

**COMPREHENSIVE ANNUAL FINANCIAL REPORT  
OF THE  
CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM –  
A COMPONENT UNIT OF THE  
CITY OF CHARLOTTE, NORTH CAROLINA**

**FOR THE FISCAL YEAR ENDED  
JUNE 30, 2011**

**BOARD OF TRUSTEES**

Kurt R. Hollar, Chairman of the Board, Citizen Appointee  
Bobby W. Davis, Vice Chairman, Elected Retiree  
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Kenneth E. Levine, Citizen Appointee  
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F. Traylor Renfro, Citizen Appointee

Prepared by the Charlotte Firefighters' Retirement System Staff  
Barbara J. Avard, Administrator  
Patricia E. Adams, Retirement Analyst

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**Charlotte Firefighters' Retirement System  
Charlotte, North Carolina**

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# CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM

428 East Fourth Street • Suite 205 • Charlotte, North Carolina 28202 • 704/336-4431 • Fax 704/336-6101

December 27, 2011

Honorable Board of Trustees,  
Members of the City Council of Charlotte, North Carolina  
and Charlotte Firefighters' Retirement System Participants:

The Component Unit Financial Report ("Report") of the Charlotte Firefighters' Retirement System ("System") for the fiscal year ended June 30, 2011, is submitted herewith. The Board of Trustees and its staff are responsible for the preparation and presentation of the financial information and all other data contained herein, and believe that the Report is based on accounting principles generally accepted in the United States of America, presents fairly and consistently the CFRS's financial position and results of operations and conforms to the standards of governmental accounting and financial reporting principles as promulgated by the Governmental Accounting Standards Board (GASB). The Report consists of five sections:

- (1) an Introductory Section which contains this Letter of Transmittal and general information regarding the system;
- (2) the Financial Section consisting of the Independent Auditors' Report, audited financial statements and the accompanying notes to the financial statements, and required supplementary information and schedules which includes Management's Discussion and Analysis pursuant to GASB Statement No. 34;
- (3) the Investment Section which contains supportive documentation related to the System's investments;
- (4) the Actuarial Section which contains the consulting actuary's opinion and the results of the annual actuarial valuation report, as of July 1, 2011 and
- (5) the Statistical Section which contains financial trends and information on investment policy and performance results and other statistical information which may be of interest to those reading this report.

## HISTORY

The System was organized pursuant to Chapter 926 of the 1947 Session Laws, as amended, of the State of North Carolina. It was established on the fifth day of April 1947, for the purpose of providing retirement and permanent and total disability benefits

to the uniformed members of the Fire Department of the City of Charlotte. The stated purpose of the System was amended on the 29<sup>th</sup> day of June 1987, to provide survivor benefits to named beneficiaries as an added objective. In 2002, the CFRS Act was amended to provide for acceptance of various rollover funds for member purchases of prior military, prior government and withdrawn service credit. In 2003, a new Letter of Determination from the Internal Revenue Service was received affirming the tax-qualified status of the System. It submitted a request to the Internal Revenue Service for an updated Letter of Determination in January 2009 under Cycle C of the Letter of Determination Program and that letter is still pending.

## **ADMINISTRATION OF THE SYSTEM**

The administration and responsibility for the proper operation of the System is vested with the Board of Trustees of the Charlotte Firefighters' Retirement System, which is comprised of the following trustees as defined by the Charlotte Firefighters' Retirement System Act (Act): (a) a Mecklenburg County resident who is appointed by the Resident Judge of the Superior Court of Mecklenburg County as Chairman of the Board for a three year term; (b) three Mecklenburg County residents who are appointed by the Resident Judge of the Superior Court of Mecklenburg County as trustees for three year staggered terms which results in the appointment of one trustee each year; (c) the City Manager, who serves by virtue of his position, or some other City department head or employee as designated by the City Manager; (d) the City Finance Director, who serves by virtue of his position, or a deputy finance director as designated by the Finance Director; (e) the City Treasurer who serves by virtue of his position; (f) three members of the Charlotte Firefighters' Retirement System who are elected by the membership of the system as trustees for three year staggered terms which results in the election of one trustee each year; and (g) one retiree of the Charlotte Firefighters' Retirement System who is elected by the retirees of the system for a term of three years.

