

# Comprehensive Annual Financial Report **2011**



## *Police Officers*

**RETIREMENT SYSTEM**



*For the Fiscal Year  
Ended  
June 30, 2011*

**A Pension Trust Fund of Fairfax County, Virginia**

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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 24, 2011

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, 2011. 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 Management's Discussion and Analysis provides further detail to the financial statements.

## 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.

## 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.

## Capital Markets and Economic Conditions

During fiscal year 2011, the economy continued its gradual recovery from deep recession. Despite continued high unemployment rates and the slow rate of recovery, the capital markets provided strong returns for the twelve month period despite a significant decline in the final two months. The System's portfolio achieved outstanding results, both in absolute and relative terms. The rate of return on investments was 25.7% (25.2%, after fees



Retirement Administration Agency

10680 Main Street \* Suite 280 \* Fairfax, VA 22030

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

<http://www.fairfaxcounty.gov/retirement/>

and expenses), well ahead of the long term target return of 7.5%. This return also was well above the median public fund return of 21.3% and placed in the 6<sup>th</sup> percentile of the BNYMellon universe of public funds.

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 are expected to remain relatively level over time as a percentage of payroll, but will be adjusted as necessary to accumulate sufficient assets to meet the costs of benefit payments when due. The valuation of the System performed as of July 1, 2010, indicated that the ratio of assets accumulated by the System to total actuarial accrued

liabilities for benefits showed a decline from 81.7%.to 79.3% The actuarial section contains further information on the results of the July 1, 2010, valuation.

Based on the July 1, 2010, actuarial valuation, the employer contribution rate for 2012 following the adopted corridor-based funding policy was 30.34%, an increase of 2.03% over the 2010 rate of 28.31%. This increase in the rate is required to amortize the increase in unfunded liability from FY 2010 actuarial experience. During establishment of the FY 2012 County budget, the Board of Supervisors adopted a contribution rate of 31.30% to increase the rate of amortization of the unfunded liability.

### **Major Initiatives**

During FY 2011, our plan actuary conducted a five-year actuarial experience study. This study analyzed our actual experience compared to the financial and demographic assumptions that underlie the calculation of plan liabilities and determine ongoing funding requirements. As a result of the study, the actuary and the Board confirmed that the assumption of a 7.5% rate of investment return continued to be sound. Both the assumed rate of inflation and rate of retiree cost-of-living increases were lowered. The most significant revision to the demographic assumptions was the adoption of a new mortality table. The new assumptions will be used in completing the actuarial valuation of July 1, 2011, which will be the basis of the FY 2013 employer contribution rate.

Plan modifications adopted during the year included the elimination of the sunset provision for the Deferred Retirement Option Program, the redefinition of the financial threshold for consideration of any future additional "ad hoc" retiree cost-of-living increases and minor modifications to plan language to clarify terms required to maintain IRS qualified status.

We improved our records storage and retrieval capabilities by converting all participant-level paper files to electronic format, making them available real time along with the Pension Gold administration system.

The Board's external investment consultant, Mercer, withdrew from public fund consulting. Following careful consideration and with the knowledge of the Employees' Retirement System's experience with insourcing the consulting function, the Board of Trustees elected to forego a search for an external consultant and rely on staff to fill the consulting role.

### **Awards**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to The Fairfax County Police Officers Retirement System for its comprehensive annual financial report for the fiscal year ended June 30, 2010. In order to be awarded a Certificate of

Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe that our current annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

### **Other Information**

#### *Independent Audit and Actuarial Certifications*

KPMG LLP performs a yearly audit of the financial statements of the plan to ensure compliance with government accounting, auditing and financial reporting standards. Additionally, Cheiron performs an annual actuarial valuation to assess the plan's ability to meet future obligations. 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/](http://www.fairfaxcounty.gov/retirement/).

Respectfully submitted,



Robert L. Mears  
Executive Director

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

Fairfax County

Police Officers Retirement System  
Virginia

For its Comprehensive Annual

Financial Report

for the Fiscal Year Ended

June 30, 2010

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



President

Executive Director

**Board of Trustees**

**Captain John R. Piper**

*President*

Elected Member Trustee

*Term Expires: December 31, 2012*

**Sweeney (Aniello A.) De Santis**

*Vice President and Secretary*

Elected Member Trustee

*Term Expires: December 31, 2014*

**Victor L. Garcia**

*Treasurer*

Fairfax County Director of Finance

Ex officio Trustee

**James R. Dooley, Jr.**

Elected Retired Member Trustee

*Term Expires: June 30, 2014*

**Craig E. Dyson**

Board of Supervisors Appointee

*Term Expires: December 31, 2013*

**Brendan D. Harold**

Board of Supervisors Appointee

*Term Expires: December 31, 2014*

**Stephen K. Gallagher**

Board of Supervisors Appointee

*Term Expires: June 30, 2014*

**Administrative Organization**

**Administrative Staff**

Robert L. Mears  
*Executive Director*

Jeffrey A. Willison  
*Investment Manager*

Laurnz A. Swartz  
*Chief Investment Officer*

John P. Sahn  
*Retirement Administrator*

**Professional Services**

**Actuary**

CHEIRON  
Actuaries  
McLean, VA

**Auditor**

KPMG LLP  
Certified Public Accountants  
Washington, DC

**Investment Managers**

Acadian Asset Management, LLC  
Boston, MA

AQR Capital Management, LLC  
Greenwich, CT

BlueCrest Capital Management, LLP  
New York, NY

BNY Mellon Cash Investment Strategies  
Pittsburgh, PA

Bridgewater Associates, Inc.  
Westport, CT

ClariVest Asset Management, LLC  
San Diego, CA

The Clifton Group  
Edina, MN

Cohen & Steers Capital Management, Inc.  
New York, NY

Dodge & Cox Investment Managers  
San Francisco, CA

DoubleLine Capital, L.P.  
Los Angeles, CA

FrontPoint Partners, LLC  
Greenwich, CT

Goldman, Sachs & Company  
Tampa, FL

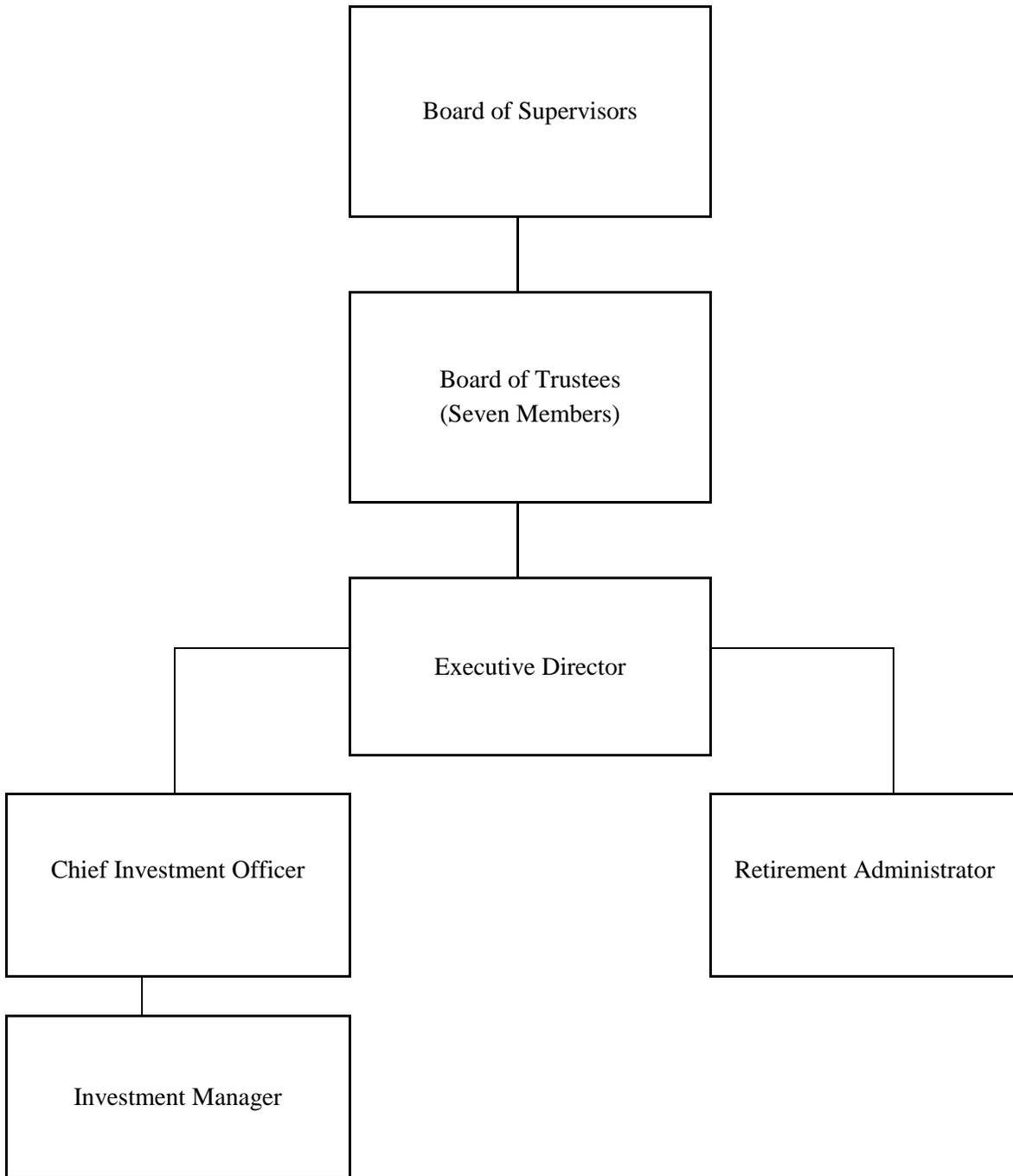
**Investment Managers**  
**(continued)**

Gramercy Advisors, LLC Greenwich, CT	Grantham, Mayo, Van Otterloo & Co. Boston, MA
King Street Capital Management, L.P. New York, NY	Loomis, Sayles & Company, L.P. Boston, MA
McKinley Capital Management, Inc. Anchorage, AK	MetWest Asset Management, LLC Los Angeles, CA
Oaktree Capital Management, L.P. Los Angeles, CA	PIMCO Newport Beach, CA
Pzena Investment Management, LLC New York, NY	Ramius, LLC New York, NY

**Custodian Bank**

BNY Mellon Asset Servicing  
Pittsburgh, PA

**Organization Chart**



**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 was 28.31% for fiscal year 2011. 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 66⅔% 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 \$2,065.01 for the spouse or surviving handicapped child (if there is no spouse), plus each eligible child receives \$826.00 up to a total family benefit of \$4,130.01 (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 $\frac{2}{3}$ % 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.

**Note:** 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, 2011, 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, 2011, 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.

*KPMG LLP*

October 21, 2011

**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, 2011. 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, 2011. 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, employer contributions and administrative expenses. 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 2011 the assets of the Police Officers’ Retirement System increased 23.8%, resulting in a total net asset value of \$1.0 billion, reflecting an increase of \$199.1 million over fiscal year 2010. The growth in assets was primarily due to investment gains of \$210 million and \$39.3 million in contributions offset by benefit payment deductions of \$49.9 million and administrative expenses of \$.04 million.

The actuarial value of the assets as of the last valuation on June 30, 2010, was \$899.5 million while actuarial liabilities as of the same period were \$1.1 billion. This resulted in a funded ratio of 79.3%.

