**District of Columbia Retirement Board** 

a Pension Trust Fund of the District of Columbia

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# **Comprehensive Annual Financial Report**

For the fiscal years ended September 30, 2015 and 2014

## **District of Columbia Retirement Board**

a Pension Trust Fund of the District of Columbia

Prepared by the District of Columbia Retirement Board's Finance Department

900 7th Street NW 2nd Floor Washington, D.C. 20001 (202) 343-3200 www.dcrb.dc.gov

### **INTRODUCTORY SECTION**

Letter of Transmittal	7
About DCRB	13
Organizational Structure	
Board of Trustees	
Awards	

### **FINANCIAL SECTION**

Independent Auditors' Report	21
Management's Discussion and Analysis	24

#### FINANCIAL STATEMENTS

Combining Statements of Fiduciary Net Position	.32
Combining Statements of Changes in Fiduciary Net Position	.33
Notes to Financial Statements	34

#### FINANCIAL SECTION - REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Net Pension Liability and Related Ratios	.54
Schedules of Employer Contributions	56
Schedule of Investment Returns	58

#### FINANCIAL SECTION - SUPPLEMENTARY INFORMATION

Schedule of Funding Progress	60
Schedules of Administrative Expenses	61
Schedules of Investment Expenses	
Schedules of Payments to Consultants	

### **INVESTMENT SECTION**

Introduction	67
Investment Objectives and Policies	
Fiscal Year 2015 Global Market Review	68
Exhibit 1: Investment Performance (Gross of Fees) as of September 30, 2015	69
Asset Allocation	74
Exhibit 2: Actual, Interim Target and Policy Asset Allocations as of September 30, 2015	74
Other Updates	75
Investment Activity Summary	75
List of Largest Holdings	76
Schedule of Fees and Commissions	77
Investment Summary	78

### **ACTUARIAL SECTION**

Independent Actuary's Certification Letter	
Outline of Actuarial Assumptions and Methods	83
Provisions as Interpreted for Valuation Purposes	89
Schedule of Active Member Valuation Data	
Schedule of Members Added-to and Removed-from Rolls	
Analysis of Financial Experience	102
Valuation Balance Sheet	104
Solvency Test	

### **STATISTICAL SECTION**

Schedules of Changes in Net Position110
Schedule of Changes in Net Position Liability and Related Ratios112
Schedules of Investment Expenses114
Schedule of Annual Money-Weighted Rates of Return114
Schedule of Funding Progress115
Schedules of Administrative Expenses116
Schedule of Employer Contributions 117
Schedule of Annual Salaries and Benefits118
Schedule of Participant Data119
Schedule of Average Benefit by Type120
Schedule of Retired Members by Type of Benefit and Option Selected122

### **ADDITIONAL DISCLOSURES**

Schedules of Transactions - Board of Trustees	125
Names and Addresses of the Board of Trustees	126
Schedule of Trustee Sponsored Activities	. 127

<b>ACKNOWLEDGMENTS AND</b>	CREDITS	<b>5</b> 1:	28
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### INTRODUCTORY SECTION

Letter of Transmittal	7
About DCRB	
Organizational Structure	15
Board of Trustees	16
Awards	







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March 31, 2016 Board of Trustees District of Columbia Retirement Board 900 7th Street NW 2nd Floor Washington, D.C. 20001



Telephone: (202) 343-3200 Facsimile: (202) 566-5000 E-mail: dcrb@dc.gov



Eric O. Stanchfield, *Executive Director* 

Dear Board Members:

I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the District of Columbia Retirement Board (DCRB or the Board). This CAFR is a presentation of the financial results for DCRB for the fiscal years ended September 30, 2015 and 2014. These financial results provide useful information related to DCRB's administration of the assets that are held in trust for the members of the District of Columbia Teachers' Retirement Plan and the District of Columbia Police Officers and Firefighters' Retirement Plan (collectively referred to as the Plans). As DCRB's Executive Director, I place a strong emphasis on transparency and results as a way to guide our actions and provide a foundation for strategic decision making.

During the fiscal year ended September 30, 2015, we continued to fulfill our core missions—managing the pension trust fund and administering retirement benefits for teachers, police officers and firefighters of the District of Columbia. DCRB pays benefits and provides a range of retirement administration services to members from their date of initial participation in the Plans as well as throughout their lifetime and the lifetimes of their survivors. These Plans were adopted by the District on July 1, 1997. DCRB also serves as the third-party administrator for benefits under the frozen federal plans, for which the U.S. Department of the Treasury is financially responsible.

As of September 30, 2015, there were 24,394 members in the frozen federal and active District Plans, of which 16,730 are funded by the District. Of the District funded members, 6,327 were retirees and survivors, and 10,403 were active members. I am pleased to report that as of October 1, 2015, the District Plans' aggregate funded ratio, on an actuarial basis, was 101.7 percent. The ratios of each Plan are as follows: 88.7 percent for the Teachers' Plan, and 107.6 percent for the Police and Firefighters' Plan.

Jeffrey Barnette • Lyle M. Blanchard • Barbara Davis Blum • Joseph W. Clark • Mary A. Collins • Gary W. Hankins Darrick O. Ross • Nathan A. Saunders • Edward C. Smith • Thomas N. Tippett • Michael J. Warren • Lenda P. Washington

Joseph M. Bress Chairman Eric O. Stanchfield Executive Director

7

The Board (DCRB or The Agency) has exclusive authority and discretion to manage the assets of the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Fire Fighters' Retirement Fund (collectively referred to as the Fund), that are held in trust for the sole benefit of all Plan participants and their eligible survivors and beneficiaries. The Fund assets can be used only to pay benefits to Plan members, as well as associated expenses necessary to administer the retirement program.

As of September 30, 2015, the Fund's net position totaled \$6.1 billion, a decrease of approximately \$200 million compared to the end of the prior fiscal year. Our fiscal year 2016 operating budget is \$32.3 million and includes a total of 62.6 full-time employees.

It should be noted that the District government, as the employer, is the Plan Sponsor, and is responsible for the design of the Plans and for paying the required employer contributions into the Fund. In addition to employer contributions, Trust income includes employee contributions and investment earnings.

#### **Fiscal Year 2015 Initiatives**

The Board has established five strategic goals: 1) to safeguard the integrity of the Fund; 2) to prudently invest Fund assets to provide long-term, sustainable, risk-adjusted returns; 3) to expand and improve benefits administration capabilities, to assure that benefits are paid to our members accurately and timely; 4) to refine DCRB's organizational structure to meet changing agency responsibilities and needs; and 5) to foster member and stakeholder trust through enhanced communications and collaborative outreach. Using these five goals as our guide, we accomplished the following initiatives during fiscal year 2015:

#### Safeguard the integrity of the Fund

The Board's independent actuary conducts an actuarial valuation each year. During fiscal year 2015 we engaged an independent actuarial firm to perform an actuarial audit. The review provided the additional scrutiny of a "second set of eyes" with the technical expertise to test our independent actuary's assumptions and calculations. The actuarial audit resulted in a finding that the assumptions, methods, and certifications used in the annual actuarial valuations are generally sound and reasonable and that they conform to the accepted Actuarial Standards of Practice. Further, based on the samples tested, the audit found no reason to question the reliability of the actuarial valuation results. In addition, as part of DCRB's fiscal year 2015 annual financial audit, we again received an unmodified "clean" opinion from our independent audit firm. DCRB will continue to strive to obtain clean audit opinions and report its financial activities in accordance with accounting principles generally accepted in the United States of America.

Business continuity is critical to our Agency. During fiscal year 2015, DCRB completed a number of projects focused on security and infrastructure availability, including updating our disaster recovery and continuity of operations plans. In the event of a disaster or other business interruption, DCRB will utilize those plans in conjunction with the Agency's disaster recovery site.

Data security continues to be a priority for us. We implemented various data security measures to mitigate the risk of data loss and to keep sensitive, Personally Identifiable Information (PII) confidential. We conduct annual training and ensure awareness of PII policies by all staff and contractors. DCRB also conducts background checks for all DCRB employees and contractors both prior to their being hired and periodically thereafter.

As with other organizations, cyber-security threats continue to be of concern to DCRB's operations and pose a serious challenge to our Agency. Mitigating this risk has been a focus of the Agency, and DCRB has invested in training and cyber-security insurance, updated our security policies, and is contracting with an incident response vendor to assist the Agency if a cyber-security event were to occur. In addition, DCRB will continue to follow professional standards and best practices in the information technology area for security, project management, and service delivery.

#### Prudently invest Fund assets to provide long-term sustainable risk-adjusted returns

DCRB's ongoing responsibility is to prudently manage the Fund assets, with the goal of earning a return that meets or exceeds DCRB's actuarial investment return assumption of 6.5 percent over the long-term. In building a solid foundation for achieving long-term, sustainable risk-adjusted returns, we routinely review investment manager performance against benchmark returns, rebalance the portfolio when appropriate to maintain compliance with asset allocation targets, and periodically review the Fund's strategic asset allocation.

In concert with the overall market decline, the Fund posted a -3.9 percent return for the fiscal year ended September 30, 2015. Since inception in October 1982, the Fund has generated an annualized gross return of 8.7 percent, surpassing the actuarial return target of 6.5 percent.

During fiscal year 2016, DCRB will conduct an asset-liability study to assure the continued alignment of the Board's asset allocation policy with the long-term liability structure.

# Expand and improve benefits administration capabilities, to assure that benefits are paid to our members accurately and timely

In fiscal year 2012, DCRB launched a multi-year Retirement Modernization Program focused on the areas of benefits administration and information technology. The fiscal year 2015 projects included activities that will lead to our eventual acquisition of a Pension Information Management System (PIMS). In the future, the PIMS will enable DCRB to provide a full range of retirement services for Plan members.

The major elements of this Program included Data Reclamation, Data Integration and Data Management. Data Reclamation established a database of service, salary, and contribution history to increase accuracy and reduce the processing time required to calculate initial pension payments. Data Integration allows DCRB to receive data feeds of pension-related information from the District's employee database system. Data Management consists of three important technology applications that DCRB will use to manage member data: a data quality tool to perform continuous reviews of data received by DCRB from other District agencies; a master data management system to serve as a central repository for Plan member data; and a tool that will facilitate communications among systems. The Data Reclamation and Data Integration Projects were completed during fiscal year 2015.

#### Refine DCRB's organizational structure to meet agency responsibilities and needs

During 2015, we implemented a DCRB employee portal to improve staff communication, efficiency and collaboration. The employee portal has enabled DCRB to migrate to a more secure information-sharing organization. The portal will also allow authorized staff to access information and work remotely in the event of a disaster.

The Agency will continue to provide annual training for staff, contractors and Trustees on ethics and fiduciary principles and ensure awareness of Personally Identifiable Information policies by all staff and contractors. Further, Trustees recently updated Board governance rules and guidelines. DCRB will also identify performance gaps and training needs and, as in the past, we will fill key staff vacancies, as needed, during fiscal year 2016.

Our primary focus over the next few years will be to transform our organizational structure from an operation that is currently manual and paper-based to an automated, digital environment that facilitates self-service and the production of benefit calculations, payments and other services accurately, timely and more efficiently.

#### Foster member and stakeholder trust through enhanced communications and collaborative outreach.

DCRB uses a variety of methods to reach out to members and the public with information on Fund performance and current issues. DCRB maintained communication with Plan members about retirement benefits through the newsletters, correspondence, and website communications. DCRB added a special Teachers' Edition newsletter that was published during the summer of fiscal year 2015, when many teachers consider retirement. DCRB also published a special Police/ Fire Edition newsletter for public safety officers. The focus of these newsletters is to provide information about retirement benefits and to encourage retirement planning.

In collaboration with the District's Office of the Chief Technology Officer, our website was recently updated to ensure compatibility with mobile devices. During fiscal year 2016, DCRB plans to use social media as a component of our communications portfolio and we are reviewing our website to assure compliance with federal legislation for members with disabilities. In addition, we maintain a retirement calculator on our website so active members can enter their information and receive personalized retirement estimates.

#### Fund Contributions, Benefit Payments and Administrative Expenses

As fiduciaries, our duty is to maintain an adequate funding level to assure payment of pension benefits to our members. In order to do this, the Fund must be well-funded, receive the appropriate contributions and have a successful long-term investment strategy.

In fiscal year 2015, \$142.9 million in employer contributions and \$65.3 million in employee contributions were made to the Fund. In fiscal year 2014, \$142.4 million in employer contributions and \$61.6 million in employee contributions were deposited into the Fund. During the fiscal year 2015, \$127.7 million in pension benefits and about \$7.0 million in refunds were paid from the Fund. DCRB's annual benefit payments increased by about 13 percent in fiscal year 2015.

DCRB's net administrative expenses for fiscal year 2015 totaled \$28.7 million. The detail for these expenses can be found in the Financial Section. The Financial Section also contains the Management's Discussion and Analysis Section that serves as an introduction and overview to the financial statements. It has a more in-depth discussion of DCRB's funded status, as well as a complete analysis of the additions and deductions to the Plan's net position.

#### Management Responsibility for Financial Reporting

The responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with DCRB management. We believe the data, as presented, is accurate in all material respects, that it is presented in a manner designed to fairly set forth the Plan Net Position and the Changes in Net Position and that all disclosures necessary to enable the reader to gain the maximum understanding of the financial activities of the Fund have been included.

The accounting records of DCRB are maintained by DCRB staff. Pension payment information is contained within the U.S. Treasury's System to Adminster Retirement (STAR). DCRB's employee payroll is processed through the District of Columbia's PeopleSoft System.

The independent auditors' report was issued by the public accounting firm of CliftonLarsonAllen LLP, whose selection was approved by DCRB's Board of Trustees. This report on the Plans is presented in the Financial Section of the CAFR.

The actuarial certification and related schedules included in the CAFR were provided by Cavanaugh Macdonald Consulting, LLC, whose selection was approved by DCRB's Board of Trustees. The valuation results are presented in the Actuarial Section of this CAFR.

The Fund's custodial bank as of September 30, 2015, State Street Bank and Trust Company, records and reports all investment and cash management transactions, and the Board exercises close review and controls over those records and transactions.

The Management's Discussion and Analysis area of the Financial Section provides a narrative introduction and overview of DCRB's financial statements. It serves to supplement the Introductory Section of the CAFR, as well as financial statements, notes and supplementary information within the Financial Section.

Additional disclosures that are specifically required by statute are also included in the report. DCRB management is responsible for maintaining internal accounting controls to provide reasonable assurance that transactions are properly authorized and recorded on an accrual basis in accordance with U.S. Generally Accepted Accounting Principles (GAAP) and that the financial statements conform with Governmental Accounting Standards Board (GASB) and American Institute of Certified Public Accountants (AICPA) reporting standards and GFOA guidelines. Consideration is given to the adequacy of internal accounting controls for systems under the control of DCRB and systems that are shared with other governmental offices or service providers. DCRB requires that its service providers undergo an annual service organization control report (SOC 1 report) review by independent public accountants and that government offices whose systems are used by DCRB are subjected to an annual audit. These controls are designed to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records.

We believe the internal controls in effect during the fiscal years ended September 30, 2015 and 2014 adequately safeguarded the Fund's assets and provided reasonable assurance regarding the proper recording of financial transactions. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgment by management.

#### Awards

GFOA awarded the Certificate of Achievement for Excellence in Financial Reporting to DCRB for its CAFR for the fiscal years ended September 30, 2014 and 2013. This was the seventh consecutive year we received this award. In order to be awarded a Certificate of Achievement, DCRB must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both GAAP and other applicable regulatory requirements. A Certificate of Achievement is valid for a period of one year. We believe that our CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine its eligibility for continuing certification.

We were also among the public retirement systems that received the Public Pension Coordinating Council's (PPCC) Public Pension Standards 2014 Award in recognition of meeting professional standards for plan design and administration. The PPCC is a national confederation of state retirement associations whose standards are widely recognized benchmarks for public pension systems in the areas of plan design, funding, actuarial and financial audits and member communications.

#### In closing. . .

I am pleased to report that the Trust is in excellent shape. Our Board has maintained conservative investment assumptions, the Plans are in solid financial condition, and we strive to pay members accurately and timely. We have an engaged Board and an experienced team managing our strategic initiatives. And most importantly, we continue to make strides toward creating a comprehensive retirement system to servie the needs of our members.

I would like to express my appreciation to the U.S. Department of the Treasury's Office of D.C. Pensions, the District of Columbia City Council, the D.C. Office of Financial and Operations Systems, the D.C. Office of Budget and Planning, all other D.C. Government Offices that support the Board, and DCRB's trustees, staff, consultants and service providers for their tireless efforts to assure the financial soundness and successful operation of the District of Columbia Retirement Board.

If you have any questions regarding this CAFR of the District of Columbia Retirement Board for the fiscal years ended September 30, 2015 and 2014, please direct them to my office at any time.

Respectfully submitted,

En O. Stardfulf

**Eric O. Stanchfield,** *Executive Director* District of Columbia Retirement Board

#### About DCRB

#### History

DCRB is an independent agency of the District of Columbia government that was created by Congress in 1979 under the Retirement Reform Act (the Reform Act). Prior to the Reform Act, eligibility and benefit rules and financing arrangements for the Plans were authorized by acts of Congress and administered by the Federal Government. Benefits were paid monthly from the general revenues of the U.S. Treasury on a "pay-as-you-go" basis when workers retired, not on a prefunded basis using actuarial assumptions and methods.

In 1997, with the passage of the National Capital Revitalization and Self-Government Improvement Act (the Revitalization Act), the Federal Government assumed responsibility for the unfunded pension liabilities for retirement benefits earned as of June 30, 1997.

In 1998, the District of Columbia passed the Police Officers, Firefighters and Teachers Retirement Benefit Replacement Plan Act (the Replacement Plan Act), which established retirement plans for pension benefits accrued after June 30, 1997 and the method for calculating the employer's (District of Columbia) annual contribution to the retirement Fund. The Board's independent actuary determines the level of covered payroll and calculates the employer's annual contribution which is expressed as a percentage of payroll (the normal contribution rate) for each participant group.

With the passage of the District's Office of Financial Operations and Systems Reorganization Act of 2004, DCRB assumed certain benefits administration responsibilities for the Plans from the District's Office of Pay and Retirement Services. Those responsibilities included recordkeeping, related administrative tasks, and the payment of benefits for participants hired on or after July 1, 1997, who earned benefits under the District Plans. Under a memorandum of understanding signed in 2005, DCRB assumed the same administrative responsibilities for participants hired prior to July 1, 1997 and whose benefit costs are the responsibility of the U.S. Treasury.

#### About DCRB

#### **Profile of the Plans**

The District of Columbia Police Officers and Firefighters' Retirement Plan provides retirement, service-related disability, non-service-related disability and death benefits. All police officers and firefighters of the District of Columbia automatically become members on their date of employment. Police cadets are not eligible.

The District of Columbia Teachers' Retirement Plan provides retirement, disability and death benefits. Permanent, temporary and probationary teachers for the District of Columbia public day schools become members automatically on their date of employment. Other employees covered include school librarians, principals and counselors. Former District of Columbia teachers working at charter schools may be eligible to remain in the Plan.

In order to minimize administrative expenses while providing a broad range of investment options that are economically feasible, the assets of the Plans are comingled for investment purposes. The investment returns of the Fund are calculated based on the fair value of the assets. The Board seeks long-term investment returns in excess of the actuarial investment rate of return assumption at a level of risk commensurate with the expected levels of returns and consistent with sound and responsible investment practices. The Board, working closely with investment consultants and with input from its actuary, selects the optimal asset allocation policy which best reflects the risk tolerance and investment goals of the Fund.

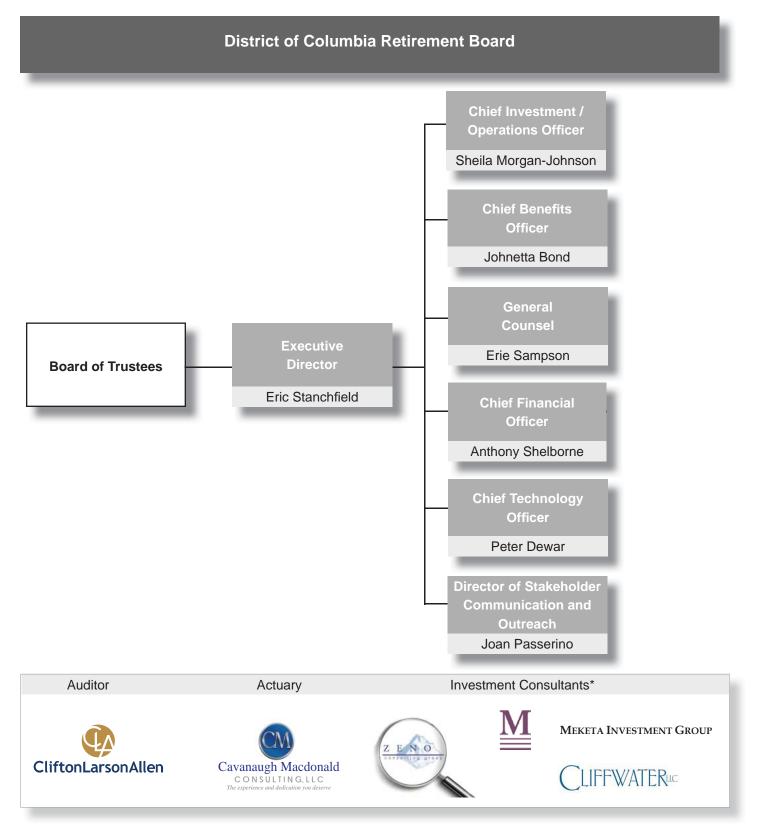
The asset allocation policy is implemented through the careful screening and selection of investment managers that have an audited, favorable, long-term track record, a disciplined investment process, and reasonable investment management fees. The Fund also seeks to outperform the Policy Benchmark, computed as the weighted average index return of the strategic asset allocation as described in the Investments Section.

Upon assuming responsibility for administering the Plans in October 2005, DCRB established a Benefits Department that is available to all active Plan members and retirees, calculates benefit payments and works closely with the U.S. Department of the Treasury's Office of D.C. Pensions (ODCP) to implement system changes resulting from software upgrades or legislation affecting plan provisions. DCRB produces plan communications that include periodic newsletters and Summary Plan Descriptions, as prescribed by statute. ODCP maintains the retirement information system that calculates benefits, issues monthly benefit payments to retirees and survivors and handles all payment-related activities, including tax withholdings and premiums for health and life insurance coverage.

By statute, the Board of Trustees is responsible for establishing DCRB's annual budget. The budget relies on monies derived from the Fund's investment earnings and employer and employee contributions. In addition, DCRB receives reimbursements as the third-party administrator for the frozen federal plans covering members whose pension benefits are financed by the U.S. Treasury. The District Council provides oversight of the budget process and, pursuant to Section 1-711 (f) of the District of Columbia Code, "may establish the amount of funds which will be allocated by the Board for administrative expenses, but may not specify the purposes for which such funds may be expended or the amounts which may be expended for the various activities."

### **Organizational Structure**

As of September 30, 2015



\*Information regarding the investment consultants can be found in the Schedule of Fees and Commissions in the Investments Section.

### **Board of Trustees** As of September 30, 2015

DCRB's Board (the Board) has 12 Trustees, six (6) of whom are elected by the participant groups, three (3) who are appointed by the District Council. In addition, the DC Treasurer (representing the District's Chief Financial Officer), serves on the Board as an ex-officio (non-voting) member. The Trustees, who are fiduciaries, must act solely in the interest of all Plan members.



