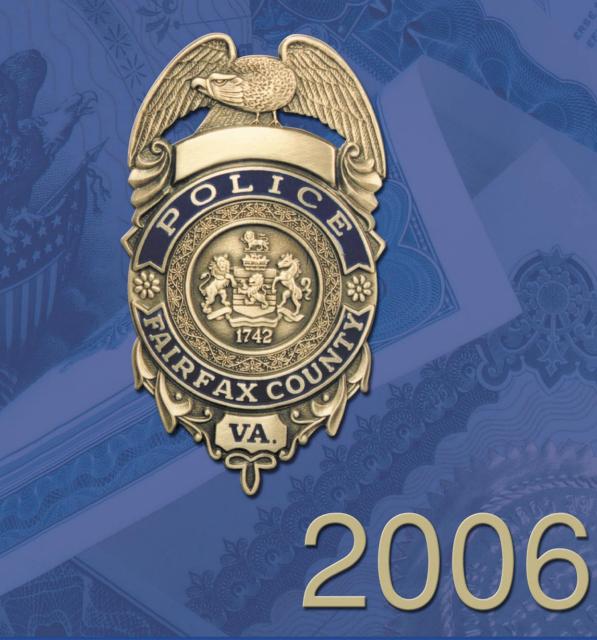
# COMPREHENSIVE ANNUAL FINANCIAL REPORT



FAIRFAX COUNTY POLICE OFFICERS RETIREMENT SYSTEM

A PENSION TRUST FUND OF FAIRFAX COUNTY, VIRGINIA

#### FAIRFAX COUNTY POLICE OFFICERS RETIREMENT SYSTEM

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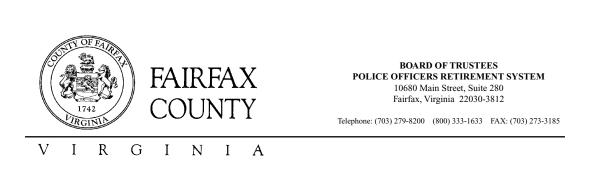
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January 31, 2007

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, 2006. This annual report is provided as an aid to understanding the structure and evaluating the status of the System. The System's management is responsible for the accuracy of financial information contained herein.

The annual report for fiscal 2006 consists of five sections: (1) an Introductory Section that contains this transmittal letter along with the organization structure and review of plan provisions; (2) a Financial Section that contains the opinion of the independent auditors, management's discussion and analysis, the financial statements of the System and required supplementary information; (3) an Investment Section that contains investment results; (4) an Actuarial Section that includes the independent actuary's certification letter, a summary of the results of the actuarial valuation, and actuarial procedures and assumptions; and (5) a Statistical Section that contains information regarding the System membership.

#### History

The Fairfax County Police Officers Retirement System was created under authority granted by Chapter 303 of the Acts of Assembly (law of the Commonwealth of Virginia) on March 29, 1944 to provide defined benefit pension plan coverage for sworn full-time law enforcement officers of the Fairfax County Police Department. In 1981, Fairfax County enacted Article 7 of the Fairfax County Code, which adopted and continued Chapter 303 as amended. There were 1,329 active members and 727 retirees participating in the System as of June 30, 2006.

#### **Benefit 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**

Fiscal 2006 was a year of solid growth in the economy and the domestic equity markets advanced at a moderate pace. The international equity markets outpaced the returns in the U.S. market. The S&P 500 Index rose 8.6% during fiscal 2006, while the smaller-capitalization

Russell 2000 Index advanced 14.6%. International equity returns were quite a bit higher with the developed markets index (EAFE) up 27.1% and the emerging markets index up 35.9%. Returns on REITs were also excellent with the NAREIT index up 19.1%. Only bonds experienced negative returns for the year as the Lehman Brothers Aggregate Bond Index declined 0.8%.

The diversified fund of the Police Officers Retirement System returned 9.6% for fiscal 2006, after management fees. This return placed the fund in the third quartile of the Russell/Mellon public fund universe in 2006. The returns for the total fund exceeded the policy benchmark for the year by 0.9%. The fund's relative performance over the last 10 years has matched the median return of the public fund universe.

After accounting for all cash flows, including contributions, expenses and benefit payments, the market value of the System's assets increased 8.9%, from \$735 million on June 30, 2005 to \$800 million on June 30, 2006.

#### **Major Initiatives**

Significant progress was made on the project to replace the existing legacy computer systems. At the end of the fiscal year, the final changes were being made to a comprehensive defined benefit administration software application package, with plans to conduct final testing and parallel processing during the first half of FY 2007. The new system will interface with County and Schools systems for maintaining salary and service records of active members and will provide automated benefit calculations, support retiree recordkeeping and payroll functions and will include capabilities for internet access.

A five-year actuarial experience study was completed. Based on the results of the study, changes were made to the actuarial assumptions for terminations, retirements, sick leave credit and the pattern of salary increases. These changes were included in the final July 1, 2005 valuation and the employer contribution rate for FY 2007.

Several steps were taken to improve the risk/return efficiency of the total portfolio. Changes were made to the U.S. Large-cap equity segment with the closing of the Oak Associates and Robert E. Torray Accounts and the addition of Pzena Investment Management shortly after year-end. The International Equity allocation was restructured to include an emerging markets portfolio, a small-cap portfolio, and large cap growth and value portfolios. Barclays Global Investors, Acadian Asset Management, McKinley Capital Management, and Grantham, Mayo, Van Otterloo were hired to manage the new accounts.

#### **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 accounting principles generally accepted in the United States of America.

#### **Funded Status**

An actuarial valuation of the System to determine funding requirements is performed annually. The System's funding policy provides for periodic employer contributions at actuarially determined rates which will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the costs of benefit payments when due. The valuation of the System performed as of July 1, 2005 indicated that the ratio of assets accumulated by the System to total actuarial accrued liabilities for benefits decreased from 91.5% to 88.4%. The actuarial section contains further information on the results of the July 1, 2005 valuation.

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

The Board of Trustees has an adopted 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 to ensure compliance with its stated objectives and policy. Staff and the external investment consultant retained by the Board also monitor the performance of the System and its investment managers. 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 by Mellon Global Securities Services as agent, in the System's name. 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.

#### **Other Information**

#### Independent Audit and Actuarial Certifications

The independent auditors' report and certifications 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 staff who have 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/retbrd/.

Respectfully submitted,

anny a. Swort

Laurnz A. Swartz Executive Director

## **BOARD OF TRUSTEES**

#### **Captain Erin F. Schaible**

President Elected Member Trustee Term Expires: December 31, 2008

Major Josiah Larry Moser III

Vice President Elected Member Trustee Term Expires: December 31, 2006

#### **Robert L. Mears**

*Treasurer* Fairfax County Director of Finance Ex officio Trustee

#### **Brendan D. Harold**

Board of Supervisors Appointee Term Expires: December 31, 2006

#### Craig E. Dyson

Board of Supervisors Appointee Term Expires: January 31, 2010

#### Stuart H. Rakoff

Board of Supervisors Appointee *Term Expires: June 30, 2006* 

### James R. Dooley, Jr.

Elected Retiree Trustee Term Expires: June 30, 2006

## ADMINISTRATIVE ORGANIZATION

#### **ADMINISTRATIVE STAFF**

Laurnz A. Swartz *Executive Director* 

Jeffrey A. Willison Investment Manager

#### Philip R. Langham Retirement Administrator

#### **PROFESSIONAL SERVICES**

#### ACTUARY

CHEIRON Actuaries McLean, VA

#### AUDITOR

KPMG LLP Certified Public Accountants Washington, DC

#### **INVESTMENT MANAGERS**

Acadian Asset Management Boston, MA

Barclays Global Investors San Francisco, CA

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

Dodge & Cox Investment Managers San Francisco, CA

Grantham, Mayo, Van Otterloo & Co. Boston, MA

> JANUS Capital Corporation Denver, CO

McKinley Capital Mangement Anchorage, AK

#### **ATTORNEY**

W. McCauley Arnold McCandlish & Lillard Fairfax, VA Peregrine Capital Management Minneapolis, MN

> PIMCO Newport Beach, CA

Standish Mellon Asset Management Pittsburgh, PA

Systematic Financial Management Teaneck, NJ

Robert E. Torray & Co., Inc. Bethesda, MD

Trust Company of the West Los Angeles, CA

Veredus Asset Management Louisville, KY

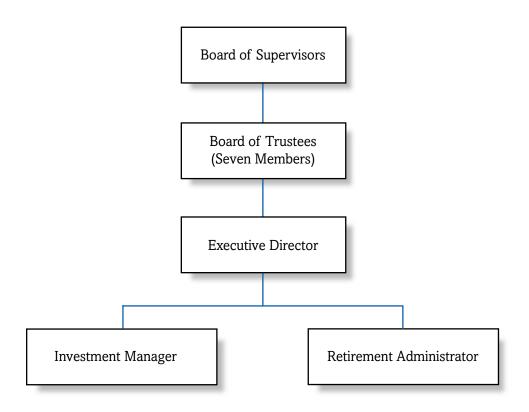
#### **CUSTODIAL BANK**

Mellon Global Securities Services Pittsburgh, PA

#### **INVESTMENT CONSULTANT**

Mercer Investment Consulting, Inc. Atlanta, GA

## ORGANIZATIONAL CHART



## SUMMARY OF PLAN PROVISIONS

embership in the Fairfax County Police Officers Retirement System includes fulltime sworn law enforcement officers in the Fairfax County Police Department.