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 (millions)	Net Change in Dollars (millions)	Net Change in Percent
2010	\$836.0	\$129.4	18.3
2011	\$1,035	\$199.1	23.8

**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/](http://www.fairfaxcounty.gov/retirement/).

**Summary Statement of Plan Net Assets**

<b>Assets</b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>Difference</u></b>
Total cash and investments	\$1,075,170,533	\$876,196,545	\$198,973,988
Total receivables	<u>12,514,340</u>	<u>7,661,149</u>	<u>4,853,191</u>
<b>Total assets</b>	1,087,684,873	883,857,694	203,827,179
<b>Total liabilities</b>	<u>52,538,912</u>	<u>47,824,638</u>	<u>4,714,274</u>
<b>Net assets held in trust</b>	<b><u>\$1,035,145,961</u></b>	<b><u>\$836,033,056</u></b>	<b><u>\$199,112,905</u></b>

**Summary of Additions and Deductions**

<b>Additions</b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>Difference</u></b>
Contributions			
Employer	\$29,174,611	\$23,766,626	\$5,407,985
Plan Members	10,142,459	10,389,241	(246,782)
Total investment income	<u>210,054,206</u>	<u>143,107,767</u>	<u>66,946,439</u>
<b>Total Additions</b>	<u>249,371,276</u>	<u>177,263,634</u>	<u>72,107,642</u>
<b>Deductions</b>			
Benefit payments	49,429,119	47,096,822	2,332,297
Refunds	466,363	406,863	59,500
Administrative expense	<u>362,889</u>	<u>349,179</u>	<u>13,710</u>
<b>Total deductions</b>	<u>50,258,371</u>	<u>47,852,864</u>	<u>2,405,507</u>
<b>Net increase/(decrease)</b>	<b><u>\$199,112,905</u></b>	<b><u>\$129,410,770</u></b>	<b><u>\$69,702,135</u></b>

**Statement of Plan Net Assets**

as of June 30, 2011

**Assets**

Cash and short-term investments

Equity in County's pooled cash and temporary investments	\$1,371,592	
Cash collateral received for securities on loan	38,820,722	
Short-term investments	<u>57,866,600</u>	
Total cash and short-term investments		\$98,058,914

Receivables

Accounts receivable	2,552,772	
Accrued interest and dividends	2,797,961	
Securities sold	<u>7,163,607</u>	
Total receivables		12,514,340

Investments, at fair value

Common and preferred stock	321,128,674	
Fixed income		
Asset-backed securities	83,393,368	
Corporate and other bonds	81,112,786	
U.S. Government obligations	35,581,286	
Pooled and mutual funds	<u>455,895,505</u>	
Total investments		<u>977,111,619</u>

Total assets 1,087,684,873

**Liabilities**

Purchase of investments	12,098,523	
Cash collateral received for securities on loan	38,820,722	
Accounts payable and accrued expenses	<u>1,619,667</u>	
Total liabilities		<u>52,538,912</u>

**Net assets held in trust for pension benefits** **\$1,035,145,961**

See accompanying notes to financial statements.

**Statement of Changes in Plan Net Assets**

For the Year Ended June 30, 2011

**Additions**

Contributions			
Employer	\$29,174,611		
Plan members	<u>10,142,459</u>		
Total contributions			\$39,317,070
Investment income from investment activities			
Net appreciation/(depreciation) in fair value of investments	185,827,758		
Interest	20,233,489		
Dividends	<u>7,727,342</u>		
Total investment income	213,788,589		
Investment activity expense			
Management fees	(3,473,267)		
Custodial fees	(104,000)		
Consulting fees	(96,313)		
Allocated administration expense	<u>(159,436)</u>		
Total investment expense	<u>(3,833,016)</u>		
Net income/(loss) from investment activities			209,955,573
Securities lending activities			
Securities lending income	113,767		
Securities lending expenses			
Borrower rebates	22,380		
Management fees	<u>(37,514)</u>		
Total securities lending activities expense	<u>(15,134)</u>		
Net income/(loss) from securities lending activities			<u>98,633</u>
Total net investment income/(loss)			<u>210,054,206</u>
Total additions			249,371,276

**Deductions**

Annuity benefits	45,302,801		
Disability benefits	1,282,041		
Survivor benefits	2,844,277		
Refunds of contributions to members	466,363		
Administrative expense	<u>362,889</u>		
Total deductions			<u>50,258,371</u>
Net increase/(decrease)			199,112,905

Net assets held in trust for pension benefits		
Beginning of fiscal year		836,033,056
<b>End of fiscal year</b>		<b><u>\$1,035,145,961</u></b>

See accompanying notes to financial statements.

**Notes to the Financial Statements**

For the year ended June 30, 2011

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, 2011, 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, 2010, the date of the latest actuarial valuation, membership in the System consisted of:

Retirees and beneficiaries receiving benefits	824
Terminated plan members entitled to but not yet receiving benefits	30
DROP participants	51
Active plan members	<u>1,312</u>
<b>Total</b>	<b><u>2,217</u></b>

*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, 2011, was 27.40% of annual covered payroll. The decision was made to commit additional funding and a rate of 28.31% was adopted for fiscal year 2011.

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

*Plan’s Funded Status Information.* The actuarial valuation performed as of July 1, 2010, showed the System’s funded status at 79.3%, a decrease of 2.4 percentage points from the July 1, 2009, funded percentage of 81.7%. 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, 2010.

<b>Actuarial Validation Date</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Accrued Liability</b>	<b>Unfunded Actuarial Liability</b>	<b>Funded Ratio</b>	<b>Covered Payroll</b>	<b>Unfunded Percent of Covered Payroll</b>
	<b>(a)</b>	<b>(b)</b>	<b>(b-a)</b>	<b>(a/b)</b>	<b>(c)</b>	<b>((b-a)/c)</b>
7/1/2010	\$899,543,387	\$1,135,015,298	\$235,471,911	79.3%	\$100,500,094	234.3%

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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, 2010
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, 2010, in accordance with the GASB methodology resulted in a contribution rate of 38.91% for fiscal 2012, an increase of 3.13 percentage points over the fiscal 2011 rate of 35.78% 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 a rate of 30.34% for fiscal year 2012. The decision was made to commit additional funding for fiscal year 2012 and a rate of 31.30% was adopted, an increase of 2.99% over the fiscal year 2011 adopted rate of 28.31%.

### **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.

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The System's investment quality ratings at June 30, 2011, were as follows:

<b><u>Type of Investment</u></b>	<b><u>Fair Value</u></b>	<b><u>Ratings</u></b>	<b><u>Percent of Fixed</u></b>
U. S. Government Obligations	\$35,581,286	AAA	17.8%
Corporate & Other Bonds	3,065,178	AAA	1.5%
	2,174,019	AA	1.1%
	12,917,765	A	6.5%
	15,608,852	BBB	7.8%
	14,083,411	BB	7.0%
	18,854,446	B	9.4%
	6,165,783	CCC	3.1%
	453,750	D	0.2%
	7,789,582	Unrated	3.9%
Asset- backed Securities	55,816,859	AAA	27.9%
	2,455,738	AA	1.2%
	963,662	A	0.5%
	1,224,349	BBB	0.6%
	2,421,207	BB	1.2%
	3,181,484	B	1.6%
	6,558,346	CCC	3.3%
	1,623,577	CC	0.8%
	4,233,469	D	2.1%
	<u>4,914,677</u>	<u>Unrated</u>	<u>2.5%</u>
<b>Total Fixed Income</b>	<b><u>\$200,087,440</u></b>	<b>A</b>	<b>100.0%</b>
<b>Short-term Investments</b>	<b><u>\$57,866,600</u></b>	<b>Unrated</b>	

As of June 30, 2011, the fixed income portfolio exhibited an overall credit quality rating of "A", and approximately 28.7% 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, 2011, follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Option - Adjusted Durations (yrs)</u>	<u>Percentage of Fixed</u>
U.S. Government Obligations	\$35,581,286	6.4	17.80%
Corporate and Other Bonds	81,112,786	5.3	40.50%
Asset-backed	83,393,368	3.7	41.70%
<b>Total Fixed Income</b>	<b><u>\$200,087,440</u></b>	<b><u>4.8</u></b>	<b><u>100.00%</u></b>
 <b>Short-term Investments</b>	 <b><u>\$57,866,600</u></b>	 <b><u>0.1</u></b>	

As of June 30, 2011, the System's overall fixed income portfolio option-adjusted duration was 4.8 years compared with the 5.2 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, 2011, were held in the following currencies:

<u>International Securities</u>	<u>Short-term Investments &amp; Other</u>	<u>Equity</u>	<u>Convertible and Fixed Income</u>	<u>Total</u>
Euro Currency Unit	\$14,584	\$27,253,960	\$1,287,554	\$28,556,098
British Pound Sterling	11,011	23,882,776	---	23,893,787
Japanese Yen	49,589	20,330,317	---	20,379,906
Hong Kong Dollar	144,702	14,045,405	---	14,190,107
Australian Dollar	1,561	8,587,990	804,581	9,394,132
Canadian Dollar	20,432	7,649,914	748,660	8,419,006
Swiss Franc	110,744	7,222,954	---	7,333,698
South Korean Won	---	5,184,339	1,098,592	6,282,931
Singapore Dollar	43,255	3,722,278	---	3,765,533
Other Currencies	70,328	14,168,412	7,152,491	21,391,231
<b>Total International</b>	<b><u>\$466,206</u></b>	<b><u>\$132,048,345</u></b>	<b><u>\$11,091,878</u></b>	<b><u>\$143,606,429</u></b>

*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,

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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, 2011, the system held S&P futures with a net exposure of \$81.4 million. Gains and losses on derivative securities are determined based upon fair values and recorded in the Statement of Change in Plan Net Assets.

*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, 2011.

<u>Securities Lent</u>	<u>Underlying Securities</u>	<u>Cash Collateral Investment Value</u>	<u>Securities Collateral Investment Value</u>
Lent for cash collateral			
US Government securities	---	---	---
Corporate and other bonds	\$1,402,682	\$1,433,980	---
Common and Preferred stock	36,199,827	37,386,742	---
Lent of securities collateral			
Corporate and other bonds	---	---	---
Common and Preferred stock	<u>10,921,395</u>	---	<u>\$12,000,521</u>
<b>Total</b>	<b><u>\$48,523,904</u></b>	<b><u>\$38,820,722</u></b>	<b><u>\$12,000,521</u></b>

The System did not impose any restrictions during fiscal 2011 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, 2011 had a weighted-average maturity of 1 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**

Ten-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**

	<b>Actuarial Value of <u>Assets</u></b>	<b>Actuarial Accrued <u>Liability</u></b>	<b>Unfunded <u>Liability</u></b>	<b>Funded <u>Ratio</u></b>	<b>Covered <u>Payroll</u></b>	<b>Unfunded % of Covered <u>Payroll</u></b>
<u>Date</u>	(a)	(b)	(b-a)	(a/b)	(c)	((b-a)/c)
	(in thousands)	(in thousands)	(in thousands)	(in thousands)	(in thousands)	(in thousands)
7/1/2001	\$611,514	\$617,510	\$5,996	99.0%	\$66,755	9.0%
7/1/2002	618,383	656,615	38,232	94.2%	69,197	55.3%
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	196,496	81.7%	99,647	197.2%
7/1/2010	899,543	1,135,015	235,472	79.3%	100,500	234.3%

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**

<b>Fiscal Year <u>Ended June 30</u></b>	<b>Annual Required <u>Contribution</u></b>	<b>Percentage <u>Contributed</u></b>
2002	15,077,920	100%
2003	14,918,405	87%
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%
2011	36,872,751	80%

**Additional Supplementary Information**

**Schedule of Administrative Expenses as of June 30, 2011**

Personnel services		
Salaries and wages	\$178,301	
Fringe benefits	<u>61,205</u>	
Total personnel services		\$239,506
Professional services		
Actuarial	22,999	
Audit	5,449	
Medical	<u>2,010</u>	
Total professional services		30,458
Communications		
Phone charges	2,234	
Printing, binding and copying	2,999	
Postage	<u>6,925</u>	
Total communications		12,158
Supplies		
Office supplies	1,519	
Dues and subscriptions	<u>337</u>	
Total supplies		1,856
Other services and charges		
Board and staff travel and development	2,743	
Insurance	6,187	
Building rent	22,391	
Computer Systems	44,603	
Other operating	<u>2,987</u>	
Total other services and charges		<u>78,911</u>
<b>Total Administrative Expenses</b>		<b><u>\$362,889</u></b>

## **Capital Markets and Economic Conditions**

### **Fiscal Year 2011 Economic Environment**

During fiscal year 2011 global equity markets continued the recovery process that began in March of 2009 and continued through fiscal year 2010. Market sentiment and macroeconomic events played key roles as drivers of global markets throughout the fiscal year. Support from governments and central banks continued for much of the fiscal year until the last quarter which saw a relenting of quantitative easing by the Federal Reserve and fiscal austerity measures across Europe being implemented in an attempt to rein in public debt. During the first ten months of 2011, “risk on” was the watchword, as investors flocked to riskier assets which included domestic and international stocks, commodities, private equities, and real estate. Consumption was restrained by two persistent and difficult areas: the weak housing markets in most of the country and the nation’s stubborn unemployment and under-employment troubles. The large amounts of fiscal stimulus took shape in the forms of abundant government spending, public sector assumption of certain private debts, and various forms of tax relief. The accommodative monetary policy was most prominently evidenced in the Fed’s zero-interest-rate policy and second round of quantitative easing (QE2).

