

# **COMPREHENSIVE ANNUAL 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, 2020**

**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](http://www.arlingtonva.us/retirement)

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Michelle Cowan,  
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William Ross,  
Assistant Treasurer  
Michael-dharma Irwin  
Barbara Donnellan

**Substitute Trustees**

Emily Hughes  
Brian Lynch  
Carl Newby

**Executive Director**

Daniel Zito

December 3, 2020

**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, 2020 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 in line with return assumptions as the system assets achieved a return of 6.6%; outperforming the portfolio benchmark return of 5.5%. With assets of \$2.527 billion at year end, the System remains 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 101.2%, an increase over fiscal year 2019's funded ratio of 99.9%.

A copy of this report will be available for inspection at the Retirement Board Investment Office, the County Central Library and on the Arlington County web site. A summary of the report will be distributed to each participant in January 2021.

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,

Jonathan C. Kinney  
President

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# Introductory Section



## **ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM**



Government Finance Officers Association

Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting

Presented to

**Arlington County  
Employees' Retirement System  
Virginia**

For its Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

June 30, 2019

*Christopher P. Merrill*

Executive Director/CEO



## 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](http://www.careers.arlingtonva.us/retirement-investment-office)

### Board of Trustees

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

### Substitute Trustees

Emily Hughes  
Brian Lynch  
Carl Newby

### Executive Director

Daniel Zito

November 5, 2020

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, 2020 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, 2020, the fiduciary net position of the System was \$2.527 billion, an increase of \$114 million during the fiscal year. The year's 6.8% gross investment return was 1.3% above the portfolio benchmark return of 5.5%. This performance placed the System in the 9<sup>th</sup> percentile of the TUCS Public Plan universe for the year. The ten-year gross investment return is 9.1% and compares to the portfolio benchmark return of 8.2%. For the ten year period, the System placed in the 23<sup>rd</sup> percentile of the TUCS Public Plan universe. The System is financially and actuarially sound with a funded ratio of the actuarial value of assets to actuarial accrued liabilities of 101.2% as of June 30, 2020. Current employer contribution levels from the County are substantial and 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. Notable activity included the termination of two actively managed mandates and one passive index fund, the reallocation of funds to passive and active equity and fixed income mandates and an increased exposure to direct private equity. The *Investment Section* of this report includes details on the year's activity.

From an administrative perspective, a Request for Proposal was issued for the general consultant. The incumbent was renewed.

### **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 \$6.5 million for the County trust was made during fiscal year 2020, no contribution was made to the School trust. As of June 30, 2020, the County and School trusts had assets of \$164.5 million and \$68.7 million, respectively. These trusts are



## Introductory Section

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separate and independently managed from Retirement System assets. The OPEB trusts are managed in accordance with an Investment Policy Statement tailored to their needs. Detailed financial reporting and actuarial data for the OPEB trusts are included in the County and School annual financial reports.

### **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, 2020, the last day of fiscal year 2020.

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 101.2% funded ratio as of June 30, 2020, an increase over the June 30, 2019 funded ratio of 99.9%. 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 market value of System assets be held in fixed income investments and no more than 15% 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 defined investment responsibility, 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 2020, the System's gross investment return was 6.8% compared to a 5.5% benchmark return. The annualized rates of return for the three and five-year periods were 7.2% and 6.9%, respectively. These compare to benchmark returns of 6.7% and 6.5% for the same periods, respectively. The actuarial assumed rate of return is 6.75%. The System's net returns for the one and three-year periods were 6.6% and 7.1%, 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, Cherry Bekaert LLP, 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 comprehensive annual financial report for the fiscal year ended June 30, 2019. This is the twenty-first 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 comprehensive annual report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

## Introductory Section

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A Certificate of Achievement is valid for a period of one year only. We believe that this current comprehensive annual 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 administrative staff of Arlington County provided critical assistance in preparation of the *Statistical Section*, for which I am 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,

A handwritten signature in black ink, appearing to read 'Daniel Zito', with a stylized flourish at the end.

Daniel Zito

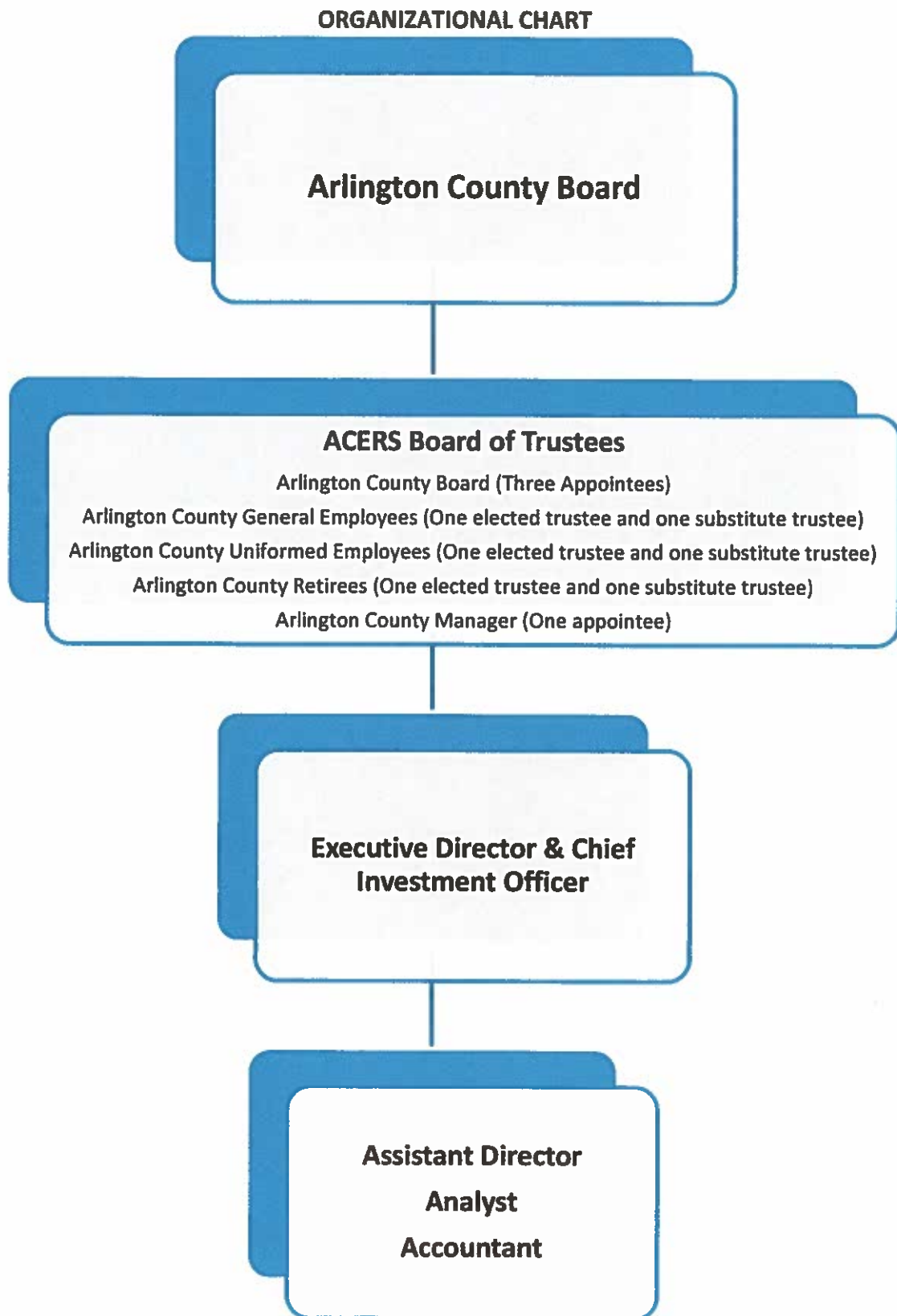
Executive Director & Chief Investment Officer

## ADMINISTRATIVE ORGANIZATION

### JUNE 30, 2020

TRUSTEES	PROFESSIONAL STAFF
Jonathan C. Kinney, President <i>Appointed by County Board</i> <i>Term Expires 1/31/2021</i>	Daniel Zito, Executive Director & CIO Randee Stenroos, Assistant Director Katrina Milne, Investment Analyst Stephen Euell, Accountant
Richard Alt, Vice President <i>Elected by Retirees</i> <i>Term Expires 1/31/2023</i>	
Michelle Cowan, Treasurer <i>Appointed by County Manager</i> <i>Term Expires 1/31/2023</i>	<b>LEGAL ADVISOR</b> Stephen MacIsaac, County Attorney
Jimmie Barrett, Secretary <i>Elected by Uniformed Employees</i> <i>Term Expires 1/31/2023</i>	<b>INVESTMENT CONSULTANT</b> Windmark Investment Partners Franklin Park LLC
William Ross, Assistant Treasurer <i>Appointed by County Board</i> <i>Term Expires 1/31/2021</i>	<b>CUSTODIAN BANK</b> The Northern Trust Company
Barbara Donnellan <i>Appointed by County Board</i> <i>Term Expires 1/31/2021</i>	<b>CONSULTING ACTUARY</b> Cheiron
Michael-dharma Irwin <i>Elected by General Employees</i> <i>Term Expires 1/31/2021</i>	<b>CERTIFIED PUBLIC ACCOUNTANT</b> Cherry Bekaert LLP
<b>SUBSTITUTE TRUSTEES</b>	<b>INVESTMENT MANAGERS<sup>(1)</sup></b>
Emily Hughes <i>Elected by General Employees</i> <i>Term Expires 1/31/2021</i>	Abbott Capital Altaris Healthcare Partners Arsenal Real Estate Baillie Gifford Bison Capital BV Investment Partners DoubleLine® Capital Franklin Park Gallant Partners Highclere JFL Equity Investors Kiltearn Partners Marcus Partners Northern Trust Orbis International Peppertree T. Rowe Price The Vanguard Group
Brian Lynch <i>Elected by Uniformed Employees</i> <i>Term Expires 1/31/2023</i>	
Carl Newby <i>Elected by Retirees</i> <i>Term Expires 1/31/2023</i>	

<sup>(1)</sup> Investment manager assignments are on Page 50 and a schedule of broker commissions on Page S2



# Financial Section



ARLINGTON  
VIRGINIA

## **ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM**



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

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Employees' Retirement System of Arlington County (the "System"), a pension trust fund of the County of Arlington, Virginia, which comprise the Statement of Fiduciary Net Position, as of June 30, 2020, the related Statement of Changes in Fiduciary Net Position for the fiscal year then ended, and the related notes to the financial statements, as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

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

### **Auditor's Responsibility**

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System, as of June 30, 2020, and the changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### **Other Matters**

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our 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.

#### *Other 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 Introductory Section, Supplemental Information, Investment Section, Actuarial Section, and Statistical Section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Supplemental 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. Such 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 auditing standards generally accepted in the United States of America. In our opinion, the Supplemental Information is fairly stated in all material respects in relation to the basic financial statements as a whole.

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

### **Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated November 12, 2020, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

*Cheryl Berkant LLP*

Tysons Corner, Virginia  
November 12, 2020



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**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, 2020. 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 Comprehensive Annual Financial Report ("the CAFR").

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, 2020 totaled \$2.527 billion, an increase of \$114 million, or 0.5%, from June 30, 2019, primarily due to an increase in the value of investments.

**Additions and Deductions to Net Position** 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 2020:

- Contributions increased to \$74.5 million from \$69.7 million in fiscal year 2019.
- Dividends and interest on investments decreased to \$28.1 million from \$31.9 million in fiscal year 2019.
- Payments and refunds to members increased to \$115.5 million from \$110.8 million in fiscal year 2019.

**Investment Gains and Losses** Investment gains, which include realized and unrealized changes in investment portfolio market value, were \$135.2 million in fiscal year 2020, a \$8.4 million increase compared to the \$126.8 million in fiscal year 2019.

- Fund gross investment returns, including dividends and interest, of 6.8% for the year outperformed the 5.5% benchmark. The Fund's investment results were due to the outperformance by strong returns for the public equity section, particularly growth-oriented global equity managers. 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, 2020, the System was actuarially funded at 101.2%, up from 99.9% as of June 30, 2019. This funding ratio compares actuarial value of assets to the actuarial liabilities.

We also present the market value GAAP ratio of 102.6% as of June 30, 2020, which is the current market value to actuarial liabilities. The market 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 volatility of market values.

