# COMPREHENSIVE ANNUAL FINANCIAL REPORT



FAIRFAX COUNTY
POLICE OFFICERS
RETIREMENT
SYSTEM

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## County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

October 25, 2010

Dear Members of the Board of Trustees:

I am pleased to submit to you the annual report of the Fairfax County Police Officers Retirement System (System) for the fiscal year ended June 30, 2010. This annual report is provided as an aid to understanding the structure and evaluating the status of the System. The System's management is responsible for the accuracy of financial information contained herein

The annual report for fiscal 2010 consists of five sections: (1) an Introductory Section that contains this transmittal letter along with the organization structure and review of plan provisions; (2) a Financial Section that contains the opinion of the independent auditors, management's discussion and analysis (MD&A), the financial statements of the System and required supplementary information. The MD&A provides further detail to the financial statements; (3) an Investment Section that contains investment results; (4) an Actuarial Section that includes the independent actuary's certification letter, a summary of the results of the actuarial valuation, and actuarial procedures and assumptions; and (5) a Statistical Section that contains information regarding the System membership.

#### **History**

The Fairfax County Police Officers Retirement System was created under authority granted by Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia) on March 29, 1944 to provide defined benefit pension plan coverage for sworn full-time law enforcement officers of the Fairfax County Police Department. In 1981, Fairfax County enacted Article 7 of the Fairfax County Code, which adopted and continued Chapter 303 as amended. The benefit provisions of the System are established by County Ordinance.

#### **Provisions**

The benefit provisions of the System are established by County Ordinance. The System provides normal service retirement and early service retirement benefits for members who attain age or service requirements. Coverage for service-connected disability benefits is immediate upon membership in the System. Ordinary (non-service- related) disability benefits are provided after the attainment of five years of service. Members are vested after five years of service and are eligible for benefits at the early or normal service retirement date.

Phone: 703-279-8200 \* 1-800-333-1633 \* Fax: 703-273-3185

#### **Capital Markets and Economic Conditions**

During fiscal year 2010, the economy gradually recovered from the deep recession of the prior year. Despite continued high unemployment rates and the slow rate of recovery, the capital markets provided strong returns for the year, albeit with significant volatility and a decline in the final quarter. In this environment, the System's portfolio was well positioned and achieved outstanding results, both in absolute and relative terms. The rate of return on investments was 21.2% (20.8%, after fees and expenses), well ahead of the long-term target return of 7.5%. This return also placed well above the median public fund return of 13.5% and placed as the second highest return of all funds (public, corporate, foundations and endowments) in the BNY Mellon universe of asset pools.

Additional details on the markets and the System's investments are provided in the Investment Section.

#### **Internal and Budgetary Controls**

The System's management is responsible for maintaining internal accounting controls to provide reasonable assurance that transactions are properly authorized and recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles.

#### **Investment Policies and Strategies**

The Board of Trustees has adopted a Statement of Investment Objectives and Policy. This Statement establishes the investment goals, guidelines, constraints and performance standards that the Board of Trustees uses when exercising its fiduciary duties to manage the investment assets of the System. The Board operates in conformity with the standard of care required in making investments as stated in the Code of Virginia §51.1-803.

The Board receives quarterly reporting from staff to ensure compliance with its stated objectives and policy. Staff also monitors the performance of the System and its investment managers and updates the Board on a monthly basis throughout the year. Rate of return information is included in the Investment Section.

Securities of the System, except for the pooled funds and the County's pooled cash and temporary investments, are held in safekeeping, on the system's behalf, by BNY Mellon Asset Servicing as agent. The BNY Mellon Financial Corporation, the parent company, carries Financial Institution bond insurance coverage including a Computer Crime Policy. An additional Excess Securities policy covers all risk of physical loss to securities.

#### **Funded Status**

An actuarial valuation of the System to determine funding requirements is performed annually. The System's funding policy provides for periodic employer contributions at actuarially determined rates which will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the costs of benefit payments when due. The valuation of the System performed as of July 1, 2009 indicated that the ratio of assets accumulated by the System to total actuarial accrued liabilities for benefits showed a decline from 88.0% to 81.7%. The actuarial section contains further information on the results of the July 1, 2009 valuation.

Based on the July 1, 2009 actuarial valuation, the employer contribution rate for 2011 determined according to the adopted corridor-based funding policy was 27.40%, an increase of 4.56% over the 2010 rate of 22.84%. This increase in the rate is required to amortize the increase in unfunded liability from FY 2009 actuarial experience. During establishment of the FY 2011 County budget, the Board of Supervisors adopted a contribution rate of 28.31% to increase the rate of amortization of the unfunded liability.

#### **Major Initiatives**

During FY 2010, a thorough independent audit of the PensionGold system and related processes was conducted by the County's internal audit staff, and I am pleased to report that no major audit findings were identified.

In FY 2011, our plan actuary will be conducting a five-year actuarial experience study. This study will analyze our actual experience on the financial and demographic assumptions that underlie the calculation of plan liabilities and determine ongoing funding requirements. Assumption changes, if any, that are adopted based on this review will be reflected in the actuarial valuation for FY 2011.

#### **Other Information**

*Independent Audit and Actuarial Certifications* 

The independent auditors' report and certification from the actuary are included in this report.

#### Acknowledgements

The annual report of the Police Officers Retirement System was prepared by the System's staff under the leadership of the Board of Trustees. I would like to thank the entire organization that has worked hard throughout the year to provide service to members and to ensure the successful operation of the System. This report is intended to provide complete and reliable information for determining the financial status of the System. It is being submitted to the Board of Supervisors and other interested parties and is available to the public via the County's website located at www.fairfaxcounty.gov/retirement/.

Respectfully submitted,

Robert L. Mears

**Executive Director** 

#### **Board of Trustees**

#### Captain John R. Piper

President
Elected Member Trustee
Term Expires: December 31, 2012

#### Major Josiah Larry Moser III

Vice President
Elected Member Trustee
Term Expires: December 31, 2010

#### James R. Dooley, Jr.

Elected Retired Member Trustee Term Expires: June 30, 2010

#### Brendan D. Harold

Board of Supervisors Appointee Term Expires: December 31, 2010

#### Victor L. Garcia

Treasurer
Fairfax County Director of Finance
Ex officio Trustee

#### Craig E. Dyson

Board of Supervisors Appointee *Term Expires: December 31, 2013* 

#### Stuart H. Rakoff

Board of Supervisors Appointee Term Expires: June 30, 2010

#### **Administrative Organization**

#### **Administrative Staff**

Robert L. Mears Executive Director

Jeffrey A. Willison Investment Manager Laurnz A. Swartz

Chief Investment Officer

John P. Sahm Retirement Administrator

#### **Professional Services**

Actuary
CHEIRON
Actuaries
McLean, VA

Auditor
KPMG LLP
Certified Public Accountants
Washington, DC

#### **Investment Managers**

Acadian Asset Management Boston, MA Cohen & Steers Capital Management New York, NY Grantham, Mayo, van Otterloo & Co. Boston, MA

AQR Capital Management Greenwich, CT Dodge & Cox Investment Managers San Francisco, CA

King Street Capital New York, NY

BNY Mellon Cash Investment Strategies Pittsburgh, PA DoubleLine Capital, LP Los Angeles, CA Loomis Sayles & Co. Boston, MA

Bridgewater Associates Westport, CT FrontPoint Partners Greenwich, CT

Mariner Investment Group Boston, MA

ClariVest Asset Management San Diego, CA Goldman Sachs Tampa, FL McKinley Capital Management Anchorage, AK

#### **Investment Managers** (continued)

MetWest Asset PIMCO Ramius, LLC Management LLC Newport Beach New York, NY Los Angeles, CA

Oaktree Capital Management
Los Angeles, CA
Management, LLC
New York, NY

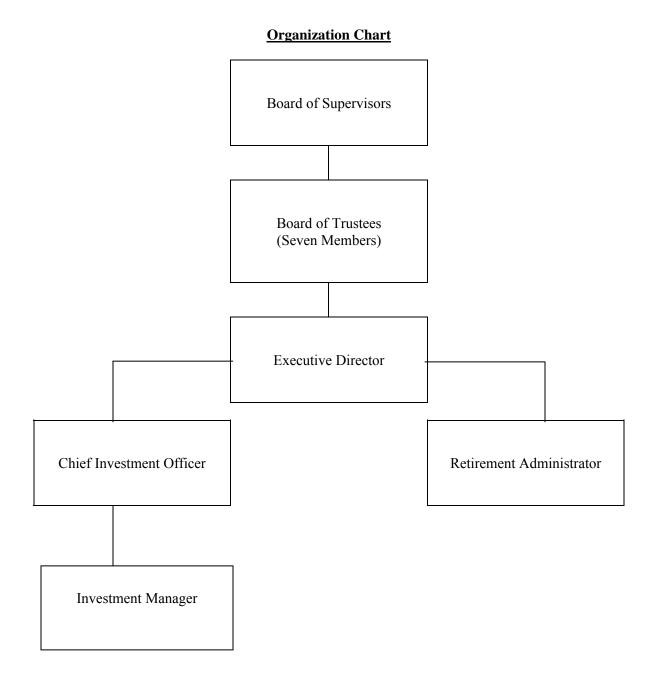
The Clifton Group
Edina, MN

Attorney
W. McCauley Arnold
McCandlish & Lillard
Fairfax, VA

<u>Custodian Bank</u>
BNY Mellon Asset Servicing
Pittsburgh, PA

#### **Investment Consultant**

Mercer Investment Consulting, Inc. Atlanta, GA



#### **Summary of Plan Provisions**

Membership in the Fairfax County Police Officers Retirement System includes full-time sworn law enforcement officers in the Fairfax County Police Department.

The general provisions of the Police Officers Retirement System are as follows.

#### **Contribution Rate:**

The member contribution rate is set by the County Ordinance and is currently 10% of base salary. The County contribution rate is set by the actuarial process and is 22.84% for fiscal year 2010. Police Officers do not participate in Social Security.

#### Benefit:

The benefit is 2.8% of average final compensation (highest consecutive three years) times creditable service. The total benefit is then increased by 3%.

#### **Benefit Limit:**

The benefit is limited to the maximum amounts for qualified plans as set forth in Section 415 of the Internal Revenue Code. A separate nonqualified benefit restoration plan has been established for the payment of any benefit formula amount in excess of the Section 415 limit.

#### **Normal Retirement:**

Normal retirement occurs at either age 55 or at least 25 years of creditable service.

#### **Deferred Retirement Option Program (DROP):**

Those eligible for normal retirement may enter DROP for a period of up to three years. While participating in DROP, the member continues to work and receive a salary. In lieu of continuing to earn service credit, DROP participants accumulate a lump sum, including interest, payable at retirement.

#### **Early Retirement:**

A member is eligible for early retirement upon attaining at least 20 years of creditable service.

#### **Deferred Vested Retirement:**

Deferred vested retirement is available for vested members (vesting is at 5 years of service) who leave their contributions in the System when they terminate employment. At age 55, these members are entitled to their normal retirement benefit based on service with the Police Department.

#### **Service-Connected Disability Retirement:**

Service-connected disability retirement is available for members, regardless of their length of service, who become disabled as a result of a job-related illness or injury. Benefits for total disability are 66% of the salary. These benefits continue during the existence of the disability.

### **Non-Service Connected Disability Retirement:**

Non-service connected disability retirement is available for vested members who become disabled due to an injury or illness that is not job-related. Normal retirement benefits are paid.

# **Summary of Plan Provisions** (continued)

#### **Death Benefits:**

If death occurs prior to retirement: An automatic monthly benefit is payable to the member's spouse and children. This benefit equals \$2,010.54 for the spouse or surviving handicapped child (if there is no spouse), plus each eligible child receives \$804.20 up to a total family benefit of \$4,021.06 (these benefits are indexed to inflation). If the death occurred in the line of duty, the spouse or surviving handicapped child (if there is no spouse) may elect to receive 66\%3\% of the member's regular salary at the time of death in lieu of the automatic benefits.

If death occurs after retirement: In addition to the automatic benefit detailed above, at the time the member retires, the plan provides for the member to elect survivor benefit options for the Surviving Spouse or a Handicapped Child at 100%, 66 2/3% or 50% of the retiree's benefit.