Lyle M. Blanchard Treasurer Council Appointee Current Term: 2013 - 2017



Joseph M. Bress Chairman Council Appointee Current Term: 2012 - 2016



Joseph W. Clark Parliamentarian Mayoral Appointee Current Term: 2014 - 2018



Mary A. Collins Elected Retired Teacher Current Term: 2014 - 2018



Barbara Davis Blum Mayoral Appointee Current Term: 2012 - 2016



Gary W. Hankins Sergeant-at-Arms Elected Retired Police Current Term: 2013 - 2017



Darrick O. Ross Elected Active Police Current Term: 2015 - 2019



Nathan A. Saunders Elected Active Teacher Term: 2013 - 2017

### **Board of Trustees** As of September 30, 2015



Edward C. Smith Elected Active Firefighter Current Term: 2013 - 2017



**Thomas N. Tippett** Elected Retired Firefighter Current Term: 2012 - 2016



Michael J. Warren Secretary Council Appointee Current Term: 2011 - 2015



Lenda P. Washington Mayoral Appointee Current Term: 2015 - 2019

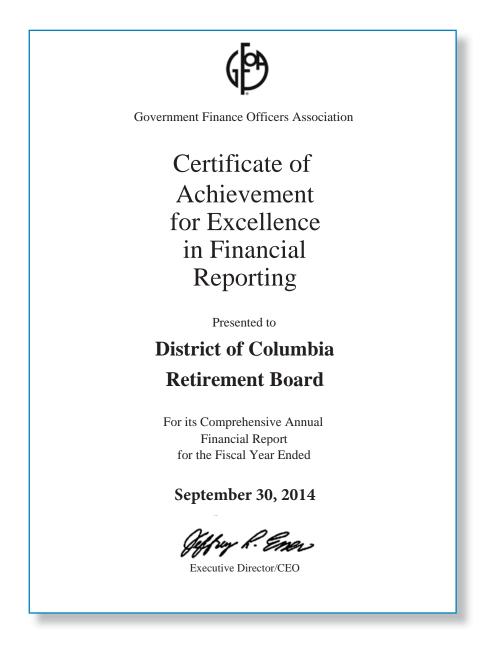


Jeffery E. Barnett Designee of the D.C. CFO D.C. Deputy CFO/Treasurer

### Awards

### 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 DCRB for our Comprehensive Annual Financial Report for the Fiscal Years ended September 30, 2014 and 2013. The Certificate of Achievement is awarded to a government for publishing an easily readable and efficiently organized comprehensive annual financial report that satisfies both generally accepted accounting principles and applicable legal requirements. DCRB's Finance department has won this award for the past seven years. We believe our current comprehensive annual report continues to meet the Certificate of Achievement Program's requirements.



### Awards

### **Public Pension Standards Award**

The Public Pension Coordinating Council (PPCC) awarded a Public Pension Standards Award for Funding to DCRB for the Fiscal Year ended September 30, 2014. In order to be awarded a Public Pension Standards Award, a public pension program must meet professional standards for plan funding as set forth in the Public Pension Standards A public Pension Standards Award is valid for a period of one year.

<b>Provide a contract of the second state of the</b>
Presented to
District of Columbia Retirement Board
In recognition of meeting professional standards for plan funding as set forth in the Public Pension Standards.
Presented by the Public Pension Coordinating Council, a confederation of
National Association of State Retirement Administrators (NASRA) National Conference on Public Employee Retirement Systems (NCPERS) National Council on Teacher Retirement (NCTR)
Alan H. Winkle Program Administrator

### FINANCIAL SECTION

Independent Auditors' Report	21
Management's Discussion and Analysis	

#### FINANCIAL STATEMENTS

Combining Statements of Fiduciary Net Position	32
Combining Statements of Changes in Fiduciary Net Position	33
Notes to Financial Statements	34

#### FINANCIAL SECTION - REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Net Pension Liability and Related Ratios	.54
Schedules of Employer Contributions	.56
Schedule of Investment Returns	.58

#### FINANCIAL SECTION - SUPPLEMENTARY INFORMATION

Schedule of Funding Progress	60
Schedules of Administrative Expenses	
Schedules of Investment Expenses	
Schedules of Payments to Consultants	







### **Independent Auditors' Report**



CliftonLarsonAllen LLP www.CLAconnect.com

**INDEPENDENT AUDITORS' REPORT** 

Board of Trustees District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund

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

We have audited the accompanying combining statements of fiduciary net position of the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund, Pension Trust Funds of the Government of the District of Columbia (the District), as of September 30, 2015 and 2014, and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, as listed in the table of contents.

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

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

#### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits 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 of material misstatement.

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

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



An independent member of Nexia International

### **Independent Auditors' Report**

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

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund as of September 30, 2015 and 2014, and the respective changes in their financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Emphasis of Matter**

As discussed in Note 1, these financial statements only present the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund and do not purport to, and do not, present the financial position of the Government of the District of Columbia as of September 30, 2015 and 2014, and the changes in its financial position for the years then ended in conformity 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 the schedules of changes in the net pension liability and related ratios, employer contributions and investment returns, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management and the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audits of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audits were conducted for the purpose of forming an opinion on the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund financial statements. The supplementary information, including the schedules of funding progress, administrative expenses, investment expenses, and payments to consultants, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements.

The supplementary information, as listed in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards

### **Independent Auditors' Report**

generally accepted in the United States of America. In our opinion, the supplementary information, including the schedules of funding progress, administrative expenses, investment expenses, and payments to consultants, as listed in the table of contents, is fairly stated, in all material respects, in relation to the financial statements as a whole.

The introductory, investment, actuarial, and statistical sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 19, 2016 on our consideration of the District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund internal control over financial reporting and on our tests of their compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is 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 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 District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund internal control over financial reporting and compliance.

Clifton Larson Allen LLP

**CliftonLarsonAllen LLP** Baltimore, Maryland January 19, 2016

#### Introduction

This discussion and analysis provides an overview of the financial activities of the District of Columbia Teachers' Retirement Fund (TRF) and Police Officers and Firefighters' Retirement Fund (POFRF), for the years ended September 30, 2015 and 2014, which collectively will be referred to as the "District Retirement Funds" or the "Fund." This discussion and analysis should be read in conjunction with the financial statements, the notes to the financial statements, the required supplementary information and the supplementary information provided in this report.

The District of Columbia Retirement Board (the Board or DCRB) is an independent agency of the District of Columbia (the District or D.C.) government. The Board is responsible for managing the assets of the District Retirement Funds. As authorized by D.C. Code, the Board pools the assets of the TRF and the POFRF into a single investment portfolio. The Board allocates the investment returns and expenses, and the administrative expenses of the Board, between the two District Retirement Funds in proportion to their respective net position. The Board maintains financial records of contributions, purchases of service, benefit payments, refunds, investment earnings, investment expenses and administrative expenses.

Effective October 1, 2005, the Board entered into a Memorandum of Understanding (MOU) with the District of Columbia and the United States Department of the Treasury (the U.S. Treasury) to administer the pension benefits under the TRF and the POFRF for all retirees, survivors and beneficiaries that are the financial responsibility of the District of Columbia (service earned on and after July 1, 1997) and the Federal Government (service through June 30, 1997). In addition to the Board's administrative duties, the U.S. Treasury also provides certain administrative services related to the administration of pension benefits under the District of Columbia Teachers' Retirement Plan and the District of Columbia Police Officers and Firefighters' Retirement Plan (the Plans). The administrative costs incurred while administering the pension benefits are shared by DCRB and the U.S. Treasury in accordance with an MOU that is agreed to annually between the two parties.

#### **Overview of the Financial Statements and Schedules**

The following discussion and analysis are intended to serve as an introduction to DCRB's financial statements. The basic financial statements include:

*The Combining Statements of Fiduciary Net Position* are a point-in-time snapshot of plan fund balances at fiscal year end. It reports the assets available to pay future benefits to retirees, and any liabilities that are owed as of the statement date. The resulting Net Position (Assets – Liabilities = Net Position) represents the value of assets restricted for pensions net of liabilities owed as of the financial statement date.

*The Combining Statements of Changes in Fiduciary Net Position* display the effect of financial transactions that occurred during the fiscal year, where Additions – Deductions = Net Increase (or Net Decrease) in Net Position. This increase (or decrease) in Net Position reflects the change in the value of Net Position Restricted for Pensions.

*The Notes to Financial Statements* contain disclosures and discussions which support the data presented in the financial statements. The notes present information about the creation and administration of the Fund, significant accounting policies, and investments. The notes are an integral part of the financial statements and should be considered in conjunction with any review of the financial statements.

*The Required Supplementary Information* includes the schedules of changes in the net pension liability and related ratios, the schedules of employer contributions, and the schedule of investment returns. The schedules of changes in net pension liability shows the increase or the decrease in the liability of the District Retirement Funds to plan members for benefits provided.

**The Supplementary Information** includes additional information on the District Retirement Funds including a schedule of funding progress, the schedule of administrative expenses, investment expenses and payments to consultants. The schedule of funding progress includes actuarial information about the status of the District Retirement Funds from an ongoing, long-term perspective, and the progress made in accumulating sufficient assets to pay pension benefits under these Plans when due.

#### Analysis of Financial Information

DCRB's funding objective is to meet long-term benefit obligations with net investment income and with employer and member contributions. The discussion below provides an analysis of the current year's financial activities in relation to the current member population and relevant economic conditions for the combined Funds.

#### Additions to Net Position (Revenues)

Additions to net position are comprised of employer contributions, employee contributions, net investment income, and other income. These additions/(reductions) for fiscal year 2015 totaled \$(50.3) million, a decrease of \$(727.1) million or -107.4%, over the fiscal year 2014 amount of \$676.8 million. This decrease was primarily due to the lower investment returns in fiscal year 2015.

Employer contributions in fiscal year 2015 totaled \$142.9 million, an increase of \$0.5 million or 0.4%, over the fiscal year 2014 amount of \$142.4 million. The fiscal year 2015 employer contribution was derived from the contribution rate calculated in the actuary's report for the period ended October 1, 2013 multiplied by covered payroll and adjusted for timing differences caused by the contribution being calculated 2 years in arrears. This adjustment is required by the D.C. Code.

Employee contributions in fiscal year 2015 totaled \$65.3 million, an increase of \$3.7 or 6.1% over the fiscal year 2014 amount of \$61.6 million. Employee contributions consist of amounts paid by members for future retirement benefits.

Investment income, net of investment fees, for fiscal year 2015 totaled \$(259.9) million, a loss of -4.1%. Net investment income for fiscal year 2014 totaled \$471.0 million, a gain of 8.1%.

Other income in fiscal year 2015 totaled \$1.4 million, a decrease of \$(0.5) million or -25.1% over the fiscal year 2014 amount of \$1.9 million. Other income consists mainly of reimbursements of administrative expenses from the U.S. Treasury.

#### **Deductions from Net Position (Expenses)**

The statutory mandate of DCRB is to provide retirement, survivor and disability benefits to qualified members and their survivors. The costs of such programs include recurring benefit payments, elective refunds of contributions to employees who terminate employment, and the cost of administering the District Retirement Funds.

Deductions from net position are comprised of benefit payments, refunds and administrative expenses. These deductions for fiscal year 2015 totaled \$151.2 million, an increase of \$17.6 million or 13.2% over the fiscal year 2014 amount of \$133.6 million.

Benefit payments for fiscal year 2015 totaled \$127.7 million, an increase of \$15.1 million or 13.4% over the fiscal year 2014 amount of \$112.6 million. This increase reflects the combination of a net growth of 6.1% in the number of retirees and survivors receiving benefits, coupled with COLA adjustments and an overall increase in the final average salary for new retirees. In fiscal years 2015 and 2014, benefit payments made on behalf of current retirees, survivors and beneficiaries comprised approximately 84% of DCRB expenses.

Refunds in fiscal year 2015 totaled \$7.0 million, a decrease of \$(0.5) million or -6.1% over the fiscal year 2014 amount of \$7.4 million. Refunds of member accounts are at the discretion of the member, and vary from year to year.

Administrative expenses in fiscal year 2015 totaled \$16.5 million, an increase of \$3.0 million or 21.9% over the fiscal year 2014 amount of \$13.5 million. In fiscal years 2015 and 2014, the administrative expenses were equivalent to 27 and 21 basis points of the assets under management, respectively.

#### **Funding Status**

As of October 1, 2014 (the date of the most recent actuarial valuation), the funding status was 101.4% for the combined District Retirement Funds. DCRB is a well-funded yet immature system as a result of the 1999 asset split with the U.S. Treasury in which the U.S. Treasury assumed responsibility for all benefit obligations prior to July 1, 1997. As with all immature systems, a higher percentage of benefits are funded by current contributions. As the system matures, investment income will provide a greater percentage of the funds necessary to pay retirement benefits. Therefore, the long-term rate of investment return is critical to DCRB's long-term funding status.

To fully understand the funding status of a retirement system, it is often advisable to view actuarial data in conjunction with financial data. The actuarial value of assets used to calculate funded status is not based on year-end fair value as of the valuation date. Gains and losses for actuarial funding purposes are smoothed over a rolling seven year period. This smoothing of gains and losses mitigates the need to constantly increase or lower contributions because volatile market conditions can be absorbed (smoothed-in) over many years.

The reality of actuarial smoothing techniques is that the fair value of assets may be significantly different from funding value (actuarial value) of assets at a given point in time. This means that in periods of extended market decline, the fair value of assets will usually be less than the funding, or actuarial value of assets. This was the case with DCRB during the current market downturn which began in 2008. Conversely, during periods of extended market gains, where the actual rate of return exceeds the assumed rate of return, the fair value of assets will usually be greater than the funding, or actuarial value of assets.

At October 1, 2014, the date of the latest actuarial valuation, the actuarial value of assets set aside to pay pension benefits was \$1.6 billion for the TRF and \$4.3 billion for the POFRF for a total of \$5.9 billion. The fair value of these assets at September 30, 2014, included on the financial statements of DCRB was \$1.8 billion for the TRF and \$4.6 billion for the POFRF for a total of \$6.4 billion. Therefore, when viewing the actuarial funding status, the fair value of assets would provide a more favorable funding position to the actuarial value of assets as of the October 1, 2014 valuation. Again, it is important to note that during years when the actual rate of return on investments significantly exceeds the assumed rate of return on investment, the actuarial value of assets can be less than the fair value of assets, making the funding status seem less favorable than the actual fair value would have indicated.

#### **Financial Analysis Summary**

Net position may serve over time as a useful indication of DCRB's financial strength. At the close of fiscal years 2015 and 2014, the net position of DCRB totaled \$6.1 billion and \$6.3 billion, respectively. Net position serves to meet DCRB's ongoing obligations to Plan participants and their survivors and beneficiaries. DCRB has weathered the financial market fluctuations over the past seven years and remains a well-funded Plan.

#### **Summary of Financial Information**

The following Condensed and Combined Statements of Fiduciary Net Position and Changes in Fiduciary Net Position present financial information for the combined Funds and compares fiscal years 2015 and 2014.

#### Condensed and Combined Statements of Fiduciary Net Position

(Dollars in thousands)

	2015	2014	Amount Increase (Decrease) 2015 over 2014	Percent Increase (Decrease) 2015 over 2014
Assets				
Cash and short-term investments	\$ 75,492	\$ 27,400	\$ 48,092	175.5%
Receivables	14,077	155,149	(141,072)	-90.9%
Prepaid and other assets	47	194	(147)	-75.8%
Investments at fair value	6,056,101	6,275,768	(219,667)	-3.5%
Collateral from securities lending	-	24,982	(24,982)	-100.0%
Total assets	6,145,717	6,483,493	(337,776)	-5.2%
Liabilities				
Other payables	4,214	6,404	(2,190)	-34.2%
Investment commitments payable	8,867	117,663	(108,796)	-92.5%
Obligations under securities lending	-	25,336	(25,336)	-100.0%
Total liabilities	13,081	149,403	(136,322)	-91.2%
Net position	\$6,132,636	\$6,334,090	\$(201,454)	-3.2%

Condensed and Combined Statements of Changes in Fiduciary Net Position (Dollars in thousands)

	2015	2014	Amount Increase (Decrease) 2015 over 2014	Percent Increase (Decrease) 2015 over 2014
Additions				
Employer contributions	\$ 142,943	\$142,402	\$ 541	0.4%
Plan member contributions	65,300	61,572	3,728	6.1%
Net investment (loss) income	(259,930)	470,980	(730,910)	-155.2%
Other income	1,397	1,864	(467)	-25.1%
Total (reductions) additions	(50,290)	676,818	(727,108)	-107.4%
Deductions				
Benefit payments	127,710	112,616	15,094	13.4%
Refunds	6,972	7,427	(455)	-6.1%
Administrative expenses	16,482	13,517	2,965	21.9%
Total deductions	151,164	133,560	17,604	13.2%
Change in net position	\$(201,454)	\$543,258	\$(744,712)	-137.1%

#### **Financial Highlights**

The Teachers' Retirement Fund financial highlights for fiscal year 2015 are as follows:

- Net position restricted for pensions held in trust for pension benefits as of September 30, 2015 was \$1.7 billion, a decrease of \$(0.1) billion or -4.3% over fiscal year 2014.
- Investment income, net of investment expenses, for fiscal year 2015 was \$(72.6) million, a loss of -4.2%. Investment income, net of investment expenses, for fiscal year 2014 was \$132.1 million, a gain of 8.1%.
- The Board's funding objective is to meet long-term pension benefit obligations. As of October 1, 2014, the date of the latest actuarial valuation, the TRF's funded ratio based on the actuarial value of assets was 88.6%. In general, this means that for each dollar's worth of future pension liability, the TRF has accumulated \$0.89 to meet that obligation. The Plan's funded ratio decreased -1.6% over the prior year due primarily to investment losses in 2008 and 2009 which are smoothed into the calculation of the unfunded accrued liability for 2014. This is the last year of the smoothing related to those recession years. As of October 1, 2013, the actuarial valuation indicated a funded ratio of 90.2% for the TRF.
- Revenues for fiscal year 2015 were \$(1.1) million, a decrease of \$(194.1) million or -100.6% over fiscal year 2014. Employer contributions for fiscal year 2015 were \$39.5 million, an increase of \$7.9 million or 24.9% over fiscal year 2014. Employee contributions for fiscal year 2015 were \$31.6 million, an increase of \$2.9 million or 10.0% over fiscal year 2014. Net income from investment activities for fiscal year 2015 was \$(72.6) million, a loss of -4.2%. Other income for fiscal year 2015 was \$0.4 million, a decrease of \$(0.1) million or -26.2% over fiscal year 2014.
- Deductions from Fiduciary net position for fiscal year 2015 were \$74.2 million, an increase of \$4.8 million or 6.9% over fiscal year 2014. Pension benefit payments for fiscal year 2015 were \$64.1 million, an increase of \$4.2 million or 7.1% over fiscal year 2014. Refunds of member contributions for fiscal year 2015 were \$5.6 million, a decrease of \$(0.2) million or -3.7% over fiscal year 2014. Administrative expenses for fiscal year 2015 were \$4.5 million, an increase of \$0.8 million or 20.0% over fiscal year 2014.

The Police Officers and Firefighters' Retirement Fund financial highlights for fiscal year 2015 are as follows:

- Net position restricted for pensions held in trust for pension benefits as of September 30, 2015 was \$4.5 billion, an annual decrease of \$(0.1) billion or -2.7% over fiscal year 2014.
- Investment income, net of investment expenses, for fiscal year 2015 was \$(187.3) million, a loss of -4.1%. Investment income, net of investment expenses, for fiscal year 2014 was \$338.9 million, a gain of 8.1%.
- The Board's funding objective is to meet long-term pension benefit obligations. As of October 1, 2014, the date of the latest actuarial valuation, the POFRF's funded ratio based on the actuarial value of assets was 107.3%. In general, this means that for each dollar's worth of future pension liability, the POFRF has accumulated approximately \$1.07 to meet that obligation. This actuarial report indicated that if future activity proceeded according to assumptions, the POFRF has accumulated sufficient assets to pay all pension liabilities for active members and retirees. The Plan's funded ratio decreased -2.8% over the prior year due primarily to the actuarial accrued liability (AAL) increasing at a greater rate than the actuarial value of plan assets. As of October 1, 2013, the actuarial valuation indicated a funded ratio of 110.1% for the POFRF.
- Revenues for fiscal year 2015 were \$(49.2) million, a decrease of \$(533.0) million or -110.2% over fiscal year 2014. Employer contributions for fiscal year 2015 were \$103.4 million, a decrease of \$(7.3) million or -6.6% over fiscal year 2014. Member contributions for fiscal year 2015 were \$33.7 million, an increase of \$0.9 million or 2.6% over fiscal year 2014. Net income from investment activities for fiscal year 2015 were \$(187.3) million, a loss of -4.1%. Other income for fiscal year 2015 was \$1.0 million, a decrease of \$(0.3) million or -24.6% over fiscal year 2014.
- Deductions from Fiduciary net position for fiscal year 2015 were \$77.0 million, an increase \$12.8 million or 20.0% over fiscal year 2014. Pension benefit payments for fiscal year 2015 were \$63.6 million, an increase of \$10.9 million or 20.6% over fiscal year 2014. Refunds of member contributions for fiscal year 2015 were \$1.4 million, a decrease of \$(0.2) million or -14.7% over fiscal year 2014. Administrative expenses for fiscal year 2015 were \$11.9 million, an increase of \$2.2 million or 22.7% over fiscal year 2014.

#### **Additional Information**

These financial statements of the District Retirement Funds are presented in accordance with accounting principles generally accepted in the United States of America. Questions about these financial statements or other inquiries should be addressed to the Executive Director, District of Columbia Retirement Board, 900 7<sup>th</sup> Street, NW, 2<sup>nd</sup> Floor, Washington, D.C. 20001.