## Financial Section

### MANAGEMENT'S DISCUSSION & ANALYSIS

#### SUMMARY OF FIDUCIARY NET POSITION AND CHANGES IN FIDUCIARY NET POSITION FOR THE YEARS ENDED JUNE 30, 2020 & 2019

##### Summary of Fiduciary Net Position

<b>Assets</b>	<b>June 30, 2020</b>	<b>Increase (Decrease)</b>	<b>June 30, 2019</b>
Cash	\$ 214,360,216	\$ 120,695,414	\$ 93,664,802
Receivables	3,390,635	(3,700,457)	7,091,092
Investments	2,311,789,170	(7,052,490)	2,318,841,660
<b>Total Assets</b>	<b>\$ 2,529,540,021</b>	<b>\$ 109,942,467</b>	<b>\$ 2,419,597,554</b>
<b>Liabilities</b>			
Accrued Expense and Other Liabilities	\$ 2,304,495	\$ (4,005,271)	\$ 6,309,766
<b>Total Liabilities</b>	<b>\$ 2,304,495</b>	<b>\$ (4,005,271)</b>	<b>\$ 6,309,766</b>
<b>Total Fiduciary Net Position</b>	<b>\$ 2,527,235,526</b>	<b>\$ 113,947,738</b>	<b>\$ 2,413,287,788</b>

##### Summary of Changes in Fiduciary Net Position

<b>Additions</b>	<b>June 30, 2020</b>	<b>Increase (Decrease)</b>	<b>June 30, 2019</b>
Employer Contributions	\$ 59,878,931	\$ 3,201,819	\$ 56,677,112
Member Contributions	14,664,853	1,656,126	13,008,727
Dividends & Interest	28,077,521	(3,847,116)	31,924,637
Investment Gains	135,178,969	8,388,813	126,790,156
Other	173,289	(50,691)	223,980
Investment Expense	(6,586,798)	(856,409)	(5,730,389)
<b>Total Additions</b>	<b>\$ 231,386,765</b>	<b>\$ 8,492,543</b>	<b>\$ 222,894,223</b>
<b>Deductions</b>			
Retirement Benefits	\$ 114,598,243	\$ 4,993,382	\$ 109,604,861
Refund of Contributions	863,267	(351,759)	1,215,026
Administrative & Consulting Expense	1,977,517	111,430	1,866,087
<b>Total Deductions</b>	<b>\$ 117,439,027</b>	<b>\$ 4,753,053</b>	<b>\$ 112,685,974</b>
<b>Change in Fiduciary Net Position</b>	<b>\$ 113,947,738</b>	<b>\$ 3,739,490</b>	<b>\$ 110,208,249</b>

## **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:

**Basic Financial Statements** 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, 2020, 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
- Note 7** Describes any subsequent events since the fiscal year end

**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.

**Supplementary Information** 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. Copies of the CAFR are available from the Retirement Office or at the Central Public Library. The report may also be accessed at [www.arlingtonva.us/retirement](http://www.arlingtonva.us/retirement). A summary report will be issued to plan members in January 2021.

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**ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM**  
*(A Pension Trust Fund of Arlington County, Virginia)*  
**STATEMENT OF FIDUCIARY NET POSITION**  
**JUNE 30, 2020**

**ASSETS**

Cash and Cash Equivalents		\$214,360,216
Contributions Receivable:		
Employer		1,611,553
Employee		375,163
Accrued Interest and Other Receivables		1,403,919
Investments, at Fair Value:		
Foreign, Municipal and U.S. Government Obligations	\$97,928,865	
Corporate Fixed Income Obligations	137,485,294	
Domestic and Foreign Equities	500,705,110	
Private Equity	121,087,309	
Real Estate Funds	4,129,875	
Pooled Equity	973,193,748	
Pooled Fixed Income	477,258,969	
Total Investments		<u>2,311,789,170</u>
Total Assets		<u>2,529,540,021</u>

**LIABILITIES**

Accrued Expenses and Other Liabilities	<u>2,304,495</u>
Total Liabilities	<u>2,304,495</u>

NET POSITION RESTRICTED FOR PENSIONS	<u>\$2,527,235,526</u>
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*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, 2020**

**ADDITIONS**

Contributions	
Employer	\$59,878,931
Employee	14,664,853
Service Credit Buybacks	6,912
Total Contributions	<u>\$74,550,696</u>
Investment Income	
Interest and Dividends	28,077,521
Net Appreciation in Fair Value	135,178,969
Investment Income	<u>163,256,490</u>
Less: Investment Expense	6,586,798
Net Investment Income	<u>156,669,692</u>
Securities Lending Activity	
Other Investment Income	
Security Lending Income	222,772
Bank Management Fees	56,395
Net Income From Security Lending	<u>166,377</u>
Total Additions	<u><b>\$231,386,765</b></u>

**DEDUCTIONS**

Members' Benefits	\$114,598,243
Refund of Members' Contributions	863,267
Administrative Expenses	936,789
Other Consulting Expenses	1,040,728
Total Deductions	<u><b>\$117,439,027</b></u>

Net Increase in Net Position **\$113,947,738**

Net Position Restricted for Pensions, Beginning of Year **2,413,287,788**

NET POSITION RESTRICTED FOR PENSIONS, End of Year **\$2,527,235,526**

*See accompanying notes to financial statements*

### NOTES TO FINANCIAL STATEMENTS JUNE 30, 2020

#### **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 (GAAP). The preparation of financial statements in conformity with GAAP 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.

#### **NOTE 2. PLAN DESCRIPTION**

The Arlington County Employees' Retirement System (the System) is a pension trust fund of the Arlington County, Virginia (the County) financial reporting entity and is included in the County's comprehensive annual 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).

## NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

**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, 2020, System membership consisted of the following:

	<u>General</u>	<u>Uniformed</u>	<u>School</u>	<u>Total</u>
<i>Active Employees:</i>				
Vested	1,612	535	5	2,152
Non-vested	<u>1,064</u>	<u>314</u>	<u>0</u>	<u>1,378</u>
Total Active Employees	<u>2,676</u>	<u>849</u>	<u>5</u>	<u>3,530</u>
<i>Vested Deferred</i>	561	113	21	695
<i>Retirees and Beneficiaries</i>	2,412	885	865	4,162

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.

### NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

#### **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, 2020 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.



**NOTES TO FINANCIAL STATEMENTS**  
JUNE 30, 2020

**NOTE 2. PLAN DESCRIPTION****Member Contributions and Retirement Benefits**

	<b><u>Participants Covered Under Chapter</u></b>		
	<b><u>21</u></b>	<b><u>35</u></b>	<b><u>46</u></b>
	Before 2/8/81	Before 2/8/81	2/8/81 or After
Covers Employees Hired:			
Contribution Rates:			
<i>General Employees</i>	4%	N/A	4%
<i>School Board Employees</i> <i>(Covered by VRS)</i>	0%	0%	0%
<i>Uniformed Employees:</i>			
- 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:			
<i>General County Employees</i>	60	N/A	62
<i>School Board Employees</i>	60	62	62
<i>Uniformed Employees</i>	50	N/A	52
<i>"Rule of 80" Applies</i>	Yes	No	Yes
Retirement Benefit:			<u><i>Retiring on/prior to 1/3/09</i></u>
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	General: 1.5% Uniform: 2.0% until Social Security Eligible then 1.5%, 1.7% & 2.0% for each 10 year increment
			<u><i>Retiring on/after 1/4/09</i></u>
			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

**NOTES TO FINANCIAL STATEMENTS**

**JUNE 30, 2020**

**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, 2020, 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 21.0% of annual covered payroll.

**Rate of Return**

For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 6.6%. The money-weighted 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, 2020, were as follows:

*(\$ in millions)*

Total Pension Liability	\$ 2,463.1
Plan Fiduciary Net Position	2,527.2
County's Net Pension Asset	<u>\$ (64.1)</u>
percentage of the Total Pension Liability	102.6%

**Actuarial Assumptions**

The total pension liability was determined by entry age actuarial cost method as of June 30, 2020, 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.

**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2020**

**NOTE 3. NET PENSION LIABILITY**

The actuarial assumptions used in the June 30, 2020 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 best estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long term expected rate of return by weighting the expected future real rates of return by an asset allocation percentage which is based on the nature and mix of current and expected pension plan investments, and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the pension plan's expected asset allocation as of June 30, 2020 (see the discussion of the pension plan's investment policy) are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	6.1%
International Equity	7.1%
Fixed Income	1.8%
Cash/Short Term	0.4%
Non-Traditional	9.6%

**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 (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
<i>(\$ in millions)</i>			
Plan's net pension liability/(asset)	\$287.8	(\$64.1)	(\$350.3)

**NOTES TO FINANCIAL STATEMENTS**  
JUNE 30, 2020

**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 in all major sectors of the capital markets in order to diversify and minimize total investment program risk. Such sectors include, but are not limited to:

- Convertible securities
- Cash, money market funds and other short-term investment funds
- Common stocks, preferred stocks, warrants and similar rights of U.S. and non-U.S. companies
- Private equity. The System invests in private equity via fund-of-funds and direct investment to maximize diversification by vintage year and investment type
- Open and closed end pooled real estate funds and real estate investment trust securities
- 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. Limits on concentration, credit quality and duration are governed by each investment manager's contract

Since the Fund does not utilize a target allocation approach, the following table shows the Fund's ten year average allocation:

<u>Asset Class</u>	<u>10 Year Average Allocation</u>
Domestic Equity	47%
International Equity	17%
Fixed Income	31%
Cash/Short Term	1%
Non-Traditional	4%
Total	100%

While the above asset allocation is not a restrictive target (see investment restrictions on page 25), it is representative of the nature and mix of current and expected System investments.

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**NOTES TO FINANCIAL STATEMENTS**

JUNE 30, 2020

**NOTE 4. DEPOSITS AND INVESTMENTS****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 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 15% 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

### NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

#### NOTE 4. DEPOSITS AND INVESTMENTS

- 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

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, 2020, the System had \$2 in open net forward currency contracts.

#### **d. Cash and Cash Equivalents**

At June 30, 2020, the System had cash and cash equivalents of \$214,360,216. Cash deposits in bank accounts totaled \$332,756. This amount was insured by the Federal Deposit Insurance Corporation up to \$250,000 for each System participant. Cash equivalents totaling \$214,027,460 is invested in the custodian's Short-Term Investment Fund. This account is uninsured and uncollateralized.

**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2020**

**NOTE 4. DEPOSITS AND INVESTMENTS****e. Investments and Risk**

The System's investments are recorded at fair value as described in Note 5. Fair Value of Investments, on page 33. The following table presents the fair value of investments by type at June 30, 2020:

<b>SYSTEM INVESTMENTS</b>	
<b>Investment Type</b> <b>(in \$ 000s)</b>	<b>Investment Value</b>
Foreign, Municipal and U.S. Governments:	
Government and Government Agency Debt	\$ 12,882
Government Pooled Fund	85,047
Total Foreign, Municipal, and U.S. Governments	97,929
Corporate Fixed Income Obligations:	
Residential Mortgaged Backed	70,784
Commercial Mortgage Backed	14,738
Collateralized Mortgage Obligations	17,557
Asset Backed Securities	34,407
Total Corporate Fixed Income Obligations	137,485
Domestic and Foreign Equities:	
Common Stock	497,470
REITs	2,206
Preferred Stock	1,029
Total Domestic and Foreign Equities	500,705
Private Equity:	
Private Equity	121,087
Real Estate Funds:	
Real Estate	4,130
Pooled Equity:	
Pooled Equity Funds	973,194
Pooled Fixed Income:	
Pooled Bond Funds	477,259
<b>Total</b>	<b>\$ 2,311,789</b>

**NOTES TO FINANCIAL STATEMENTS**  
JUNE 30, 2020

**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 \$150.4 million of directly owned fixed income securities and on \$562.3 million invested in three pooled US fixed income funds. The System's directly owned fixed income investments and maturities at June 30, 2020 are:

INVESTMENT MATURITIES					
Investment Type (in \$ 000s)	Fair Value	Maturities (years)			
		Under 1	1-5	6-10	Over 10
Asset Backed Securities	\$34,407	-	2,433	1,715	30,259
Commercial Mortgage Backed	14,738	-	-	186	14,552
Government & Government Agencies	12,882	-	-	5,622	7,260
Residential Mortgage Backed	70,784	-	-	-	70,784
Collateralized Mortgage Obligations	17,557	-	-	952	16,605
<b>Total</b>	<b>\$150,368</b>	<b>-</b>	<b>2,433</b>	<b>8,475</b>	<b>139,460</b>



## NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

**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, 2020 is shown below:

**INVESTMENT DURATIONS**

<b>Investment Type</b> <b>(in \$ 000s)</b>	<b>Fair Value</b>	<b>Effective Duration (Yrs)</b>
Asset Backed Securities	\$34,407	4.579
Commercial Mortgage Backed	14,738	4.010
Government & Government Agencies	12,882	16.302
Residential Mortgage Backed	70,784	3.772
Collateralized Mortgage Obligations	17,557	3.545
<b>Total</b>	<b><u>\$150,368</u></b>	<b><u>5.023</u></b>

**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.

**NOTES TO FINANCIAL STATEMENTS**  
JUNE 30, 2020

**NOTE 4. DEPOSITS AND INVESTMENTS**

**Credit Risk**

The System's credit quality distribution for the System's directly held fixed income investments of \$150.4 million at June 30, 2020 is shown below:

**FIXED INCOME CREDIT QUALITY DISTRIBUTION**

Investment Type (in \$ 000s)	Credit Quality						
	AAA	AA	A	BBB	BB	B	Below B
Asset Backed Securities	\$6,744	-	1,467	1,087	-	-	10,781
Commercial Mortgage Backed	2,789	1,925	286	1,660	1,058	144	6,876
Government & Government Agencies	12,882	-	-	-	-	-	-
Residential Mortgage Backed	70,784	-	-	-	-	-	-
Collateralized Mortgage Obligations	-	-	-	222	-	-	9,680
<b>Total</b>	<b>\$93,199</b>	<b>1,925</b>	<b>1,753</b>	<b>2,969</b>	<b>1,058</b>	<b>144</b>	<b>20,461</b>

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

## NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

**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 have the ability to hedge a portion of their portfolio's foreign currency exposure. The System's exposure to foreign currency risk at June 30, 2020 was as follows:

## FOREIGN CURRENCY EXPOSURE IN US DOLLARS

Currency (in \$ 000s)	Equity	Fixed Income & Convertible	Cash	Total
Brazilian Real	\$1,963	\$0	\$0	\$1,963
British pound sterling	13,732	-	-	13,732
Canadian Dollar	1,821	-	-	1,821
Danish Krone	-	-	1	1
Euro	48,644	-	125	48,769
HK offshore Chinese Yuan Renminbi	2,994	-	-	2,994
Hong Kong Dollar	30,772	-	18	30,790
Indonesian Rupiah	6,940	-	-	6,940
Japanese Yen	4,313	-	23	4,336
Nigerian Naira	511	-	-	511
Norwegian Krone	1,342	-	-	1,342
Philippines Peso	6,434	-	2	6,436
South African Rand	769	-	-	769
South Korean Won	913	-	-	913
Swedish Krona	5,124	-	1	5,125
Swiss Franc	4,597	-	3	4,600
Thailand Baht	654	-	-	654
Turkish lira	568	-	-	568
<b>Total</b>	<b>\$ 132,091</b>	<b>\$ -</b>	<b>\$ 173</b>	<b>\$ 132,264</b>

## NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

### 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 is 102% of the market value of the borrowed securities or 105% if the borrowed securities are not denominated in dollars. Loans and collateral are marked to market on a daily basis. 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 \$24.4 million at the beginning of the year to \$45.3 million at June 30, 2020.