#### **Cost of Living Benefit:**

Annual cost of living adjustments are provided to retirees and beneficiaries and are equal to the lesser of 4% or the percentage increase in the Consumer Price Index for the Metropolitan Statistical Area that includes Fairfax County.

<u>Note:</u> Detailed provisions may be found in the Employee Handbook: http://www.fairfaxcounty.gov/retirement/pdfs/policehandbook.pdf



KPMG LLP 2001 M Street, NW Washington, DC 20036-3389

#### **Independent Auditors' Report**

The Board of Supervisors County of Fairfax, Virginia:

The Board of Trustees
Of the Fairfax County Police Officers Retirement System

We have audited the Statement of Plan Net Assets of the Fairfax County Police Officers Retirement System (the System), a pension trust fund of the County of Fairfax, Virginia as of June 30, 2010, and the related Statements of Changes in Plan Net Assets for the year then ended. These basic financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these basic financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the basic financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the Plan Net Assets of the System as of June 30, 2010, and the Changes in Plan Net Assets for the year then ended in conformity with U.S. generally accepted accounting principles.

Management's Discussion and Analysis is not a required part of the basic financial statements, but is supplementary information required by U.S. generally accepted accounting principles. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Other required supplementary information is not a required part of the basic financial statements, but is supplementary information required by U.S. generally accepted accounting principles. The other required supplementary information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG LLP is a Delaware limited liability partnership, the U.S. member firm of KPMG International Cooperative ("KPMG International"), a Swiss entity.



Our audit was conducted for the purpose of forming an opinion on the System's basic financial statements. The introductory, investment, actuarial and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements. The information in these sections has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on it.



October 22, 2010

#### **Management's Discussion and Analysis**

This section presents management's discussion and analysis of the Fairfax County Police Officers Retirement System's ("System" or "plan") financial performance and provides an overview of the financial activities for the fiscal year ended June 30, 2010. The information in this section should be reviewed in conjunction with the letter of transmittal provided at the beginning of this report.

#### Overview of Financial Statements and Accompanying Information

**Basic Financial Statements.** The System presents the Statement of Plan Net Assets and Statement of Changes in Plan Net Assets as of June 30, 2010. These statements reflect the resources available for the payment of benefits as of year end and the sources and uses of these funds during the year.

**Notes to Financial Statements.** The Notes to Financial Statements are an integral part of the financial statements and include additional information and schedules to provide a better understanding of the financial statements. The Notes to Financial Statements immediately follow the basic financial statements.

**Required Supplementary Information.** The Required Supplementary Information and related notes provide information regarding the System's funding progress and employer contributions. The Required Supplementary Information and related notes are immediately following the Notes to Financial Statements.

#### **Financial Analysis**

**Summary of Plan Net Assets.** For fiscal year 2010, the assets of the Police Officers' Retirement System increased 18.3%, resulting in a total net asset value of \$836.0 million, reflecting an increase of \$129.4 million over fiscal year 2009. The growth in assets was primarily due to investment gains of \$143.1 million and \$34.2 million in contributions offset by benefit payment deductions of \$47.9 million.

The actuarial value of the assets as of the last valuation on June 30, 2009, was \$879.5 million while actuarial liabilities as of the same period were \$1.1 billion. This resulted in a funded ratio of 81.7%.

The Plan's investments are exposed to various risks including interest rate, market and credit risks. These risks may be influenced by changes in economic conditions and market conditions. Therefore, it is reasonable to assume that there will be changes in the values of the investments held in trust which could materially affect the amounts reported in the financial statements. Detailed information on investment results are in the Investment Section of this report.

The following table details the Police Officers System's fund balances for the current and prior fiscal year:

Fiscal Year	Ending Balances	Net Change in Dollars	Net Change in Percent
	(millions)	(millions)	
2009	\$706.6	\$(161.5)	(18.6)
2010	\$836.0	\$129.4	18.3

#### **Contacting the System's Financial Management**

This financial report is designed to provide our membership, the Board of Trustees and the County's Board of Supervisors with a general overview of the System's financial condition. If you have any questions about this report or need additional information, contact the Fairfax County Retirement Administration Agency, 10680 Main Street, Suite 280, Fairfax, Virginia 22030. This report can also be found on the County's internet site at www.fairfaxcounty.gov/retirement/.

## **Summary Statement of Plan Net Assets**

Assets	<u>2010</u>	<u>2009</u>	<b><u>Difference</u></b>
Total cash and investments Total receivables	\$876,196,545 <u>7,661,149</u>	\$726,592,252 18,231,348	\$149,604,293 (10,570,199)
Total assets	883,857,694	744,823,600	139,034,094
Total liabilities	47,824,638	38,201,314	9,623,324
Net assets held in trust for pension benefits	<u>\$836,033,056</u>	<u>\$706,622,286</u>	<u>\$129,410,770</u>

## **Summary of Additions and Deductions**

Additions	<u>2010</u>	<u>2009</u>	<b><u>Difference</u></b>
Contributions:			
Employer	\$23,766,626	\$23,508,402	\$258,224
Plan members	10,389,241	11,246,986	(857,745)
Net investment income	143,107,767	(151,727,685)	<u>294,835,452</u>
Total additions	177,263,634	(116,972,297)	<u>294,235,931</u>
Deductions			
Benefit payments	47,096,822	43,467,322	3,629,500
Refunds	406,863	761,803	(354,940)
Administrative expense	349,179	337,334	<u>11,845</u>
<b>Total deductions</b>	47,852,864	44,566,459	3,286,405
Net increase/(decrease)	<u>\$129,410,770</u>	<u>\$(161,538,756)</u>	<u>\$290,949,526</u>

# Statement of Plan Net Assets As of June 30, 2010

#### Assets

Cash and short-term investments  Equity in County's pooled cash and temporary investments  Cash collateral received for securities on loan  Short-term investments	\$2,214,320 41,571,731 20,217,042	
Currency fluctuations  Total cash and short-term investments	<u>10,489</u>	\$64,013,582
		ψ04,013,302
Receivables	2 440 555	
Accounts receivable	2,448,777	
Accrued interest and dividends	2,914,904	
Prepaid expense	6,746	
Securities sold	<u>2,290,722</u>	
Total receivables		7,661,149
Investments, at fair value		
Common and preferred	254,314,439	
Fixed income:		
Asset backed securities	89,487,303	
Corporate and other bonds	80,440,599	
U.S. Government obligations	27,888,633	
Pooled and mutual funds	360,051,989	
Total investments		812,182,963
Total assets		883,857,694
Liabilities		
Cash collateral received for securities on loan	41,571,731	
Purchase of investments	4,717,820	
Accounts payable and accrued expenses	1,535,087	
Total liabilities		47,824,638
Net assets held in trust for pension benefits		<u>\$836,033,056</u>
(A schedule of funding progress is presented on page 21.)		
See accompanying notes to financial statements.		

# Statement of Changes in Plan Net Assets For the year ended June 30, 2010

For the year ended June	30, 2010	
Additions		
Contributions		
Employer	\$23,766,626	
Plan members	10,389,241	
Total contributions		\$34,155,867
Investment income from investment activities		
Net appreciation/(depreciation) in fair value of investments	117,199,966	
Interest	21,242,644	
Dividends	<u>7,745,428</u>	
Total investment income	146,188,038	
Investment activity expense		
Management fees	(2,819,777)	
Custodial fees	(104,000)	
Consulting fees	(136,468)	
Allocated administrative expense	<u>(157,126)</u>	
Total investment expense	(3,217,371)	
Net income/(loss) from investment activities		142,970,667
From securities lending activities		
Securities lending income	163,000	
Securities lending expenses		
Borrower rebates	20,686	
Management fees	<u>(46,586)</u>	
Total securities lending activities expense	(25,900)	
Net income from securities lending activities		137,100
Total net investment income/(loss)		143,107,767
Total additions		177,263,634
Deductions		
Annuity benefits	43,069,896	
Disability benefits	1,309,109	
Survivor benefits	2,717,817	
Refunds	406,863	
Administrative expense	<u>349,179</u>	
Total deductions		47,852,864
Net increase/(decrease)		129,410,770
Net assets held in trust for pension benefits		
Beginning of fiscal year		706,622,286
End of fiscal year		\$836,033,056

See accompanying notes to financial statements.

#### **Notes to the Financial Statements**

For the year ended June 30, 2010

The Fairfax County Police Officers Retirement "System" is a legally separate single-employer defined benefit pension plan established under the Code of Virginia to provide defined pension benefits to certain Fairfax County, Virginia ("County") police. As such, the System is considered part of the County reporting entity and its financial statements are included in the County's basic financial statements as a pension trust fund.

#### A. Summary of Significant Accounting Policies

Basis of Accounting. The System's basic financial statements have been prepared under the accrual basis of accounting in accordance with accounting principles applicable to governmental units in the United States of America. Member and employer contributions to the plan are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due in accordance with the terms of the plan. The cost of administering the plan is paid by the System.

Method Used to Value Investments. Short-term investments are reported at cost, which approximates fair value. All other investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Asset-backed securities are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. Because of the inherent uncertainty in valuing these securities, the fair value may differ from the values that would have been used had a ready market for such securities existed. Accordingly, the realized value received upon the sale of the assets may differ from the fair value. The System records investment purchases and sales as of trade date. These transactions are not finalized until the settlement date, which occurs approximately three business days after the trade date. The amounts of trade receivables and payables are shown as receivables and payables on the Statement of Plan Net Assets. Cash received as collateral on securities lending transactions and investments made with such cash are reported as assets along with a related liability for collateral received.

Equity in County's pooled cash and temporary investments. The System maintains cash with the County, which invests cash and allocates interest earned, net of a management fee, on a daily basis to the System based on the System's average daily balance of equity in pooled cash. As of June 30, 2010 the bank balance of the County's public deposits was either insured by the Federal Deposit Insurance Corporation or through the State Treasury Board pursuant to the provisions of the Security for Public Deposit Act.

# B. Plan Description, Contribution Information, Plan's Funded Status Information, and Actuarial Methods and Assumptions

*Membership.* At July 1, 2009, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and beneficiaries receiving benefits	788
Terminated plan members entitled to but not yet receiving benefits	28
DROP participants	56
Active plan members	<u>1,347</u>
Total	<u>2,219</u>

Plan Description. The System is a single-employer defined benefit pension plan. The plan covers County police officers who are not covered by other plans of the County or the Virginia Retirement System. Benefit provisions are established and may be amended by County ordinance. All benefits vest at five years of service. To be eligible for normal retirement, an individual must meet the following criteria: (a) if employed before July 1, 1981; attained the age of 55 or completed 20 years of service, or (b) if employed on or after July 1, 1981; attained the age of 55 or completed 25 years of service. The normal retirement benefit is calculated using average final compensation (i.e., the highest consecutive three years) and years (or partial years) of service at date of termination. The plan provides that unused sick leave credit may be used in the calculation of average final compensation by projecting the final salary during the unused sick leave period. Members eligible for normal retirement have the option of participating in a deferred retirement option program (DROP). Participating members continue working up to an additional three years after eligibility for normal retirement. In lieu of continuing to earn service credit, DROP members accrue a lump sum benefit payable at retirement. To be eligible for early retirement, the employee must have 20 years of service (does not apply if hired before July 1, 1981). Benefits are determined based on the normal retirement benefit calculated using average final compensation and service at early retirement actuarially reduced.

Annual cost-of-living adjustments are provided to retirees and beneficiaries equal to the lesser of 4 percent or the percentage increase in the Consumer Price Index for the Washington Consolidated Metropolitan Statistical Area.

Contributions. The contribution requirements of the System's members are established and may be amended by County ordinances. Member contributions are based on 10 percent of compensation. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2010 was 22.84 percent.

*Deductions*. The deductions from the System include the payment of retiree and beneficiary payments, the refund of employee contributions to former members and other expenses.

Plan's Funded Status Information. The actuarial valuation performed as of July 1, 2009 showed the System's funded status at 81.7%, a decrease of 6.3 percentage points from the July 1, 2008 funded percentage of 88.0%. The table below displays the actuarial value of assets, the actuarial accrued liability, the total unfunded actuarial accrued liability, the actuarial value of assets as a percentage of the actuarial accrued liability (funded ratio), the annual covered payroll, and the ratio of the unfunded actuarial liability to annual covered payroll as of July 1, 2009.

