025 | CERTIFIED PUBLIC ACCOUNTANT |
| | CliftonLarsonAllen |
| Barbara Donnellan | |
| Appointed by County Board | INVESTMENT MANAGERS (1) |
| Term Expires 1/31/2025 | Abbott Capital |
| | Altaris Healthcare Partners |
| Brian Lynch | Baillie Gifford |
| Elected by Uniformed Employees | Bison Capital |
| Term Expires 1/31/2027 | BV Investment Partners |
| | DoubleLine® Capital |
| SUBSTITUTE TRUSTEES | Enlightenment Capital |
| Emily Hughes | Franklin Park |
| Elected by General Employees | Gallant Partners |
| Term Expires 1/31/2025 | GQG |
| | Greyrock Partners |
| Matt Martin | JFL Equity Investors |
| Elected by Uniformed Employees | Kiltearn Partners |
| Term Expires 1/31/2027 | Marcus Partners |
| , , , | Middleground Partners |
| Carl Newby | Northern Trust |
| Elected by Retirees | Orbis International |
| Term Expires 1/31/2027 | Peppertree |
| | Rubicon |
| | T. Rowe Price |
| | The Vanguard Group |
| | ilie valiguatu Group |

⁽¹⁾ Investment manager assignments are on Page 50 and a schedule of broker commissions on Page 52

Vision Ridge Partners Wellington Management



Financial Section

ARLINGTON VIRGINIA

ARLINGTON COUNTY
EMPLOYEES' RETIREMENT SYSTEM
(ACERS)

| Financial Section |
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INDEPENDENT AUDITORS' REPORT



Board of Trustees Arlington County Employees' Retirement System Arlington, Virginia

Report on the Audit of the Financial Statements *Opinions*

We have audited the accompanying financial statements of the Arlington County Employees' Retirement System (the System), a pension trust fund of the County of Arlington, Virginia, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System, as of June 30, 2023, and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

CLA (CliftonLarsonAllen LLP) is an independent network member of CLA Global. See CLAglobal.com/disclaimer.

Board of Trustees Arlington County Employees' Retirement System

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due
 to fraud or error, and design and perform audit procedures responsive to those risks. Such
 procedures include examining, on a test basis, evidence regarding the amounts and disclosures
 in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is
 expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Board of Trustees Arlington County Employees' Retirement System

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedule of changes in net pension liability/asset and related ratios, the schedule of employer contributions, and the schedule of investment returns, as listed

Financial Section

in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The schedule of administrative expenses and schedule of investment and consultant expenses, 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. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial, and statistical sections but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Board of Trustees
Arlington County Employees' Retirement System

Clifton Larson Allen LLP

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 28, 2023 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering System's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Arlington, Virginia November 28, 2023

MANAGEMENT'S DISCUSSION & ANALYSIS

The discussion and analysis presented in this section provides an overview of the Arlington County Employees' Retirement System's ("the System") financial activities for the fiscal year ended June 30, 2023. Please read this discussion and analysis in conjunction with the basic financial statements, which follow, and the letter from the Executive Director and Chief Investment Officer included in the *Introductory Section* of this Annual Comprehensive Financial Report.

The System provides retirement benefits to Arlington County Uniformed and General employees and to certain School Board employees. Total fiduciary net position held in trust, combined with consistent and significant County contributions, leave the System well positioned to continue to meet its obligations to members.

Financial Highlights

Net Position System net position at June 30, 2023 totaled \$2.976 billion, an increase of \$162 million, or 5.7%, from June 30, 2022, due to an increase in the value of investments.

<u>Additions and Deductions to Net Position</u> Additions to net position include County and member contributions, interest and dividends on the System investments and investment gains/losses; deductions to assets are primarily driven by benefit payments. For fiscal year 2023:

- Contributions increased to \$81.8 million from \$76.1 million in fiscal year 2022.
- Dividends and interest on investments increased to \$38.5 million from \$29.9 million in fiscal year
 2022
- Payments and refunds to members increased to \$132.6 million from \$126.5 million in fiscal year 2022.

<u>Investment Gains and Losses</u> Investment gains were \$186.7 million in fiscal year 2023, which include realized and unrealized changes in investment portfolio fair value. This was a \$528.7 million increase from the \$342.0 million investment losses in fiscal year 2022.

• Fund net investment returns, including dividends and interest, of 7.8% for the year underperformed the 10.8% benchmark. The System's investment portfolio is well diversified and strives to balance capital preservation in down markets with generating an adequate risk adjusted return over the long term.

Funded Ratio As of June 30, 2023, the System was actuarially funded at 109.0%, up from 108.5% as of June 30, 2022. This funding ratio compares actuarial value of assets to the actuarial liabilities. We also present the fair value funding ratio of 106.3% as of June 30, 2023, which is the current fair value to actuarial liabilities. The fair value of assets is not a good measure on which to base the calculation of contributions to the System as it is subject to significant variability due to the investment market volatility of fair values.

MANAGEMENT'S DISCUSSION & ANALYSIS

SUMMARY OF FIDUCIARY NET POSITION AND CHANGES IN FIDUCIARY NET POSITION

FOR THE YEARS ENDED JUNE 30, 2023 & 2022

Summary of Fiduciary Net Position

| | Change | | | | |
|---------------------------------------|---------------------|----|---------------|----|---------------|
| Assets | June 30, 2023 | Υ | ear over Year | | June 30, 2022 |
| | | | | | |
| Cash | \$ 111,326,276 | \$ | (163,883,356) | \$ | 275,209,632 |
| Receivables | 3,761,762 | | 1,001,056 | | 2,760,706 |
| Investments | 2,863,707,142 | | 320,512,878 | | 2,543,194,264 |
| Total Assets | \$ 2,978,795,180 | \$ | 157,630,578 | \$ | 2,821,164,602 |
| | | | | | |
| Liabilities | | | | | |
| | | | | | |
| Accrued Expense and Other Liabilities | \$ 2,669,130 | \$ | (4,595,556) | \$ | 7,264,686 |
| Total Liabilities | \$ 2,669,130 | \$ | (4,595,556) | \$ | 7,264,686 |
| | | | | | |
| Total Fiduciary Net Position | \$ 2,976,126,050 | \$ | 162,226,134 | \$ | 2,813,899,916 |

Summary of Changes in Fiduciary Net Position

| | | Change | | | | |
|-------------------------------------|----|---------------|----|---------------|----|---------------|
| Additions | | June 30, 2023 | Ye | ear over Year | | June 30, 2022 |
| | | | | | | |
| Employer Contributions | \$ | 65,748,329 | \$ | 4,499,818 | \$ | 61,248,511 |
| Member Contributions | | 16,019,748 | | 1,183,295 | | 14,836,453 |
| Dividends & Interest | | 38,490,067 | | 8,588,703 | | 29,901,364 |
| Investment Gains (Losses) | | 186,666,969 | | 528,704,192 | | (342,037,223) |
| Other | | 150,665 | | (67,148) | | 217,813 |
| Investment Expense | | (9,921,070) | | (424,573) | | (9,496,497) |
| Total Additions | \$ | 297,154,708 | \$ | 542,484,287 | \$ | (245,329,579) |
| | | | | | | |
| Deductions | | | | | | |
| | _ | | | | _ | |
| Retirement Benefits | \$ | , , | \$ | 6,117,752 | \$ | 125,120,746 |
| Refund of Contributions | | 1,400,966 | | 62,666 | | 1,338,300 |
| Administrative & Consulting Expense | | 2,274,557 | | 66,260 | | 2,208,297 |
| Total Deductions | \$ | 134,914,021 | \$ | 6,246,678 | \$ | 128,667,343 |
| | | | | | | |
| Change in Fiduciary Net Position | \$ | 162,240,687 | \$ | 536,237,609 | \$ | (373,996,922) |

MANAGEMENT'S DISCUSSION & ANALYSIS

Overview of Financial Statements

The System's financial statements, which follow, include:

- Basic financial statements
- Notes to the financial statements
- Required supplementary information
- Supplementary information

Summarizing the information available in each:

<u>Basic Financial Statements</u> These statements include a statement of fiduciary net position and a statement of changes in fiduciary net position, presented as of and for the year ended June 30, 2023, respectively. These financial statements reflect the resources available to pay benefits to retirees and other beneficiaries as of year-end, as well as changes in those resources during the year.

Notes to the Basic Financial Statements The financial statement notes provide additional information essential to fully understanding the data provided in the Basic Financial Statements. Specifically:

- **Note 1** Describes significant accounting policies
- **Note 2** Provides a description of the System, the funding policy and member contributions and benefits and lists the various actuarial assumptions
- **Note 3** Discusses System's net pension liability and long term expected rates of return
- **Note 4** Discusses System's deposits and investments and includes several tables categorizing investments by type while providing disclosure on interest rate, credit quality and currency related risks
- **Note 5** Provides a description of the System's investments by fair value
- **Note 6** Explains the System's tax status

Required Supplementary Information This information illustrates the System's change in net pension liability and related ratios, schedule of employer contributions and schedule of investment returns.

<u>Supplementary Information</u> Details regarding administrative and investment consultant related expenses are also provided.

Contact Information

The System's financial statements are designed to present users with a general overview of the System's finances and to demonstrate the prudent exercise of the Board's oversight. Please direct any questions or requests for further information to the Arlington County Employees' Retirement System, 2100 Clarendon Boulevard, Suite 504, Arlington, VA 22201. The report may also be accessed at www.arlingtonva.us/retirement. A summary report will be issued to plan members in January 2024.

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

(A Pension Trust Fund of Arlington County, Virginia) STATEMENT OF FIDUCIARY NET POSITION

JUNE 30, 2023

ASSETS

| Cash and Cash Equivalents | | \$111,326,276 |
|--|--------------|-----------------|
| Contributions Receivable: | | |
| Employer | | 2,860,584 |
| Employee | | 896,428 |
| Other Receivables: | | 4,750 |
| Investments, at Fair Value: | | |
| Foreign, Municipal and U.S. Government Obligations | \$96,731,686 | |
| Corporate Fixed Income Obligations | 70,353,368 | |
| Domestic and Foreign Equities | 818,199,425 | |
| Private Equity | 272,091,967 | |
| Real Estate Funds | 21,889,733 | |
| Pooled Equity | 823,020,399 | |
| Pooled Fixed Income | 761,420,564 | |
| Total Investments | | 2,863,707,142 |
| Total Assets | | 2,978,795,180 |
| | | |
| LIABILITIES | | |
| Accrued Expenses and Other Liabilities | | 2,669,130 |
| Total Liabilities | | 2,669,130 |
| NET POSITION RESTRICTED FOR PENSIONS | | \$2,976,126,050 |

See accompanying notes to financial statements

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

(A Pension Trust Fund of Arlington County, Virginia)

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR THE YEAR ENDED JUNE 30, 2023

ADDITIONS

| ADDITIONS | |
|---|-----------------|
| Contributions | |
| Employer | \$65,748,329 |
| Employee | 16,019,748 |
| Total Contributions | \$81,768,077 |
| Investment Income | |
| Interest and Dividends | 38,490,067 |
| Net Appreciation in Fair Value | 186,666,969 |
| Investment Income | 225,157,036 |
| Less: Investment Expense | 9,921,070 |
| Net Investment Income | 215,235,966 |
| Securities Lending Activity | |
| Security Lending Income | 200,882 |
| Less: Bank Management Fees | 50,217 |
| Net Income From Security Lending | 150,665 |
| Total Additions | \$297,154,708 |
| DEDUCTIONS | Ψ=0.7=0.7.00 |
| Members' Benefits | \$131,238,498 |
| Refund of Members' Contributions | 1,400,966 |
| Administrative Expenses | 1,143,760 |
| Other Consulting Expenses | 1,130,797 |
| Total Deductions | \$134,914,021 |
| Net Increase in Net Position | \$162,240,687 |
| Net Position Restricted for Pensions, Beginning of Year | 2,813,885,363 |
| NET POSITION RESTRICTED FOR PENSIONS, End of Year | \$2,976,126,050 |
| | |

See accompanying notes to financial statements

JUNE 30, 2023

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The accompanying financial statements are presented on the accrual basis of accounting with additions to fiduciary net position recognized when earned and deductions from fiduciary net position recorded when incurred. Member and employer contributions to the System are recognized in the period in which the contributions are due and payable in accordance with the terms of the plan as defined in the Arlington County Code. Benefits and refunds are recognized when due in accordance with the terms of the Plan.

The accounting and reporting policies of the system conform to accounting principles generally accepted in the United States of America. The preparation of financial statements in conformity with Government Accounting Standards Board (GASB) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions in fiduciary net position during the reporting period. Actual results could differ from those estimates.

Investments

The System's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The System utilizes independent pricing vendor services, quotations from market makers and alternative valuation methods when market quotations are either not readily available or not deemed representative of fair value. Investment transactions are recorded as of the trade date. These transactions are not finalized until the settlement date. Unrealized appreciation and depreciation of investments is reflected in the Statement of Changes in Fiduciary Net Position for the year.

Adoption of New Accounting Standard

GASB 96 defines a subscription-based information technology arrangement (SBITA) with required note disclosures. Arlington County Employees' Retirement System adopted the requirements of the guidance effective July 1, 2022, and has applied the provisions of this standard to the beginning of the earliest comparative period presented.

NOTE 2. PLAN DESCRIPTION

The Arlington County Employees' Retirement System (the System) is a pension trust fund of Arlington County, Virginia (the County) financial reporting entity and is included in the County's annual comprehensive financial report. The accompanying financial statements present information on the operations of the System in conformity with GAAP.

The System is a single employer public employee defined benefit pension plan covering substantially all employees of the County.

Plan Administration

On November 16, 2004, amendments to Arlington County Chapters 21, 35 and 46 were made to transfer the System's administrative responsibilities to the County Manager while leaving investment responsibility with the Board of Trustees (the Retirement Board).

JUNE 30, 2023

NOTE 2. PLAN DESCRIPTION

The Retirement Board consists of seven voting and three substitute members as follows:

- Three appointed by the County Board
- One appointed by the County Manager
- One trustee and one substitute elected by general employees
- One trustee and one substitute elected by police officers, firefighters, and deputy sheriffs (uniform)
- One trustee and one substitute elected by retired employees

If no eligible person is nominated for an elected position, the County Manager appoints an eligible person to serve as trustee.

The County Code requires that the trustees elected by active employees be active employees and that the trustees elected by retired employees currently be receiving retirement benefits from the System.

The trustees annually elect a President, Vice-President and Secretary from among their members, and appoint a Treasurer and Assistant Treasurer, who may or may not be a member of the Retirement Board.

The trustees annually approve a Retirement Board Investment Office administrative budget. Administrative expenses are funded from System assets.

Plan Membership

At June 30, 2023, System membership consisted of the following:

| | <u>General</u> | <u>Uniformed</u> | <u>School</u> | <u>Total</u> |
|----------------------------|----------------|------------------|---------------|--------------|
| Active Employees: | | | | |
| Vested | 1,656 | 513 | 2 | 2,171 |
| Non-vested | <u>1,165</u> | <u>307</u> | <u>0</u> | <u>1,472</u> |
| Total Active Employees | <u>2,821</u> | <u>820</u> | <u>2</u> | <u>3,643</u> |
| Vested Deferred | 636 | 140 | 19 | 795 |
| Retirees and Beneficiaries | 2,566 | 974 | 737 | 4,277 |

Please refer to Chapters 21, 35 and 46 of the County Code for a more detailed description of the System.

Benefits Provided

The System provides retirement benefits as well as survivor and disability benefits. The table on page 21 describes the benefits and how they are calculated.

JUNE 30, 2023

NOTE 2. PLAN DESCRIPTION

All plan members are eligible for disability benefits after two years of service and qualify for Social Security disability retirement. Disability retirement benefits are determined in the same manner as retirement benefits with no reduction for early retirement.

All normal retirement benefits vest after five years of credited service. If an employee leaves covered employment before five years of credited service, accumulated employee contributions plus interest are refunded to the employee or designated beneficiary. A summary of member contribution rates, normal service retirement and average final compensation for the employees covered under the various Chapters of the County Code for the period ending June 30, 2023 is provided on the following page.

Benefit terms provide for annual cost of living adjustments to each member's retirement allowance after the member's retirement date. The annual adjustments are 100% of the CPI-U increase up to a maximum of 3% plus one half of the CPI-U increase for the next 9%. This equates to a maximum of 7.5% increase for a 12% increase in the CPI-U.

The System also provides a DROP (Deferred Retirement Option Plan) for employees eligible for retirement. Retirement benefits are paid into a stable value investment fund for DROP participants.

JUNE 30, 2023

NOTE 2. PLAN DESCRIPTION

Member Contributions and Retirement Benefits

| Mem | ber Contributions and Retire | ment Benefits | |
|--|---|---|--|
| | Participants Covered Under Chapter | | |
| | 21 | <u>35</u> | 46 |
| Covers Employees Hired: | Before 2/8/81 | Before 2/8/81 | 2/8/81 or After |
| Contribution Rates: | | | |
| General Employees | 4% | N/A | 4% |
| School Board Employees (Covered by VRS) | 0% | 0% | 0% |
| Uniformed Employees: | | | |
| - Management | 5.62% | N/A | 5% through 1/3/09, 7.5% thereafter |
| - Non-Management | 6.62% | N/A | 5% through 1/3/09, 7.5% thereafter |
| Normal Retirement Age: | | 4- | |
| General County Employees | 60 | N/A | 62 |
| School Board Employees | 60 | 62 N/A | 62 53 |
| Uniformed Employees | 50 | N/A | 52 |
| "Rule of 80" Applies | Yes | No | Yes |
| Retirement Benefit: Percentage of Average Final Salary (AFS) times years of creditable service subject to a 30 year maximum. AFS is generally the average of the three highest compensation years, including overtime. For Chapter 46 employees retiring on or after 1/4/09, the New AFS definition excludes overtime and most premium pays. | 2.5% for each of the first 20 years plus 2% for each of the next 10 years | 2.125% reduced by the VRS benefits under Formula A | Retiring on/prior to 1/3/09 General: 1.5% Uniform: 2.0% until Social Security Eligible then 1.5%, 1.7% & 2.0% for each 10 year increment Retiring on/after 1/4/09 General: 1.7% New AFS OR 1.5% Prior AFS through 1/3/09 plus 1.7% New AFS thereafter Uniform: 2.5% through 1/3/09 plus 2.7% thereafter on New AFS OR 2.0% Prior AFS through 1/3/09 plus 2.7% New AFS thereafter until Social Security Eligible then 1.5%, 1.7% & 2.0% for each 10 year increment prior to 1/3/09 |
| Employee contribution refund upon leaving County | Contributions plus interest | N/A | Contributions plus interest |

JUNE 30, 2023

NOTE 2. PLAN DESCRIPTION

Contributions

Chapters 21, 35 and 46 of the County Code establish the Plan and provide the basis for determining the contribution rates. The County Board may amend the Plan at any time.

Based on an annual actuarial valuation prepared by an actuary selected by the Retirement Board, a contribution rate is recommended to the County Board for adoption. The actuarially determined rate results in contributions to the Plan which, along with member contributions, are anticipated to be sufficient to fund the value of benefits expected to be earned by plan members during the year, plus an amount to amortize any unfunded actuarial liability.

For the year ended June 30, 2023, the active member contribution rate was 4% of pay for general employees and 7.5% of pay for uniformed employees. The County's blended contribution rate was 21.1% of annual covered payroll.

Rate of Return

For the year ending June 30, 2023, the annual money-weighted (dollar weighted) rate of return on pension plan investments, net of pension plan investment expense, was 7.8%. The rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 3. NET PENSION LIABILITY

The components of the net pension liability of the County at June 30, 2023, were as follows:

(\$ in millions)

| Total Pension Liability | \$ 2,800.9 |
|---|---------------|
| Plan Fiduciary Net Position | 2,976.1 |
| County's Net Pension Asset | \$ (175.2) |
| Plan Fiduciary Net Position as a percentage | |
| of the Total Pension Liability | 106.3% |

Actuarial Assumptions

The total pension liability was determined by entry age actuarial cost method as of June 30, 2023, using the following actuarial assumptions:

| Investment rate of return | 6.75% |
|----------------------------|-------|
| Assumed inflation rate | 3.00% |
| Projected salary increases | 3.00% |

Mortality rates were based on the PubG – 2010 Employee projected with scale MP-2018.

JUNE 30, 2023

NOTE 3. NET PENSION LIABILITY

The actuarial assumptions used in the June 30, 2023 valuation were based on the results of an actuarial experience study for the period July 1, 2014 to June 30, 2019. The discount rate of 6.75% was lowered from 7.25% with the June 30, 2016 valuation.