The following table details the net income from securities lending for the fiscal year ended June 30, 2020:

Gross Income from Securities Lending	\$	222,772
Less: Bank Management Fees		(56,395)
Net Income from Securities Lending	\$	<u>166,377</u>

The following table presents the fair value of underlying securities and the value of the non-cash collateral pledged at June 30, 2020:

Securities Lent	Fair Value of Securities on Loan	Fair Value of Non- cash Collateral
Total	\$ 45,272,974	\$ 46,258,280

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

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**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2020**

**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 particular 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.

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2020

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, 2020:

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

	June 30, 2020	Fair Value Measurements Using		
		Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by fair value level</b>				
<b>Debt securities</b>				
Foreign, Municipal and U.S. Governments				
Government and Government Agency Debt	\$ 12,881,575	-	12,881,575	-
Residential Mortgage Backed	70,783,842	-	70,783,842	-
Corporate Fixed Income Obligations				
Commercial Mortgage Backed	14,737,610	-	14,737,610	-
Asset Backed	34,406,765	-	34,406,765	-
Non-Government Backed C.M.O.s	17,557,078	-	17,557,078	-
Pooled Fixed Income				
Pooled Bond Funds	72,802,714	72,802,714	-	-
Total debt securities measured at fair value	223,169,583	72,802,714	150,366,869	-
<b>Equity Securities</b>				
Domestic and Foreign Equities				
Common Stock	417,485,355	417,485,355	-	-
Preferred Stock	1,028,623	1,028,623	-	-
Pooled Equity				
Pooled Equity Funds	776,950,126	898,765,392	-	-
Total equity securities measured at fair value	1,195,464,105	1,317,279,370	-	-
<b>Total investments by fair value level</b>	<b>\$1,418,633,688</b>	<b>\$1,390,082,084</b>	<b>\$150,366,869</b>	<b>-</b>
<b>Investments measured at the net asset value (NAV)</b>				
<b>Debt securities</b>				
Pooled Fixed Income				
Pooled Bond Funds	489,503,545			
Total debt securities measured at the NAV	489,503,545			
<b>Equity Securities</b>				
Domestic and Foreign Equities				
Pooled Global Equity Fund	156,619,488			
Pooled International Equity Fund	121,815,266			
Total equity securities measured at the NAV	278,434,753			
<b>Alternative Investments</b>				
Private Equity				
Private Equity	121,087,309			
Real Estate Funds				
Real Estate	4,129,875			
Total alternative investments measured at the NAV	125,217,184			
<b>Total investments measured at the NAV</b>	<b>893,155,482</b>			
<b>Total investments</b>	<b>\$ 2,311,789,170</b>			

**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2020**

**NOTE 5. FAIR VALUE OF INVESTMENTS**

	June 30, 2020	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
<b>Debt Securities</b>				
Pooled Fixed Income	\$ 489,503,545	-	Daily	None
Total debt securities	489,503,545	-		
<b>Equity Securities</b>				
Domestic and Foreign Equities	156,619,488	-	Monthly	15 - 45 days
International Pooled Equity	121,815,266	-	Monthly	15 - 45 days
Total equity securities	278,434,753	-		
<b>Alternative Investments</b>				
Private Equity	121,087,309	101,000,000	N/A	N/A
Real Estate	4,129,875	-	N/A	N/A
Total alternative investments	125,217,184	101,000,000		
Total investments measured at the NAV	\$ 893,155,482	101,000,000		

- **Unfunded Commitments.** The System has at June 30, 2020 committed to fund certain alternative investment partnerships in the amount of \$313.0 million. Funding of \$212.0 million has been provided leaving an unfunded commitment of \$101.0 million.
- **Alternative Investments.** Real estate includes two funds, structured as a limited partnership, which invests in land in the United States. Private Equity includes fifteen 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 funds will be liquidated over the next 10 years.
- **Equity Focused Funds.** Global Equity and Global Pooled Equity includes global equity funds that invest in both U.S. and non-U.S. equities, seeking quality companies that are attractively valued and have growth potential. Large Cap Domestic Equity includes funds that invest primarily in large cap domestic equity securities.
- **Fixed Income Focused Funds.** Aggregate Bond Index Tracking includes one fund 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.

**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2020**

**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.

**NOTE 7. SUBSEQUENT EVENTS**

The Plan evaluated subsequent events through November 12, 2020 the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2020, but prior to November 12, 2020 that provided additional evidence about conditions that existed at June 30, 2020, have been recognized in the financial statements for the year ended June 30, 2020. Events or transactions that provided evidence about conditions that did not exist at June 30, 2020, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended June 30, 2020.



**SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION**  
**June 30, 2020**

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

	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
<b>Total Pension Liability</b>							
Service Cost	\$ 59.8	\$ 59.3	\$ 57.8	\$ 56.5	\$ 53.8	\$ 54.8	\$ 52.1
Interest	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	(30.1)	(31.1)	(13.7)	(27.1)	(47.3)	(16.2)	(11.0)
Benefit Payments	(115.5)	(110.8)	(105.0)	(99.7)	(95.3)	(90.8)	(86.3)
Net Change in Total Pension Liability	\$ 75.6	\$ 179.5	\$ 85.7	\$ 68.8	\$ 82.0	\$ 83.4	\$ 115.8
Total Pension Liability - Beginning	\$ 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	\$ 2,463.1	\$ 2,387.5	\$ 2,208.0	\$ 2,122.3	\$ 2,053.5	\$ 1,971.5	\$ 1,888.1
<b>Plan Fiduciary Net Position</b>							
Contributions - Employer	\$ 59.9	\$ 56.7	\$ 54.9	\$ 51.8	\$ 54.5	\$ 58.2	\$ 53.7
Contributions - Employee	14.7	13.0	12.9	12.7	12.3	12.2	11.9
Net Investment Income	156.8	152.1	167.3	246.3	(1.3)	37.3	304.2
Benefits Payments	(115.5)	(110.8)	(105.0)	(99.7)	(95.3)	(90.8)	(86.3)
Administrative Expenses	(2.0)	(0.8)	(0.8)	(0.8)	(1.7)	(1.5)	(0.7)
Net Change in Plan Fiduciary Net Position	\$ 113.9	\$ 110.2	\$ 129.3	\$ 210.3	\$ (31.5)	\$ 15.4	\$ 282.8
Plan Fiduciary Net Position - Beginning	\$ 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	\$ 2,527.2	\$ 2,413.3	\$ 2,303.1	\$ 2,173.8	\$ 1,963.5	\$ 1,995.0	\$ 1,979.6
Net Pension Liability/(Asset) - Ending	\$ (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	102.6%	101.1%	104.3%	102.4%	95.6%	101.2%	104.9%
Covered Payroll	\$ 285.2	\$ 270.0	\$ 261.4	\$ 236.5	\$ 248.9	\$ 243.5	\$ 252.4
Net Pension Liability/(Asset) as a Percentage of Covered Payroll	(22.5%)	(9.6%)	(36.4%)	(21.8%)	36.2%	(9.7%)	(36.3%)

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

## Financial Section

### SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

June 30, 2020

#### Schedule of Employer Contributions (\$ in millions)

Fiscal Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined Contribution	\$ 59.9	\$ 56.7	\$ 54.9	\$ 51.8	\$ 54.5	\$ 58.2	\$ 53.7	\$ 48.0	\$ 46.3	\$ 43.2
County Contributions in Relation to the Actuarially Determined Contributions	59.9	56.7	54.9	51.8	54.5	58.2	53.7	48.0	46.3	43.2
Contribution Deficiency/(Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 285.2	\$ 270.0	\$ 261.4	\$ 236.5	\$ 248.9	\$ 243.5	\$ 252.4	\$ 231.1	\$ 234.9	\$ 225.9
Contributions as a Percentage of Covered Payroll	21.0%	21.0%	21.0%	21.9%	21.9%	23.9%	21.3%	20.8%	19.7%	19.1%

#### Notes to Schedule:

Valuation Date

June 30, 2018

Timing

Actuarially determined contribution 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

Entry Age Normal Cost Method

Asset Valuation Method

Five year, smoothed

Amortization Method

Level Percent Open

Discount Rate

6.75%

Amortization Growth Rate

3.00%

Inflation

3.00%

Salary Increases

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

Mortality

General and Uniformed

RP-2000 Combined Mortality with generational mortality improvements using Scale AA for active employees and non-disabled inactive members; for Uniformed members, 50% of deaths assumed to be service-connected.  
RP-2000 Disabled Mortality projected with generational mortality improvements using Scale AA for disabled lives.

School

RP-2000 Employee Mortality with White Collar adjustment with generational improvements using Scale BB for active and non-disabled inactive members; no deaths assumed to be service-connected.  
RP-2000 Disabled Mortality with generational mortality improvements using Scale AA for disabled lives.

#### Schedule of Investment Returns

Fiscal Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Annual money-weighted rate of return, net of investment expense	6.6%	6.8%	7.8%	12.7%	0.0%	1.9%	18.1%	13.5%	0.3%	22.8%

**SUPPLEMENTAL INFORMATION**

JUNE 30, 2020

**SCHEDULE OF ADMINISTRATIVE EXPENSES****Personnel Services:**

Staff Salaries	\$ 499,923	
Benefits	184,945	
<b>Total Personnel Services</b>		<b>\$ 684,868</b>

**Professional Services** **\$ 109,334****Office Expense:**

Telephone	\$ 2,272	
Postage and Shipping	1,789	
Printing	2,378	
<b>Total Office Expense</b>		<b>\$ 6,439</b>

**Education:**

Manager Meetings	\$ 1,308	
Conferences	19,053	
Subscriptions	4,003	
<b>Total Education</b>		<b>\$ 24,364</b>

**Miscellaneous:**

Insurance	\$ 53,662	
Supplies & Furniture	2,376	
Bank Fees	14,065	
Other Miscellaneous <sup>(1)</sup>	41,681	
<b>Total Miscellaneous</b>		<b>\$ 111,784</b>

**Total Administrative Expenses** **\$ 936,789**

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

**SUPPLEMENTAL INFORMATION**  
**JUNE 30, 2020**

**SCHEDULE OF INVESTMENT & CONSULTANT EXPENSES**

**Investment Expenses**

Investment Manager Fees	\$ 6,446,014
Custody Fees	<u>140,784</u>
<b>Total Investment Expenses</b>	<b><u>\$ 6,586,798</u></b>

**Other Consultant Expenses**

<b>Total Other Consultant Expenses</b>	<b><u>\$ 1,040,728</u></b>
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# Investment Section



## **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 that was verified by the System's consultant, Windmark Investment Partners (WIP). 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. For all functions other than return data, WIP is an advisory consultant.

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:
  - A minimum 20% allocation to fixed income investments
  - A 15% cap on illiquid investment strategies restricting new commitments that would drive the Fund's total exposure to illiquid strategies above this ceiling
  - 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:

As of 10/1/07		
<b>Equities</b>	<i>Russell 3000</i>	40.0%
	<i>MSCI ACWI ex-US</i>	17.5%
<b>Fixed Income</b>	<i>Barclays Universal</i>	39.0%
	<i>Barclays TIPS</i>	1.5%
<b>Cash</b>	<i>90 Day T-Bills</i>	2.0%
		100.0%

# Investment Section

## 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 Year Ended June 30							
	10 Years	5 Years	3 Years	2016	2017	2018	2019	2020
Investment Performance (net of fees)								
Total Fund <sup>(1)</sup> (Benchmark)	8.8%	6.7%	7.1%	0.0%	12.7%	7.8%	6.8%	6.6%
Domestic Equities (Russell 3000)	11.2%	7.4%	7.2%	0.4%	15.3%	10.2%	11.0%	0.7%
Global Equities (MSCI AC World)	14.7%	12.9%	14.4%	-3.5%	26.9%	18.3%	3.1%	22.7%
International Equities (MSCI AC World ex-US)	4.8%	0.6%	-2.6%	-9.2%	22.7%	5.9%	-5.8%	-7.3%
Fixed Income (Fixed Income)	4.5%	3.9%	4.3%	3.9%	2.5%	0.3%	6.9%	6.0%
Benchmark Performance								
Total Fund <sup>(2)</sup>	8.2%	6.5%	6.7%	1.5%	11.1%	7.1%	7.5%	5.5%
Russell 3000	13.7%	10.0%	10.0%	2.1%	18.5%	14.8%	9.0%	6.5%
MSCI AC World	9.2%	6.5%	6.1%	+3.7%	18.8%	10.7%	5.7%	2.1%
MSCI AC World ex-US	5.0%	2.3%	1.1%	-10.2%	20.5%	7.3%	1.3%	-4.8%
Fixed Income <sup>(3)</sup>	4.1%	4.4%	5.2%	5.8%	0.9%	-0.3%	8.0%	7.9%
CPI + 3.75% Annualized <sup>(4)</sup>	5.3%	5.3%	5.5%	4.5%	5.4%	6.6%	5.4%	4.4%
Actuarial Assumed Rate of Return				7.25%	6.75%	6.75%	6.75%	6.75%

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

<sup>(2)</sup> 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

<sup>(3)</sup> Weights fixed income benchmark components to 100%

<sup>(4)</sup> 3.75% as of 7/1/16, 3.5% prior



## Investment Performance and Activity

Overview

The financial markets were mixed as more accommodative monetary policies helped offset concerns about slowing global growth and uncertainty surrounding the US-China trade dispute. The Federal Reserve cut interest rates in July and again in September. European Central Bank also announced additional stimulus. US-China trade tensions appeared to ease as the quarter progressed amid news that the world's two largest economies would restart negotiations in October. Fixed income markets were broadly positive. Global equity markets capped off a strong year with gains in the fourth quarter of 2019. A US-China trade agreement marked notable progress in the nearly two-year trade dispute. The Federal Reserve cut interest rates in October and took steps that expanded its balance sheet. Longer term interest rate moved modestly higher and corporate bond spreads narrowed. The rapid spread of the coronavirus across the globe placed strain on health care systems, wreaked havoc on financial markets and economies, and altered nearly every aspect of everyday life and business. Restrictions to control the outbreak dramatically curtailed economic activity. Governments and central banks worldwide responded with unprecedented monetary and fiscal stimulus. The Federal Reserve cut interest rates, resumed bond purchases and revived financial crisis era programs. Stimulus measures helped stocks recover some losses in the final days of March. Fixed income markets were also volatile as interest rates fell to all-time lows, while credit spreads quickly widened. Global equity markets rebounded sharply in the second quarter of 2020. Progress in the development of treatments and vaccines for the coronavirus provided a boost to markets. Fixed Income markets also registered gains as Treasury bond yields moved modestly lower, while credit-oriented bonds rallied alongside stocks.