The general provisions of the Police Officers Retirement System follow:

#### **Contribution Rate:**

12% of base salary (including roll call and holiday pay). Police Officers do not contribute to Social Security, except Police Officers hired after April 1, 1986 contribute to Medicare.

#### **Benefit:**

2.8% of average final compensation (highest consecutive three years) times creditable service up to a maximum of 84%. The total benefit is then increased by 3%.

#### **Normal Retirement:**

is either age 55 or at least 25 years of creditable service (20 years if sworn in before July 1, 1981).

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

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

#### **Early Retirement:**

is 20 years of creditable service if sworn in on or after July 1, 1981.

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

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

#### Service-Connected Disability Retirement:

is available for members, regardless of their length of service, who become disabled as a result of a job-related illness or injury. Benefits for total disability are  $66^{2}/_{3}\%$  of average final compensation if sworn in on or after July 1, 1981. If sworn in before July 1, 1981, the total disability benefit is based on  $66^{2}/_{3}\%$ of the salary the member would have received if he or she had not been disabled. Any member who is still disabled when they reach their normal retirement date will have their benefit adjusted to 60% of the salary he or she would have received if he or she had not been disabled.

#### 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 (minimum is 10% of the member's salary).

#### **Death Benefits:**

*Before Retirement* — An automatic monthly benefit is payable to the member's spouse and children. This benefit equals \$1,748.44 for the spouse (until remarriage before age 60) or surviving handicapped child (if there is no spouse), plus each eligible child receives \$699.37 up to a total family benefit of \$3,496.87 (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  $66^{2}/_{3}\%$  of the member's regular salary at the time of death in lieu of the automatic benefits. If no automatic benefit is payable, contributions will be refunded to the member's beneficiary.

*After Retirement* — For those retiring on a regular service or service-connected disability retirement, an automatic monthly benefit is payable to the member's spouse and children. This benefit equals \$1,748.44 for the spouse (until remarriage before

#### SUMMARY OF PLAN PROVISIONS (continued)

age 60) or surviving handicapped child (if there is no spouse), plus each eligible child receives \$699.37 up to a total family benefit of \$3,496.87 (these benefits are indexed to inflation). In addition, members who retire on a regular service retirement may elect a Joint and Contingent Spouse and Handicapped Child option which provides 100%,  $66^2/_{3\%}$ or 50% of the retiree's reduced benefit to the spouse or eligible handicapped child for life. The member's annuity is reduced by a percentage based on the difference in age between the member and his or her spouse. If the spouse pre-deceases the member, the annuity is restored to what it would have been if this option had not been elected. If no automatic benefit is payable, contributions not yet paid out in benefits will be refunded to the member's beneficiary.

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

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



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 on pages 23 and 24 is not a required part of the basic financial statements but is supplementary information required by U.S. generally accepted accounting principles. 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, KPMG LLP, a U.S. limited liability partnership, is a member of KPMG International, a Swiss association KPMG

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.



May 29, 2007

## 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, 2006. The information in this section should be reviewed in conjunction with the letter of transmittal provided in the Introductory Section of this report.

### Overview of Financial Statements and Accompanying Information

#### **Basic Financial Statements.**

The System presents Statement of Plan Net Assets as of June 30, 2006 and Statement of Changes of Plan Net Assets for the year then ended. These statements reflect the resources available for the payment of benefits as of year-end and the sources and uses of these funds during the year.

#### Notes to Financial Statements.

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

#### **Required Supplementary Information.**

The Required Supplementary Information and related notes provide information regarding the System's funding progress and employer contributions. The Required Supplementary Information and related notes are immediately following the notes to financial statements.

## **Financial Analysis**

#### Summary of Plan Net Assets.

As indicated in the following Summary Statement of Plan Net Assets, the net assets held in the System increased \$65 million or 8.9% during fiscal 2006. The change is primarily due to an increase in fair value of investments during the fiscal year.

#### **Return on Investments.**

The System's return on investments net of investment management fees for fiscal 2006 was 9.6%. The System's domestic equities had an 8.7% return. The international equity portfolio returned 32.0%. The System's fixed income investment returned a negative 2.2%. The System's REIT portfolio returned 23.5%. Additional investment market commentary is provided in the Investment Section of this document.

#### Additions.

Total additions increased \$11.2 million from fiscal 2005 to 2006 primarily due to increased investment returns. Employer contributions increased \$1.8 million, or 12.3% from fiscal 2005 to fiscal 2006. The 2006 employer contribution rate of 18.44% of covered payroll was an 0.48% increase over the 2005 rate. Plan member contributions increased during fiscal 2005 as a result of an increase in covered payroll. The System experienced net investment gains during the fiscal year. Net appreciation in the fair value of investments was \$49.5 million. Interest and dividend income was \$23.7 million. Investment activity expense decreased \$5,479 or -0.2% from fiscal 2005 to 2006. Net securities lending income increased \$98 thousand from fiscal 2005 to 2006 and \$13 thousand from fiscal 2004 to 2005. This was primarily due to having a larger base of securities available to lend and a favorable borrowing climate.

#### **Deductions**.

Benefit payments increased 7.1% during the fiscal year. The number of retirees and beneficiaries collecting benefits and the amount of the average benefit increased in both years and were responsible for the increase in the expense. Retirees received cost of living increases of 4.9% as of July, 2005. Refunds and other expenses decreased 22.8% from fiscal 2005. The amount of refunds varies from year to year based on changes in employee turnover rates and decisions of former employees.

The actuarial valuation performed as of July 1, 2005 showed the System's funded status at 88.4%.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (continued)

### 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/

|                            | 2006          | 2005          | Difference          |
|----------------------------|---------------|---------------|---------------------|
| Assets                     |               |               |                     |
| Total cash and investments | \$877,007,559 | \$847,618,785 | \$ 29,388,774       |
| Total receivables          | 5,722,048     | 9,300,339     | (3,578,291)         |
| Total Assets               | 882,729,607   | 856,919,124   | 25,810,483          |
| Liabilities                | 82,305,080    | 121,827,091   | <u>(39,522,011)</u> |
| Net Assets                 | \$800,424,527 | \$735,092,033 | \$ 65,332,494       |

#### SUMMARY STATEMENT OF PLAN NET ASSETS

#### SUMMARY OF ADDITIONS AND DEDUCTIONS

|                       | 2006         | 2005         | Difference   |
|-----------------------|--------------|--------------|--------------|
| Additions             |              |              |              |
| Contributions         |              |              |              |
| Employer              | \$16,727,287 | \$14,901,070 | \$ 1,826,217 |
| Plan members          | 10,899,659   | 9,930,883    | 968,776      |
| Net investment income | 69,755,417   | 61,323,112   | 8,432,305    |
| Total Additions       | 97,382,363   | 86,155,065   | 11,227,298   |
| Deductions            |              |              |              |
| Benefit payments      | 31,302,806   | 29,242,384   | 2,060,422    |
| Refunds and other     | 747,063      | 968,220      | (221,157)    |
| Total Deductions      | 32,049,869   | 30,210,604   | 1,839,265    |
| Net Change            | \$65,332,494 | \$55,944,461 | \$ 9,388,033 |

## FINANCIAL STATEMENTS

#### **STATEMENT OF PLAN NET ASSETS**

as of June 30, 2006

| Cash and short-term investments                          |              |              |
|--|--------------|--------------|
| Equity in County's pooled cash and temporary investments | \$ 1,079,694 |              |
| Cash collateral received for securities on loan          | 80,001,889   |              |
| Short-term investments                                   | 41,391,227   |              |
| Total cash and short-term investments                    |              | \$122,472,81 |
| Receivables  |              |              |
| Contributions  | 989,551      |              |
| Accrued interest and dividends                           | 2,885,567    |              |
| Securities sold  | 1,846,930    |              |
| Total receivables  |              | 5,722,04     |
| Investments, at fair value                               |              |              |
| Corporate bonds  | 57,812,803   |              |
| U.S. Government obligations                              | 50,111,852   |              |
| Pooled and mutual funds                                  | 172,643,328  |              |
| Asset-backed securities                                  | 109,110,439  |              |
| Common and preferred stock                               | 364,856,327  |              |
| Total investments  |              | _754,534,74  |
| Total assets   |              | 882,729,60   |
| Liabilities  |              |              |
| Cash collateral received for securities on loan          | 80,001,889   |              |
| Purchase of investments                                  | 1,215,284    |              |
| Accounts payable and accrued expenses                    | 1,087,907    |              |
| Total liabilities  |              | 82,305,08    |
| Net assets held in trust for pension benefits            |              | \$800,424,52 |
| (A schedule of funding progress is presented on page 23) |              |              |

See accompanying notes to financial statements.