Expected Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building block method in which ranges of expected rates of return are developed for each major asset class. These ranges are combined to produce the long term expected rate of return by weighting the expected rates of return by the current asset allocation percentages. The expected rates of return for each major asset class included are summarized in the following table:

| | Long Term Expected Real |
|----------------------|-------------------------|
| Asset Class | Rate of Return |
| | |
| Domestic Equity | 6.4% |
| International Equity | 7.7% |
| Fixed Income | 4.8% |
| Cash/Short Term | 3.7% |
| Non-Traditional | 10.2% |

Source: Windmark Investment Partners

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The discount rate assumes that contributions from plan members will be made at the current contribution rate and that employer contributions will be made at rates actuarially determined by the Retirement Board. 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 actuarial assumed rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability/(Asset) to Changes in the Discount Rate

The following presents the net pension asset of the Plan, calculated using the discount rate of 6.75%, as well as what the Plan's net position asset would be if it were calculated using a discount rate that is 1 percentage point lower (5.75%) or 1 percentage point higher (7.75%) than the current rate:

| | 1% Decrease | Current Discount | 1% Increase |
|--------------------------------------|-------------|------------------|-------------|
| | (5.75%) | Rate (6.75%) | (7.75%) |
| (\$ in millions) | | | |
| Plan's net pension liability/(asset) | \$221.4 | (\$175.2) | (\$498.0) |

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

a. Legal Provisions and Investment Policy

The System is authorized by the *Code of Virginia* §51.1-803 to invest funds of the System in accordance with the prudent person rule. County Code §21-23, §35-21, and §46-22 require that assets of the System be invested with care, skill, prudence, and diligence under circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. County Code §21-24, §35-22, and §46-23 require that investments be diversified to minimize the risk of large losses unless under the circumstances it is clearly not prudent to do so.

The System's written investment policy provides for investment across various assets available in the capital markets in order to diversify and balance total investment program risk. Such sectors include, but are not limited to:

- Convertible securities
- Cash, money market funds and other short-term investment funds
- Public and private investments of U.S. and non-U.S. companies
- Open and closed end alternative investment funds
- Fixed income obligations of the U.S. government and its agencies, mortgage-backed securities, corporate bonds, and asset backed securities. In addition, fixed income obligations of non-U.S. governments, companies and supernational organizations, in other developed and emerging markets.

Since the Fund focused on risk capacity and drawdown ability there is no target allocation approach, the following table shows the Fund's ten year average and fiscal year-end allocation:

| Asset Class | Current Allocation | 10 Year Average Allocation |
|----------------------|---------------------------|----------------------------|
| | | |
| Domestic Equity | 37% | 35% |
| International Equity | 17% | 16% |
| Fixed Income | 32% | 33% |
| Cash/Short Term | 4% | 4% |
| Non-Traditional | 10% | 12% |
| Total | 100% | 100% |

c. Investment Restrictions

The following summarizes the primary investment restrictions included in the System's investment policy statement. Individual investment manager contracts typically include additional guidelines and limitations. Fixed income investments must be at least 20% of the Fund's assets at fair value. The Fund must be rebalanced if the fair value weight of fixed income investments falls below 20%, unless the Board, acting

JUNE 30, 2023

on the recommendation of staff or the investment consultant to defer rebalancing, determines that it would not be consistent with the Board's fiduciary responsibility to rebalance (increase fixed income) at that time.

No new commitment to illiquid investments can be made which causes the allocation to illiquid investments, including existing fair value and commitments, to exceed 25% of the System's fair value.

Unless the Retirement Board grants prior authorization, the investment managers may not:

- Invest more than 10% of the fair value of each portfolio in the securities of any one issuer, with the exception of the U.S. government and its agencies
- Hold more than 5% of the outstanding shares of a single company in each portfolio
- Hold unlisted equity securities that exceed 20% of the portfolio, exclusive of holdings in banks, utilities, and insurance companies
- Use leverage of any sort for any purpose beyond prudent industry standards
- Effect short sales of securities
- Pledge, mortgage or hypothecate securities, except in approved security lending programs

Investment managers are prohibited from:

- Making investments prohibited by county, state or federal law
- Investing in collectibles
- Making loans, including mortgage loans, to individuals

Derivatives are allowed only in cases where their use reduces the cost of a desired transaction and/or improves the risk characteristics of the portfolio. The Retirement Board may, however, approve the use of derivatives to implement investment processes intended to add value in specifically designated, risk-controlled applications, such as currency management. Any such value-added investment program shall be approved only where:

- The potential exposures have been well defined by the Retirement Board and provide for a downside risk range for the Fund within established limits
- The value of the designated Fund assets subject to risk due to the program does not exceed 15% of the Fund's assets
- In any program where an active overlay strategy combining derivatives with underlying portfolio
 assets is to be used, the gross amount of any long and short exposures taken on by the overlay
 shall not exceed the value of the designated Funds assets being overlaid

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

The System's Investment Policy provides external investment managers with discretion to take actions, within approved guidelines, regarding each portfolio's foreign currency exposures using forward currency contracts. These contracts are agreements to exchange one currency for another currency at an agreed upon price and date. Investment managers use such contracts primarily to settle pending trades at a future date. Key risks include counter party non-performance and currency fluctuations. As of June 30, 2023, the System had \$133 in open net forward currency contracts.

d. Cash and Cash Equivalents

At June 30, 2023, the System had cash and cash equivalents of \$111,326,276. Cash deposits in bank accounts totaled \$364,559. This amount was insured by the Federal Deposit Insurance Corporation up to \$250,000 for each System participant. Cash equivalents totaling \$110,961,717 is invested in the custodian's Government Short-Term Investment Fund. This account is uninsured and uncollateralized.

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

e. Investments and Risk

The System's investments are recorded at fair value as described in <u>Note 5. Fair Value of Investments</u>, on page 33. The following table presents the fair value of investments by type at June 30, 2023:

SYSTEM INVESTMENTS

Investment Type (in \$ 000s)

| | Inves | tment Value |
|--|-------|-------------|
| Foreign, Municipal and U.S. Governments: | | |
| Government and Government Agency Debt | \$ | 24,888 |
| Government Pooled Fund | - | 71,844 |
| Total Foreign, Municipal, and U.S. Governments | | 96,732 |
| Non-Government Fixed Income Obligations: | | |
| Residential Mortgaged Backed | | 71,844 |
| Commercial Mortgage Backed | | 14,606 |
| Collateralized Mortgage Obligations | | 30,276 |
| Asset Backed Securities | | 25,472 |
| Total Non-Governement Fixed Income Obligations | | 142,197 |
| | | |
| Domestic and Foreign Equities: | | |
| Common Stock | | 816,270 |
| Preferred Stock | | 1,929 |
| Total Domestic and Foreign Equities | | 818,199 |
| Private Equity: | | |
| Private Equity | | 272,092 |
| | | , |
| Real Estate Funds: | | |
| Real Estate | | 21,890 |
| | | |
| Pooled Equity: | | |
| Pooled Equity Funds | | 823,020 |
| | | - |
| Pooled Fixed Income: | | |
| Pooled Bond Funds | | 689,577 |
| | | |
| Total | \$ | 2,863,707 |

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

Interest Rate Risk

Interest rate risk is driven by changes in general interest rate levels. The price of a fixed income security generally moves in the opposite direction of the change in interest rates. Securities with long maturities are highly sensitive to interest rate changes. The System has interest rate exposure on \$167.1 million of directly owned fixed income securities and \$761.4 million invested in three pooled US fixed income funds. The System's directly owned fixed income investments and maturities at June 30, 2023 are:

INVESTMENT MATURITIES

| | | | | | | | |
|-------------------------------------|----|-----------|-----------|-------------|--------|--------|---------------|
| Investment Type | | | | Maturit | ies (y | years) | |
| (in \$ 000s) | F | air Value | Under 1 | 1-5 | | 6-10 | Over 10 |
| Asset Backed Securties | \$ | 25,472 | \$ - | \$ 2,203 | \$ | 3,123 | \$ 20,146 |
| Commercial Mortgage Backed | | 14,606 | - | - | | - | 14,606 |
| Government & Government Agencies | | 27,914 | - | - | | 4,167 | 23,747 |
| Residential Mortgage Backed | | 71,844 | - | - | | 10,955 | 60,889 |
| Collateralized Mortgage Obligations | | 27,249 | 422 | 2,946 | | - | 23,881 |
| Bond Index Funds | | 761,421 | N/A | N/A | | N/A | N/A |
| Total | \$ | 928,506 | \$ 422 | \$ 5,149 | \$ | 18,245 | \$ 143,269 |

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

Interest rate sensitivity of a fixed income portfolio is best measured by effective duration which reflects the average percentage change in portfolio value due to a 1% change in interest rates. The effective duration for the System's directly held fixed income portfolio at June 30, 2023 is shown below:

INVESTMENT DURATIONS

| Investment Type | | Effective |
|-------------------------------------|------------|----------------|
| (in \$ 000s) | Fair Value | Duration (Yrs) |
| | | |
| Asset Backed Securties | \$ 25,472 | 0.486 |
| Commercial Mortgage Backed | 14,606 | 0.220 |
| Government & Government Agencies | 27,914 | 2.502 |
| Residential Mortgage Backed | 71,844 | 3.771 |
| Collateralized Mortgage Obligations | 27,250 | 0.630 |
| Total | \$167,085 | 7.699 |

Custodial Credit Risk

In the event of counter-party failure, the System may 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 held by the counterparty, or counterparty's trust department, are uninsured and are not registered in the name of the System. The System requires that all investments be clearly marked as to ownership, and to the extent possible, be registered in the name of the System.

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

Credit Risk

The System's credit quality distribution for the System's directly held fixed income investments of \$167.1 million at June 30, 2023 is shown below:

FIXED INCOME CREDIT QUALITY DISTRIBUTION

| Investment Type | | Credit Quality | | | | | | | | | | | | | | | | |
|-------------------------------------|------------|----------------|-----|---------|----|-------|----|-------|-----|-------|----|-----|----|-----|---------|--------|---------|--------|
| (in \$ 000s) | Fair Value | | AAA | | AA | | Α | | BBB | | BB | | В | | Below B | | Unrated | |
| Asset Backed Securties | \$ | 25,472 | \$ | 4,405 | \$ | _ | \$ | 1,795 | \$ | 2,368 | \$ | _ | \$ | _ | \$ | 12,857 | \$ | 4,047 |
| Commercial Mortgage Backed | | 14,606 | | 4,412 | | 1,631 | | 1,006 | | 1,048 | | 411 | | 164 | | - | | 5,934 |
| Government & Government Agencies | | 27,914 | | 27,914 | | - | | - | | - | | - | | - | | - | | - |
| Residential Mortgage Backed | | 71,844 | | 71,844 | | - | | - | | - | | - | | - | | - | | - |
| Collateralized Mortgage Obligations | | 27,250 | | - | | - | | 193 | | 1,672 | | 331 | | - | | 9,196 | | 15,857 |
| Bond Index Funds | | 761,421 | | N/A | | N/A | | N/A | | N/A | | N/A | | N/A | | N/A | | N/A |
| Total | \$ | 928,506 | \$ | 108,575 | \$ | 1,631 | \$ | 2,994 | \$ | 5,088 | \$ | 742 | \$ | 164 | \$ | 22,053 | \$ | 25,838 |

Note: Ratings based on S&P and Moody Quality Ratings

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

Foreign Currency Risk

Foreign investments include equity and fixed income securities, including convertible securities and cash. The Retirement Board has authorized specific investment managers to invest in non-dollar denominated securities. These managers can hedge a portion of their portfolio's foreign currency exposure. The System's exposure to foreign currency risk at June 30, 2023 was as follows:

FOREIGN CURRENCY EXPOSURE IN US DOLLARS

| Currency | | | |
|-----------------------------------|--------------|-------------|--------------|
| (in \$ 000s) | Equity | Cash | Total |
| | | | |
| Australian Dollar | \$ 1,336 | \$ - | \$ 1,336 |
| British pound sterling | 4,121 | 2 | 4,123 |
| Canadian Dollar | 776 | - | 776 |
| Chinese Yuan Renminbi | - | 1,053 | 1,053 |
| Danish Krone | 4,381 | - | 4,381 |
| Euro | 40,959 | 6 | 40,965 |
| HK offshore Chinese Yuan Renminbi | 5,512 | - | 5,512 |
| Hong Kong Dollar | 15,427 | - | 15,427 |
| Indonesian Rupiah | 4,518 | - | 4,518 |
| Japanese Yen | 6,024 | 23 | 6,047 |
| Nigerian Naira | 60 | 171 | 231 |
| Norwegian Krone | - | 1 | 1 |
| Philippines Peso | 6,375 | 11 | 6,386 |
| South African Rand | 911 | - | 911 |
| Swedish Krona | 790 | - | 790 |
| Swiss Franc | 713 | | 713 |
| Total | \$ 91,903 | \$ 1,267 | \$ 93,170 |

JUNE 30, 2023

NOTE 4. DEPOSITS AND INVESTMENTS

f. Securities Lending

Under authorization of the Retirement Board, the System engaged in a securities lending program through its custodian, Northern Trust, for securities held in separate accounts. In accordance with the contract, Northern Trust may lend any securities held in custody. Only obligations issued by the US Government are accepted as collateral. By not accepting cash collateral, the program relies on the demand of the loaned securities as the driver of income and is not subject to collateral reinvestment risk. Minimum collateralization levels for all loans are 102% of the fair value of the borrowed securities or 105% if the borrowed securities are not denominated in dollars. Loans and collateral are marked to market daily. The collateral is maintained by Northern Trust and all securities on loan are callable at any time. The System does not have the ability to pledge or sell the collateral.

In the event the borrower becomes insolvent and fails to return the securities, Northern Trust indemnifies the System by agreeing to purchase replacement securities, or to remit the collateral held. There were no such failures by any borrower during the fiscal year nor were there any losses during the year resulting from a borrower or lending agent default.

The fair value of securities on loan increased from \$15.1 million at the beginning of the year to \$33.9 million at June 30, 2023.

The following table details the net income from securities lending for the fiscal year ended June 30, 2023:

| Gross Income from Securities Lending | \$ 200,882 |
|--------------------------------------|----------------------|
| Less: Bank Management Fees | (50,217) |
| Net Income from Securities Lending | \$ <u>150,665</u> |

The following table presents the fair value of underlying securities and the value of the non-cash collateral pledged at June 30, 2023:

| | Fa | air Value of | Fair \ | /alue of Non- | | | | |
|-----------------|------|----------------|-----------------|---------------|--|--|--|--|
| Securities Lent | Secu | rities on Loan | cash Collateral | | | | | |
| | | | | | | | | |
| Total | \$ | 33,852,810 | \$ | 34,455,320 | | | | |

None of the System's pooled fund investments have material realized or unrealized securities lending related losses.

JUNE 30, 2023

NOTE 5. FAIR VALUE OF INVESTMENTS

The System categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

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

For investments that do not have a readily determinable fair value, the System establishes fair value by using the Net Asset Value (NAV) per share (or its equivalent), such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed. These investments are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of inputs to these fair value measurements requires judgment and considers factors specific to each asset. The table on page 34 shows the fair value leveling on the investments for the System.

Equity securities classified in Level 1 of the fair value hierarchy are valued at the last sale price or official close price as of the close of trading on the applicable exchange where the security principally trades.

Equity and fixed income securities classified in Level 2 of the fair value hierarchy are valued at prices provided by independent pricing vendors. The vendors provide these prices after evaluating observable inputs including, but not limited to; quoted prices for similar securities, the mean between the last reported bid and ask prices (or the last bid price in the absence of an asked price), yield curves, yield spreads, credit ratings, deal terms, tranche level attributes, default rates, cash flows, prepayment speeds, broker/dealer quotations, inflation and reported trades.

JUNE 30, 2023

NOTE 5. FAIR VALUE OF INVESTMENTS

Fixed income securities classified in Level 3 of the fair value hierarchy were valued using a single broker indicative quote.

The System has the following recurring fair value measurements as of June 30, 2023:

Investments Measured at Fair Value

| | | | | Fair Val | ue N | leasurements U | sing |
|--|----|---|-----|-----------------|------|----------------|-------------|
| | | | Qu | oted Prices in | | | Significant |
| | | | Act | ive Markets for | Sig | nificant Other | Unobservab |
| | | | ld | entical Assets | Obs | ervable Inputs | Inputs |
| | | une 30, 2023 | | (Level 1) | | (Level 2) | (Level 3) |
| Investments by fair value level | | | | | | | |
| Debt securities | | | | | | | |
| Foreign, Municipal and U.S. Governments | | | | | | | |
| Government and Government Agency Debt | \$ | 24,888,063 | \$ | - | \$ | 24,888,063 | \$ |
| Corporate Fixed Income Obligations | | | | | | | |
| Residential Mortgage Backed | | 71,843,623 | | - | | 71,843,623 | |
| Commericial Mortgage Backed | | 17,631,784 | | - | | 17,631,784 | |
| Asset Backed | | 25,471,953 | | - | | 25,471,953 | |
| Non-Government Backed C.M.O.s | | 27,249,631 | | _ | | 27,249,631 | |
| Pooled Fixed Income | | ,, | | | | ,, | |
| Pooled Bond Funds | | 56,599,189 | | 56,599,189 | | _ | |
| Total debt securities measured at fair value | | 223,684,243 | | 56,599,189 | | 167,085,054 | |
| Equity Securities | | 223,001,213 | | 30,333,103 | | 107,003,034 | |
| Domestic and Foreign Equities | | | | | | | |
| Common Stock | | 626,864,315 | | 626,864,315 | | | |
| | | | | | | - | |
| Preferred Stock | | 1,929,397 | | 1,929,397 | | - | |
| Pooled Equity | | 262 245 550 | | 262 245 550 | | | |
| Pooled Equity Funds | | 363,215,559 | | 363,215,559 | | - | |
| Total equity securities measured at fair value | | 992,009,272 | | 992,009,272 | | | |
| Total investments by fair value level | \$ | 1,215,693,515 | \$ | 1,048,608,461 | \$ | 167,085,054 | \$ |
| Investments measured at the net asset value (NAV) | | | l | | | | |
| Debt securities | | | | | | | |
| | | | | | | | |
| Pooled Fixed Income | | | | | | | |
| Pooled Fixed Income Pooled Bond Funds | | 704.821.374 | | | | | |
| Pooled Fixed Income Pooled Bond Funds Total debt securities measured at the NAV | | 704,821,374 704.821.374 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV | | 704,821,374 704,821,374 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities | | | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities | | 704,821,374 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund | | 704,821,374 556,460,007 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund | | 704,821,374 556,460,007 92,750,545 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV | | 704,821,374 556,460,007 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments | _ | 704,821,374 556,460,007 92,750,545 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity | | 704,821,374 556,460,007 92,750,545 649,210,552 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments | _ | 704,821,374 556,460,007 92,750,545 649,210,552 272,091,967 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity Private Equity | | 704,821,374 556,460,007 92,750,545 649,210,552 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity Private Equity Real Estate Funds | | 704,821,374 556,460,007 92,750,545 649,210,552 272,091,967 272,091,967 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity Private Equity Real Estate Funds Real Estate | | 704,821,374 556,460,007 92,750,545 649,210,552 272,091,967 272,091,967 21,889,733 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity Private Equity Real Estate Funds | | 704,821,374 556,460,007 92,750,545 649,210,552 272,091,967 272,091,967 | | | | | |
| Pooled Bond Funds Total debt securities measured at the NAV Equity Securities Domestic and Foreign Equities Pooled Global Equity Fund Pooled International Equity Fund Total equity securities measured at the NAV Alternative Investments Private Equity Private Equity Real Estate Funds Real Estate | | 704,821,374 556,460,007 92,750,545 649,210,552 272,091,967 272,091,967 21,889,733 | | | | | |

JUNE 30, 2023

NOTE 5. FAIR VALUE OF INVESTMENTS

| | J | lune 30, 2023 | Unfunded Commitments (millions) | Redemption Frequency | Redemption Notice Period |
|---------------------------------------|----|---------------|---------------------------------|-------------------------|-----------------------------|
| Debt Securities | | | | | |
| Pooled Fixed Income | \$ | 704,821,374 | - | Daily | None |
| Total debt securities | | 704,821,374 | - | | |
| Equity Securities | | | | | |
| Domestic and Foreign Equities | | 556,460,007 | - | Monthly | 15 - 45 days |
| International Pooled Equity | | 92,750,545 | - | Monthly | 15 - 45 days |
| Total equity securities | | 649,210,552 | - | | |
| Alternative Investments | | | | | |
| Private Equity | | 272,091,967 | 182 | N/A | N/A |
| Real Estate | | 21,889,733 | 34 | N/A | N/A |
| Total alternative investments | | 293,981,700 | 216 | | |
| Total investments measured at the NAV | Ś | 1,648,013,626 | \$ 216 | | |

- Unfunded Commitments. Since 2001, the System has committed \$565.5 million to alternative investments as of June 30, 2023. Contributed \$349.5 million and an unfunded commitment of \$216.0 million.
- Alternative Investments. Real estate includes two funds, structured as a limited partnership, which invests in land in the United States. Private Equity includes twenty-eight funds, structured as limited partnerships, which employ multiple investment strategies including buy-out, venture capital and fund-of-funds. These investments can never be redeemed with the funds. Instead, the nature of the investments of these types is that distributions are received through the liquidation of the underlying assets of the funds. It is expected that the underlying assets of the alternative funds will be liquidated over the next 10 years.
- Equity. Pooled Equity includes funds that invest in both U.S. and non-U.S. securities.
- Fixed Income. Pooled fixed income includes two funds, one that maintains a portfolio constructed to match or track the components of the Barclays Capital U.S. Aggregate Index as well as a TIPS fund.