With governments globally set to support financial markets and low returns to be earned by “risk-free” assets, investors felt emboldened to bid up “risky” assets. The broad domestic equity market, as measured by the S&P 500 Index, continued its strong recovery from fiscal year 2009, producing a +30.7% return for fiscal year 2011. The domestic bond market, as measured by the Barclays Aggregate Bond Index, returned +3.9% in fiscal year 2011, representing a drop from the previous two years of +6.1% in 2009 and +9.5% in 2010. The global equity market, as measured by the MSCI All Country World Index (net), returned +30.1% in fiscal year 2011 compared to +11.8% in fiscal year 2010. Commodities soared over 25% while various indices of the real estate and private equity asset classes gained approximately 15% and 20%, respectively.

A pronounced retracement occurred during the May-June period to end the fiscal year. Investors demonstrated concern over troubles in the U.S. that echoed similar difficulties in Japan, England and many of the peripheral Eurozone countries such as Greece, Portugal, and Italy. The combination of slowing economic growth, rising oil and food prices, bulging fiscal deficits, and excessive levels of government debt contributed to multiple fears. These included fears of sovereign government defaults, a double-dip recession, and economic problems spiraling out of control. “Risk off” then became the watchword as investors began a retreat from risky assets for the safety of cash. Further compounding investor sentiment was an inability of Congress to reach a deal on the U.S. debt ceiling, which remained unresolved as of June 30, 2011.

### **Equity Markets**

U.S. Equities continued the momentum from a solid fiscal year 2010 to post higher returns across the board in fiscal year 2011, with each category producing returns above 25%. Similar to 2010, Large-cap stocks underperformed in 2011 relative to Small-cap stocks with the S&P 500 Index up 30.7% versus the Russell 2000 Index up 37.4%. However, unlike 2010, growth stocks outperformed value stocks considerably in 2011, with the Russell 1000 Growth Index up 35.0% versus the Russell 1000 Value Index return of 28.9% and the Russell 2000 Growth Index up 43.5% versus the Russell 2000 Value Index gain of 31.4%.

International developed market equities as measured by the MSCI EAFE (net) Index, a broad index of the international developed market equities, returned +30.4% for the year ended June 30,

2011. Emerging markets equities, as measured by the MSCI EM Index returned +27.8%. The JPM EMBI Global Diversified Index, a key barometer for emerging market debt, returned +11.7% for the year. The Citigroup World Government Bond Index also posted strong returns at +10.5%.

### **Real Estate Markets**

Publicly-traded Real Estate Investment Trusts (REITs) returned +34.1% for the fiscal year ended June 2011 compared to +53.9% in 2010. Privately-held real estate investment partnerships, as measured by the largely commercial property NCREIF Index, rebounded to earn +16.0% in fiscal 2011 compared to -9.6% in 2010.

### **Fixed Income Markets**

For the fiscal year, U.S. Fixed Income returns were positive but performance lagged compared to fiscal year 2010 partly due to strong equity markets. The Barclays Aggregate Bond Index returned +3.9%, while High-Yield bonds were the best performers returning +15.6% for the one-year period ended June 30, 2011. U.S. Treasury bonds finished the fiscal year on a strong note with a gain of +2.3% as macro-economic concerns caused investors to seek safety in U.S. Treasuries.

### **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 2011, investments provided a return of 25.7%, gross of fees (25.2%, net of fees). The System's annualized rates of return, gross of fees, were 7.9% (7.6%, net of fees) over the last three years and 7.0%, (6.6%), over the last five years. These System returns ranked in the 6<sup>th</sup> percentile of The Bank of New York Mellon universe of public plans in 2011, in the 1<sup>st</sup> percentile for the latest 3-year period, and in the 4<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 added the BlueCrest BlueTrend Fund and Gramercy Master Fund to increase the allocation in alternative investments and provide expanded diversification to the investment program.

**Investments by Category and Investment Manager**

June 30, 2011

<i>Asset Class</i> <b>Manager</b>	<b>Investment Style</b>	<b>Total Assets</b>	<b>% of Total Net Assets</b>
<b><i>Domestic Equities</i></b>			
PIMCO StocksPlus PARS*	Enhanced S&P 500 Index	\$56,310,903	5.4%
Goldman Sachs Asset Management	Large Cap Growth	50,160,671	4.9%
Pzena Investment Management	Large Cap Value	49,558,655	4.8%
ClariVest Asset Management	Small Cap Growth	33,579,274	3.2%
AQR Capital Management*	Small Cap Core	32,178,426	3.1%
Ramius Value and Opportunity*	Small Cap Value Activist	24,802,272	2.4%
FrontPoint Partners*	Enhanced S&P 500 Index	39,968,796	3.9%
King Street Capital*	Enhanced S&P 500 Index	43,610,000	4.2%
The Clifton Group	S&P 500 Beta Manager	10,066,440	1.0%
<b><i>International Equities</i></b>			
Grantham, Mayo, Van Otterloo *	Developed Markets Value	80,601,079	7.8%
McKinley Capital	Developed Markets Growth	88,188,063	8.5%
Acadian Asset Management*	Developed Markets Small Cap	25,935,424	2.5%
Acadian Asset Management*	Emerging Markets	35,464,145	3.4%
<b><i>Fixed Income</i></b>			
Dodge & Cox Investment Managers	Domestic Core Bonds	52,934,855	5.1%
DoubleLine Capital	Mortgage-Backed Securities	62,858,138	6.1%
Oaktree Capital Management*	Convertible Bonds	22,413,978	2.2%
Loomis, Sayles & Company	High Yield	57,863,423	5.6%
The Clifton Group	TIPS	30,248,271	2.9%
<b><i>Real Estate</i></b>			
Cohen & Steers Capital Management	Global Real Estate Securities	103,605,353	10.0%
<b><i>Alternative Investments</i></b>			
Pacific Investment Management Co. (PIMCO)*	Distressed Senior Credit	24,549,113	2.4%
Bridgewater Pure Alpha*	Global Macro Absolute Return Fund	38,464,366	3.7%
BlueCrest Capital Management*	Global Macro Absolute Return Fund	28,529,202	2.8%
Gramercy*	Emerging Markets Multi-Strategy	29,349,393	2.8%
MetWest TALF Fund*	Distressed Opportunity	7,074,640	0.7%
<b><i>Short-term</i></b>			
BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	4,526,190	0.5%
Cash Held at County Treasurer	Operating Cash Account	<u>1,371,592</u>	<u>0.1%</u>
<b>Total Investments</b>		<b>\$1,034,212,662</b>	<b>100.0%</b>

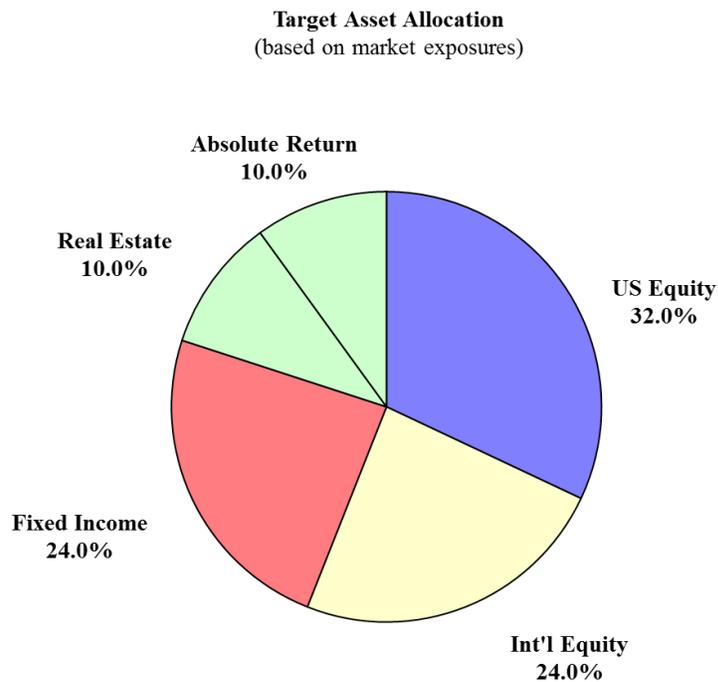
\* Pooled fund

**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, 2011. The target asset allocation provides a reasonable expectation that the System’s investment objectives can be achieved based on historical relationships of asset class performance.

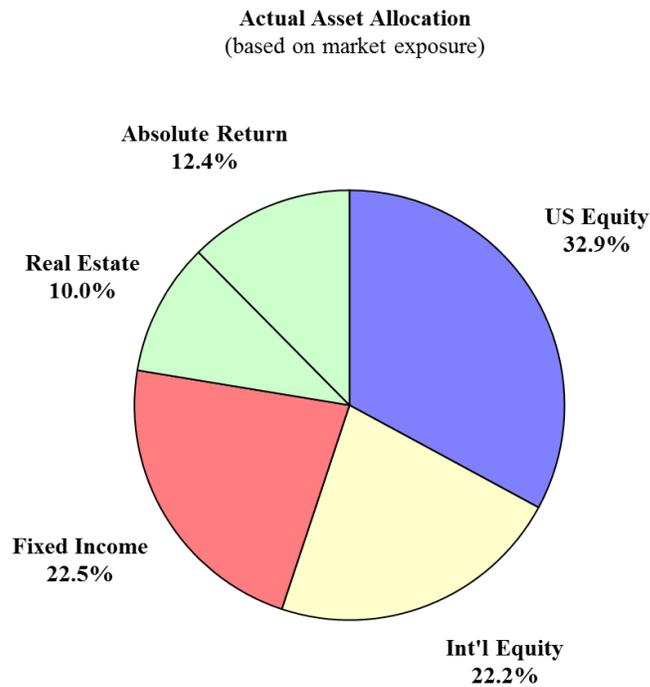
The pie chart below details the target asset mix, consistent with the achievement of the long-term objectives of the System, as of June 30, 2011.