#### FINANCIAL STATEMENTS (continued)

### STATEMENT OF CHANGES IN PLAN NET ASSETS

For the Year Ended June 30, 2006

| Additions                                     |              |               |
|---|--------------|---------------|
| Contributions                                 |              |               |
| Employer                                      | \$16,727,287 |               |
| Plan members                                  | 10,899,659   |               |
| Total contributions                           |              | \$ 27,626,946 |
| Investment income from investment activities  |              |               |
| Net appreciation in fair value of investments | 49,503,649   |               |
| Interest                                      | 16,731,172   |               |
| Dividends                                     | 6,952,657    |               |
| Total investment income                       | 73,187,478   |               |
| Investment activity expense                   |              |               |
| Management fees                               | 3,330,532    |               |
| Custodial fees                                | 158,368      |               |
| Consulting fees                               | 128,176      |               |
| Allocated administration expense              | 109,174      |               |
| Total investment expense                      | 3,726,250    |               |
| Net income from investment activities         |              | 69,461,228    |
| From securities lending activities            |              |               |
| Securities lending income                     | 4,049,554    |               |
| Securities lending expenses                   |              |               |
| Borrower rebates                              | 3,630,377    |               |
| Management fees                               | 124,988      |               |
| Total securities lending activities expense   | 3,755,365    |               |
| Net income from securities lending activities |              | 294,189       |
| Total net investment income                   |              | 69,755,417    |
| Total additions                               |              | 97,382,363    |
| Deductions                                    |              |               |
| Annuity benefits                              | 28,426,759   |               |
| Disability benefits                           | 1,279,324    |               |
| Survivor benefits                             | 1,596,723    |               |
| Refunds                                       | 528,718      |               |
| Administrative expense                        | 218,345      |               |
| Total deductions                              |              | 32,049,869    |
| Net increase                                  |              | 65,332,494    |
| Net assets held in trust for pension benefits |              |               |
| Beginning of fiscal year                      |              | 735,092,033   |
| End of fiscal year                            |              | \$800,424,527 |
|   |              |               |

See accompanying notes to financial statements.

## Notes to the Financial Statements

For the year ended June 30, 2005

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 and park police officers. 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 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. The System records investment purchases and sales as of the 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 Statements 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, 2006 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 and Contribution Information

#### Membership.

At July 1, 2005, the date of the latest actuarial valuation, membership in the System consisted of:

| Retirees and beneficiaries                   |   |
|--|---|
| receiving benefits71                         | 5 |
| Terminated plan members                      |   |
| entitled to but not yet receiving benefits 1 | 9 |
| DROP participants 2                          | 7 |
| Active plan members <u>1,28</u>              | 2 |
| <b>Total</b> 2,04                            | 3 |

#### **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 and former park police officers who elected to transfer to the System effective January 22, 1983. 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 members are established and may be amended by County ordinances. Member contributions are based on 12 percent of compensation. The County is required to contribute at an actuarially determined rate; the rate for the year ended June 30, 2006 was 18.44 percent.

#### **Deductions**.

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

### 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) authorizes fiduciaries of the System to purchase investments that meet the prudent expert standard of judgment and care set forth in section 26-45.1 of the Code.

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 without introducing higher volatility to contribution levels. 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 managers 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 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.

| Type of Investment              | Fair Value    | Ratings | Percent of Fixed |
|---------------------------------|---------------|---------|------------------|
| U.S. Government Obligations     | \$ 50,111,852 | AAA     | 23.1%            |
| Corporates and others           | 5,611,435     | AAA     | 2.6%             |
|                                 | 2,202,210     | AA      | 1.0%             |
|                                 | 11,121,405    | А       | 5.1%             |
|                                 | 22,432,158    | BBB     | 10.3%            |
|                                 | 16,445,595    | BB      | 7.6%             |
| Asset-backed                    | 107,920,656   | AAA     | 49.7%            |
|                                 | 1,189,783     | А       | 0.5%             |
| Total fixed income              | 217,035,094   | AA      | 100.0%           |
| Short-term                      | 41,391,227    | AA      |                  |
| Cash collateral investment pool | 80,001,889    | AA      |                  |
| Common and preferred stock      | 364,856,327   | N/A     |                  |
| Pooled and mutual funds         | 172,643,328   | N/A     |                  |
| Equity in County's pooled cash  | 1,079,694     | N/A     |                  |
| Total investments               | \$877,007,559 |         |                  |

The System's investments quality ratings at June 30, 2006 are as follows:

As of June 30, 2006 the fixed income portfolio exhibited an overall credit quality rating of "AA", and approximately 8% of the portfolio was invested in below-investment grade securities.

The Lehman Brothers Aggregate Bond Index (LAGG) 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 LAGG 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 reducing the portfolio's sensitivity to rising rates. The System's investments' sensitivity to interest rates at June 30, 2006 follow:

| Investment Type                 | Fair Value         | Effective Duration<br>in Years | Percentage<br>of Fixed |
|---------------------------------|--------------------|--------------------------------|------------------------|
| US Government obligations       | \$ 50,111,852      | 3.0                            | 23.1%                  |
| Corporate and other             | 57,812,803         | 5.8                            | 26.6%                  |
| Asset-backed                    | <u>109,110,439</u> | 8.3                            | _50.3%                 |
| Total fixed income              | 217,035,094        | 6.4                            | 100.0%                 |
| Short-term investments          | 41,391,227         | 0.1                            |                        |
| Cash collateral investment pool | 80,001,889         | 0.1                            |                        |
| Common and preferred stock      | 364,856,327        | N/A                            |                        |
| Pooled and mutual funds         | 172,643,328        | N/A                            |                        |
| Equity in County's pooled cash  | 1,079,694          | N/A                            |                        |
| Total investments               | \$877,007,559      |                                |                        |

As of June 30, 2006 the System's overall fixed income portfolio duration was 6.4 years compared with the 4.8 duration of the Lehman Brothers Aggregate Bond Index.

#### FAIRFAX COUNTY POLICE OFFICERS RETIREMENT SYSTEM

### NOTES TO THE FINANCIAL STATEMENTS (continued)

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of the investment. The System's investments included 5.0% of investments held in currencies other than US dollars. The System's investments at June 30, 2006 were held in the following currencies:

| International securities      | Equity        | Fixed Income  | Short-term<br>and other | Total         |
|-------------------------------|---------------|---------------|-------------------------|---------------|
| European currency unit        | \$16,889,173  |               | \$ 3,791                | \$16,892,964  |
| British pound sterling        | 7,593,311     |               |                         | 7,593,311     |
| Japanese Yen                  | 5,650,906     |               | 6,893                   | 5,657,799     |
| Swiss franc                   | 2,510,580     |               | 78,379                  | 2,588,959     |
| Canadian dollar               | 1,634,052     |               | 76                      | 1,634,127     |
| Norwegian Krone               | 1,554,599     |               |                         | 1,554,599     |
| Swedish krona                 | 946,769       |               |                         | 946,769       |
| Australian dollar             | 925,251       |               | 2,013                   | 927,264       |
| Other currencies              | 2,086,716     | -             | -                       | 2,086,716     |
| Total                         | 39,791,356    | -             | 91,151                  | 39,882,508    |
| Securities held in US dollars | 325,608,899   | \$219,073,939 | 214,838,423             | 759,521,261   |
| Total investments             | \$365,400,255 | \$219,073,939 | \$214,929,574           | \$799,403,769 |

#### **Derivative Financial Instruments.**

As of June 30, 2006, the System was not a party to derivative financial instruments that were not reported at fair value on the financial statements.

#### Securities Lending.

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, 2006.

| Securities Lent            | Underlying<br>Securities | Securities<br>Collateral<br>Value | Cash<br>Collateral<br>Investment Value |
|----------------------------|--------------------------|-----------------------------------|--|
| Lent for Cash Collateral   |                          |                                   |  |
| US Government obligations  | \$34,023,751             |                                   | \$34,660,056                           |
| Asset-backed securities    | 3,354,332                |                                   | 3,650,738                              |
| Corporate and other bonds  | 2,461,801                |                                   | 2,527,400                              |
| Common and preferred stock | 37,633,168               |                                   | 39,163,695                             |
| Lent for Other Collateral  |                          |                                   |  |
| US Government obligations  | 1,510,854                | \$1,536,931                       |  |
| Common and preferred stock | 631,981                  | 664,993                           |  |
| Total                      | \$79,615,887             | \$2,201,924                       | \$80,001,889                           |

The System did not impose any restrictions during fiscal 2006 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 exceed 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, 2006 had a weightedaverage maturity of 31 days. The relationship between the maturities of the investment pool and the System's loans is affected by the maturities of securities loans made by other plans that invest cash collateral in the investment pool.