NOTE 6. TAX STATUS

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

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION June 30, 2023

Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios (\$ in millions)

| | June | e 30, 2023 | June 30, 2022 | June 30, 2021 | June 30, 2020 | June 30, 2019 | June 30, 2018 | June 30, 2017 | June 30, 2016 | June 30, 2015 | June 30, 2014 |
|--|------|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | | | | | | | | | |
| Total Pension Liability | | | | | | | | | | | |
| Service Cost | \$ | 70.2 \$ | 62.6 | \$ 60.8 | \$ 59.8 | \$ 59.3 | \$ 57.8 | \$ 56.5 | \$ 53.8 | \$ 54.8 | 52.1 |
| Interest | | 180.7 | 171.6 | 166.3 | 161.4 | 149.5 | 143.5 | 139.1 | 143.6 | 135.6 | 131.6 |
| Changes in Benefits | | - | - | - | - | - | 3.1 | - | - | | - |
| Change in Assumptions | | - | - | - | - | 112.60 | - | | 27.2 | - | 29.4 |
| Differences between Expected and Actual Experience | | 9.9 | 24.1 | (29.4) | (30.1) | (31.1) | (13.7) | (27.1) | (47.3) | (16.2) | (11.0) |
| Benefit Payments | | (132.6) | (126.5) | (119.9) | (115.5) | (110.8) | (105.0) | (99.7) | (95.3) | (90.8) | (86.3) |
| Net Change in Total Pension Liability | \$ | 128.2 \$ | 131.8 | \$ 77.8 | \$ 75.6 | \$ 179.5 | \$ 85.7 | \$ 68.8 | \$ 82.0 | \$ 83.4 | \$ 115.8 |
| Total Pension Liability - Beginning | \$ | 2,672.7 \$ | 2,540.9 | \$ 2,463.1 | \$ 2,387.5 | \$ 2,208.0 | \$ 2,122.3 | \$ 2,053.5 | \$ 1,971.5 | \$ 1,888.1 | \$ 1,772.3 |
| Total Pension Liability - Ending | \$ | 2,800.9 \$ | 2,672.7 | \$ 2,540.9 | \$ 2,463.1 | \$ 2,387.5 | \$ 2,208.0 | \$ 2,122.3 | \$ 2,053.5 | \$ 1,971.5 | 1,888.1 |
| Plan Fiduciary Net Position | | | | | | | | | | | |
| Contributions - Employer | \$ | 65.8 \$ | 61.2 | \$ 59.7 | \$ 59.9 | \$ 56.7 | \$ 54.9 | \$ 51.8 | \$ 54.5 | \$ 58.2 | \$ 53.7 |
| Contributions - Employee | | 16.0 | 14.8 | 14.8 | 14.7 | 13.0 | 12.9 | 12.7 | 12.3 | 12.2 | 11.9 |
| Net Investment Income | | 215.5 | (321.3) | 708.1 | 156.8 | 152.1 | 167.3 | 246.3 | (1.3) | 37.3 | 304.2 |
| Benefits Payments | | (132.6) | (126.5) | (119.9) | (115.5) | (110.8) | (105.0) | (99.7) | (95.3) | (90.8) | (86.3) |
| Administravtive Expenses | | (2.5) | (2.2) | (2.0) | (2.0) | (0.8) | (0.8) | (0.8) | (1.7) | (1.5) | (0.7) |
| Net Change in Plan Fiduciary Net Position | \$ | 162.2 \$ | (374.0) | \$ 660.7 | \$ 113.9 | \$ 110.2 | \$ 129.3 | \$ 210.3 | \$ (31.5) | \$ 15.4 | \$ 282.8 |
| Plan Fiduciary Net Position - Beginning | \$ | 2,813.9 \$ | 3,187.9 | \$ 2,527.2 | \$ 2,413.3 | \$ 2,303.1 | \$ 2,173.8 | \$ 1,963.5 | \$ 1,995.0 | \$ 1,979.6 | 1,696.8 |
| Plan Fiduciary Net Position - Ending | \$ | 2,976.1 \$ | 2,813.9 | \$ 3,187.9 | \$ 2,527.2 | \$ 2,413.3 | \$ 2,303.1 | \$ 2,173.8 | \$ 1,963.5 | \$ 1,995.0 | 1,979.6 |
| Net Pension Liability/(Asset) - Ending | \$ | (175.2) \$ | (141.2) | \$ (647.0) | \$ (64.1) | \$ (25.8) | \$ (95.1) | \$ (51.5) | \$ 90.0 | \$ (23.5) | \$ (91.5) |
| Plan Fiduciary Net Position as a Percentage of the Total | | | | | | | | | | | |
| Pension Liability | | 106.3% | 105.3% | 125.5% | 102.6% | 101.1% | 104.3% | 102.4% | 95.6% | 101.2% | 104.9% |
| Covered Payroll | \$ | 316.3 \$ | 297.1 | \$ 285.6 | \$ 285.2 | \$ 270.0 | \$ 261.4 | \$ 236.5 | \$ 248.9 | \$ 243.5 | \$ 252.4 |
| Net Pension Liability/(Asset) as a Percentage of | | | | | | | | | | | |
| Covered Payroll | | (55.4%) | (47.5%) | (226.5%) | (22.5%) | (9.6%) | (36.4%) | (21.8%) | 36.2% | (9.7%) | (36.3%) |
| | | | | | | | | | | | |

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION June 30, 2023

Schedule of Employer Contributions

| 14 | | ••• | |
|-----|----|------|-------|
| (\$ | ın | mıll | lions |

| Fiscal Year Ended | 2023 | 2022 | 2021 | 2020 | 2019 | | 2018 | | 2017 | | 2016 | 2015 | | 2014 |
|--|-------------|-------------|-------------|-------------|-------------|-----|---------------|------|--------------|-------|--------------|------|------|-------|
| Actuarially Determined Contribution | \$ 65.8 | \$ 61.2 | \$ 59.7 | \$ 59.9 | \$ 56.7 | \$ | 54.9 | \$ | 51.8 | \$ | 54.5 \$ | 58. | 2 \$ | 53.7 |
| County Contributions in Relation to the | | | | | | | | | | | | | | |
| Actuarially Determined Contributions | 65.8 | 61.2 | 59.7 | 59.9 | 56.7 | | 54.9 | | 51.8 | | 54.5 | 58. | 2 | 53.7 |
| Contribution Deficiency/(Excess) | \$ - | \$ - | \$ - | \$ | \$ - | \$ | - | \$ | - | \$ | - \$ | | \$ | - |
| Covered Payroll | \$ 316.3 | \$ 297.1 | \$ 285.6 | \$ 285.2 | \$ 270.0 | \$ | 261.4 | \$ | 236.5 | \$ | 248.9 \$ | 243. | 5 \$ | 252.4 |
| Contributions as a Percentage of Covered | | | | | | | | | | | | | | |
| Payroll | 20.8% | 20.6% | 20.9% | 21.0% | 21.0% | | 21.0% | | 21.9% | | 21.9% | 23.9 | % | 21.3% |
| Notes to Schedule: | | | | | | | | | | | | | | |
| Valuation Date | | | | | | Jun | e 30, 2021 | | | | | | | |
| Timing | | | | | | Act | uarially dete | rmi | ned contribu | ıtioı | rates are | | | |
| | | | | | | cal | culated base | d on | the actuari | al va | aluation one | | | |

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost MethodEntry Age Normal Cost MethodAsset Valuation MethodFive year, smoothedAmortization MethodLevel Percent OpenDiscount Rate6.75%Amortization Growth Rate3.00%Inflation3.00%

Inflation 3.0 Salary Increases 3.0

Mortality

3.00% plus merit/senority component which vary by year of service and are compounded annually

year prior to the beginning of the Plan year.

General and Uniformed
Pub-2010 General Employee mortality with generational mortality improvements using Scale MP-2018 for active employees

and non-disabled inactive members; for Uniformed members Pub-2010 Safety Employee mortality projected with generational mortality improvements from 2010 Scale MP-2018.

School

Pub-2010 Teachers Employee mortality generational improvements from 2010 using Scale MP-2018. No deaths assumed to be service-connected.

Schedule of Investment Returns

| Fiscal Year Ended | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|--|------|--------|-------|------|------|------|-------|------|------|-------|
| Annual money-weighted rate of return, net of | | | | | | | | | | |
| investment expense | 7.8% | -10.1% | 28.3% | 6.6% | 6.7% | 7.9% | 12.7% | 0.0% | 1.9% | 18.1% |

SUPPLEMENTAL INFORMATION

JUNE 30, 2023

SCHEDULE OF ADMINISTRATIVE EXPENSES

| Personnel Services: | | | |
|--------------------------------------|-----------|----|-----------|
| Staff Salaries | \$572,417 | | |
| Benefits | 218,758 | - | |
| Total Personnel Services | | \$ | 791,175 |
| Professional Services | 196,299 | \$ | 196,299 |
| Office Expense: | | | |
| Telephone | \$ 1,800 | | |
| Postage and Shipping | 875 | | |
| Printing | 2,315 | | |
| Total Office Expense | | \$ | 4,990 |
| Education: | | | |
| Conferences | \$ 4,011 | | |
| Subscriptions & Software | 116,760 | | |
| Total Education | | | |
| | | \$ | 120,771 |
| Miscellaneous: | | | |
| Insurance | \$ 59,617 | | |
| Supplies & Furniture | 18,558 | | |
| Bank Fees | 6,255 | | |
| Other Miscellaneous ⁽¹⁾ | (53,905) | | |
| Total Miscellaneous | | | |
| | | \$ | 30,525 |
| Total Administrative Expenses | | | |
| | | \$ | 1,143,760 |

⁽¹⁾ Consists primarily of OPEB management costs reimbursed by Arlington County and Arlington County Public Schools

SUPPLEMENTAL INFORMATION

JUNE 30, 2023

SCHEDULE OF INVESTMENT & CONSULTANT EXPENSES

Investment Expenses

| Investment Manager Fees | \$ 9,682,963 |
|-----------------------------------|-----------------|
| Security Lending Fees | 50,217 |
| Custody Fees | 238,107 |
| Total Investment Expenses | \$ 9,971,287 |
| Other Consultant Expenses | |
| General Consultant | \$ 630,797 |
| Alternative Investment Consultant | 500,000 |
| Total Other Consultant Expenses | \$ 1,130,797 |

Investment Section

ARLINGTON VIRGINIA

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

| Investment Section | | |
|--------------------|--|--|
| | | |
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Investment Presentation Basis and Policy

The report and commentary on investment performance and activity was prepared by the System's staff.

Return data for the System was calculated by the custodian, Northern Trust, using time-weighted return methodology. Valuations are based on published national securities exchange prices, when available. Real estate and private equity investments are reported at appraised value which approximates fair value. Valuations are reconciled between the investment managers and the custodian bank.

The primary objective in the investment of public funds is adequate funding of employee retirement benefits at a reasonable and affordable cost. To ensure the long-term health of the System, an appropriate balance must be struck between risks taken and returns sought. The System's adopted investment policy seeks to control downside risk exposure while maximizing the potential for long term asset value appreciation.

Specific investment objectives include:

- Earn an average real rate of return that meets or exceeds the assumed actuarial real rate of return, currently 3.75%, over rolling 5-year periods.
- Manage portfolio risk to limit potential downside fluctuations in the total asset value while providing the opportunity to capture a significant portion of upside opportunity.
- Realize as high a rate of total return as possible consistent with the above.

To achieve these objectives, the following investment policies are employed:

- Maintain a broadly diversified portfolio to minimize the risk of overexposure to any one market sector or investment style. Specific guidelines include:
 - o A minimum 20% allocation to fixed income investments
 - Exposure to alternative investments does not exceed 25%
 - A maximum 15% exposure to derivative based strategies
- Evaluate and closely monitor, with the investment consultant, investment manager performance against specific objectives, both absolute and in relation to other managers investing with similar investment objectives and styles.
- Monitor Fund risk exposure, modify target risk as warranted and rebalance the Fund as necessary.

The Fund's policy benchmark is:

| | Changed as of 10/1/21 | | | |
|--------------|-----------------------|--------|--|--|
| Equities | Russell 3000 | 44.0% | | |
| | MSCI ACWI ex-US | 19.0% | | |
| Fixed Income | Barclays Universal | 33.5% | | |
| | Barclays TIPS | 1.5% | | |
| Cash | 90 Day T-Bills | 2.0% | | |
| | | 100.0% | | |

Investment Performance Summary

(All returns for periods greater than one year are annualized)

Return data for the System is presented based on a time-weighted rate of return methodology as calculated by the custodian, Northern Trust.

| | • | • | | | Fiscal Yea | ar Ended J | une 30 | |
|--|----------|---------|---------|-------|------------|------------|--------|-------|
| | 10 Years | 5 Years | 3 Years | 2019 | 2020 | 2021 | 2022 | 2023 |
| Investment Performance (net of fees) | | | | | | | | |
| Total Fund ⁽¹⁾ (Benchmark) | 7.5% | 7.2% | 7.5% | 6.8% | 6.6% | 28.3% | -10.1% | 7.8% |
| Domestic Equities (Russell 3000) | 10.0% | 10.3% | 13.4% | 11.0% | 0.7% | 37.1% | -3.7% | 10.6% |
| Global Equities (MSCI AC World) | 11.9% | 9.0% | 6.8% | 3.1% | 22.7% | 55.0% | -33.3% | 17.9% |
| International Equities (MSCI AC World ex-US) | 4.7% | 3.0% | 10.0% | -5.8% | -7.3% | 44.3% | -16.0% | 9.7% |
| Fixed Income (Fixed Income) | 2.2% | 1.6% | -1.3% | 6.9% | 6.0% | 1.6% | -6.8% | 1.4% |
| Benchmark Performance | | | | | | | | |
| Total Fund ⁽²⁾ | 6.8% | 6.1% | 5.8% | 7.5% | 5.5% | 23.2% | -13.6% | 10.8% |
| Russell 3000 | 12.3% | 11.4% | 13.9% | 9.0% | 6.5% | 44.2% | -13.9% | 19.0% |
| MSCI AC World | 8.8% | 8.1% | 11.0% | 5.7% | 2.1% | 39.3% | -15.8% | 16.5% |
| MSCI AC World ex-US | 4.7% | 3.5% | 7.2% | 1.3% | -4.8% | 35.7% | -19.4% | 12.7% |
| Fixed Income ⁽³⁾ | 1.8% | 1.1% | -3.0% | 8.0% | 7.9% | 1.3% | -10.1% | 0.0% |
| CPI + 3.75% Annualized ⁽⁴⁾ | 6.4% | 7.6% | 9.4% | 5.4% | 4.4% | 9.1% | 12.8% | 6.7% |
| Actuarial Assumed Rate of Return | | | | 6.75% | 6.75% | 6.75% | 6.75% | 6.75% |

⁽¹⁾ Includes cash and alternative investment performance though returns for these asset classes are not listed separately

⁽²⁾ 40% RU 3000, 17.5% MSCI AC World ex-US, 39% BC Universal, 1.5% BC TIPS & 2% 90 Day T-Bill Prior to 10/1/07, 43% RU 3000, 14% EAFE, 38% BC Aggregate & 5% 90 Day T-Bill

 $^{^{(3)}}$ Weights fixed income benchmark components to 100%

⁽⁴⁾ 3.75% as of 7/1/16, 3.5% prior

Investment Performance and Activity

Overview

For the fiscal year ended June 30, 2023 the System gross return of 7.9% compared to a benchmark return of 10.8%. This performance is below the 8.4% median return of the TUCS Public Plan Universe, placing the System in the 53rd percentile of public plans for the year.

Returns lagged the benchmark as active managers' quality and value biases weighted on relative performance. Modest returns from the non-traditional section also weighted on the relative performance. Income contributed positively aided by the cash position and shorter duration.

The table below summarizes key drivers of the System's relative performance.

| | PolicyBach | ndi ^k | A Allocation Style | jelection Activ | e Wards Total fund |
|------------------------|------------|------------------|--------------------|--------------------|--------------------|
| Investment Performance | 10.8% | 0.3% | -0.8% | -2.6% | 7.8% |
| Value Added or Lost | | | | | |
| Fixed Income | | 0.6% | 0.0% | 0.0% | |
| US Equity | | 0.2% | -0.5% | -2.6% | |
| International Equity | | -0.2% | -0.3% | 0.0% | |
| Other/Unallocated | | -0.3% | 0.0% | 0.0% | |

Source: Windmark Investment Partners

As of June 30, 2023, the System was in compliance with its investment policy guidelines as follows:

- Fixed income investments and cash equivalents totaled 34.8% of assets.
- The total exposure (funded and unfunded) of non-traditional investments is 16.7% of assets.
- Derivative strategies were not in use.

Investment Activity and Details

Investment activity and portfolio details by asset class are described more fully below.

Equity

As of June 30, 2023, the System had 55.3% of the fund, in publicly traded equity investments invested in two index funds and eight actively managed mandates. Of the eight actively managed mandates two focused on domestic equities, two on international equities, and four on global equities.

In the second fiscal quarter of 2023, the Board reduced equity risk and moved proceeds to fixed income.

For the fiscal year ended June 30, 2023 the domestic equity allocation posted a 10.5% return, the international equity portfolio gained 8.3% return, and the global equity mandates returned 18.4%. The total equity allocation net return was 12.5% for the year compared to a blended equity benchmark of 17.2%.

Fixed Income & Cash

As of June 30, 2023, the System held 34.8% of the fund in fixed income securities and cash.

The System uses Northern Trust Government Short Term Investment Fund or the Vanguard 500 Index Trust as a source of operating funds for the year, withdrawing \$106.0 million from these accounts during the fiscal year.

For the fiscal year ended June 30, 2023, the fixed income and cash investments posted a 0.9% return, above the blended benchmark return of 0.1%.

Alternative Investments

The alternative investment category includes real estate, real assets and private equity. The total exposure of these alternative investments totaled 16.7% of assets.

The System met its commitments to alternative investments during the year. At June 30, 2023, 61.8% of the System's total \$565.5 million in commitments were funded.