**Actual Asset Allocation as of June 30, 2011**

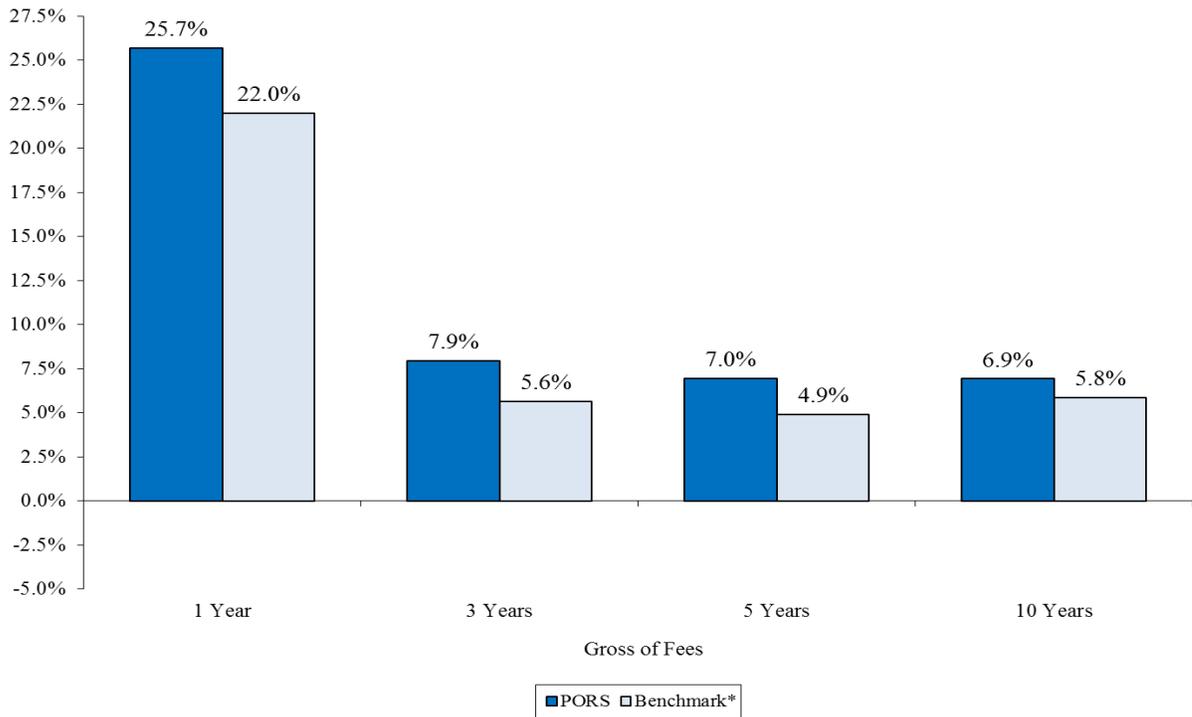
The asset structure of PORS has historically reflected a proper balance of the System’s needs for liquidity, growth of assets, and risk tolerance. The System’s investment policy is designed to continue to meet its long-term investment objectives while, at the same time, providing sufficient flexibility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

The pie chart below details the actual asset allocation as of June 30, 2011.