Director of Human Resources Timothy Mayes retired from City service as of December 1, 2010. Cheryl L. Brown, Deputy Director, was appointed Director of Human Resources as well as Trustee to the Board as the City Manager's designee. The current Board of Trustees is listed on the title page of this report.

## **COMMITTEES**

The Board of Trustees operationally functions under a committee structure. An investment committee and a benefits committee are annually appointed by the Chairman of the Board to monitor, fact-find and recommend actions for the Board's consideration. Although not required, the committees have generally been comprised of at least three trustees with one committee member being a citizen appointee, another an elected member, and the other an ex-officio trustee. During the past fiscal year, F. Traylor Renfro, Appointed Citizen Trustee and long-time Trustee, served as Chair of the Investment Committee. Bobby W. Davis, Elected Retiree Trustee, served as Benefits Committee Chair. Other committees may be appointed for specific projects by the Board Chair on an ad hoc basis.

## PROFESSIONAL SERVICES

The Board of Trustees employs the services of various professionals to aid it in its fiduciary responsibility for the effective and prudent management of the system. These professionals include: (a) a full-time Administrator who is responsible for the supervision of system staff and administration and coordination of all system operations and activities in accordance with the rules and regulations of the Act and subject to the policies and direction of the Board of Trustees; (b) the City Attorney and his staff serve as the legal advisor to the Board of Trustees although additional outside legal counsel may be engaged by the Board from time to time for specialized services; (c) a consulting actuary who is employed by the City of Charlotte to perform such studies and evaluations of the Charlotte Firefighters' Retirement System as may be necessary and/or desirable in connection with the administration of the system (the actuary prepares an Annual Actuarial Valuation to determine the adequacy of the funding of the retirement benefit liabilities accrued by system members); (d) an independent auditor engaged by the Board of Trustees on an annual basis to determine whether the financial statements present fairly, in all material respects, the financial position of the system and the results of its yearly operations in conformity with generally accepted accounting principles; (e) a Medical Board appointed by the Board of Trustees to review and evaluate medical evidence and propose recommendations regarding disability retirements; and (f) investment management professionals employed to invest the system's assets consistent with the objectives and direction of the Board of Trustees. The Board of Trustees may employ other professionals with expertise in various fields for specific services as deemed necessary.

The system's investment performance is monitored on a continuous basis to ensure that the objectives and direction of the Board of Trustees are being fulfilled. The investment consulting firm of Callan Associates, Inc. has been employed since 1987 to assist the Board of Trustees to fulfill this obligation and provide other investment consulting services. All of the advisors, consultants and providers of professional services to the system are listed on Page 13. Information related to investment fees and commissions may be found beginning on Page 56.

## FINANCIAL REPORTING

An annual report of the financial and actuarial condition of the System is prepared and submitted to the City Council. The annual report to City Council contains, but is not limited to, the auditors' opinion, statements contained in the auditors' report, a summary of the annual actuarial valuation and the actuary's valuation certification. Additionally, a copy of the annual report to City Council is provided to each of the fire stations and fire department administrative offices of the City of Charlotte. A summary annual report is also provided to all participants.

## MAJOR INITIATIVES

During the year, as its primary duty, the Investment Committee spent considerable time reviewing the performance of all existing managers. The Committee met in person with each manager. As a result of continuing global market and economic volatility, the Committee had in-depth discussions with managers and the investment consultant to maintain the asset allocation and target diversification of the portfolio and to review risk management policies. The Committee conducted a periodic review of the Policy Statement of Investment Goals, Objectives and Guidelines and made no recommendation for revisions to the Board. No significant changes were made to the asset allocation or strategy. The Investment Committee did recommend to the Board the termination of its Small Cap Growth manager and transfer of funds to an index fund until a search was completed and new manager hired. This process took place during the late months of Fiscal 2010 and a new manager was hired in the first quarter of Fiscal 2011.

The Investment Committee also received periodic reports during the year on the success of the securities class action litigation monitoring efforts and on some significant recoveries as the result of such litigation settlements.