The following table summarizes the alternative investments as of June 30, 2023:

| | | - | Total | | Rei | maining |
|-----------------------------|--------------|-----|---------|----------|-----|---------|
| (millons) | Vintage Year | Com | mitment | Funded | Com | mitment |
| Greyrock VI | 2023 | \$ | 17.5 | \$ 1.0 | \$ | 16.5 |
| JFL VI | 2023 | | 25.0 | - | | 25.0 |
| Franklin Park Co-invest V | 2023 | | 20.0 | 19.0 | | 1.0 |
| Franklin Park Venture XIV | 2023 | | 15.0 | 1.3 | | 13.7 |
| BVIP Fund XI | 2023 | | 25.0 | - | | 25.0 |
| Vision Ridge Annex | 2022 | | 10.0 | 3.9 | | 6.1 |
| Rubicon IV | 2022 | | 20.0 | 2.6 | | 17.4 |
| Peppertree IX | 2022 | | 15.0 | 9.0 | | 6.0 |
| Marcus Capital IV | 2022 | | 25.0 | 2.0 | | 23.0 |
| Gallant Partners II | 2022 | | 20.0 | - | | 20.0 |
| Enlightenment IV | 2022 | | 20.0 | 8.9 | | 11.1 |
| Bison Fund VI | 2022 | | 25.0 | 3.5 | | 21.5 |
| Vision Ridge III | 2021 | | 15.0 | 7.5 | | 7.5 |
| Middleground II | 2021 | | 25.0 | 22.7 | | 2.3 |
| Peppertree VIII | 2020 | | 15.0 | 14.1 | | 0.9 |
| Marcus Capital III | 2020 | | 25.0 | 13.7 | | 11.3 |
| JFL Equity Investors V | 2020 | | 15.0 | 13.9 | | 1.1 |
| BVIP Fund X | 2020 | | 15.0 | 11.7 | | 3.3 |
| Gallant Partners I | 2018 | | 15.0 | 15.8 | | (0.8) |
| Altaris Health Partners IV | 2018 | | 15.0 | 14.7 | | 0.3 |
| Franklin Park Venture 2017 | 2017 | | 15.0 | 10.6 | | 4.4 |
| BVIP Fund IX | 2017 | | 15.0 | 14.6 | | 0.4 |
| Bison Fund V | 2017 | | 15.0 | 16.5 | | (1.5) |
| JFL Equity Investors IV | 2016 | | 15.0 | 14.7 | | 0.3 |
| Franklin Park Venture 2015 | 2015 | | 15.0 | 14.3 | | 0.7 |
| Altaris Health Partners III | 2014 | | 15.0 | 17.5 | | (2.5) |
| BVIP Fund VIII | 2012 | | 15.0 | 13.7 | | 1.3 |
| Abbott ACE VI | 2008 | | 25.0 | 24.9 | | 0.1 |
| Abbott ACE V | 2005 | | 8.0 | 7.7 | | 0.3 |
| Abbott ACE IV | 2001 | | 50.0 | 49.7 | | 0.3 |
| Total | | \$ | 565.5 | \$ 349.5 | \$ | 216.0 |

Investment Section

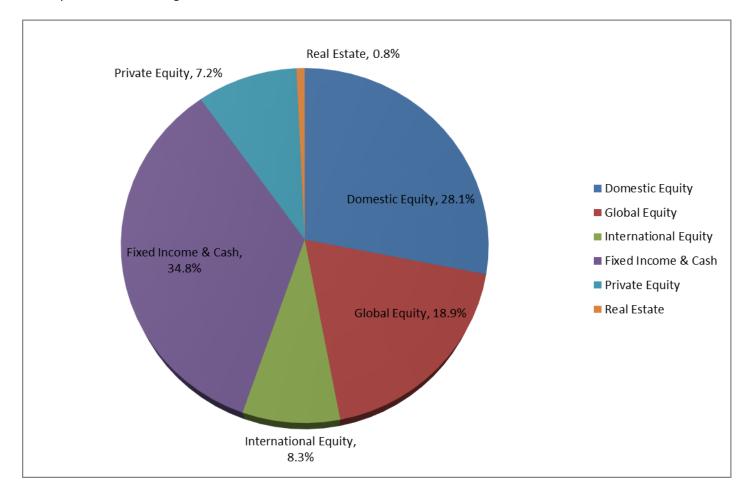
The System's remaining commitments to these alternative investments total \$33.3 million for real estate, \$20.5 million for real assets, and \$162.6 million for private equity. The System made \$89.8 million in contributions and received \$29.0 million in distributions for a net cash outflow of \$60.8 million for the fiscal year. The System has sufficient liquid assets to meet funding commitments.

The alternative investments portfolio returned 4.0% for the fiscal year.

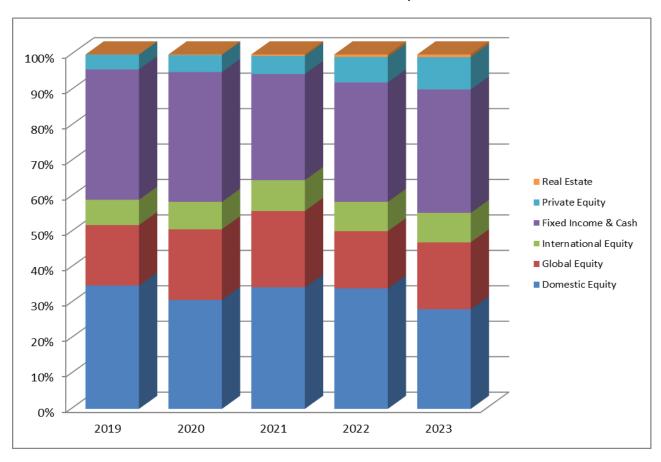
Arlington County Employees' Retirement System Asset Allocation (As of June 30, 2023)

To achieve the System's stated investment objectives, funds are invested in a diverse set of asset classes, each with its own risk and return characteristics. The accompanying chart illustrates the portfolio's asset allocation as of June 30, 2023. The chart and table on page 49 show the trends in asset allocation over the past five years.

Note that investments in pooled vehicles are reflected in their respective asset classes and are different than the categories shown on pages 26 through 29 in the *Financial Section*. Further, fund balance data in the *Financial Section* includes operating accruals not reflected in this allocation data. Finally, residual cash held by investment managers is reflected in the total for each asset class.



Arlington County Employees' Retirement System Five Year Asset Allocation Comparison



| | Fiscal Years Ended June 30 | | | | | |
|----------------------|----------------------------|-----------|-----------|-----------|-----------|--|
| (millions) | 2019 | 2020 | 2021 | 2022 | 2023 | |
| Domestic Equity | \$839.5 | \$777.0 | \$1,094.2 | \$956.7 | \$836.8 | |
| Global Equity | \$410.7 | \$503.5 | \$685.6 | \$454.3 | \$562.2 | |
| International Equity | \$172.7 | \$196.2 | \$277.9 | \$233.5 | \$247.5 | |
| Fixed Income & Cash | \$886.7 | \$925.2 | \$954.3 | \$947.5 | \$1,036.2 | |
| Private Equity | \$100.6 | \$121.4 | \$162.4 | \$203.1 | \$272.3 | |
| Real Estate | \$1.1 | \$4.1 | \$13.4 | \$19.3 | \$21.9 | |
| | \$2,411.4 | \$2,527.4 | \$3,187.8 | \$2,814.4 | \$2,976.9 | |
| Domestic Equity | 34.8% | 30.7% | 34.3% | 34.0% | 28.1% | |
| Global Equity | 17.0% | 19.9% | 21.5% | 16.1% | 18.9% | |
| International Equity | 7.2% | 7.8% | 8.7% | 8.3% | 8.3% | |
| Fixed Income & Cash | 36.8% | 36.6% | 29.9% | 33.7% | 34.8% | |
| Private Equity | 4.2% | 4.8% | 5.2% | 7.2% | 9.1% | |
| Real Estate | 0.0% | 0.2% | 0.4% | 0.7% | 0.8% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Notes:

Fiduciary Net Position data in the Financial Section includes operating accruals not included in this allocation data. Residual cash held by investment managers is included in the total for each asset class.

Arlington County Employees' Retirement System Investment Managers and Assignments (As of June 30, 2023)

| | | Fiscal Year |
|-----------------------------------|---------------------------|-------------|
| Manager | Assignment | Retained |
| Domestic Equities | | |
| GQG Partners | Large Cap Growth | 2021 |
| Northern Trust | Russell 1000 Value Index | 2015 |
| The Vanguard Group | Large Cap Core | 2009 |
| The Vanguard Group | Large Cap Dividend | 2011 |
| International and Global Equities | | |
| Baillie Gifford | Global Large Cap | 2007 |
| Baillie Gifford | Global Healthcare | 2020 |
| Kiltearn | Global Value | 2014 |
| Orbis | International Equity | 2018 |
| T. Rowe Price | Global Large Cap | 2010 |
| Wellington | Emerging Asia | 2023 |
| Alternatives | | |
| Abbott Capital | Private Equities | 2001 |
| Altaris Health Partners | Private Equities | 2014 |
| Bison Capital | Private Equities | 2017 |
| BV Investment Partners | Private Equities | 2015 |
| Clearhaven | Private Equities | 2023 |
| Enlightenment Capital | Private Equities | 2022 |
| Franklin Park | Venture Capital | 2015 |
| Gallant Partners | Private Equities | 2019 |
| Greyrock | Private Equities | 2023 |
| JFL Equity Partners | Private Equities | 2016 |
| Marcus Partners | Real Estate | 2019 |
| Middleground Partners | Private Equities | 2021 |
| Rubicon | Private Equities | 2022 |
| Peppertree Partners | Infrastructure | 2020 |
| Vision Ridge Partners | Private Equities | 2021 |
| Fixed Income and Cash | | |
| DoubleLine® | Total Return Fixed Income | 2019 |
| Northern Trust | Cash Equivalents | 2014 |
| Northern Trust | Core Bonds | 2014 |
| Northern Trust | TIPS | 2018 |
| T. Rowe Price | Bank Loans | 2011 |

Arlington County Employees' Retirement System LARGEST ASSETS DIRECTLY HELD⁽¹⁾ (excludes investments in pooled vehicles)

| Equities | Shares | Fair Value (\$) | % of Fund |
|------------------------|-----------|-----------------|-----------|
| NVIDIA CORP | 88,964 \$ | 37,633,551 | 1.26% |
| AMAZON | 239,423 | 31,211,182 | 1.05% |
| MICROSOFT CORP | 78,257 | 26,649,639 | 0.90% |
| APPLE INC | 129,112 | 25,043,855 | 0.84% |
| ELI LILLY | 46,600 | 21,854,468 | 0.73% |
| ALPHABET INC | 166,386 | 20,127,714 | 0.68% |
| UNITEDHEALTH GROUP | 39,603 | 19,034,786 | 0.64% |
| META PLATFORMS | 58,384 | 16,755,040 | 0.56% |
| ADVANCED MICRO SYSTEMS | 133,217 | 15,174,748 | 0.51% |
| HUMANA INC | 26,015 | 11,632,087 | 0.39% |
| ASTRAZENECA | 156,174 | 11,177,373 | 0.38% |
| SCHLUMBERGER LTD | 222,220 | 10,915,446 | 0.37% |
| VISAINC | 45,578 | 10,823,863 | 0.36% |
| WORKDAYINC | 46,561 | 10,517,664 | 0.35% |
| TESLA | 37,869 | 9,912,968 | 0.33% |
| EXXONMOBIL | 91,884 | 9,854,559 | 0.33% |
| SERVICENOW INC | 17,471 | 9,818,178 | 0.33% |
| LAM RESH CORP | 13,991 | 8,994,254 | 0.30% |
| ASML HOLDINGS | 12,135 | 8,780,581 | 0.30% |
| BROADCOMINC | 9,337 | 8,099,194 | 0.27% |
| MODERNA INC | 66,437 | 8,072,096 | 0.27% |
| DEXCOM INC | 62,796 | 8,069,914 | 0.27% |
| INTUITIVE SURGICAL | 21,036 | 7,193,050 | 0.24% |
| ADYEN NV | 3,764 | 6,512,126 | 0.22% |
| THE TRADE DESK INC | 79,221 | 6,156,056 | 0.21% |
| Equities Total | \$ | 360,014,394 | 12.10% |

| Fixed Income | Face Value (\$) | Fair Value (\$) | % of Fund |
|---------------------|-----------------|-----------------|-----------|
| FNMA | 65,425,821 | \$ 41,469,860 | 1.39% |
| US TREASURY | 22,400,000 | 21,812,750 | 0.73% |
| FHLMC | 24,083,376 | 16,393,926 | 0.55% |
| GNMA | 73,613,313 | 13,274,742 | 0.45% |
| ALTERNATIVE LOAN TR | 8,931,028 | 4,945,203 | 0.17% |
| CITIGROUP | 4,133,778 | 3,437,726 | 0.12% |
| WI TREASURY | 3,500,000 | 3,375,313 | 0.11% |
| ACE SECS CORP | 7,239,360 | 2,909,066 | 0.10% |
| SECURITIZED ASSET | 9,344,911 | 2,782,771 | 0.09% |
| JP MORGAN | 4,601,738 | 2,631,111 | 0.09% |
| FREDDIE MAC | 3,304,620 | 2,525,704 | 0.08% |
| CHI MTG | 4,816,283 | 2,302,676 | 0.08% |
| CHASEFLEX | 7,754,623 | 2,162,758 | 0.07% |
| ARGENT SECS INC | 6,979,291 | 1,899,905 | 0.06% |
| WASHINGTON MUTUAL | 4,761,551 | 1,871,992 | 0.06% |
| MORGAN STANLEY | 7,504,730 | 1,729,961 | 0.06% |
| FMC | 2,000,000 | 1,624,931 | 0.05% |
| FANNIE MAE | 1,796,981 | 1,584,448 | 0.05% |
| STRUCTURED ASSET | 2,064,195 | 1,454,903 | 0.05% |
| WELLS FARGO | 8,452,818 | 1,410,733 | 0.05% |
| BX COMM MTS | 1,412,926 | 1,321,762 | 0.04% |
| ANGEL OAK MORTGAGE | 2,000,000 | 1,259,994 | 0.04% |
| BANK SER | 12,633,933 | 1,022,883 | 0.03% |
| OBX | 1,000,000 | 997,253 | 0.03% |
| BRDG | 1,000,000 | 993,361 | 0.03% |
| Fixed Income Total | | \$ 137,195,731 | 4.61% |

 $[\]ensuremath{^{(1)}}$ The System maintains a complete list of portfolio holdings.

Arlington County Employees' Retirement System Schedule of Broker Commissions

Broker selection is the responsibility of individual investment managers. Transaction and commission costs are monitored by the retirement office.

Commissions paid on all trades totaled \$211,647 and the average commission rate paid was 0.002 cents per share. The following is a list of brokers who received commission of \$5,000 or more during fiscal 2023. A complete schedule of all commissions paid is available from the Retirement office.

| | Number | Total | Commission |
|-------------------|------------|--------------|--------------------------|
| Broker | of Shares | Commission | Per Share (\$ per share) |
| Morgan Stanley | 1,597,888 | \$ 23,750 | 0.015 |
| Sanford Bernstein | 2,589,994 | 18,590 | 0.007 |
| JP Morgan | 27,933,250 | 16,121 | 0.001 |
| Goldman Sachs | 49,183,172 | 15,417 | 0.000 |
| Jefferies | 1,638,990 | 15,288 | 0.009 |
| BOFA Securities | 968,298 | 11,397 | 0.012 |
| Citigroup | 2,565,672 | 10,863 | 0.004 |
| Pershing | 1,159,102 | 8,640 | 0.007 |
| Barclays | 515,289 | 7,345 | 0.014 |
| Bank of America | 640,100 | 6,807 | 0.011 |
| UBS | 7,608,280 | 6,624 | 0.001 |
| Cowen and Company | 519,563 | 5,896 | 0.011 |

Actuarial Section

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM



Classic Values, Innovative Advice.

Via Electronic Mail

October 12, 2023

Board of Trustees Arlington County Employees' Retirement System 2100 Clarendon Boulevard, Suite 511 Arlington, Virginia 22201

Re: Actuary's Certification Letter

Dear Trustees:

The purpose of this letter is to provide the certification for the Actuarial Section of the Annual Comprehensive Financial Report for the Arlington County Employees' Retirement System (System) with respect to pension benefits.

Actuarial valuations of the System are performed annually. The results of the latest actuarial valuation of the System, which we have prepared as of June 30, 2023, are summarized in this letter. Please refer to that valuation report for additional information related to the System.

Funding Objective

The current funding objective of the plan is to provide for the current cost of benefits (i.e., normal cost under the Entry Age Normal Method) as a level percent of payroll over time, an amount which amortizes the actuarial liability for benefit changes over a 20-year period, plus an amount which amortizes the unfunded actuarial liability not attributable to benefit changes over a 15-year period. The County is currently contributing 21.1% of pay for the 2023-24 plan year, which meets the funding objective for this fiscal year.

The County's contribution appropriated for the fiscal year ended June 30, 2023 was determined based on the results of the June 30, 2021 valuation. The County's contribution rate was 20.8% of pay, which equated to contributions of \$65.8 million.

As of June 30, 2023, the System's actuarial liability was 109.0% funded based on the Actuarial Value of Assets. The actuarial liability was 106.3% funded based on the Fair Value of Assets.

Assumptions

The current actuarial assumptions used for valuation purposes were adopted by the Board of Trustees and were first effective for the June 30, 2019 Actuarial Valuation. The most recent study of the System's experience, used in developing the current actuarial assumptions, was based on a period from July 2014 to June 2019. Assumptions were set by the Board of Trustees on the basis of the recommendations made by Cheiron as a result of the experience study. The experience study is incorporated by reference as the rationale for the assumptions.

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Board of Trustees Arlington County Employees' Retirement System October 12, 2023 Page 2

Included in the Actuarial Section is a schedule which presents an outline of the actuarial assumptions and methods used to prepare the actuarial valuation results. The assumptions and methods used for funding purposes were developed in compliance with the actuarial standards of practice as they relate to pension plans. The assumptions reflect our understanding of the likely future experience of the System and the assumptions both individually and as a whole represent our best estimate for the future experience of the System. The results of this report are dependent upon future experience conforming to these assumptions. Future results may differ significantly from the current results due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

Reliance on Others

In preparing our valuations and schedules for the Annual Comprehensive Financial Report, we relied on information (some oral and some written) supplied by the County. 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.

Supporting Schedules

We prepared the following schedules for inclusion in the Actuarial Section of the Annual Comprehensive Financial Report based on the June 30, 2023 actuarial valuation.

- Summary of Actuarial Assumptions and Methods
- · Schedule of Active Member Valuation Data
- Schedule of Funded Liabilities by Type
- · Retirement Allowances Added to and Removed from Rolls
- Analysis of Financial Experience

All other supporting schedules in the Actuarial Section of the Annual Comprehensive Financial Report were prepared by the System using information in the Actuarial Valuation Report prepared by Cheiron, Inc.

For financial reporting purposes, the Total Pension Liability is based on the June 30, 2023 actuarial valuation. Please refer to the valuation report for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the Annual Comprehensive Financial Report based on the June 30, 2023 valuation report.

- Schedule of Changes in Net Pension Liability and Related Ratios
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Notes to the Schedule of Employer Contributions



Board of Trustees Arlington County Employees' Retirement System October 12, 2023 Page 3

Compliance with Code of Virginia §51.1-800

Code of Virginia §51.1-800 requires that the benefits provided to a retiree at age 65 from a local retirement system equal or exceed two-thirds of the allowance to which the employee would be entitled under the provisions of the Virginia Retirement System (VRS). The Board of Trustees of the VRS is to determine whether a local system satisfies this condition, taking into account differences in member contributions between the local system and the VRS.

Although there is no formal procedure for making this comparison, we compared the least valuable rate under the System to the most valuable accrual rate under the VRS, making adjustments for the fact that employee contributions are different from the VRS 5% rate. The employer provided accrual rates do exceed two-thirds of the employer provided accrual rates under the VRS plan.

We certify that, to the best of my knowledge and understanding, the Arlington County Employees' Retirement System satisfies the requirements of the Code of Virginia §51.1-800.

Certification

We hereby certify that this certification letter and its contents, including the assumptions and methods, have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. The schedules provided for financial reporting purposes have been prepared in accordance with our understanding of generally accepted actuarial principles as promulgated by the GASB. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this letter. This letter does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This letter was prepared for the Arlington County 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 letter are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any such other users.

Gene Kalwarski, FSA, EA, MAAA

Principal Consulting Actuary

Respectfully submitted,

Cheiron

Patrick T. Nelson, FSA, EA, MAAA

Consulting Actuary

Kevin J. Woodrich, FSA, EA, MAAA Principal Consulting Actuary

CHEIRON

Actuarial Assumptions, Methods and Summary of Valuation Results

Valuation Method and Asset Value

An actuarial valuation is performed annually. At June 30, 2023, the date of the actuarial valuation used for fiscal year 2023 reporting, the market value of System assets was \$2,976.1 million compared to \$2,813.9 million in assets at June 30, 2022.

As asset market value represents the realizable value of assets on a particular day it can be subject to significant variability due to market volatility. Thus, market value is not a good measure on which to base the calculations of future contributions to the System as they too would be subject to significant variability owing to financial market fluctuations.

To produce more consistent contribution rates, actual asset market values are adjusted to remove, or dampen, a degree of the variability associated with market movements. For the June 30, 2023 valuation, the specific technique adopted projects the market asset value for each of the prior four years forward to the valuation date using actual cash flows (contributions less benefit payments and expenses) and assuming the actuarial investment assumption in effect at such time. The average of these four projected asset values and the actual June 30, 2023 asset market value determines the actuarial value of assets, subject to corridor limits of 80% (minimum) and 120% (maximum) of market value.

Using the method described above, the actuarial value of assets at June 30, 2023 was \$3,052.2 million, which is 102.6% of market value.

The ten-year projection of System assets indicates contributions will be less than benefits for the entire period. This should not be cause for alarm and, in fact, is expected in a mature, well-funded system. It does, however, impact investment decisions because some investment income will be needed to pay benefits.

Funding Method and System Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of benefits should be related to the period in which benefits are earned, rather than to the period of benefits distribution. Several actuarial methods are acceptable for accomplishing this.