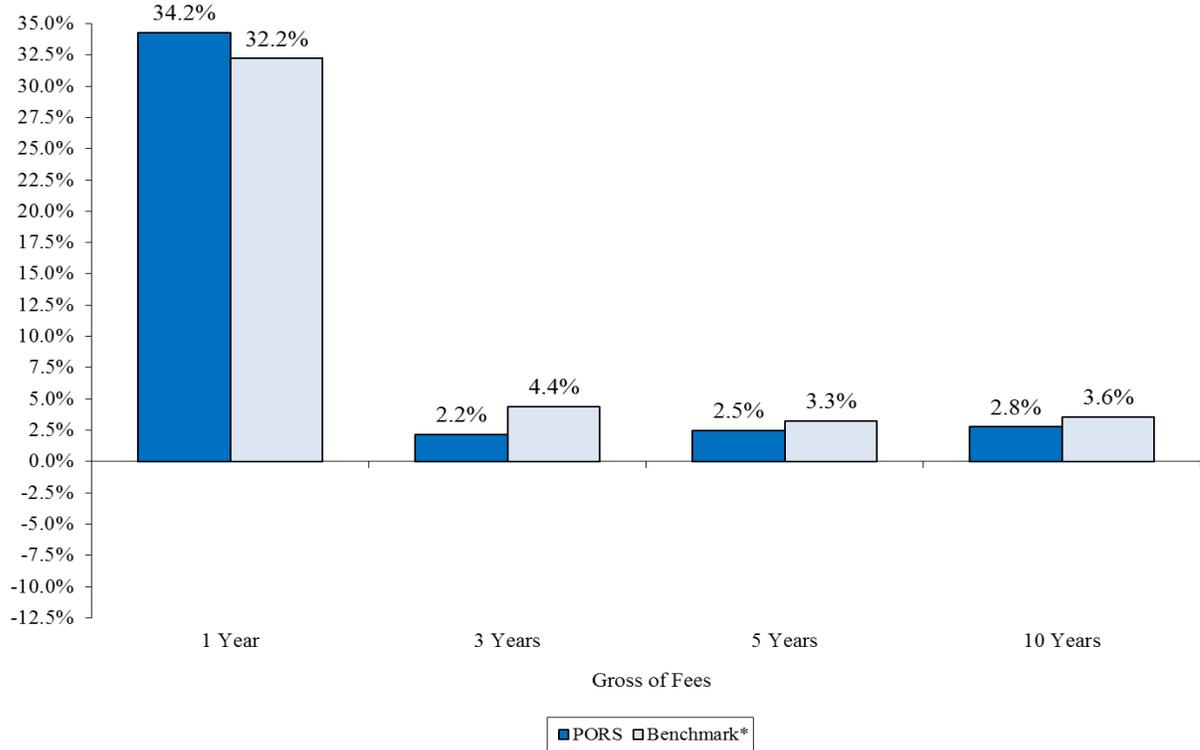
**Investment Results**

**Total Fund:**



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

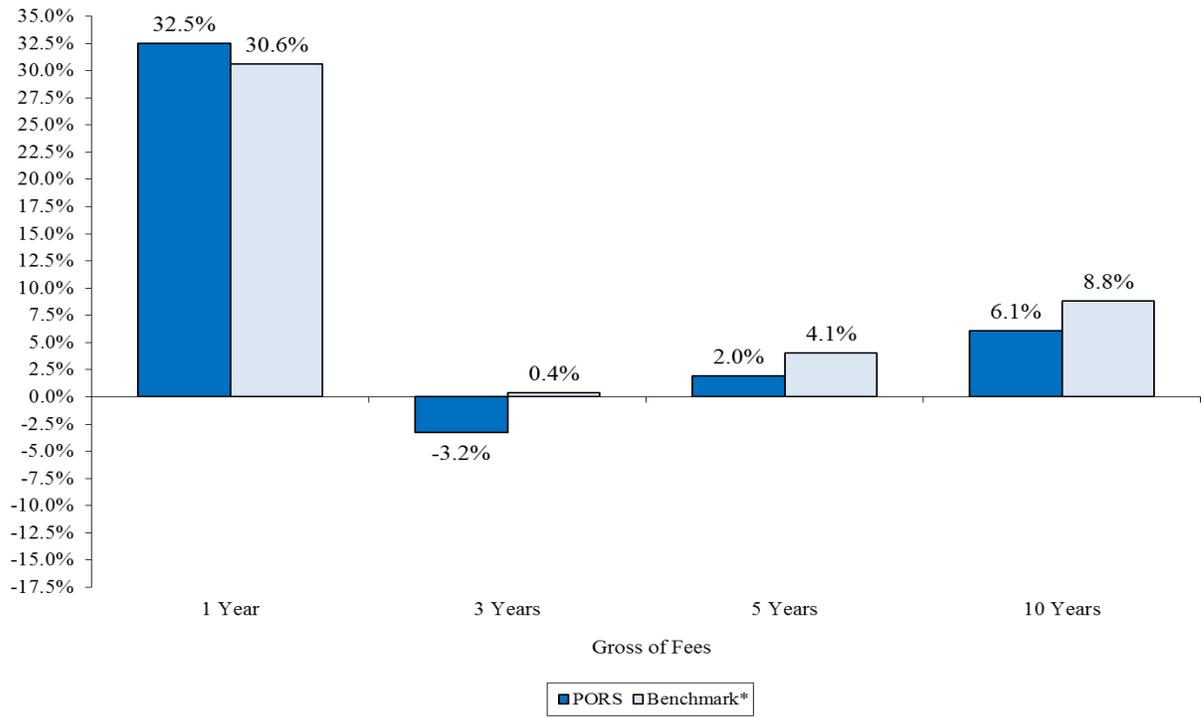
**Domestic Equity:**



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

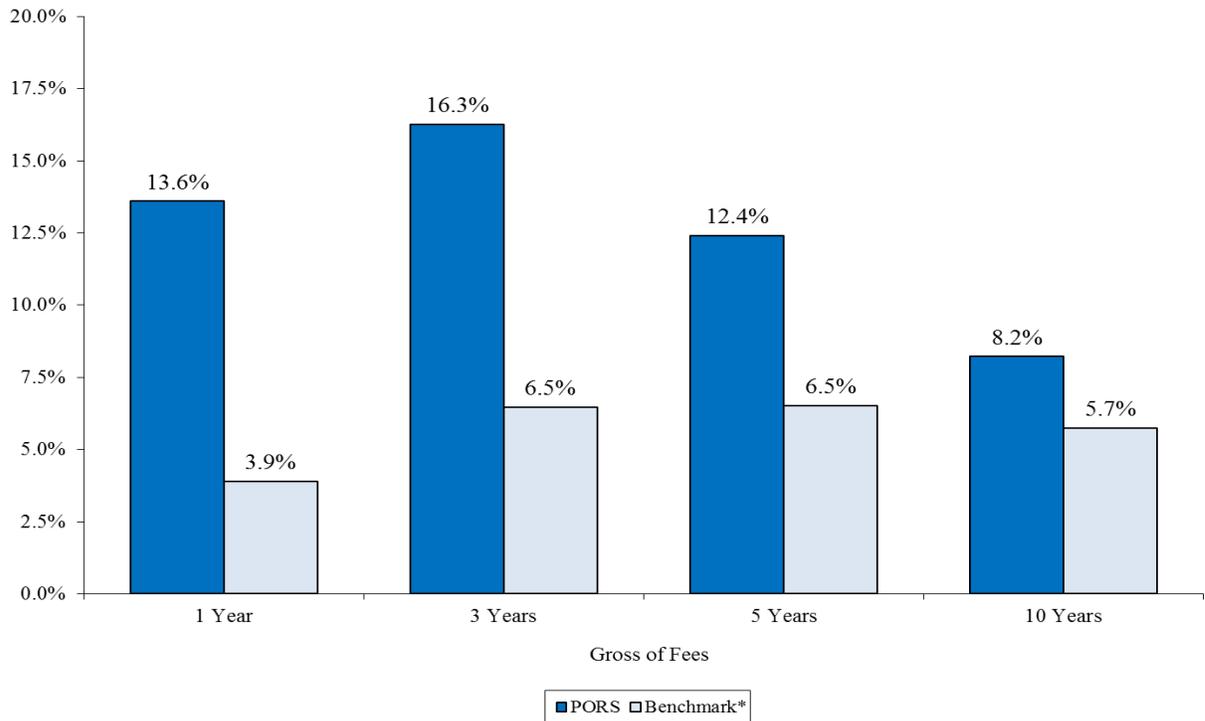
**Investment Results**

**International Equity:**



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

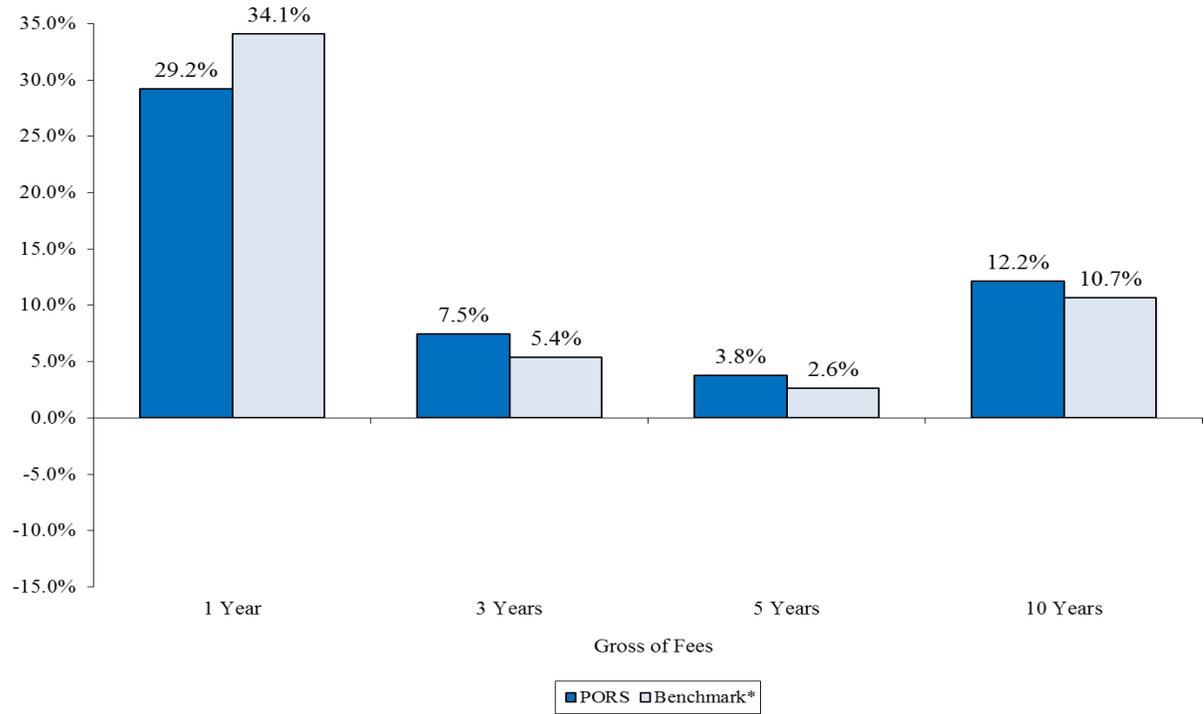
**Fixed Income:**



\*Benchmark: Barclays Aggregate

**Investment Results**

**Real Estate:**



\*Benchmark: NAREIT Equity Share Price Index

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

**Ten Largest Equity Holdings**

<u>No. Shares</u>	<u>Description</u>	<u>Cost</u>	<u>Fair Value</u>	<u>% of Total Portfolio</u>
44,565	Simon Property Group Inc	\$3,064,635	\$5,179,790	0.50%
238,000	Mitsui Fudosan Co	4,682,854	4,060,971	0.39%
264,000	Sun Hung Kai Properties	4,368,603	3,844,010	0.37%
14,971	Unibail-Rodamco Se	2,905,667	3,460,975	0.33%
35,373	Vornado Realty Trust	3,240,674	3,296,056	0.32%
9,743	Apple Inc	1,415,441	3,270,433	0.32%
350,707	Westfield Group	3,437,264	3,251,543	0.31%
89,995	Prologis Inc	2,771,466	3,225,421	0.31%
168,000	Mitsubishi Estate Co	3,062,351	2,924,814	0.28%
50,967	Qualcomm Inc	<u>2,189,445</u>	<u>2,924,814</u>	<u>0.28%</u>
	<b>Total</b>	<b>\$31,138,400</b>	<b>\$35,438,827</b>	<b>3.41%</b>

**Ten Largest Fixed Income Holdings**

<u>Par Value (in local values)</u>	<u>Description</u>	<u>Cost (in U.S. Dollars)</u>	<u>Fair Value (in U.S. Dollars)</u>	<u>% of Total Portfolio</u>
9,226,801	U.S. Treas-CPI Inflation Index, 2.500%, 01/15/2029	\$ 10,277,201	\$ 10,716,099	1.04%
5,950,072	U.S. Treas-CPI Inflation Index, 1.875%, 07/15/2019	6,395,810	6,654,322	0.64%
4,622,273	U.S. Treas-CPI Inflation Index, 2.000%, 01/15/2016	4,998,153	5,137,240	0.50%
4,380,948	U.S. Treas-CPI Inflation Index, 2.000%, 01/15/2014	4,723,280	4,719,771	0.46%
3,100,000	U.S. Treasury Note, 0.625%, 07/13/2012	3,112,715	3,112,710	0.30%
1,574,468	FNMA Pool, 6.500%, 10/01/2026	1,610,203	1,804,545	0.17%
2,000,000	GSAA Trust, Variable Rate, 09/25/2035	1,318,180	1,647,160	0.16%
1,495,000	U.S. Treasury Note, 2.500%, 04/30/2015	1,510,130	1,567,881	0.15%
1,489,362	U.S. Treas-CPI Inflation Index, 0.625%, 04/15/2013	1,558,058	1,533,224	0.15%
1,425,684	U.S. Treas-CPI Inflation Index, 3.000%, 07/15/2012	<u>1,536,141</u>	<u>1,487,616</u>	<u>0.14%</u>
	<b>Total</b>	<b>\$ 37,039,871</b>	<b>\$ 38,380,568</b>	<b>3.71%</b>

**Schedule of Brokerage Commissions**  
Year Ended June 30, 2011

<u>Broker Name</u>	<u>Base Volume</u>	<u>Total Shares</u>	<u>Base Commission</u>	<u>Commission Percentage</u>
JP Morgan Secs Asia Pacific, Hong Kong	\$6,867,108	7,293,482	\$ 14,189	0.21%
Goldman Sachs (Asia), Seoul	3,271,063	26,540	6,560	0.20%
JP Morgan Secs, Singapore	3,759,337	1,927,000	7,418	0.20%
Macquarie Securities Limited, Hong Kong	7,375,587	2,846,065	13,808	0.19%
Merrill Lynch Pierce Fenner, Wilmington	17,500,698	2,309,237	29,006	0.17%
Citigroup Gbl Mkts/Salomon, New York	8,532,897	5,128,594	13,817	0.16%
Merrill Lynch & Co Inc Atlas Global, NY	6,244,003	422,007	9,363	0.15%
Credit Agricole Cheuvreux, Courbevoie	3,537,222	80,930	5,304	0.15%
Mitsubishi UFJ Sec (USA), New York	4,294,664	224,921	6,434	0.15%
Merrill Lynch Gilts Ltd, London	5,711,314	1,448,610	8,542	0.15%
Barclays Capital, London	3,544,243	492,012	5,294	0.15%
Lehman Brothers Inc, Jersey City	6,014,590	482,981	8,957	0.15%
Macquarie Equities Ltd, Sydney	3,900,937	1,743,003	5,642	0.14%
Pershing LLC, Jersey City	64,252,963	4,958,603	92,040	0.14%
JP Morgan Secs Ltd, London	5,417,460	418,314	7,540	0.14%
JP Morgan Secs, Sydney	3,164,477	1,075,043	4,395	0.14%
UBS Warburg Asia Ltd, Hong Kong	7,734,297	2,164,165	10,315	0.13%
Nomura Secs Intl Inc, New York	18,397,211	1,690,507	24,408	0.13%
National Fin Svcs Corp, New York	3,533,731	140,215	4,625	0.13%
Merrill Lynch Intl London Equities	4,945,866	428,609	6,436	0.13%
Goldman Sachs & Co, NY	12,311,390	1,952,837	15,802	0.13%
Cantor Fitzgerald & Co Inc, New York	3,357,465	268,878	4,114	0.12%
Wells Fargo Securities LLC, Charlotte	4,468,095	181,381	5,444	0.12%
Barclays Capital Inc/Le, New Jersey	3,456,781	126,031	4,132	0.12%
UBS Securities LLC, Stamford	9,805,279	359,949	11,651	0.12%
Stifel Nicolaus	6,731,808	238,461	7,931	0.12%
Raymond James & Assoc Inc, St Petersburg	3,606,896	148,072	4,245	0.12%
RBC Dominion Secs Inc, Toronto	3,287,680	125,117	3,790	0.12%
Baird, Robert W & Co Inc, New York	3,425,029	115,218	3,917	0.11%
Keybank Capital Markets Inc, New York	4,150,207	143,452	4,657	0.11%
BNY Convergenx/LJR, Houston	10,791,413	337,889	11,883	0.11%
BNY Convergenx, New York	7,861,881	423,009	8,460	0.11%
Credit Suisse, New York	41,792,303	8,481,597	41,196	0.10%
Merrill Lynch Pierce Fenner Smith Inc, NY	44,271,552	1,463,449	43,454	0.10%
Credit Suisse (Europe), London	4,749,481	681,391	4,571	0.10%
Citigroup Gbl Mkts Inc, New York	18,330,343	795,980	17,030	0.09%
Morgan Stanley & Co Inc, NY	27,667,178	1,553,890	24,835	0.09%
Knight Equity Markets LP, Jersey City	4,190,534	114,818	3,735	0.09%
Deutsche Bk Secs Inc, NY	23,685,807	1,361,272	19,843	0.08%
UBS Equities, London	6,358,864	1,166,532	5,055	0.08%
Keefe Bruyette and Woods, Jersey City	7,322,394	150,337	5,557	0.08%
JP Morgan Clearing Corp, New York	48,416,537	2,001,522	35,938	0.07%
Barclays Capital Le, Jersey City	7,592,613	407,416	5,241	0.07%
Cap Instl Svcs Inc – Equities, Dallas	5,439,940	94,565	3,605	0.07%
Jefferies & Co Inc, New York	10,631,214	405,797	6,590	0.06%
Knight Secs, New Jersey	6,603,399	593,758	3,961	0.06%
Instinet Europe Limited, London	7,218,253	531,142	4,328	0.06%
Investment Technology Group, New York	10,349,908	534,722	5,347	0.05%
Liquidnet Inc, Brooklyn	6,738,692	154,631	3,093	0.05%
Instinet Corp, NY	28,654,178	1,174,709	11,747	0.04%
Other Brokers	108,114,065	16,600,795	148,822	0.14%
<b>Total</b>	<b>\$679,380,847</b>	<b>77,989,455</b>	<b>\$764,067</b>	<b>0.11%</b>

**Investment Summary**  
(Based on Capital Allocation)

	<u>As of June 30, 2010</u>		<u>As of June 30, 2011</u>	
	<u>Market Value</u>	<u>% Market Value</u>	<u>Market Value</u>	<u>% Market Value</u>
Domestic Equities	\$304,904,085	36.5%	\$340,235,437	32.8%
International Equities	174,440,735	20.9%	230,188,711	22.3%
Fixed Income	206,679,007	24.7%	226,318,665	21.9%
Real Estate	83,267,983	10.0%	103,605,353	10.0%
Alternative Investments	61,195,406	7.3%	127,966,714	12.4%
Short-term	<u>4,624,110</u>	<u>0.6%</u>	<u>5,897,782</u>	<u>0.6%</u>
<b>Total</b>	<b>\$835,111,326</b>	<b>100.0%</b>	<b>\$1,034,212,662</b>	<b>100.0%</b>

**Schedule of Direct Investment Management Fees**

As of June 30, 2011

<i>Asset Class</i>				
<u>Manager</u>	<u>Investment Style</u>	<u>Total Assets</u>	<u>Fees</u>	
<i>Domestic Equities</i>				
Goldman Sachs Asset Mgt.	Large Cap Growth	\$50,160,671	\$330,572	
Pzena Investment Mgt.	Large Cap Value	49,558,655	237,988	
ClariVest Asset Mgt.	Small Cap Growth	33,579,274	240,278	
The Clifton Group	S&P 500 Beta Manager	10,066,440	15,743	
<i>International Equities</i>				
McKinley Capital	Developed Markets Growth	88,188,063	486,771	
Acadian Asset Mgt.	Developed Markets Small Cap	25,935,424	167,149	
Acadian Asset Mgt.	Emerging Markets	35,464,145	266,415	
<i>Fixed Income</i>				
Dodge & Cox Investment Managers	Domestic Core Bonds	52,934,855	197,631	
DoubleLine Capital	Mortgage-Backed Securities	62,858,138	642,221	
Trust Company of the West *	Mortgage-Backed Securities	-	40,490	
Loomis, Sayles & Company	High Yield	57,863,423	278,390	
The Clifton Group	TIPS	30,248,271	47,230	
<i>Real Estate</i>				
Cohen & Steers Capital Management	Global Real Estate Securities	103,605,353	493,810	
<i>Short-term</i>				
BNY Mellon Cash Investment Strategies	Plan Level Cash Accounts	<u>4,526,190</u>	<u>28,579</u>	
<b>Total</b>		<b>\$604,988,902</b>	<b>\$3,473,267</b>	

\* Terminated during FY 2010



Classic Values, Innovative Advice

February 24, 2011

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, 2010. 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, 2010 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.