### **FINANCIAL STATEMENTS**

### **Combining Statements of Fiduciary Net Position As of September 30, 2015 and 2014** (Dollar amounts in thousands)

		2015			2014	
	Teachers' Retirement Fund	Police Officers and Firefighters' Retirement Fund	Total	Teachers' Retirement Fund	Police Officers and Firefighters' Retirement Fund	Total
Assets						
Cash and short-term investments	\$ 18,352	\$ 57,140	\$ 75,492	\$ 7,236	\$ 20,164	\$ 27,400
Receivables:						
Federal Government	248	652	900	393	1,009	1,402
Investment sales proceeds	500	1,333	1,833	38,641	101,573	140,214
Interest & dividends	1,871	4,994	6,865	2,421	6,363	8,784
Employee contributions	2,253	2,226	4,479	1,949	2,800	4,749
Total receivables	4,872	9,205	14,077	43,404	111,745	155,149
Prepaid expenses	13	34	47	54	140	194
Investments at fair value:						
Domestic equity	379,824	1,013,536	1,393,360	407,220	1,070,427	1,477,647
International equity	458,933	1,224,239	1,683,172	529,802	1,392,460	1,922,262
Fixed income	511,262	1,364,270	1,875,532	516,152	1,356,768	1,872,920
Real estate	107,792	287,638	395,430	97,721	256,872	354,593
Private equity	193,163	515,444	708,607	178,676	469,670	648,346
Total investments at fair value	1,650,974	4,405,127	6,056,101	1,729,571	4,546,197	6,275,768
Collateral from securities lending transactions at fair value	-	-	-	6,885	18,097	24,982
Total assets	1,674,211	4,471,506	6,145,717	1,787,150	4,696,343	6,483,493
Liabilities						
Accounts payable and other liabilities	735	1,950	2,685	1,163	3,038	4,201
Due to Federal Government	20	53	2,003	204	523	4,201
Due to District of Columbia Government	401	1,055	1,456	414	1,062	1,476
Investment commitments payable	2,417	6,450	8,867	32,426	85,237	117,663
Obligations under securities	2,417	0,430	0,007	52,420	00,207	117,003
lending	-	-	-	6,982	18,354	25,336
Total liabilities	3,573	9,508	13,081	41,189	108,214	149,403
Net Position Restricted For Pension Benefits	\$1,670,638	\$4,461,998	\$6,132,636	\$1,745,961	\$4,588,129	\$6,334,090

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

### **Combining Statements of Changes in Fiduciary Net Position For the years ended September 30, 2015 and 2014** (Dollar amounts in thousands)

		2015			2014	
	Teachers' Retirement Fund	Police Officers and Firefighters' Retirement Fund	Total	Teachers' Retirement Fund	Police Officers and Firefighters' Retirement Fund	Total
Additions						
Contributions:						
District Government	\$ 39,513	\$ 103,430	\$142,943	\$ 31,636	\$ 110,766	\$ 142,402
District employees	31,621	33,679	65,300	28,751	32,821	61,572
Total contributions	71,134	137,109	208,243	60,387	143,587	203,974
Investment (loss) income:						
Net (depreciation) appreciation in fair value of investments	(76,764)	(205,187)	(281,951)	99,689	254,518	354,207
Interest and dividends	7,476	26,733	34,209	36,145	94,002	130,148
Total gross investment (loss) income	(69,288)	(178,454)	(247,742)	135,834	348,520	484,355
Less:						
Investment expenses	3,378	8,878	12,256	3,826	9,830	13,656
Net investment (loss) income	(72,666)	(187,332)	(259,998)	132,008	338,690	470,699
Securities lending income	24	63	87	101	267	368
Less: securities lending expense	5	14	19	24	63	87
Net securities lending income	19	49	68	78	204	282
Total net investment (loss) income	(72,647)	(187,283)	(259,930)	132,086	338,894	470,980
Other income	385	1,012	1,397	522	1,342	1,864
Total (reductions) additions	(1,128)	(49,162)	(50,290)	192,995	483,823	676,818
Deductions						
Benefit payments	64,076	63,634	127,710	59,832	52,784	112,616
Refunds	5,576	1,396	6,972	5,790	1,637	7,427
Administrative expenses	4,543	11,939	16,482	3,787	9,730	13,517
Total deductions	74,195	76,969	151,164	69,409	64,151	133,560
Change in Net Position	(75,323)	(126,131)	(201,454)	123,586	419,672	543,258
Net Position Restricted For Pensions:						
Beginning of Year	1,745,961	4,588,129	6,334,090	1,622,375	4,168,457	5,790,832
End of Year	\$1,670,638	\$4,461,998	\$6,132,636	\$1,745,961	\$4,588,129	\$6,334,090

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

#### Note 1: Organization

The District of Columbia Teachers' Retirement Fund and the District of Columbia Police Officers and Firefighters' Retirement Fund were established in 1979 by the District of Columbia Retirement Reform Act (the Reform Act, Pub. L. 96-122, D. C. Code § 1-701 et seq.). The Fund holds in trust the assets available to pay pension benefits to teachers, police officers and firefighters of the District of Columbia Government. The Reform Act also established the District of Columbia Retirement Board.

The National Capital Revitalization and Self-Government Improvement Act of 1997 (the Revitalization Act, Title XI of the Balanced Budget Act of 1997, Pub. L. 105-33) transferred significant assets and liabilities of the District Retirement Funds to the Federal Government. The Revitalization Act transferred to the Federal Government the liability for retirement benefits for employee service credit earned prior to July 1, 1997, by participants of the District Retirement Funds. The assets transferred to the Federal Government were intended to partially fund this liability.

On September 18, 1998, the Council of the District of Columbia (the Council) enacted the Police Officers, Firefighters, and Teachers Retirement Benefit Replacement Plan Act of 1998 (the Replacement Act). The Replacement Act established the District Retirement Funds for employee service earned after June 30, 1997, and provided for full funding of these benefits on an actuarially sound basis.

The Board is an independent agency of the District of Columbia government that is responsible for managing the assets of the TRF and the POFRF. Although the assets of these funds are commingled for investment purposes, each fund's assets may only be used for the payment of benefits to the participants of that fund and certain administrative expenses.

The District Retirement Funds are included in the District's Comprehensive Annual Financial Report as a pension trust fund.

#### Note 2: Fund Administration and Description

District of Columbia Retirement Board – The Board consists of 12 trustees, three appointed by the Mayor of the District, three appointed by the Council of the District, and six elected by the active and retired participants. Included are one active and one retired representative each, from the police officers, firefighters, and teachers. Each of the six representatives of the Plans' participants is elected by the respective groups of active and retired employees. In addition, the District's Chief Financial Officer or his designee serves as a non-voting, ex-officio trustee.

Since its inception, the Board has operated under a committee system which provides a two-tiered process for fiduciary review and analysis. In this manner, the Board, consistent with its fiduciary duties, reviews all issues brought before it. The Board has six standing committees: Benefits, Audit, Fiduciary, Investments, Legislative, and Operations. To implement its policies, the Board retains an executive director and other staff who are responsible for the day-to-day management of the District Retirement Funds and the administration of the benefits paid from the Funds.

#### Note 2: Fund Administration and Description (Continued)

#### **Teachers' Retirement Fund**

*Other Entities involved in Plan Administration* – The District of Columbia Public School's (the DCPS) Office of Human Resources makes decisions regarding voluntary and involuntary retirement, survivor benefits, and annual medical and income reviews.

**Benefits Calculation** – DCRB's Benefits Department receives the approved retirement applications for all active Plan members found eligible for retirement by the DCPS Office of Human Resources, and carries out the day-to-day processing of retirement benefits. DCRB also processes employee requests for refunds of contributions and purchases of service.

*Eligibility* – Permanent, temporary, part-time and probationary teachers and certain other employees of the District of Columbia public day schools are automatically enrolled in the Teachers' Retirement Fund on their date of employment. Certain D.C. Public Charter School employees are also eligible to be participants. However, substitute teachers and employees of the Department of School Attendance and Work Permits are not covered.

Title 38, Chapter 20 of the D.C. Official Code (D.C. Code § 38-2021.01 et seq. (2001 Ed.)) establishes benefit provisions which may be amended by the District City Council. For employees hired before November 1, 1996, the annual retirement benefit is the average salary, as defined, multiplied by 1.5% for each of the first five years of service, plus 1.75% for each of the second five years; plus 2% for each additional year over 10 years. For employees hired on or after November 1, 1996, the annual retirement benefit is the average salary, as defined, multiplied by 2% for each year of service. The average salary is the highest average consecutive 36 months of pay.

The annuity may be further increased by crediting unused sick leave as of the date of retirement. Participants receiving retirement benefits receive an annual benefit increase proportional to changes in the Consumer Price Index; however, the annual increase may not exceed 3% for participants hired on or after November 1, 1996. Participants may select from among several survivor options.

Participants who have 5 years of school service (by working for the District of Columbia public school system), and who become disabled and can no longer perform their jobs satisfactorily, may be eligible for disability retirement. Such disability retirement benefits are calculated in the same manner as a retirement benefit, however, a minimum disability benefit applies.

Voluntary retirement is available for teachers who have a minimum of 5 years of school service and who achieve the following age and length of service requirements:

at age 62 with 5 years of service;

at age 60 with 20 years of service; and

at age 55 with 30 years of service; if hired before November 1, 1996; or

at any age with 30 years of service, if hired by the school system on or after November 1, 1996.

Employees who are involuntarily separated other than for cause and who have 5 years of school service, may be eligible for retirement at any age with 25 years of service or at age 50 with 20 years of service.

An involuntary retirement benefit is reduced if, at the time of its commencement, the participant is under the age of 55.

#### Note 2: Fund Administration and Description (Continued)

#### Police Officers and Fire Fighters' Retirement Fund

**Other Entities involved in Plan Administration** – The District of Columbia Police Officers and Firefighters' Retirement and Relief Board makes findings of fact, conclusions of law, and decisions regarding eligibility for retirement and survivor benefits, determines the extent of disability, and conducts annual medical reviews. The Police and Fire Clinic determines medical eligibility for disability retirement.

**Benefits Calculation** – DCRB's Benefits Department receives the retirement orders for retirement benefit calculations for all active Plan members found eligible for retirement by the District of Columbia Police Officers and Firefighters' Retirement and Relief Board, and carries out the day-to-day processing of retirement benefits. DCRB also processes employee requests for refunds of contributions and purchases of service. Effective 2013, DCRB began conducting annual disability income reviews.

*Eligibility* – A participant becomes a member when he/she begins work as a police officer or firefighter in the District. Cadets are not eligible to join the Fund.

Retirement and disability benefit provisions for District of Columbia police officers and firefighters are established by the "Policemen and Firemen's Retirement and Disability Act" (D.C. Code § 5-701 et seq. (2001 Ed.)).

**Members Hired Before February 15, 1980** – Members are eligible for optional retirement with full benefits at any age after 20 years of departmental service, or for deferred retirement at age 55 after five years of departmental service. The annual basic retirement benefit equals 2.5% of average base pay, which is defined as the highest average consecutive 12 months of base pay, multiplied by departmental service through 20 years; plus 3% of average base pay multiplied by average base pay times departmental service over 20 years; plus 2.5% of average base pay multiplied by years of other creditable service; however, the aggregate annual basic retirement benefit may not exceed 80% of the member's average base pay. Members terminated after five years of police or fire service are entitled to a deferred pension beginning at age 55. Benefits are also provided to certain survivors of active, retired, or terminated vested members. Retirement benefits are increased by the same percentage in base pay granted to active participants.

Members with a service-related disability receive a disability retirement benefit of 2.5% of average base pay multiplied by the number of years of creditable service. A minimum annual disability retirement benefit of 66 2/3% of average base pay and a maximum annual disability retirement benefit of 70% of average base pay apply.

Members with a non-service related disability and at least five years of departmental service receive a disability retirement benefit of 2% of average base pay multiplied by the number of years of creditable service. A minimum annual disability retirement benefit of 40% of average base pay and a maximum annual disability retirement benefit of 70% of average base pay apply.

*Members Hired On or After February 15, 1980 and Before November 10, 1996* – Members are eligible for optional retirement with full benefits at age 50 with at least 25 years of departmental service, or after age 55 with five years of departmental service. The annual basic retirement benefit equals 2.5% of average base pay, which is defined as the highest average consecutive 36 months of base pay, multiplied by the number of years of creditable service through 25 years; plus 3% of average base pay multiplied by the number of years of departmental service over 25 years; plus 2.5% of average base pay multiplied by the number of years of departmental service over 25 years; plus 2.5% of average base pay multiplied by the number of years of other creditable service; however, the aggregate annual basic retirement benefit may not exceed 80% of the member's average base pay. Members separated from the Police or Fire Department after five years of departmental service are entitled to a deferred pension beginning at age 55.

Benefits are also provided to certain survivors of active, retired or terminated vested members. Members who retired after February 15, 1980 receive annual benefit increases proportional to changes in the Consumer Price Index.

#### Note 2: Fund Administration and Description (Continued)

**Members Hired on or After November 10, 1996** – Members are eligible for retirement at any age, with at least 25 years of departmental service or after age 55 with five years of departmental service. The annual basic retirement benefit equals 2.5% of average base pay, which is defined as the highest average consecutive 36 months of base pay, multiplied by creditable service; however, the aggregate annual basic retirement benefit may not exceed 80% of the average base pay. Members separated after five years of departmental service are entitled to a deferred pension beginning at age 55. Benefits are also provided to certain survivors of active, retired, or terminated vested members. Members receive annual benefit increases proportional to changes in the Consumer Price Index, however, the increase is capped at 3%.

Members with a service-related disability receive a disability retirement benefit of 70% of base pay multiplied by the percentage of disability. A minimum annual disability retirement benefit of 40% of base pay applies.

Members with a non-service related disability and at least five years of departmental service receive a disability retirement benefit of 70% of base pay multiplied by the percentage of disability. A minimum annual disability retirement benefit of 30% of base pay applies.

Prior to reaching age 50, a disability retirement benefit will be reduced or terminated if outside earnings exceed a certain limit.

#### Participant Data

The number of participants for the years ended September 30 was as follows:

Teachers' Retirement Fund	2015	2014
Retirees and survivors receiving		
benefits (post June 30, 1997)	3,718	3,601
Active plan members	4,866	4,499
Vested terminations	1,152	969
Total TRF participants	9,736	9,069
Police Officers and Firefighters' Retirement Fund	2015	2014
Retirees and survivors receiving		
benefits (post June 30, 1997)	2,609	2,365
Active plan members	5,537	5,551
Vested terminations	319	257
Total POFRF participants	8,465	8,173

#### **Contributions**

Fund members contribute by salary deductions at rates established by D.C. Code § 5-706 (2001 Ed.). Members contribute 7% (or 8% for Teachers and Police Officers and Firefighters hired on or after November 1, 1996 and November 10, 1996, respectively) of annual gross salary, including any differential for special assignment and longevity, but excluding overtime, holiday, or military pay.

The District is required to contribute the amounts necessary to finance the Plan benefits of its members through annual contributions at actuarially determined amounts in accordance with the provisions of the Replacement Act. The amount of the District contributions for fiscal years 2015 and 2014 were equal to the amounts computed, if any, by the Board's independent actuary.

### Note 2: Fund Administration and Description (Continued)

Contribution requirements of members are established by D.C. Code § 5-706 and requirements for District of Columbia government contributions to the Fund are established at D.C. Code § 1-907.02 (2001 Ed.), which may be amended by the City Council. Administrative costs are paid from investment earnings.

### Note 3: Summary Of Significant Accounting Policies

**Basis of Accounting** – DCRB's financial statements were prepared in accordance with accounting principles generally accepted in the United States (GAAP) using the accrual basis of accounting. Employee contributions are recognized by the District Retirement Funds at the time compensation is paid to Plan members. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and reporting principles. Employer contributions to the District Retirement Funds are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the retirement Plan's commitment.

*Federal Income Tax Status* – The District Retirement Funds are qualified plans under section 401(a) of the Internal Revenue Code and are exempt from federal income taxes under section 501(a).

**Method Used to Value Investments** – Investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. All investments, with the exception of real assets, hedge funds, and private equity, are valued based on closing market prices or broker quotes. Securities not having a quoted market price have been valued based on yields currently available on comparable securities of issuers with similar credit ratings.

The fair value of investments in real assets, hedge funds or private equity, in the absence of a readily ascertainable market value, are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners.

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

*Investment Expenses* – The District of Columbia Appropriation Act authorized Fund earnings to be used for investment expenses incurred in managing the assets and administering the Fund. The total investment expenses borne by the District Retirement Funds was \$12,256,010 in 2015 and \$13,655,870 in 2014. A significant number of the alternative investment managers provide account valuations net of management expenses. Those expenses are netted against investment income and, because they are not separable, amounts are recorded and reported net of management expenses in the net appreciation/(depreciation) in the fair value of investments.

### Note 4: Investments

The Board is authorized to manage and control the investment of the District Retirement Funds' assets. The Board broadly diversifies the investments of the District Retirement Funds so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so, as required by D.C. Code § 1-741(a)(2)(C), (2001 Ed.).

*Master Trust* – The Board has pooled all of the assets under its management (the Investment Pool), as is authorized by D.C. Code § 1-903(b), (2001 Ed.), with a master custodian under a master trust arrangement (the Master Trust). Using an investment pool, each Fund owns an undivided proportionate share of the pool.

District and employee contributions are deposited in the respective Retirement Fund for which the contribution was made, and benefit payments and employee contribution refunds are withdrawn from the Fund in which the recipient participates. Investment performance and administrative expenditures are allocated between the two Funds based upon their proportionate net position in the pool.

The fair values of investments of the Investment Pool as of September 30 are as follows:

(Dollars in thousands)		
	2015	2014
Cash and short-term investments	\$ 75,492	\$ 27,400
Investments at fair value:		
Domestic equity	1,393,360	1,477,647
International equity	1,683,172	1,922,262
Fixed income	1,875,532	1,872,920
Real estate	395,430	354,593
Private equity	708,607	648,346
Total investments at fair value	6,056,101	6,275,768
Total	\$6,131,593	\$6,303,168

**Annual money-weighted rate of return** – The money-weighted rate of return shows investment performance when taking into account the impact of cash infusion into and disbursements from the pension system. For the years ended September 30, 2015 and 2014, the money-weighted rates of return, as calculated by the custodian, were as follows:

FY 2015	FY 2014

Total Portfolio -4.006% 8.178%

### Note 4: Investments (Continued)

Debt Instruments – As of September 30, 2015, the Investment Pool held the following debt instruments:

(Dollars in thousands)				
Investment Type	Fair Value	% of Segment	Duration	Rating*
US Agency	\$ 25,623	1.37%	4.12	AA+
Asset Backed	4,934	0.26%	2.44	AAA
Bank Loans	129,633	6.91%	4.69	NR
CMBS	16,447	0.88%	4.66	AA
Corporate	443,721	23.66%	5.42	BBB-
Foreign	369,210	19.69%	4.54	А
Mortgage Pass-Through	243,503	12.98%	3.54	AA+
Municipal	8,310	0.44%	11.27	AA-
Unclassified	1,904	0.10%	1.63	AA+
US Treasury	616,117	32.85%	6.61	AA+
Yankee	9,350	0.50%	6.88	B-
Other	6,780	0.36%	N/A	NR
Total Fixed Income	\$1,875,532	100.00%		

As of September 30, 2014, the Investment Pool held the following debt instruments:

(Dollars in thousands)				
Investment Type	Fair Value	% of Segment	Duration	Rating*
US Agency	\$ 20,322	1.09%	4.64	AA+
Asset Backed	5,787	0.31%	2.46	AA+
Bank Loans	108,393	5.79%	4.69	NR
CMBS	2,748	0.15%	3.13	AA+
СМО	7,586	0.41%	5.49	AA+
Corporate	469,896	25.09%	5.01	BB
Foreign	379,422	20.26%	2.70	AA+
Mortgage Pass-Through	177,148	9.46%	4.39	AA+
Municipal	13,739	0.73%	10.01	AA-
Unclassified	2,470	0.13%	2.26	AA+
US Treasury	657,401	35.10%	5.55	AA+
Yankee	16,305	0.87%	6.88	А
Other	11,703	0.62%	N/A	NR
Total Fixed Income	\$1,872,920	100.00%		

\* Using quality ratings provided by Standard & Poor's

### Note 4: Investments (Continued)

*Interest Rate Risk* – Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, an investment with a longer maturity will have a greater sensitivity to fair value changes that are related to market interest rates. The Board monitors the interest rate risk inherent in its portfolio by measuring the weighted average duration of its portfolio. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. As a general rule, the risk and return of the Board's fixed income segment of the portfolio is compared to the Barclays Capital U.S. Universal Index. To mitigate interest rate risk, the fixed income segment is expected to maintain a weighted average duration (sensitivity to interest rate changes) within +/-2 years of the duration of this Index.

*Credit Risk* – Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Unless specifically authorized otherwise in writing by the Board, fixed income managers invest in investment grade instruments rated in the top four rating categories by a recognized statistical rating service.

**Foreign Currency Risk** – Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. As a general policy, investment managers with authority to invest in issuers denominated in a foreign currency may reduce exposure to currency risk by systematically hedging foreign currency positions back to U.S. dollars through the forward currency markets. Since the forward exchange rate is seldom equal to the spot exchange rate, forward hedging gains and losses may arise.

As of September 30, 2015, the Investment Pool held investments that were denominated in a currency other than the United States Dollar, as summarized below:

	Asset Class				
	Cash	Equities	Fixed Income	Private Equity	Total
Australian Dollar	\$ (652)	\$-	\$ 6,107	\$-	\$ 5,455
Canadian Dollar	492	2,273	20,124	-	22,889
Danish Krone	-	9,088	-	-	9,088
Euro	16,076	290,358	15,347	261,330	583,111
Hong Kong Dollar	-	32,050	-	-	32,050
Japanese Yen	532	220,725	-	-	221,257
Mexican Peso	172	-	-	-	172
Pound Sterling	1	54,215	928	-	55,144
Singapore Dollar	-	687	-	-	687
South African Rand	-	1,040	-	-	1,040
Swedish Krona	-	30,338	-	-	30,338
Swiss Franc	-	74,634	-	-	74,634
Total Foreign	\$16,621	\$715,408	\$42,506	\$261,330	\$1,035,865

(Dollars in thousands)

(Dollars in thousands)

## **Notes to Financial Statements**

### Note 4: Investments (Continued)

As of September 30, 2014, the Investment Pool held investments that were denominated in a currency other than the United States Dollar, as summarized below:

	Asset Class					
	Cash	Equities	Fixed Income	Private Equity	Swaps	Total
Australian Dollar	\$ (357)	\$-	\$ 6,037	\$ -	\$754	\$ 6,434
Brazilian Real	-	-	-	-	(40)	(40)
Canadian Dollar	-	-	2,256	-	-	2,256
Danish Krone	-	1,318	-	-	-	1,318
Euro	8,377	50,731	15,451	20,972	(24)	95,507
Hong Kong Dollar	-	6,745	-	-	-	6,745
Japanese Yen	238	36,111	-	-	(170)	36,179
Mexican Peso	7	-	-	-	88	95
Pound Sterling	(14)	5,968	937	-	-	6,891
Swedish Krona	-	4,969	-	-	-	4,969
Swiss Franc	-	10,557	-	-	-	10,557
Total Foreign	\$8,251	\$116,399	\$24,681	\$20,972	\$608	\$170,911

**Securities Lending Transactions** – The Board's policies permit the District Retirement Funds to participate in securities lending transactions by relying on a Securities Lending Authorization Agreement, which authorizes the master custodian to lend the Board's securities to qualified broker-dealers and banks pursuant to a form of loan agreement.

In April 2015, the Board discontinued its participation in State Street's securities lending program. As a result of several factors, the Board's securities lending revenues declined to a nominal level in recent years. Also in 2015, the Board made the decision to transition custodial services from State Street to Northern Trust (see Note 8). As a result, the Board made the decision to discontinue the securities lending program in order to manage the operational risks associated with the planned transition. The Board may participate in securities lending through its new custodian bank in the future.

For the first six months of fiscal year 2015 and during 2014, the master custodian, at the direction of the Board, loaned certain of the District Retirement Funds' public equity and fixed income securities for which it received collateral in the form of United States and foreign currency cash, securities issued or guaranteed by the United States government, the sovereign debt of foreign countries and irrevocable bank letters of credit. This collateral could not be pledged or sold unless the borrower defaulted on the loan. Borrowers were required to deliver and maintain collateral for each loan in an amount equal to (i) at least 102% of the fair value of the loaned security in the United States; or (ii) 105% of the fair value of the loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States.

The Board and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool (the Quality D Fund). The Quality D Fund does not meet the requirements of the Securities and Exchange Commission Rule 2a-7 of the Investment Company Act of 1940, and accordingly, the master custodian has valued the Fund's investments at fair value for reporting purposes.

### Note 4: Investments (Continued)

The Quality D Fund is not registered with the Securities and Exchange Commission. The master custodian, and consequently the investment vehicles it sponsors (including the Quality D Fund), are subject to the oversight of the Federal Reserve Board and the Massachusetts Commissioner of Banks. The fair value of the Funds' position in the Quality D Fund is not the same as the value of the District Retirement Funds' shares.

There was no involuntary participation in an external investment pool by the Quality D Fund and there was no income from one fund that was assigned to another fund by the master custodian during 2015 or 2014.

During 2014, the Board did not restrict the amount of the loans that the master custodian made on its behalf. There were no failures by any borrowers to return loaned securities or pay distributions thereon and there were no losses resulting from a default of the borrowers or the master custodian during 2014.

As of September 30, 2015 the fair value (USD) of securities on loan, associated collateral and invested cash collateral was \$0.