The entry age normal funding method employed in this valuation is a common method for valuing public sector plans. Under this method, the employer contribution is comprised of three components: the Normal Cost, the payment (or credit) toward the Unfunded Actuarial Liability (UAL) and the allowance for expenses. Each component is expressed as a percentage of covered payroll.

The employer Normal Cost rate is the percentage of pay which, along with member contributions, would be sufficient to fund the plan benefits if it were paid from each member's entry into the System until termination or retirement. Separate rates are developed for general versus uniformed employees.

The Actuarial Liability is that portion of the present value of projected retirement benefits, including future pay increases, not covered by future employer normal costs or member contributions.

The Unfunded Actuarial Liability is the excess, if any, of the Actuarial Liability over the actuarial value of assets. The Unfunded Actuarial Liability was (\$251.7) million as of June 30, 2023 due to actuarial value of assets being more than the Actuarial Liability.

The table below summarizes, at June 30, 2023, the actuarial liabilities, both funded and unfunded, by employee type and for the total System.

<u>Liabilities (in millions of \$)</u>

| | General | School | <u>Uniformed</u> | <u>Total</u> |
|--|-----------|--------|------------------|--------------|
| Present Value of Future Benefits | | | | |
| Active Members | \$920.3 | \$0.5 | \$731.5 | \$1,652.3 |
| Retired Members and Beneficiaries | 749.3 | 59.8 | 625.4 | 1,434.5 |
| Disabled Members | 29.8 | 0.5 | 145.2 | 175.5 |
| Vested Deferred Members | 52.8 | 0.8 | 20.5 | 74.1 |
| DROP Members | 57.5 | 0.3 | 72.7 | 130.5 |
| Total | \$1,809.7 | \$61.9 | \$1,595.3 | \$3,466.9 |
| Normal Cost Rate | 12.3% | 0.0% | 34.4% | N/A |
| Present Value of Future Payroll | \$2,103.1 | \$0.0 | \$752.1 | \$2,855.2 |
| Present Value of Future Employer Costs | \$258.7 | \$0.0 | \$258.7 | \$517.4 |
| Present Value of Future Member Contributions | \$85.8 | \$0.0 | \$62.8 | \$148.6 |
| Actuarial Liability | \$1,465.2 | \$61.9 | \$1,273.8 | \$2,800.9 |
| Actuarial Value of Assets | \$1,598.0 | \$61.9 | \$1,392.3 | \$3,052.2 |
| Unfunded Actuarial Liability | (\$132.8) | \$0.0 | (\$118.5) | (\$251.3) |

Source: June 30, 2023 Actuarial Report- Table IV-1

System Contributions

Under the County's prior funding method, the County contribution rate dropped dramatically when the System became fully funded. However, the County was also subject to significant fluctuations in future contribution rates should investment returns deviate from the actuarial assumption. In light of concern over significant fluctuations and a desire to smooth contribution levels, the Retirement Board recommended a funding formula for employer contributions to the County Board to achieve full normal cost funding over a multi-year transition period. The County Board accepted the recommendation and codified the formula in §46-33 of the County Code in fiscal year 2005. As a result, employer contributions as a percent of covered payroll became more predictable.

In October of 2008, the County adopted several retirement plan benefit changes effective January 4, 2009, contributing to an increase in the contribution rate to 19.9% for fiscal year 2010. This new contribution rate was applied to a lower total payroll based on a narrower definition of creditable compensation included as part of the plan changes.

The June 30, 2023 Actuarial Valuation reflects the County's contribution rate of 21.1% for fiscal year 2025. This contribution rate is comprised of a normal cost rate, including administrative expenses, of 18.1% and a 20-year amortization of the increase in liabilities associated with the benefit changes of 3.0%. The County's funding policy limits the change in the contribution rate from the previous year by 2%; however, this limit does not impact the fiscal year 2025 contribution. Further explanation of the funding approach is available in the current actuarial valuation report.

The table below details of the derivation of County normal cost contribution rates for fiscal year 2025:

Employer Contribution Rate as a Percentage of Payroll

| | <u>General</u> | <u>Uniformed</u> |
|--|----------------|------------------|
| Normal Cost | 16.3% | 41.9% |
| Member Contribution Rate | 4.0% | 7.5% |
| Employer Normal Cost | 12.3% | 34.4% |
| Expense Loading as Percentage of Payroll | 0.7% | 0.7% |
| County Normal Cost Plus Expenses | 13.0% | 35.1% |

Source: June 30, 2023 Actuarial Report- Table V-1 and Table V-2

The School Board withdrew active teachers from Chapter 46 in fiscal year 2002. Any unfunded liabilities and additional benefits accruals (in excess of member contributions) are being paid through the County's statutory contribution rate made on behalf of those School Board active employees currently participating in Chapters 21 and 46. There are no contributions required for the remaining School Board active employees participating in Chapter 35.

Plan Membership

The total active membership in the System at June 30, 2023, the date of the actuarial valuation, was 3,643, a 1.1% decrease from 3,684 at June 30, 2022.

Tables showing distribution of employees among the plans and statistics on non-active members at year end are contained in the *Statistical Section*.

Tables showing Retirees and Beneficiaries added to and removed from the rolls are contained later in this *Actuarial Section*.

Analysis of Financial Experience

Actual financial experience will not coincide exactly with assumed financial experience because the future cannot be predicted with certainty. The System, by policy of the Retirement Board, completes an actuarial experience study once every four or five years to compare assumed and actual experience. Copies of the experience study reports are available in the Retirement Office. The most recent experience study was completed concurrent with the June 30, 2019 valuation. Based on this analysis, the Board adopted changes to the demographic assumptions (retirement rates, mortality rates, disability rates and merit/longevity salary changes) to be first used with the June 30, 2019 valuation.

During the fiscal year 2023, the financial markets performed better than the expectation. The actual net investment return, on a market value basis, was approximately 7.7%, which is higher than the prior year's actuarial rate of return assumption of 6.75% for that period. The market value of System assets increased \$162.2 million in 2023. On an actuarial basis, System assets increased \$153.5 million due to asset smoothing of prior investment gains and losses, including the -10.2% return from the prior fiscal year.

On the liability side, the System had a \$128.2 million increase in actuarial liabilities. The liabilities increased by \$118.3 million due to normal annual liability growth and an additional \$9.9 million due to the System's actual experience loss.

Actuarial Assumptions

Assumptions were set by the Board of Trustees on the basis of the recommendations made by Cheiron as a result of an experience study performed concurrently with the June 30, 2019 actuarial valuation. The experience study is incorporated by reference as the rationale to the assumptions below. The assumptions were set in compliance with applicable Actuarial Standards of Practice.

1. Economic Assumptions

| 1. | Annual Rate of Investment Return | 6.75% |
|----|---|-------|
| 2. | Annual Rate of Cost of Living Adjustment | 3.00% |
| 3. | Annual Rate of General Wage Increase | 3.00% |
| 4. | Annual Rate of Increase in Consumer Price Index | 3.00% |
| 5. | Annual Rate of Growth in Covered Payroll | 3.00% |
| 6. | Administrative Expenses as a Percent of Payroll | 0.70% |

7. Annual Rate of Merit/Seniority Salary Increase (in addition to 3, applied on a multiplicative case)

| Service | General | Uniformed | School |
|---------|---------|-----------|--------|
| 0 | 3.75% | 7.00% | 5.75% |
| 5 | 2.50 | 5.75 | 4.65 |
| 10 | 1.50 | 4.50 | 3.55 |
| 15 | 1.50 | 3.50 | 2.45 |
| | | | |
| 20 | 1.50 | 3.00 | 1.35 |
| 25 | 1.50 | 3.00 | 1.35 |
| 30 | 1.50 | 3.00 | 1.35 |
| 35 | 1.50 | 3.00 | 1.35 |

Wage adjustments for FYE 2024 were based on information provided by the County

8. Changes in Economic Assumptions since Last Valuation

None.

2. <u>Demographic Assumptions – General Members</u>

1. Death Rates

- a. Active Members 100% of the Pub-2010 General Employee mortality table [*PubG-2010 Employee*] for males (110% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- b. Healthy Retirees and Beneficiaries 100% of the Pub-2010 General Retiree mortality table [*PubG-2010 Healthy Retiree*] for males (110% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- c. Disabled Retirees 100% of the Pub-2010 Non-Safety Disabled Retiree mortality table [*PubNS-2010 Disabled Retiree*] for males (110% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.

2. Disability Rates

| | Chap | ter 21 | Chapt | ter 46 |
|-----|--------|--------|--------|--------|
| Age | Male | Female | Male | Female |
| 22 | .00108 | .00010 | .00037 | .00014 |
| 27 | .00108 | .00013 | .00043 | .00018 |
| 32 | .00157 | .00018 | .00051 | .00025 |
| 37 | .00241 | .00023 | .00077 | .00033 |
| 42 | .00389 | .00030 | .00116 | .00043 |
| | | | | |
| 47 | .00641 | .00045 | .00184 | .00065 |
| 52 | .01041 | .00083 | .00318 | .00119 |
| 57 | .01500 | .00170 | .00470 | .00209 |
| 62 | .01500 | .00483 | .00200 | .00488 |

45% (Chapter 21) or 30% (Chapter 46) of disablements assumed to be service-connected; of these, benefits for future disabled members are assumed to be reduced by 0.6% for Workers' Compensation.

3. Termination Rates

| Years of | | |
|----------|-------|--------|
| Service | Male | Female |
| 0 | .1750 | .1750 |
| 1 | .1150 | .1350 |
| 2 | .1100 | .1250 |
| 3 | .1050 | .1150 |
| 4 | .1000 | .1100 |
| 5 | .1000 | .1050 |
| 6 | .1000 | .0950 |
| 7 | .0600 | .0750 |
| 8 | .0400 | .0650 |
| 9 | .0400 | .0600 |
| 10 | .0400 | .0400 |
| 11 | .0200 | .0300 |
| 12 | .0200 | .0300 |
| 13 | .0200 | .0300 |
| 14 | .0200 | .0300 |
| 15 | .0200 | .0200 |
| 16 | .0200 | .0200 |
| 17 | .0200 | .0200 |
| 18 | .0200 | .0200 |
| 19 | .0200 | .0200 |
| 20 | .0200 | .0200 |
| 21+ | .0100 | .0100 |
| | | |

Members who terminate prior to the earlier of age 40, five years of service, and Rule of 55 (sum of age and service equals 55) are assumed to elect a refund of contributions in lieu of a deferred vested benefit. No termination is assumed once a participant is eligible for early or normal retirement.

4. Retirement Rates (including entry into DROP)

Chapter 21 Actives

| | <u>N</u> | <u> 1ale</u> | <u>Fer</u> | <u>nale</u> |
|-----|----------|--------------|------------|-------------|
| Age | Early | Unreduced | Early | Unreduced |
| 50 | .020 | .360 | .020 | .275 |
| 51 | .020 | .360 | .020 | .275 |
| 52 | .050 | .360 | .050 | .275 |
| 53 | .050 | .360 | .050 | .275 |
| 54 | .100 | .360 | .100 | .275 |
| 55 | .150 | .360 | .150 | .275 |
| 56 | .150 | .360 | .150 | .275 |
| 57 | .250 | .360 | .150 | .275 |
| 58 | .250 | .360 | .150 | .275 |
| 59 | .250 | .360 | .150 | .275 |
| | | | | |
| 60 | N/A | .360 | N/A | .275 |
| 61 | N/A | .360 | N/A | .275 |
| 62 | N/A | .360 | N/A | .275 |
| 63 | N/A | .360 | N/A | .275 |
| 64 | N/A | .360 | N/A | .275 |
| 65 | N/A | .360 | N/A | .275 |
| 66 | N/A | .360 | N/A | .275 |
| 67 | N/A | .360 | N/A | .275 |
| 68 | N/A | .360 | N/A | .275 |
| 69 | N/A | .360 | N/A | .275 |
| 70 | N/A | 1.000 | N/A | 1.000 |

100% of members are assumed to retire after 30 years of service.

Chapter 46 Actives

| Ago | Foulv | Hanaduand |
|-----|-------|-----------|
| Age | Early | Unreduced |
| 50 | .065 | .210 |
| 51 | .065 | .210 |
| 52 | .065 | .210 |
| 53 | .065 | .210 |
| 54 | .065 | .210 |
| | 0.55 | 24.0 |
| 55 | .065 | .210 |
| 56 | .065 | .210 |
| 57 | .065 | .210 |
| 58 | .065 | .210 |
| 59 | .065 | .210 |
| | | |
| 60 | .100 | .210 |
| 61 | .125 | .210 |
| 62 | N/A | .210 |
| 63 | N/A | .210 |
| 64 | N/A | .210 |
| | | |
| 65 | N/A | .210 |
| 66 | N/A | .210 |
| 67 | N/A | .210 |
| 68 | N/A | .210 |
| 69 | N/A | .210 |
| 70 | N/A | 1.000 |

100% of members are assumed to retire after 30 years of service.

Vested Former Members

Vested former members are assumed to commence benefits upon attaining age 60 (Chapter 21) or age 62 (Chapter 46).

5. Family Composition

70% of members are assumed to be married. The male spouse is assumed to be three-years older than the female spouse.

6. Unused Sick Leave

Each member's creditable service was increased by 1.6%.

7. Change Since Last Valuation - General

None.

3. <u>Demographic Assumptions – Uniformed Members</u>

1. Death Rates

- a. Active Members 100% of the Pub-2010 Safety Employee above-median income mortality table [*PubS-2010(A) Employee*] for males (125% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- b. Healthy Retirees and Beneficiaries 100% of the Pub-2010 Safety Retiree mortality table [*PubS-2010(A) Healthy Retiree*] for males (125% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- c. Disabled Retirees 100% of the Pub-2010 Safety Disabled Retiree mortality table [*PubS-2010 Disabled Retiree*] for males (125% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.

2. Disability Rates

| | <u>Chap</u> | ter 21 | Chap | ter 46 |
|-----|-------------|--------|--------|--------|
| Age | Male | Female | Male | Female |
| 22 | .00225 | .00300 | .00041 | .00135 |
| 27 | .00375 | .00500 | .00068 | .00225 |
| 32 | .00600 | .00800 | .00108 | .00360 |
| 37 | .00975 | .01300 | .00176 | .00585 |
| 42 | .01350 | .01800 | .00243 | .00810 |
| | | | | |
| 47 | .01800 | .02400 | .00324 | .01080 |
| 52 | .02250 | .03000 | .00405 | .01350 |
| 57 | .00000 | .00000 | .00344 | .01148 |
| 62 | .00000 | .00000 | .00324 | .01080 |

95% (Chapter 21) or 100% (Chapter 46) of disablements are assumed to be service-connected; of these, benefits for future disabled members are assumed to be reduced by 0.6% for Workers' Compensation.

3. Termination Rates

| Years of Service | Male | Female |
|---------------------|------|--------|
| 0 | .14 | .14 |
| 1 | .13 | .13 |
| 2 | .12 | .12 |
| 3 | .11 | .11 |
| 4 | .10 | .10 |
| 5 | .09 | .09 |
| 6 | .08 | .08 |
| 7 | .07 | .07 |
| 8 | .06 | .06 |
| 9 | .05 | .05 |
| 10 | .04 | .04 |
| 11 | .03 | .03 |
| 12 | .02 | .02 |
| 13 | .01 | .01 |
| 14 | .01 | .01 |
| 15 | .01 | .01 |
| 16 | .01 | .01 |
| 17 | .01 | .01 |
| 18+ | .01 | .01 |

Members who terminate prior to the earlier of age 40, five years of service, and Rule of 55 (sum of age and service equals 55) are assumed to elect a refund of contributions in lieu of a deferred vested benefit. No termination is assumed once a participant is eligible for early or normal retirement.

4. Retirement Rates (including entry into DROP)

Chapter 21 Actives

| | | Male | Fe | male |
|-----|-------|-----------|-------|-----------|
| Age | Early | Unreduced | Early | Unreduced |
| 49 | .10 | .40 | .10 | .40 |
| 50 | N/A | .39 | N/A | .39 |
| 51 | N/A | .38 | N/A | .38 |
| 52 | N/A | .37 | N/A | .37 |
| 53 | N/A | .36 | N/A | .36 |
| | | | | |
| 54 | N/A | .35 | N/A | .35 |
| 55 | N/A | .34 | N/A | .34 |
| 56 | N/A | .33 | N/A | .33 |
| 57 | N/A | .32 | N/A | .32 |
| 58 | N/A | .31 | N/A | .31 |
| | | | | |
| 59 | N/A | .30 | N/A | .30 |
| 60 | N/A | 1.00 | N/A | 1.00 |

100% of members are assumed to retire after 30 years of service.

Chapter 46 Actives

| Age | Early | Unreduced |
|---------|-------|-----------|
| <45 | .015 | .225 |
| 45 - 48 | .030 | .225 |
| 49 | .080 | .225 |
| 50 | .110 | .225 |
| 51 | .150 | .225 |
| 52 | N/A | .225 |
| 53 | N/A | .225 |
| 54 | N/A | .225 |
| 55 | N/A | .225 |
| 56 | N/A | .225 |
| 57 | N/A | .225 |
| 58 | N/A | .225 |
| 59 | N/A | .225 |
| 60 | N/A | 1.000 |

100% of members are assumed to retire after 30 years of service.

Vested Former Members

Vested former members are assumed to commence benefits upon attaining age 50 (Chapter 21) or age 52 (Chapter 46).

5. Family Composition

70% of members are assumed to be married. The male spouse is assumed to be three-years older than the female spouse.

6. Unused Sick Leave

Each member's creditable service is increased by 2.3%.

7. Change Since Last Valuation - Uniformed

None.

4. Demographic Assumptions – School Board Members

1. Death Rates

- a. Active Members 100% of the Pub-2010 Teachers Employee mortality table [*PubT-2010 Employee*] for males (115% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- b. Healthy Retirees and Beneficiaries 100% of the Pub-2010 Teachers Retiree mortality table [*PubT-2010 Healthy Retiree*] for males (115% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.
- c. Disabled Retirees 100% of the Pub-2010 Non-Safety Disabled Retiree mortality table [*PubNS-2010 Disabled Retiree*] for males (115% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.

2. Disability Rates

| | Chapte | r 35 |
|-----|--------|--------|
| Age | Male | Female |

| 22 | .00049 | .00027 |
|----|--------|--------|
| 27 | .00053 | .00030 |
| 32 | .00059 | .00033 |
| 37 | .00070 | .00039 |
| 42 | .00118 | .00066 |
| | | |
| 47 | .00252 | .00140 |
| 52 | .00462 | .00257 |
| 57 | .00770 | .00428 |
| 62 | .01350 | .00750 |

3. Termination Rates

| Males Years of Service | | | | | | | | | | |
|------------------------|------|------|------|------|------|------|--|--|--|--|
| Age | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5+ | | | | |
| 22 | .160 | .160 | .150 | .140 | .140 | .140 | | | | |
| 27 | .150 | .150 | .140 | .130 | .130 | .130 | | | | |
| 32 | .140 | .140 | .130 | .120 | .120 | .100 | | | | |
| 37 | .130 | .130 | .120 | .110 | .110 | .066 | | | | |
| 42 | .110 | .110 | .100 | .090 | .090 | .054 | | | | |
| | | | | | | | | | | |
| 47 | .090 | .090 | .080 | .070 | .070 | .040 | | | | |
| 52 | .080 | .080 | .070 | .060 | .060 | .030 | | | | |
| 57 | .070 | .070 | .060 | .050 | .050 | .020 | | | | |
| 62 | .065 | .065 | .055 | .045 | .045 | .020 | | | | |

| | Females Years of Service | | | | | | | | | | |
|-----|--------------------------|------|------|------|------|------|--|--|--|--|--|
| Age | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5+ | | | | | |
| 22 | .160 | .160 | .150 | .140 | .140 | .140 | | | | | |
| 27 | .150 | .150 | .140 | .130 | .130 | .130 | | | | | |
| 32 | .140 | .140 | .130 | .120 | .120 | .100 | | | | | |
| 37 | .130 | .130 | .120 | .110 | .110 | .066 | | | | | |
| 42 | .110 | .110 | .100 | .090 | .090 | .054 | | | | | |
| | | | | | | | | | | | |
| 47 | .090 | .090 | .080 | .070 | .070 | .040 | | | | | |
| 52 | .080 | .080 | .070 | .060 | .060 | .030 | | | | | |
| 57 | .070 | .070 | .060 | .050 | .050 | .020 | | | | | |
| 62 | .065 | .065 | .055 | .045 | .045 | .020 | | | | | |

No termination is assumed once a participant is eligible for early or normal retirement.

4. Retirement Rates

50% when first eligible (except if Rule of 80), the remainder when eligible for unreduced benefits or 30 years of service, whichever is earlier.

Vested former members are assumed to commence benefits upon attaining age 62.