						Unfunded Actuarial Accrued Liability
Actuarial Valuation	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Liability	Funded Ratio	Covered Payroll	as a % of Covered Payroll
Date	(a)	(b)	(b-a)	(a/b)	( c)	((b-a)/c)
7/1/2009	\$879.543.429	\$1.076.038.947	\$196,495,518	81.7%	\$99.646.822	197.2%

The required schedule of funding progress, which presents multiyear trend information, is reported immediately following the Notes to Financial Statements.

Actuarial Methods and Assumptions Information.

Valuation date	July 1, 2009
Actuarial cost method	Entry Age
Amortization method	Level percent open
Remaining amortization period	15 years
Asset valuation method	3-year smoothed market
Actuarial assumptions:	
Investment rate of return *	7.5%
Projected salary increases *	5.0% - 12.0%
* Includes inflation at	4.0%
Cost of living adjustments	3.0%

The actuarial assumptions used have been recommended by the actuary and adopted by the System's Board of Trustees based on the most recent review of the System's experience, completed in 2005.

The rate of employer contributions to the plan is composed of normal cost, amortization of the unfunded actuarial accrued liability and an allowance for administrative expenses. The normal cost is a level percent of payroll cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial accrued liability is that portion of the present value of projected benefits that will not be paid by future normal employer costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial accrued liability. The allowance for administrative costs is based upon the plan's actual administrative expenses.

The actuarial valuation performed as of July 1, 2009 in accordance with the GASB methodology resulted in a contribution rate of 35.78% for fiscal 2011, an increase of 6.22 percentage points over the fiscal 2010 rate of 29.56% per the GASB methodology. Beginning with fiscal 2003, the funding policy was revised to further stabilize the contribution rate. The methodology now in place sets the employer contribution rate equal to the normal cost and allowance for administrative expense. Amortization of the unfunded liability is included in the contribution rate only for any benefit and actuarial assumption changes or if the actuarial funding ratio falls outside a corridor of 90% and 120%. Use of the corridor method, with adjustments for plan changes effective after the valuation date, resulted in an adopted rate of 27.40% for fiscal 2011, an increase of 4.56% over the fiscal 2010 adopted rate of 22.84%.

#### C. Investments

The authority to establish the System is set forth in Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia). Section 26-45.1 of the Code of Virginia (Code), and updated by Section 51.1-803 authorizes fiduciaries of the System to purchase investments with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with the same aims. The Board shall also diversify such investments as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so.

The System's Board of Trustees has adopted a Statement of Investment Objectives and Policy which establishes a broad set of investment objectives, guidelines, risk tolerance and performance standards for the assets of the System. While the System is not subject to the provisions of the Employee Retirement Income Security Act (ERISA), the Board has elected to incorporate the standards of ERISA in the System's Statement of Investment Objectives and Policy. The Board recognizes that investing in worldwide capital markets inherently entails the assumption of risk. The Board believes that part of the risk involved in managing the System's assets can be reduced by investing in diversified, lowly-correlated asset classes and employing different philosophies and investment management styles. The Board has selected a long-term strategic asset allocation strategy which provides a high degree of diversification, maintains appropriate asset coverage of plan liabilities, and also optimizes investment return. Investment decisions for these assets are made by the Board of Trustees or investment managers selected by the Board. The Board hires each of its investment advisory firms on the basis of its specific area of expertise as well as its fit with the total risk and return objectives of the System. Each manager exercises investment discretion around specifically mandated quality, concentration, benchmark and performance guidelines, and practices active risk controls in order to achieve the System's investment expectations.

For the most part, the overall investment policy does not identify a specific level of credit risk, interest rate risk or foreign currency risk. That is addressed at the individual account level. The guideline for "concentration of risk" is system-wide, however. The System does not hold investments (other than U.S. Government and U.S. Government-guaranteed obligations) in any one organization that represents 5 percent or more of net assets available for benefits. All investments, except for the pooled and mutual funds, short-term investment fund and a short-term collateral investment pool are held by an unaffiliated custodian. There is no custodial credit risk since the custodian's records establish the System's interest in the securities and the custodian provides insurance for all custodied assets.

The System's fixed income portfolio shall be, on average, comprised of high-quality issues and limits are imposed on investment managers' below-investment-grade holdings. Unless otherwise specified, if any security has a split rating, the lower of the two ratings is used for the purposes of meeting minimum quality standards.

The System's investment quality ratings at June 30, 2010 were as follows:

Type of Investment	Fair Value	Ratings	Percent of Fixed
U. S. Government Obligations	\$27,888,633	AAA	14.1%
Corporate and other bonds	1,871,777	AAA	0.9%
	2,747,775	AA	1.4%
	14,564,369	A	7.4%
	19,913,242	BBB	10.1%
	16,109,072	BB	8.1%
	19,931,502	В	10.1%
	4,839,069	CCC	2.4%
	-	CC	0.0%
	-	C	0.0%
	-	D	0.0%
	463,792	UNRATED	0.2%
Asset Backed	61,127,796	AAA	30.9%
	838,767	AA	0.4%
	446,813	A	0.2%
	1,439,763	BBB	0.7%
	1,347,120	BB	0.7%
	6,689,767	В	3.4%
	7,373,578	CCC	3.7%
	1,830,058	CC	1.0%
	-	C	0.0%
	2,874,966	D	1.5%
	<u>5,518,675</u>	<u>UNRATED</u>	2.9%
<b>Total Fixed Income</b>	\$197,816,535	A	100.0%
Short Term	\$0	AAA	
	<u>20,217,042</u>	UNRATED	
Total Short Term	\$20,217,042		

As of June 30, 2010 the fixed income portfolio exhibited an overall credit quality rating of "A", and approximately 30.9% of the portfolio was invested in securities rated below-investment-grade.

The Barclays Capital Aggregate Bond Index (BCAG) is the standard benchmark against which the industry and the System's Board measures its fixed income portfolio performance and volatility. The System's fixed income managers have discretion, within circumscribed limits, to extend the duration of their portfolios beyond that of the BCAG if they forecast falling interest rates (and thus higher bond prices). Conversely, if managers anticipate that the general level of interest rates will rise, they have the ability to shorten the duration of their portfolio and thus reduce the portfolio's sensitivity to rising rates.

The System's investments' sensitivity to interest rates at June 30, 2010 follows:

Investment Type	<u>Fair Value</u>	Option-Adjusted <u>Duration (yrs)</u>	Percentage of Fixed
U. S. Government Obligations	\$27,888,633	5.8	14.1%
Corporate and other bonds	\$80,440,599	5.8	40.7%
Asset-Backed	\$89,487,303	<u>2.9</u>	<u>45.2%</u>
Total Fixed Income	\$197,816,535	4.5	100.0%
Short-Term Investments	\$20,217,042	0.1	

As of June 30, 2010 the System's overall fixed income portfolio option-adjusted duration was 4.5 years compared with the 4.3 duration of the BCAG.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of the investment. The System's investments at June 30, 2010 were held in the following currencies:

	Short Term &		Convertible and	
<b>International Securities</b>	<b>Other</b>	<b>Equity</b>	<b>Fixed Income</b>	<b>Total</b>
<b>British Pound Sterling</b>	\$ -	\$15,460,039	\$ 75,366	\$15,535,405
Euro Currency Unit	461	11,586,108	9,714	11,596,283
Japanese Yen	-	9,556,870	-	9,556,870
South Korean Won	-	4,341,641	494,155	4,835,796
Swiss Franc	-	4,827,905	-	4,827,905
Canadian Dollar	5,679	3,441,629	-	3,447,308
Hong Kong Dollar	-	1,993,994	-	1,993,994
Brazil Real	-	746,065	1,148,745	1,894,810
Australian Dollar	-	1,268,843	362,920	1,631,763
Other Currencies	<u>=</u>	6,590,230	<u>1,696,162</u>	8,286,392
Total	<u>\$6,140</u>	<u>\$59,813,324</u>	<u>\$3,787,062</u>	<u>\$63,606,526</u>

Derivative Financial Instruments. In accordance with the Board's investment policies, the System may invest in derivative financial instruments with off-balance-sheet risk in the normal course of its investing activities to manage exposure to certain risks and to gain exposure to currencies and markets where derivatives are the most cost-effective instrument. During fiscal 2010, the System invested directly in various derivatives. Investment managers are prohibited from purchasing securities on margin or using leverage unless specifically permitted within the investment manager's guidelines. These investments generally contain market risk resulting from fluctuations in interest and currency rates. The credit risk of these investments is associated with the creditworthiness of the related parties to the contracts. The System could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. The Board's investment policy seeks to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. In addition, the System has

indirect exposure to market and credit risk through its ownership interests in certain mutual and commingled funds which may use, hold or write derivative financial instruments.

As permitted by the Board's policies, the System holds off-financial statement derivatives. As of June 30, 2010, the system held S&P futures with a net exposure of \$63.4 million.

Securities Lending. The Board of Trustees' policies permit the System to lend its securities to broker-dealers and other entities (borrowers) for collateral that will be returned for the same securities in the future. The System's custodian is the agent in lending the plan's domestic securities for collateral of 102 percent and international securities of 105 percent. The custodian receives cash or securities as collateral from the borrower.

The following represents the balances relating to the securities lending transactions at June 30, 2010.

Securities Lent	Underlying Securities	Cash Collateral <u>Investment Value</u>	Securities Collateral <u>Investment Value</u>
Lent for cash collateral:			
U.S. Government securities	\$ -	\$ -	\$ -
Corporate and other bonds	3,095,169	3,165,950	-
Common and preferred stock	37,483,595	38,405,781	-
Lent for securities collateral:			
Corporate and other bonds	-	-	-
Common and preferred stock	8,520,849	-	<u>9,674,905</u>
Total securities lent	<u>\$49,099,613</u>	<u>\$41,571,731</u>	<u>\$9,674,905</u>

The System did not impose any restrictions during fiscal 2010 on the amounts of loans the lending agent made on its behalf. At year end, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. The custodian provides full indemnification to the System for any losses that might occur in the program due to the failure of a broker/dealer to return a borrowed security or failure to pay the System income earned on the securities while on loan.

All securities loans can be terminated on demand by either the system or the borrower. Cash collateral is invested in the lending agent's collective collateral investment pool which at June 30, 2010 had a weighted-average maturity of 21 days.

#### **D. Income Taxes**

The Internal Revenue Service issued a determination letter on November 24, 2003, which stated that the System and its underlying trust qualify under the applicable provisions of the Internal Revenue Code and therefore are exempt from federal income taxes.

#### **Required Supplementary Information**

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

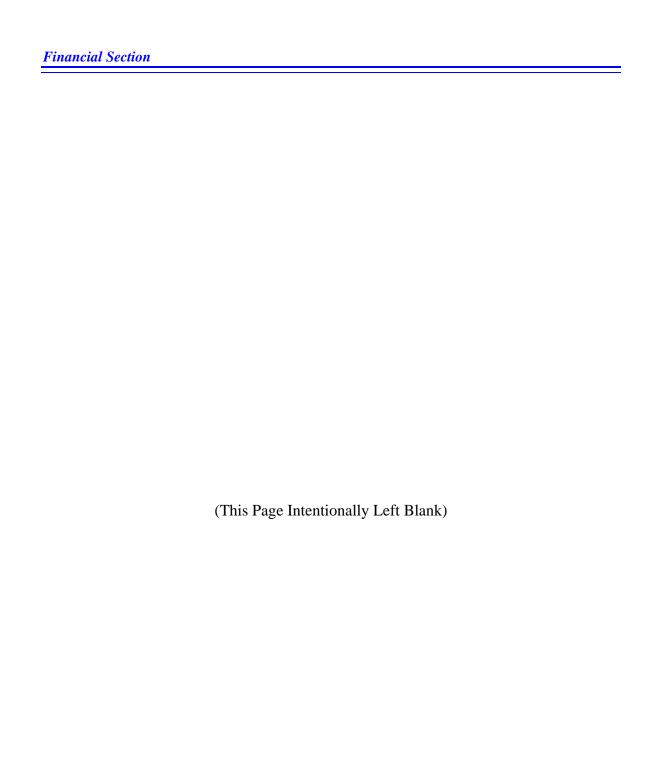
#### **Schedule of Funding Progress**

	Actuarial	Actuarial				UAAL as a
	Value of	Accrued	Unfunded		Covered	Percentage of
	Assets	<b>Liability-AAL</b>	<b>AAL-UAAL</b>		Payroll	Covered
Actuarial	(in	Entry Age	(in	Funded	(in	Payroll
Valuation	thousands)	(in thousands)	thousands)	Ratio	thousands)	(in thousands)
<b>Date</b>	<u>(a)</u>	<u>(b)</u>	<u>(b-a)</u>	<u>(a/b</u> )	<u>(c)</u>	$((\mathbf{b}-\mathbf{a})/\mathbf{c})$
7/1/2003	\$644,405	\$703,977	\$59,572	91.5%	\$71,401	83.4%
7/1/2004	685,495	749,344	63,849	91.5%	78,080	81.8%
7/1/2005	732,582	828,702	96,120	88.4%	83,939	114.5%
7/1/2006	788,766	897,478	108,712	87.9%	89,062	122.1%
7/1/2007	870,975	968,735	97,760	89.9%	95,904	101.9%
7/1/2008	908,077	1,031,333	123,256	88.0%	99,714	123.6%
7/1/2009	879,543	1,076,039	178,496	81.7%	99,647	179.1%

Analysis of the dollar amounts of plan net assets, actuarial accrued liability, and unfunded actuarial accrued liability in isolation can be misleading. Expressing plan net assets as a percentage of the actuarial accrued liability provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the system. Trends in the unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the system's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the System.