As of September 30, 2014 fair value (USD) of securities on Ioan was \$24,726,473. Associated collateral totaling was \$25,336,553 was comprised of cash which was invested in the Quality D Fund. As of September 30, 2014 the invested cash collateral had a fair value of \$24,981,841.

At times, the fair value of the shares in the Quality D Fund purchased with cash collateral by the lending agent was less than the cost. As of September 30, 2015, there were no unrealized losses. As of September 30, 2014, unrealized losses totaled \$354,712.

Net security lending income is composed of three components: gross income, broker rebates, and agent fees. Gross income is equal to earnings on cash collateral received in a security lending transaction. A broker rebate is the cost of using that cash collateral. Agent fees represent the fees paid to the agent for administering the lending program. Net security lending income is equal to gross income less broker rebates and agent fees. The Fund's share of securities lending income and expense are reflected on the Combining Statements of Changes in Fiduciary Net Position.

**Derivative Investments** – Derivatives are generally defined as contracts in which the value depends on, or derives from, the value of an underlying asset, reference rate, or index. Derivative investments generally contain exposure to credit risk, market risk, and/or legal risk. Credit risk is the exposure to the default of another party to the transaction (counterparty). Market risk is the exposure to changes in the market, such as a change in interest rates, currency exchange rates, or a change in the price or principal value of a security. The Board believes that all contracts entered into are legally permissible in accordance with the policy of the Board.

During 2015 and 2014, the District Retirement Funds, in accordance with the policy of the Board, and through the District Retirement Funds' investment managers who have full discretion over investment decisions, invested in various derivative instruments either to increase potential earnings or to hedge against potential losses. A list of the derivatives aggregated by type is shown later in this note.

TBAs (to-be-announced, sometimes referred to as dollar rolls) are used by the District Retirement Funds as an alternative to holding mortgage-backed securities outright to raise the potential yield and to reduce transaction costs. The selected TBAs are used because they are expected to behave the same in duration and convexity as mortgage-backed securities with identical credit, coupon and maturity features. Credit risk is managed by limiting these transactions to primary dealers.

Market risk for this type of security is not significantly different from the market risk for mortgage-backed securities.

### Note 4: Investments (Continued)

Foreign currency forwards, futures contracts and foreign currency options are generally used by the District Retirement Funds for defensive purposes. These contracts hedge a portion of the District Retirement Funds' exposure to particular currencies on occasion when significant adverse short-term movement in exchange rate levels is expected.

Foreign currency forward and futures contracts can pose market risk when the maximum potential loss on a particular contract is greater than the value of the underlying investment. Market risks arise due to movements in the foreign exchange rates underlying the contracts used by the District Retirement Funds. Credit risk is managed by limiting transactions to counterparties with short-term credit ratings of A1 or P1 or by trading on organized exchanges. Market risk for currency options is limited to the purchase cost. Credit risk for currency options is also managed by limiting transactions to counterparties with investment-grade ratings or by trading on organized exchanges.

Equity index futures were also used by the District Retirement Funds in order to gain exposure to equity markets in a more efficient and liquid manner than directly investing in all of the underlying equity securities. Equity index futures may pose market risk when the maximum potential loss on a particular contract is greater than the value of the underlying investment. Market risks arise due to movements in the equities markets underlying the contracts used by the District Retirement Funds. The notional amounts of the contracts are not included in the derivatives holdings disclosed. Credit risk is managed by dealing with member firms of the futures exchanges.

Exchange-traded and over-the-counter bond futures and options are used by the District Retirement Funds to gain exposure to fixed income markets in a more efficient and liquid manner than by purchasing the underlying bonds. Market risk for these futures and options is limited to purchase cost. Credit risk is managed by limiting transactions to counterparties with investment-grade ratings or by trading with member firms of organized exchanges.

Warrants are used by the District Retirement Funds to gain equity exposure and to enhance performance. Warrants are often distributed by issuers to holdings of common stock and bonds, and are held for the same fundamental reasons as the original common stock and/or bond holdings. Rights are a security that gives the holder the entitlement to purchase new shares issued by a corporation at a predetermined price in proportion to the number of shares already owned.

Market risk for warrants and rights is limited to the purchase cost. Credit risk for warrants and rights is similar to the underlying equity and/or bond holdings. Again, all such risks are monitored and managed by the District Retirement Funds' external investment managers who have full discretion over such investment decisions.

Swaps represent an agreement between two or more parties to exchange a sequence of cash flows during a predetermined timeframe. The District Retirement Funds utilize swaps for several different reasons: to manage interest rate fluctuations, to protect against a borrower default, and to gain market exposure without having to actually own the asset.

The District Retirement Funds may manage credit exposure through the use of credit default swaps. A credit default swap (CDS) is a contract whereby the credit risk associated with an investment is transferred by entering into an agreement with another party who, in exchange for periodic fees, agrees to make payments in the event of a default or other predetermined credit event. One of the main advantages of a CDS is that it allows for exposure to credit risk while limiting exposure to other risks such as interest rate and currency risk.

The District Retirement Funds also hold derivative instruments indirectly by participating in pooled, commingled, or short-term funds that hold derivatives. Information regarding any risks associated with these holdings is not generally available.

## Note 4: Investments (Continued)

The following is a list of derivatives aggregated by type as of September 30, 2015:

	Changes in Fa	ir Value (4)	Fair Val September 3		
Investment Derivatives	Classification	Amount (1)	Classification	Amount (2)	Notional (3)
Credit Default Swaps Bought	Investment Revenue	\$ (71,881)	Swaps	\$ -	\$ -
Credit Default Swaps Written	Investment Revenue	51,904	Swaps	-	-
Fixed Income Futures Long	Investment Revenue	519,101	Futures	-	-
Fixed Income Futures Short	Investment Revenue	(134,495)	Futures	-	-
Fixed Income Options Bought	Investment Revenue	(31,513)	Options	-	-
Fixed Income Options Written	Investment Revenue	70,141	Options	-	-
Foreign Currency Options Written	Investment Revenue	1,619	Options	-	-
FX Forwards	Investment Revenue	(49,491)	Long Term Instruments	-	-
Pay Fixed Interest Rate Swaps	Investment Revenue	(520,352)	Swaps	-	-
Receive Fixed Interest Rate Swaps	Investment Revenue	236,204	Swaps	-	-
Warrants	Investment Revenue	371,524	Common Stock		-
Grand Totals		\$ 442,761		\$ -	

(1) Negative values (in brackets) refer to losses

(2) Negative values refer to liabilities

(3) Notional may be a dollar amount or size of underlying for futures and options, negative values refer to short positions

(4) Excludes futures margin payments

(5) DCRB had no derrivatives in the investment portfolio as of September 30, 2015

### Note 4: Investments (Continued)

The following is a list of derivatives aggregated by type as of September 30, 2014:

	Changes in Fair	· Value (4)	Fair Va September		
Investment Derivatives	Classification	Amount (1)	Classification	Amount (2)	Notional (3)
Credit Default Swaps Bought	Investment Revenue	\$ (773,258)	Swaps	\$281,540	\$15,706,896
Credit Default Swaps Written	Investment Revenue	(165,052)	Swaps	288,992	36,616,396
Fixed Income Futures Long	Investment Revenue	713,035	Futures	-	2,900,000
Fixed Income Futures Short	Investment Revenue	(2,071,641)	Futures	-	(20,078,233)
Fixed Income Options Bought	Investment Revenue	(205,199)	Options	98,513	2,100,000
Fixed Income Options Written	Investment Revenue	515,459	Options	(224,826)	(42,773,378)
Foreign Currency Options Written	Investment Revenue	(82,886)	Options	(181,392)	(13,561,071)
Futures Options Written	Investment Revenue	71,643	Options	-	-
FX Forwards	Investment Revenue	1,400,267	Long Term Instruments	1,059,501	96,764,033
Pay Fixed Interest Rate Swaps	Investment Revenue	(1,191,411)	Swaps	323,261	37,393,299
Receive Fixed Interest Rate Swaps	Investment Revenue	835,731	Swaps	873,499	38,993,497
Rights	Investment Revenue	-	Common Stock	-	-
Warrants	Investment Revenue	166,514	Common Stock	166,527	352
Grand Totals		\$ (786,798)		\$2,685,616	

(1) Negative values (in brackets) refer to losses

(2) Negative values refer to liabilities

(3) Notional may be a dollar amount or size of underlying for futures and options, negative values refer to short positions

(4) Excludes futures margin payments

### Note 5: Commitments

As of September 30, 2015, the District Retirement Funds have entered into investment funding commitments related to alternative investments to fund an additional \$428,074,667 at some future date.

### **Note 6: Actuarial Information**

The District Retirement Funds used the Aggregate Actuarial Cost method to determine the annual employer contribution for all Plan years through fiscal year 2012 (including the employer contribution amount for fiscal year 2013). The "Actuarial Method Amendment Act of 2012" changed the funding method from the Aggregate Actuarial Cost Method to the Entry Age Normal Cost Method as of October 1, 2012. As a result, the calculations used to determine employer contributions for fiscal year 2014 and beyond are based on the Entry Age Normal Cost Method, not the Aggregate Actuarial Cost Method.

The funded status of each Plan, under the Entry Age Normal Actuarial Cost Method as of October 1, 2014, the most recent actuarial valuation date, is as follows:

(Dollars in thousands)

Plan	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)	Ratio of AVA to AAL	Annual Covered Payroll	UAAL as a % of Annual Covered Payroll
Teachers	\$1,638,583	\$1,849,230	\$ 210,647	88.6%	\$378,926	55.59%
Fire & Police	\$4,288,727	\$3,998,537	\$(290,190)	107.3%	\$438,415	-66.19%

The funded status of each Plan, under the Entry Age Normal Actuarial Cost Method as of October 1, 2013 is as follows:

(Dollars in thousands)

Plan	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded (Overfunded) Actuarial Accrued Liability (UAAL)	Ratio of AVA to AAL	Annual Covered Payroll	UAAL as a % of Annual Covered Payroll
Teachers	\$1,585,775	\$1,759,043	\$ 173,268	90.1%	\$369,071	46.95%
Fire & Police	\$4,013,534	\$3,644,085	\$(369,449)	110.1%	\$413,380	-89.37%

### Note 6: Actuarial Information (Continued)

Fiscal year 2015 employer contributions required under the Entry Age Normal Cost Method and contributions made are as follows:

(Dollars in thousands)

	Based on Actuarial Valuation Date October 1	Annual Required Contribution	Percentage Contributed
Teachers	2013	\$ 39,513	100.0%
Fire and Police	2013	\$103,430	100.0%

Fiscal year 2014 employer contributions required under the Entry Age Normal Cost Method and contributions made are as follows:

### (Dollars in thousands)

	Based on Actuarial Valuation Date October 1	Annual Required Contribution	Percentage Contributed
Teachers	2012	\$ 31,636	100.0%
Fire and Police	2012	\$110,766	100.0%

The calculation of the actuarial value of assets includes a smoothing of investment gains and losses over a seven year period. For the year ended September 30, 2015 and 2014, the District Retirement Funds experienced an investment loss of -4.1% and a gain of 8.1%, respectively.

See the Required Supplementary Information (RSI) section for the schedule of employer contributions.

The funding progress and employer contribution information presented above and the employer contribution information in the RSI schedule were determined as part of the actuarial valuations at the date indicated. As discussed in *Note 3: Summary of Significant Accounting Policies,* the "Actuarial Method Amendment Act of 2012" changed the funding method from the Aggregate Actuarial Cost Method to the Entry Age Normal Cost Method as of October 1, 2012. As a result, the calculation used to determine employer contributions for fiscal year 2014 and beyond are based on the Entry Age Normal Cost Method, not the Aggregate Actuarial Cost Method.

## Note 6: Actuarial Information (Continued)

The following is additional information for the District Retirement Funds as of the valuation date October 1, 2014 and 2013:

	2014	2013
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level Dollar Closed	Level Dollar Closed
Remaining amortization period	18 years	19 years
Asset valuation method	7 year smoothed Market	7 year smoothed Market
Actuarial assumptions:		
Investment rate of return*	6.50%	6.50%
Projected salary increases**:		
Teachers	4.45-8.25%	4.45-8.25%
Police Officers and Firefighters	4.25-9.25%	4.75-9.25%
Cost-of-living adjustments (COLA)	3.50% (COLA limited to 3.00% for: Teachers hired after 11/1/1996; Police Officers and Firefighters hired after 11/10/1996)	3.50% (COLA limited to 3.00% for: Teachers hired after 11/1/1996; Police Officers and Firefighters hired after 11/10/1996)

\*Includes inflation of 3.50 %

\*\*Includes wage inflation of 4.25%

### Note 7: Net Pension Liability/(Asset)

The components of the net pension liability/(asset) of the Fund at September 30, 2015, were as follows:

(Dollars in thousands)

	TRF	POFRF
Total Pension Liability	\$1,950,811	\$4,383,413
Fiduciary Net Position	1,670,638	4,461,998
Net Pension Liability (Asset)	\$ 280,173	\$ (78,585)
Ratio of Fiduciary Net Position to Total Pension Liability/(Asset)	85.64%	101.79%

**Actuarial Assumptions** - The total pension liability was determined based on an actuarial valuation as of October 1, 2014, then updated using the following actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of September 30, 2015:

Teachers' Retirement Fu	Teachers' Retirement Fund		
Inflation	3.5 percent		
Salary increases	4.45 - 8.25 percent, including wage inflation of 4.25 percent		
Investment rate of return	6.5 percent, net of pension plan investment expense, and including inflation		
Mortality	Pre-retirement and post-retirement mortality rates were based on the RP 2000 Combined Mortality Table projected to 2015 with Projection Scale AA set back three years for females. Post-disability mortality rates were based on the RP 2000 Disabled Mortality Table set back 1 year for males and set back 5 years for females.		

Police and Firefighters' Retirement Fund		
Inflation	3.5 percent	
Salary increases	4.25 - 9.25 percent, including wage inflation of 4.25 percent	
Investment rate of return	6.5 percent, net of pension plan investment expense, and including inflation	
Mortality	Pre-retirement and post-retirement mortality rates were based on the RP 2000 Combined Mortality Table projected to 2015 with Projection Scale AA set forward 1 year for females.	

The actuarial assumptions used in the October 1, 2014 valuation were based on the results of the most recent actuarial experience study for the period October 1, 2006 to September 30, 2010, dated November 7, 2011.

The discount rate used to measure the total pension liability was 6.5 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that the District contributions will be made in accordance with the Board's funding policy adopted in 2012. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

### Note 7: Net Pension Liability/(Asset) (Continued)

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2015 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	22.0%	5.1%
Foreign Equity (Developed)	20.0%	5.0%
Foreign Equity (Emerging)	8.0%	6.9%
Investment Grade Bonds	15.0%	0.2%
Treasury Inflation-Protected Securities (TIPS)	3.0%	1.4%
High Yield Bonds	3.0%	3.7%
Foreign Bonds (Developed)	2.0%	1.0%
Emerging Markets Debt (Local)	2.0%	3.5%
Real Estate	5.0%	4.6%
Infrastructure	2.0%	5.7%
Private Equity	8.0%	7.3%
Hedge Funds	10.0%	3.4%
Total	100.0%	

**Disclosure of the sensitivity of the net pension liability to changes in the discount rate** - The following presents the net pension liability of the Plan, for the Teachers' Retirement Fund and the Police Officers and Firefighters' Retirement Fund, respectively, calculated using the discount rate of 6.5 percent, as well as what the Plan's net pension liability calculated using a discount rate that is one percentage point lower (5.5 percent) or one percentage point higher (7.5 percent) than the current rate (dollar amounts in thousands):

	1%	Current	1%
	Decrease	Discount	Increase
	(5.50%)	Rate (6.50%)	(7.50%)
Teachers' Plan's Net Pension Liability	\$598,302	\$280,173	\$23,315

	1%	Current	1%
	Decrease	Discount	Increase
	(5.50%)	Rate (6.50%)	(7.50%)
Police and Firefighters' Plan's Net Pension Liability (Asset)	\$698,746	\$(78,585)	\$(704,007)

### Note 8: Conversion to New Custodian

During 2015, DCRB elected to transition to a new custodian, ending its relationship with State Street Corporation and converting to Northern Trust. The conversion is scheduled for completion near calendar year-end 2015.

# FINANCIAL SECTION - REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Changes in the Net Pension Liability and Related Ratios	.54
Schedules of Employer Contributions	.56
Schedule of Investment Returns	

# Schedules of Changes in the Net Pension Liability and Related Ratios (Dollar amounts in thousands)

Teacher's Retirement Fund	September 30, 2015	September 30, 2014
Total pension liability		
Service Cost	\$ 53,297	\$ 50,409
Interest	118,378	112,204
Benefit changes	-	-
Difference between expected and actual experience	(7,246)	-
Changes of assumptions	-	-
Benefits payments	(64,076)	(59,832)
Refunds of contributions	(5,576)	(5,790)
Net change in total pension liability	94,777	96,991
Total pension liability - beginning	1,856,034	1,759,043
Total pension liability - ending (a)	1,950,811	1,856,034
Plan net position		
Contributions - employer	39,513	31,636
Contributions - member	31,621	28,751
Net investment income	(72,647)	132,086
Benefits payments	(64,076)	(59,832)
Administrative expense	(4,543)	(3,787)
Refunds of contributions	(5,576)	(5,790)
Other	385	522
Net change in plan net position	(75,323)	123,586
Plan net position - beginning	1,745,961	1,622,375
Plan net position - ending (b)	1,670,638	1,745,961
Net pension liability - ending (a) - (b)	\$ 280,173	\$ 110,073
Ratio of plan net position to total pension liability (b) / (a)	85.64%	94.07%
Covered employee payroll	\$ 417,090	\$ 378,926
Net pension liability as a percentage of covered-employee payroll	67.17%	29.05%

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

# Schedules of Changes in the Net Pension Liability and Related Ratios (Dollar amounts in thousands)

Police Officers and Firefighters' Retirement Fund	September 30, 2015	September 30, 2014
Total pension liability		
Service Cost	\$ 192,114	\$ 176,102
Interest	257,943	235,097
Benefit changes	-	-
Difference between expected and actual experience	(2,477)	-
Changes of assumptions	-	-
Benefits payments	(63,634)	(52,784)
Refunds of contributions	(1,396)	(1,637)
Net change in total pension liability	382,550	356,778
Tatel papeier liebility beginning	4 000 000	2 6 4 4 0 0 5
Total pension liability - beginning	4,000,863	3,644,085
Total pension liability - ending (a)	4,383,413	4,000,863
Plan net position		
Contributions - employer	103,430	110,766
Contributions - member	33,679	32,821
Net investment income	(187,283)	338,894
Benefits payments	(63,634)	(52,784)
Administrative expense	(11,939)	(9,730)
Refunds of contributions	(1,396)	(1,637)
Other	1,012	1,342
Net change in plan net position	(126,131)	419,672
Plan net position - beginning	4,588,129	4,168,457
Plan net position - ending (b)	4,461,998	4,588,129
Net pension liability/(asset) - ending (a) - (b)	\$ (78,585)	\$ (587,266)
Ratio of plan net position to total pension liability (b) / (a)	101.79%	114.68%
Covered employee payroll	\$ 446,201	\$ 426,135
Net pension liability/(asset) as a percentage of covered-employee payroll	-17.61%	-137.81%

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

# Schedules of Employer Contributions

(Dollar amounts in thousands)

Teachers' Re	etirement Fund				
Fiscal Year	Actuarially Determined Employer Contribution	Actual Employer Contributions	Annual Contribution Deficiency (Excess)	Covered Employee Payroll	Actual Contributions as a Percentage of Covered Employee Payroll
2015	\$39,513	\$39,513	\$ -	\$417,090	9.47%
2014	31,636	31,636	-	378,926	8.35%
2013	6,407	6,407	-	369,071	1.74%
2012	-	-	-	381,235	0.00%
2011	-	-	-	384,455	0.00%
2010	-	-	-	337,516	0.00%
2009	-	-	-	336,600	0.00%
2008	6,000	6,000	-	359,100	1.67%
2007	14,600	14,600	-	349,900	4.17%
2006	15,500	15,500	-	322,300	4.81%

### Notes to Schedule:

Valuation Date: Actual contributions are based on valuations as of October 1, two years prior to end of fiscal year in which contributions are reported. Methods and Assumptions used to determine contribution rates for fiscal year 2015 are:

Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period	19 years
Asset valuation method	7-year smoothed market
Inflation	3.50%
Salary increases	4.45% to 8.25%, including wage inflation of 4.25%
Investment rate of return	6.50%, net of pension plan investment expense, and including inflation
Cost of Living Adjustments	3.50% (Limited to 3.0% for those hired after 11/1/1996)

# **Schedules of Employer Contributions**

(Dollar amounts in thousands)

Police Officers and Firefighters' Retirement Fund							
Fiscal Year	Actuarially Determined Employer Contribution	Actual Employer Contributions	Annual Contribution Deficiency (Excess)	Covered Employee Payroll	Actual Contributions as a Percentage of Covered Employee Payroll		
2015	\$103,430	\$103,430	\$ -	\$446,201	23.18%		
2014	110,766	110,766	-	426,135	25.99%		
2013	96,314	96,314	-	413,380	23.30%		
2012	116,700	116,700	-	414,877	28.13%		
2011	127,200	127,200	-	421,221	30.20%		
2010	132,300	132,300	-	423,854	31.21%		
2009	106,000	106,000	-	436,100	24.31%		
2008	137,000	137,000	-	421,950	32.47%		
2007	140,100	140,100	-	396,300	35.35%		
2006	117,500	117,500	-	351,000	33.48%		

### Notes to Schedule:

Valuation Date: Actual contributions are based on valuations as of October 1, two years prior to end of fiscal year in which contributions are reported. Methods and Assumptions used to determine contribution rates for fiscal year 2015 are:

Actuarial cost method	Entry age normal
Amortization method	Level dollar, closed
Remaining amortization period	19 years
Asset valuation method	7-year smoothed market
Inflation	3.50%
Salary increases	4.45% to 9.25%, including wage inflation of 4.25%
Investment rate of return	6.50%, net of pension plan investment expense, and including inflation
Cost of Living Adjustments	3.50% (Limited to 3.0% for those hired after 11/10/1996)

# **Schedule of Investment Returns**

## Annual Money-Weighted Rates of Return

FY 2015	FY 2014
---------	---------

Total portfolio -4.006% 8.178%

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

## FINANCIAL SECTION - SUPPLEMENTARY INFORMATION

Schedule of Funding Progress	.60
Schedules of Administrative Expenses	
Schedules of Investment Expenses	.62
Schedules of Payments to Consultants	

## **Schedule of Funding Progress**

(Dollar amounts in thousands)

Until September 30, 2011, the District of Columbia Retirement Board used the Aggregate Actuarial Cost Method, which does not result in the calculation of an unfunded accrued liability. The numbers shown below have been determined based on the Entry Age Normal Cost Method.