5. Family Composition

70% of members are assumed to be married. The male spouse is assumed to be three-years older than the female spouse.

6. Unused Sick Leave

Each member's creditable service is increased by 2.0%.

7. Change Since Last Valuation - School

None.

Funding Method

The County is contributing a fixed percent of pay for General and Uniformed participants, which is adjusted as described in Section V of this report.

The method used for this valuation is the individual entry age normal funding method. Under this method, the employer contribution has three components: the normal cost, the payment toward the unfunded actuarial liability (UAL), and the allowance for expenses. Each component is expressed as a percentage of payroll.

The employer normal cost rate is the percentage of pay which, along with member contributions, would be sufficient to fund the plan benefits if it were paid from each member's entry into the System until termination or retirement. Separate rates are developed for General vs. Uniformed employees.

The actuarial liability is determined as the portion of the value of the projected benefit at retirement including future pay increases that will not be paid by future employer normal costs or member contributions.

Asset Valuation Method

For purposes of the valuation, assets are valued at an "actuarial value." The actuarial value is used in order to smooth the fluctuations that would occur if market values were used. The specific technique adopted sets the Actuarial Value of Assets by projecting forward each of the four previous years' market values to the valuation date using actual cash flows (contributions less benefit payments and expenses) and assuming the Fund returned the actuarial assumption of 6.75% per year. The four projected market values plus the current market value are averaged to determine the Actuarial Value of Assets. The Board opted to limit the Actuarial Value of Assets to be no less than 80% of the Market Value of Assets, but not greater than 120% of the Market Value of Assets.

The Actuarial Value of Assets is then allocated to each employee group (General, Uniformed, or School) based on their respective Actuarial Liability.

Summary of Plan Provisions

Arlington County has three Retirement Plans with plan membership dependent on the date of hire and plan provisions dependent on whether the employee is classified in the General, Uniformed or School Board employee group. A summary of the provisions for each of the plans follows.

Chapter 21 - General and Uniform Employees hired before February 8, 1981

Retirement benefits are funded by employee and employer contributions and by investment earnings.

The basic formula for calculating benefits is: 2.5% x years of creditable service for up to 20 years plus 2.0% x years of creditable service beyond 20 years x average final salary = annual retirement benefit. There is a maximum benefit of 70% of the average final salary.

Normal retirement eligibility is age 60 for General employees, age 50 for Uniformed employees. Unreduced benefits are available for General employees at age 55 with 25 years of service or at age 57 with 20 years of service or when the sum of age and service is equal to 80.

Early retirement is available with a reduction in benefits.

Cost of living increases are equal to 1.5% of the benefit and are added to the benefit each July.

Retirement benefits are vested after 5 years of service.

Service Connected disability benefits are available regardless of length of service.

Ordinary disability benefits are available after five years of service.

Survivor options are available at the time of retirement with actuarial reductions to the benefit.

Chapter 35 - School Board and Department of Human Services Employees hired before February 8, 1981

Retirement benefits are funded by employer contributions and by investment earnings.

The basic formula for calculating benefits is: 2.125% x credited service x average final salary = annual retirement benefit. The calculated benefit is then reduced by the benefit calculated under Formula A of the Virginia Retirement System (VRS).

Normal retirement eligibility is age 62. Unreduced benefits are available at age 55 with 30 years of service.

Early retirement is available with a reduction in benefits.

Retirement benefits are vested after 5 years of service.

Ordinary disability benefits are available after five years of service.

Spousal survivor options are available to the spouse at the time of retirement with actuarial reductions to the benefit.

Chapter 46 - All Employees hired on or after February 8, 1981

Effective January 4, 2009, the maximum benefit for General Employees is 51% and they have two options for calculating their normal retirement benefits:

- 1. 1.7% x all years of creditable service x new average final salary, OR
- 2. 1.5% x years of creditable service prior to January 3, 2009 x old average final salary *plus* 1.7% x years of creditable service after January 3, 2009 x new avg. final salary.

For Uniform Employees, the maximum benefit is 81% and their benefit calculation options are:

- 1. 2.5% x years of creditable service prior to January 4, 2009 x new average final salary *plus* 2.7% x years of creditable service on/after January 4, 2009 x new average final salary, OR
- 2. 2.7% x years of creditable service on/after January 4, 2009 x new average final salary *plus* old average final salary times 2.0% times years of service prior to January 4, 2009. When the Uniformed employee retiree begins to receive Social Security, the latter half of the above formula reverts to the old three-tiered benefit formula (1.5% for the first 10 years of service, 1.7% for the second 10 years of service, 2.0% for the final 10 years of service) times old average final salary for years of service prior to January 4, 2009.

Prior to January 3, 2009, the basic formula for calculating benefits for general employees was: 1.5% x years of creditable service x average final salary, including overtime = annual retirement benefit with a maximum of 45% and, for Uniformed employees, the benefit formula uses a factor of 2.0% for all service until the retiree is eligible for full Social Security benefits with a maximum of 60%. When the retiree begins to receive Social Security, the formula reverts to 1.5% for the first 10 years of service, 1.7% for the next 10 and 2.0% for the final 10 years with a maximum of 52%.

Retirement benefits are vested after 5 years of service and early retirement is available with a reduction in benefits. Cost of living increases are based on increases in the CPI-U and are added to the benefit each July. Employees who are members of the Virginia Retirement System have their Arlington County benefit offset by the VRS benefit.

Normal retirement eligibility is age 62 for General employees, age 52 for Uniformed employees. All employees can qualify for an unreduced benefit when the sum of age plus service equals 80. General employees can also qualify for an unreduced benefit after 30 years of service and Public Safety after 25 years of service.

Service Connected disability benefits are available at any time prior to normal retirement age. Ordinary disability benefits are available after two years of service. Survivor options are available with actuarial reductions to the benefit.

Additional Information

This information and description of plan provisions does not in any way change or modify Code of the County Chapters 21, 35 or 46. The Code always takes precedence in the event of questions or interpretations.

A Deferred Retirement Option Program (DROP) was added effective January 1, 2002, for all Chapters. DROP is a voluntary program that provides a way for employees to continue to work for the County in their present or a similar capacity, earn a salary, and receive a portion of their retirement benefits at the same time. The portion is equal to the monthly retirement benefit an employee would be eligible for at the time they DROP. An employee is eligible for participation in the DROP upon reaching eligibility for unreduced benefits. DROP participation is limited to 4 years.

Trends

One of the best ways to evaluate the financial condition of a pension plan is to examine the historical trends. The charts below present trend information on the System's assets and liabilities, annual cash flows and County contribution rate.

Chart A illustrates the System's assets and liabilities. At June 30, 2023, the ratio of actuarial assets to liabilities is 109.0%, up slightly from 108.5% in the prior year's Actuarial Valuation.

\$3,500 \$3,000 \$2,500 \$1,500 \$1,000 \$500 \$0,000 6,300 6

Chart A: ASSETS / LIABILITIES

Source: Actuarial Reports- Summary Results- Combined

Chart B shows payments to retirees and beneficiaries exceeding employer and employee contributions, typical of a well-funded, mature system. The difference is made up by investment return on plan assets.

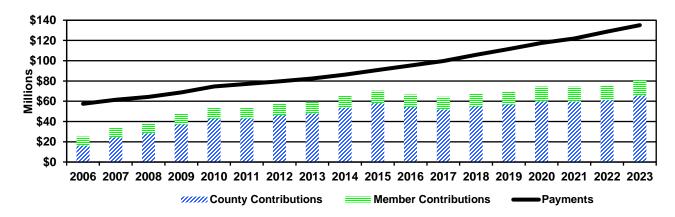


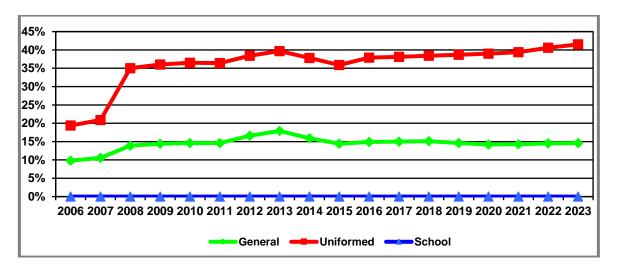
Chart B: CASH FLOWS (\$ in Millions)

Source: Actuarial Reports- Assets, Table III-1

Chart C plots the County (employer) contribution rate by employee group. Investment gains during the late 1990's resulted in lower contribution rates under the funding method in place through 2002. Beginning in 2003, the County contribution rate began to increase towards normal cost. The School Board withdrew active teacher participants from Chapter 46 in fiscal year 2002. Benefit enhancements and a change in the

definition of creditable compensation explain the increase in 2008. The increase in the contribution rate from 2015 to 2016 was attributable to the increase in the normal cost due to the Board electing to decrease the discount rate, general wage and inflation assumptions.

Chart C: COUNTY CONTRIBUTION RATE



Source: Actuarial Reports: Summary Results - General, Summary Results - Uniformed, Summary Results - School

Schedule of Active Member Valuation Data

| | | Valuation | | | Annual | % Increase in |
|-----------------|----------------------------|--------------|------------------|----------------|-------------|---------------|
| Group | <u>Plan</u> | <u>Date</u> | Number | Annual Payroll | Average Pay | Average Pay |
| | <u>r iaii</u> Employees | <u> Date</u> | <u>ITAIIIDCI</u> | Annual Layton | Average ray | Average ray |
| <u>cenerar</u> | Chapter 21 | 6/30/2023 | 3 | \$ 363,974 | \$ 121,325 | 5% |
| | chapter 21 | 6/30/2022 | 4 | 463,881 | 115,970 | 6% |
| | | 6/30/2021 | 4 | 436,738 | 109,185 | 2% |
| | | 6/30/2020 | 4 | 426,811 | 106,703 | 3% |
| | | 6/30/2019 | 4 | 415,512 | 103,878 | 4% |
| | | 6/30/2018 | 5 | 500,897 | 100,179 | 1% |
| | | 6/30/2017 | 5 | 497,505 | 99,501 | 3% |
| | Chapter 46 | 6/30/2023 | 2,818 | 268,800,114 | 95,387 | 5% |
| | | 6/30/2022 | 2,797 | 250,474,078 | 89,551 | 7% |
| | | 6/30/2021 | 2,644 | 225,359,898 | 85,234 | 3% |
| | | 6/30/2020 | 2,672 | 221,753,110 | 82,991 | 3% |
| | | 6/30/2019 | 2,646 | 212,535,305 | 80,323 | 2% |
| | | 6/30/2018 | 2,684 | 211,822,542 | 78,920 | 6% |
| | | 6/30/2017 | 2,718 | 202,604,267 | 74,542 | 3% |
| School B | oard Employees | | , | , , | , | |
| | Chapter 35 | 6/30/2023 | 2 | \$ 178,138 | \$ 89,069 | -22% |
| | · | 6/30/2022 | 3 | 340,595 | 113,532 | 11% |
| | | 6/30/2021 | 4 | 407,573 | 101,893 | 10% |
| | | 6/30/2020 | 5 | 465,069 | 93,014 | -6% |
| | | 6/30/2019 | 8 | 793,027 | 99,128 | -7% |
| | | 6/30/2018 | 11 | 1,172,364 | 106,579 | 0% |
| | | 6/30/2017 | 17 | 1,813,370 | 106,669 | -4% |
| <u>Uniforme</u> | ed Employees | | | | | |
| | Chapter 21 | 6/30/2023 | 0 | \$ 0 | N/A | N/A |
| | | 6/30/2022 | 0 | 0 | N/A | N/A |
| | | 6/30/2021 | 0 | 0 | N/A | N/A |
| | | 6/30/2020 | 0 | 0 | N/A | N/A |
| | | 6/30/2019 | 1 | 200,189 | 200,189 | 1% |
| | | 6/30/2018 | 1 | 198,110 | 198,110 | 1% |
| | | 6/30/2017 | 1 | 195,397 | 195,397 | 3% |
| | Chapter 46 | 6/30/2023 | 820 | 79,888,225 | 97,425 | 5% |
| | | 6/30/2022 | 880 | 81,418,167 | 92,521 | 6% |
| | | 6/30/2021 | 864 | 75,080,161 | 86,898 | -1% |
| | | 6/30/2020 | 849 | 74,385,765 | 87,616 | 3% |
| | | 6/30/2019 | 862 | 73,236,106 | 84,961 | 4% |
| | | 6/30/2018 | 830 | 68,131,825 | 82,087 | 0% |
| | | 6/30/2017 | 835 | 68,433,043 | 81,956 | 0% |

Source: Actuarial Reports - Appendix A, Table A-1

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM SCHEDULE OF FUNDING PROGRESS

All \$ amounts are millions

| | | | Unfunded | | | UAL as a |
|-----------|-----------|-------------|-------------|--------|----------|------------|
| | Actuarial | | Actuarial | | | Percentage |
| Valuation | Value of | Actuarial | Liabilities | Funded | Covered | of Covered |
| Date | Assets | Liabilities | (UAL) | Ratio | Payroll | Payroll |
| | (a) | (b) | (b-a) | (a/b) | (c) | [(b-a)/c] |
| 6/30/2014 | \$1,782.0 | \$1,888.1 | \$ 106.1 | 94.4% | \$ 252.4 | 42.0% |
| 6/30/2015 | 1,951.3 | 1,971.5 | 20.2 | 99.0% | 263.5 | 7.7% |
| 6/30/2016 | 2,044.4 | 2,053.5 | 9.1 | 99.6% | 267.8 | 3.4% |
| 6/30/2017 | 2,180.3 | 2,122.3 | (58.0) | 102.7% | 273.5 | (21.2%) |
| 6/30/2018 | 2,304.4 | 2,208.0 | (96.4) | 104.4% | 281.8 | (34.2%) |
| 6/30/2019 | 2,384.0 | 2,387.5 | 3.5 | 99.9% | 287.2 | 1.2% |
| 6/30/2020 | 2,492.8 | 2,463.1 | (29.7) | 101.2% | 297.1 | (10.0%) |
| 6/30/2021 | 2,754.4 | 2,540.9 | (213.5) | 108.4% | 301.3 | (70.9%) |
| 6/30/2022 | 2,898.7 | 2,672.7 | (226.0) | 108.5% | 332.6 | (67.9%) |
| 6/30/2023 | 3,052.2 | 2,800.9 | (251.3) | 109.0% | 349.3 | (71.9%) |

Source: June 30, 2023 Actuarial Report - Accounting Information, Table VI-4

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM SCHEDULE OF FUNDED LIABILITIES BY TYPE

All \$ amounts are millions

| | Act | uarial Liabilities | For: | | | Portion o | of Actuarial Li | abilities |
|-------------------|--------------------------------|------------------------|--------------------------------|------------------------|---------------------------------|-----------|-----------------|-----------|
| | (1) | (2) | (3) | | | Covered | d by Value of | Assets |
| Valuation Date | Active Employee Contrib. | Inactive* Employees | Active Employer Contrib. | Actuarial Liability | Actuarial Value of Assets | (1) | (2) | (3) |
| 6/30/2014 | \$ 400.4 | \$ 1,067.0 | \$ 420.7 | \$ 1,888.1 | \$1,782.0 | 100% | 100% | 75% |
| 6/30/2015 | 430.8 | 1,122.9 | 417.8 | 1,971.5 | 1,951.3 | 100% | 100% | 95% |
| 6/30/2016 | 451.9 | 1,211.6 | 390.0 | 2,053.5 | 2,044.4 | 100% | 100% | 98% |
| 6/30/2017 | 466.9 | 1,284.9 | 370.5 | 2,122.3 | 2,180.3 | 100% | 100% | 116% |
| 6/30/2018 | 481.6 | 1,366.2 | 360.2 | 2,208.0 | 2,304.4 | 100% | 100% | 127% |
| 6/30/2019 | 505.0 | 1,490.7 | 391.8 | 2,387.5 | 2,384.0 | 100% | 100% | 99% |
| 6/30/2020 | 528.8 | 1,547.6 | 386.7 | 2,463.1 | 2,492.8 | 100% | 100% | 108% |
| 6/30/2021 | 545.9 | 1,621.9 | 373.1 | 2,540.9 | 2,754.4 | 100% | 100% | 157% |
| 6/30/2022 | 567.9 | 1,720.5 | 384.3 | 2,672.7 | 2,898.7 | 100% | 100% | 159% |
| 6/30/2023 | 574.8 | 1,814.5 | 411.6 | 2,800.9 | 3,052.2 | 100% | 100% | 161% |

^{*} Retirees, beneficiaries and vested deferred members

Source: June 30, 2023 Actuarial Report - Accounting Information, Table VI-5

ANALYSIS OF FINANCIAL EXPERIENCE

Gain and (Loss) in Actuarial Liability during Years ended June 30 Resulting from Differences between Assumed Experience and Actual Experience

| Type of Activity | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|-------------|-------------|-------------|-------------|-------------|-----------|--------------|
| Invest Income | \$ 35.1 | \$ 16.2 | \$ (32.7) | \$ (7.9) | \$142.3 | \$ 12.7 | \$ 12.9 |
| Combined Liability Experience | <u>27.1</u> | <u>13.7</u> | <u>31.1</u> | <u>30.1</u> | <u>29.4</u> | (24.1) | <u>(9.9)</u> |
| Gain (or Loss) During Year from Financial Experience | \$ 62.2 | \$ 29.9 | \$ (1.6) | \$ 22.2 | \$171.7 | \$(11.4) | \$3.0 |
| Non-Recurring Items | 0.0 | (3.1) | (112.6) | 0.0 | 0.0 | 0.0 | 0.0 |
| Composite Gain (or Loss) During Year | \$ 62.2 | \$ 26.8 | \$(114.2) | \$ 22.2 | \$171.7 | \$ (11.4) | \$ 3.0 |

RETIREMENT ALLOWANCES ADDED TO AND REMOVED FROM ROLLS

Retirement Allowances Added To and Removed From Rolls

| | | Adde | d to Rolls | Remove | d from Rolls | | at Year End | % | Average |
|---------|-----------|------|-------------|--------|--------------|----------|--------------|-----------|---------------------|
| | Year | | Annual | | Annual | Year-End | Annual | Increase | Annual |
| Plan | Ended | No. | Allowances | No. | Allowances | Total | Allowances | Allowance | Allowance |
| Chapter | 6/30/2023 | 10 | \$1,144,781 | 58 | \$1,721,956 | 957 | \$42,119,592 | (1.4%) | \$44,012 |
| 21 | 6/30/2022 | 18 | \$1,260,563 | 68 | \$2,232,675 | 1,005 | \$42,696,767 | (2.2%) | \$42,484 |
| | 6/30/2021 | 8 | \$965,690 | 51 | \$1,289,435 | 1,055 | \$43,668,879 | (0.7%) | \$41,392 |
| | 6/30/2020 | 9 | \$932,312 | 59 | \$1,535,299 | 1,098 | \$43,992,624 | (1.4%) | \$40,066 |
| | 6/30/2019 | 7 | \$956,499 | 60 | \$1,511,821 | 1,148 | \$44,595,611 | (1.2%) | \$38,846 |
| | 6/30/2018 | 13 | \$919,228 | 58 | \$1,443,991 | 1,201 | \$45,150,933 | (1.1%) | \$37,594 |
| | 6/30/2017 | 14 | \$955,814 | 53 | \$1,195,159 | 1,246 | \$45,675,696 | (0.5%) | \$36,658 |
| | 6/30/2016 | 15 | \$941,372 | 62 | \$1,556,358 | 1,285 | \$45,915,041 | (1.3%) | \$35,732 |
| | 6/30/2015 | 21 | \$1,153,898 | 67 | \$1,597,303 | 1,332 | \$46,530,027 | (0.9%) | \$34,932 |
| | 6/30/2014 | 23 | \$1,111,407 | 67 | \$1,344,775 | 1,378 | \$46,973,432 | (0.5%) | \$34,088 |
| | | | | | | | | | |
| Chapter | 6/30/2023 | 3 | \$20,825 | 48 | \$362,900 | 656 | \$7,658,650 | (4.3%) | \$11,675 |
| 35 | 6/30/2022 | 5 | \$45,097 | 45 | \$315,682 | 701 | \$8,000,725 | (3.3%) | \$11,413 |
| | 6/30/2021 | 4 | \$29,626 | 38 | \$279,732 | 741 | \$8,271,310 | (2.9%) | \$11,162 |
| | 6/30/2020 | 12 | \$122,242 | 37 | \$302,848 | 775 | \$8,521,416 | (2.1%) | \$10,995 |
| | 6/30/2019 | 7 | \$94,838 | 48 | \$356,107 | 800 | \$8,702,022 | (2.9%) | \$10,878 |
| | 6/30/2018 | 10 | \$137,310 | 37 | \$268,380 | 841 | \$8,963,291 | (1.4%) | \$10,658 |
| | 6/30/2017 | 15 | \$181,889 | 40 | \$287,778 | 868 | \$9,094,361 | (1.2%) | \$10,477 |
| | 6/30/2016 | 17 | \$147,917 | 33 | \$265,282 | 893 | \$9,200,250 | (1.3%) | \$10,303 |
| | 6/30/2015 | 18 | \$196,276 | 55 | \$329,093 | 909 | \$9,317,615 | (1.4%) | \$10,250 |
| | 6/30/2014 | 13 | \$243,621 | 43 | \$238,283 | 946 | \$9,450,432 | 0.1% | \$9,990 |
| Chapter | 6/30/2023 | 159 | \$9,116,724 | 39 | \$641,056 | 2,664 | \$87,294,582 | 10.8% | \$32,768 |
| 46 | 6/30/2022 | 160 | \$8,694,048 | 38 | \$699,673 | 2,544 | \$78,818,914 | 11.3% | \$30,982 |
| .0 | 6/30/2021 | 163 | \$7,013,915 | 30 | \$379,063 | 2,422 | \$70,824,539 | 10.3% | \$29,242 |
| | 6/30/2020 | 158 | \$5,676,959 | 34 | \$524,559 | 2,289 | \$64,189,687 | 8.7% | \$28,043 |
| | 6/30/2019 | 150 | \$6,125,003 | 28 | \$428,398 | 2,165 | \$59,037,287 | 10.7% | \$27,269 |
| | 6/30/2018 | 165 | \$6,554,661 | 12 | \$129,668 | 2,043 | \$53,340,682 | 13.7% | \$26,109 |
| | 6/30/2017 | 181 | \$6,222,597 | 22 | \$286,842 | 1,890 | \$46,915,689 | 14.5% | \$24,823 |
| | 6/30/2016 | 165 | \$5,391,165 | 22 | \$160,767 | 1,731 | \$40,979,934 | 14.6% | \$23,674 |
| | 6/30/2015 | 167 | \$5,235,227 | 29 | \$424,352 | 1,588 | \$35,749,536 | 15.5% | \$22,512 |
| | 6/30/2014 | 150 | \$4,053,309 | 27 | \$253,729 | 1,450 | \$30,938,661 | 14.0% | \$21,337 |
| | | | , ,,,,,,,,, | | Ţ, | ., | , , - • . | | += .,50. |