### D. Income Taxes

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

## REQUIRED SUPPLEMENTARY INFORMATION

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

| Actuarial<br>Valuation<br>Date | Actuarial<br>Value of<br>Assets<br>(in thousands)<br>(a) | Actuarial Accrued<br>Liability-AAL<br>Entry Age<br>(in thousands)<br>(b) | Unfunded<br>AAL-<br>UAAL<br>(in thousands)<br>(b-a) | Funded<br>Ratio<br>(a/b) | Covered<br>Payroll<br>(in thousands)<br>(c) | UAAL as a<br>Percentage of<br>Covered Payroll<br>((b-a)/c) |
|--------------------------------|--|--|---|--------------------------|---|--|
| 7/1/1999                       | \$503,649  | \$487,951  | \$(15,698)  | 103.2%                   | \$55,081                                    | -28.5%   |
| 7/1/2000                       | 568,942  | 586,939  | 17,997  | 96.9%                    | 64,946                                      | 27.7%  |
| 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%   |

#### SCHEDULE OF FUNDING PROGRESS

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

| 950 073  | 4000/  |
|----------|--|
| ,550,075 | 100%   |
| ,149,427 | 100%   |
| ,077,920 | 100%   |
| ,918,405 | 87%  |
| ,356,995 | 85%  |
| ,744,793 | 72%  |
| ,641,707 | 74%  |
|          | ,950,073<br>,149,427<br>,077,920<br>,918,405<br>,356,995<br>,744,793<br>,641,707 |

## Notes To Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

| Valuation date                | July 1, 2005           |
|-------------------------------|------------------------|
| 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*    |                        |
| Projected salary increases*   | 5.0% – 12.0%           |
| *Includes inflation at        | 4.0%                   |
| Cost of living adjustments    |                        |

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, 2005 resulted in a contribution rate of 26.97% for fiscal 2007 per the GASB methodology, an increase of 2.01% over the fiscal 2006 rate of 24.96% 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 results in an adopted rate of 19.55% for fiscal 2007, an increase of 1.11% over the fiscal 2006 adopted rate of 18.44%.

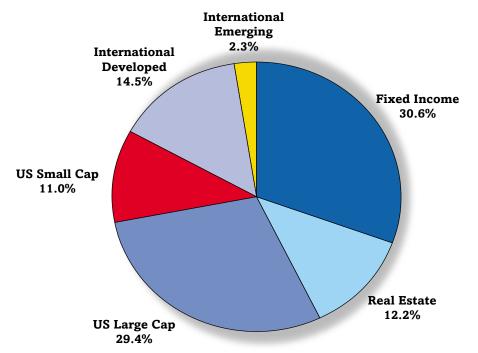
## **OVERVIEW**

he Board of Trustees has established an investment policy for the System to identify investment objectives, guidelines and performance standards of the System. The objectives are formulated in response to the anticipated needs of the System, the risk tolerance of the System and the desire of the Board of Trustees to define and fulfill their fiduciary responsibility over System assets.

The Board has established its asset class strategic target allocations which it believes will achieve the return

requirements of the System an appropriate level of risk and maintain a comfortable risk tolerance. Further, a disciplined rebalancing policy was adopted to ensure that market movements do not cause asset class weightings to unintentionally stray too far from the target percentages. The actual asset allocation at market is reviewed monthly and if asset class weightings fall outside the "no rebalancing range," transfers between asset classes are initiated to rebalance the asset allocations to within the target ranges. The following graph shows the actual asset allocations as of June 30, 2006.

## POLICE OFFICERS RETIREMENT SYSTEM ASSET ALLOCATION AS OF 6/30/06



The Board of Trustees hires investment management firms and provides each firm with a specific investment mandate, and assigns a benchmark index or a blend of indices against which the performance of the account is measured. Each managed account has its own investment guidelines outlining the nature of investments to be held in the account and detailing allowed and/or prohibited transactions. Investment managers are requested to submit a written statement describing their proposed investment strategy and tactics for achieving the investment goals and objectives that are required by their guidelines. Investment manager performance is monitored monthly by staff and reviewed by the Board of Trustees quarterly.

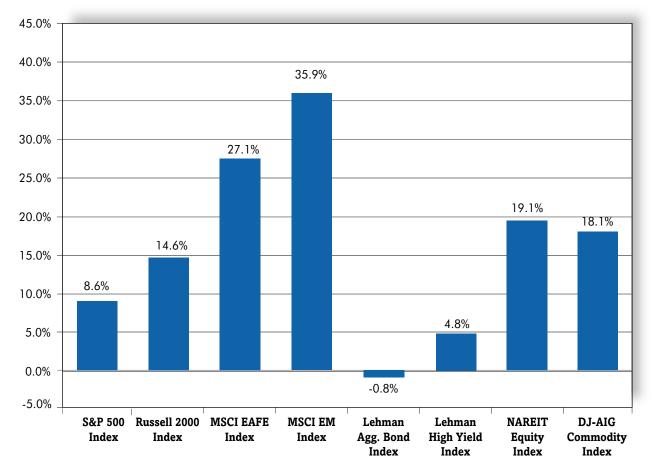
## CAPITAL MARKETS AND ECONOMIC CONDITIONS

### Financial and Economic Summary

Worldwide capital markets produced mixed results in fiscal 2006 ending June 30, 2006. Global equity markets achieved reasonably solid performance during the fiscal year, marking the fourth year of recovery from the 2000-2002 bursting of the dot-com bubble. International equity markets performed exceptionally well, partially due to results benefiting from translating foreign gains back into a weaker US dollar. Macroeconomic conditions made for turbulent fixed income markets, however, as rising energy prices, inflation concerns, and a destructive hurricane season dominated investor sentiment.

### Economy

The US economy grew at a good clip during fiscal 2006. Real gross domestic product increased by 4.1% in the third quarter of 2005, 1.7% in the fourth quarter of 2005, 5.6% in the first quarter of 2006, and 2.6% in the second quarter of 2006. For the second consecutive year corporate earnings advanced at double-digit rates every quarter of the year. Businesses increased capital spending as productivity gains slowed. Retail sales remained strong as consumer incomes grew and consumer spending continued to outpace income, resulting in another year of negative savings for the nation. The threat of rising inflation was again the main concern



#### **ASSET CLASS RETURNS**

#### CAPITAL MARKETS AND ECONOMIC CONDITIONS (continued)

of federal monetary policy. Dr. Alan Greenspan departed as Chairman of the Federal Reserve Board, and Dr. Ben Bernanke took his place vowing to maintain a measured pace of monetary tightening in the war on inflation. During the year, eight consecutive increases elevated the Fed Funds Rate from 3.25% to 5.25%. Global demand for commodities spiked a surge in prices, jumpstarting the economies of several emerging markets producers and pushing the spot price of oil to an historic high of \$75 a barrel by the end of the year. The Consumer Price Index (adjusted) rose 4.2% over the past year off of forty-year lows. As productivity gains waned and capacity became more constrained, businesses picked up their rate of hiring, creating over a million new jobs and effectively reducing the national unemployment rate from 5.0% at the beginning of the year to 4.6% by year end.

### **Equity Markets**

Broad US equity benchmarks posted gains over the trailing year, with positive returns in three of four quarters. The S&P 500 Index posted a total return of 8.6%, and for the third consecutive year the small-cap Russell 2000 Index was the strongest of the major domestic indexes, rising 14.6%. Value and growth were evenly matched among small stocks, but value led in the mid- and large-cap segments by 1.3 and 7.7 percentage points, respectively. Boosted by record-high fuel prices, Energy was the S&P's strongest sector over the past year, returning 24.5% and accounting for 41%of the index's positive performance. Health Care was the S&P's worst performer and was the only sector (at -1.1%) to post a negative return. Other strong sectors included Materials (+21.2%), Industrials (+14.4%) and Financials (+12.5%).

International equity benchmarks posted spectacular results over the past year. The MSCI EAFE Index, a broad index of international developed countries, returned 27.1% for fiscal 2006, while the commodity-driven MSCI Emerging Markets Free Index returned a stunning 35.9%. Asian and Latin American markets fueled the largest increases in performance. Foreign results were boosted by 2.9% due to translating foreign currencies back into a weaker US dollar.

## Real Estate Markets

With rising interest rates and moderating capital flows, real estate investments were forecasted to have a lackluster year. However, strengthening underlying fundamentals (occupancies, rents) coupled with increased merger and acquisition activity kept the sector in the forefront of investor interest. The public real estate market had another outstanding year as measured by the 19.1% return of the NAREIT Equity Index. This marks the seventh consecutive year that the REIT Index has outperformed the S&P 500 Index. Private real estate, which often lags the REIT market due to the lag of the property appraisal cycle, kept pace this fiscal year with a strong 18.2% return.

### **Fixed Income Markets**

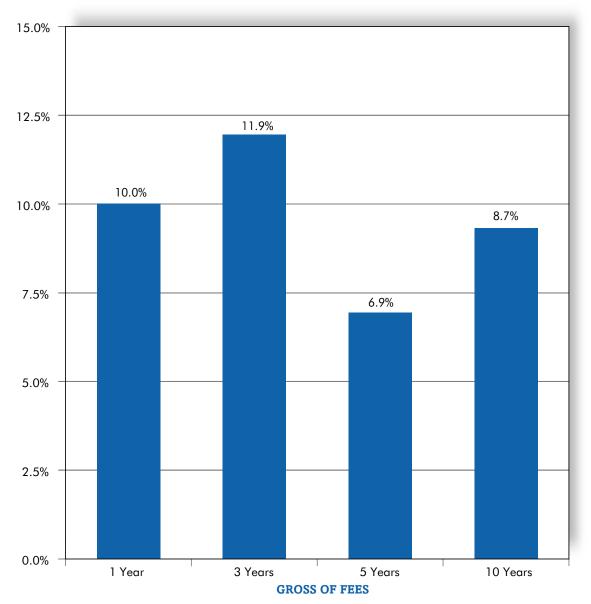
Domestic investment grade bonds recorded negative returns over the past twelve months as yields rose across the curve. The Lehman Brothers Aggregate Bond Index returned a negative 0.8% for fiscal 2006. High yield bonds were the best performing sector, returning 4.8% for the year, followed by asset-backed and mortgage securities, which were marginally positive. Due to strong balance sheets, corporate yield spreads over Treasuries remained tighter than historical averages. Long bonds suffered the most, as the dramatic upward shift in the yield curve saw long yields rise the most over the past year. Global bonds posted slightly negative returns for the year as most developed-market central banks raised interest rates through the course of the year in line with rising global growth.