#### **Schedule of Employer Contributions**

Fiscal Year Ended June 30	Annual Required <u>Contribution</u>	Percentage Contributed
2004	\$17,356,995	85%
2005	20,744,793	72%
2006	22,641,707	74%
2007	26,518,550	72%
2008	28,198,891	76%
2009	27,625,460	85%
2010	30,759,259	77%



#### **Capital Markets and Economic Conditions**

#### Fiscal Year 2010 Economic Environment

The fiscal year ending 2010 witnessed a year of gradual recovery following the deepest recession since the Great Depression of the 1930s. The 2007-2009 recession wiped out 7.3 million jobs, cut 4.1% from economic output and cost Americans 21% of their net worth. Equity markets, anticipating the economic recovery, troughed in February of 2009 and began a year-long climb that retraced nearly 75% of the recessionary decline, while the economy sputtered at a subpar rate of growth. The recession officially ended in June of 2009, which marked the beginning of our 2010 fiscal year. During the initial quarters of the recovery in fiscal 2010, optimism was strong that with rock bottom interest rates and numerous government stimulus programs, the economy could stage a solid recovery. However, by the end of the fiscal year in June 2010, this optimism had waned as unemployment remained stubbornly high, businesses and consumers continued to deleverage their balance sheets, and no answers were found to alleviate the mortgage crisis.

During the final quarter of the year, concerns that Greece would default on its debt shook global bond markets. Fears that other European countries might be in similarly poor situations led to a flight to quality and appreciation in the value of the U.S. Dollar and U.S. Treasury securities. Other events during the quarter also dented investor confidence, including the U.S. financial reform debates, the BP Gulf of Mexico oil spill, charges of fraud brought by the SEC against Goldman Sachs and signs of slowing growth in China.

During the past fiscal year the Federal Open Market Committee (FOMC) held rates at the target range of 0.0% to 0.25%, as it saw little risk of near-term inflation. Core inflation declined over the last year from 1.7% to 0.9%.

#### **Equity Markets**

Equity markets were positive across the board. The S&P 500 Index gained 14.4% for the fiscal year, in spite of a decline in the final June quarter of 11.4%, as prices fizzled after peaking in April of 2010. Small capitalization stocks outperformed large capitalization stocks, as the Russell 2000 Index returned 21.5% during the year. For the fiscal year, value stocks outperformed growth stocks. The two best performing economic sectors during the year were industrials and consumer discretionary, both of which gained over 26%. The energy sector was the worst performing sector among large cap U.S. stocks, gaining 3.5% for the fiscal year.

The international developed equity markets underperformed the domestic markets in fiscal 2010. The MSCI EAFE Index returned 6.4%, trailing the S&P 500 Index by around 8 percentage points. The rebound of developed international countries from the bottom was hindered by lingering effects of the financial crisis, problems with sovereign balance sheets including Greece and a resurgence of double-dip recession fears. Again in 2010, a strengthening U.S. dollar detracted from returns for U.S.-based investors. Emerging markets were the bright spot in 2010, outperforming all major equity markets with a gain of 23.5% for the year. Emerging market countries had an uneven ride however, gaining 31.4% in the first half of the fiscal year and then declining 6.0% in the last two quarters of the year.

#### **Real Estate Markets**

Real estate markets were particularly volatile over the past two fiscal years. Public REIT markets, which reacted immediately to the recession by falling over 70%, achieved a sharp rebound in fiscal 2010 as investors realized that REITs possessed reasonable balance sheets, retained access to capital markets, and would be in a prime position to take advantage of distress in the commercial property marketplace. The FTSE NAREIT Index gained 53.9% for the year. Private real estate markets, on the other hand, have experienced a gradual decline in valuations throughout the two year period as occupancies and rents have continued to slide lower.

#### **Fixed Income Markets**

Fixed income markets performed well for the fiscal year. After starting the year with extremely high interest rates for corporate and other higher-risk bonds, the Barclays Capital Aggregate Bond Index returned 9.5% for the year. Corporate bond spreads decreased during the year as investors seized on the opportunity to take advantage of market dislocations stemming from the financial crisis. The market tone changed however, during the final fiscal quarter as resurgent economic concerns drove investors back into the safety of Treasury bonds. Despite this move, corporate bonds outperformed government bonds during the year 14.7% to 6.5%, as measured by the Barclays Capital Credit Index and Barclays Capital Government Index, respectively. Lower quality issues rallied during the year as the Barclays Capital High Yield Composite Index gained 26.8%.

#### **Police Officers System**

The Police Officers Retirement System operates a sound and diversified investment program with disciplined asset re-balancing to achieve strategic long-term goals. This disciplined investment process has been effective in achieving a long-term record of consistent asset growth.

For fiscal 2010, investments provided a return of 21.2%, gross of fees (20.8%, net of fees), reflecting the recovery of the economic environment. The System's annualized rates of return, gross of fees, were -1.9% (-2.2%, net of fees) over the last three years and 4.2%, (3.8%), over the last five years. These System returns ranked in the 2<sup>nd</sup> percentile of The Bank of New York Mellon universe of public plans in 2010, in the 19<sup>th</sup> percentile for the latest 3-year period, and in the 15<sup>th</sup> percentile of public plans for the last 5 years.

During the past twelve months there were a few changes made to the manager lineup of the System. The System terminated TCW, due to major changes in its organization structure, and hired DoubleLine Capital to manage mortgage-backed securities in the fixed income allocation. The System replaced Mariner Investment Group with King Street Capital and The Clifton Group was hired to manage the futures positions in the portable alpha program. The System also added MetWest TALF Fund to take advantage of pricing dislocations in these distressed markets. Lastly, the System added the Bridgewater Pure Alpha Fund to increase the allocation in alternative investments and provide expanded diversification to the investment program.

# <u>Investments by Category and Investment Manager</u> June 30, 2010

Asset Class Manager	Investment Style	<b>Total Assets</b>	% of Total Net Assets
Domestic Equities			
PIMCO StocksPlus PARS*	Enhanced S&P 500 Index	\$51,900,594	6.2%
Goldman Sachs Asset Management	Large Cap Growth	39,442,650	4.7%
Pzena Investment Management	Large Cap Value	43,262,667	5.2%
ClariVest Asset Management	Small Cap Value	27,000,455	3.2%
AQR Capital Management*	Small Cap Core	30,618,492	3.7%
Ramius Value and Opportunity*	Small Cap Value Activist	18,669,898	2.2%
Mariner Investment Group*	Enhanced S&P 500 Index	3,091,916	0.4%
FrontPoint Partners*	Enhanced S&P 500 Index	40,528,768	4.9%
King Street Capital*	Enhanced S&P 500 Index	29,184,024	3.5%
The Clifton Group	S&P 500 Beta Manager	21,204,620	2.5%
International Equities			
Grantham, Mayo, Van Otterloo *	Developed Markets Value	60,637,449	7.3%
McKinley Capital	Developed Markets Growth	67,497,740	8.1%
Acadian Asset Mangement*	Developed Markets Small Cap	19,149,214	2.3%
Acadian Asset Management*	Emerging Markets	27,156,332	3.3%
Fixed Income			
Dodge & Cox Investment Managers	Domestic Core Bonds	81,285,854	9.7%
BNY Mellon Cash Investment Strategies*	Barclays Government/Credit Index	3,019,243	0.4%
DoubleLine Capital	Mortgage-Backed Securities	54,460,629	6.5%
Oaktree Capital Management*	Convertible Bonds	17,992,568	2.2%
Loomis, Sayles & Company	High Yield	49,920,712	6.0%
Real Estate			
Cohen & Steers Capital Management	Real Estate Investment Trusts	83,267,983	10.0%
Alternative Investments			
Pacific Investment Management Co. (PIMCO)*	Distressed Opportunity	20,557,089	2.5%
Bridgewater Pure Alpha*	Global Macro Absolute Return Fund	28,439,013	3.4%
MetWest TALF Fund*	Distressed Opportunity	12,078,414	1.4%
Trust Company of the West*	Special Mortgage Credit	120,891	0.0%
Short-term			
BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	2,409,790	0.3%
Cash Held at County Treasurer	Operating Cash Account	<u>2,214,320</u>	0.3%
<b>Total Investments</b>		\$835,111,325	100.0%

<sup>\*</sup> Pooled fund

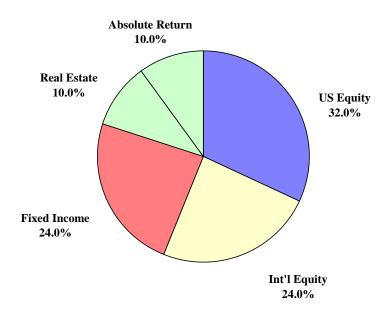
#### Police Officers Retirement System – Allocation of Market Exposures

#### **Target Asset Allocation**

The asset structure shown below represents the Trustees' assessment of their optimal asset allocation as of June 30, 2010. The target asset allocation provides a reasonable expectation that the System's investment objective can be achieved based on historic relationships of asset class performance.

The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2010.

#### **Target Asset Allocation**

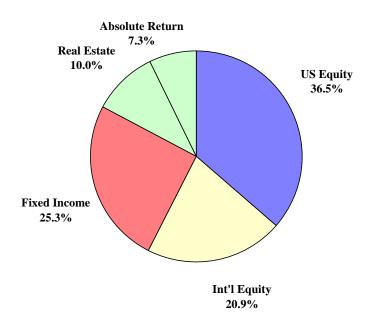


#### Actual Asset Allocation as of June 30, 2010

The asset structure of PORS has historically reflected a proper balance of the System's needs for liquidity, growth of assets, and risk tolerance. The System's investment policy is designed to continue to meet its long-term investment objectives while, at the same time, providing sufficient flexibility to meet short-term funding requirements.

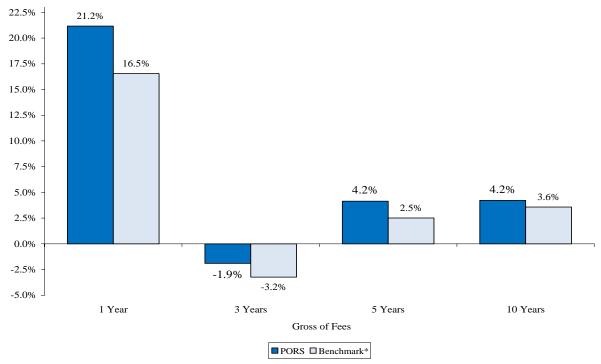
The pie chart below details the actual asset allocation as of June 30, 2010.