For the fiscal year ended June 30, 2020 the System gross return of 6.8% (net return of 6.6%) compared to a benchmark return of 5.5%. This performance is above the 3.2% median return of the TUCS Public Plan Universe, placing the System in the 9<sup>th</sup> percentile (1<sup>st</sup> Decile) of public plans for the year. On a 3, 5 and 10-year basis, the System's performance exceeds or equals the benchmark net of fees and ranked in the 14<sup>th</sup>, 22<sup>nd</sup> and 23<sup>rd</sup> percentiles, respectively.

The System's 1.2% overperformance relative to the overall policy benchmark for the fiscal year was primarily attributable to strong returns for the public equity section, particularly growth-oriented global equity managers. The table below summarizes key drivers of the System's benchmark relative performance.

	Policy Benchmark	Sector Allocation	Style Selection	Active Management	Total Fund
<b>Investment Performance</b>	<b>5.5%</b>	<b>-0.3%</b>	<b>-0.8%</b>	<b>2.2%</b>	<b>6.6%</b>
<b>Value Added or Lost</b>					
<i>Fixed Income</i>		-0.1%	0.2%	-0.4%	
<i>US Equity</i>		0.0%	-1.0%	1.1%	
<i>International Equity</i>		0.0%	0.1%	1.5%	
<i>Other/Unallocated</i>		-0.2%	0.0%	0.0%	

Source: Windmark Investment Partners

## Investment Section

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As of June 30, 2020, the System was in compliance with its investment policy guidelines as follows:

- Fixed income investments and cash equivalents totaled 36.6% of assets.
- The market value of illiquid investments, including limited partnerships, plus remaining funding commitments, totaled 9.0% of assets.
- Derivative strategies were not in use.

### **Investment Activity and Details**

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

#### **Equity**

As of June 30, 2020, the System had \$1,476.7 million, or 58.4% of the fund, in publicly traded equity investments invested in two index funds and seven actively managed mandates. Of the seven actively managed mandates one focused on domestic equities, three on international equities, and three on global equities. Actively managed separate accounts totaled \$910.9 million with the remaining \$565.8 million held in pooled investment vehicles.

Activity during the year included actively managing equity risk exposure. In the third quarter of 2019, the Board terminated an international equity index fund and moved proceeds to an active international equity manager. In the second quarter of 2020, the Board terminated a domestic equity manager and moved proceeds to a domestic equity index fund.

For the fiscal year ended June 30, 2020 the domestic equity allocation posted a -0.3% return, the international equity allocation posted a -6.9% return, and the global equity mandates returned 23.2%. The total equity allocation gross return was 5.6% for the year compared to a blended equity benchmark of 3.0%.

#### **Fixed Income & Cash**

As of June 30, 2020, the System held \$925.2 million, or 36.6% of the fund, in fixed income securities and cash.

Activity during the year included the Board trimming a mutual fund with proceeds going to an index bond fund. The Board also terminated an active fixed income manager with proceeds going to an indexed bond fund. Currently, the System utilizes the Northern Trust Short Term Investment Fund or the Vanguard 500 Index Trust as a source of operating funds for the year, withdrawing \$53.3 million for these purposes.

For the fiscal year ended June 30, 2020, the fixed income investments posted a 6.7% return, in aggregate. This compares to a blended fixed income benchmark return of 7.9% for the same period.

For the fiscal year ended June 30, 2020, the cash allocation gross return was 1.6% for the year compared to a benchmark of 1.6%.

### Alternative Investments

The alternative investment category includes real estate and private equity. The market value of these alternative investments, including limited partnerships, plus remaining funding commitments, totaled 9.0% of assets.

The System met its funding obligations to alternative investment managers during the year. At June 30, 2020, 67.7% of the System's total \$313.0 million in commitments were funded.

The following table summarizes the alternative investments as of June 30, 2020:

(millions)	Total Commitment	Funded	Remaining Commitment
Peppertree VIII	\$ 15.0	\$ 4.2	\$ 10.8
Marcus Capital III	25.0	3.1	21.9
JFL Equity Investors IV	15.0	12.8	2.2
JFL Equity Investors V	15.0	0.0	15.0
Gallant Partners I	15.0	7.2	7.8
Franklin Park Venture 2015	15.0	13.6	1.4
Franklin Park Venture 2017	15.0	6.2	8.8
BVIP Fund VIII	15.0	13.4	1.6
BVIP Fund IX	15.0	10.0	5.0
BVIP Fund X	15.0	0.0	15.0
Bison Fund V	15.0	10.3	4.7
Arsenal Real Estate	25.0	25.0	0.0
Altaris Health Partners III	15.0	15.0	0.0
Altaris Health Partners IV	15.0	9.0	6.0
Abbott ACE IV	50.0	49.7	0.3
Abbott ACE V	8.0	7.7	0.3
Abbott ACE VI	25.0	24.8	0.2
<b>Total</b>	<b>\$ 313.0</b>	<b>\$ 212.0</b>	<b>\$ 101.0</b>

The System's remaining commitments to these alternative investments total \$21.9 million for real estate and \$79.1 million for private equity. The System made \$29.7 million in contributions and received \$19.3 million in distributions for a net cash flow of (\$10.4) million for the fiscal year. The System has sufficient liquid assets to meet the funding commitments.

These alternative investments combined for a 12.6% return for the fiscal year.

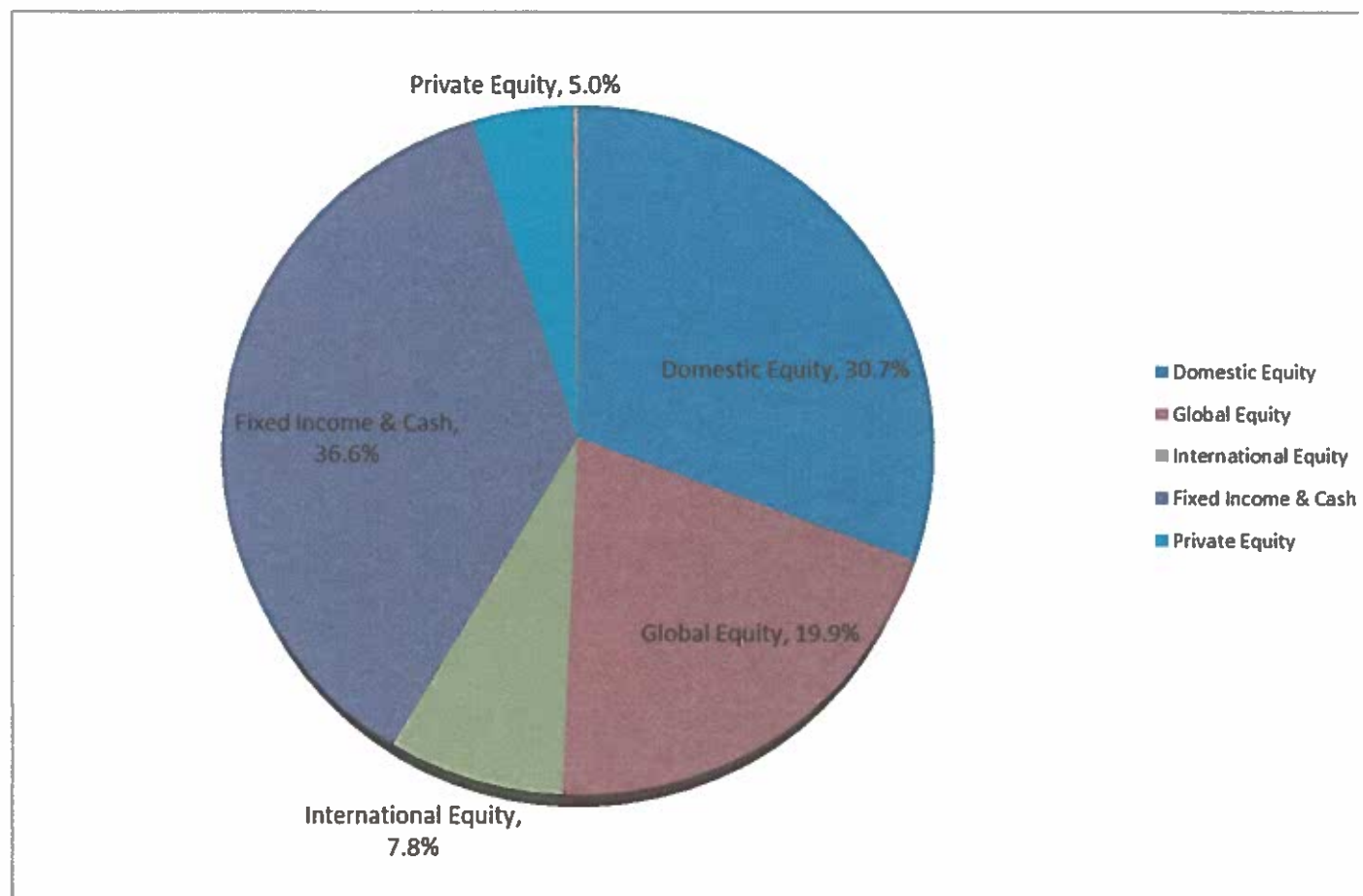
## Investment Section

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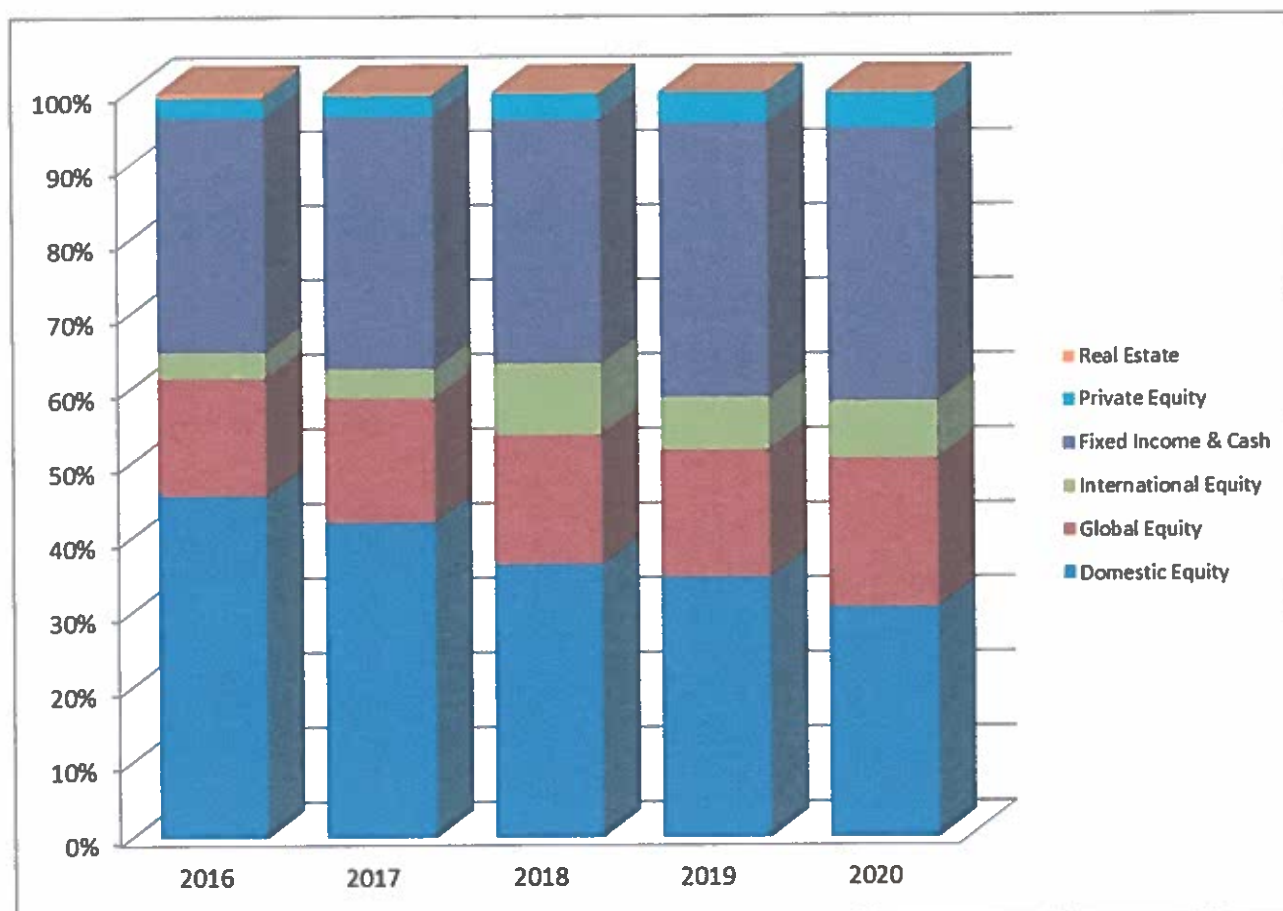
### Arlington County Employees' Retirement System Asset Allocation (As of June 30, 2020)

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, 2020. 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)	2016	2017	2018	2019	2020
Domestic Equity	\$900.0	\$918.2	\$841.8	\$839.5	\$777.0
Global Equity	\$308.1	\$360.9	\$398.6	\$410.7	\$503.5
International Equity	\$70.3	\$86.3	\$221.7	\$172.7	\$196.2
Fixed Income & Cash	\$617.8	\$736.1	\$753.9	\$886.7	\$925.2
Private Equity	\$53.1	\$62.7	\$81.5	\$100.6	\$121.4
Real Estate	\$12.5	\$7.7	\$3.5	\$1.1	\$4.1
	\$1,961.8	\$2,171.9	\$2,301.0	\$2,411.4	\$2,527.4
Domestic Equity	45.9%	42.3%	36.6%	34.8%	30.7%
Global Equity	15.7%	16.6%	17.3%	17.0%	19.9%
International Equity	3.6%	4.0%	9.6%	7.2%	7.8%
Fixed Income & Cash	31.5%	33.8%	32.8%	36.8%	36.6%
Private Equity	2.7%	2.9%	3.5%	4.2%	4.8%
Real Estate	0.6%	0.4%	0.2%	0.0%	0.2%
	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.