### System

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

On a market value basis, the total net assets held in trust rose from \$735.1 million at June 30, 2005 to \$800.4 million at June 30, 2006. For fiscal 2006, investments provided a return of +9.6%, net of fees, reflecting an expansionary economic environment. The System's

#### CAPITAL MARKETS AND ECONOMIC CONDITIONS (continued)



**COMPOUND ANNUAL RETURN ON INVESTMENT PORTFOLIO** 

annualized rate of return, net of fees, was +11.4% over the last three years and +6.5% over the last five years. These System returns ranked in the third quartile of a universe of public plans in 2006, in the fourth quartile for the latest 3-year period, and in the third quartile of public plans for the last 5 years. The Police Officers Retirement System's annualized ten-year net return of 8.2% has surpassed the 7.5% long-term threshold return used for actuarial purposes. During the past twelve months, several changes were made to the asset allocation targets of the System to help further diversify the investment program. An underperforming manager of international equities was replaced with four specialized international equity managers. McKinley Capital, Grantham, Mayo Van Otterloo, Acadian and Barclays Global Investors were added to the manager roster and have produced strong results since inception.

## ASSET ALLOCATION BY CATEGORY AND INVESTMENT MANAGER

June 30, 2006

| ASSET CLASS<br>Manager        | Investment Style              | Total Assets   | % of Total<br>Net Assets |
|-------------------------------|-------------------------------|----------------|--------------------------|
| DOMESTIC EQUITIES             |                               |                |                          |
| PIMCO StocksPlus LP*          | Enhanced S&P 500 Index        | \$ 81,860,382  | 10.2%                    |
| JANUS Capital                 | Large Cap Growth              | 78,082,039     | 9.8%                     |
| Robert E. Torray              | Large Cap Value               | 74,902,266     | 9.4%                     |
| Systematic Financial          | Small Cap Value               | 44,868,513     | 5.6%                     |
| Veredus                       | Small Cap Growth              | 43,108,124     | 5.4%                     |
| INTERNATIONAL EQUITIES        |                               |                |                          |
| Grantham, Mayo*               | Developed Markets Value       | 48,963,041     | 6.1%                     |
| McKinley Capital              | Developed Markets Growth      | 43,812,280     | 5.5%                     |
| Acadian Asset Mgt.*           | Developed Mkt. Small Cap      | 23,371,222     | 2.9%                     |
| BGI Emerging Markets*         | Emerging Markets Index        | 18,448,691     | 2.3%                     |
| FIXED INCOME                  |                               |                |                          |
| Dodge & Cox                   | Domestic Core Bonds           | 165,024,367    | 20.6%                    |
| Peregrine Capital             | Duration Management           | 40,618,309     | 5.1%                     |
| Trust Company of the West     | Mortgage-Backed Securities    | 37,774,070     | 4.7%                     |
| REAL ESTATE                   |                               |                |                          |
| Cohen & Steers                | Real Estate Investment Trusts | 97,394,179     | 12.2%                    |
| SHORT-TERM                    |                               |                |                          |
| Standish Mellon               | Plan Level Cash Accounts      | 1,176,288      | 0.1%                     |
| Cash Held at County Treasurer | Operating Cash Account        | 1,079,694      | 0.1%                     |
| Net Assets                    |                               | \$ 800,483,463 | 100.0%                   |

\*Pooled Fund

## LARGEST HOLDINGS FOR SEPARATELY MANAGED (NON-POOLED) ACCOUNTS

| ASSET CLASS<br>Manager<br>Security | Market Value | % of Account |
|------------------------------------|--------------|--------------|
| DOMESTIC EQUITIES                  |              |              |
| Janus Capital Mgt.                 |              |              |
| Celgene Corp.                      | \$6,294,672  | 8.13%        |
| Yahoo! Inc.                        | \$5,481,465  | 7.08%        |
| Roche Holdings Ltd. (ADR)          | \$4,428,063  | 5.72%        |
| United Health Group Inc.           | \$3,164,155  | 4.09%        |
| Varian Medical Systems Inc.        | \$2,299,316  | 2.97%        |
| Systematic Financial Mgt.          |              |              |
| American Commerical Lines Inc.     | \$1,084,500  | 2.43%        |
| Steven Madden Ltd.                 | \$1,055,953  | 2.37%        |
| Carpenter Technology Corp.         | \$1,039,500  | 2.33%        |
| Alon USA Energy Inc.               | \$ 934,659   | 2.09%        |
| Phillips Van Heusen Corp.          | \$ 889,128   | 1.99%        |
| Robert E. Torray & Co.             |              |              |
| Lilly Eli & Co.                    | \$3,675,455  | 4.91%        |
| Illinois Tool Works Inc.           | \$3,496,000  | 4.67%        |
| United Technologies Corp.          | \$3,183,684  | 4.25%        |
| First Data Corp.                   | \$3,161,808  | 4.22%        |
| Ambac Financial Group Inc.         | \$3,114,240  | 4.16%        |
| Veredus Asset Mgt.                 |              |              |
| AirTran Holdings Inc.              | \$1,808,462  | 4.20%        |
| Itron Inc.                         | \$1,545,205  | 3.59%        |
| URS Corp.                          | \$1,395,450  | 3.24%        |
| Shaw Group Inc.                    | \$1,391,390  | 3.23%        |
| Trident Microsystems Inc.          | \$1,374,627  | 3.19%        |

## LARGEST HOLDINGS FOR SEPARATELY MANAGED (NON-POOLED) ACCOUNTS (continued)

| Manager<br>Security  | Market Value | % of Account |
|--|--------------|--------------|
| INTERNATIONAL EQUITIES                                     |              |              |
| McKinley Capital Mgt.                                      |              |              |
| GlaxoSmithKline  | \$1,459,377  | 3.34%        |
| Mitsubishi UFJ Financial Group                             | \$1,357,652  | 3.10%        |
| BHP Billiton PLC   | \$1,294,487  | 2.96%        |
| Assurances Generales De France                             | \$1,273,919  | 2.91%        |
| Roche Holdings AG Genusscheine                             | \$1,270,343  | 2.90%        |
| REAL ESTATE SECURITIES                                     |              |              |
| Cohen & Steers Capital Mgt.                                |              |              |
| Vornado Realty Trust                                       | \$5,950,452  | 6.13%        |
| Equity Office Properties Trust                             | \$5,568,396  | 5.74%        |
| Boston Properties Inc.                                     | \$5,306,480  | 5.47%        |
| Avalonbay Communities Inc.                                 | \$5,094,383  | 5.25%        |
| Equity Residential   | \$4,951,611  | 5.10%        |
| CORE FIXED INCOME  |              |              |
| Dodge & Cox  |              |              |
| US Treasury Notes, 3.625%, 7/15/2009                       | \$9,585,000  | 5.87%        |
| US Treasury Notes, 3.375%, 11/15/2008                      | \$6,963,408  | 4.26%        |
| US Treasury Notes, 3.375%, 9/15/2009                       | \$5,530,838  | 3.39%        |
| US Treasury Notes, 2.625%, 5/15/2008                       | \$5,492,400  | 3.36%        |
| FNMA Mortgage Pool, 4.5%, 10/1/2033                        | \$4,736,784  | 2.90%        |
| Peregrine Capital Mgt.                                     |              |              |
| US Treasury Bonds, 6.25%, 5/15/2030                        | \$3,994,266  | 9.89%        |
| Landesbank Baden (Germany) Notes, Variable Rate, 3/30/2007 | \$2,196,546  | 5.44%        |
| Federal Home Loan Bank Bonds, 3.375%, 12/15/2006           | \$2,006,269  | 4.97%        |
| Federal Home Loan Bank Bonds, Variable Rate, 1/26/2007     | \$1,987,900  | 4.92%        |
| Federal Home Loan Mortgage Corp Discount Notes, 7/11/2006  | \$1,979,564  | 4.90%        |
| TCW Asset Mgt.   |              |              |
| HSBC Financial Corp. Discount Note, 7/6/2006               | \$2,996,063  | 7.97%        |
| FNMA Guaranteed REMIC, 6.0%, 1/25/2024                     | \$2,602,463  | 6.92%        |
| FHLMC Multiclass Mortgage, 5.5%, 10/15/2032                | \$2,348,204  | 6.25%        |
| Rabobank USA Financial Corp. Discount Notes, 7/12/2006     | \$1,995,940  | 5.31%        |
| FHLMC Multiclass Mortgage, Variable Rate, 6/15/2031        | \$1,364,268  | 3.63%        |
|  |              |              |

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### HEIRON

Classic Values, Innovative Advice

February 16, 2006

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, 2005. 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%. This funding objective is currently being realized.