February 24, 2011  
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 2010 information in the Schedule of Funding Progress, Schedule of Employer Contributions and Notes to Trend Data shown in the Financial Section. All data shown prior to 2004 was prepared by the prior actuary.

**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).

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  
Principal Consulting Actuary



**Summary of Valuation Results**

**Overview**

This report presents the results of the July 1, 2010 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 2012;
- 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 on the next page:

<b>Changes Since 2001</b>	<b><u>Impact on</u></b>	
	<b>Normal Cost Rate</b>	<b>UAL Rate</b>
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
2008 ad-hoc COLA	N/A	+0.50%
<b>Total Increase</b>	<b>+ 1.82%</b>	<b>+ 3.72%</b>

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, 2010 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 7.50% 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 rebound in the financial markets during the fiscal year ending in 2010, however, due to asset smoothing and the significant downturn for the fiscal year ending in 2009, an actuarial loss on the asset side of the System still occurred. The actual return on a market value basis was approximately 20.45%. On an actuarial value basis, the assets returned 3.86% compared with an assumed rate of return of 7.5%. The loss recognized for funding purposes was \$31.8 million.

The measurement of liabilities produced a gain this year in the amount of \$3.3 million. This gain was due to experience not meeting our assumptions about salary increases, retirement behavior, death, etc. Specific components of the gain include:

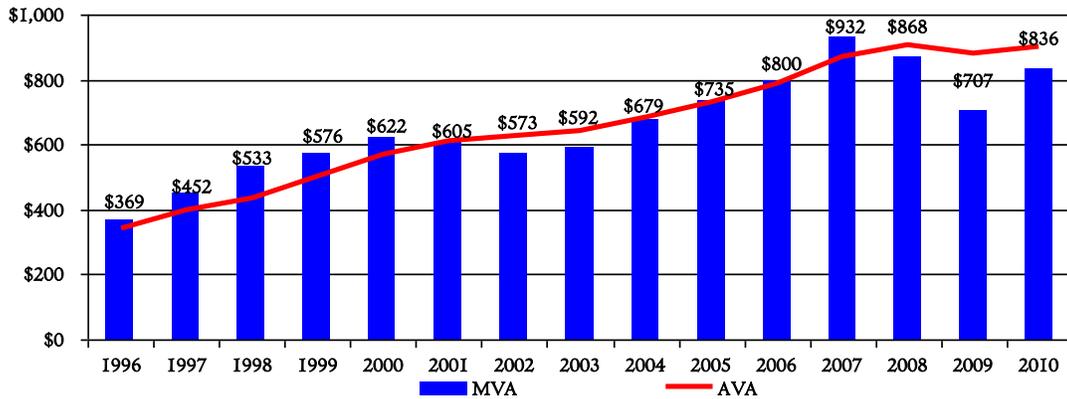
- The average salary increase was 4.4% for active participants who were in both the July 1, 2009 and July 1, 2010 valuations. This was less than the expected salary growth based on the actuarial assumption, which worked out to average 7.0% for this group. This resulted in a gain of \$9.2 million.
- The valuation assumes a 3% cost-of-living adjustment each year for benefits in pay status. The actual CPI-based COLA was 2.3% last year, creating a liability gain of \$4.6 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 \$0.5 million to that number.
- There was a \$10.0 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 81.7% at July 1, 2009 to 79.3% at July 1, 2010. 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 85.0% at July 1, 2009 to 82.1% at July 1, 2010.

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.

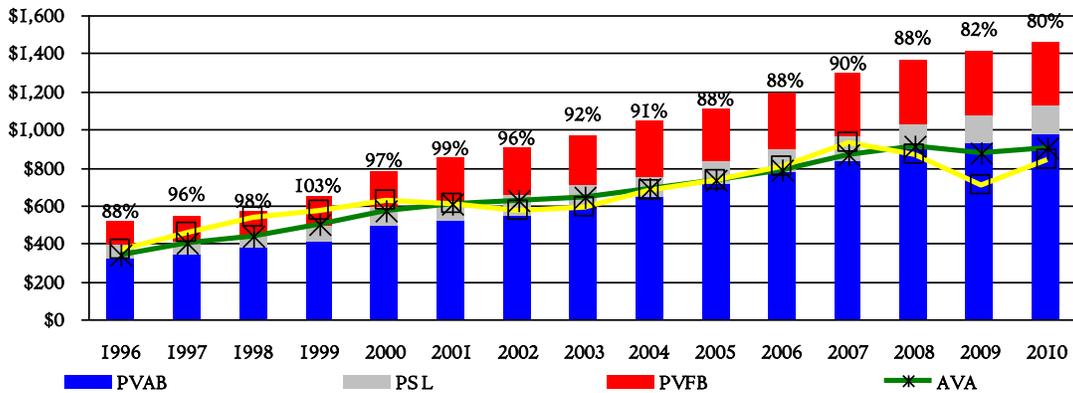
Growth in Assets



There was a substantial increase in the market value of assets (MVA) over last year due to a return of 20.45%. The actuarial value of assets (AVA) did not increase by as much as the market value, however, because a portion of last year’s investment loss was held for future recognition. The System recognized two-thirds of the actuarial asset loss from last year and one-third of the actuarial asset gain from this year. There remains a \$64 million unrecognized loss that will be phased in over the next few years.

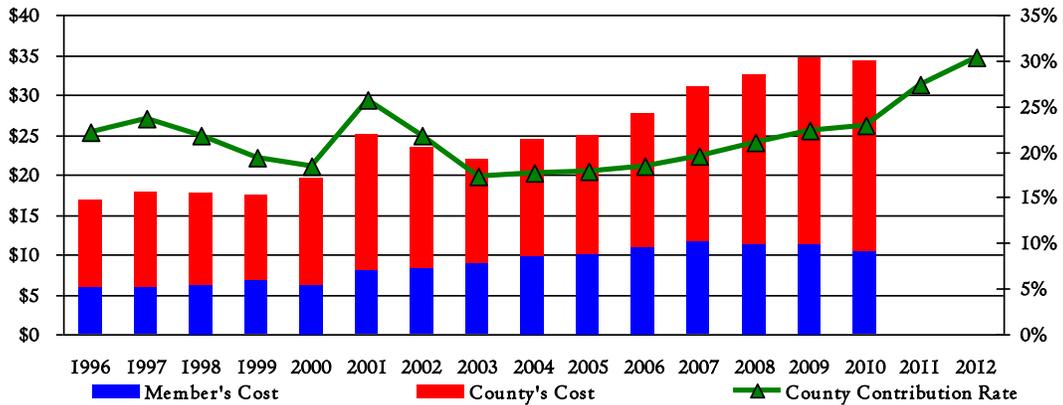
Over the period of July 1, 1996 to June 30, 2010 the System’s assets returned approximately 7.1% per year measured at market value, compared to a valuation assumption of 7.5% per year. Over the last 10 years the average return has been only 3.8% per year.

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.

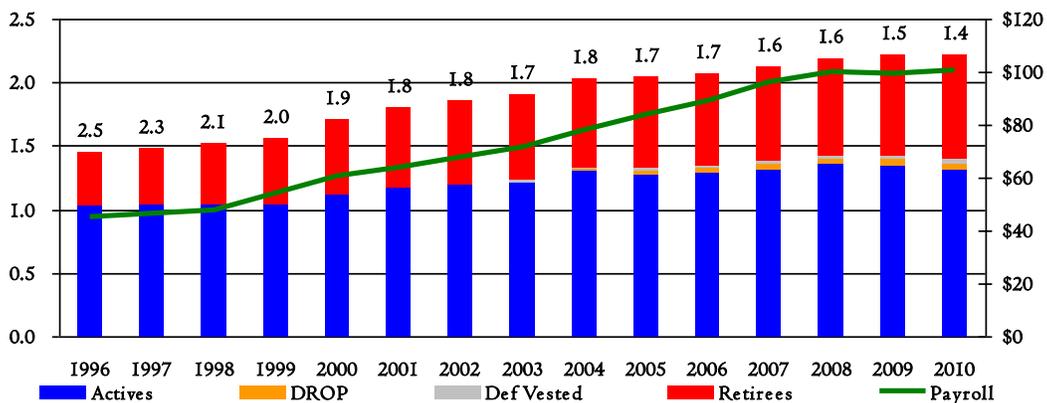
Contribution Rates



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). County contribution rates have risen since FY 2003, primarily due to investment returns not meeting the actuarial assumption of 7.5% per year.

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 2010 value is the rate prepared by the 2008 valuation and implemented for the period July 1, 2009 to June 30, 2010.

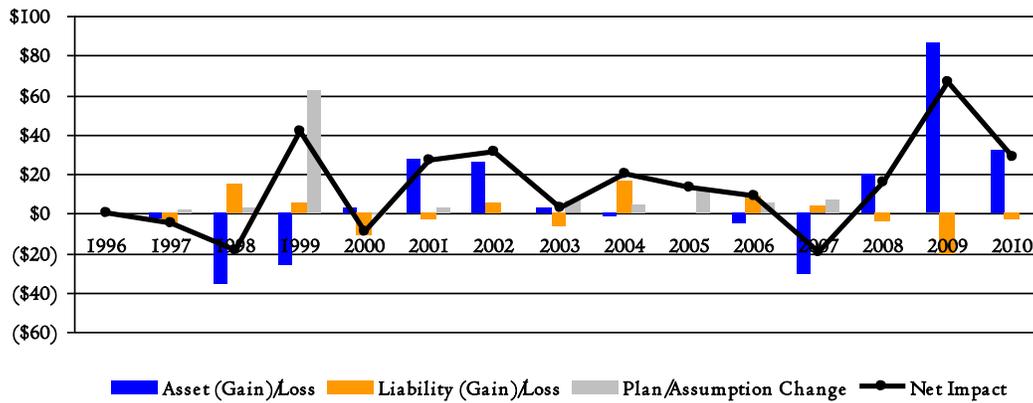
Participant Trends



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 1.4 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.

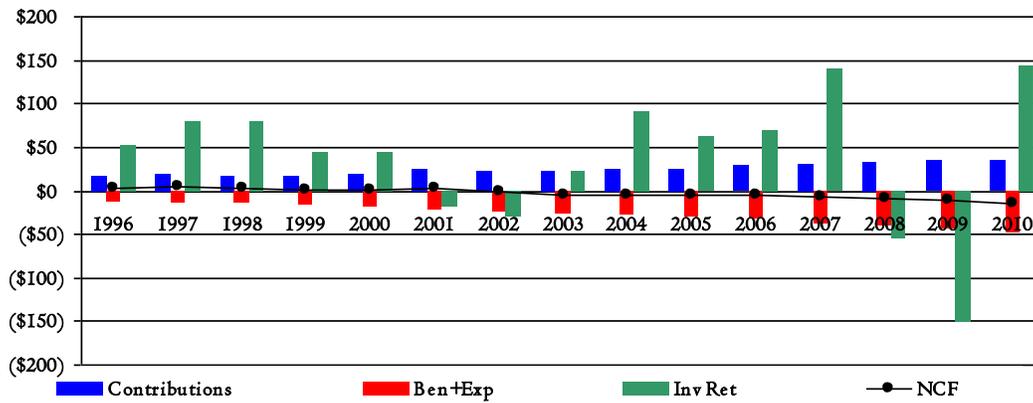
Starting in 2004, the chart also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower covered payroll for pension plan purposes than would be reflective of the actual active population.