## Investment Section

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### Arlington County Employees' Retirement System Investment Managers and Assignments (As of June 30, 2020)

Manager	Assignment	Fiscal Year Retained
<b>Domestic Equities</b>		
Northern Trust	Russell 1000 Value Index	2015
The Vanguard Group	Large Cap Core	2009
The Vanguard Group	Large Cap Dividend	2011
<b>International and Global Equities</b>		
Baillie Gifford	Global Large Cap	2007
Highclere	International Small Cap	2019
Kiltearn	Global Value	2014
Orbis	International Equity	2018
T. Rowe Price	Global Large Cap	2010
T. Rowe Price	International Long Term Growth	2018
<b>Alternatives</b>		
Abbott Capital	Private Equities	2001
Altaris Health Partners	Private Equities	2014
Arsenal Real Estate	Opportunistic Real Estate	2006
Bison Capital	Private Equities	2017
BV Investment Partners	Private Equities	2015
Franklin Park	Venture Private Equity	2015
Gallant Partners	Private Equities	2019
JFL Equity Partners	Private Equities	2016
Marcus Partners	Real Estate	2019
Peppertree Partners	Infrastructure	2020
<b>Fixed Income and Cash</b>		
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<sup>(1)</sup> (excludes investments in pooled vehicles)**

<b>Equities</b>	<b>Shares</b>	<b>Fair Value (\$)</b>	<b>% of Fund</b>
AMAZON	9,001	\$ 24,832,139	0.98%
TESLA	16,302	17,603,063	0.70%
TENCENT	232,700	14,969,998	0.59%
ALIBABA	68,195	14,709,662	0.58%
FACEBOOK	53,115	12,060,823	0.48%
ALPHABET INC	8,055	11,386,629	0.45%
ILLUMINA INC	28,307	10,483,497	0.41%
NETFLIX INC	18,369	8,358,630	0.33%
SHOPIFY INC	8,412	7,984,670	0.32%
PINDUODUO INC	82,503	7,082,058	0.28%
ASML HOLDINGS	18,914	6,947,474	0.27%
SALESFORCE	34,376	6,439,656	0.25%
KERING	11,693	6,359,652	0.25%
DEXCOM INC	14,411	5,842,219	0.23%
ATLISSIAN CORP	30,992	5,586,928	0.22%
WORKDAY INC	29,026	5,438,311	0.22%
ADYEN INC	3,589	5,222,142	0.21%
DELIVERY HERO	50,223	5,130,868	0.20%
INTUITIVE SURGICAL	8,998	5,127,330	0.20%
SPOTIFY TECH	19,652	5,073,950	0.20%
NVIDIA CORP	12,890	4,897,040	0.19%
TAL ED GROUP	63,490	4,341,446	0.17%
PELOTAN	73,604	4,252,103	0.17%
ZOOM INC	15,160	3,843,666	0.15%
UNILEVER	2,616,748	3,665,196	0.15%
<b>Equities Total</b>		<b>\$ 207,639,150</b>	<b>8.22%</b>

<b>Fixed Income</b>	<b>Face Value (\$)</b>	<b>Fair Value (\$)</b>	<b>% of Fund</b>
FNMA	51,201,311	\$ 54,297,232	2.15%
FHLMC	13,653,790	14,611,018	0.58%
US TREASURY	11,050,000	12,881,574	0.51%
CITIGROUP	6,331,304	5,961,177	0.24%
JP MORGAN	5,694,093	3,850,302	0.15%
ALTERNATIVE LOAN TR	4,559,206	3,521,914	0.14%
AJAX MTG	2,409,048	2,466,989	0.10%
WASHINGTON MUTUAL	4,318,176	2,343,369	0.09%
CSMC	2,247,919	2,276,411	0.09%
PRETIUM MTG	2,213,002	2,200,094	0.09%
LEGACY MTG	2,010,427	2,006,285	0.08%
INDYMAC	2,157,447	1,918,129	0.08%
GNMA	7,774,986	1,875,592	0.07%
PRPM	1,671,537	1,673,568	0.07%
STRUCTURED ASSET	2,118,407	1,574,128	0.06%
VERICREST	1,346,292	1,340,591	0.05%
CFIP	1,250,000	1,223,086	0.05%
WELLS FARGO	6,175,840	1,159,678	0.05%
GS MORTGAGE SER	5,990,277	1,069,703	0.04%
VIBRANT	1,000,000	971,179	0.04%
VOLT	905,625	900,897	0.04%
MORGAN STANLEY	6,393,790	811,117	0.03%
BX TR	843,000	747,826	0.03%
BBCMS MTG	597,000	557,417	0.02%
COMM MTG	480,000	446,988	0.02%
<b>Fixed Income Total</b>		<b>\$ 122,686,264</b>	<b>4.85%</b>

<sup>(1)</sup> 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 System staff and the investment consultant.

Commissions paid on all trades totaled \$185,363 and the average commission rate paid was 0.006 cents per share. The following is a list of brokers who received commissions of \$5,000 or more during fiscal 2020. A complete schedule of all commissions paid is available from the Retirement Office.

Broker	Number of Shares	Total Commission	Commission Per Share (\$ per share)
JP Morgan	2,807,491	\$20,100	0.007
Goldman Sachs	1,886,898	15,312	0.008
Morgan Stanley	2,298,576	14,706	0.006
Instinet	2,293,814	12,879	0.006
Jefferies	1,561,500	12,314	0.008
UBS	1,216,591	8,005	0.007
Credit Suisse	3,565,956	7,017	0.002
Citigroup	877,795	6,114	0.007



# Actuarial Section



## **ARLINGTON COUNTY EMPLOYEES' RETIREMENT SYSTEM**





*Classic Values. Innovative Advice.*

***Via Electronic Mail***

October 2, 2020

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 Comprehensive Annual Financial Report (CAFR) for the Employees' Retirement System of the Arlington County Employees' Retirement System (System) with respect to pension benefits.

Actuarial valuations of the Arlington County Employees' Retirement System are performed annually. The results of the latest actuarial valuation of the System, which we have prepared as of June 30, 2020, 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 20.9% of pay for the 2020-21 plan year, which meets the funding objective for this fiscal year.

The County's contribution appropriated for the fiscal year ended June 30, 2020 was determined based on the results of the June 30, 2018 valuation. The County's contribution rate was 21.0% of pay, which equated to contributions of \$59.9 million.

As of June 30, 2020, the System's actuarial liability was 101.2% funded based on the Actuarial Value of Assets. The actuarial liability was 102.6% funded based on the Market 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.

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. In our opinion, the actuarial assumptions used in the valuation are reasonable both individually and in aggregate. Future results may differ significantly from the current results due to such factors as the following:

[www.cheiron.us](http://www.cheiron.us) 1.877.CHEIRON (243.4766)

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Arlington County Employees' Retirement System  
October 2, 2020  
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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 CAFR, 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 CAFR based on the June 30, 2020 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 CAFR 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, 2020 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 CAFR based on the June 30, 2020 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

### **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 Employees' 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



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Arlington County Employees' Retirement System  
October 2, 2020  
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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.

Respectfully submitted,  
Cheiron



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



Gene Kalwarski, FSA, EA, MAAA  
Principal Consulting Actuary



Patrick T. Nelson, FSA, EA, MAAA  
Associate Actuary



### **Actuarial Assumptions, Methods and Summary of Valuation Results**

#### **Valuation Method and Asset Value**

An actuarial valuation is performed annually. At June 30, 2020, the date of the actuarial valuation used for fiscal year 2020 reporting, the market value of System assets was \$2,527.2 million compared to \$2,413.3 million in assets at June 30, 2019.

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, 2020 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, 2020 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, 2020 was \$2,492.8 million, which is 98.6% 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 (\$29.7) million as of June 30, 2020 due to Actuarial Value of assets being larger than the Actuarial Liability.

The table below summarizes, at June 30, 2020, the actuarial liabilities, both funded and unfunded, by employee type and for the total System.

	<u>Liabilities (in millions of \$)</u>			
	<u>General</u>	<u>School</u>	<u>Uniformed</u>	<u>Total</u>
Present Value of Future Benefits				
Active Members	\$773.5	\$1.2	\$689.5	\$1,464.2
Retired Member and Beneficiaries	645.3	72.4	487.6	1,205.3
Disabled Members	32.6	0.8	116.3	149.7
Vested Deferred Members	42.1	0.4	16.8	59.3
DROP Members	<u>56.9</u>	<u>0.3</u>	<u>76.2</u>	<u>133.4</u>
Total	\$1,550.4	\$75.1	\$1,386.4	\$3,011.9
Normal Cost Rate	11.9%	0.0%	31.9%	N/A
Present Value of Future Payroll	\$1,707.9	\$0.0	\$681.5	\$2,389.4
Present Value of Future Employer Costs	\$203.2	\$0.0	\$217.4	\$420.6
Present Value of Future Member Contributions	\$70.3	\$0.0	\$57.9	\$128.2
Actuarial Liability	\$1,276.9	\$75.1	\$1,111.1	\$2,463.1
Actuarial Value of Assets	\$1,292.8	\$75.1	\$1,124.9	\$2,492.8
Unfunded Actuarial Liability	(\$15.9)	\$0.0	(\$13.8)	(\$29.7)

Source: June 30, 2020 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, 2020 Actuarial Valuation reflects the County's contribution rate of 20.6% for fiscal year 2022. This contribution rate is comprised of a normal cost rate, including administrative expenses, of 17.6% 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 2022 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 2022:

	<b><u>Employer Contribution Rate as a Percentage of Payroll</u></b>	
	<b><u>General</u></b>	<b><u>Uniformed</u></b>
Normal Cost	15.9%	39.4%
Member Contribution Rate	4.0%	7.5%
Employer Normal Cost	11.9%	31.9%
Expense Loading as Percentage of Payroll	0.7%	0.7%
County Normal Cost Plus Expenses	12.6%	32.6%

Source: June 30, 2020 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, 2020, the date of the actuarial valuation, was 3,530, a small increase from 3,521 at June 30, 2019.

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 used with the June 30, 2019 valuation.

During the fiscal year 2020, the financial markets performed slightly less than expectation. The actual net investment return, on a market value basis, was approximately 6.6% which is less than the prior year's actuarial rate of return assumption of 6.75% for that period. The market value of System assets increased \$113.9 million in 2020. On an actuarial basis, System assets increased \$108.8 million.

On the liability side, the System had a \$75.6 million increase in actuarial liabilities. The liabilities increased by \$105.7 million due to normal annual liability growth which were offset by \$30.1 million due to the System's actual experience gain.

### **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.

#### **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<br>(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

#### **8. Changes in Economic Assumptions since Last Valuation**

None.

## 2. Demographic Assumptions – General Members

### 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

Age	Chapter 21		Chapter 46	
	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 disableds 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

Age	Male		Female	
	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**

Age	Early	Unreduced
50	.065	.210
51	.065	.210
52	.065	.210
53	.065	.210
54	.065	.210
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. Demographic Assumptions – Uniformed Members

#### 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

Age	Chapter 21		Chapter 46	
	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 disableds 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

Age	Male		Female	
	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

Chapter 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

Age	Males Years of Service					
	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

Age	Females Years of Service					
	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: 7.25% for years between 2014 and 2016 and 6.75% thereafter. 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:  $2.5\% \times \text{years of creditable service for up to 20 years} + 2.0\% \times \text{years of creditable service beyond 20 years} \times \text{average final salary} = \text{annual retirement benefit}$ . 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 2/8/1981**

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

The basic formula for calculating benefits is:  $2.125\% \times \text{credited service} \times \text{average final salary} = \text{annual retirement benefit}$ . 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.  $1.7\% \times \text{all years of creditable service} \times \text{new average final salary}$ , OR
2.  $1.5\% \times \text{years of creditable service prior to January 3, 2009} \times \text{old average final salary} + 1.7\% \times \text{years of creditable service after January 3, 2009} \times \text{new avg. final salary}$ .