Issues will continue to be examined by the Investment Committee on both a proactive and reactive basis to assure continued success as well as continued commitment to a well-diversified portfolio and strategic asset allocation. The total portfolio investment return for the year ended June 30, 2011 of 26.22% exceeded the assumed return rate of 7.75% by 1847 basis points and reflected improving global markets and economic conditions. Detailed information concerning the System's investments may be found in the *Investment Section* beginning on *Page 41*.

The Benefits Committee had a relatively quiet year. The Committee discussed the notification requirement to spouses as part of the retirement process for members. The Administrator contacted various other public retirement systems to provide a comparison on the process and policies with regard to spouses of members. The Committee reviewed the work of the system's actuary and recommended retaining the firm for a new three year period. The Committee did continue to receive regular information on activities related to public pension plans across the United States as well as legislative activity at various levels of government. The Committee also regularly received reports from the Administrator on the status of the Governmental Accounting Standards Board's work on GASB Statements 25 and 27 and proposed amendments to these statements. The Administrator testified before the GASB at one of its public hearings as the Chair of GFOA's Committee on Benefits and Retirement Administration.

The Arrivos pension administration software project work continued through Fiscal 2011 with the "go live" delayed until mid-fiscal year. As with all such major efforts, some issues were identified and required time to be resolved. The Arrivos system did go live in March 2011 with few remaining issues to be resolved. The Staff was pleased to have the system in near-full operation and was able to produce the annual



member statements from the new system. The new statements are more detailed and result in a saving of several thousand dollars to the System. Arrivos should continue to improve data availability, operations and the services provided to members as the database grows.

## **FINANCIAL INFORMATION**

The System's internal control structure is designed to provide reasonable, but not absolute, assurance for the safeguarding of assets against loss from theft or unauthorized use and to ensure the reliability and adequacy of the accounting records. The concept of reasonable assurance recognizes that: (1) the cost of a control should not exceed the benefits likely to be derived, and (2) the valuation of costs and benefits requires estimates and judgment by management. Accounting data are maintained in a manner suitable for preparing financial reports in conformity with generally accepted accounting principles and for providing accurate and timely data to the City Council, Board of Trustees, participants of the retirement system, citizens and other interested parties.

### **Budgetary Controls**

The North Carolina General Statutes require the adoption of an annual budget for all funds except those for which expenditures are authorized by project ordinance, fiduciary funds and internal service funds. The System is a fiduciary fund and is therefore exempt from budgetary requirements. However, the Board of Trustees considers and adopts a budget for each current fiscal year of operations and receives a quarterly budget report from the Administrator.

### **Accounting and Actuarial Systems**

The financial reports of the System are prepared in accordance with generally accepted principles of governmental accounting and reporting pronounced by the Governmental Accounting Standards Board. The accrual basis of accounting is used to record assets and liabilities, and revenues and expenses. Revenues and expenses are recorded when earned or incurred, regardless of collection or disbursement. Capital assets are recorded at cost and depreciated through charges to expense over the estimated useful lives of the assets. The system is funded on the entry age normal cost method, which means that the annual contribution is comprised of two elements which are the current or "normal" cost for the year and a contribution to reduce the unfunded accrued liability.

### **Revenues and Funding**

Revenues essential to the sound funding of the System flow from three sources:

**Contributions by Members:** A CFRS member contributes an amount equal to the member's compensation multiplied by the current contribution rate of 12.65%. These contributions are made on a tax-deferred basis. The contributions are posted to individual

accounts for each member. The accumulated amount in each account is used for the member's benefit if he or she remains in service. If the member leaves service, he or she may withdraw the amount of his or her accumulated contribution. A member with five or more years of membership service receives interest on his or her contributions if a refund is requested. A member may, if he or she has five or more years of membership service, choose to elect a deferred annuity providing lifetime income commencing at age 60.

**Contributions by the City of Charlotte:** The City of Charlotte matches the payroll contributions of the members. The difference between the City and Member contributions is due to service purchases made by members that are not matched by the City and by City contributions for those members away on military deployments during which they are not required to make contributions.