Source: Supplemental Data Provided by Actuary

Schedule of Employer's Contributions (\$ in millions)

| Fiscal Year Ended | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Actuarially Determined Contribution | \$ 65.8 | \$ 61.2 | \$ 59.7 | \$ 59.9 | \$ 56.7 | \$ 54.9 | \$ 51.8 | \$ 54.5 | \$ 58.2 | \$ 53.7 |
| County Contributions in Relation to the Actuarially Determined Contribution | 65.8 | 61.2 | 59.7 | 59.9 | 56.7 | 54.9 | 51.8 | 54.5 | 58.2 | 53.7 |
| Contribution Deficiency/(Excess) | \$ - |
| Covered Payroll | \$ 316.3 | \$ 297.1 | \$ 285.6 | \$ 285.2 | \$ 270.0 | \$ 261.4 | \$ 255.2 | \$ 248.9 | \$ 243.5 | \$ 237.6 |
| Contributions as a Percentage of | | | | | | | | | | |
| Covered Payroll | 20.8% | 20.6% | 20.9% | 21.0% | 21.0% | 21.0% | 20.3% | 21.9% | 23.9% | 22.6% |

Notes to Schedule Valuation Date

Timing

June 30, 2021

Actuarially determined contribiton rates are calculated based on the actuarial valuation one year prior to the beginning of the Plan Year.

Methods and Assumptions Used to Determine Contribution Rates: **Actuarial Cost Method** Asset Valuation Method Amortization Method Discount Rate Amortization Growth Rate

Inflation Salary Increases

Mortality

Entry Age Normal Cost Method Five year, smoothed Level Percent Open 6.75% 3.00% 3.00%

3% plus merit/seniority component which vary by year of service and are compounded annually

General - Pub-2010 General mortality (110% for females) projected with generational mortality improvements from 2010 using Scale MP-2018 School - Pub-2010 Teacher mortality (115% for females) projected with generational mortality improvements from 2010 using Scale MP-2018 Uniformed - Pub-2010 Safety above-median mortality (125% for females) projected with generational mortality improvements from 2010 using Scale MP-2018.

Statistical Section

ARLINGTON VIRGINIA

ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM

About the Statistical Section

This section includes detailed information about the demographic and economic trends experienced by the System over the past ten years to assist the reader in assessing how the System's overall financial condition has changed over time. Specific information provided includes:

- Schedules of Active Employee Members present the number of employees by chapter and type
- Schedules of Retirements Granted present the number of retirements granted by chapter and type
- Schedules of Monthly Retirement Allowances show the number of retirees and payments, by chapter and type
- Schedules of Additions and Deductions and Plan Net Position reflect payments made to and by the System and the impact on net assets
- Contribution Analysis by source
- Participant & Investment Data and Ratio
- Schedules of Average Benefit Payments present the average monthly benefit, by chapter
- Schedules of Retired Members by Type of Benefit identify number of retirees by retirement type for each chapter

ACTIVE EMPLOYEE MEMBERSHIP IN RETIREMENT SYSTEM

AS OF JUNE 30, 2023

| | | CHAPTER | | TOTAL |
|-----------------|----|---------|-------|------------|
| GROUP | 21 | 35 | 46 | MEMBERSHIP |
| General County | 3 | 0 | 2,774 | 2,777 |
| Deputy Sheriffs | 0 | 0 | 184 | 184 |
| Firefighters | 0 | 0 | 344 | 344 |
| Police Officers | 0 | 0 | 292 | 292 |
| School | 0 | 3 | 43 | 46 |
| TOTALS | 3 | 3 | 3,637 | 3,643 |

HISTORY OF ACTIVE EMPLOYEE MEMBERSHIP IN RETIREMENT SYSTEM

JUNE 30, 2023

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CHAPTER 21 | | | | | | | | | | |
| General County | 8 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| Police Officers | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Firefighters | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Deputy Sheriffs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| School | 3 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 12 | 8 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 3 |
| CHAPTER 35 | | | | | | | | | | |
| School | 34 | 28 | 23 | 17 | 11 | 8 | 5 | 4 | 3 | 3 |
| General County | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 34 | 28 | 23 | 17 | 11 | 8 | 5 | 4 | 3 | 3 |
| CHAPTER 46 | | | | | | | | | | |
| General County | 2,535 | 2,563 | 2,607 | 2,626 | 2,596 | 2,570 | 2,616 | 2,587 | 2,747 | 2,774 |
| Police Officers | 347 | 345 | 339 | 329 | 316 | 323 | 318 | 327 | 322 | 292 |
| Firefighters | 294 | 278 | 283 | 295 | 300 | 328 | 322 | 317 | 346 | 344 |
| Deputy Sheriffs | 204 | 199 | 204 | 211 | 214 | 211 | 209 | 220 | 212 | 184 |
| School | 128 | 112 | 104 | 93 | 88 | 76 | 65 | 57 | 50 | 43 |
| TOTAL | 3,508 | 3,497 | 3,537 | 3,554 | 3,514 | 3,508 | 3,530 | 3,508 | 3,677 | 3,637 |
| GRAND TOTAL | 3,554 | 3,533 | 3,566 | 3,577 | 3,531 | 3,521 | 3,539 | 3,516 | 3,684 | 3,643 |

Note 1: Descriptions of Plan Provisions of the various Plans described as Chapter 21, Chapter 35 and Chapter 46 on these and other tables can be found on pages 56 - 58 of this report.

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RETIREMENTS GRANTEDDURING FISCAL YEAR 2023

| | | | | SERVICE | |
|------------------|-------------|---------------------|------------|------------|-------|
| | SERVICE | DEFFERED RETIREMENT | ORDINARY | CONNECTED | |
| Chapters 21 & 46 | RETIREMENTS | OPTION PLAN (DROP) | DISABILITY | DISABILITY | TOTAL |
| General County | 52 | 40 | 1 | 2 | 95 |
| Deputy Sheriffs | 2 | 3 | | 1 | 6 |
| Firefighters | 3 | 7 | | 11 | 21 |
| Police Officers | 3 | 5 | | 3 | 11 |
| School | 5 | 1 | | | 6 |

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TOTAL

| | SERVICE | DEFFERED RETIREMENT | ORDINARY | SERVICE CONNECTED | |
|----------------|-------------|---------------------|------------|----------------------|-------|
| Chapter 35 | RETIREMENTS | OPTION PLAN (DROP) | DISABILITY | DISABILITY | TOTAL |
| General County | | | - | - | 0 |
| School | 1 | | | | 1 |
| TOTAL | 1 | 0 | 0 | 0 | 1 |

HISTORY OF RETIREMENTS GRANTED

YEAR ENDED JUNE 30

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|
| CHAPTERS 21 & 46 | | | | | | | | | | |
| Service Retirements | 74 | 81 | 74 | 77 | 74 | 57 | 78 | 85 | 71 | 65 |
| DROP | 52 | 68 | 67 | 74 | 71 | 55 | 48 | 54 | 53 | 56 |
| Ordinary Disability | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 0 | 0 | 1 |
| Service Connected Disability | 4 | 4 | 2 | 2 | 3 | 4 | 5 | 8 | 3 | 17 |
| | 134 | 157 | 147 | 157 | 149 | 117 | 133 | 147 | 127 | 139 |
| CHAPTER 35 | | | | | | | | | | |
| Service Retirements | 12 | 14 | 13 | 13 | 6 | 2 | 3 | 0 | 1 | 0 |
| DROP | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| Ordinary Disability | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 12 | 14 | 13 | 14 | 6 | 2 | 3 | 1 | 1 | 0 |
| GRAND TOTAL | 146 | 171 | 160 | 171 | 155 | 119 | 136 | 148 | 128 | 139 |

SUMMARY OF MONTHLY RETIREMENT ALLOWANCES

RETIREES AND SURVIVORS AS OF JUNE 30, 2023

| CAMUICA | Connected |
|---------|-----------|
| | Connected |

| | Service | Retirements | D | ROP | Ordinary | Disability | D | isability | 1 | Total |
|-----------------|----------|-------------|--------|-----------|----------|------------|--------|-----------|----------|-------------|
| CHAPTER 21 | # | Amount | # | Amount | # | Amount | # | Amount | # | Amount |
| General County | 512 | \$1,690,914 | 1 | \$5,962 | 6 | \$20,204 | 15 | \$46,901 | 534 | \$1,763,981 |
| Deputy Sheriffs | 11 | \$40,472 | 0 | \$0 | 0 | \$0 | 3 | \$7,481 | 14 | \$47,953 |
| Firefighters | 126 | \$557,740 | 0 | \$0 | 0 | \$0 | 35 | \$135,876 | 161 | \$693,616 |
| Police Officers | 176 | \$732,714 | 0 | \$0 | 2 | \$3,824 | 34 | \$131,985 | 212 | \$868,523 |
| School | 80 | \$171,411 | 0 | \$0 | 3 | \$6,982 | 2 | \$4,089 | 85 | \$182,482 |
| TOTAL | 905 | \$3,193,251 | 1 | \$5,962 | 11 | \$31,010 | 89 | \$326,332 | 1,006 | \$3,556,555 |
| CHAPTER 46 | | | | | | | | | | |
| General County | 1,503 | \$3,091,510 | 101 | \$292,983 | 32 | \$33,723 | 35 | \$98,972 | 1,671 | \$3,517,188 |
| Deputy Sheriffs | 126 | \$528,147 | 7 | \$38,691 | 1 | \$859 | 20 | \$71,033 | 154 | \$638,730 |
| Firefighters | 127 | \$715,559 | 21 | \$154,464 | 0 | \$0 | 72 | \$351,289 | 220 | \$1,221,312 |
| Police Officers | 201 | \$1,071,124 | 19 | \$140,675 | 0 | \$0 | 28 | \$113,694 | 248 | \$1,325,493 |
| School | 259 | \$230,057 | 2 | \$4,087 | 21 | \$11,572 | 1 | \$1,955 | 283 | \$247,671 |
| TOTAL | 2,216 | \$5,636,397 | 150 | \$630,900 | 54 | \$46,154 | 156 | \$636,943 | 2,576 | \$6,950,394 |
| CHAPTER 35 | | | | | | | | | | |
| General County | 29 | \$23,024 | 0 | \$0 | 0 | \$0 | 0 | \$0 | 29 | \$23,024 |
| School | 650 | \$622,160 | 1 | \$2,444 | 15 | \$7,914 | 0 | \$0 | 666 | \$632,518 |
| TOTAL | 679 | \$645,184 | 1 | \$2,444 | 15 | \$7,914 | | \$0 | 695 | \$655,542 |
| GRAND TOTAL | 3,800 \$ | 9,474,832 | 152 \$ | 639,306 | 80 \$ | 85,078 | 245 \$ | 963,275 | 4,277 \$ | 11,162,491 |

HISTORY OF MONTHLY RETIREMENT ALLOWANCES

YEAR ENDED JUNE 30

| (\$ in thousands) | 2 | 014 | 20 | 15 | 20 | 16 | 20 | 17 | 201 | 8 |
|------------------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| TYPE | # | Amount |
| Service | 3,350 | \$5,877 | 3,408 | \$6,201 | 3,465 | \$6,536 | 3,544 | \$6,861 | 3,632 | \$7,301 |
| DROP | 145 | \$505 | 155 | \$545 | 169 | \$611 | 192 | \$707 | 190 | \$746 |
| Ordinary Disability | 133 | \$123 | 129 | \$122 | 129 | \$124 | 125 | \$123 | 118 | \$113 |
| Service Connected Disability | 254 | \$791 | 251 | \$797 | 243 | \$792 | 241 | \$790 | 239 | \$796 |
| TOTAL | 3,882 | \$7,296 | 3,943 | \$7,665 | 4,006 | \$8,063 | 4,102 | \$8,481 | 4,179 | \$8,956 |

| | 2019 | | 2020 | | 20 | 21 | 20 | 22 | 2023 | |
|------------------------------|-------|---------|-------|---------|-------|----------|-------|----------|-------|----------|
| TYPE | # | Amount | # | Amount | # | Amount | # | Amount | # | Amount |
| Service | 3,693 | \$7,692 | 3,767 | \$8,149 | 3,828 | \$8,622 | 3,887 | \$9,019 | 3,812 | \$9,475 |
| DROP | 183 | \$723 | 159 | \$646 | 148 | \$621 | 154 | \$694 | 152 | \$639 |
| Ordinary Disability | 110 | \$108 | 105 | \$107 | 97 | \$104 | 84 | \$90 | 80 | \$85 |
| Service Connected Disability | 240 | \$818 | 240 | \$844 | 241 | \$879 | 238 | \$889 | 233 | \$963 |
| TOTAL | 4,226 | \$9,341 | 4,271 | \$9,746 | 4,314 | \$10,226 | 4,363 | \$10,692 | 4,277 | \$11,162 |

ADDITIONS & DEDUCTIONS

YEAR ENDED JUNE 30

| (millions) | | 2014 | 2015 | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------------------------|----------|-------|-------------|----------|-------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|
| ADDITIONS | | | | | | | | | | | | |
| Contribution Total | \$ | 65.6 | \$ 70.4 | \$ | 66.7 | \$ 64.5 | \$ 67.8 | \$ 69.7 | \$ 74.6 | \$ 74.4 | \$ 76.0 | \$ 81.8 |
| Employer | | 53.7 | 58.2 | | 54.4 | 51.8 | 54.9 | 56.7 | 59.9 | 59.6 | 61.2 | 65.8 |
| Employee | | 11.9 | 12.2 | | 12.3 | 12.7 | 12.9 | 13.0 | 14.7 | 14.8 | 14.8 | 16.0 |
| Net Investment Income | | 304.9 | 37.4 | | (1.3) | 247.3 | 168.3 | 153.2 | 156.8 | 708.1 | (321.3) | 215.4 |
| Income & Appreciation | | 310.7 | 45.6 | | 5.7 | 252.9 | 173.1 | 158.7 | 163.3 | 716.3 | (312.1) | 225.2 |
| Less Investment Expense | | (5.9) | (8.4) | | (7.2) | (5.9) | (5.0) | (5.7) | (6.6) | (8.3) | (9.5) | (9.9) |
| Security Lending | | 0.1 | 0.2 | | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 |
| TOTAL ADDITIONS | \$ | 370.5 | \$ 107.7 | \$ | 65.4 | \$ 311.8 | \$ 236.2 | \$ 222.9 | \$ 231.4 | \$ 782.5 | \$ (245.3) | \$ 297.2 |
| DEDUCTIONS | . | | | . | | | | | | | | |
| Benefit Payments | \$ | 85.3 | \$ 88.9 | \$ | 94.0 | \$ 98.7 | \$ 104.2 | \$ 109.6 | \$ 114.6 | \$ 119.2 | \$ 124.9 | \$ 131.0 |
| Normal Retirement | | 47.9 | 50.4 | | 53.0 | 57.8 | 61.6 | 67.0 | 71.7 | 76.9 | 82.0 | 87.1 |
| Early Retirement | | 16.7 | 16.7 | | 16.7 | 16.9 | 16.9 | 16.9 | 17.0 | 16.9 | 16.9 | 17.2 |
| Death in Service | | 0.1 | 0.1 | | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 |
| Duty Disability Retirement | | 9.3 | 9.4 | | 9.7 | 9.3 | 9.5 | 9.6 | 10.1 | 10.2 | 10.5 | 11.0 |
| Ordinary Disability | | 1.4 | 1.4 | | 1.5 | 1.4 | 1.3 | 1.3 | 1.3 | 1.2 | 1.0 | 1.0 |
| Survivor Payments | | 3.8 | 4.1 | | 4.4 | 4.6 | 4.8 | 4.9 | 5.0 | 5.2 | 5.4 | 5.7 |
| DROP | | 5.6 | 6.4 | | 6.7 | 8.0 | 9.3 | 9.1 | 8.5 | 7.9 | 8.1 | 8.1 |
| Other | | 0.4 | 0.4 | | 1.9 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 |
| Refunds | | 1.0 | 1.8 | | 1.3 | 0.9 | 0.8 | 1.2 | 1.1 | 0.7 | 1.6 | 1.7 |
| Administrative Expenses | | 1.4 | 1.5 | | 1.7 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.2 | 2.3 |
| TOTAL DEDUCTIONS | \$ | 87.7 | \$ 92.2 | \$ | 97.0 | \$ 101.4 | \$ 106.9 | \$ 112.7 | \$ 117.6 | \$ 121.9 | \$ 128.6 | \$ 135.0 |

PLAN NET POSITION

YEAR ENDED JUNE 30

| At Market (millions) | 2014 | 2015 | 2016 | 2017 | 2018 |
|----------------------|----------------|----------------|----------------|------------------|----------------|
| Beginning | \$1,696.8 | \$1,979.6 | \$1,995.1 | \$1,963.5 | \$2,173.9 |
| Additions | 370.5 | 107.7 | 65.4 | 311.8 | 236.1 |
| Deductions | 87.7 | 92.2 | 97.0 | 101.4 | 106.9 |
| Net Change | 282.8 | 15.5 | (31.6) | 210.4 | 129.2 |
| Year End | \$1,979.6 | \$1,995.1 | \$1,963.5 | \$2,173.9 | \$2,303.1 |
| | | | | | |
| | 2019 | 2020 | 2021 | 2022 | 2023 |
| Beginning | \$2,303.1 | \$2,413.3 | \$2,527.2 | \$3,187.9 | \$2,813.9 |
| Additions | | | | | |
| | 222.9 | 231.4 | 782.5 | (245.3) | 297.2 |
| Deductions | 222.9 112.7 | 231.4 117.5 | 782.5 121.9 | (245.3) 128.7 | 297.2 135.0 |
| | _ | _ | | , | _ |