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

1.  $2.5\% \times \text{years of creditable service prior to January 4, 2009} \times \text{new average final salary} \text{ plus } 2.7\% \times \text{years of creditable service on/after January 4, 2009} \times \text{new average final salary}$ , OR
2.  $2.7\% \times \text{years of creditable service on/after January 4, 2009} \times \text{new average final salary} \text{ plus old average final salary times } 2.0\% \text{ times years of service prior to January 4, 2009}$ . 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:  $1.5\% \times \text{years of creditable service} \times \text{average final salary, including overtime} = \text{annual retirement benefit}$  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 3 years.

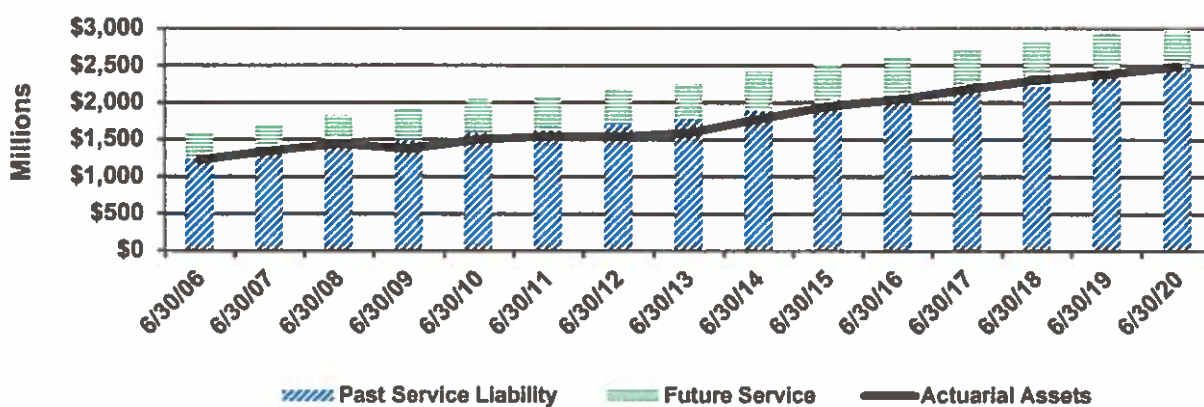


## Trends

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, 2020, the ratio of actuarial assets to liabilities is 102.6%, up from 99.9% in the prior year's Actuarial Valuation due primarily to favorable liability experience.

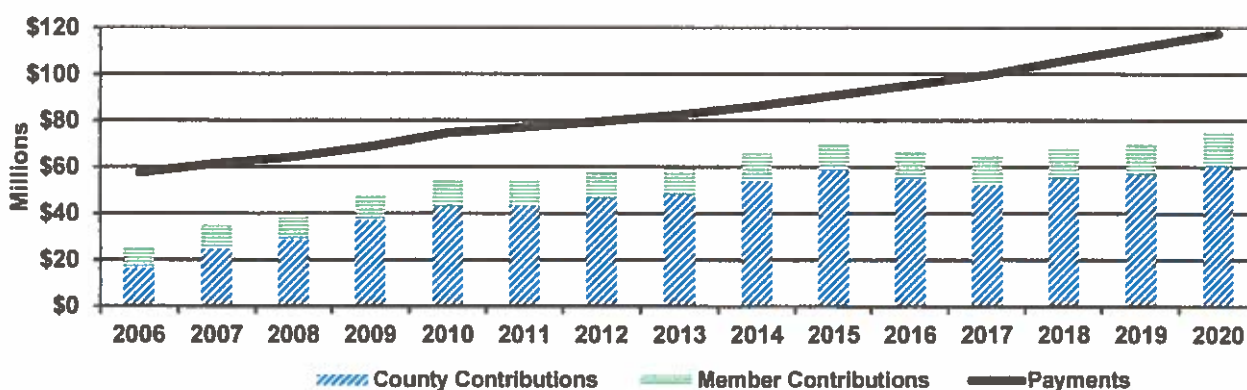
**Chart A: ASSETS / LIABILITIES**



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)**

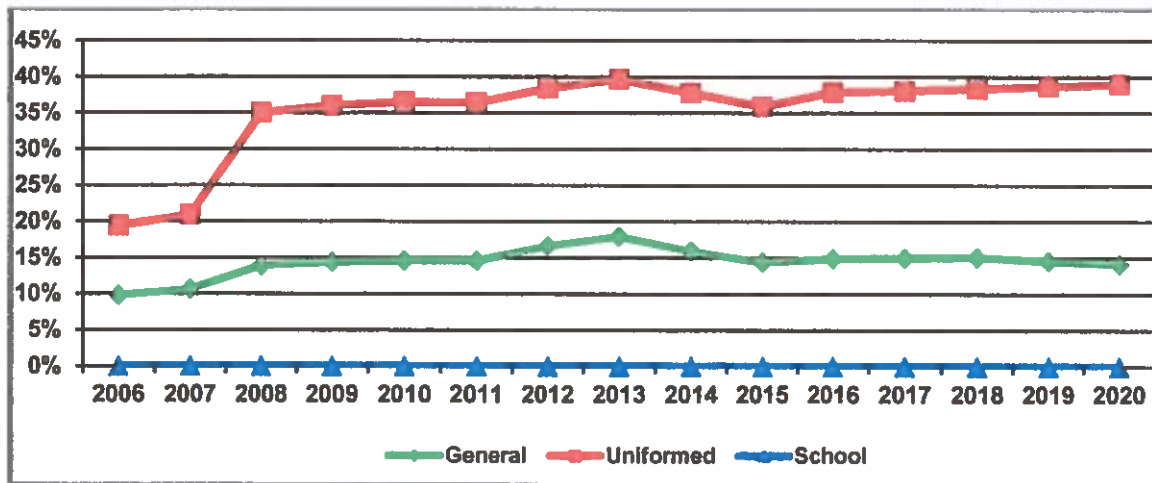


Source: Actuarial Reports- Assets, Table III-1

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						
Group	Plan	Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
<u>General Employees</u>						
Chapter 21		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%
		6/30/2016	5	484,822	96,964	6%
		6/30/2015	7	639,694	91,385	25%
		6/30/2014	11	806,320	73,302	0%
Chapter 46		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	211,822,452	78,920	6%
		6/30/2017	2,718	202,604,267	74,542	3%
		6/30/2016	2,710	196,483,174	72,503	2%
		6/30/2015	2,675	189,852,542	70,973	4%
		6/30/2014	2,664	181,610,323	68,172	5%
<u>School Board Employees</u>						
Chapter 35		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%
		6/30/2016	24	2,653,631	110,568	0%
		6/30/2015	28	3,090,658	110,381	12%
		6/30/2014	34	3,348,649	98,490	-3%
<u>Uniformed Employees</u>						
Chapter 21		6/30/2020	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%
		6/30/2016	1	188,919	188,919	3%
		6/30/2015	1	183,717	183,717	7%
		6/30/2014	1	171,978	171,978	4%
Chapter 46		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%
		6/30/2016	826	68,011,172	82,338	-3%
		6/30/2015	822	69,747,061	84,850	8%
		6/30/2014	845	66,565,878	78,776	4%

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

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

*All \$ amounts are millions*

						Portion of Accrued Liabilities Covered by Value of Assets			
<u>Aggregate Accrued Liability For:</u>									
	(1)	(2)	(3)						
	Active		Active		Actuarial				
Valuation	Employee	Inactive*	Employer	Actuarial	Value of				
Date	Contrib.	Employees	Contrib.	Liability	Assets	(1)	(2)	(3)	
6/30/2011	\$ 286.5	\$ 885.5	\$ 451.4	\$1,623.4	\$1,548.1	100%	100%	83%	
6/30/2012	325.1	925.9	438.9	1,689.9	1,538.7	100%	100%	66%	
6/30/2013	358.8	971.7	441.8	1,772.3	1,592.5	100%	100%	59%	
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%	

Source: June 30, 2020 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**

<u>Type of Activity</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Investment Income	\$92.3	\$61.9	(\$18.0)	\$35.1	\$16.2	(\$32.7)	(\$7.9)
Combined Liability Experience	<u>11.0</u>	<u>16.2</u>	<u>47.3</u>	<u>27.1</u>	<u>13.7</u>	<u>31.1</u>	<u>30.1</u>
Gain (or Loss) During Year from Financial Exp	\$103.3	\$78.1	\$29.3	\$62.2	\$29.9	(\$1.6)	\$22.2
Non-Recurring Items	<u>(29.4)</u>	<u>0.0</u>	<u>(27.2)</u>	<u>0.0</u>	<u>(3.1)</u>	<u>(112.6)</u>	<u>0.0</u>
Compositive Gain (or Loss) During Year	\$73.9	\$78.1	\$2.1	\$62.2	\$26.8	(\$114.2)	\$22.2

**RETIREMENT ALLOWANCES ADDED TO AND REMOVED FROM ROLLS**

Plan	Year Ended	No.	Added to Rols Annual Allowances	No.	Removed from Rols Annual Allowances	On Rols at Year End Year-End Total	Annual Allowances	% Increase Allowance	Average Annual Allowance
Chapter 21	6/30/2020	9	\$932,312	59	\$1,535,299	1098	\$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
	6/30/2013	18	\$1,198,027	67	\$1,149,400	1,422	\$47,206,800	0.1%	\$33,197
	6/30/2012	14	\$1,147,753	57	\$1,038,305	1,471	\$47,158,173	0.2%	\$32,059
	6/30/2011	36	\$923,568	54	\$1,108,707	1,514	\$47,048,725	-0.4%	\$31,076
Chapter 35	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	\$23,283	946	\$9,450,432	0.1%	\$9,990
	6/30/2013	15	\$285,716	29	\$182,049	976	\$9,445,094	1.1%	\$9,677
	6/30/2012	18	\$236,125	49	\$240,554	990	\$9,341,427	0.0%	\$9,436
	6/30/2011	36	\$124,350	46	\$282,762	1,021	\$9,345,856	-1.7%	\$9,154
Chapter 46	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
	6/30/2013	130	\$3,714,142	21	\$207,260	1,327	\$27,139,081	14.8%	\$20,451
	6/30/2012	108	\$3,511,334	17	\$167,182	1,218	\$23,632,199	16.5%	\$19,402
	6/30/2011	82	\$1,936,123	12	\$130,677	1,127	\$20,288,047	9.8%	\$18,002

Source: Supplemental Data Provided by Actuary

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

Fiscal Year Ended	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined Contribution	\$ 59.9	\$ 56.7	\$ 54.9	\$ 51.8	\$ 54.5	\$ 58.2	\$ 53.7	\$ 48.0	\$ 46.3	\$ 43.2
County Contributions In Relation to the Actuarially Determined Contributions	59.9	56.7	54.9	51.8	54.5	58.2	53.7	48.0	46.3	43.2
Contribution Deficiency/(Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 285.2	\$ 270.0	\$ 261.4	\$ 236.5	\$ 248.9	\$ 243.5	\$ 252.4	\$ 231.1	\$ 234.9	\$ 225.9
Contributions as a Percentage of Covered Payroll	21.0%	21.0%	21.0%	21.9%	21.9%	23.9%	21.3%	20.8%	19.7%	19.1%

Notes to Schedule:

Valuation Date

Timing

June 30, 2018

Actuarially determined contribution 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

Entry Age Normal Cost Method

Five year, smoothed

Level Percent Open

6.75%

3.00%

3.00%

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

General and Uniformed

RP-2000 Combined Mortality with generational mortality improvements using Scale AA for active employees and non-disabled inactive members; for Uniformed members, 50% of deaths assumed to be service-connected. RP-2000 Disabled Mortality projected with generational mortality improvements using Scale AA for disabled lives.

School

RP-2000 Employee Mortality with White Collar adjustment with generational improvements using Scale BB for active and non-disabled inactive members; no deaths assumed to be service-connected. RP-2000 Disabled Mortality with generational mortality improvements using Scale AA for disabled lives.

Mortality

# 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, 2020**

GROUP	CHAPTER			TOTAL MEMBERSHIP
	21	35	46	
General County	4	0	2,616	2,620
Deputy Sheriffs	0	0	209	209
Firefighters	0	0	322	322
Police Officers	0	0	318	318
School	0	5	65	70
<b>TOTALS</b>	<b>4</b>	<b>5</b>	<b>3,530</b>	<b>3,539</b>

**HISTORY OF ACTIVE EMPLOYEE MEMBERSHIP  
IN RETIREMENT SYSTEM  
JUNE 30, 2020**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>CHAPTER 21</b>										
General County	14	14	9	8	6	4	4	4	4	4
Police Officers	2	1	1	1	1	1	1	1	1	0
Firefighters	1	1	0	0	0	0	0	0	0	0
Deputy Sheriffs	0	0	0	0	0	0	0	0	0	0
School	3	3	3	3	1	1	1	1	0	0
<b>TOTAL</b>	<b>20</b>	<b>19</b>	<b>13</b>	<b>12</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>4</b>
<b>CHAPTER 35</b>										
School	65	56	43	34	28	23	17	11	8	5
General County	1	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>66</b>	<b>56</b>	<b>43</b>	<b>34</b>	<b>28</b>	<b>23</b>	<b>17</b>	<b>11</b>	<b>8</b>	<b>5</b>
<b>CHAPTER 46</b>										
General County	2,504	2,525	2,520	2,535	2,563	2,607	2,626	2,596	2,570	2,616
Police Officers	333	345	336	347	345	339	329	316	323	318
Firefighters	282	302	293	294	278	283	295	300	328	322
Deputy Sheriffs	203	210	205	204	199	204	211	214	211	209
School	167	153	140	128	112	104	93	88	76	65
<b>TOTAL</b>	<b>3,489</b>	<b>3,535</b>	<b>3,494</b>	<b>3,508</b>	<b>3,497</b>	<b>3,537</b>	<b>3,554</b>	<b>3,514</b>	<b>3,508</b>	<b>3,530</b>
<b>GRAND TOTAL</b>	<b>3,575</b>	<b>3,610</b>	<b>3,550</b>	<b>3,554</b>	<b>3,533</b>	<b>3,566</b>	<b>3,577</b>	<b>3,531</b>	<b>3,521</b>	<b>3,539</b>

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.