#### Assumptions

The actuarial assumptions used in performing the July 1, 2005 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. Several assumptions were changed in conjunction with the aforementioned experience review.

The assumptions and methods used in performing this valuation meet the parameters set by Government 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.

8200 Greensboro Drive, Suite 1125, McLean, VA 22102 Tel: 877 CHEIRON (243.4766) Fax: 703.893.2006 www.cheiron.us

February 16, 2006 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 2003 and 2004 information in the Schedule of Funding Progress, Schedule of Employer Contributions and Notes to Trend Data shown in the Financial Section.

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

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

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

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

#### Certification

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

I hereby certify that, to the best of my knowledge, this report is complete and accurate and was prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Guides to Professional Conduct, Amplifying Opinions, and Supporting Recommendations and Interpretations of the American Academy of Actuaries.

Sincerely, CHEIRON

iona E. Liston

Fiona E. Liston, FSA Consulting Actuary



## SUMMARY OF VALUATION RESULTS

## Overview

This report presents the results of the July 1, 2005 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 2007;
- ★ Provide specific information and documentation required by the Government 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 inception of the Corridor Funding Method, benefit changes have added 1.60% to the contribution rate and assumption changes have added 0.65% to the contribution rate for a total Corridor Funding Contribution of 19.55% 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, 2005 shows that the actuarial funded ratio (including a credit for the amortization piece of prior benefit increases) remains within the corridor and so there is no required increase in the rate at this time.

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

### Trends

The financial markets performed above expectation during the fiscal year ending in 2005, which produced an actuarial gain on the asset side of the System. The actual return on a market value basis was approximately 9.07%. On an actuarial value basis, the assets returned 7.68% compared with an assumed rate of return of 7.5%. The gain recognized for funding purposes was \$1 million.

The measurement of liabilities produced a loss this year in the amount of \$17 million. This loss was due to increases in pay which exceeded those assumed (loss of \$8 million), a base retiree COLA more than 3% (loss of \$4 million), and other plan experience not meeting the assumptions (loss of \$5 million). The liability also increased by \$5 million due to the granting of an ad hoc COLA increase to retirees.

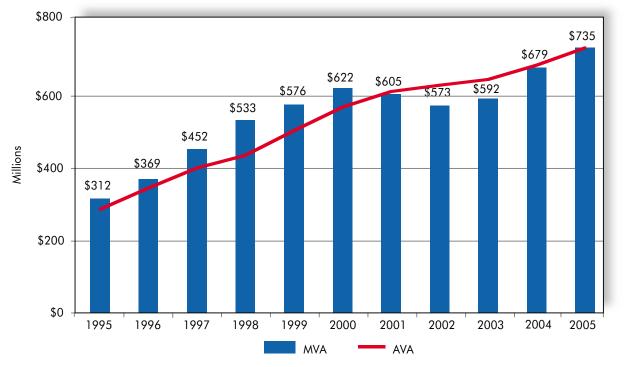
Finally, the assumptions needed to value plan liabilities were adjusted this year to reflect the findings of the quinqueninial experience study recently completed. This added an additional \$8 million to the liabilities.

The combination of liability and investment experience and the adoption of new assumptions over the last year led to the System's funding ratio (actuarial value of assets over actuarial accrued liability) decreasing from 91.5% at July 1, 2004 to 88.4% at July 1, 2005. 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 92.6% at July 1, 2004 to 91.0% at July 1, 2005.

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

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

| <b>PVAB</b> – Present value of accrued benefits | MVA – Market value of assets                     |
|---|--|
| <b>PSL</b> – Past service liability             | AVA – Actuarial value of assets                  |
| <b>PVFB</b> – Present value of future benefits  | <b>DROP</b> – Deferred Retirement Option Program |

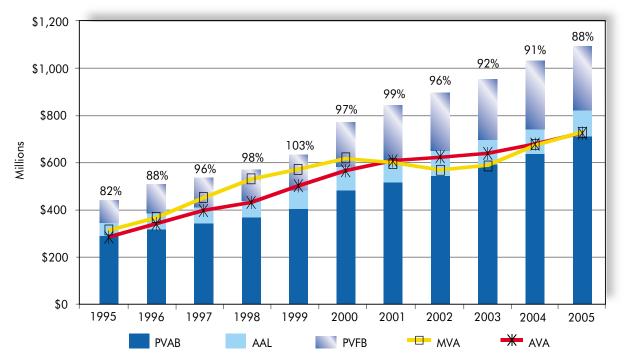


#### **GROWTH IN ASSETS**

The positive growth in the market value of assets (MVA) continued this year with a return of over 9%. Due to the asset smoothing method in place, the actuarial value of assets (AVA) did not increase by as much as the market value, since a portion of this year's excess investment return is being held for future recognition.

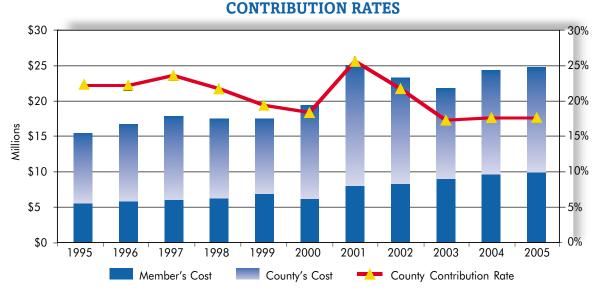
Over the period July 1, 1995 to June 30, 2005 the System's assets returned approximately 9.32% per year measured at Actuarial Value, compared to a valuation assumption of 7.5% per year.

#### ACTUARIAL SECTION



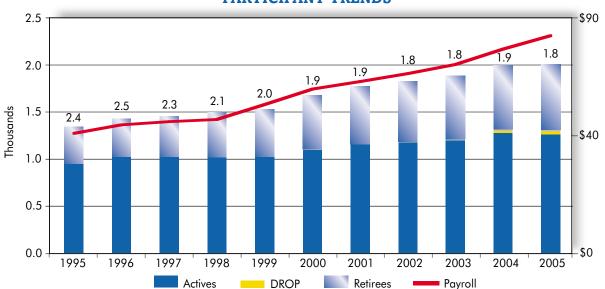
**ASSETS AND LIABILITIES** 

The three colored bars represent the three different measures of liability mentioned in this report. For funding purposes, the target amount is represented by the top of the light blue (AAL) 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. As you can see, the System had its highest funded percentage (103%) at July 1, 1999, before a combination of benefit improvements and the three-year market slide at the start of the decade. The amount represented by the top segment of the blue 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.



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

The member contribution rate is set by the County Ordinance. The County contribution rate is set by the actuarial process, as constrained by the Corridor Method. Note, there is a lag in the rate shown. For example, the 2005 value is the rate prepared by the 2003 valuation and implemented for the period July 1, 2004 to June 30, 2005.



**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 1.8 actives for each inactive today. While this would be an alarming trend in a pay-as-you-go system, the pool of invested assets has been established in anticipation of this development.

Starting in 2004, the chart also shows the number of DROP participants. Neither County nor member contributions are made on their behalf, which leads to a slightly lower growth in effective covered payroll for this System. The DROP participants are expected to remain active for a 3-year period until eventually retiring to receive their monthly benefits and DROP account balance.

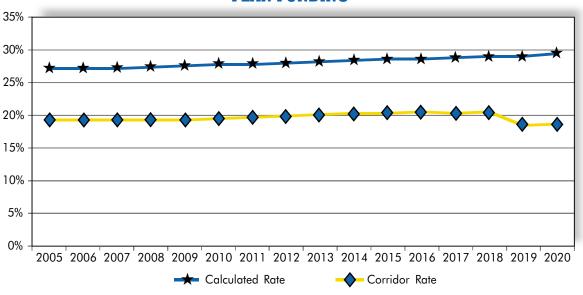
ACTUARIAL SECTION

### 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 that the corridor is likely to be breached with the 2010 valuation (if all other actuarial assumptions are met as well as the 7.5% interest rate). The blue line shows the actuarially calculated rate if the corridor were not in place.



**PLAN FUNDING** 

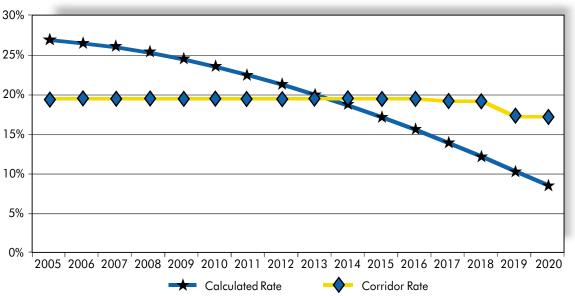
The "Assets and Liabilities" graph shows the projected funding status over the next decade. Note that the 2005 funded level differs from that shown earlier, the ratio used here reflects the corridor method. The System's funded status is projected to drop from the current level of 91% to around 88%. Once outside of the 90% corridor floor, the County's rate will increase.