CONTRIBUTION ANALYSISYEAR ENDED JUNE 30

| (Dollars in millions) | Group | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|-------|---------|---------|---------|----------|----------|---------|----------|-----------|-----------|-----------|
| Estimated Covered Payroll | | \$252.4 | \$243.5 | \$248.9 | \$236.5 | \$261.4 | \$270.0 | \$285.2 | \$285.6 | \$297.1 | \$316.3 |
| Employer Contribution: (% of Payroll) | A, D | 16.6% | 17.9% | 15.9% | 14.4% | 14.9% | 15.0% | 15.1% | 14.6% | 14.3% | 14.3% |
| , , , | B, C | 38.4% | 39.7% | 37.8% | 35.9% | 37.9% | 38.1% | 38.4% | 38.7% | 39.4% | 39.4% |
| | E | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Total Employer Contribution | 1 | \$53.7 | \$58.2 | \$54.5 | \$51.8 | \$54.9 | \$56.7 | \$59.9 | \$59.7 | \$61.2 | \$65.7 |
| Employee Contribution: (% of Payroll) | | | | | | | | | | | |
| Chapter 21 | A,D | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| | В | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% | 6.6% |
| | С | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% | 5.6% |
| Chapter 35 | E | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Chapter 46 | A, D | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| | B, C | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% |
| | E | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Total Employee Contribution | 1 | \$11.9 | \$12.2 | \$12.3 | \$12.7 | \$12.9 | \$13.0 | \$14.7 | \$14.8 | \$14.8 | \$16.0 |
| Employer/Employee Contribu | tion | 4.5 | 4.8 | 4.4 | 4.1 | 4.2 | 4.3 | 4.1 | 4.0 | 4.1 | 4.1 |
| Unfunded Actuarial Liability | | \$106.1 | \$20.2 | \$9.1 | (\$58.0) | (\$96.4) | \$3.5 | (\$29.7) | (\$213.5) | (\$226.0) | (\$251.3) |

Group Key

- (A) General Employees
- (B) Uniformed Employees
- (C) Managers Uniformed
- (D) School Board Employees Non VRS
- (E) School Board Employees VRS

PARTICIPANT AND INVESTMENT DATA AND RATIO YEAR ENDED JUNE 30

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Participant Data | | | | | | | | | | |
| Active Employees | 3,554 | 3,533 | 3,566 | 3,576 | 3,531 | 3,521 | 3,539 | 3,516 | 3,684 | 3,643 |
| Deferred Vested Members | 500 | 548 | 559 | 584 | 631 | 665 | 693 | 706 | 753 | 795 |
| Retirees | 3,882 | 3,945 | 3,909 | 4,004 | 4,085 | 4,113 | 4,271 | 4,218 | 4,250 | 4,277 |
| Retirees as a % of Active Employees | 109.2% | 111.7% | 109.6% | 112.0% | 115.7% | 116.8% | 120.7% | 120.0% | 115.4% | 117.4% |
| Retirement Benefits Paid (millions) | \$85.3 | \$88.9 | \$94.0 | \$98.7 | \$104.2 | \$109.6 | \$114.4 | \$119.7 | \$128.7 | \$131.0 |
| Average Benefit Payment (\$/month) | | | | | | | | | | |
| Chapter 21 | \$2,756 | \$2,831 | \$2,898 | \$2,967 | \$3,049 | \$3,135 | \$3,239 | \$3,346 | \$3,422 | \$3,535 |
| Chapter 35 (Supplement) | \$813 | \$832 | \$846 | \$854 | \$869 | \$885 | \$896 | \$911 | \$924 | \$943 |
| Chapter 46 ⁽¹⁾ | \$1,741 | \$1,842 | \$1,952 | \$2,033 | \$2,132 | \$2,210 | \$2,286 | \$2,392 | \$2,487 | \$2,583 |
| Investment Data | | | | | | | | | | |
| Net Assets, Market Value (millions) | \$1,979.6 | \$1,995.0 | \$1,963.5 | \$2,173.8 | \$2,303.1 | \$2,413.3 | \$2,527.2 | \$3,187.9 | \$2,813.9 | \$2,976.1 |
| Ratio: Net Assets/ Benefits Paid | 23.2 | 22.4 | 20.9 | 22.0 | 22.1 | 22.0 | 22.1 | 26.6 | 21.9 | 22.7 |

(1) The averages for Chapter 46 retirees is impacted by several factors: This Chapter is relatively new; disability retirees significantly affect the average and there is blending of VRS and non-VRS members' benefits.

SCHEDULE OF AVERAGE BENEFIT PAYMENTS CHAPTER 21 EMPLOYEES

Uniform & General Employees
Hired Before 2/8/81

| omform & deficial Emproyees | | | | | | | | | | | |
|-----------------------------------|---------------------------|---------|---------|---------|-------|----------|--|--|--|--|--|
| Hired Before 2/8/81 | Years of Credited Service | | | | | | | | | | |
| | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | | | | | |
| Period 7/1/13 to 6/30/14 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$2,413 | \$2,515 | \$3,066 | \$5,942 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$476 | \$712 | \$1,415 | \$2,957 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 3 | 3 | 1 | 2 | 0 | 0 | | | | | |
| Period 7/1/14 to 6/30/15 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$3,279 | \$3,378 | \$0 | \$4,796 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$1,493 | \$1,414 | \$0 | \$3,238 | | | | | |
| Number of Current Retirees | 0 | 0 | 1 | 2 | 0 | 3 | | | | | |
| Period 7/1/15 to 6/30/16 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$4,880 | \$0 | \$0 | \$5,791 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$2,325 | \$0 | \$0 | \$4,367 | | | | | |
| Number of Current Retirees | 0 | 0 | 1 | 0 | 0 | 1 | | | | | |
| Period 7/1/16 to 6/30/17 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$2,899 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$0 | \$823 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 0 | 1 | 0 | 0 | 0 | 0 | | | | | |
| Period 7/1/17 to 6/30/18 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$4,907 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$2,981 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 1 | 0 | 0 | | | | | |
| Period 7/1/18 to 6/30/19 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$7,402 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,696 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| Period 7/1/19 to 6/30/20 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$16,976 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$12,217 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| Period 7/1/20 to 6/30/21 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Period 7/1/21 to 6/30/22 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Period 7/1/22 to 6/30/23 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$9,094 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,962 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| | | | | | | | | | | | |

SCHEDULE OF AVERAGE BENEFIT PAYMENTS

CHAPTER 35 EMPLOYEES

School Board and DHS
Hired Refore 2/8/81

| Hired Before 2/8/81 | Years of Credited Service | | | | | | | | | | |
|-----------------------------------|---------------------------|---------|---------|---------|---------|----------|--|--|--|--|--|
| | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | | | | | |
| Period 7/1/13 to 6/30/14 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$1,220 | \$0 | \$8,044 | \$8,021 | \$0 | \$8,244 | | | | | |
| Average Monthly Benefit | \$46 | \$0 | \$1,369 | \$1,314 | \$0 | \$1,829 | | | | | |
| Number of Current Retirees | 1 | 0 | 1 | 4 | 0 | 7 | | | | | |
| Period 7/1/14 to 6/30/15 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$1,574 | \$3,691 | \$3,926 | \$0 | \$4,003 | \$8,409 | | | | | |
| Average Monthly Benefit | \$90 | \$385 | \$772 | \$0 | \$684 | \$1,850 | | | | | |
| Number of Current Retirees | 5 | 1 | 2 | 0 | 1 | 5 | | | | | |
| Period 7/1/15 to 6/30/16 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$1,456 | \$3,687 | \$8,044 | \$0 | \$0 | \$9,363 | | | | | |
| Average Monthly Benefit | \$81 | \$268 | \$926 | \$0 | \$0 | \$1,904 | | | | | |
| Number of Current Retirees | 5 | 3 | 1 | 0 | 0 | 4 | | | | | |
| Period 7/1/16 to 6/30/17 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$1,292 | \$1,996 | \$4,845 | \$0 | \$8,027 | \$8,993 | | | | | |
| Average Monthly Benefit | \$98 | \$195 | \$817 | \$0 | \$1,624 | \$1,878 | | | | | |
| Number of Current Retirees | 2 | 3 | 1 | 0 | 2 | 4 | | | | | |
| Period 7/1/17 to 6/30/18 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$3,891 | \$0 | \$0 | \$7,913 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$593 | \$0 | \$0 | \$1,715 | | | | | |
| Number of Current Retirees | 0 | 0 | 1 | 0 | 0 | 5 | | | | | |
| Period 7/1/18 to 6/30/19 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$4,711 | \$0 | \$0 | \$0 | \$11,947 | | | | | |
| Average Monthly Benefit | \$0 | \$501 | \$0 | \$0 | \$0 | \$2,912 | | | | | |
| Number of Current Retirees | 0 | 1 | 0 | 0 | 0 | 1 | | | | | |
| Period 7/1/19 to 6/30/20 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,990 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,346 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 3 | | | | | |
| Period 7/1/20 to 6/30/21 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$8,149 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,444 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| Period 7/1/21 to 6/30/22 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,105 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,638 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 1 | | | | | |
| Period 7/1/22 to 6/30/23 | | | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Average Monthly Benefit | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | | | |
| Number of Current Retirees | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |

SCHEDULE OF AVERAGE BENEFIT PAYMENTS CHAPTER 46 EMPLOYEES

All Employees Hired

| On or after 2/8/81 | Years of Credited Service | | | | | | | | |
|-----------------------------------|---------------------------|---------|------------------|---------|---------|---------|---------|--|--|
| _ | 2-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | | |
| Period 7/1/13 to 6/30/14 | | | | | | | | | |
| Average of Final Monthly Salaries | \$3,037 | \$5,834 | \$5 <i>,</i> 345 | \$5,738 | \$6,424 | \$6,852 | \$5,640 | | |
| Average Monthly Benefit | \$137 | \$1,031 | \$930 | \$1,503 | \$2,961 | \$3,858 | \$4,805 | | |
| Number of Current Retirees | 3 | 29 | 16 | 17 | 19 | 37 | 6 | | |
| Period 7/1/14 to 6/30/15 | | | | | | | | | |
| Average of Final Monthly Salaries | \$2,972 | \$5,677 | \$5 <i>,</i> 639 | \$6,091 | \$6,513 | \$6,651 | \$8,878 | | |
| Average Monthly Benefit | \$195 | \$816 | \$1,916 | \$1,916 | \$3,075 | \$3,994 | \$4,817 | | |
| Number of Current Retirees | 1 | 21 | 27 | 17 | 26 | 46 | 10 | | |
| Period 7/1/15 to 6/30/16 | | | | | | | | | |
| Average of Final Monthly Salaries | \$0 | \$4,662 | \$5,103 | \$6,521 | \$7,031 | \$7,137 | \$7,763 | | |
| Average Monthly Benefit | \$0 | \$497 | \$1,088 | \$2,129 | \$3,628 | \$4,553 | \$4,914 | | |
| Number of Current Retirees | 0 | 23 | 23 | 13 | 16 | 51 | 27 | | |
| Period 7/1/16 to 6/30/17 | | | | | | | | | |
| Average of Final Monthly Salaries | \$4,251 | \$5,787 | \$6,422 | \$5,866 | \$6,141 | \$7,370 | \$7,048 | | |
| Average Monthly Benefit | \$317 | \$804 | \$1,602 | \$1,905 | \$2,792 | \$4,811 | \$4,964 | | |
| Number of Current Retirees | 2 | 24 | 24 | 21 | 25 | 48 | 19 | | |
| Period 7/1/17 to 6/30/18 | | | | | | | | | |
| Average of Final Monthly Salaries | \$3,311 | \$5,941 | \$7,098 | \$6,364 | \$6,748 | \$8,127 | \$6,502 | | |
| Average Monthly Benefit | \$257 | \$919 | \$1,502 | \$2,200 | \$3,313 | \$5,018 | \$3,954 | | |
| Number of Current Retirees | 1 | 20 | 28 | 28 | 17 | 46 | 23 | | |
| Period 7/1/18 to 6/30/19 | | | | | | | | | |
| Average of Final Monthly Salaries | \$3,689 | \$5,458 | \$6,203 | \$6,466 | \$6,490 | \$8,633 | \$8,121 | | |
| Average Monthly Benefit | \$809 | \$531 | \$1,282 | \$1,978 | \$2,838 | \$5,178 | \$4,984 | | |
| Number of Current Retirees | 5 | 19 | 14 | 21 | 18 | 30 | 19 | | |
| Period 7/1/19 to 6/30/20 | | | | | | | | | |
| Average of Final Monthly Salaries | \$4,218 | \$5,554 | \$6,063 | \$6,950 | \$6,788 | \$8,548 | \$7,905 | | |
| Average Monthly Benefit | \$201 | \$696 | \$1,669 | \$2,226 | \$2,925 | \$5,142 | \$4,582 | | |
| Number of Current Retirees | 2 | 18 | 21 | 25 | 27 | 24 | 24 | | |
| Period 7/1/20 to 6/30/21 | | | | | | | | | |
| Average of Final Monthly Salaries | \$4,144 | \$6,400 | \$6,545 | \$7,554 | \$8,015 | \$7,832 | \$8,146 | | |
| Average Monthly Benefit | \$272 | \$732 | \$1,608 | \$2,308 | \$3,571 | \$4,490 | \$5,136 | | |
| Number of Current Retirees | 1 | 16 | 20 | 22 | 36 | 41 | 22 | | |
| Period 7/1/21 to 6/30/22 | | | | | | | | | |
| Average of Final Monthly Salaries | \$3,320 | \$7,121 | \$8,934 | \$7,098 | \$7,930 | \$8,516 | \$7,744 | | |
| Average Monthly Benefit | \$229 | \$770 | \$1,965 | \$2,135 | \$3,867 | \$5,576 | \$4,616 | | |
| Number of Current Retirees | 1 | 20 | 14 | 14 | 28 | 36 | 14 | | |
| Period 7/1/22 to 6/30/23 | | | | | | | | | |
| Average of Final Monthly Salaries | \$4,795 | \$6,548 | \$6,925 | \$7,201 | \$6,575 | \$8,107 | \$7,410 | | |
| Average Monthly Benefit | \$2,642 | \$1,215 | \$1,928 | \$2,623 | \$3,695 | \$4,920 | \$4,512 | | |
| Number of Current Retirees | 4 | 21 | 28 | 27 | 29 | 17 | 12 | | |

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT

CHAPTER 21 EMPLOYEES YEAR ENDED JUNE 30, 2023

Chapter 21

| | | Type of Retirement | | | | | | | | | | Spousal Benefit Option | | | | | |
|---------------------------------|-----------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|-------------------------------|-------------|--|--|--|--|
| Amount of Monthly Benefit | Number of Retirees | 1 | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>Z</u> | <u>8</u> | <u>Opt1</u> | <u>Opt2</u> | Opt3 | <u>Opt4</u> | | | | |
| Deferred | 1 | 1 | | | | | | | | 1 | | | | | | | |
| \$1 - 250 | 11 | 6 | 1 | 2 | | | 1 | | 1 | 11 | | | | | | | |
| 251 - 500 | 31 | 15 | 4 | 8 | | | 4 | | | 29 | 2 | | | | | | |
| 501 - 750 | 23 | 7 | 4 | 9 | | | 3 | | | 20 | 1 | | 2 | | | | |
| 751 - 1,000 | 32 | 8 | 4 | 12 | | 1 | 4 | | 3 | 30 | 1 | | 1 | | | | |
| 1001 - 1,250 | 34 | 8 | 6 | 15 | | | 4 | | 1 | 29 | 3 | | 2 | | | | |
| 1,251 - 1,500 | 37 | 7 | 6 | 22 | | 1 | 1 | | | 33 | 3 | | 1 | | | | |
| 1,501 - 1,750 | 45 | 8 | 6 | 27 | | 1 | 3 | | | 43 | 1 | | 1 | | | | |
| 1,751 - 2,000 | 37 | 9 | 5 | 17 | 2 | 1 | 1 | | 2 | 32 | 3 | 2 | | | | | |
| Over 2,000 | 758 | 445 | 133 | 70 | 87 | 7 | 9 | 1 | 6 | 440 | 207 | 51 | 60 | | | | |
| Totals | 1,009 | 514 | 169 | 182 | 89 | 11 | 30 | 1 | 13 | 668 | 221 | 53 | 67 | | | | |

Type of Retirement

Spousal Option Selected

1 - Normal retirement 5 - Non-duty disability retirement 2 - Early retirement 6 - Vested benefit

Opt 1 - 0% Opt 2 - 50% Opt 3 - 66.7%

3 - Survivor payment, retiree 7 - DROP

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT

CHAPTER 35 EMPLOYEES YEAR ENDED JUNE 30, 2023

Chapter 35

| | | Type of Retirement | | | | | | | Sposual Benefit Options | | | | | |
|---------------------------------|-----------------------|--------------------|----------|----------|---|----------|----------|---|-------------------------|-------------|-------------|------|------|--|
| Amount of Monthly Benefit | Number of Retirees | <u>1</u> | <u>2</u> | <u>3</u> | 4 | <u>5</u> | <u>6</u> | Z | <u>8</u> | <u>Opt1</u> | <u>Opt2</u> | Opt3 | Opt4 | |
| Deferred | 19 | 19 | | | | | | | | 19 | | | | |
| \$1 - 250 | 88 | 27 | 26 | 7 | | 4 | 24 | | | 84 | 1 | | 3 | |
| 251 - 500 | 78 | 30 | 26 | 15 | | 3 | 3 | | 1 | 75 | 1 | 1 | 1 | |
| 501 - 750 | 93 | 30 | 36 | 17 | | 5 | 4 | | 1 | 80 | 4 | 1 | 8 | |
| 751 - 1,000 | 111 | 25 | 78 | 3 | | 2 | 3 | | | 83 | 13 | 4 | 11 | |
| 1001 - 1,250 | 140 | 34 | 96 | 5 | | 1 | 4 | | | 118 | 11 | 4 | 7 | |
| 1,251 - 1,500 | 86 | 34 | 49 | 1 | | | 2 | | | 73 | 4 | 2 | 7 | |
| 1,501 - 1,750 | 45 | 35 | 8 | | | | 2 | | | 38 | 2 | | 5 | |
| 1,751 - 2,000 | 30 | 24 | 6 | | | | | | | 27 | 2 | | 1 | |
| Over 2,000 | 24 | 22 | | 1 | | | | 1 | | 21 | 1 | | 2 | |
| Totals | 714 | 280 | 325 | 49 | 0 | 15 | 42 | 1 | 2 | 618 | 39 | 12 | 45 | |

| Type o | <u>f Retirement</u> | Spousal | Option | Selected |
|--------|---------------------|---------|--------|----------|
| | | | | |

1 - Normal retirement5 - Non-duty disability retirementOpt 1 - 0%2 - Early retirement6 - Vested benefitOpt 2 - 50%3 - Survivor payment, retiree7 - DROPOpt 3 - 66.7%4 - Duty disability retirement8 - Court OrderOpt 4 - 100%

SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT

CHAPTER 46 EMPLOYEES YEAR ENDED JUNE 30, 2023

Chapter 46

| | | Type of Retirement | | | | | | | | Spousal Benefit Options | | | | |
|---------------------------------|-----------------------|--------------------|-----|----------|-----|----------|----------|-----|----------|-------------------------|-------------|------|------|--|
| Amount of Monthly Benefit | Number of Retirees | 1 | 2 | <u>3</u> | 4 | <u>5</u> | <u>6</u> | Z | <u>8</u> | <u>Opt1</u> | <u>Opt2</u> | Opt3 | Opt4 | |
| Deferred | 775 | 775 | | | | | | | | 775 | | | | |
| \$1 - 250 | 154 | 43 | 70 | 5 | | 8 | 24 | | 4 | 140 | 6 | | 8 | |
| 251 - 500 | 187 | 63 | 43 | 28 | | 9 | 38 | 1 | 5 | 157 | 12 | | 18 | |
| 501 - 750 | 209 | 99 | 38 | 21 | | 6 | 41 | 1 | 3 | 171 | 16 | 3 | 19 | |
| 751 - 1,000 | 196 | 99 | 37 | 13 | | 10 | 32 | 2 | 3 | 159 | 17 | 5 | 15 | |
| 1001 - 1,250 | 197 | 102 | 29 | 13 | 3 | 8 | 30 | 6 | 6 | 137 | 34 | 6 | 20 | |
| 1,251 - 1,500 | 158 | 91 | 27 | 10 | 1 | 7 | 14 | 6 | 2 | 111 | 22 | 6 | 19 | |
| 1,501 - 1,750 | 135 | 86 | 23 | 11 | 1 | 2 | 2 | 6 | 4 | 101 | 15 | 5 | 14 | |
| 1,751 - 2,000 | 131 | 95 | 20 | 4 | 3 | 3 | | 5 | 1 | 84 | 30 | 4 | 13 | |
| Over 2,000 | 1,207 | 783 | 109 | 25 | 148 | 1 | 13 | 123 | 5 | 791 | 343 | 81 | 108 | |
| Totals | 3,349 | 2,236 | 396 | 130 | 156 | 54 | 194 | 150 | 33 | 2,626 | 495 | 110 | 234 | |

Type of Retirement

Spousal Option Selected

1 - Normal retirement ${\tt 5\ -\ Non-duty\ disability\ retirement}$

2 - Early retirement 6 - Vested benefit

3 - Survivor payment, retiree 7 - DROP

4 - Duty disability retirement 8 - Court Order

Opt 1 - 0%

Opt 2 - 50% Opt 3 - 66.7% Opt 4 - 100%