Actuarial Valuation Date	Actuarial Value of Assets	EAN Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Liability as a Percent of Payroll
10/1/2008						
Teachers	\$1,447.6	\$1,338.0	\$(109.6)	108.2%	\$359.3	-30.5%
Police & Fire	2,932.1	2,938.8	6.7	99.8%	422.0	1.6%
Total	\$4,379.7	\$4,276.8	\$(102.9)	102.4%	\$781.3	-13.2%
10/1/2009						
Teachers	\$1,445.0	\$1,304.5	\$(140.5)	110.8%	\$336.6	-41.7%
Police & Fire	3,048.4	3,027.9	(20.5)	100.7%	436.1	-4.7%
Total	\$4,493.4	\$4,332.4	\$(161.0)	103.7%	\$772.7	-20.8%
10/1/2010						
Teachers	\$1,571.0	\$1,328.3	\$(242.7)	118.3%	\$337.5	-71.9%
Police & Fire	3,418.8	3,166.8	(252.0)	108.0%	423.9	-59.4%
Total	\$4,989.8	\$4,495.1	\$(494.7)	111.0%	\$761.4	-65.0%
10/1/2011						
Teachers	\$1,573.7	\$1,544.9	\$ (28.8)	101.9%	\$384.5	-7.5%
Police & Fire	3,593.7	3,309.8	(283.9)	108.6%	421.2	-67.4%
Total	\$5,167.4	\$4,854.7	\$(312.7)	106.4%	\$805.7	-38.8%
10/1/2012						
Teachers	\$1,585.6	\$1,680.5	\$ 94.9	94.4%	\$381.2	24.9%
Police & Fire	3,804.9	3,457.0	(347.9)	110.1%	414.9	-83.9%
Total	\$5,390.5	\$5,137.5	\$(253.0)	104.9%	\$796.1	-31.8%
10/1/2013						
Teachers	\$1,585.8	\$1,759.0	\$ 173.3	90.1%	\$369.1	46.9%
Police & Fire	4,013.5	3,644.1	(369.5)	110.1%	413.4	-89.4%
Total	\$5,599.3	\$5,403.1	\$(196.2)	103.6%	\$782.5	-25.1%
10/1/2014						
Teachers	\$1,638.6	\$1,849.2	\$ 210.6	88.6%	\$378.9	55.6%
Police & Fire	4,288.7	3,998.5	(290.2)	107.3%	438.4	-66.2%
Total	\$5,927.3	\$5,847.7	\$ (79.5)	101.4%	\$817.3	-9.7%

## **Schedules of Administrative Expenses** For the years ended September 30, 2015 and 2014

	2015	2014
Personal services		
Salaries	\$ 4,760,425	\$ 4,401,050
Fringe benefits	1,301,367	1,243,960
Total personal services	6,061,792	5,645,010
Non-personal services		
Office supplies	126,214	115,479
Telephone	71,496	56,417
Rent	1,634,856	1,553,897
Travel	206,727	180,854
Professional fees	6,225,496	4,292,365
Postage	29,241	24,902
Printing	14,387	14,888
Insurance	150,693	121,055
Dues & memberships	32,718	34,099
Audit costs	85,500	48,500
Actuarial fees	153,584	66,077
Legal fees	524,213	364,876
Investment fees	11,377,263	12,788,148
Contractual services (STAR)	1,077,383	871,995
Equipment and rental	966,527	994,762
Depreciation	-	-
Total non-personal services	22,676,298	21,528,314
Total administrative expenses	28,738,090	27,173,324
Investment expenses	(12,256,010)	(13,655,870)
Net administrative expenses	\$ 16,482,080	\$ 13,517,454

## **Schedules of Investment Expenses** For the years ended September 30, 2015 and 2014

	2015	2014
Investment managers*	\$10,117,761	\$11,400,214
Investment administrative expense	878,747	867,722
Investment consultants	1,030,008	1,018,869
Investment custodian	229,494	369,065
Total investment expenses	\$12,256,010	\$13,655,870

\*Fees paid to traditional investment managers only; traditional investment managers are those that invest primarily in public equity and fixed income securities. A significant number of alternative investments are presented net of expenses. Management expenses are netted against investment income and because they are not readily separable from specific investment income as of the financial statement reporting date, amounts are recorded and reported net of management expenses and therefore are not included on this schedule.

## **Schedules of Payments to Consultants** For the years ended September 30, 2015 and 2014

Professional/Consultant Nature of Service 2015	2014
Administrative Consultants	
U.S. Treasury Office of D.C. Pensions Benefit payment processing \$1,077,383	\$891,622
Mobomo, LLC Information technology consulting 809,190	120,232
Linea Solutions, Inc. Business process re-engineering 506,241	51,833
Networking for Future, Inc. Information technology consulting 471,745	252,911
Morgan, Lewis & Brokius Legal counsel 410,882	249,180
Softech & Associates, Inc. Information technology consulting 242,000	-
D.C. Office of the Chief Technology Officer Information technology consulting 228,000	138,023
Ectam, LLC Information technology consulting 213,485	197,900
Managed Frameworks, LLC Information technology consulting 195,772	172,469
Tony Phan Information technology consulting 173,280	227,220
ASI Government, Inc. Temporary Staffing Services 152,006	20,775
AON Consulting Insurance consulting 141,556	112,290
MVS, Inc. Professional Services 140,422	-
D.C. Department of Human Resources Information technology consulting 137,859	-
Cavanaugh Macdonald Consulting Actuarial services 121,147	66,077
Groom Law Group Legal counsel 113,017	51,187
Avitecture Information technology consulting 104,472	270,694
Gartner, Inc. Information technology consulting 102,193	171,000
Mark Jackson Information technology consulting 98,673	63,189
TW Telecom Information technology consulting 89,548	68,087
Yared Desta Information technology consulting 88,858	25,080
DLT Solutions, Inc. Information technology consulting 87,507	127,323
Clifton Larson Allen Financial audit 85,500	51,500
Worldwide Staffing ExchangeInformation technology consulting81,963	49,260
Midtown Personnel Inc. Information technology consulting 80,858	25,127
Newlin LLCAccounting & audit consulting79,605	62,955
Equinix, Inc. Information technology consulting 79,158	60,155
D.C. Metropolitan Police Department Information technology consulting 65,580	333,825
RSM McGladrey, Inc. Financial system consulting 62,200	37,413
Leslie Randle Information technology consulting 61,040	67,337
Christina Lipscombe Information technology consulting 57,898	40,800
Icore Networks, Inc. Information technology consulting 56,642	52,767
InfoLock Technologies Information technology consulting 48,758	-
Sebastian PodestaProfessional Services39,095	40,898
Business Development Associates, LLC Information technology consulting 38,789	-
The Newberry Group, Inc.Information technology consulting38,716	-
Valsatech Information technology consulting 38,198	297,064

(Continued on next page)

## **Schedules of Payments to Consultants (Continued)** For the years ended September 30, 2015 and 2014

Professional/Consultant	Nature of Service	2015	2014
Administrative Consultants (Continued)			
Intuitive Technology Group, LLC	Information technology consulting	37,802	13,177
Telecommunications Development Corporation	Information technology consulting	37,280	158,800
Cheiron, Inc.	Actuarial auditing services	37,000	-
Diligent Board Member Services, Inc.	Information technology consulting	35,225	-
Document Access Systems	Information technology consulting	34,900	97,200
Capitol Document Solutions	Information technology consulting	32,481	30,273
eVestment Alliance	Online Investment Service	21,840	20,800
Document Management Solutions	Information technology consulting	19,225	-
ZixCorp Systems, Inc.	Information technology consulting	18,663	11,564
True Ballot, Inc.	Board elections	18,118	8,950
SHI International Corporation	Information technology consulting	16,973	-
Kofax, Inc.	Information technology consulting	15,670	15,516
Human Resources Technologies, Inc.	Information technology consulting	14,469	-
HBP, Inc.	Graphic design for publications	13,993	10,250
Corporate Investigations, Inc.	Professional Services	8,965	1,487
National Associates, Inc.	Information technology consulting	3,868	62,598
Robert Half International, Inc.	Information technology consulting	-	69,477
American Arbitration Association	Arbitration services	-	39,466
Yvonne Lesesne	Temporary Staffing Services	-	27,720
EDAC Systems, Inc.	Information technology consulting	-	25,715
Total administrative consultants		6,985,708	4,989,186
Investment Consulting			
Cliffwater, LLC	Traditional investment consulting	682,508	718,280
Meketa Investment Group	Traditional investment consulting	290,000	276,839
Zeno Consulting Group, LLC	Traditional investment consulting	57,500	23,750
Total investment consultants		1,030,008	1,018,869
Total payments to consultants		\$8,015,716	\$6,008,055

# INVESTMENT SECTION

Introduction	67
Investment Objectives and Policies	
Fiscal Year 2015 Global Market Review	68
Exhibit 1: Investment Performance (Gross of Fees) as of September 30, 2015	69
Asset Allocation	74
Exhibit 2: Actual, Interim Target and Policy Asset Allocations as of September 30, 2015	74
Other Updates	75
Investment Activity Summary	75
List of Largest Holdings	76
Schedule of Fees and Commissions	77
Investment Summary	78







### Prepared by Sheila Morgan-Johnson, Chief Investment Officer

### Introduction

DCRB manages and controls the assets of the Fund. The Board is charged by law with responsibility for investing these assets. The Board retains the services of independent investment consultants who possess specialized experience and resources in asset allocation, investment strategy, and investment manager selection. The Board's traditional investment managers acknowledge their fiduciary responsibility in writing. Investment managers are accorded full discretion within general and specific investment manager policy guidelines.

### **Investment Objectives and Policies**

The Board targets investment returns that meet or exceed the actuarial investment return target at a level of risk commensurate with the target return and consistent with prudent investment practices. The current actuarial investment return target is 6.5%, net of investment management fees and administrative expenses. In addition to meeting or exceeding the actuarial return target over the long-term, a secondary return objective is to exceed the annualized total return of the Board's strategic asset allocation benchmark (the Policy Benchmark).

As of September 30, 2015, the Policy Benchmark included the following components:

Asset Class	Performance Benchmark	Weight
Fixed Income	Fixed Income Benchmark <sup>1</sup>	27%
U.S. Equities	Russell 3000 Index	21%
International Developed Markets Equities	MSCI World Index ex-U.S. (net)	18%
Emerging Markets Equities	MSCI Emerging Markets Index (net)	9%
Absolute Return	3-Month LIBOR + 500%	10%
Private Equity	Cambridge Associates U.S. Private Equity Index (lag)	8%
Real Assets	CPI-U + 700 bps	7%
Total		100%

As a long-term investor, the Board believes that it can generate the highest risk-adjusted returns through a diversified portfolio with an emphasis on equity investments. Although equities are generally more volatile than other asset classes in the short-term, if properly diversified, they are expected to yield higher total returns over the Fund's multi-decade time horizon. In addition, while the Board generally believes in the value of active management, it utilizes lower-cost passive investment strategies (e.g., index funds) in more efficient markets where active managers have a lower likelihood of generating excess returns.

<sup>&</sup>lt;sup>1</sup> The Fixed Income Benchmark is a composite of 49% BC U.S. Aggregate Index, 15% BC U.S. TIPS Index, 11% BC U.S. High-Yield Constrained Index, 11% CSFB Levered Loan Index; 7% BC Global Aggregate ex U.S. Index, and 7% JPM GBI-EM Global Diversified Index.

### Fiscal Year 2015 Global Market Review

Investor concerns about geopolitical issues, the slowdown of the Chinese economy, and falling commodity prices brought about a return of global equity market volatility during the fiscal year 2015 period.

Stock indices in the U.S. reached new record highs in late 2014 as the Federal Reserve ended its quantitative easing program in October, crude oil plunged from \$90/barrel to less than \$55/barrel, and third quarter growth increased more than expected. In the first quarter of 2015, non-U.S. developed markets rallied by over 10% in local currency terms as the European Central Bank began its quantitative easing program by buying government bonds. However, dollar investors were up only 4.9% due to the strength of the dollar, another recurring theme during the year.

In the second quarter 2015, global equity markets slowed their rise while the 10-year Treasury yield had its largest increase in nearly two years closing at 2.3%. In the third calendar quarter of 2015 – the final quarter of the fiscal year – global equity markets performed at their worst since the third quarter of 2011. The U.S. equity markets fell 6.4%, non-U.S. developed markets dropped 10.2%, and emerging markets declined 17.9%. The economic slowdown in China and uncertainty about the Federal Reserve's next move dominated headlines.

In terms of cumulative returns for the fiscal year ending September 30, 2015, the Russell 3000 Index, which measures the performance of the 3,000 largest U.S. companies and represents approximately 98% of the U.S. equity market, was roughly flat at -0.5%. International developed equity markets, as measured by the MSCI World ex-U.S. Index, fell by 10.1% in U.S. dollar terms, while emerging markets, as measured by the MSCI Emerging Markets Index, and dropped 19.3% in U.S. dollar terms. The Barclays Capital U.S. Aggregate Bond Index, a broad measure of U.S. fixed income markets, rose by 2.9%, driven by a small decline in U.S. interest rates.

### **Fiscal Year 2015 Investment Results**

As of September 30, 2015, the Fund's net position totaled \$6.1 billion, a decrease of approximately \$200 million compared to the end of the prior fiscal year. The Fund generated a gross return of -3.9%, underperforming the Total Fund Benchmark by 1.5%. Since its inception in October 1982, the Fund has underperformed the Total Fund Benchmark by roughly 1% per year, but has exceeded the actuarial return target by approximately 2% per year, net of fees.

Of the total underperformance during fiscal year 2015, 1.3% (87% of the total) was driven by the Fund's asset allocation relative to targets. The key contributors were an underweight to absolute return and private equity investments as well as an overweight to international developed and emerging market equities. The remaining 0.2% (13% of the total) underperformance came from manager selection, with a few of the private equity and fixed income managers being the main detractors.

Exhibit 1 shows the gross returns for the Fund and each asset class over the one, three, five, and ten-year time periods ending September 30, 2015. The returns were calculated by the Board's custodian bank, State Street, and are time-weighted returns computed in compliance with the CFA Institute's Global Investment Performance Standards (GIPS). Benchmark returns are presented below each asset class for relative performance comparison purposes.

Exhibit 1: Investment Performance (Gross of Fees) as of September 30, 2015

Asset Class	1-Year	3-Year	5-Year	10-Year
Total Fund	-3.9%	5-rear 5.1%	5- real 6.4%	4.7%
Total Fund Benchmark <sup>1</sup>	-2.5%	5.4%	6.4%	5.3%
Cash and Cash Equivalents	0.1%	0.1%	0.4%	<u> </u>
-				
3-month U.S. Treasury Bills	0.0%	0.1%	0.1%	1.4%
Fixed Income	-2.3%	0.0%	2.5%	4.2%
Fixed Income Benchmark <sup>2</sup>	-1.7%	-0.1%	2.2%	4.2%
U.S. Equities	-0.8%	12.5%	13.4%	6.8%
Russell 3000 Index	-0.5%	12.5%	13.3%	6.9%
International Developed Markets Equities	-8.0%	5.9%	4.0%	4.4%
MSCI World Index ex U.S.(net)	-10.1%	4.6%	3.3%	3.7%
Emerging Markets Equities	-19.7%	-5.1%	-	-
MSCI Emerging Markets Index (net)	-19.3%	-5.3%	-	-
Absolute Return	3.5%	3.1%	6.6%	-
3-Month LIBOR + 5% <sup>3</sup>	5.3%	3.6%	2.2%	-
Private Equity	3.8%	13.1%	13.2%	8.8%
Cambridge Associates U.S. Private Equity Index	8.9%	15.9%	15.7%	13.1%
Real Assets	7.2%	8.4%	-	-
CPI + 7%	7.0%	8.0%	-	-

<sup>1</sup> The Total Fund Benchmark is a composite of 21% Russell 3000 Index, 18% MSCI World Index ex U.S. (net), 9% MSCI Emerging Markets (net); 27% Fixed Income Benchmark, 10% 3-Month LIBOR+5%, 8% Cambridge Associates U.S. Private Equity Index, 7% CPI + 7%.

From 7/1/12 to 8/31/13, 22% Russell 3000 Index, 20% MSCI World Index ex U.S. (net), 8% MSCI Emerging Markets (net); 25% Fixed Income Benchmark, 10% 1-Month LIBOR, 8% Cambridge Associates U.S. Private Equity Index, 7% CPI + 7%.

From 9/1/11 to 6/30/12, 22% Russell 3000 Index, 20% MSCI World Index ex U.S. (net), 8% MSCI Emerging Markets (net); 27% Barclays Capital U.S. Universal Bond Index, 8% Cambridge Associates U.S. Private Equity Index, 10% 1-Month LIBOR, 4% NCREIF ODCE Index, 1% Wilshire U.S. Real Estate Securities Index.

From 4/1/06 to 8/31/11: 40% Russell 3000 Index, 20% MSCI All Country World Index ex U.S., 25% Barclays Capital U.S. Universal Bond Index, 6% Cambridge Associates U.S. Private Equity Index, 4% 1-Month LIBOR, 4% NCREIF ODCE Index, 1% Wilshire U.S. Real Estate Securities Index. From 4/1/03 to 3/31/06: 40% Russell 3000 Index, 20% MSCI EAFE Index, 25% Lehman Brothers Aggregate Bond Index, 10% Cambridge Associates U.S. Private Equity Index, 5% NCREIF Property Index.

From 6/30/99 to 3/31/03: 43.7% Russell 3000 Index, 20% MSCI EAFE Index, 30.3% Lehman Brothers Aggregate Bond Index, 5% Cambridge Associates U.S. Private Equity Index, 1% 3-month U.S. Treasury Bills.

<sup>2</sup> The Fixed Income Benchmark is a composite of 49% BC U.S. Aggregate Index, 15% BC U.S. TIPS Index, 11% BC U.S. High-Yield Constrained Index, 11% CSFB Levered Loan Index; 7% BC Global Aggregate ex U.S. Index, and 7% JPM GBI-EM Global Diversified Index.

From 4/1/12 to 9/30/13, 60% BC U.S. Aggregate Index, 12% BC U.S. TIPS Index, 12% BC U.S. High-Yield Constrained Index, 8% BC Global Aggregate ex U.S. Index, 8% JPM GBI-EM Global Diversified Index.

From 4/1/06 to 3/31/12, BC U.S. Universal Index.

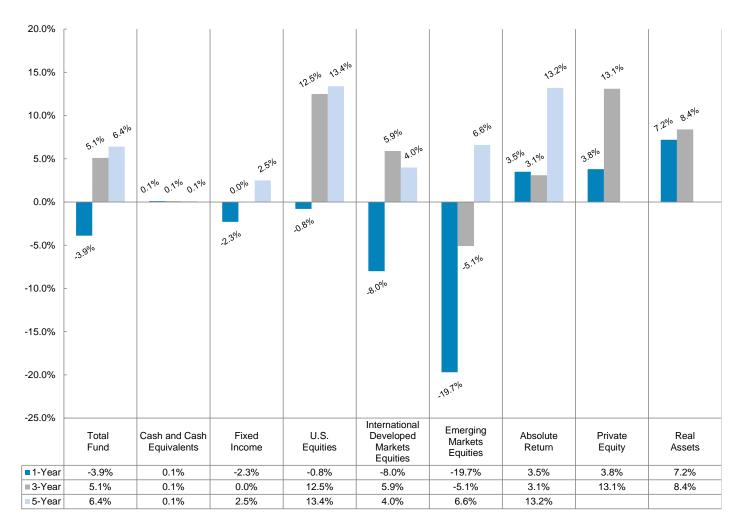
From inception to 3/31/06, BC U.S. Aggregate Index.

<sup>3</sup> The Absolute Return Benchmark is the 3-month LIBOR + 5%. From 7/1/06 to 9/30/13, 1-month LIBOR.

Note: All returns are time-weighted and gross of fees.

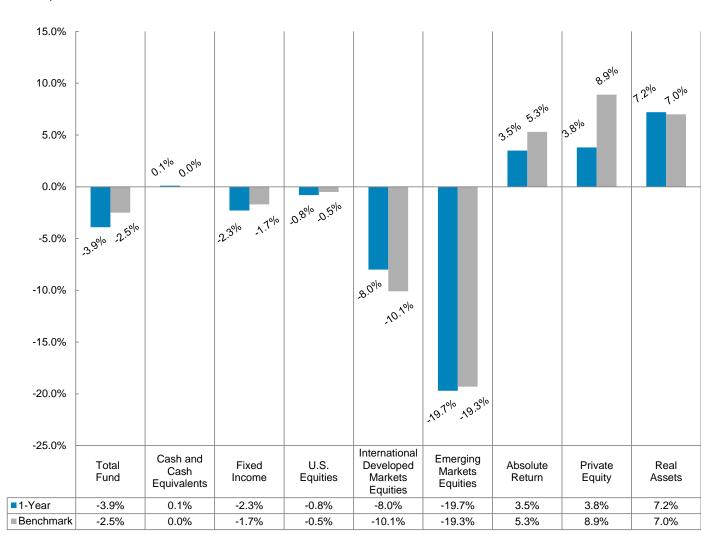
### **Exhibit 2: Historical Investment Performance**

As of September 30, 2015



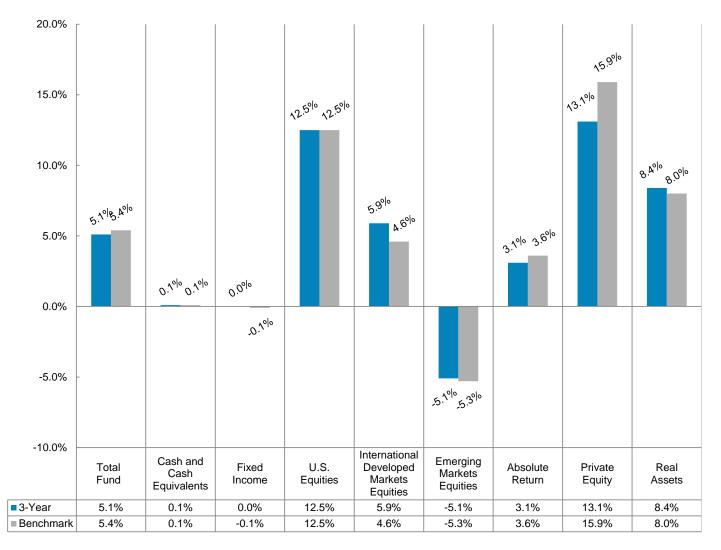
### Exhibit 3: 1-Year Performance vs. Benchmark

As of September 30, 2015



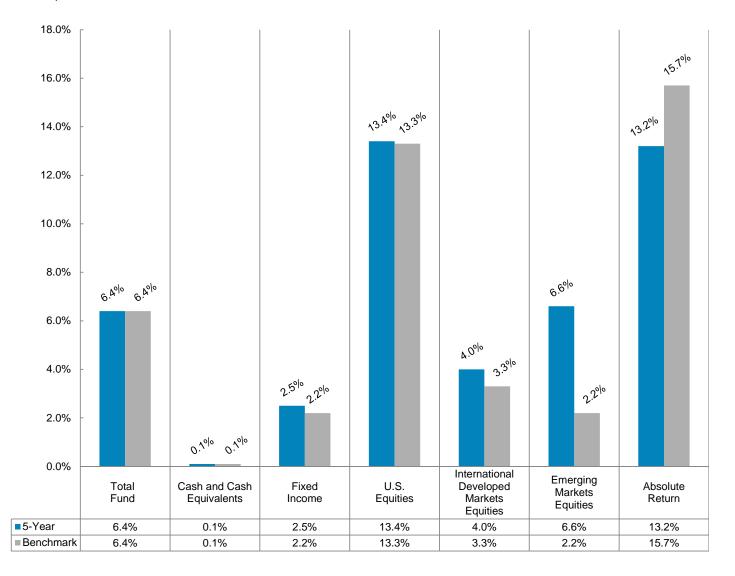
# Exhibit 4: 3-Year Performance vs. Benchmark

As of September 30, 2015



## Exhibit 5: 5-Year Performance vs. Benchmark

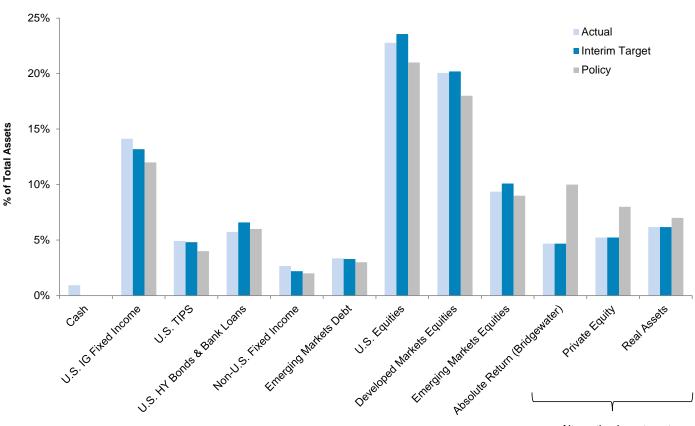
As of September 30, 2015



#### **Asset Allocation**

There were no changes to the policy asset allocation during fiscal year 2015. The Board last reviewed the asset allocation in July 2013. The interim target distributes the underweight to alternative investments - absolute return, private equity, and real assets - across the traditional investments - fixed income and public equities - in line with the Fund's long-term risk target. The actual, interim target and policy asset allocations are shown in Exhibit 6.