## Actual Asset Allocation (based on market exposures)



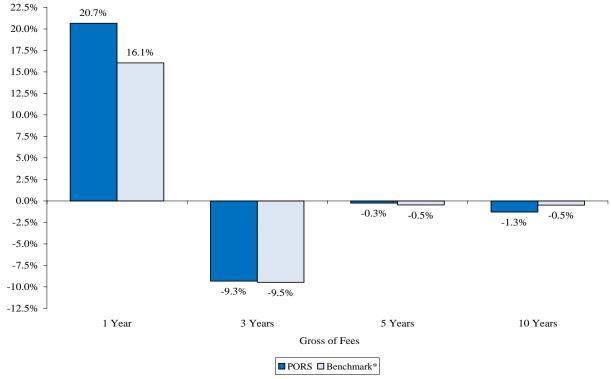
#### **Investment Results**

#### **Total Fund:**



<sup>\*</sup>Benchmark: 35% S&P 500, 35% Barclays Aggregate, 10% Russell 2000, 10% MSCI EAFE, 10% NAREIT

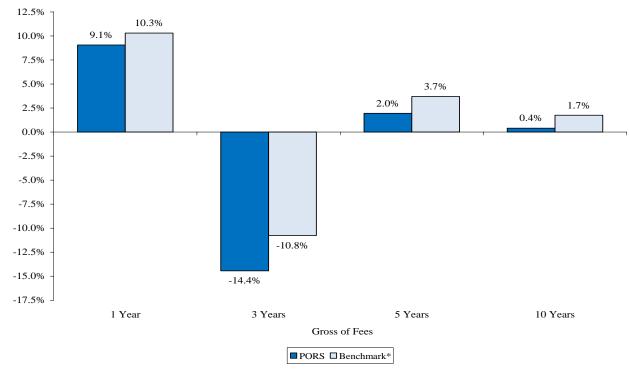
#### **Domestic Equity:**



\*Benchmark: 78% S&P 500, 22% Russell 2000

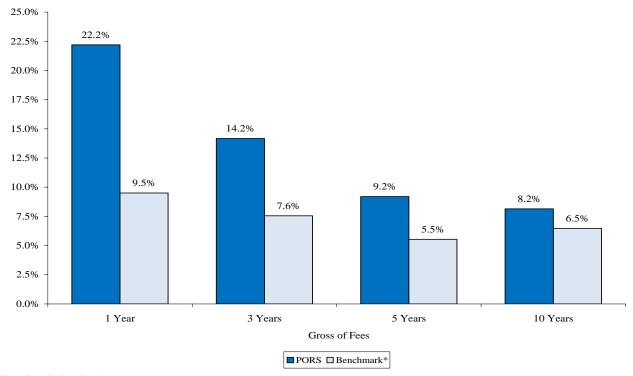
#### **Investment Results**

## **International Equity:**



<sup>\*</sup>Benchmark: 68% MSCI EAFE, 12% S&P Citigroup EMI EPAC, 20% MSCI Emerging Markets

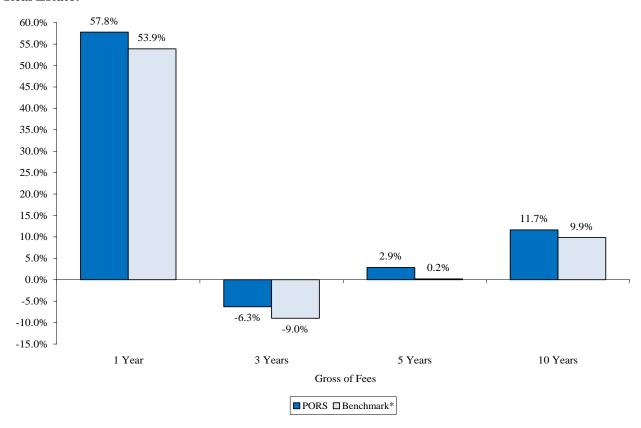
#### **Fixed Income:**



\*Benchmark: Barclays Aggregate

## **Investment Results**

#### **Real Estate:**



<sup>\*</sup>Benchmark: NAREIT Equity Share Price Index

## **Schedule of Ten Largest Equity & Fixed Income Holdings**

#### **Ten Largest Equity Holdings**

argest Equity	, 1101umgs			% of Total
No. Shares	<u>Description</u>	Cost	Fair Value	Portfolio
98,392	Simon Property Group Inc	\$6,175,309	\$7,945,154	0.95%
47,156	Public Storage	3,478,512	4,145,484	0.50%
87,866	Equity Residential	3,030,192	3,658,740	0.44%
49,967	Vornado Realty Trust	2,971,112	3,645,093	0.44%
48,941	Boston Properties Inc	3,338,359	3,491,451	0.42%
195,142	KIMCO Realty Corp	2,637,520	2,622,708	0.31%
75,617	HCP INC	2,206,934	2,438,648	0.29%
90,910	BHP Billiton	2,511,254	2,386,303	0.29%
39,400	Johnson & Johnson	2,469,203	2,326,964	0.28%
167,511	Host Hotels & Resorts Inc	<u>1,916,252</u>	<u>2,258,048</u>	0.27%
	Total	\$30,734,646	\$34,918,594	4.19%

#### **Ten Largest Fixed Income Holdings**

Par Value (in local values)	<u>Description</u>	Cost (in U.S. Dollars)	Fair Value (in U.S. Dollars)	% of Total <u>Portfolio</u>
5,909,337	U.S. Treas-CPI Inflation Index, 2.500%, 01/15/2029	\$ 6,343,791	\$ 6,678,910	0.80%
3,849,458	FNMA Pool, 5.500%, 05/01/2033	4,108,695	4,151,641	0.50%
3,893,340	U.S. Treas-CPI Inflation, 2.000%, 01/15/2014	4,056,135	4,147,614	0.50%
3,746,960	U.S. Treas-CPI Inflation, 1.875%, 07/15/2019	3,905,579	4,016,853	0.48%
3,225,000	U.S. Treasury Note, 2.375%, 08/31/2010	3,260,492	3,236,707	0.39%
2,965,518	U.S. Treas-CPI Inflation, 2.000%, 01/15/2016	3,117,052	3,199,290	0.38%
2,837,110	U.S. Treas-CPI Inflation Index, 3.000%, 07/15/2012	3,065,307	3,018,202	0.36%
2,490,000	U.S. Treasury Note, 2.500%, 04/30/2015	2,515,200	2,578,520	0.31%
2,122,510	FNMA Pool, 6.500%, 10/01/2026	2,170,685	2,339,983	0.28%
1,965,607	FNMA Pool, 6.000%, 04/01/2038	<u>2,096,750</u>	2,130,527	0.26%
	Total	\$ 34,639,686	\$ 35,498,247	4.26%

## Schedule of Brokerage Commissions Year Ended June 30, 2010

			Base	Commission
Broker Name	Base Volume	Total Shares	Commission	<b>Percentage</b>
RBC Capital Markets Corp, Minneapolis	\$4,019,783	262,567	\$ 8,078	0.20%
JP Morgan Secs (Far East) Ltd, Seoul	2,190,835	48,911	4,376	0.20%
UOB Kay Hian Private Ltd, Singapore	2,012,486	482,000	4,018	0.20%
Baird, Robert W & Co Inc, Milwaukee	3,938,385	202,207	6,440	0.16%
Bernstein Sanford C & Co, New York	2,793,751	154,408	4,367	0.16%
Deutsche Bk Secs Inc, NY	11,522,616	624,988	17,791	0.15%
Merrill Lynch & Co Inc Atlas Global, NY	8,738,366	328,070	13,471	0.15%
Stifel Nicolaus	7,741,160	378,661	11,932	0.15%
Cap Instl Svcs Inc-Equities, Dallas	8,232,079	347,444	12,473	0.15%
Merrill Lynch Gilts Ltd, London	2,184,210	183,905	3,276	0.15%
Redburn Partners LLP, London	2,111,700	146,600	3,165	0.15%
Exane, Paris	2,689,852	108,550	4,031	0.15%
Merrill Lynch Intl London Equities	2,120,285	132,370	3,177	0.15%
Credit Agricole Cheuvreux, Courbevoie	2,353,129	120,035	3,524	0.15%
Macquarie Securities Limited, Hong Kong	4,793,304	1,211,748	7,091	0.15%
Barclays Capital Inc./Le, New Jersey	8,673,573	394,142	12,640	0.15%
BNY Convergex, New York	11,980,532	535,128	17,294	0.14%
J P Morgan Secs Ltd, London	5,325,990	352,090	7,605	0.14%
Goldman Sachs & Co, NY	22,193,077	1,106,636	31,599	0.14%
Wells Fargo Securities LLC, Charlotte	4,968,892	271,718	7,057	0.14%
Morgan Keegan & Co Inc, Memphis	2,556,489	112,428	3,624	0.14%
Morgan J P Secs Inc, New York	3,710,002	161,855	5,172	0.14%
Pershing LLC, Jersey City	50,923,082	5,323,532	70,509	0.14%
Merrill Lynch Pierce Fenner, Wilmington	6,407,152	395,118	8,856	0.14%
UBS Securities LLC, Stamford	9,842,997	423,579	13,553	0.14%
National Finl Svcs Corp, New York	3,738,564	162,736	5,143	0.14%
Nomura Secs Intl Inc, New York	4,516,933	332,380	5,922	0.13%
Merrill Lynch Pierce Fenner Smith Inc NY	25,234,268	1,064,896	32,859	0.13%
Keybanc Capital Markets Inc, New York	4,658,467	164,109	5,855	0.13%
Cantor Fitzgerald & Co Inc, New York	3,689,287	351,692	4,620	0.13%
Raymond James & Assoc Inc, St Petersburg	4,779,042	158,722	5,741	0.12%
BNY Convergex / LJR, Houston	8,780,236	302,725	10,392	0.12%
Jefferies & Co Inc, New York	10,114,205	491,385	11,968	0.12%
Morgan Stanley & Co Inc, NY	14,871,643	690,419	17,170	0.12%
ISI Group Inc, NY	2,233,735	83,631	2,543	0.11%
Citigroup Gbl Mkts Inc, New York	11,527,347	498,130	12,569	0.11%
Fidelity Cap Mkts (Div of NFSC), Boston	3,149,677	222,497	3,133	0.10%
Knight Sec Broadcort, Jersey City	4,810,216	139,625	4,779	0.10%
J.P. Morgan Clearing Corp, New York	32,473,136	1,589,449	32,090	0.10%
Kepler Equities, Zurich	2,235,288	36,040	2,199	0.10%
Credit Suisse, New York	33,244,336	2,531,005	29,746	0.09%
Wells Fargo Securities LLC, Charlotte	1,955,854	71,970	1,732	0.09%
Barclays Capital Le, Jersey City	3,849,812	199,750	3,051	0.08%
Investment Technology Group, New York	12,210,328	834,689	8,540	0.07%
Liquidnet Inc, Brooklyn	6,306,476	200,830	4,017	0.06%
Knight Secs, New Jersey	2,779,305	671,591	1,667	0.06%
Merrill Lynch Intl (KSI), London	2,779,303	111,965	1,336	0.06%
Instinet Corp, ny	32,755,124	1,942,430	19,424	0.06%
Brockhouse and Cooper, Montreal		979,670		
Credit Agricole USA, New York	3,733,461 5,499,631	196,314	2,201 1,106	0.06% 0.02%
Other Brokers	49,809,706	6,392,222	73,847	
·		·		0.15%
Total	\$485,216,715	34,229,562	\$588,768	0.12%

<u>Investment Summary</u> (Based on Capital Allocation)

	<b>As of June 30, 2009</b>		As of Jun	e 30, 2010
	Market Value	% Market Value	Market Value	% Market Value
Domestic Equities	\$234,237,180	33.2%	\$304,904,085	36.5%
International Equities	146,045,393	20.7%	174,440,735	20.9%
Fixed Income	247,201,961	35.0%	206,679,007	24.7%
Real Estate	43,426,798	6.2%	83,267,983	10.0%
Alternative Investments	30,319,777	4.3%	61,195,406	7.3%
Short-term	<u>4,345,615</u>	0.6%	4,624,110	0.6%
Total	\$705,576,725	100.0%	\$835,111,325	100.0%

### **Schedule of Direct Investment Management Fees**

As of June 30, 2010

Asset Class	T	TD 4 1 4 4	
Manager  Domestic Facilities	<u>Investment Style</u>	Total Assets	<u>Fees</u>
Domestic Equities  Goldman Sachs Asset Mgt.	Large Cap Growth	\$39,442,650	\$285,023
-			
Pzena Investment Mgt.	Large Cap Value	43,262,667	239,066
ClariVest Asset Mgt.	Small Cap Value	27,000,455	215,075
The Clifton Group	S&P 500 Beta Manager	21,204,620	33,577
International Equities			
McKinley Capital	Developed Markets Growth	67,497,740	427,966
Acadian Asset Mgt.	Developed Markets Small Cap	19,149,214	154,248
Acadian Asset Mgt.	Emerging Markets	27,156,332	173,223
Fixed Income			
Dodge & Cox Investment Managers	Domestic Core Bonds	81,285,854	198,390
BNY Mellon Cash Investment Strategies *	Barclays Government/Credit Bond Index	3,019,243	(189)
Trust Company of the West **	Mortgage-Backed Securities	-	466,574
DoubleLine Capital	Mortgage-Backed Securities	54,460,629	37,706
Loomis, Sayles & Company	High Yield	49,920,712	245,088
Real Estate			
Cohen & Steers Capital Management	Real Estate Investment Trusts	83,267,983	311,390
Short-term			
BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	2,409,790	32,640
Total		\$519,077,889	\$2,819,777

<sup>\*</sup> Negative amount due to over estimation in June 2010 accrual

<sup>\*\*</sup> Terminated during FY 2010



Classic Values, Innovative Advice

March 3, 2010

Fairfax County Police Officers Retirement System 10680 Main Street, Suite 280 Fairfax, Virginia 22030-3812

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the Fairfax County Police Officers Retirement System as of July 1, 2009. The results of the valuation are contained in this report.