#### **ASSETS AND LIABILITIES**

#### **Projections With Asset Returns of 9.0%**

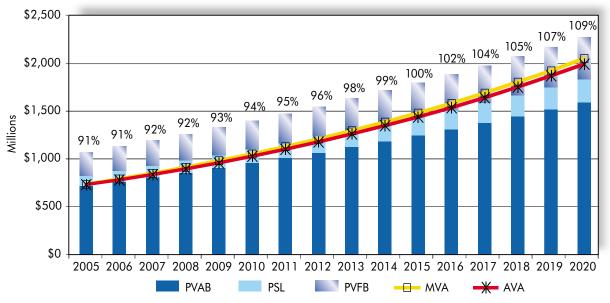
The future funding status of this System will be largely driven by the investment earnings. Due to the size of assets, as compared to liabilities, the System is in a highly leveraged position. This means that relatively minor changes in the market returns can have significant effects on the System's status. The next two charts show what the coming decade would look like with a 9% annual return in each year.



**PLAN FUNDING** 

As you can see, the corridor contribution rate would remain adequate for the entire 15 year period and the System would return to its fully funded position.

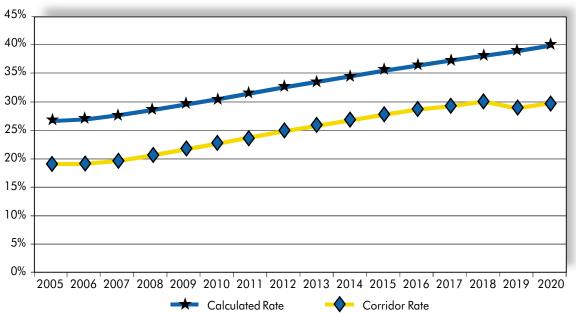




#### **Projections With Asset Returns of 6.0%**

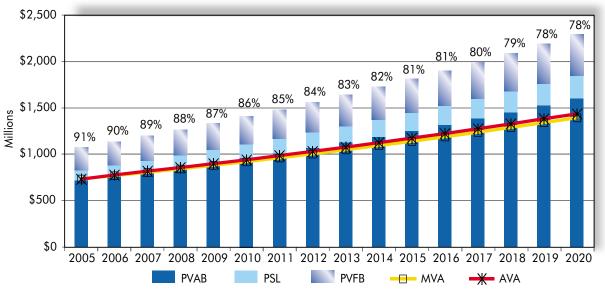
To further demonstrate how the future funding of this System will be driven by investment earnings, we show below the anticipated plan funding projections if the invested assets earn 6.0% per year over the entire 15

year period. Under this scenario, both the corridor contribution required of the County and the calculated rate used in GASB disclosures would increase.



**PLAN FUNDING** 

The projection shows a deterioration of the System's funded status from the current 91% down to 78% by the end of the period.



#### **ASSETS AND LIABILITIES**

#### FAIRFAX COUNTY POLICE OFFICERS RETIREMENT SYSTEM SUMMARY OF PRINCIPAL PLAN RESULTS

| articipant Counts   | July 1, 2004     | July 1, 2005     | % Change |
|---|------------------|------------------|----------|
| Actives (excluding DROP)  | 1,298            | 1,282            | -1.2%    |
| DROP  | 19               | 27               | 42.1%    |
| Terminated Vested   | 17               | 19               | 11.8%    |
| In Pay Status   | 698              | 715              | 2.4%     |
| Total   | 2,032            | 2,043            | 0.5%     |
| Annual Salaries of Active Members                                     | \$ 78,079,888    | \$ 83,939,294    | 7.5%     |
| Annual Retirement Allowances for<br>Retired Members and Beneficiaries | \$ 28,577,050    | \$ 30,752,741    | 7.6%     |
| sets and Liabilities  |                  |                  |          |
| Actuarial Acccrued Liability  | \$749,344,267    | \$828,702,325    | 10.6%    |
| Assets for Valuation Purposes   | 685,494,589      | 732,581,566      | 6.9%     |
| Unfunded Actuarial L:iability   | \$ 63,849,678    | \$ 96,120,759    | 50.5%    |
| Funding Ratio   | 91.5%            | 88.4%            |          |
| Present Value of Accrued Benefits                                     | \$645,330,236    | \$718,097,705    | 11.3%    |
| Market Value of Assets  | 679,147,572      | 735,092,033      | 8.2%     |
| Unfunded FASB Accrued Liability (not less than \$50)                  | \$ 0             | \$ 0             |          |
| Accrued Benefit Funding Ratio   | 105.2%           | 102.4%           |          |
| ntributions as a Percentage of Payroll                                | Fiscal Year 2006 | Fiscal Year 2007 |          |
| GASB Method:  |                  |                  |          |
| Normal Cost Contribution  | 17.18%           | 17.00%           |          |
| Unfunded Actuarial Liability Contribution                             | 7.48%            | 9.67%            |          |
| Administrative Expense  | _0.30%           | _0.30%           |          |
| Total Contribution  | 24.96%           | 26.97%           |          |
| Corridor Method:  |                  |                  |          |
| Normal Cost Contribution  | 17.18%           | 17.00%           |          |
| Increase Due to Amortized Changes                                     | 0.96%            | 2.25%            |          |
| Administrative Expense  | _0.30%           | _0.30%           |          |
| Corridor Method   | 18.44%           | 19.55%           |          |
|   |                  |                  |          |

This table presents the principal plan results for the valuations as of:

# 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 County 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 County's total contribution rate is equal to the normal cost rate plus rate changes due to amendments passed since June 30, 2002 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-2002 plan 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.

# ACTUARIAL ASSUMPTIONS AND METHODS

### LONG-TERM ASSUMPTIONS USED TO DETERMINE SYSTEM COSTS AND LIABILITIES

### **Demographic Assumptions**

#### **MORTALITY**

#### **1994 Uninsured Pensioners Mortality Table**

#### **1994 Uninsured Pensioners Mortality Table + 5**

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

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

#### **TERMINATION OF EMPLOYMENT:**

### (Prior to Normal Retirement Eligibility)

Annual Termination per 1,000 Members

| Years of Service | Terminations |
|------------------|--------------|
| 0                | 80           |
| 1                | 60           |
| 2                | 40           |
| 3                | 40           |
| 4                | 40           |
| 5                | 50           |
| 6                | 35           |
| 7 or more        | 15           |

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

### DISABILITY

Annual Disabilities per 1,000 Members\*

| Age | Male and Female |
|-----|-----------------|
| 20  | 2               |
| 25  | 2               |
| 30  | 2               |
| 35  | 2               |
| 40  | 2               |
| 45  | 4               |
| 50  | 6               |
| 55  | 6               |
| 60  | 6               |

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

#### ACTUARIAL ASSUMPTIONS AND METHODS (continued)

RETIREMENT

|                     | KE I IKEWIEN I                     |                                     |  |  |  |  |
|---------------------|------------------------------------|-------------------------------------|--|--|--|--|
|                     | Probability of Retirement*         |                                     |  |  |  |  |
| Years of<br>Service | First Year<br>Hired pre-<br>7/1/81 | Thereafter<br>Hired post-<br>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 y | ears 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**

| <b>Investment Return:</b>   | 7.50% compounded per annum.   |  |  |
|---|---|--|--|
| Rate of General<br>Wage Increase:   | 4.00% compounded per annum.   |  |  |
| Rate of Increase in<br>Cost-of-Living:                                    | 4.00% compounded per annum.<br>(Benefit increases limited to 4% per year.<br>We will use an assumption that post retirement<br>cost-of-living increases will be 3% per year.) |  |  |
| Total Payroll Increase<br>(For amortization):<br>Administrative Expenses: | 4.00% compounded per annum.<br>0.30% of payroll.  |  |  |

#### ACTUARIAL ASSUMPTIONS AND METHODS (continued)

#### **CHANGES SINCE LAST VALUATION**

a. Termination was modified to better reflect experience. The prior assumption was:

#### **Annual Termination Per 1,000 Members**

| Years of Service | Terminations |
|------------------|--------------|
| 0                | 100          |
| 1                | 75           |
| 2                | 50           |
| 3                | 50           |
| 4                | 30           |
| 5 or more        | 15           |

b. Retirement has been increased from a flat rate to an increasing rate. The prior assumption was:

| <b>Probability of Retirement</b> |                     |                      |  |  |
|----------------------------------|---------------------|----------------------|--|--|
| Years of<br>Service              | Hired<br>Pre-7/1/81 | Hired<br>Post-7/1/81 |  |  |
| 20                               | 30%                 | N/A                  |  |  |
| 21                               | 30%                 | N/A                  |  |  |
| 22                               | 30%                 | N/A                  |  |  |
| 23                               | 30%                 | N/A                  |  |  |
| 24                               | 30%                 | N/A                  |  |  |
| 25                               | 30%                 | 30%                  |  |  |
| 26                               | 30%                 | 30%                  |  |  |
| 27                               | 30%                 | 30%                  |  |  |
| 28                               | 30%                 | 30%                  |  |  |
| 29                               | 30%                 | 30%                  |  |  |
| 30                               | 100%                | 100%                 |  |  |
|                                  |                     |                      |  |  |

\*50% are assumed to DROP.

c. Merit/Seniority Salary Income (in addition to acrossthe-board increase) was modified and based on experience of all public safety position (PRS and URS). The prior assumption was:

| Years of Service | Merit/Seniority<br>Increase |
|------------------|-----------------------------|
| 0                | 6.0%                        |
| 5                | 6.0%                        |
| 10               | 3.1%                        |
| 15               | 2.9%                        |
| 20               | 1.2%                        |
| 25               | 0.9%                        |
| 30               | 0.0%                        |

d. The prior assumption for sick leave was that retirees, deferred vested terminations, and decreased members receive an additional 3.0% of service credit.