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



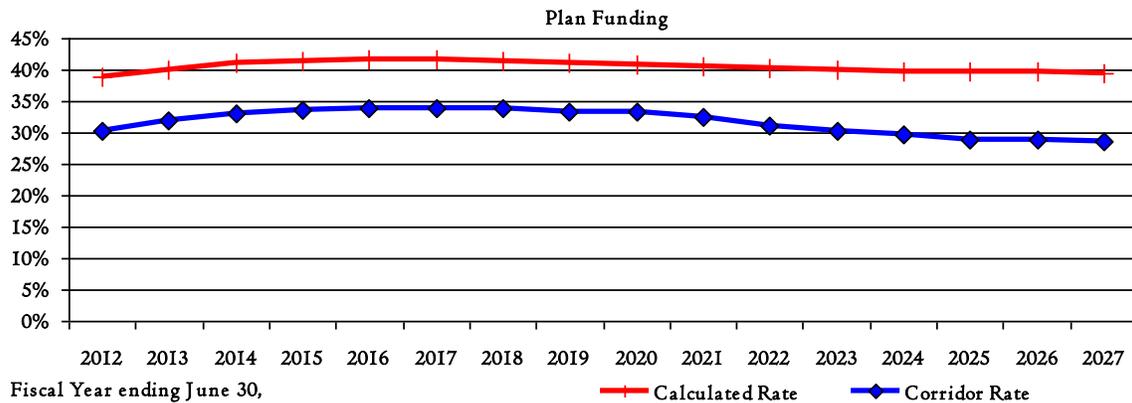
The graph shows the annual cash flows into and out of the System. The graph shows the magnitude the investment returns on the market value (green bars) compared to the contributions (blue bars). The net cash flow (line) is comparing the contributions to benefits and expenses (red bar). Negative cash 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**

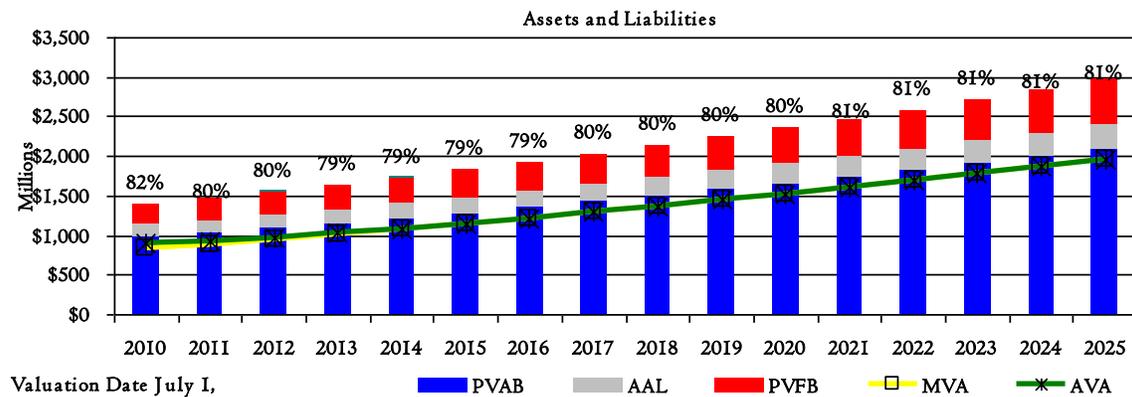
**Base Line Projections**

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 around 35% of payroll.



The “Assets and Liabilities” graph shows the projected funding status over the next decade. Note that the 2010 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 82% to around 79% by 2013 as the unrecognized asset losses are phased in. After that, the corridor method basically marks time and keeps the System around 81% funded.



*Actuarial Section*

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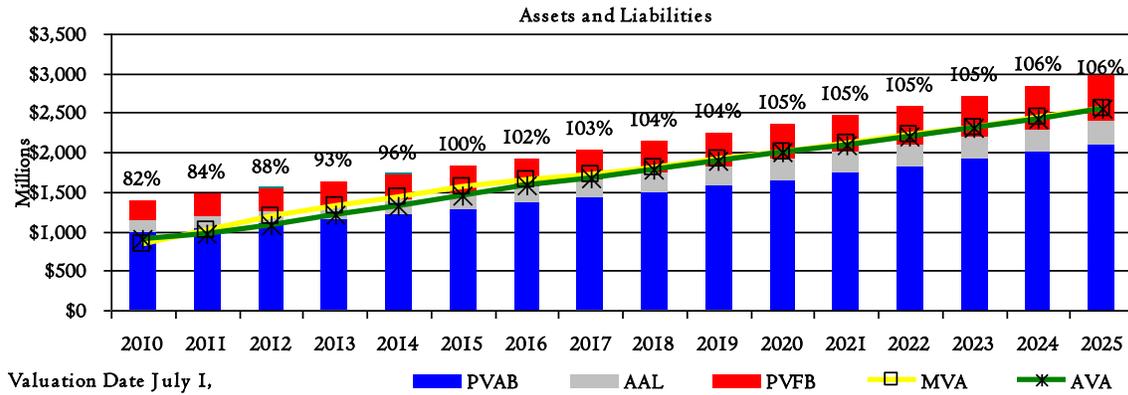
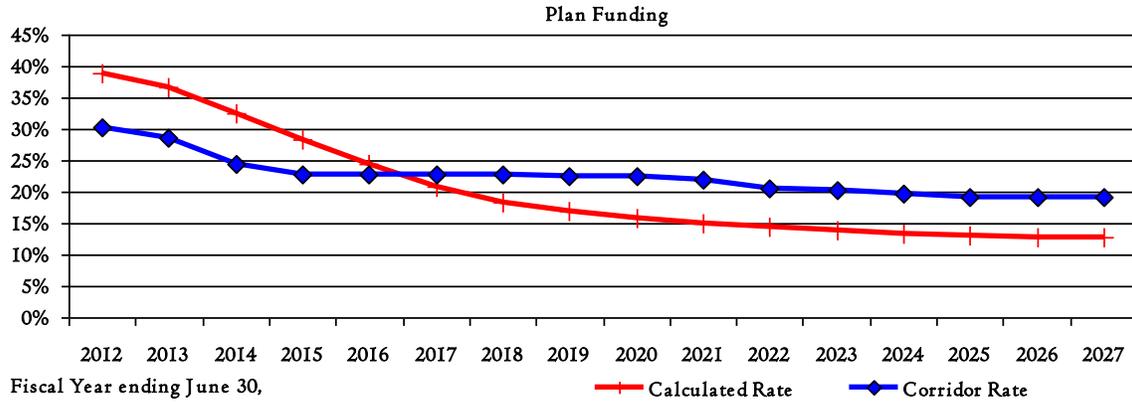
The future funding status of this System will be influenced by the investment earnings. The prior projection assumed the System would earn 7.5% each and every year, which is extremely unlikely.

In the projections that follow we show the risk to the System under volatile markets. Since 1980 the System has averaged 9.85% return per year, therefore, for this analysis we have created the following three scenarios that produce the same average return.

<b>Fiscal Year Ending June 30,</b>	<b>Favorable Returns Early</b>	<b>Poor Returns Early</b>	<b>Random Returns</b>
2011	23.20%	5.70%	24.02%
2012	18.70%	7.70%	4.30%
2013	12.70%	9.70%	2.25%
2014	10.70%	10.70%	12.00%
2015	9.70%	12.70%	4.40%
2016	7.70%	18.70%	10.89%
2017	5.70%	23.20%	16.34%
2018	7.50%	7.50%	22.12%
2019	7.50%	7.50%	5.69%
2020	7.50%	7.50%	6.65%
2021	7.50%	7.50%	5.67%
2022	7.50%	7.50%	16.40%
2023	7.50%	7.50%	6.94%
2024	7.50%	7.50%	-4.72%
2025	7.50%	7.50%	18.66%
<b>Average</b>	<b>9.80%</b>	<b>9.80%</b>	<b>9.84%</b>

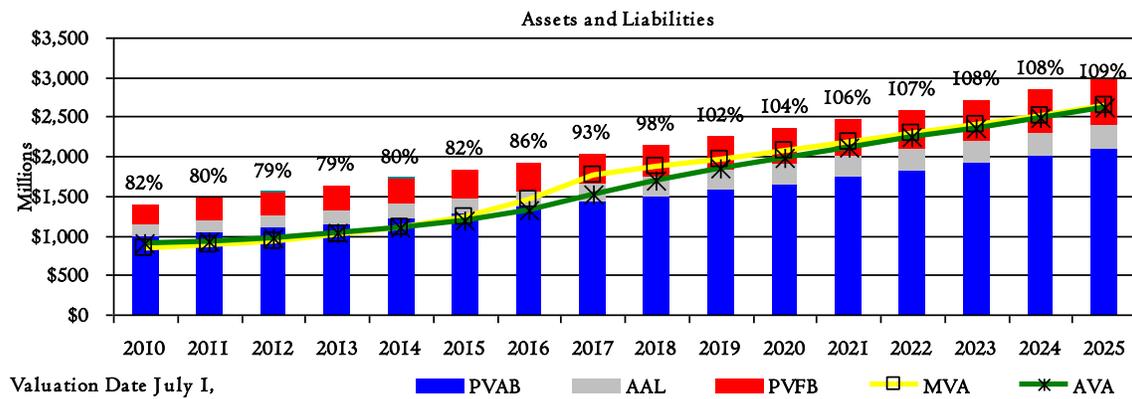
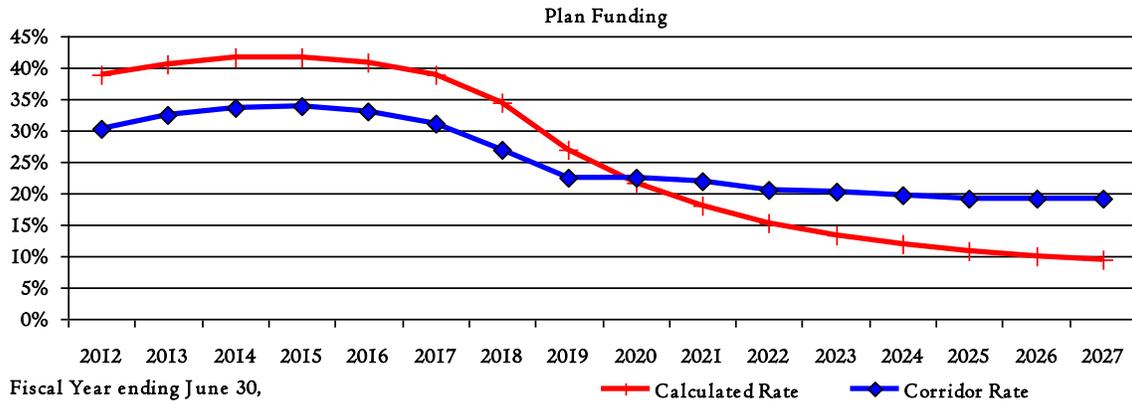
Alternative Projection -- with favorable returns early in the projection:

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 93% funded by 2013 (and re-enters the corridor) and is fully funded by 2015.