### Funding Objective

The funding objective of the System is to establish contribution rates which, over time, will remain level as a percent of payroll. In order to achieve a more stable contribution rate the County implemented a corridor funding method on July 1, 2002 (based on the July 1, 2001 valuation results). Under this approach the contribution rate is based on the normal cost rate and expense rate on July 1, 2001, adjusted for subsequent plan changes, including a 15 year amortization of any UAL impact. This rate will otherwise remain at this level as long as the actuarial funded ratio remains within a corridor of 90% to 120%. Since the funding ratio is currently below 90%, additional contributions are being made by the County.

#### Assumptions

The actuarial assumptions used in performing the July 1, 2009 valuation were recommended by the actuary and adopted by the Board of Trustees based on our most recent review of the System's experience for the five year period ending June 30, 2005. The assumptions reflect our understanding of the likely future experience of the System and the assumptions as a whole represent our best estimate for the future experience of the System. The results of this report are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from these assumptions, the true cost of the System could vary from our results.

The assumptions and methods used in performing this valuation meet the parameters set by Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contributions Plans.

#### Reliance on Others

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. The census data provided was reviewed for reasonableness and for consistency with prior year's data.

1750 Tysons Boulevard, Suite 1100, McLean, VA 22102

Tel: 703.893.1456

Fax: 703.893.2006

www.cheiron.us





Classic Values, Innovative Advice

March 3, 2010

Fairfax County Police Officers Retirement System

Page 2

#### Supporting Schedules

We are responsible for all supporting schedules to be found in the Actuarial Section.

We are responsible for the 2004 through 2009 information in the Schedule of Funding Progress, Schedule of Employer Contributions and Notes to Trend Data shown in the Financial Section.

#### Compliance with Code of Virginia §51.1-800

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

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

I certify that, to the best of my knowledge and understanding, the Fairfax County Police Officers Retirement System satisfies the requirements of the Code of Virginia §51.1-800.

#### Certification

I, Fiona Liston, am a consulting actuary for Cheiron. I am also a member of the American Academy of Actuaries and meet their Qualification Standards to render the actuarial opinion contained herein.

I hereby certify that, to the best of my knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that as a Member of the American Academy of Actuaries, I meet the Qualification Standards to render the opinions contained herein.

Sincerely, Cheiron

Fiona E. Liston, FSA Consulting Actuary

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#### **Summary of Valuation Results**

#### Overview

This report presents the results of the July 1, 2009 actuarial valuation of the Fairfax County Police Officers Retirement System. The primary purposes of performing the annual actuarial valuation are to:

- Measure and disclose, as of the valuation date, the financial condition of the Plan;
- Indicate trends in the financial progress of the Plan;
- Determine the contribution rate to be paid by the County for Fiscal Year 2011;
- Provide specific information and documentation required by the Governmental Accounting Standards Board (GASB).

This section of the report presents a summary of the above information in the form of:

- The actuary's comments;
- The prior year's experience of the System's assets, liabilities, contributions, and membership;
- A series of graphs which highlight key trends experienced by the System; and
- A summary of all principal results from this year's valuation, compared to last year's, in a single table, intended for quick reference purposes.

#### **General Comments**

Fairfax County's annual contribution to this System is determined by using a corridor funding method. Under this funding approach, the County's contribution rate is based on the normal cost rate plus expense rate determined as of the implementation date of the corridor method (July 1, 2001) 17.00% of payroll, plus an expense rate, currently 0.30% of payroll. This rate is adjusted for benefit and assumption changes, but otherwise will remain the same as long as the System's actuarial funded ratio remains within a corridor of 90% to 120%.

The County's contribution rate will change when benefits are increased or modified or assumptions are changed. The new rate will reflect the change in normal cost rate and the change in actuarial liability amortized over 15 years. Since the inception of the corridor funding method the normal cost rate has increased by 1.82% and the UAL rate has increased by 3.72%, the specific changes are summarized in the table below:

	Impact on		
	Normal Cost Rate	UAL	
Changes Since 2001		Rate	
2002 ad-hoc COLA	N/A	+ 0.32%	
2004 ad-hoc COLA	N/A	+ 0.48%	
2005 Implementation of DROP	+ 0.18%	+ 0.16%	
2005 ad-hoc COLA	N/A	+ 0.46%	
2005 Assumption Changes	- 0.18%	+ 0.83%	
2006 ad-hoc COLA	N/A	+ 0.45%	
2007 ad-hoc COLA	N/A	+ 0.45%	
2007 Remove 30 year service cap on benefits	+ 0.04%	+ 0.07%	
2007 Change member contribution rate to 11%	+ 0.89%	N/A	
2008 Change Member contribution rate to 10%	+0.89%	N/A	
08 ad-hoc COLA	<u>N/A</u>	<u>+0.50%</u>	
Total Increase	+ 1.82%	+ 3.72%	

The basic corridor funding contribution is currently 22.84% of payroll. The normal cost rate and actuarial accrued liability will continue to be measured using the entry age funding method. If the funded status falls outside the corridor, a credit (if above 120%) or charge (if below 90%) will be established based on a 15-year amortization equal to the amount necessary to re-enter the corridor. Once the funded status is within the corridor, the contribution rate will return to the normal cost rate plus expense rate, and any remaining amortization for benefit or assumption changes.

The valuation as of July 1, 2009 shows that the actuarial funded ratio (including a credit for the amortization piece of prior benefit increases) has fallen out of the corridor and there is a required increase in the rate at this time of 4.56% of payroll.

The calculated calculation rate for Governmental Accounting Standards Board (GASB) purposes is based on a rolling 15-year amortization of the actuarial unfunded liability.

#### Trends

There was a significant downturn in the financial markets during the fiscal year ending in 2009, which produced an actuarial loss on the asset side of the System. The actual return on a market value basis was approximately -17.58%. On an actuarial value basis, the assets returned -2.07% compared with an assumed rate of return of 7.5%. The loss recognized for funding purposes was \$86.5 million.

The measurement of liabilities produced a gain this year in the amount of \$17.6 million. This gain was due to experience not meeting our assumptions about salary increases, retirement behavior, death, etc. Specific components of the gain include:

- The average salary increase was 3.5% for active participants who were in both the July 1, 2008 and July 1, 2009 valuations. This was less than the expected salary growth based on the actuarial assumption, which worked out to average 7.0% for this group. This resulted in a \$13.5 million gain.
- The valuation assumes a 3% cost-of-living adjustment each year for benefits in pay status. The actual CPI-based COLA was 0.4% last year, creating a liability gain of \$16 million.
- An annual component of liability loss is the delayed recognition of new hires throughout the year. This does not contribute to an increase in the System's unfunded liability because both the member and the employer make contributions from the date of hire. However, when we look only at the liability side they are a component of the annual liability loss and this year they contributed \$0.6 million to that number.
- This valuation closes a source of "false gains" that were arising over the last two valuations. The false gains arose due to a timing difference between when the records for those leaving DROP status were being updated. In the 2008 valuation a group of former DROP participants were excluded from the valuation liabilities. This group has been added back this year as being in a retired status. This correction gave rise to a loss of \$6 million.
- There was a \$5.3 million liability loss component that is made up of various other causes such as members terminating, dying or becoming disabled in a way contrary to the assumption and also data changes from previous years.

The combination of plan changes, liability and investment experience over the last year led to the System's funding ratio (actuarial value of assets over actuarial accrued liability) decreasing from 88.0% at July 1, 2008 to 81.7% at July 1, 2009. For purposes of measuring whether the System remains within the funding corridor, an adjusted funding ratio is used. In this ratio there is an additional asset recognized in the amount of the unfunded actuarial liability (UAL) payments being made by the County to pay for benefit increases and assumption changes. On this basis, the System's actuarial funded ratio decreased from 91.7% at July 1, 2008 to 85.0% at July 1, 2009.

It is important to take a step back from the latest results and view them in the context of the System's recent history. On the next two pages we present a series of charts which display key factors in the valuations over the last 15 years. After the historical review we present a few projection graphs, showing the possible condition of the System over the next 15 years under various market return scenarios.

The following is a key to the abbreviations used in the actuarial graphs:

**PVAB** – Present Value of accrued benefits

**PSL** – Past service liability

**PVFB** – Present value of future benefits

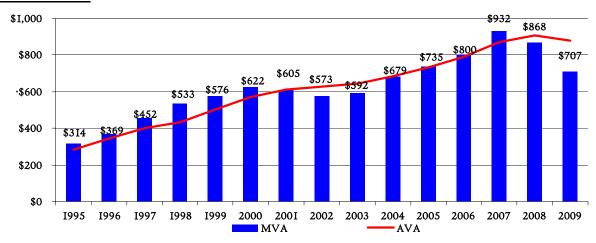
AAL - Accrued Actuarial Liability

**MVA** – Market value of assets

AVA – Actuarial value of assets

**DROP** – Deferred Retirement Option Program

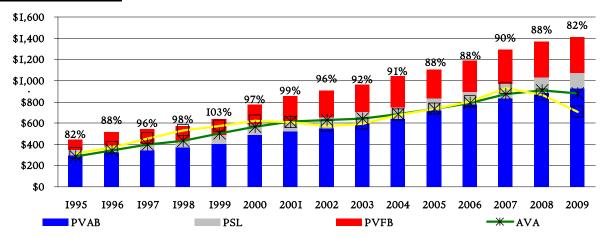
#### **Growth in Assets**



There was a substantial decline in the market value of assets (MVA) over last year due to a negative return of 17.6%. The actuarial value of assets (AVA) decreased as well but not as significantly because a portion of this year's investment loss is being held for future recognition. The System recognized only a third of the actuarial asset loss this year, and there remains \$173 million unrecognized losses that will be phased in over the next few years.

Over the period of July 1, 1995 to June 30, 2009 the System's assets returned approximately 8.3% per year measured at actuarial value, compared to a valuation assumption of 7.5% per year.

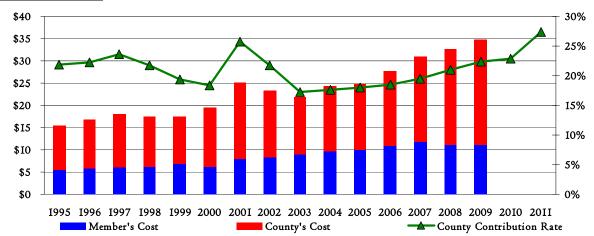
#### **Assets and Liabilities**



The three colored bars represent the three different measures of liability mentioned in this report. The amount represented by the top of the red bars, the Present Value of Future Benefits (PVFB), is the amount needed to provide all benefits for the current participants and their beneficiaries. If the System had assets equal to the PVFB no contributions would, in theory, be needed for the current members. For funding purposes, the target amount is represented by the top of the gray bar. We compare the actuarial value of assets to this measure of liability in developing the funded percent. These are the percentages shown in the graph labels.

Over the past two years, the System's funded status has declined from 90% to 82% as a result of asset losses.