**RETIREMENTS GRANTED  
DURING FISCAL YEAR 2020**

<b>Chapters 21 &amp; 46</b>	<b>SERVICE RETIREMENTS</b>	<b>DEFERRED RETIREMENT OPTION PLAN (DROP)</b>	<b>ORDINARY DISABILITY</b>	<b>SERVICE CONNECTED DISABILITY</b>	<b>TOTAL</b>
General County	56	31	2	1	90
Deputy Sheriffs	4	3			7
Firefighters		8		4	12
Police Officers	6	5			11
School	12	1			13
<b>TOTAL</b>	<b>78</b>	<b>48</b>	<b>2</b>	<b>5</b>	<b>133</b>

<b>Chapter 35</b>	<b>SERVICE RETIREMENTS</b>	<b>DEFERRED RETIREMENT OPTION PLAN (DROP)</b>	<b>ORDINARY DISABILITY</b>	<b>SERVICE CONNECTED DISABILITY</b>	<b>TOTAL</b>
General County					0
School	3				3
<b>TOTAL</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

**HISTORY OF RETIREMENTS GRANTED  
YEAR ENDED JUNE 30**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>CHAPTERS 21 &amp; 46</b>										
Service Retirements	42	49	73	74	81	74	77	74	57	78
DROP	36	54	49	52	68	67	74	71	55	48
Ordinary Disability	4	0	2	4	4	4	4	1	1	2
Service Connected Disability	1	12	3	4	4	2	2	3	4	5
	83	115	127	134	157	147	157	149	117	133
<b>CHAPTER 35</b>										
Service Retirements	20	12	14	12	14	13	13	6	2	3
DROP	0	2	0	0	0	0	1	0	0	0
Ordinary Disability	0	0	0	0	0	0	0	0	0	0
	20	14	14	12	14	13	14	6	2	3
<b>GRAND TOTAL</b>	<b>103</b>	<b>129</b>	<b>141</b>	<b>146</b>	<b>171</b>	<b>160</b>	<b>171</b>	<b>155</b>	<b>119</b>	<b>136</b>

**SUMMARY OF MONTHLY RETIREMENT ALLOWANCES  
RETIREES AND SURVIVORS  
AS OF JUNE 30, 2020**

	Service Retirements		DROP		Ordinary Disability		Service Connected Disability		Total	
	#	Amount	#	Amount	#	Amount	#	Amount	#	Amount
<b>CHAPTER 21</b>										
General County	586	\$1,762,186	0	\$0	11	\$31,647	18	\$48,359	615	\$1,842,192
Deputy Sheriffs	12	\$42,201	0	\$0	0	\$0	5	\$10,547	17	\$52,748
Firefighters	136	\$568,809	0	\$0	0	\$0	43	\$151,355	179	\$720,164
Police Officers	187	\$736,253	1	\$12,048	4	\$6,643	37	\$132,725	229	\$887,669
School	106	\$215,590	1	\$4,559	4	\$7,560	3	\$7,422	114	\$235,131
<b>TOTAL</b>	<b>1,027</b>	<b>\$3,325,039</b>	<b>2</b>	<b>\$16,607</b>	<b>19</b>	<b>\$45,850</b>	<b>106</b>	<b>\$350,408</b>	<b>1,154</b>	<b>\$3,737,904</b>
<b>CHAPTER 46</b>										
General County	1,362	\$2,356,303	104	\$277,401	38	\$37,010	37	\$96,470	1,541	\$2,767,184
Deputy Sheriffs	103	\$404,183	9	\$49,695	1	\$801	19	\$60,926	132	\$515,605
Firefighters	94	\$488,746	19	\$138,324	0	\$0	52	\$237,080	165	\$864,150
Police Officers	145	\$666,684	21	\$155,421	0	\$0	25	\$97,607	191	\$919,712
School	256	\$198,839	4	\$8,415	23	\$12,075	1	\$1,824	284	\$221,153
<b>TOTAL</b>	<b>1,960</b>	<b>\$4,114,755</b>	<b>157</b>	<b>\$629,256</b>	<b>62</b>	<b>\$49,886</b>	<b>134</b>	<b>\$493,907</b>	<b>2,313</b>	<b>\$5,287,804</b>
<b>CHAPTER 35</b>										
General County	34	\$24,411	0	\$0	0	\$0	0	\$0	34	\$24,411
School	746	\$684,418	0	\$0	24	\$11,412	0	\$0	770	\$695,830
<b>TOTAL</b>	<b>780</b>	<b>\$708,829</b>	<b>0</b>	<b>\$0</b>	<b>24</b>	<b>\$11,412</b>	<b>0</b>	<b>\$0</b>	<b>804</b>	<b>\$720,241</b>
<b>GRAND TOTAL</b>	<b>3,767</b>	<b>\$ 8,148,623</b>	<b>159</b>	<b>\$ 645,863</b>	<b>105</b>	<b>\$ 107,148</b>	<b>240</b>	<b>\$ 844,315</b>	<b>4,271</b>	<b>\$ 9,745,949</b>

**HISTORY OF MONTHLY RETIREMENT ALLOWANCES  
YEAR ENDED JUNE 30**

( \$ in thousands )		2011		2012		2013		2014		2015	
TYPE		#	Amount	#	Amount	#	Amount	#	Amount	#	Amount
Service		3,118	\$4,796	3,240	\$5,342	3,320	\$5,675	3,350	\$5,877	3,408	\$6,201
DROP		192	\$583	127	\$399	120	\$415	145	\$505	155	\$545
Ordinary Disability		126	\$119	141	\$124	137	\$126	133	\$123	129	\$122
Service Connected Disability		267	\$774	256	\$759	256	\$777	254	\$791	251	\$797
<b>TOTAL</b>		<b>3,703</b>	<b>\$6,272</b>	<b>3,764</b>	<b>\$6,624</b>	<b>3,833</b>	<b>\$6,993</b>	<b>3,882</b>	<b>\$7,296</b>	<b>3,943</b>	<b>\$7,665</b>
		2016		2017		2018		2019		2020	
TYPE		#	Amount	#	Amount	#	Amount	#	Amount	#	Amount
Service		3,465	\$6,536	3,544	\$6,861	3,632	\$7,301	3,693	\$7,692	3,767	\$8,149
DROP		169	\$611	192	\$707	190	\$746	183	\$723	159	\$646
Ordinary Disability		129	\$124	125	\$123	118	\$113	110	\$108	105	\$107
Service Connected Disability		243	\$792	241	\$790	239	\$796	240	\$818	240	\$844
<b>TOTAL</b>		<b>4,006</b>	<b>\$8,063</b>	<b>4,102</b>	<b>\$8,481</b>	<b>4,179</b>	<b>\$8,956</b>	<b>4,226</b>	<b>\$9,341</b>	<b>4,271</b>	<b>\$9,746</b>

**ADDITIONS & DEDUCTIONS**  
**YEAR ENDED JUNE 30**

<i>(millions)</i>	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>ADDITIONS</b>										
Contribution Total	\$ 53.8	\$ 57.3	\$ 59.4	\$ 65.6	\$ 70.4	\$ 66.7	\$ 64.5	\$ 67.8	\$ 69.7	\$ 74.6
Employer	43.2	46.3	48.0	53.7	58.2	54.4	51.8	54.9	56.7	59.9
Employee	10.6	11.0	11.4	11.9	12.2	12.3	12.7	12.9	13.0	14.7
Net Investment Income	287.7	3.8	203.6	304.9	37.4	(1.3)	247.3	168.3	153.2	156.8
Income & Appreciation	292.4	8.0	208.7	310.7	45.6	5.7	252.9	173.1	158.7	163.3
Less Investment Expense	(4.9)	(4.4)	(5.3)	(5.9)	(8.4)	(7.2)	(5.9)	(5.0)	(5.7)	(6.6)
Security Lending	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2
<b>TOTAL ADDITIONS</b>	<b>\$ 341.5</b>	<b>\$ 61.1</b>	<b>\$ 263.0</b>	<b>\$ 370.5</b>	<b>\$ 107.7</b>	<b>\$ 65.4</b>	<b>\$ 311.8</b>	<b>\$ 236.2</b>	<b>\$ 222.9</b>	<b>\$ 231.4</b>
<b>DEDUCTIONS</b>										
Benefit Payments	\$ 74.9	\$ 77.4	\$ 81.5	\$ 85.3	\$ 88.9	\$ 94.0	\$ 98.7	\$ 104.2	\$ 109.6	\$ 114.6
Normal Retirement	36.9	41.1	45.3	47.9	50.4	53.0	57.8	61.6	67.0	71.7
Early Retirement	16.6	16.6	16.5	16.7	16.7	16.7	16.9	16.9	16.9	17.0
Death in Service		0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Duty Disability Retirement	9.1	9.0	9.2	9.3	9.4	9.7	9.3	9.5	9.6	10.1
Ordinary Disability	1.5	1.5	1.5	1.4	1.4	1.5	1.4	1.3	1.3	1.3
Survivor Payments	3.4	3.5	3.7	3.8	4.1	4.4	4.6	4.8	4.9	5.0
DROP	6.7	5.2	4.7	5.6	6.4	6.7	8.0	9.3	9.1	8.5
Other	0.7	0.4	0.4	0.4	0.4	1.9	0.5	0.6	0.6	0.6
Refunds	1.3	1.5	1.1	1.0	1.8	1.3	0.9	0.8	1.2	1.1
Administrative Expenses	0.8	0.8	1.0	1.4	1.5	1.7	1.8	1.9	1.9	2.0
<b>TOTAL DEDUCTIONS</b>	<b>\$ 77.0</b>	<b>\$ 79.7</b>	<b>\$ 83.6</b>	<b>\$ 87.7</b>	<b>\$ 92.2</b>	<b>\$ 97.0</b>	<b>\$ 101.4</b>	<b>\$ 106.9</b>	<b>\$ 112.7</b>	<b>\$ 117.6</b>

**PLAN NET POSITION**  
**YEAR ENDED JUNE 30**

<i>At Market (millions)</i>	2011	2012	2013	2014	2015
Beginning	\$ 1,271.4	\$ 1,535.8	\$ 1,517.3	\$ 1,696.8	\$ 1,979.6
Additions	341.5	61.1	263.0	370.5	107.7
Deductions	77.0	79.7	83.4	87.7	92.2
Net Change	264.4	(18.5)	179.6	282.8	15.5
Year End	<b>\$ 1,535.8</b>	<b>\$ 1,517.3</b>	<b>\$ 1,696.8</b>	<b>\$ 1,979.6</b>	<b>\$ 1,995.1</b>
	2016	2017	2018	2019	2020
Beginning	\$ 1,995.1	\$ 1,963.5	\$ 2,173.9	\$ 2,303.1	\$ 2,413.3
Additions	65.4	311.8	236.1	222.9	231.4
Deductions	97.0	101.4	106.9	112.7	117.5
Net Change	(31.6)	210.4	129.2	110.2	113.9
Year End	<b>\$ 1,963.5</b>	<b>\$ 2,173.9</b>	<b>\$ 2,303.1</b>	<b>\$ 2,413.3</b>	<b>\$ 2,527.2</b>

### CONTRIBUTION ANALYSIS YEAR ENDED JUNE 30

(Dollars in millions)	Group	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimated Covered Payroll		\$224.5	\$225.2	\$222.6	\$231.2	\$231.2	\$245.9	\$252.6	\$263.7	\$269.2	\$285.2
Employer Contribution: (% of Payroll)	A, D	14.2%	14.2%	14.6%	16.6%	17.9%	15.9%	14.4%	14.9%	15.0%	15.1%
	B, C	35.5%	36.5%	36.4%	38.4%	39.7%	37.8%	35.9%	37.9%	38.1%	38.4%
	E	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Employer Contribution		\$43.2	\$46.3	\$48.0	\$53.7	\$58.2	\$54.5	\$51.8	\$54.9	\$56.7	\$59.9
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%
	B	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%
	C	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		\$10.5	\$11.0	\$11.4	\$11.9	\$12.2	\$12.3	\$12.7	\$12.9	\$13.0	\$14.7
Employer/Employee Contribution		4.1	4.2	4.2	4.5	4.8	4.4	4.1	4.2	4.3	4.1
Unfunded Actuarial Liability		\$76.4	\$75.3	\$151.2	\$106.1	\$20.2	\$9.1	(\$58.0)	(\$96.4)	\$3.5	(\$29.7)

**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**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Participant Data</b>										
Active Employees	3,575	3,610	3,550	3,554	3,533	3,566	3,576	3,531	3,521	3,539
Deferred Vested Members	277	326	358	500	548	559	584	631	665	693
Retirees	3,725	3,764	3,833	3,882	3,945	3,909	4,004	4,085	4,113	4,271
Retirees as a % of Active Employees	104.2%	104.3%	108.0%	109.2%	111.7%	109.6%	112.0%	115.7%	116.8%	120.7%
Retirement Benefits Paid (millions)	\$75.0	\$77.4	\$81.4	\$85.3	\$88.9	\$94.0	\$98.7	\$104.2	\$109.6	\$114.4
<b>Average Benefit Payment (\$/month)</b>										
Chapter 21	\$2,553	\$2,599	\$2,671	\$2,756	\$2,831	\$2,898	\$2,967	\$3,049	\$3,135	\$3,239
Chapter 35 (Supplement)	\$664	\$771	\$793	\$813	\$832	\$846	\$854	\$869	\$885	\$896
Chapter 46 <sup>(1)</sup>	\$1,383	\$1,559	\$1,659	\$1,741	\$1,842	\$1,952	\$2,033	\$2,132	\$2,210	\$2,286
<b>Investment Data</b>										
Net Assets, Market Value (millions)	\$1,535.8	\$1,517.3	\$1,696.8	\$1,979.6	\$1,995.0	\$1,963.5	\$2,173.8	\$2,303.1	\$2,413.3	\$2,527.2
Ratio: Net Assets/ Benefits Paid	20.5	19.6	20.8	23.2	22.4	20.9	22.0	22.1	22.0	22.1