#### Exhibit 6: Actual, Interim Target and Policy Asset Allocations as of September 30, 2015



Alternative Investments

As of September 30, 2015, the Fund's asset classes were within their respective target allocation ranges with the exception of the Absolute Return program, which continued to be below the targeted minimum. As discussed, this underweight has been re-allocated to fixed income and public equities as a temporary placeholder for future investments in this asset class.

The underweight to private equity is driven by a deliberate pace of new commitments and a high volume of realizations from more mature funds over the last few years. The current underweight should moderate by 2020-22, as new commitments draw down capital and mature funds slow down distributions. In the meantime, the Board is focused on continuing its consistent pace of new commitments, subject to the availability of compelling opportunities, strong fit with the existing portfolio, and attractive market characteristics.

#### **Other Updates**

During fiscal year 2015, the Board completed a review of its custodian bank relationship and hired Northern Trust as the Board's new custodian bank. The transition was successfully completed on December 1, 2015.

In addition, the Board enhanced diversification by hiring two new active managers. In March 2015, the Board selected Altrinsic Global Advisors to manage an active non-U.S. developed markets equities mandate and in July 2015, the Board selected Channing Capital Management to manage an active U.S. small cap value equity mandate. Within the private investment program, the Board committed a total of \$228 million to ten new private equity and real assets limited partnerships, including funds focused on small U.S. buyout, European credit, and early-stage venture capital.

Furthermore, staff and consultants have continued the incorporation of the Environmental, Social, and Governance (ESG) policy, passed in November 2013, into the investment due diligence process. Given the rapid developments in the sustainable and responsible investment market, this will continue to be a focus in fiscal year 2016.

A second major initiative in fiscal year 2016 will be the review of current investment consultants, Meketa and Cliffwater. The Board customarily reviews its service provider relationships every five years; Meketa has been working with the Board since 2010 and Cliffwater was first hired in 2011. Finally, the Board is planning to complete an asset allocation study to update the study completed in 2013.

#### **Investment Activity Summary**

During fiscal year 2015, the Board implemented the following investment manager changes:

Terminations:

- Gryphon International International Growth Equity
- PIMCO Core Plus Fixed Income

#### Additions:

- Altrinsic Global Advisors International Equity
- Channing Capital Management U.S. Small Cap Value Equity

During fiscal year 2016, the Board expects to fund the previously-approved mandate for U.S. bank loans, which will complete the comprehensive action plan approved following an in-depth portfolio review in 2010.

#### List of Largest Holdings

<b>Top 10 Fixed Income Holdings</b> (Dollar amounts in thousands)						
Rank	Security Name	Moody's Quality Rating	Par Value	Interest Rate (%)	Maturity Date	Fair Value
1	US FOODS INC	Caa2	\$14,780	8.500	06/30/2019	\$15,297
2	HRG GROUP INC	Caa1	14,799	7.750	01/15/2022	14,522
3	FORESIGHT ENERGY/FINANCE	Caa3	16,710	7.875	08/15/2021	13,035
4	TRANSDIGM INC	Caa1	11,000	5.500	10/15/2020	10,484
5	CAESARS ENTERTAINMENT OP	WR	11,950	11.250	06/01/2017	9,560
6	CLEAR CHANNEL WORLDWIDE	B2	9,140	6.500	11/15/2022	9,094
7	1011778 BC / NEW RED FIN	B3	8,670	6.000	04/01/2022	8,800
8	ASSUREDPARTNERS CAP INC	n/a	8,701	0.010	04/02/2022	8,799
9	AF BORROWER LLC	n/a	8,100	0.010	01/28/2023	8,086
10	ASURION LLC	n/a	8,500	0.010	03/03/2021	7,703

<b>Top 10 Public Equity Holdings</b> (Dollar amounts in thousands)						
Rank	Security Name	Shares	Fair Value			
1	VISA INC CLASS A SHARES	171,300	\$11,933			
2	REGENERON PHARMACEUTICALS	14,400	6,698			
3	FACEBOOK INC A	64,400	5,790			
4	PRICELINE GROUP INC	4,350	5,380			
5	SALESFORCE.COM INC	76,600	5,318			
6	CHIPOTLE MEXICAN GRILL INC	6,750	4,862			
7	ALEXION PHARMACEUTICALS INC	29,200	4,567			
8	AMAZON.COM INC	8,200	4,197			
9	NIKE INC CL B	32,800	4,033			
10	BIOMARIN PHARMACEUTICAL INC	37,100	3,907			

A complete list of portfolio holdings is available upon request.

### Schedule of Fees and Commissions

During fiscal year 2015, the Board paid the following fees and commissions:

Expense Category	<b>Amount</b> (Dollars in thousands)	Percent of Fund
Investment Managers*	\$ 10,118	0.165%
Investment Consultants	1,030	0.017
Investment Administrative Expense	879	0.014
Investment Custodian	229	0.004
Subtotal	12,256	0.200
Brokerage Commissions**	760	0.012
Total	\$ 13,016	0.212%

\* Includes fees paid to traditional investment managers only. Traditional investment managers are those that invest primarily in public equity and fixed income securities.

\*\* Includes separate account and commingled fund relationships.

Total	Total Shares Traded	Total Commission (Dollar value)	Commission (Cents Per Share)	<b>Commission</b> (Basis Points)	Number of Trades	<b>Trade</b> <b>Value</b> (Dollars in millions)
Gryphon International Investment Corporation	5,644,568	\$ (49,879)	-0.9	-11	250	\$ 44
Sands Capital Mgmt	878,751	(22,071)	-2.5	-3	289	66
Copper Rock International	21,750,985	(211,645)	-1.0	-15	962	143
LSV Emerging Markets	55,296,442	(26,780)	0.0	-7	3,036	39
Northern Trust R3000	69,453,108	(155,019)	-0.2	-1	46,916	2,416
Northern Truest Global REIT	710,466	(2,472)	-0.3	-1	1,529	17
Altrinsic	2,882,896	(70,935)	-2.5	-17	222	42
State Street Global Advisors-CAD	663,642	(5,194)	-0.8	-4	717	12
State Street Global Advisors-EAFE	24,103,300	(70,438)	-0.3	-3	8,515	231
State Street Global Advisors-EM	120,699,521	(145,584)	-0.1	-7	13,207	224
Total	302,083,679	\$(760,017)	-0.3	-2	75,643	\$3,234

#### **Investment Summary**

(Dollar amounts in thousands)

Asset Class	Fair Value	% of Fund
Cash and Cash Equivalents	\$ 57,583	0.9%
Fixed Income	1,887,421	30.8%
U.S. Equities	1,395,638	22.7%
International Developed Markets Equities	1,229,430	20.1%
Emerging Markets Equities	573,439	9.4%
Absolute Return	286,466	4.7%
Private Equity	320,524	5.2%
Real Assets	378,358	6.2%
Total	\$6,128,859	100.0%

## ACTUARIAL SECTION

Independent Actuary's Certification Letter	81
Outline of Actuarial Assumptions and Methods	.83
Provisions as Interpreted for Valuation Purposes	.89
Schedule of Active Member Valuation Data1	00
Schedule of Members Added-to and Removed-from Rolls1	01
Analysis of Financial Experience1	02
Valuation Balance Sheet1	04
Solvency Test1	06







## **Independent Actuary's Certification Letter**



December 17, 2015

The Board of Trustees District of Columbia Retirement Board 900 7th Street, NW, 2nd Floor Washington, DC 20001

Dear Trustees:

We are pleased to submit the results of the annual actuarial valuations of the District of Columbia Retirement Board Teachers' Retirement Plan and Police Officers' & Firefighters' Retirement Plan, prepared as of October 1, 2015.

The purpose of this report is to provide a summary of the funded status of each Plan as of October 1, 2015, and to recommend rates of contribution to be paid by the District in the 2017 fiscal year. The information needed for this Plan under the new Governmental Accounting Standards Board Statement No. 67 was provided in a separate report. However, for informational purposes only, we have also provided accounting information under GASB 25 and 27 in Section VII of the report. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The promised benefits are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. Seven-year smoothed market value of assets is used for actuarial valuation purposes. The assumptions recommended by the actuary and adopted by the Board are reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144 Phone (678) 388-1700 • Fax (678) 388-1730 www.CavMacConsulting.com Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE • Hilton Head Island, SC

## Independent Actuary's Certification Letter

The funding policy adopted by the Board in 2012 includes the following funding goals:

To maintain an increasing or stable ratio of Plan assets to actuarial accrued liabilities and reach a 100 percent minimum funded ratio;

To develop a pattern of stable or declining contribution rates when expressed as a percentage of member payroll as measured by valuations prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, with a minimum employer contribution equal to the lesser of the normal cost determined under the Entry Age Normal funding method or the current active member contribution rate.

The funding policy not only states the overall funding goals and benchmarks for the Plan, but sets the methods and assumptions. The level dollar amortization period was set to 20 years in 2012 and will decline one year each year until a funded ratio of 100 percent is reached. Therefore, the amortization period this year is 17 years.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Edward & Kochel

Respectfully submitted, Edward J. Koebel, EA, FCA, MAAA Principal and Consulting Actuary

well T. Cearen

Jonathan T. Craven, ASA, EA, FCA, MAAA Senior Actuary

EJK/JTC:kc

## **Outline of Actuarial Assumptions and Methods**

#### (Demographic assumptions adopted on October 20, 2011)

#### (Economic assumptions adopted on November 15, 2012)

Valuation date: All assets and liabilities are computed as of October 1, 2015. Demographic information was collected as of June 30, 2015.

Investment rate of return: 6.50% per annum, compounded annually (net of investment expenses).

Inflation assumption: 3.50% per annum.

Payroll growth assumption: 4.25% per annum.

**Percent married**: 64% of Teachers are assumed to be married and 80% of Police Officers and Firefighters are assumed to be married, with the wife 3 years younger than the husband. Active members are assumed to have one dependent child aged 10.

Actuarial method: Entry Age Normal Cost Method. The amortization of the unfunded actuarial accrued liability uses a level dollar basis.

**Assets**: The method of valuing assets is intended to recognize a "smoothed" market value of assets. Under this method, the difference between actual return on market value from investment experience and the expected return on market value is recognized over a seven-year period. The actuarial value of assets is constrained to an 80% to 120% corridor around market value of assets. In addition, there is an adjustment made for the effect of the adjustment pursuant to D.C. Code §1-907.02(c).

**Withdrawal assumption**: For Teachers, it was assumed that 35% of the vested members who terminate elect to withdraw their contributions while the remaining 65% elect to leave their contributions in the Plan in order to be eligible for a benefit at their retirement date. For Police Officers and Firefighters, it was assumed that 80% of the vested members who terminate elect to withdraw their contributions while the remaining 20% elect to leave their contributions in the plan.

**Other assumptions**: To value the pre-retirement death benefit for Police Officers and Firefighters, the benefit form for all retirements (normal or disabled) is assumed to be a 67.8% Joint and Survivor Annuity for all participants (based on 40% of average pay survivor benefits). One-fourth of all Police Officer and Firefighter active deaths are assumed to occur in the line of duty.

**Cost of living adjustment (COLA)**: The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.5% per year.

Military service: All Police and Fire members assumed to have 0.40 years of military service at retirement.

Administrative expenses: Budgeted administrative expenses of 1.20% of payroll are added to the normal cost rate.

## Outline of Actuarial Assumptions and Methods Teachers

**Salary Increases:** Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member					
Years of Service	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)		
5	4.00%	4.25%	8.25%		
10	3.00	4.25	7.25		
15	0.50	4.25	4.75		
20	0.20	4.25	4.45		
25	0.20	4.25	4.45		
30	0.20	4.25	4.45		
35	0.20	4.25	4.45		

**Separations From Active Service**: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year						
		Withdrawa		Service Re	etirement	
Sample Ages	0 to 3 yrs of service	4 to 9 yrs of service	10 & up yrs of service	Under 30 yrs service	30 & up yrs service	Disability Retirement
20	25.00%	20.00%	-	-	-	0.03%
25	23.50	20.00	-	-	-	0.03
30	22.00	16.00	3.75%	-	-	0.05
35	20.50	14.00	3.75	-	-	0.07
40	19.00	12.00	3.75	-	-	0.09
45	17.50	10.00	3.75	-	-	0.15
50	16.00	10.00	3.75	2.50%	2.50%	0.22
55	14.50	10.00	3.75	6.00	33.00	0.32
60	13.00	10.00	3.75	27.00	25.00	0.40
62	-	-	-	25.00	25.00	-
65	-	-	-	20.00	25.00	-
70	-	-	-	30.00	30.00	-
71	-	-	-	25.00	40.00	-
75	-	-	-	100.00	100.00	-

**Mortality:** The RP-2000 Combined Mortality Table projected with Scale AA to 2015, set back 3 years for females is used for healthy active members, retirees, and beneficiaries. The RP-2000 Disabled Mortality Table set back 1 year for males and set back 5 years for females is used for disabled retirees. Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7-8% greater for healthy lives and 9% greater for disabled lives than expected under the selected tables.

## Outline of Actuarial Assumptions and Methods Police Officers

**Salary Increases:** Police Officers are assumed to receive a longevity increase of 5%, 10%, 15%, and 20% applied to individual base pay after 15, 20, 25, and 30 years of service, respectively. These are approximated by increases of 3.5% to final average salary. Representative values of the assumed annual rates of future salary increases before longevity increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member					
		Inflation &	Total		
Years of	Merit &	Productivity	Increase		
Service	Seniority	(Economy)	(Next Year)		
5	3.56%	4.25%	7.81%		
10	2.58	4.25	6.83		
15	2.31	4.25	6.56		
20	2.50	4.25	6.75		
25	1.10	4.25	5.35		
30	0.50	4.25	4.75		
35	-	4.25	4.25		

**Separations from Active Service**: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year						
		drawal service & up) <sup>1</sup>	Disabi Retirem			
Sample Ages	Males	Females	Males	Females	Years of Service	Service Retirement <sup>3</sup>
20	6.00%	2.50%	0.02%	0.04%	20	12.5%
25	6.00	2.50	0.05	0.08	25	22.0
30	4.25	3.50	0.10	0.12	30	15.0
35	2.50	2.00	0.22	0.28	35	20.0
40	1.75	1.50	0.25	0.40	40	20.0
45	1.25	1.25	0.30	0.62	-	-
50	1.25	1.25	0.40	0.70	-	-
55	1.25	1.25	0.60	0.75	-	-
60	-	-	0.80	0.90	-	-

<sup>1</sup>Members of any age with less than 3 years of service have a 10% withdrawal assumption.

<sup>2</sup> It is assumed that 75% of the disabilities are due to accidents in the line of duty and the "percent of disability" is assumed to be 100%.

<sup>3</sup>100% of active members are assumed to retire at age 65, regardless of service.

#### **Outline of Actuarial Assumptions and Methods** Police Officers

**Mortality:** The RP-2000 Combined Mortality Table projected with Scale AA to 2015 set forward 1 year for females is used for healthy active members, retirees and beneficiaries. The following disability mortality table is used for disabled retirees.

Disabled Retiree Mortality				
Sample				
Ages	Males	Females		
20	0.80%	0.50%		
30	0.80	0.50		
40	0.80	0.50		
50	0.80	0.50		
60	1.16	0.74		
70	2.35	1.55		
80	5.78	3.76		
90	13.95	10.87		
100	51.48	49.93		

Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7% greater for healthy lives and 6% greater for disabled lives than expected under the selected tables.

## Outline of Actuarial Assumptions and Methods Firefighters

**Salary Increases:** Firefighters are assumed to receive a longevity increase of 5%, 10%, 15%, and 20% applied to individual base pay after 15, 20, 25, and 30 years of service, respectively. These are approximated by increases of 3.5% to final average salary. Representative values of the assumed annual rates of future salary increases before longevity increases are as follows and include inflation at 4.25% per annum:

Pay Increase Assumptions for an Individual Member					
Years of Service	Merit & Seniority	Inflation & Productivity (Economy)	Total Increase (Next Year)		
5	2.50%	4.25%	6.75%		
10	2.50	4.25	6.75		
15	2.50	4.25	6.75		
20	2.50	4.25	6.75		
25	2.50	4.25	6.75		
30	2.50	4.25	6.75		
35	2.50	4.25	6.75		

**Separations from Active Service**: Representative values of the assumed annual rates of withdrawal, service retirement, and disability are shown in the following tables:

Percent of Members Separating Within the Next Year							
Sample Ages	Withdrawal (2 years of service & up) <sup>1</sup>	Disability Retirement <sup>2</sup>	Years of Service	Service Retirement <sup>3</sup>			
20	3.50%	0.01%	20	12.50%			
25	3.50	0.02	25	12.50			
30	2.00	0.15	30	20.00			
35	1.00	0.20	35	40.00			
40	1.00	0.35	40	40.00			
45	1.50	0.45	-	-			
50	1.50	0.52	-	-			
55	-	0.60	-	-			
60	-	0.70	-	-			

<sup>1</sup>Members of any age with less than 2 years of service have a 9% withdrawal assumption.

<sup>2</sup>It is assumed that 75% of the disabilities are due to accidents in the line of duty and the "percent of disability" is assumed to be 100%.

<sup>3</sup>100% of active members are assumed to retire at age 60, regardless of service.

## **Outline of Actuarial Assumptions and Methods** Firefighters

**Mortality:** The RP-2000 Combined Mortality Table projected with Scale AA to 2015 set forward 1 year for females is used for healthy active members, retirees and beneficiaries. The following disability mortality table is used for disabled retirees.

Disabled Retiree Mortality						
Sample						
Ages	Males	Females				
20	0.59%	0.37%				
30	0.59	0.37				
40	0.59	0.37				
50	0.59	0.37				
60	0.85	0.54				
70	1.72	1.13				
80	4.22	2.75				
90	10.19	7.94				
100	37.60	36.47				

Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 7% greater for male and 1% greater for female healthy lives and 8% greater for disabled lives than expected under the selected tables. Police Officers and Firefighters are combined in the valuation results and the female healthy life population is much greater for Police Officers than Firefighters, so the smaller margin under Firefighters is not an issue at this time.

Teachers' Retirement Plan

#### **Effective Date**

Established on July 1, 1997. The U.S. Treasury is responsible for paying all benefits accrued before this date.

### **Definitions**

#### Affiliated Employers

District of Columbia Public Schools, Public Charter Schools

#### **Covered Members**

Permanent, temporary, and probationary teachers for the District of Columbia public day schools become members automatically on their date of employment. Other employees covered by the Retirement of Public School Teachers Act – including librarians, principals, and counselors – also become members on their date of employment. Substitute teachers and employees of the Department of School Attendance and Work Permits are not covered. Some former D.C teachers working at charter schools are eligible to remain in the Program.

#### Service Credit

One year of school service is given for each year of employment with DCPS. After five years of service are accrued, additional service may be purchased or credited for service outside of DCPS. For purposes of eligibility and benefit accrual, Federal service is included in the calculation of the normal retirement benefit.

#### Average Salary

Highest 36 consecutive months of pay, divided by three.

#### Vested

Members who accrue five or more years of Service Credit are vested for benefits. If these members leave service they may leave their Member Contribution Accounts with the Plan for a future benefit when reaching eligibility (deferred vested in this report).

#### **Contributions**

#### Member Contributions

Members hired before November 1, 1996 are required to contribute 7% of annual pay. Members hired on or after November 1, 1996 contribute 8% of annual pay. Interest is not credited to each Member's accumulated contributions.

#### **Refund of Member Contributions**

In the event a member leaves service for a reason other than death or retirement, member contribution accounts are refunded upon request.

#### Service Retirement

#### Eligibility

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

Memb	Members Hired Before November 1, 1996:						
Age	Servi	Service Credit					
55	30 ye	ars, including 5 years school service					
60	20 ye	ars, including 5 years school service					
62	5 yea	rs school service					
Memb	ers Hi	red On and After November 1, 1996:					
Age Service Credit							
Any Age 30 years, including 5 years school service							
60 20 years, including 5 years school service							

62 5 years school service

#### Benefit

For members hired before November 1, 1996:

- 1.5% of Average Salary times service up to 5 years, plus
- 1.75% of Average Salary times service between 5 and 10 years, plus
- 2.0% of Average Salary times service over 10 years.

For members hired on or after November 1, 1996:

• 2.0% of Average Salary times service.

All members receive a minimum benefit of 1.0% of Average Salary plus \$25 for each year of service.

#### **Involuntary Service Retirement**

#### Eligibility

The Age and Service Credit requirements to be eligible for a Reduced Service Retirement are listed below:

All Members, regardless of date of hire

Age	Service Credit
Any age	25 years, including 5 years school service
50	20 years, including 5 years school service

#### Benefit

Service Retirement Benefit is reduced by 1/6% per month (or 2% per year) that date of retirement precedes age 55.

#### **Disability Retirement**

#### Eligibility

Active members with five or more years of school service credit are covered (vested) for disability retirement. To be eligible, the member must be found to be incapable of satisfactorily performing the duties of his/her position.

#### Benefit

Equal to Service Retirement benefit. Minimum benefit is the lesser of a) or b):

a) 40% of Average Salary

b) Calculated benefit amount by projecting service to age 60.

#### Survivor Benefits

#### Lump Sum

Eligibility

Death before completion of 18 months of school service or death without an eligible spouse, domestic partner, child or parent.

#### Benefit Refund of member contributions.

#### Survivor Benefits

#### Spouse or Domestic Partner Only

Eligibility

Death before retirement and married for at least two years, or have a child by the marriage.

Benefit

55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):

a) 55% of 40% of Average Salary

b) 55% of the calculated benefit amount by projecting service to age 60.

#### Spouse or Domestic Partner & Dependent Children

#### Eligibility

Death before retirement and married for at least two years, or have a child by the marriage. Children must be unmarried and under age 18, or 22 if a full-time student; also, any dependent child who incurred a disability before age 18. Death does not have to occur before retirement for the children's benefit.

#### Spouse or Domestic Partner Benefit

55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):

a) 55% of 40% of Average Salary

b) 55% of the calculated benefit amount by projecting service to age 60.

#### Child Benefit

A benefit per child equal to the smallest of a) or b) or c):

a) 60% of Average Salary divided by the number of eligible children

b) \$6,648\* (if hired before 1/1/1980), \$6,420\* (if hired between 1/1/1980 and 10/31/1996), or \$6,252\* (if hired on or after 11/1/1996) per child

c) \$19,944\* (if hired before 1/1/1980), \$19,260\* (if hired between 1/1/1980 and 10/31/1996), or \$18,756\* (if hired on or after 11/1/1996) divided by the number of children.

\*Survivor benefit amounts are as of 2014, and are subject to annual inflation adjustments.