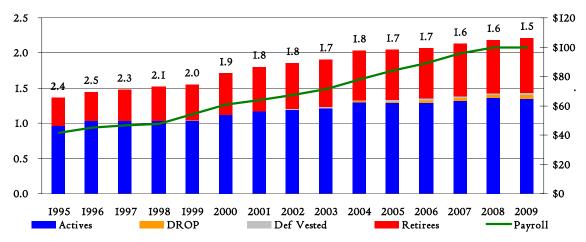
#### **Contribution Rates**



The stacked bars in this graph show the contributions made by both the County and the members (left hand scale). The green line shows the County contribution rate as a percent of payroll (right hand scale).

The member contribution rate is set by the County Ordinance. The County contribution rate is set by the actuarial process, as constrained by the corridor method. Note, there is a lag in the rate shown. For example, the 2009 value is the rate prepared by the 2007 valuation and implemented for the period July 1, 2008 to June 30, 2009.

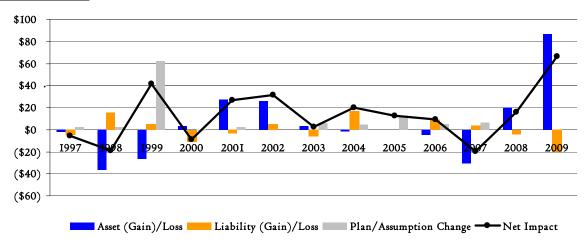
#### **Participant Trends**



As with many funds in this country, there has been a steady growth in the number of retired members as the System has matured. The active-to-inactive ratio has decreased from 2.4 actives to each inactive in 1995 to 1.5 actives for each inactive today. While this would be an alarming trend in a pay-as-you-go system, the pool of invested assets has been established in anticipation of this development.

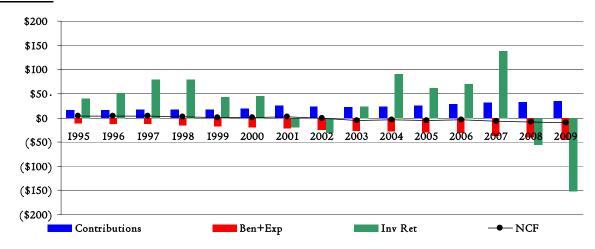
Starting in 2004, the chart also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower growth in effective covered payroll for this System.

#### **Gains and Losses**



This graph shows the annual gains and losses experienced by the System, along with the Unfunded Actuarial Liability (UAL) due to plan amendments and assumption changes. The black line shows the net impact of all such changes in a given year. Positive numbers represent increases in the UAL while negative numbers show reductions.

#### **Cash Flow**



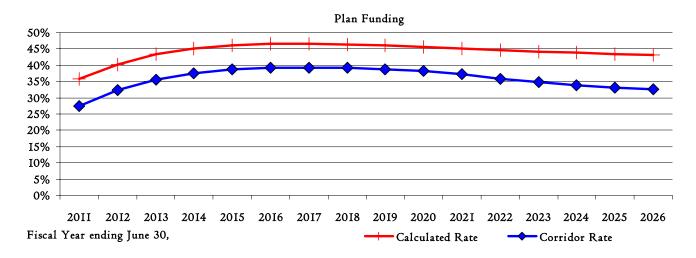
The graph shows the annual cash flows into and out of the System. The graph shows the magnitude the investment returns on the market value (green bars) compared to the contributions (blue bars). The net cash flow (line) is comparing the contributions to benefits and expenses (red bar). Negative cash flow is expected for a mature plan such as this one. The implications of a plan with negative cash flow are that the impact of market fluctuations can be more severe. This is because as assets are being depleted to pay benefits in down markets, there is less principal that is available to be reinvested during favorable return periods.

#### **Future Outlook**

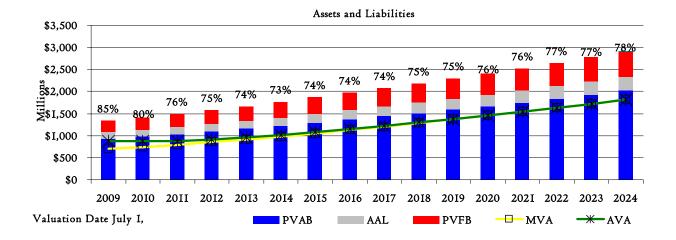
#### **Base Line Projections**

The two graphs below show the expected progress of the Plan over the next 15 years assuming the System's assets earn 7.5% on their *market value*.

The chart entitled "Plan Funding" shows the System rising through the corridor (if all other actuarial assumptions are met as well as the 7.5% interest rate). The decrease in corridor contributions towards the end of the period show plan change bases becoming fully amortized and dropping out. The red line shows the actuarially calculated rate if the corridor were not in place. Under this scenario the corridor rate approaches a high point of almost 40% of payroll.



The "Assets and Liabilities" graph shows the projected funding status over the next decade. Note that the 2009 funded level differs from that shown in the historical graphs because the ratio used here reflects the corridor method. The System's funded status is projected to decrease from the current level of 85% to around 76% by 2011 as the unrecognized asset losses are phased in. After that, the corridor method basically marks time and keeps the System around 75% funded.



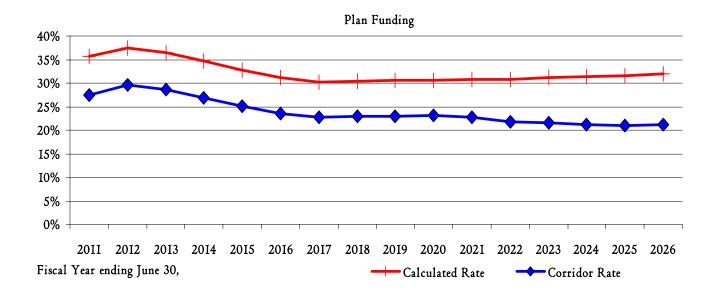
The future funding status of this System will be influenced by the investment earnings. The prior projection assumed the System would earn 7.5% each and every year, which is extremely unlikely.

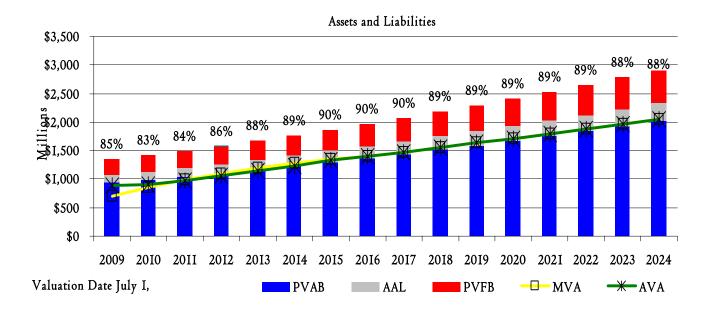
In the projections that follow we show the risk to the System under volatile markets. Since 1981 the System has averaged 9.50% return per year, therefore, for this analysis we have created the following three scenarios that produce the same average return.

Fiscal Year	Favorable	Poor Potrawa Forda	Random
Ending June 30,	Returns Early	Returns Early	Returns
2010	22.50%	5.00%	23.72%
2011	18.00%	7.00%	4.00%
2012	12.00%	9.00%	1.95%
2013	10.00%	10.00%	11.70%
2014	9.00%	12.00%	4.10%
2015	7.00%	18.00%	10.59%
2016	5.00%	22.50%	16.04%
2017	7.50%	7.50%	21.82%
2018	7.50%	7.50%	5.39%
2019	7.50%	7.50%	6.35%
2020	7.50%	7.50%	5.37%
2021	7.50%	7.50%	16.10%
2022	7.50%	7.50%	6.64%
2023	7.50%	7.50%	-5.02%
2024	7.50%	7.50%	18.36%
Average	9.52%	9.48%	9.53%

#### Alternative Projection -- with favorable returns early in the projection:

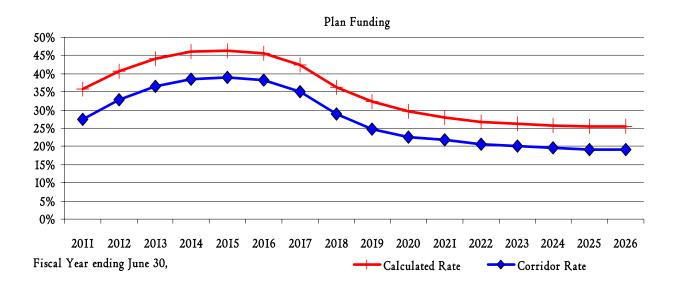
Under this scenario the corridor contribution rate would increase slightly for FY 2012 as prior asset losses are phased-in, but then decline thereafter. The System reaches 90% funded by 2015 (and re-enters the corridor) after the period of favorable returns modeled in this scenario are completely phased-in, but then declines to 88% by 2023 after the phase-in of the poor returns.

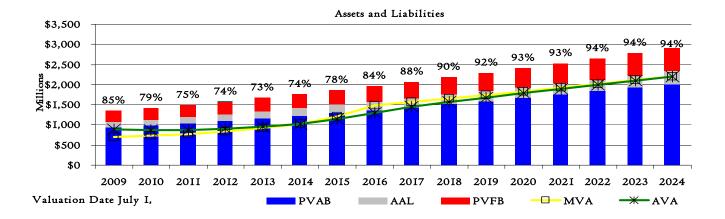




#### Alternative Projection -- with poor returns early in the projection:

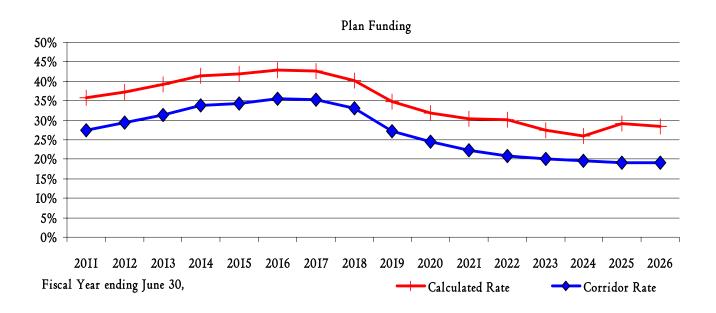
Under this scenario the corridor contribution rate increase over the next four years due to the investment performance modeled in this scenario and the phase-in of prior asset losses. The rate would decline from FY 2015 due to the returns in excess of the actuarial assumption. The funding ratio would reach 94% by 2022.

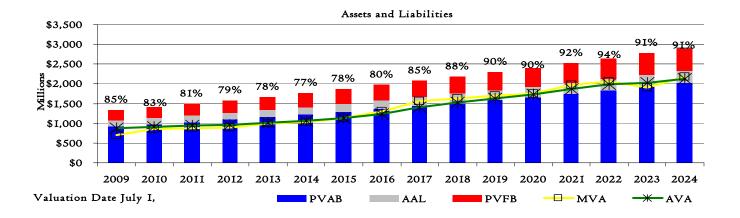




#### **Alternative Projection -- with random returns:**

Under this scenario the corridor contribution rate increases to 35% by FY 2016, due to the timing of the returns modeled in this scenario. The System would reach 94% funded by 2022.





Summary of Principal Plan Results					
Valuation as of:		7/1/2008		7/1/2009	% Chg
Participant Counts					
Actives (excluding DROP)		1,357		1,347	-0.7%
DROPs		47		56	19.1%
Terminated Vesteds		24		28	16.7%
In Pay Status		757		788	4.1%
Total		2,185		2,219	1.6%
Annual Salaries of Active Members	\$	99,713,972	\$	99,646,822	-0.1%
Annual Retirement Allowances for					
Retired Members and Beneficiaries	\$	39,794,362	\$	41,927,564	5.4%
Assets and Liabilities					
Actuarial Accrued Liability	\$ 1	,031,333,112	\$	1,076,038,947	4.3%
Assets for Valuation Purposes		908,077,197		879,543,429	-3.1%
Unfunded Actuarial Liability	\$	123,255,915	\$	196,495,518	59.4%
Funding Ratio		88.0%		81.7%	
Present Value of Accrued Benefits	\$	890,359,372	\$	932,386,737	4.7%
Market Value of Assets		868,161,042		706,622,286	-18.6%
Unfunded FASB Accrued Liability	\$	22,198,330	\$	225,764,451	
(not less than \$0)					
Accrued Benefit Funding Ratio		97.5%		75.8%	
Contributions as a Percentage of Payroll GASB Method:	Fisc	al Year 2010	Fisc	eal Year 2011	
Normal Cost Contribution		18.82%		18.82%	
Unfunded Actuarial Liability Contribution		10.44%		16.66%	
·					
Administrative Expense		0.30%		0.30%	
Total Contribution		29.56%		35.78%	
Corridor Method:					
Normal Cost Contribution		18.82%		18.82%	
Increase Due to Amortized Changes		3.72%		3.72%	
Amortization of Amount Outside Corridor		0.00%		4.56%	
Administrative Expense		0.30%		0.30%	
Corridor Method		22.84%		27.40%	

#### **Summary of Actuarial Assumptions and Methods**

#### **Funding Method**

The funding method used for GASB disclosure purposes is the "aggregate accrual modification of the entry age normal cost method." Under this method, the employer contribution has three components – the normal cost, the payment toward the unfunded actuarial liability, and the expense rate.