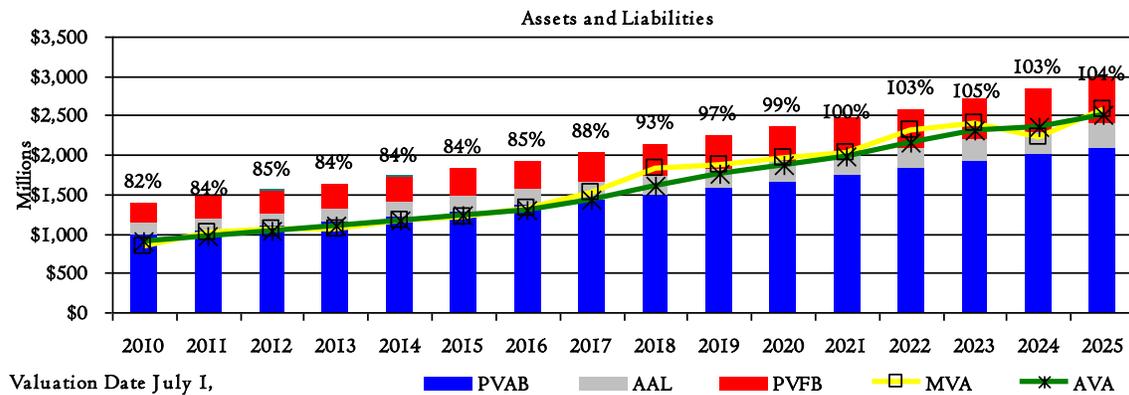
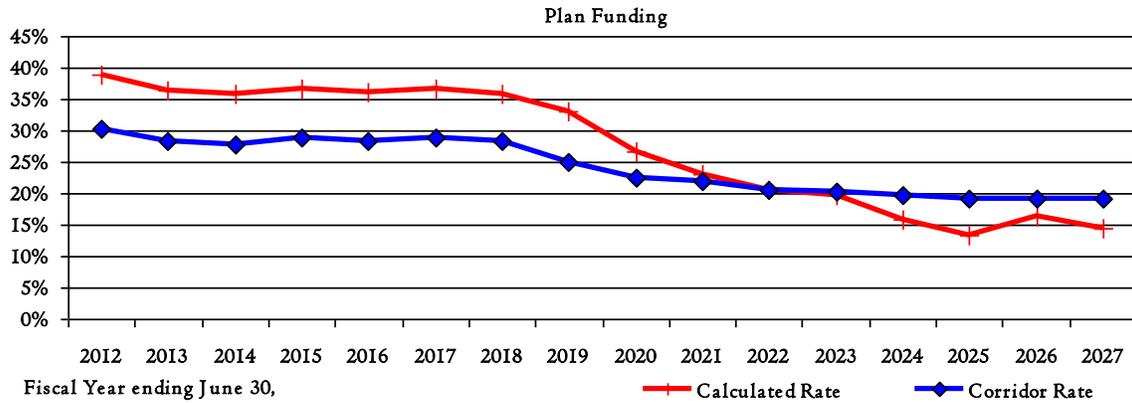
Alternative Projection -- with poor returns early in the projection:

Under this scenario the corridor contribution rate increase over the next three 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 102% by 2019.



Alternative Projection -- with random returns:

Under this scenario the corridor contribution rate hovers around 28% for FY 2013 to FY 2018 and then declines. The System would reach 100% funded by 2021.



<b>Summary of Principal Plan Results</b>			
<b>Valuation as of:</b>	<b>7/1/2009</b>	<b>7/1/2010</b>	<b>% Chg</b>
<b><u>Participant Counts</u></b>			
Actives (excluding DROP)	1,347	1,312	-2.6%
DROPs	56	51	-8.9%
Terminated Vesteds	28	30	7.1%
In Pay Status	788	824	4.6%
<b>Total</b>	<b>2,219</b>	<b>2,217</b>	<b>-0.1%</b>
Annual Salaries of Active Members	\$ 99,646,822	\$ 100,500,094	0.9%
Annual Retirement Allowances for Retired Members and Beneficiaries (Base amount only – not supplements)	\$ 41,927,564	\$ 45,078,724	7.5%
<b><u>Assets and Liabilities</u></b>			
Actuarial Accrued Liability	\$ 1,076,038,947	\$ 1,135,015,298	5.5%
Assets for Valuation Purposes	879,543,429	899,543,387	2.3%
<b>Unfunded Actuarial Liability</b>	<b>\$ 196,495,518</b>	<b>\$ 235,471,911</b>	<b>19.8%</b>
Funding Ratio	81.7%	79.3%	
Present Value of Accrued Benefits	\$ 932,386,737	\$ 985,053,690	5.6%
Market Value of Assets	706,622,286	836,033,056	18.3%
<b>Unfunded FASB Accrued Liability (not less than \$0)</b>	<b>\$ 225,764,451</b>	<b>\$ 149,020,634</b>	<b>-34.0%</b>
Accrued Benefit Funding Ratio	75.8%	84.9%	
<b><u>Contributions as a Percentage of Payroll</u></b>			
<b><u>GASB Method:</u></b>			
Normal Cost Contribution	18.82%	18.82%	
Unfunded Actuarial Liability Contribution	16.66%	19.79%	
Administrative Expense	0.30%	0.30%	
<b>Total Contribution</b>	<b>35.78%</b>	<b>38.91%</b>	
<b><u>Corridor Method:</u></b>			
Normal Cost Contribution	18.82%	18.82%	
Increase Due to Amortized Changes	3.72%	3.72%	
Amortization of Amount Outside Corridor	4.56%	7.50%	
Administrative Expense	0.30%	0.30%	
<b>Corridor Method</b>	<b>27.40%*</b>	<b>30.34%</b>	

\* The actual contribution rate being paid by the County in FY 2011 is 28.31%.

## **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**

<b>1994 Uninsured Pensioners Mortality Table</b>					
<b>Annual Deaths Per 1,000 Members*</b>					
<b>Age</b>	<b>Male Deaths</b>	<b>Female Deaths</b>	<b>Age</b>	<b>Male Deaths</b>	<b>Female Deaths</b>
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

\* 20% of deaths are assumed to be service-connected.

<b>Annual Deaths per 1,000 Disabled Members 1994 Uninsured Pensioners Mortality Table +5</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>
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)

<b>Annual Terminations Per 1,000 Members</b>	
<b>Years of Service</b>	<b>Terminations</b>
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**

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

\* 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*	
	Hired pre-7/1/81	Hired post-7/1/81
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%

\* 50% 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%

\* 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**

<b>Type of Activity</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Investment Income	\$1,255,233	\$5,829,376	\$30,476,299	\$(19,958,077)	\$(86,460,572)	\$(31,755,165)
Combined Liability Experience	<u>(16,909,876)</u>	<u>(9,007,438)</u>	<u>(9,438,877)</u>	<u>4,139,287</u>	<u>17,649,316</u>	<u>3,313,576</u>
<b>Gain (or Loss) During Year from Financial Experience</b>	<b>\$(15,654,643)</b>	<b>\$(3,178,062)</b>	<b>\$21,037,422</b>	<b>\$(15,818,790)</b>	<b>\$(68,811,256)</b>	<b>\$(28,441,589)</b>
Non-Recurring Items	<u>(12,861,015)</u>	<u>(4,472,878)</u>	<u>(5,904,299)</u>	<u>(5,902,768)</u>	<u>0</u>	<u>0</u>
<b>Composite Gain (or Loss) During Year</b>	<b>\$(28,515,658)</b>	<b>\$(7,650,940)</b>	<b>\$15,133,123</b>	<b>\$(21,721,558)</b>	<b>\$(68,811,256)</b>	<b>\$(28,441,489)</b>

**Schedule of Retirees and Beneficiaries  
Added To and Removed From Rolls**

<b>Year Ended June 30,</b>	<b>Added to Rolls</b>		<b>Removed From Rolls</b>		<b>On Rolls @ Yr. End</b>		<b>% Increase Allowance</b>	<b>Average Allowance</b>
	<b>No.</b>	<b>Annual Allowance</b>	<b>No.</b>	<b>Annual Allowance</b>	<b>No.</b>	<b>Annual Allowance</b>		
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
2010	48	3,725,159	12	574,000	824	45,078,724	7.52%	54,707

**Solvency Tests  
Aggregate Accrued Liabilities For**

<b>Valuation Date July 1,</b>	<b>(1) Active Member Contributions</b>	<b>(2) Retirees, Vested Terms, Beneficiaries &amp; DROP</b>	<b>(3) Active Members (Employer Financed Portion)</b>	<b>Reported Assets</b>	<b>Portion of Accrued Liabilities by Reported Assets</b>		
					<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
2005	\$76,108,950	\$477,539,874	\$275,053,501	\$732,581,566	100%	100%	65%
2006	81,953,700	514,169,426	301,355,058	788,765,775	100%	100%	64%
2007	87,002,993	573,084,866	308,647,510	870,974,612	100%	100%	68%
2008	92,223,155	623,812,098	315,297,859	908,077,197	100%	100%	61%
2009	96,351,833	658,492,487	321,194,627	879,543,429	100%	100%	39%
2010	100,709,756	695,041,990	339,263,552	899,543,387	100%	100%	31%

**Statistical Section**

The Statistical Section presents historical information regarding the retirement plan. This information includes a ten-year analysis of the sources of change in plan net assets, benefit payments, the number of retired members and average monthly benefits. Sources of additions include employer and plan member contributions and net investment income; deductions include benefit payments to retirees and beneficiaries, refunds of employee contributions and administrative expenses. The amounts of benefits paid, the count of benefit recipients and the average benefit payments are provided by type of benefit, including service retirement annuities, service-connected and ordinary disability benefits and survivor benefits.

**Schedule of Additions by Source**

<b><u>Fiscal Year</u></b>	<b><u>Plan Member Contributions</u></b>	<b><u>Employer Contributions</u></b>	<b><u>Employer % of Covered Payroll</u></b>	<b><u>Net Investment Income (loss)</u></b>	<b><u>Total Additions</u></b>
2002	\$8,335,903	\$15,077,920	21.79%	(\$30,661,679)	(\$7,247,856)
2003	8,941,529	12,923,806	17.30%	23,248,712	45,114,047
2004	9,689,253	14,682,201	17.96%	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	22.34%	(151,727,685)	(116,972,297)
2010	10,389,241	23,766,626	22.84%	143,107,767	177,263,634
2011	10,142,459	29,174,611	28.31%	210,054,206	249,371,276

**Schedule of Deductions by Type**

<b><u>Fiscal Year</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Refunds of Contributions</u></b>	<b><u>Administrative Expenses</u></b>	<b><u>Total Deductions</u></b>
2002	\$24,024,119	\$599,127	\$199,138	\$24,822,384
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
2011	49,429,119	466,363	362,889	50,258,371

**Schedule of Benefit Payments by Type**

<b><u>Fiscal Year</u></b>	<b><u>Service Annuity</u></b>	<b><u>Service-Connected Disability</u></b>	<b><u>Ordinary Disability</u></b>	<b><u>Survivor Benefit</u></b>	<b><u>Total</u></b>
2002	\$21,668,153	\$995,832	\$150,434	\$1,209,700	\$24,024,119
2003	23,352,203	995,254	154,408	1,301,601	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
2011	45,302,801	1,173,023	109,018	2,844,277	49,429,119

**Schedule of Retired Members by Benefit Type**

<b><u>Fiscal Year</u></b>	<b><u>Service Annuity</u></b>	<b><u>Service-Connected Disability</u></b>	<b><u>Ordinary Disability</u></b>	<b><u>Survivor Benefit</u></b>	<b><u>Total</u></b>
2002	545	33	9	70	657
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
2011	716	30	7	97	850

**Schedule of Average Monthly Benefit Amounts**

<b><u>Fiscal Year</u></b>	<b><u>Service Annuity</u></b>	<b><u>Service-Connected Disability</u></b>	<b><u>Ordinary Disability</u></b>	<b><u>Survivor Benefit</u></b>	<b><u>Average</u></b>
2002	\$3,456	\$2,449	\$1,430	\$1,482	\$3,167
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
2011	5,154	3,284	1,776	2,392	4,745

# **Fairfax County Police Officers Retirement System**



A Fairfax County, Va.,  
publication

## **Comprehensive Annual Financial Report**

For the Fiscal Year ended June 30, 2011