#### Survivor Benefits

#### Dependent Children Only

#### Eligibility

Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

#### Benefit

A benefit per child equal to the smallest of a) or b) or c):

a) 75% of Average Salary divided by the number of eligible children

b) \$8,124\* (if hired before 1/1/1980), \$7,824\* (if hired between 1/1/1980 and 10/31/1996), or \$7,584\* (if hired on or after 11/1/1996) per child

c) \$24,372\* (if hired before 1/1/1980), \$23,472\* (if hired between 1/1/1980 and 10/31/1996), or \$22,752\* (if hired on or after 11/1/1996) divided by the number of children.

#### Parents Only

#### Eligibility

Death before retirement and no eligible spouse or children, and parents must receive at least one-half of their total income from member.

#### Benefit

55% of Service Retirement benefit. Minimum benefit is the lesser of a) or b):

a) 55% of 40% of Average Salary

b) 55% of the calculated benefit amount by projecting service to age 60.

\*Survivor benefit amounts are as of 2014, and are subject to annual inflation adjustments.

#### **Deferred Vested Retirement**

#### Eligibility

Active members with five or more years of school service credit .

#### Benefit

Benefit is calculated in the same manner as Service Retirement benefit and may be collected starting at age 62.

#### **Options**

Retirement and disability benefits are payable for the life of the retired member. Optional reduced benefits may be elected at the time of retirement to provide for continuation of a reduced benefit amount to a designated beneficiary. Optional forms include:

a) Reduced Annuity with a Maximum Survivor Annuity (to Spouse or Domestic Partner) Reduced benefit paid to member so that upon member's death, the spouse will receive 55% of the unreduced normal life annuity. Member's benefit is reduced by 2.5% of retirement benefit, up to \$3,600, plus 10% of any retirement benefit over \$3,600.

b) Reduced Annuity with a Partial Survivor Annuity (to Spouse or Domestic Partner)

Reduced benefit paid to member so that upon member's death, the spouse will receive a partial annuity that can range from \$1 up to 55% of the unreduced normal life annuity amount. Member's benefit is reduced by the same amount as option a, multiplied by the ratio of the chosen benefit percent to the maximum benefit percent (55%).

c) Reduced Annuity with a Life Insurance Benefit Member elects a life insurance amount, payable in a lump sum to designated beneficiary upon member's death.

d) Reduced Annuity with a Survivor Annuity to a Person with an Insurable Interest

A 55% Joint and Survivor Annuity where the original benefit is reduced by 10% plus an additional 5% for each full 5 years, up to 25 years, that the designated beneficiary is younger than the member. Maximum reduction is 40% for any beneficiary who is 25 or more years younger than the member.

#### Cost of Living Adjustments (COLA)

Each year on March 1st, benefits which have been paid for at least twelve months preceding March 1st are increased. The increase is equal to the annual CPI. COLA's are included in benefit payments on and after April 1st.

For members hired on or after November 1, 1996, the cost of living increase is limited to 3% per year. In addition, cost of living adjustments do not apply to retirement benefit payments resulting from voluntary contributions.

Police Officers and Firefighters' Retirement Plan

#### **Effective Date**

Established on July 1, 1997. The Treasury Department is responsible for paying all benefits accrued before this date.

#### **Definitions**

#### Affiliated Employers

District of Columbia Police Officers and Firefighters, except Police cadets.

#### **Covered Members**

All employees of the Metropolitan Police Department (MPD) and the Fire and Emergency Medical Services (FEMS) become members on their first day of active duty. Membership is not automatic for uniformed EMT Firefighters.

#### Service Credit

One year of service is given for each year of employment with MPD or FEMS. Additional service may be purchased or credited for lateral transfer service, EMT service, prior military service, and certain civilian service. For purposes of eligibility and benefit accrual, Federal service is included in the calculation of the normal retirement benefit.

#### Average Salary

For members hired before February 15, 1980, the highest 12 consecutive months of pay. For members hired on or after February 15, 1980, the highest 36 consecutive months of pay, divided by 3.

#### Vested

Members who accrue five or more years of Service Credit are vested for benefits. If these members leave service they may leave their Member Contribution Accounts with the Plan for a future benefit when reaching eligibility (deferred vested in this report).

#### **Contributions**

#### Member Contributions

Members hired before November 10, 1996 contribute 7.0% of salary. Members hired on or after November 10, 1996 contribute 8.0% of salary. Member contributions, together with any purchased service credit payments, are credited to individual Member Contribution Accounts. No interest is accrued on contributions.

#### **Refund of Member Contributions**

In the event a member leaves service for a reason other than death or retirement, member contribution accounts are refunded upon request.

Police Officers and Firefighters' Retirement Plan

#### Service Retirement

#### Eligibility

The Age and Service Credit requirements to be eligible for a full Service Retirement are listed below:

Members hired before November 10, 1996					
Age	Service Credit				
Any age	20 (only if hired before 2/15/1980)				
50	25 years departmental service				
60	5 years departmental service				

Members hired on and after November 10, 1996						
Age	Service Credit					
Any age	25 years departmental service					
60	5 years departmental service					

#### Benefit

For members hired before November 10, 1996:

- 2.5% of Average Salary times departmental service up to 25 years (20 years if hired before 2/15/1980), plus
- 3.0% of Average Salary times departmental service over 25 years (or 20), plus
- 2.5% of Average Salary times purchased or credited service.

For members hired on or after November 10, 1996:

• 2.5% of Average Salary times total service.

All members are subject to a maximum benefit of 80% of Average Salary.

#### Service-Related Disability Retirement

#### Eligibility

Disabled as a result of an injury or disease that permanently disables him/her for the performance of duty.

#### Benefit

For members hired before February 15, 1980:

2.5% of Average Salary times total years of service, subject to a minimum of 66-2/3% of Average Salary and a maximum of 70% of Average Salary.

For members hired on or after February 15, 1980: 70% of final pay times percentage of disability, subject to a minimum of 40% of final pay.

Police Officers and Firefighters' Retirement Plan

#### Nonservice-Related Disability Retirement

#### Eligibility

Active members with five or more years of departmental service are covered (vested) for disability retirement. The member is eligible if found that the disability precludes further service with his/her department.

#### Benefit

For members hired before February 15, 1980:

2.0% of Average Salary times total years of service, subject to a minimum of 40% of Average Salary and a maximum of 70% of Average Salary.

For members hired on or after February 15, 1980: 70% of final pay times percentage of disability, subject to a minimum of 30% of final pay.

#### Survivor Benefits

#### Lump Sum

Eligibility

Death before retirement without an eligible spouse or child.

#### Benefit

Refund of member contributions according to Plan order of precedence.

#### Lump Sum – Death In Line of Duty

*Eligibility* Death occurring in the line of duty, not resulting from willful misconduct.

*Benefit* \$50,000

#### Spouse Only – Death in Line Of Duty

*Eligibility* Member killed in line of duty, after December 29, 1993.

Benefit 100% of final pay.

Police Officers and Firefighters' Retirement Plan

#### Survivor Benefits

#### Spouse Only – Death Not In Line Of Duty

Eligibility

Member death, not in line of duty, after December 29, 1993. If retired, must be married for at least one year or have a child by the marriage.

Benefit 40% of the greater of a) or b):

a) Average Salary

b) Salary for step 6 salary class 1 of the DC Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

Benefit cannot be higher than rate of pay at death (or retirement if death occurs after retirement).

#### Spouse & Dependent Children

Eligibility

Member death, not in line of duty, after December 29, 1993. If retired, must be married for at least one year or have a child by the marriage. Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

Spouse Benefit 40% of the greater of a) or b):

a) Average Salary

b) Salary for step 6 salary class 1 of the DC Police and Fireman's Salary Act in effect, adjusted for cost-of-living increases if death occurs after retirement.

Benefit cannot be higher than rate of pay at death (or retirement if death occurs after retirement).

#### Survivor Benefits

Child Benefit

A benefit per child equal to the smallest of a) or b) or c):

a) 60% of Average Salary divided by the number of eligible children

b) \$3,876\* (if hired before 11/1/1996) or \$3,792\* (if hired on or after 11/1/1996) per child

c) \$11,628\* (if hired before 11/1/1996) or \$11,376\* (if hired on or after 11/1/1996) divided by the number of children.

\*Survivor benefit amounts are as of 2014, and are subject to annual inflation adjustments.

Police Officers and Firefighters' Retirement Plan

#### Dependent Children Only

#### Eligibility

Children must be unmarried and under age 18, or 22 if full-time student. Also, any dependent child because of a disability incurred before age 18. Death does not have to occur before retirement for the children's benefit.

Benefit

75% of Average Salary divided by the number of eligible children, adjusted for cost-of-living increases.

#### **Deferred Vested Retirement**

#### Eligibility

Active members with five or more years of departmental service.

#### Benefit

Benefit is calculated in the same manner as Service Retirement benefit and may be collected starting at age 55.

#### **Options**

Retirement and disability benefits are payable for the life of the retired member. This includes an unreduced Joint and Survivor Annuity as defined above in the "Survivor Benefits – Spouse and Dependent Children" section.

An optional reduced benefit may be elected at the time of retirement to provide for an additional survivor benefit to a designated beneficiary. Member's original annuity is reduced by 10% and that amount is added to the survivor's benefit. If the designated beneficiary is more than five years younger than the member, the additional amount will be reduced by 5% for each full five years that the beneficiary is younger than the member, subject to a maximum reduction of 40%.

#### Cost of Living Adjustments (COLA)

Each year on March 1st, benefits which have been paid for at least twelve months preceding March 1st are increased. The increase is equal to the annual CPI. COLA's are included in benefit payments on and after April 1st.

For members hired on or after November 10, 1996, the cost of living increase is limited to 3% per year. Members (not beneficiaries) hired before February 15, 1980, will receive equalization pay, which is defined as the percentage increase as active employees' salary increases.

## Schedule of Active Member Valuation Data (Dollar amounts in thousands)

Teachers' Retirement Plan								
Valuation Date	Number	Annual Payroll	Annual Average Pay	% increase in Average Pay				
September 30, 2015	4,866	\$417,090	\$85.7	1.77%				
September 30, 2014	4,499	378,926	84.2	-0.07				
September 30, 2013	4,379	369,071	84.3	-0.63				
September 30, 2012	4,495	381,235	84.8	4.72				
September 30, 2011	4,747	384,455	81.0	13.96				
September 30, 2010	4,749	337,516	71.1	-2.85				
September 30, 2009	4,601	336,600	73.2	-1.82				
September 30, 2008	4,821	359,250	74.5	-0.08				

Police Officers' Retirement Plan								
Valuation Date	Number	Annual Payroll	Annual Average Pay	% increase in Average Pay				
September 30, 2015	3,829	307,373	\$80.3	2.44%				
September 30, 2014	3,902	305,765	78.4	3.04				
September 30, 2013	3,846	292,494	76.1	-0.69				
September 30, 2012	3,810	291,780	76.6	-1.26				
September 30, 2011	3,775	292,785	77.6	2.29				
September 30, 2010	3,915	296,837	75.8	-2.05				
September 30, 2009	4,014	310,700	77.4	0.72				
September 30, 2008	3,928	301,875	76.9	8.01				

Firefighters' Retirement Plan								
Valuation Date	Number	Annual Payroll	Annual Average Pay	% increase in Average Pay				
September 30, 2015	1,708	\$138,828	\$81.3	1.04%				
September 30, 2014	1,649	132,650	80.4	10.73				
September 30, 2013	1,664	120,886	72.6	0.33				
September 30, 2012	1,700	123,097	72.4	0.69				
September 30, 2011	1,786	128,436	71.9	1.51				
September 30, 2010	1,793	127,017	70.8	0.22				
September 30, 2009	1,774	125,400	70.7	2.02				
September 30, 2008	1,733	120,075	69.3	-3.74				

## Schedule of Members Added-to and Removed-from Rolls

(Dollar amounts in thousands)

Fiscal Year			ew rs Added Annual		mbers noved Annual	Changes due to Plan		olls at of Year Annual	Percentage Increase in Annual	Average Annual
Ended	Plan Teachers	Number 183	Allowances \$ 4,950	Number 66	Allowances \$ 822	Amendments 84	Number 3,718	Allowances \$62,899	Allowances 7.18%	Allowances \$17
9/30/2015	Police/Fire	484	\$ 4,950 12,818	39	φ 022 424	(630)	2,610	<del>3</del> 02,899 70,214		۹۱ <i>۲</i> 27
						( )	,	,		
9/30/2014	Teachers	218	6,079	65	955	597	3,601	58,687		16
	Police/Fire	237	9,465	55	895	350	2,365	58,450		25
9/30/2013	Teachers	202	5,289	39	436	706	3,448	52,966	11.73%	15
	Police/Fire	174	6,054	30	298	344	2,183	49,530	14.05%	23
0/20/2042	Teachers	204	4,807	49	594	1,198	3,285	47,407	12.88%	14
9/30/2012	Police/Fire	234	8,034	51	557	423	2,039	43,430	22.23%	21
0/20/2014	Teachers	226	4,374	37	490	497	3,130	41,996	12.73%	13
9/30/2011	Police/Fire	326	6,847	22	238	205	1,856	35,530	23.72%	19
0/20/2010	Teachers	203	4,225	32	337	1,489	2,941	37,254	16.76%	13
9/30/2010	Police/Fire	127	3,511	24	208	3,003	1,552	28,717	27.04%	19
0/20/2000	Teachers	406	7,361	27	281	(70)	2,770	31,907	28.16%	12
9/30/2009	Police/Fire	193	2,639	108	2,727	(563)	1,449	22,605	-2.80%	16
0/20/2000	Teachers	63	939	36	193	429	2,391	24,897	4.95%	10
9/30/2008	Police/Fire	78	5,349	28	133	(1,229)	1,364	23,257	20.69%	17
9/30/2007	Teachers	230	3,564	41	241	2,879	2,364	23,721	35.40%	10
	Police/Fire	153	3,180	46	171	2,476	1,314	19,270	39.78%	15
0/20/2002	Teachers	199	2,935	39	262	582	2,175	17,520	22.82%	8
9/30/2006	Police/Fire	166	2,892	15	68	550	1,207	13,786	32.40%	11

# **Analysis of Financial Experience** (Dollar amounts in millions)

#### **Teachers' Retirement Plan**

#### Gains & Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience

Type of Activity	Gain (or Loss) For Year Ending 10/1/2015	Gain (or Loss) For Year Ending 10/1/2014
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (4.7)	\$ (4.3)
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	(0.0)	(0.1)
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(0.7)	(0.7)
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	1.5	2.5
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	10.2	30.7
<b>New Members.</b> Additional unfunded accrued liability will produce a loss.	(40.3)	(25.4)
<b>Investment Income.</b> If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(9.9)	(41.2)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	1.3	4.0
<b>Other.</b> Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	34.2	(5.1)
Gain (or Loss) During Year From Financial Experience	(8.4)	(39.6)
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, method changes or asset transfer to U.S. Treasury.	(3.8)	(0.0)
Composite Gain (or Loss) During Year	\$(12.2)	\$(39.6)

## Analysis of Financial Experience

(Dollar amounts in millions)

#### Police Officers and Firefighters' Retirement Plan

#### Gains & Losses in Accrued Liabilities Resulting from Difference Between Assumed Experience & Actual Experience

Type of Activity	Gain (or Loss) For Year Ending 10/1/2015	Gain (or Loss) For Year Ending 10/1/2014
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$(27.0)	\$ (23.9)
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	4.0	10.1
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	1.5	1.4
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	(1.0)	(6.0)
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	127.4	24.0
New Members. Additional unfunded accrued liability will produce a loss.	(24.2)	(19.8)
<b>Investment Income.</b> If there is a greater investment income than assumed, there is a gain. If less income, a loss.	(22.4)	(68.3)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	(14.6)	(1.1)
<b>Other.</b> Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, etc.	32.4	2.8
Gain (or Loss) During Year From Financial Experience	76.1	(80.8)
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, method changes or asset transfer to U.S. Treasury.	(4.8)	0.0
Composite Gain (or Loss) During Year	\$71.3	\$(80.8)

## **Valuation Balance Sheet**

Teachers' Retirement Plan

(Dollar amounts in thousands)

### As of October 1, 2015

Present and Prospective Assets	
Actuarial value of present assets	\$1,732,017
Present value of future members' contributions	262,198
Present value of future employer contributions:	
Normal contributions	259,522
Unfunded accrued liability contributions	221,288
Total prospective employer contributions	480,810
Total present and prospective assets	\$2,475,025

## Actuarial Liabilities

Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits	\$909,689
Present value of prospective benefits payable on account of inactive members	143,389
Present value of prospective benefits payable on account of present active members:	
Service retirement benefits	1,223,595
Disability retirement benefits	40,624
Survivor benefits	26,638
Separation benefits	131,090
Total present value of prospective benefits payable on account of present active members	1,421,947
Total Actuarial Liabilities	\$2,475,025

## **Valuation Balance Sheet**

Police Oficers and Firefighters' Retirement Plan (Dollar amounts in thousands)

## As of October 1, 2015

Present and Prospective Assets	
Actuarial value of present assets	\$4,607,300
Present value of future members' contributions	380,935
Present value of future employer contributions:	
Normal contributions	1,911,789
Unfunded accrued liability contributions	(324,206)
Total prospective employer contributions	1,587,583
Total present and prospective assets	\$6,575,818

## Actuarial Liabilities

Present value of benefits payable on account of retired members and survivors of deceased members now drawing retirement benefits	\$1,302,180
Present value of prospective benefits payable on account of inactive members	86,727
Present value of prospective benefits payable on account of present active members:	
Service retirement benefits	4,719,877
Disability retirement benefits	307,896
Survivor benefits	86,278
Separation benefits	72,860
Total present value of prospective benefits payable on account of present active members	5,186,911
Total Actuarial Liabilities	\$6,575,818

**Solvency Test** (Dollar amounts in thousands)

		Aggregate Accrued Liabilities			Accru Co	ortion of led Liabilit overed by Value of <i>I</i>	
Valuation Date	(1) Active Member Contributions	(2) Retirees, Survivors and Inactive Members	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
Teachers' Re	etirement Plan						
10/1/2006	\$273,887	\$624,110	\$2,667,041	\$3,482,600	100.0%	100.0%	100.0%
10/1/2007	303,059	805,475	2,790,093	4,068,900	100.0	100.0	100.0
10/1/2008	332,834	851,489	3,092,491	4,379,700	100.0	100.0	82.5
10/1/2009	335,481	995,361	3,001,587	4,493,400	100.0	100.0	80.4
10/1/2010	136,055	622,253	569,991	1,570,968	100.0	100.0	97.6
10/1/2011	138,874	718,884	687,107	1,573,654	100.0	100.0	70.3
10/1/2012	137,698	819,842	723,008	1,503,346	100.0	100.0	75.5
10/1/2013	141,792	883,495	733,756	1,622,376	100.0	100.0	81.4
10/1/2014	141,943	968,446	738,841	1,746,030	100.0	100.0	86.0
10/1/2015	144,927	1,053,078	755,300	1,670,976	100.0	100.0	62.6
Police Office	ers and Firefighters'	Retirement Plan					
10/1/2006	\$273,887	\$624,110	\$2,667,041	\$3,482,600	100.0%	100.0%	100.0%
10/1/2007	303,059	805,475	2,790,093	4,068,900	100.0	100.0	100.0
10/1/2008	332,834	851,489	3,092,491	4,379,700	100.0	100.0	82.5
10/1/2009	335,481	995,361	3,001,587	4,493,400	100.0	100.0	80.4
10/1/2010	211,961	583,338	2,371,531	3,418,796	100.0	100.0	89.6
10/1/2011	224,928	708,364	2,376,533	3,593,716	100.0	100.0	92.3
10/1/2012	235,924	849,982	2,371,070	3,681,526	100.0	100.0	100.0
10/1/2013	247,202	966,862	2,430,021	4,168,457	100.0	100.0	100.0
10/2/2014	255,735	1,149,515	2,593,287	4,588,319	100.0	100.0	100.0
10/1/2015	262,674	1,388,908	2,631,511	4,462,228	100.0	100.0	100.0

## STATISTICAL SECTION

Summary	.109
Schedules of Changes in Net Position	.110
Schedule of Changes in Net Position Liability and Related Ratios	.112
Schedules of Investment Expenses	.114
Schedule of Annual Money-Weighted Rates of Return	.114
Schedule of Funding Progress	.115
Schedules of Administrative Expenses	.116
Schedule of Employer Contributions	.117
Schedule of Annual Salaries and Benefits	.118
Schedule of Participant Data	.119
Schedule of Average Benefit by Type	120
Schedule of Retired Members by Type of Benefit and Option Selected	







## Summary

#### Introduction

The objective of the *Statistical Section* is to provide information to assist readers in understanding and assessing DCRB's overall financial condition when viewing the Financial Statements, Notes to the Financial Statements, the Required Supplementary Information and the Supplementary Information. The data presented throughout this section incorporates information from prior CAFRs and is useful in evaluating how the financial condition of the Plans has changed over time.

#### **Financial Trends**

The financial trend schedules show financial information about the growth of DCRB's assets and provide a context for how DCRB's financial position has changed over the past 10 years. The financial trend schedules presented are:

- Changes in Net Position
- Changes in the Net Position Liability and Related Ratios
- Investment Expenses
- Money-Weighted Investment Returns
- Funding Progress
- Administrative Expenses

#### **Operating Information**

The following schedules provide data of the environment in which DCRB operates. The schedules presented include:

- Employer Contributions
- Annual Salaries and Benefits
- Participant Data
- Average Benefit by Type
- Schedule of Retired Members by Benefit Type and Option Selected

## Schedules of Changes in Net Position (Dollar amounts in thousands)

Teachers' Retire	ement Fun	d								
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Additions										
Contributions:										
District Government	\$ 39,513	\$ 31,636	\$ 6,407	\$-	\$-	\$-	\$-	\$ 6,000	\$14,600	\$ 15,500
District employees	31,621	28,751	28,129	28,639	27,739	29,940	24,907	25,919	26,793	25,807
Total contributions	71,134	60,387	34,536	28,639	27,739	29,940	24,907	31,919	41,393	41,307
Total net investment (loss) income	(72,647)	132,086	168,117	190,002	44,364	125,756	(37,875)	(259,309)	217,731	120,114
Other income	385	522	796	672	616	695	793	990	740	
Total (reductions) additions	(1,128)	192,995	203,449	219,313	72,719	156,391	(12,175)	(226,400)	259,864	161,421
<b>Deductions</b> Benefit payments	64,076	59,832	54,180	48,145	42,532	37,611	33,532	30,692	25,801	23,793
Retirement benefits payable to U.S. Treasury			21,503		,				- ,	
Refunds*	5,576	5,790	5,250	5,514	4,060	3,374	5,316	n/a	n/a	n/a
Administrative expenses	4,543	3,787	3,627	2,880	2,885	2,327	2,340	2,919	2,901	1,010
Total deductions	74,195	69,409	84,560	56,539	49,477	43,312	41,188	33,611	28,702	24,803
Changes in Net Position	\$(75,323)	\$123,586	\$118,889	\$162,774	\$23,242	\$113,079	\$(53,363)	\$(260,011)	\$231,162	\$136,618

\*Refunds included in Benefit Payments prior to 2009.