The normal cost is a level percent of pay cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. The level percent developed is called the normal cost rate and the product of that rate and payroll is the normal cost.

The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The expense rate is added to cover the System's administrative expenses.

The employer contributions are calculated using the same basic actuarial method (EAN). However, in order to produce a more level contribution rate, the System has adopted a Corridor Funding Method.

Under the Corridor Funding Method, the employer's total contribution rate is equal to the normal cost rate, plus rate changes due to assumption changes or amendments passed since June 30, 2001 plus the expense rate as long as the System's actuarial funded status remains within a corridor of 90% to 120%. If the funded status falls outside the corridor, a credit (if above 120%) or charge (if below 90%) will be established based on a 15-year amortization equal to the amount necessary to re-enter the corridor. Once the funded status is within the corridor, the contribution rate will return to normal cost rate, plus post-2001 changes, plus expense rate.

#### **Actuarial Value of Assets**

For purposes of determining the County contribution to the Plan, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

In determining the actuarial value of assets, we calculate an expected actuarial value based on cash flow for the year and imputed returns at the actuarial assumption. This expected value is compared to the market value and one-third of the difference is added to the preliminary actuarial value to arrive at the final actuarial value.

#### **Changes Since Last Valuation**

There have been no changes since the last valuation to the Funding Method or Actuarial Value of Assets.

### **Long Term Assumptions Used to Determine System Costs and Liabilities**

## **Demographic Assumptions**

### Mortality

	1994 Uninsured Pensioners Mortality Table Annual Deaths Per 1,000 Members*					
Age	Male Deaths	Female Deaths	Age	Male Deaths	Female Deaths	
20	1	0	65	16	9	
25	1	0	70	26	15	
30	1	0	75	40	24	
35	1	1	80	67	42	
40	1	1	85	105	73	
45	2	1	90	164	125	
50	3	2	95	251	200	
55	5	2	100	341	297	
60	9	5	105	441	415	

<sup>\* 20%</sup> of deaths are assumed to be service-connected.

Annual Deaths per 1,000 Disabled Members 1994 Uninsured Pensioners Mortality Table +5				
Age	Male	Female		
40	2	1		
45	3	2		
50	5	2		
55	9	5		
60	16	9		
65	26	15		
70	40	24		
75	67	42		
80	105	73		

Termination	of Employment:	(Prior to Normal	Retirement Eligibility)

Annual Terminations Per 1,000 Members Years of Service Terminations				
0	80			
1	60			
2	40			
3	40			
4	40			
5	50			
6	35			
7 or more	15			

It is assumed that members who terminated before normal or early retirement age elect to receive a refund of contributions instead of vested benefits.

### **Disability**

Annual Disabilities per 1,000 Members*				
Age Male and Female				
20	2			
25	2			
30	2			
35	2			
40	2			
45	4			
50	6			
55	6			
60	6			

<sup>\*</sup> 70% of disabilities are assumed to be service-connected. Of these, 100% are assumed to receive Workers Compensation benefits.

#### **Retirement**

Years of Service	Probability of Retirement* <u>Hired pre-7/1/81</u>	<u>Hired post-7/1/81</u>
20	25%	N/A
21	25%	N/A
22	25%	N/A
23	25%	N/A
24	25%	N/A
25	25%	25%
26	35%	35%
27	45%	45%
28	55%	55%
29	70%	70%
30	85%	85%

<sup>\* 50%</sup> are assumed to take DROP.

#### Merit/Seniority Salary Increase (in addition to across-the-board increase)

Years of Service	Merit/Seniority Increase*
0	8.0%
5	5.0%
10	1.5%
15	1.0%
20	1.0%
25	1.0%
30	1.0%

<sup>\*</sup> Spikes of 8.0% at 14 years of service and 6.7% at 19 years of service.

#### **Family Composition**

For purposes of valuing the pre-retirement death benefit, an assumption concerning how many employees are married is needed. The assumption used in this valuation is that 80% of active employees are married at death and that the female spouse is 5 years younger than the male spouse. In addition, each married employee is assumed to have two children, 22 and 24 years younger than the employee.

#### Sick Leave Credit

Active members are assumed to receive an additional 3.5% for both service credit and average final compensation due to unused sick leave.

#### **Economic Assumptions**

**Investment Return:** 7.50% compounded per annum.

**Rate of General** 

**Wage Increase:** 4.00% compounded per annum.

Rate of Increase in

**Cost-of-Living:** 4.00% compounded per annum.

(Benefit increases limited to 4% per year. We will use an assumption

that post-retirement cost-of-living increases will be 3% per year.)

**Total Payroll Increase** 

(For amortization): 4.00% compounded per annum.

**Administrative Expenses:** 0.30% of payroll.

#### **Changes Since Last Valuation**

There have been no changes since the last valuation.

#### **Analysis of Financial Experience**

# Gain and Loss in Accrued Liability During Years Ended June 30 Resulting from Differences Between Assumed Experience and Actual Experience (in thousands)

Type of Activity	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Investment Income	\$(3,174)	\$1,255	\$5,829	\$30,476	\$(19,958)	\$(86,461)
Combined Liability Experience Gain (or Loss)	(6,812)	(16,910)	(9,007)	(9,439)	4,139	<u>17,649</u>
During Year from Financial Experience	3,638	(15,655)	(3,178)	21,037	(15,819)	(68,812)
Non-Recurring Items	(5,916)	(12,861)	(4,473)	(5,904)	(5,903)	
Composite Gain (or Loss) During Year	<u>\$(2,278)</u>	\$(28,516)	<u>\$(7,651)</u>	<u>\$15,133</u>	\$(21,722)	\$(68,812)

## Schedule of Retirees and Beneficiaries Added-to and Removed-from Rolls

	<u>A</u>	dde	d-To Rolls	Rem	oved-	From Rolls	On R	Rolls	@ Yr. End		
Year Ended June 30	<u>No.</u>		Annual <u>Allowance</u>	<u>No.</u>		Annual <u>Allowance</u>	<u>No.</u>		Annual <u>Allowance</u>	% Increase Allowance	Average llowance
2004	26	\$	1,714,726	11	\$	251,466	698	\$	28,577,050	5.40%	\$ 40,941
2005	27		2,472,428	10		296,737	715		30,752,740	7.61%	43,011
2006	19		2,180,765	7		222,265	727		32,711,241	6.37%	44,995
2007	60		5,223,988	44		1,034,662	743		36,900,567	12.81%	49,664
2008	33		3,504,943	19		611,148	757		39,794,362	7.84%	52,569
2009	36		2,347,460	5		214,258	788		41,927,564	5.36%	53,208

## **Solvency Test**

## **Aggregate Accrued Liabilities For** (in thousands)

**(1) (2) (3)** 

Valuation Date	Active Member	Retirees Vested Terms, Beneficiaries	Active Members (Employer Financed	Reported	]	ion of Accr Liabilities eported As	
<u>July 1,</u>	<b>Contributions</b>	<u>&amp; DROP</u>	<u>Portion)</u>	<u>Assets</u>	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>
2004	\$70,693	\$441,029	\$237,622	\$685,495	100%	100%	73%
2005	76,109	477,540	275,054	732,582	100%	100%	65%
2006	81,954	514,169	301,355	788,766	100%	100%	64%
2007	87,003	573,085	308,648	870,975	100%	100%	68%
2008	92,223	623,812	315,298	908,077	100%	100%	61%
2009	96,352	658,492	321,195	879,543	100%	100%	39%



### **Schedule of Additions by Source**

			Employer Contributions	Net	
Fiscal Year 2003	Plan Member <u>Contributions</u> \$ 8,941,529	Employer Contributions \$ 12,923,806	% of Covered Payroll 17.30%	Investment Income (loss) \$ 23,248,712	<b>Total <u>Additions</u></b> \$ 45,114,047
2004	9,689,253	14,682,201	17.62%	91,176,999	115,548,453
2005	9,930,883	14,901,070	17.96%	61,323,112	86,155,065
2006	10,899,659	16,727,287	18.44%	69,755,418	97,382,364
2007	11,796,129	19,222,753	19.55%	138,659,208	169,678,090
2008	11,175,450	21,447,907	21.00%	(55,802,375)	(23,179,018)
2009	11,246,986	23,508,402	23.34%	(151,727,685)	(116,972,297)
2010	10,389,241	23,766,626	23.85%	143,107,767	177,263,634

## **Schedule of Deductions by Type**

Fiscal	Benefit	Refunds of	Administrative	Total
<u>Year</u>	<b>Payments</b>	<b>Contributions</b>	<b>Expenses</b>	<b>Deductions</b>
2003	\$25,803,466	\$ 525,574	\$ 210,934	\$ 26,539,974
2004	27,682,363	350,894	258,352	28,291,609
2005	29,242,384	739,440	228,780	30,210,604
2006	31,302,806	528,718	218,347	32,049,871
2007	37,310,748	435,566	429,093	38,175,407
2008	39,533,485	607,913	445,751	40,587,149
2009	43,467,322	761,803	337,334	44,566,459
2010	47,096,822	406,863	349,179	47,852,864

### **Schedule of Benefit Payments by Type**

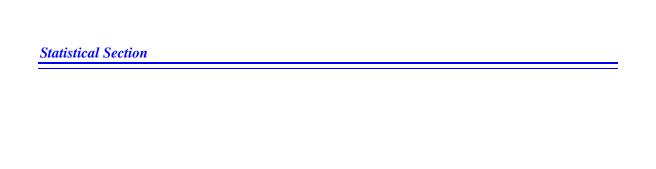
Fiscal Year Ended June 30 2003	<u>Annuity</u> \$ 23,352,203	Service- Connected <u>Disability</u> \$ 995,254	Ordinary <u>Disability</u> \$ 154,408	<u>Survivor</u> \$ 1,301,601	Total \$ 25,803,466
2004	24,982,292	1,110,494	159,948	1,429,629	27,682,363
2005	26,542,408	1,043,212	164,651	1,492,113	29,242,384
2006	28,426,759	1,134,848	144,476	1,596,723	31,302,806
2007	34,077,659	1,194,359	124,092	1,914,638	37,310,748
2008	36,099,484	1,228,039	94,230	2,111,932	39,533,685
2009	39,708,613	1,241,328	90,442	2,426,939	43,467,322
2010	43,069,896	1,218,305	90,804	2,717,817	47,096,822

### **Schedule of Retired Members by Benefit Type**

Fiscal Year Ended June 30	Annuity	Service- Connected <u>Disability</u>	Ordinary Disability	Survivor	<u>Total</u>
2003	569	33	9	72	683
2004	582	32	9	75	698
2005	597	32	9	77	715
2006	608	32	8	79	727
2007	618	32	7	86	743
2008	634	30	6	87	757
2009	660	30	6	92	788
2010	691	30	6	98	825

## **Schedule of Average Monthly Benefit Amounts**

Fiscal Year Ended June 30	<u>Annuity</u>	Service- Connected <u>Disability</u>	Ordinary <u>Disability</u>	<u>Survivor</u>	<u>Average</u>
2003	\$3,602	\$2,617	\$1,482	\$1,561	\$3,311
2004	3,713	2,699	1,525	1,609	3,412
2005	3,895	2,908	1,599	1,691	3,584
2006	4,063	3,111	1,467	1,825	3,750
2007	4,511	3,266	1,401	2,013	4,139
2008	4,752	3,453	1,256	2,208	4,381
2009	4,805	3,439	1,261	2,031	4,434
2010	4,956	3,360	1,290	2,290	4,554



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## Fairfax County Police Officers Retirement System



A Fairfax County, Va., publication

## **Comprehensive Annual Financial Report**

For the Fiscal Year ended June 30, 2010