(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

	Years of Credited Service					
	5-9	10-14	15-19	20-24	25-29	30+
<b><u>Period 7/1/10 to 6/30/11</u></b>						
Average of Final Monthly Salaries	\$0	\$3,054	\$0	\$0	\$9,555	\$6,320
Average Monthly Benefit	\$0	\$1,130	\$0	\$0	\$6,670	\$4,633
Number of Current Retirees	0	1	0	0	1	5
<b><u>Period 7/1/11 to 6/30/12</u></b>						
Average of Final Monthly Salaries	\$1,157	\$0	\$0	\$3,786	\$0	\$7,086
Average Monthly Benefit	\$169	\$0	\$0	\$2,115	\$0	\$5,344
Number of Current Retirees	1	0	0	2	0	1
<b><u>Period 7/1/12 to 6/30/13</u></b>						
Average of Final Monthly Salaries	\$1,120	\$0	\$3,810	\$0	\$0	\$8,072
Average Monthly Benefit	\$277	\$0	\$1,964	\$0	\$0	\$5,777
Number of Current Retirees	1	0	1	0	0	5
<b><u>Period 7/1/13 to 6/30/14</u></b>						
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
<b><u>Period 7/1/14 to 6/30/15</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$3,279	\$3,378	\$0	\$4,796
Average Monthly Benefit	\$0	\$0	\$1,449	\$1,373	\$0	\$3,143
Number of Current Retirees	0	0	1	2	0	3
<b><u>Period 7/1/15 to 6/30/16</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$4,880	\$0	\$0	\$5,791
Average Monthly Benefit	\$0	\$0	\$2,223	\$0	\$0	\$4,176
Number of Current Retirees	0	0	1	0	0	1
<b><u>Period 7/1/16 to 6/30/17</u></b>						
Average of Final Monthly Salaries	\$0	\$2,899	\$0	\$0	\$0	\$0
Average Monthly Benefit	\$0	\$787	\$0	\$0	\$0	\$0
Number of Current Retirees	0	1	0	0	0	0
<b><u>Period 7/1/17 to 6/30/18</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$0	\$4,907	\$0	\$0
Average Monthly Benefit	\$0	\$0	\$0	\$2,851	\$0	\$0
Number of Current Retirees	0	1	0	1	0	0
<b><u>Period 7/1/18 to 6/30/19</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$0	\$0	\$0	\$7,402
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$4,559
Number of Current Retirees	0	0	0	0	0	1
<b><u>Period 7/1/19 to 6/30/20</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$0	\$0	\$0	\$16,976
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$12,048
Number of Current Retirees	0	0	0	0	0	1



**SCHEDULE OF AVERAGE BENEFIT PAYMENTS  
CHAPTER 35 EMPLOYEES**

School Board and DHS  
Hired Before 2/8/81

	Years of Credited Service					
	5-9	10-14	15-19	20-24	25-29	30+
<b><u>Period 7/1/10 to 6/30/11</u></b>						
Average of Final Monthly Salaries	\$1,347	\$0	\$0	\$0	\$7,112	\$8,646
Average Monthly Benefit	\$67	\$0	\$0	\$0	\$1,314	\$1,900
Number of Current Retirees	1	0	0	0	4	15
<b><u>Period 7/1/11 to 6/30/12</u></b>						
Average of Final Monthly Salaries	\$1,676	\$0	\$4,798	\$0	\$7,466	\$8,800
Average Monthly Benefit	\$118	\$0	\$675	\$0	\$1,388	\$1,750
Number of Current Retirees	2	0	1	0	2	7
<b><u>Period 7/1/12 to 6/30/13</u></b>						
Average of Final Monthly Salaries	\$0	\$0	\$0	\$6,682	\$6,991	\$8,382
Average Monthly Benefit	\$0	\$0	\$0	\$1,344	\$1,481	\$1,868
Number of Current Retirees	0	0	0	1	3	10
<b><u>Period 7/1/13 to 6/30/14</u></b>						
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
<b><u>Period 7/1/14 to 6/30/15</u></b>						
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
<b><u>Period 7/1/15 to 6/30/16</u></b>						
Average of Final Monthly Salaries	\$1,456	\$3,290	\$8,044	\$0	\$0	\$9,363
Average Monthly Benefit	\$81	\$252	\$926	\$0	\$0	\$1,904
Number of Current Retirees	5	4	1	0	0	4
<b><u>Period 7/1/16 to 6/30/17</u></b>						
Average of Final Monthly Salaries	\$1,273	\$6,704	\$4,485	\$0	\$8,027	\$8,993
Average Monthly Benefit	\$84	\$195	\$817	\$0	\$1,624	\$1,878
Number of Current Retirees	3	3	1	0	2	4
<b><u>Period 7/1/17 to 6/30/18</u></b>						
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
<b><u>Period 7/1/18 to 6/30/19</u></b>						
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
<b><u>Period 7/1/19 to 6/30/20</u></b>						
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

### SCHEDULE OF AVERAGE BENEFIT PAYMENTS CHAPTER 46 EMPLOYEES

All Employees Hired

On or after 2/8/81

On or after 2/8/81	Years of Credited Service						
	2-4	5-9	10-14	15-19	20-24	25-29	30+
<b><u>Period 7/1/10 to 6/30/11</u></b>							
Average of Final Monthly Salaries	\$0	\$4,048	\$5,840	\$5,394	\$5,656	\$8,178	\$4,703
Average Monthly Benefit	\$0	\$650	\$1,167	\$1,395	\$2,416	\$5,077	\$3,254
Number of Current Retirees	0	16	16	7	17	15	1
<b><u>Period 7/1/11 to 6/30/12</u></b>							
Average of Final Monthly Salaries	\$4,581	\$4,824	\$4,589	\$4,915	\$5,715	\$7,507	\$7,113
Average Monthly Benefit	\$71	\$541	\$1,089	\$1,338	\$2,398	\$4,610	\$4,829
Number of Current Retirees	1	11	16	16	27	19	10
<b><u>Period 7/1/12 to 6/30/13</u></b>							
Average of Final Monthly Salaries	\$4,529	\$4,451	\$4,894	\$5,707	\$5,608	\$6,926	\$6,514
Average Monthly Benefit	\$257	\$637	\$1,230	\$1,635	\$2,387	\$4,443	\$3,944
Number of Current Retirees	3	21	17	24	22	32	9
<b><u>Period 7/1/13 to 6/30/14</u></b>							
Average of Final Monthly Salaries	\$3,037	\$5,834	\$5,345	\$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
<b><u>Period 7/1/14 to 6/30/15</u></b>							
Average of Final Monthly Salaries	\$2,972	\$5,677	\$5,055	\$6,091	\$6,513	\$6,651	\$8,878
Average Monthly Benefit	\$183	\$801	\$1,521	\$1,882	\$3,020	\$3,950	\$4,732
Number of Current Retirees	1	21	27	17	26	46	10
<b><u>Period 7/1/15 to 6/30/16</u></b>							
Average of Final Monthly Salaries	\$0	\$4,645	\$5,103	\$6,521	\$7,031	\$7,138	\$7,763
Average Monthly Benefit	\$0	\$559	\$54	\$2,062	\$3,491	\$4,435	\$4,760
Number of Current Retirees	0	26	23	13	16	52	27
<b><u>Period 7/1/16 to 6/30/17</u></b>							
Average of Final Monthly Salaries	\$4,251	\$5,787	\$6,422	\$5,937	\$6,141	\$7,268	\$6,993
Average Monthly Benefit	\$294	\$779	\$1,660	\$1,889	\$2,762	\$4,582	\$4,752
Number of Current Retirees	2	24	24	22	25	49	20
<b><u>Period 7/1/17 to 6/30/18</u></b>							
Average of Final Monthly Salaries	\$3,703	\$5,719	\$7,098	\$6,364	\$6,748	\$8,094	\$6,491
Average Monthly Benefit	\$174	\$843	\$1,455	\$2,125	\$3,209	\$4,963	\$3,801
Number of Current Retirees	2	22	28	28	17	47	24
<b><u>Period 7/1/18 to 6/30/19</u></b>							
Average of Final Monthly Salaries	\$3,689	\$5,458	\$6,203	\$6,518	\$6,429	\$8,633	\$8,121
Average Monthly Benefit	\$784	\$513	\$1,242	\$1,896	\$2,719	\$5,008	\$4,874
Number of Current Retirees	5	19	14	22	19	30	19
<b><u>Period 7/1/19 to 6/30/20</u></b>							
Average of Final Monthly Salaries	\$4,218	\$5,343	\$6,053	\$6,950	\$6,459	\$8,344	\$7,656
Average Monthly Benefit	\$198	\$686	\$1,634	\$2,160	\$2,655	\$4,891	\$4,326
Number of Current Retirees	2	18	20	25	24	22	21

**SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT  
CHAPTER 21 EMPLOYEES  
YEAR ENDED JUNE 30, 2020**

**Chapter 21**

Amount of Monthly Benefit	Number of Retirees	Type of Retirement								Spousal Benefit Option			
		1	2	3	4	5	6	7	8	Opt1	Opt2	Opt3	Opt4
Deferred	1	1								1			
\$1 - 250	17	11	2	2			1		1	17			
251 - 500	42	20	5	13			4			40	2		
501 - 750	36	11	5	15			4		1	32	1	2	1
751 - 1,000	45	9	6	19		3	4		4	43	1	1	
1001 - 1,250	46	13	7	17	2	2	4		1	38	5	2	1
1,251 - 1,500	39	8	6	22		1	2			35	2	2	
1,501 - 1,750	57	12	7	28	4	3	1		2	54	2		1
1,751 - 2,000	41	11	10	12	4	1	2		1	35	4	1	1
Over 2,000	831	485	165	61	96	9	8	2	5	455	253	67	56
Totals	1,155	581	213	189	106	19	30	2	15	750	270	75	60

Type of Retirement

- |                                |                                    |
|--------------------------------|------------------------------------|
| 1 - Normal retirement          | 5 - Non-duty disability retirement |
| 2 - Early retirement           | 6 - Vested benefit                 |
| 3 - Survivor payment, retiree  | 7 - DROP                           |
| 4 - Duty disability retirement | 8 - Court Order                    |

Spousal Option Selected

- Opt 1 - 0%  
Opt 2 - 50%  
Opt 3 - 66.7%  
Opt 4 - 100%

**SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT  
CHAPTER 35 EMPLOYEES  
YEAR ENDED JUNE 30, 2020**

**Chapter 35**

Amount of Monthly Benefit	Number of Retirees	Type of Retirement								Spousal Benefit Options			
		1	2	3	4	5	6	7	8	Opt1	Opt2	Opt3	Opt4
Deferred	16	16								16			
\$1 - 250	110	35	33	7		9	25		1	103	3	4	
251 - 500	107	43	37	17		5	3		2	102	2	1	2
501 - 750	112	38	50	13		6	4		1	97	5	9	1
751 - 1,000	134	36	89	5		2	2			102	15	11	6
1001 - 1,250	151	37	104	5		1	4			124	14	9	4
1,251 - 1,500	92	37	51	1		1	2			79	5	6	2
1,501 - 1,750	43	33	8				2			36	2	5	
1,751 - 2,000	32	26	6							29	2	1	
Over 2,000	23	22		1						20	1	2	
Totals	820	323	378	49	0	24	42	0	4	708	49	48	15

Type of Retirement

- |                                |                                    |
|--------------------------------|------------------------------------|
| 1 - Normal retirement          | 5 - Non-duty disability retirement |
| 2 - Early retirement           | 6 - Vested benefit                 |
| 3 - Survivor payment, retiree  | 7 - DROP                           |
| 4 - Duty disability retirement | 8 - Court Order                    |

Spousal Option Selected

- Opt 1 - 0%  
Opt 2 - 50%  
Opt 3 - 66.7%  
Opt 4 - 100%

**SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT  
CHAPTER 46 EMPLOYEES  
YEAR ENDED JUNE 30, 2020**

**Chapter 46**

Amount of Monthly Benefit	Number of Retirees	Type of Retirement								Spousal Benefit Options			
		1	2	3	4	5	6	7	8	Opt1	Opt2	Opt3	Opt4
Deferred	678	678								678			
\$1 - 250	174	49	78	6		11	27		3	159	6	9	
251 - 500	186	74	41	23		11	34	1	2	159	12	15	
501 - 750	209	96	47	17		7	37	3	2	165	21	20	3
751 - 1,000	158	85	29	11		10	19	2	2	128	15	12	3
1001 - 1,250	186	100	30	10	4	10	25	5	2	125	32	20	9
1,251 - 1,500	153	89	32	10	1	6	5	6	4	105	22	21	5
1,501 - 1,750	114	72	13	9	1	6	1	9	3	83	18	9	4
1,751 - 2,000	118	86	19	2	4	-		6	1	80	29	9	
Over 2,000	1,015	654	84	17	124	1	8	125	2	590	289	76	60
Totals	2,991	1,983	373	105	134	62	156	157	21	2,272	444	191	84

1 - Normal retirement  
2 - Early retirement  
3 - Survivor payment, retiree  
4 - Duty disability retirement

5 - Non-duty disability retirement  
6 - Vested benefit  
7 - DROP  
8 - Court Order

Spousal Option Selected  
Opt 1 - 0%  
Opt 2 - 50%  
Opt 3 - 66.7%  
Opt 4 - 100%