# Schedules of Changes in Net Position (Dollar amounts in thousands)

Police Officers	Police Officers and Firefighters' Retirement Fund										
	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	
Additions											
Contributions:											
District Government	\$103,430	\$110,766	\$96,314	\$116,700	\$127,200	\$132,300	\$106,000	\$ 137,000	\$140,100	\$117,500	
District employees	33,679	32,821	30,581	30,398	30,474	31,607	29,900	31,718	27,489	25,142	
Total contributions	137,109	143,587	126,895	147,098	157,674	163,907	135,900	168,718	167,589	142,642	
Total net investment (loss) income	(187,283)	338,894	423,581	452,881	81,973	270,277	(58,228)	(516,438)	400,433	212,089	
Other income	1,012	1,342	2,047	1,584	1,435	1,555	1,680	1,952	1,383		
Total (reductions) additions	(49,162)	483,823	552,523	601,563	241,082	435,739	79,352	(345,768)	569,406	354,731	
Deductions											
Benefit payments	63,634	52,784	45,656	38,924	30,766	27,872	24,569	25,364	20,587	15,795	
Retirement benefits payable to U.S. Treasury	-	-	9,391	-	-	-	-	-	-	-	
Refunds*	1,396	1,637	1,960	1,534	1,913	1,974	1,611	n/a	n/a	n/a	
Administrative expenses	11,939	9,730	8,913	6,718	6,678	5,145	4,904	5,750	5,421	1,817	
Total deductions	76,969	64,151	65,920	47,176	39,357	34,991	31,084	31,114	26,008	17,612	
Changes in Net Position	\$(126,131)	\$419,672	\$486,603	\$554,387	\$201,725	\$400,748	\$ 48,268	\$(376,882)	\$543,397	\$337,119	

\*Refunds included in Benefit Payments prior to 2009.

# Schedule of Changes in Net Position Liability and Related Ratios (Dollar amounts in thousands)

Teachers' Retirement Fund		
	2015	2014
Total pension liability		
Service Cost	\$ 53,297	\$ 50,409
Interest	118,378	112,204
Benefit changes	-	-
Difference between expected and actual experience	(7,246)	-
Changes of assumptions	-	-
Benefits payments	(64,076)	(59,832)
Refunds of contributions	(5,576)	(5,790)
Net change in total pension liability	94,777	96,991
Total pension liability - beginning of year	1,856,034	1,759,043
Total pension liability - end of year (a)	1,950,811	1,856,034
Plan net position		
Contributions - employer	39,513	31,636
Contributions - member	31,621	28,751
Net investment income	(72,647)	132,086
Benefits payments	(64,076)	(59,832)
Administrative expense	(4,543)	(3,787)
Refunds of contributions	(5,576)	(5,790)
Other	385	522
Net change in plan net position	(75,323)	123,586
Plan net position - beginning of year	1,745,961	1,622,375
Plan net position - end of year (b)	1,670,638	1,745,961
Net pension liability end of year (a - b)	\$ 280,173	\$ 110,073
Ratio of plan net position to total pension liability (b / a)	85.64%	94.07%
Covered employee payroll	\$ 417,090	\$ 378,926
Net pension liability as a percentage of covered-employee payroll	67.17%	29.05%

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

# Schedule of Changes in Net Position Liability and Related Ratios (Dollar amounts in thousands)

Police Officers and Firefighters' Retirement Fund								
	2015	2014						
Total pension liability								
Service Cost	\$ 192,114	\$ 176,102						
Interest	257,943	235,097						
Benefit changes	-	-						
Difference between expected and actual experience	(2,477)	-						
Changes of assumptions	-	-						
Benefits payments	(63,634)	(52,784)						
Refunds of contributions	(1,396)	(1,637)						
Net change in total pension liability	382,550	356,778						
Total pension liability - beginning of year	4,000,863	3,644,085						
Total pension liability - end of year (a)	4,383,413	4,000,863						
Plan net position								
Contributions - employer	103,430	110,766						
Contributions - member	33,679	32,821						
Net investment income	(187,283)	338,894						
Benefits payments	(63,634)	(52,784)						
Administrative expense	(11,939)	(9,730)						
Refunds of contributions	(1,396)	(1,637)						
Other	1,012	1,342						
Net change in plan net position	(126,131)	419,672						
Plan net position - beginning of year	4,588,129	4,168,457						
Plan net position - end of year (b)	4,461,998	4,588,129						
Net pension liability end of year (a - b)	\$ (78,585)	\$ (587,266)						
Ratio of plan net position to total pension liability (b / a)	101.79%	114.68%						
Covered employee payroll	\$ 446,201	\$ 426,135						
Net pension liability as a percentage of covered-employee payroll	-17.61%	-137.81%						

Note: Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

## **Schedules of Investment Expenses**

(Dollar amounts in thousands)

Fiscal Year	Investment Managers*	Investment Administrative Expenses	Investment Consultants	Investment Custodian	Total Investment Expenses
2015	\$10,118	\$879	\$1,030	\$229	\$12,256
2014	11,400	868	1,019	369	13,656
2013	5,499	934	975	131	7,539
2012	7,116	1,011	686	210	9,023
2011	10,622	874	334	285	12,115
2010	11,980	790	455	254	13,479
2009	10,676	735	531	319	12,261
2008	14,300	650	495	485	15,930
2007	11,586	n/a	381	958	12,925
2006	10,010	n/a	348	822	11,180

\*Fees paid to traditional investment managers only; traditional investment managers are those that invest primarily in public equity and fixed income securities. A significant number of alternative investments are presented net of expenses. Management expenses are netted against investment income and because they are not readily separable from specific investment income as of the financial statement reporting date, amounts are recorded and reported net of management expenses and therefore are not included on this schedule.

## Schedule of Annual Money-Weighted Rates of Return

#### (Dollar amounts in thousands)

Fiscal Year	Total Portfolio
2015	-4.006%
2014	8.178
2013	-
2012	-
2011	-
2010	-
2009	-
2008	-
2007	-
2006	-

Note: This is a 10-year schedule. However, the information in this schedule is not required to be presented retroactively. Years will be added in the future fiscal years until 10 years of information is available.

## **Schedule of Funding Progress**

(Dollar amounts in thousands)

Until September 30, 2011, the District of Columbia Retirement Board used the Aggregate Actuarial Cost Method, which does not result in the calculation of an unfunded accrued liability. The numbers shown below have been determined based on the Entry Age Normal Cost Method.

Actuarial V	aluation Date	Actuarial Value of Assets	EAN Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	Unfunded Liability as a Percent of Payroll
	Teachers	\$1,732.0	\$1,953.3	\$221.3	88.7%	\$417.1	53.1%
10/1/2015	Police & Flre	4,607.3	4,283.1	\$(324.2)	107.6%	446.2	-72.7%
	Total	\$6,339.3	\$6,236.4	\$(102.9)	101.7%	\$863.3	-11.9%
10/1/2014	Teachers	\$1,638.6	\$1,849.2	210.6	88.6%	\$378.9	55.6%
	Police & Fire	4,288.7	3,998.5	\$(290.2)	107.3%	438.4	-66.2%
	Total	\$5,927.3	\$5,847.8	\$(79.5)	101.4%	\$817.3	-9.7%
	Teachers	\$1,585.8	\$1,759.0	\$ 173.3	90.1%	\$369.1	46.9%
10/1/2013	Police & FIre	4,013.5	3,644.1	(369.5)	110.1%	413.4	-89.4%
	Total	\$5,599.3	\$5,403.1	\$(196.2)	103.6%	\$782.5	-25.1%
10/1/2012	Teachers Police & Fire	\$1,585.6 3,804.9	\$1,680.5 3,457.0	\$ 94.9 (347.9)	94.4% 110.1%	\$381.2 414.9	24.9% -83.9%
	Total	\$5,390.5	\$5,137.5	\$(253.0)	104.9%	\$796.1	-31.8%
10/1/2011	Teachers Police & FIre	\$1,573.7 3,593.7	\$1,544.9 3,309.8	\$ (28.8) (283.9)	101.9% 108.6%	\$384.5 421.2	-7.5% -67.4%
	Total	\$5,167.4	\$4,854.7	\$(312.7)	106.4%	\$805.7	-38.8%
10/1/2010	Teachers Police & Fire Total	\$1,571.0 3,418.8 <b>\$4,989.8</b>	\$1,328.3 3,166.8 <b>\$4,495.1</b>	\$(242.7) (252.0) <b>\$(494.7)</b>	118.3% 108.0% <b>111.0%</b>	\$337.5 423.9 <b>\$761.4</b>	-71.9% -59.4% <b>-65.0%</b>
		<i><i><i></i></i></i>	• 1,10011	•(.•)	1110/0		001070
10/1/0000	Teachers	\$1,445.0	\$1,304.5	\$(140.5)	110.8%	\$336.6	-41.7%
10/1/2009	Police & FIre	\$3,048.4	\$3,027.9	\$(20.5)	100.7%	\$436.1	-4.7%
	Total	\$4,493.4	\$4,332.4	\$(161.0)	103.7%	\$772.7	-20.8%
10/1/2000	Teachers	\$1,447.6	\$1,338.0	\$(109.6)	108.2%	\$359.3	-30.5%
10/1/2008	Police & Fire	2,932.1	2,938.8	6.7	99.8%	422.0	1.6%
	Total	\$4,379.7	\$4,276.8	\$(102.9)	102.4%	\$781.2	-13.2%

## Schedules of Administrative Expenses

(Dollar amounts in thousands)

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Personal services										
Salaries	\$ 4,760	\$ 4,401	\$ 3,955	\$ 4,114	\$ 3,907	\$ 3,263	\$ 2,889	\$ 2,758	\$ 2,314	\$ 2,387
Fringe benefits	1,301	1,244	1,135	954	1,030	907	716	505	417	380
Total personal services	6,061	5,645	5,090	5,068	4,937	4,170	3,605	3,263	2,731	2,767
Non-personal services										
Office supplies	126	115	187	157	166	120	120	131	118	102
Telephone	71	56	50	49	14	13	17	33	21	34
Rent	1,634	1,554	1,513	1,465	1,444	1,419	1,379	1,282	1,197	1,013
Office support	-	-	-	1	68	114	60	102	185	215
Travel	206	181	177	148	38	45	67	89	96	88
Professional fees	6,225	4,292	3,790	3,069	2,867	2,329	2,371	2,764	3,104	1,421
Postage	29	25	138	29	38	10	73	55	36	47
Printing	14	15	91	33	35	35	19	56	41	56
Insurance	150	121	114	121	129	131	111	120	57	117
Dues and memberships	32	34	28	26	37	51	60	17	15	13
Audit costs	85	49	76	71	64	66	66	98	54	52
Actuarial fees	153	66	146	153	164	108	93	100	78	46
Legal fees	524	365	529	292	30	37	246	341	199	208
Investment fees	11,377	12,788	6,587	7,753	10,907	12,234	11,138	12,393	12,924	11,180
Contractual services (STAR)*	1,077	872	941	-	-	-	-	-	-	-
Equipment and rental	966	995	619	179	734	65	63	100	73	200
Depreciation	-	-	3	6	6	6	18	-	-	-
Total non-personal services	22,676	21,528	14,989	13,552	16,741	16,783	15,901	17,681	18,198	14,792
Total administrative expenses	\$28,738	\$27,173	\$20,079	\$18,620	\$21,678	\$20,953	\$19,506	\$20,944	\$20,929	\$17,559

\*Contractual services (STAR) were included in Professional fees prior to fiscal year 2013

# Schedule of Employer Contributions (Dollar amounts in millions)

	Teac Retireme		Police Offi Firefigl Retireme	nters'	Tot Fui	
Year Ending	Annual Required Contribution	Percentage Contributed	Annual Required Contribution	Percentage Contributed	Annual Required Contribution	Percentage Contributed
September 30, 2015	\$39.5	100.0%	\$103.4	100.0%	\$142.9	100.0%
September 30, 2014	31.6	100.0	110.8	100.0	142.4	100.0
September 30, 2013	6.4	100.0	96.3	100.0	102.7	100.0
September 30, 2012	-	100.0	116.7	100.0	116.7	100.0
September 30, 2011	-	100.0	127.0	100.0	127.0	100.0
September 30, 2010	-	100.0	132.3	100.0	132.3	100.0
September 30, 2009	-	100.0	106.0	100.0	106.0	100.0
September 30, 2008	6.0	100.0	137.0	100.0	143.0	100.0
September 30, 2007	14.6	100.0	140.1	100.0	154.7	100.0
September 30, 2006	15.5	100.0	117.5	100.0	133.0	100.0

## Schedule of Annual Salaries and Benefits (Dollar amounts in millions)

		Annual Salaries Active Member		Annual Retirement Benefits for Retirees & Beneficiaries				
Fiscal Year	Teachers	Police Officers and Firefighters	Total	Teachers	Police Officers and Firefighters	Total		
2015	\$417	\$446	\$863	\$63	\$70	\$133		
2014	379	438	817	59	58	117		
2013	369	413	782	53	50	103		
2012	381	415	796	47	43	90		
2011	384	421	805	42	36	78		
2010	338	424	762	37	29	65		
2009	337	436	773	32	22	54		
2008	359	422	781	25	22	47		
2007	375	396	771	24	19	43		
2006	322	351	673	16	13	29		

# **Schedule of Participant Data**

		Active		<b>Retired Mer</b>	es, Disabled		
Fiscal Year	Teachers	Police Officers and Firefighters	Subtotal	Teachers	Police Officers and Firefighters	Subtotal	Total
2015	4,866	5,537	10,403	3,718	2,609	6,327	16,730
2014	4,499	5,551	10,050	3,601	2,365	5,966	16,016
2013	4,379	5,510	9,889	3,448	2,183	5,631	15,520
2012	4,495	5,510	10,005	3,285	2,039	5,324	15,329
2011	4,747	5,561	10,308	3,130	1,856	4,986	15,294
2010	4,749	5,708	10,457	2,941	1,552	4,493	14,950
2009	4,601	5,788	10,389	2,770	1,449	4,219	14,608
2008	4,821	5,661	10,482	2,391	1,364	3,755	14,237
2007	5,027	5,550	10,577	2,364	1,314	3,678	14,255
2006	5,088	5,256	10,344	2,175	1,207	3,382	13,726

# Schedule of Average Benefit by Type

## Teachers' Retirement Plan

Teach	ers' Retirement Plan						
				Years of Cr	edited Service		
Retire	ment Effective Dates	5-9	10-14	15-19	20-24	25-30	30+
	Average Monthly Benefit	\$ 1,050	\$ 2,140	\$ 2,774	\$ 3,338	\$ 4,387	\$ 5,805
2015	Average Final Average Salary	\$82,018	\$95,786	\$97,605	\$97,032	\$100,959	\$103,420
	Number of Active Recipients	15	20	8	26	22	43
	Average Monthly Benefit	\$ 899	\$ 1,950	\$ 2,375	\$ 3,551	\$ 4,153	\$ 5,669
2014	Average Final Average Salary	\$79,848	\$89,912	\$88,883	\$100,082	\$98,560	\$102,092
	Number of Active Recipients	16	21	18	26	47	56
	Average Monthly Benefit	\$ 1,205	\$ 1,741	\$ 2,499	\$ 3,441	\$ 4,035	\$ 5,427
2013	Average Final Average Salary	\$82,567	\$84,521	\$90,461	\$94,689	\$94,689	\$ 97,032
	Number of Active Recipients	17	18	10	44	36	64
	Average Monthly Benefit	\$ 951	\$ 1,637	\$ 2,631	\$ 3,333	\$ 4,025	\$ 5,406
2012	Average Final Average Salary	\$76,185	\$82,578	\$90,729	\$93,622	\$94,547	\$ 96,692
	Number of Active Recipients	19	17	8	47	33	62
	Average Monthly Benefit	\$ 947	\$ 1,628	\$ 2,361	\$ 3,097	\$ 3,774	\$ 5,216
2011	Average Final Average Salary	\$80,717	\$82,641	\$84,659	\$89,318	\$90,961	\$ 93,310
	Number of Active Recipients	11	16	17	46	39	65
	Average Monthly Benefit	-	-	-	-	-	-
2010	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2009	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2008	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2007	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2006	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-

Information prior to fiscal year 2011 not available at the time of this report.

# Schedule of Average Benefit by Type

## Police Officers and Firefighters' Retirement Plan

Fonce	Officers and Firefighters' Reti			Years of C	redited Servio	ce	
Retirer	nent Effective Dates	5-9	10-14	15-19	20-24	25-30	30+
	Average Monthly Benefit	\$ 2,363	\$ 3,407	\$ 3,471	\$ 3,860	\$ 5,526	\$ 6,922
2015	Average Final Average Salary	\$45,567	\$66,727	\$70,827	\$76,421	\$96,104	\$104,521
	Number of Active Recipients	6	7	5	6	182	62
	Average Monthly Benefit	\$ 2,343	\$4,168	\$ 1,950	\$ 3,776	\$ 5,241	\$ 6,403
2014	Average Final Average Salary	\$54,678	\$65,126	\$73,476	\$80,064	\$92,091	\$95,990
	Number of Active Recipients	6	1	1	6	143	29
	Average Monthly Benefit	\$ 2,773	\$ 2,333	-	\$ 2,561	\$ 5,439	\$ 6,906
2013	Average Final Average Salary	\$40,134	\$64,784	-	\$77,175	\$94,464	\$103,254
	Number of Active Recipients	4	4	-	4	97	48
	Average Monthly Benefit	\$ 1,795	\$ 2,686	\$ 4,404	\$ 3,622	\$ 5,409	\$ 6,504
2012	Average Final Average Salary	\$46,574	\$65,588	\$74,368	\$78,462	\$92,618	\$96,968
	Number of Active Recipients	3	2	3	4	96	38
	Average Monthly Benefit	\$ 2,195	\$25,164	\$ 3,048	\$ 3,090	\$ 5,600	\$ 6,679
2011	Average Final Average Salary	\$61,882	\$66,531	\$78,270	\$82,825	\$95,099	\$99,070
	Number of Active Recipients	8	4	3	19	104	33
	Average Monthly Benefit	-	-	-	-	-	-
2010	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2009	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2008	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
2007	Average Monthly Benefit	-	-	-	-	-	-
	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-
	Average Monthly Benefit	-	-	-	-	-	-
2006	Average Final Average Salary	-	-	-	-	-	-
	Number of Active Recipients	-	-	-	-	-	-

Information prior to fiscal year 2011 not available at the time of this report.

## Schedule of Retired Members by Type of Benefit and Option Selected

Teachers' Retirement Plan													
Amount of Monthly	Number of Members by Type of Retirement								Number of Members by Option Selected				
Benefit	Α	В	C	D	E	F	G	Total	1	2	3	4	Total
\$1-250	57	4	-	2	18	14	1	96	44	18	1	-	63
\$251-500	58	4	-	9	33	26	5	135	57	13	1	-	71
\$501-750	72	12	-	18	33	9	-	144	75	24	2	1	102
\$751-1,000	89	5	-	34	25	10	1	164	107	20	1	-	128
\$1,001-1,250	10	-	-	-	18	2	2	32	10	-	-	-	10
\$1,251-1,500	605	52	-	165	112	12	3	949	655	163	4	-	822
\$1,501-1,750	50	-	-	-	10	6	-	66	44	5	1	-	50
\$1,751-2,000	1,657	111	1	81	29	3	-	1,882	1,376	464	8	2	1,850
\$2,001-3,000	1,525	60	-	11	2	-	-	1,598	1,269	323	4	-	1,596
\$3,001-4,000	583	26	-	2	1	-	-	612	469	141	1	-	611
\$4,001-5,000	79	2	-	1	27	15	1	125	75	7	-	-	82
\$5,001-6,000	182	12	-	-	-	-	-	194	155	39	-	-	194
\$6,001-7,000	52	1	-	-	1	-	-	54	45	8	-	-	53
\$7,001-8,000	72	6	-	2	11	8	1	100	60	16	4	-	80
\$8,001-9,000	22	-	-	-	-	-	-	22	18	4	-	-	22
\$9,001-10,000	2	1	-	-	-	-	-	3	2	1	-	-	3
over \$10,000	3	-	-	-	-	-	-	3	2	1	-	-	3
Total	5,118	296	1	325	320	105	14	6,179	4,463	1,247	27	3	5,740

#### Type of Retirement:

- A Retired From Affiliate or Resignation
- B Termination Early Involuntary
- C Partial Total Disability
- D Disabled not in the Line of Duty
- E Survivor of a Retired Teacher
- F Survivor of an Active Teacher
- G Qualified Domestic Relations Order

### **Option Selected:**

- 1 Unreduced Annuity
- 2 Reduced Annuity with Survivor Option
- 3 Reduced Annuity with Life Insurance Benefit
- 4 Reduced Annuity with Insurable Interest

## Schedule of Retired Members by Type of Benefit and Option Selected

Police Officers an	nd Firefigh	ters' Retire	ment Plan							
Amount of Monthly	Number of Members by Type of Retirement									
Benefit	Α	В	С	D	E	F	G	Total		
\$1-250	4	-	-	-	3	1	33	41		
\$251-500	5	-	-	3	2	-	34	44		
\$501-750	3	-	10	12	3	5	26	59		
\$751-1,000	7	-	32	25	65	1	25	155		
\$1,001-1,250	-	-	-	-	6	7	2	15		
\$1,251-1,500	204	-	138	132	1,220	24	57	1,775		
\$1,501-1,750	1	-	-	-	33	19	4	57		
\$1,751-2,000	1,078	-	428	55	200	7	10	1,778		
\$2,001-3,000	1,216	-	362	45	50	4	2	1,679		
\$3,001-4,000	912	-	82	9	12	-	-	1,015		
\$4,001-5,000	8	-	1	-	4	1	24	38		
\$5,001-6,000	554	-	29	3	4	2	-	592		
\$6,001-7,000	297	-	11	-	2	-	-	310		
\$7,001-8,000	1	-	-	-	2	3	24	30		
\$8,001-9,000	128	-	3	-	-	1	-	132		
\$9,001-10,000	48	-	4	-	-	-	-	52		
over \$10,000	110	-	2	-	-	-	-	112		
Total	4,576	-	1,102	284	1,606	75	241	7,884		

#### Type of Retirement:

- A Retired From Affiliate or Resignation
- B Termination Early Involuntary
- C Partial Total Disability
- D Disabled not in the Line of Duty
- E Survivor of a Retired Police Officer or Firefighter
- F Survivor of a Active Police Officer or Firefighter
- G Qualified Domestic Relations Order

# ADDITIONAL DISCLOSURES

Schedules of Transactions - Board of Trustees	125
Names and Addresses of the Board of Trustees	126
Schedule of Trustee Sponsored Activities	. 127







## **Schedules of Transactions - Board of Trustees**

	Expenditures			
Trustee Name	2015	2014		
Lyle Blanchard	\$ 8,159	\$ 7,196		
Barbara Blum	7,964	9,989		
Joseph Bress	5,851	4,182		
Diana Bulger	-	2,683		
Joseph Clark	9,979	4,103		
Mary Collins	9,979	6,785		
Gary Hankins	7,541	9,973		
Darrick Ross	9,992	9,910		
Nathan Saunders	9,589	9,973		
Edward Smith	6,046	5,775		
Thomas Tippett	8,971	7,006		
Lenda Washington	3,088	3,093		
Total	\$87,159	\$80,668		

### Names and Addresses of the Board of Trustees

Lyle M. Blanchard District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Barbara D. Blum District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Joseph M. Bress District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Joseph W. Clark District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Mary A. Collins District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Gary W. Hankins District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001 Darrick O. Ross District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Nathan A. Saunders District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Edward C. Smith District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

**Thomas N. Tippett** District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Michael J. Warren District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Lenda P. Washington District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

Jeffery E. Barnett District of Columbia Retirement Board 900 7th Street, NW, Second Floor Washington, D.C. 20001

# Schedule of Trustee Sponsored Activities

Mary Collins	
Service Provider:	Mansion Affair
Activity:	For participants of National Conference on Public Employee Retirement Systems
Date:	05/04/2015
Purpose:	Public pension education
Service Provider:	Scott & Scott (Legal)
Activity:	Discussion of legal product
Date:	05/05/2015
Purpose:	Governance and legal awareness
Service Provider:	Mid-Atlantic Plan Sponsors (MAPS)
Activity:	Conference
Date:	06/03/2015 - 06/05/2015
Purpose:	Public pension education

## **Acknowledgments and Credits**

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