## ANALYSIS OF FINANCIAL EXPERIENCE

#### GAIN AND LOSS IN ACCRUED LIABILITY DURING YEARS ENDED JUNE 30

Resulting from Differences Between Assumed Experience and Actual Experience

|   | (              | Gain (or Loss) for Year Ending June 30 |               |                |  |
|---|----------------|--|---------------|----------------|--|
| Type of Activity  | 2002           | 2003                                   | 2004          | 2005           |  |
| Investment Income                                       | \$(27,533,258) | \$(26,257,081)                         | \$(3,173,508) | \$ 1,255,233   |  |
| Combined Liability Experience                           | 6,530,757      | (5,036,286)                            | 6,522,222     | (16,909,876)   |  |
| Gain (or Loss) During Year<br>From Financial Experience | (21,002,501)   | (31,293,367)                           | 3,348,714     | (15,654,643)   |  |
| Non-Recurring Items                                     | (2,524,680)    |  | (5,916,282)   | (12,861,015)   |  |
| Composite Gain (or Loss) During Year                    | \$(23,527,181) | \$(31,293,367)                         | \$(2,567,568) | \$(28,515,658) |  |

## SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

|                       | Added to Rolls |                     | Removed From Rolls |                     | On Rolls @ Yr. End |                     |                         |                      |
|-----------------------|----------------|---------------------|--------------------|---------------------|--------------------|---------------------|-------------------------|----------------------|
| Year Ended<br>June 30 | No.            | Annual<br>Allowance | No.                | Annual<br>Allowance | No.                | Annual<br>Allowance | % Increase<br>Allowance | Average<br>Allowance |
| 2000                  | 35             | \$3,754,716         | 9                  | \$205,494           | 586                | \$20,698,621        | 20.70%                  | \$35,322             |
| 2001                  | 60             | 2,993,514           | 12                 | 296,497             | 634                | 23,395,638          | 13.03%                  | 36,902               |
| 2002                  | 34             | 1,870,218           | 10                 | 274,297             | 658                | 24,991,559          | 6.82%                   | 37,981               |
| 2003                  | 34             | 2,303,608           | 9                  | 181,377             | 683                | 27,113,790          | 8.49%                   | 39,698               |
| 2004                  | 26             | 1,714,726           | 11                 | 251,466             | 698                | 28,577,050          | 5.40%                   | 40,941               |
| 2005                  | 27             | 2,472,428           | 10                 | 296,737             | 715                | 30,752,741          | 7.61%                   | 43,011               |

## SOLVENCY TEST

#### **AGGREGATE ACCRUED LIABILITIES**

| Valuation<br>Date | (1)<br>Active<br>Member<br>Contributions | (2)<br>Retirees<br>Vested Terms,<br>Beneficiaries & DROP | (3)<br>Active Members<br>(Employer Financed<br>Portion) | Reported<br>Assets | Portion of Acc<br>Liabilities Cov<br>by Reported As<br>(1) (2) | ered |
|-------------------|--|--|---|--------------------|--|------|
| 07/01/00          | \$55,487,975                             | \$323,515,804  | \$207,935,179   | \$568,941,559      | 100% 100%  | 91%  |
| 07/01/01          | 54,082,616                               | 359,197,834  | 204,229,762   | 611,514,245        | 100% 100%  | 97%  |
| 07/01/02          | 62,004,264                               | 380,114,653  | 214,496,324   | 628,383,173        | 100% 100%  | 87%  |
| 07/01/03          | 66,312,754                               | 406,321,385  | 231,342,959   | 644,404,891        | 100% 100%  | 74%  |
| 07/01/04          | 70,693,277                               | 441,029,277  | 237,621,713   | 685,494,589        | 100% 100%  | 73%  |
| 07/01/05          | 76,108,950                               | 477,539,874  | 275,053,501   | 732,581,566        | 100% 100%  | 65%  |

# SCHEDULE OF ADDITIONS BY SOURCE

| Fiscal<br>Year | Plan Member<br>Contributions | Employer<br>Contributions | Employer<br>Contributions<br>% of covered<br>Payroll | Net<br>Investment<br>Income (loss) | Total<br>Additions |
|----------------|------------------------------|---------------------------|--|------------------------------------|--------------------|
| 2000           | \$ 7,521,134                 | \$11,950,073              | 18.40%   | \$ 44,579,345                      | \$ 64,050,552      |
| 2001           | 8,038,085                    | 17,149,427                | 25.69%   | (19,333,682)                       | 5,853,830          |
| 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                | 17.62%   | 91,176,999                         | 115,548,453        |
| 2005           | 9,930,883                    | 14,901,070                | 17.96%   | 61,323,112                         | 86,155,065         |
| 2006           | 10,899,659                   | 16,727,287                | 18.44%   | 69,755,418                         | 97,382,364         |

# SCHEDULE OF DEDUCTIONS BY TYPE

| Fiscal<br>Year | Benefit<br>Payments | Refunds of<br>Contributions | Administrative<br>Expenses | Total<br>Deductions |
|----------------|---------------------|-----------------------------|----------------------------|---------------------|
| 2000           | \$17,724,731        | \$530,622                   | \$195,729                  | \$18,451,082        |
| 2001           | 21,722,991          | 388,850                     | 217,122                    | 22,328,963          |
| 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          |

## SCHEDULE OF BENEFIT PAYMENTS BY TYPE

| Annuity      | Service-<br>Connected<br>Disability  | Ordinary<br>Disability   | Survivor   | Total  |
|--------------|--|--|--|--|
| \$15,660,231 | \$1,096,252  | \$106,195  | \$ 862,053   | \$17,724,731   |
| 19,534,126   | 1,068,524  | 136,889  | 983,452  | 21,722,991   |
| 21,668,153   | 995,832  | 150,434  | 1,209,700  | 24,024,119   |
| 23,352,203   | 995,254  | 154,408  | 1,301,601  | 25,803,466   |
| 24,982,292   | 1,110,494  | 159,948  | 1,429,629  | 27,682,363   |
| 26,542,408   | 1,043,212  | 164,651  | 1,492,113  | 29,242,384   |
| 28,426,759   | 1,134,848  | 144,476  | 1,596,723  | 31,302,806   |
|              | \$15,660,231<br>19,534,126<br>21,668,153<br>23,352,203<br>24,982,292<br>26,542,408 | AnnuityConnected<br>Disability\$15,660,231\$1,096,25219,534,1261,068,52421,668,153995,83223,352,203995,25424,982,2921,110,49426,542,4081,043,212 | AnnuityConnected<br>DisabilityOrdinary<br>Disability\$15,660,231\$1,096,252\$106,19519,534,1261,068,524136,88921,668,153995,832150,43423,352,203995,254154,40824,982,2921,110,494159,94826,542,4081,043,212164,651 | AnnuityConnected<br>DisabilityOrdinary<br>DisabilitySurvivor\$15,660,231\$1,096,252\$106,195\$862,05319,534,1261,068,524136,889983,45221,668,153995,832150,4341,209,70023,352,203995,254154,4081,301,60124,982,2921,110,494159,9481,429,62926,542,4081,043,212164,6511,492,113 |

### STATISTICAL SECTION

## SCHEDULE OF RETIRED MEMBERS BY BENEFIT TYPE

| Fiscal Year<br>Ended<br>June 30 | Annuity | Service-<br>Connected<br>Disability | Ordinary<br>Disability | Survivor | Total |
|---------------------------------|---------|-------------------------------------|------------------------|----------|-------|
| 2000                            | 481     | 41                                  | 8                      | 56       | 586   |
| 2001                            | 522     | 37                                  | 9                      | 63       | 631   |
| 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   |

## SCHEDULE OF AVERAGE MONTHLY BENEFIT AMOUNTS

| Fiscal Year<br>Ended<br>June 30 | Annuity | Service-<br>Connected<br>Disability | Ordinary<br>Disability | Survivor | Average |
|---------------------------------|---------|-------------------------------------|------------------------|----------|---------|
| 2000                            | \$3,214 | \$2,362                             | \$1,136                | \$1,398  | \$2,955 |
| 2001                            | 3,360   | 2,432                               | 1,397                  | 1,465    | 3,088   |
| 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   |



## FAIRFAX COUNTY RETIREMENT ADMINISTRATION AGENCY

10680 MAIN STREET, SUITE 280 • FAIRFAX, VIRGINIA 22030