**Investment Income:** Investment income is the third source of system revenues and must be regarded as both a vital and major contributor to funding and assists the Board of Trustees and the City of Charlotte to provide for the future security of the system's participants. Statutorily, since 1947, the Board of Trustees has exercised responsibility for investing the system's portfolio in a prudent and discretionary manner. The Chairman of the Board appoints an Investment Committee that has the responsibility for oversight of the investment of system assets in accordance with the Policy Statement of Investment Goals, Objectives, and Guidelines as established by the Board of Trustees.

The reader of this report should note that year-to-year investment income variation is a function of appreciation and depreciation of stocks and the subsequent realization of gains or losses on the sale of investments and not necessarily reflective of investment results.

The primary concern for a retirement system is the level of funding. The better the level of funding, the greater the assurance of benefit security for the participants. It is the responsibility of the Board of Trustees to make good investment decisions in order to increase the assets and thereby the funding level of the System. The Board of Trustees has a goal of maintaining the funding of the System at or near 100%. Due to global market volatility and prior years of financial market declines, decreased investment returns resulted in a funding level at July 1, 2011 of 89.5%, down from 90.5% as of July 1, 2010. A more complete discussion of System revenues and expenditures may be found in the *Financial Section* beginning on Page 17.

## **Expenses**

The primary expense of the System relates to the purpose for which it was created, namely, the payment of benefits. Benefit payments to retired participants and refunds to terminated members were responsible for 97.4% of all system expenses, compared to 97.0% for the prior year. Administrative costs and depreciation accounted for 2.6% of system expenses for fiscal year 2011, a decrease of .40% from the previous year. This slight decrease is primarily the result of no disability retirement cases during

the year. A more detailed discussion of System expenses may be found in the *Financial Section* beginning on Page 17.

The reader may also obtain additional information in *Management's Discussion and Analysis* beginning on Page 19.

## **OTHER INFORMATION**

### **Independent Audit**

The Charlotte Firefighters' Retirement System Act, a North Carolina statute, requires an annual audit by a certified public accountant. The Board of Trustees selected the independent certified public accounting firm of Cherry, Bekaert & Holland, and L.L.P. to provide these services. The auditors' report on the financial statements and required supplementary information is included in the financial section of this report.

### **Awards and Acknowledgments**

The Government Finance Officers Association of the United States and Canada (G.F.O.A.) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Charlotte Firefighters' Retirement System for its comprehensive annual financial reports for the fiscal years ended June 30, 1995 - 2001 and June 30, 2003 - 2010. (The System did not submit its June 30, 2002 report) The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. A Certificate of Achievement is valid for a period of one year only.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.


In addition, the Charlotte Firefighters' Retirement System received the Public Pension Standards Award for Funding – 2011 presented by the Public Pension Coordinating Council in recognition of meeting professional standards for plan funding as set forth in the Public Pension Standards.

The compilation of this report is intended to provide complete and reliable information regarding the stewardship for the funds contributed by the members of the Charlotte Firefighters' Retirement System and the City of Charlotte.

Several individuals assisted with the preparation of this report and we wish to acknowledge their efforts and assistance. Patricia E. Adams, Retirement Analyst of CFRS; City Finance Staff, Teresa Smith, Chief Accountant and Kathy Pond, Financial Reporting Supervisor all contributed many hours to insure the quality and completeness of this report.

We hope that this year's report will be of interest to you and will be helpful in understanding, evaluating, and assuring the continued success of the Charlotte Firefighters' Retirement System.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Kurt R. Hollar". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kurt R. Hollar, Chairman of the Board

A handwritten signature in black ink, appearing to read "Barbara J. Avar". The signature is cursive and somewhat stylized, with a large initial letter.

Barbara J. Avar, Administrator

# **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM**

## **CHARLOTTE, NORTH CAROLINA**

### **BOARD OF TRUSTEES**

Kurt R. Hollar, Chairman of the Board, Citizen Appointee

Bobby W. Davis, Vice Chairman, Elected Retiree

Scott L. Greer, Treasurer, Ex-Officio

A. Scott King, Secretary, Elected Member

Cheryl L. Brown, Ex-Officio

Lydia F. Crutchfield, Citizen Appointee

Greg C. Gaskins, Ex-Officio

Kevin S. Gordon, Elected Member

Kenneth E. Levine, Citizen Appointee

Tim R. Ramsey, Elected Member

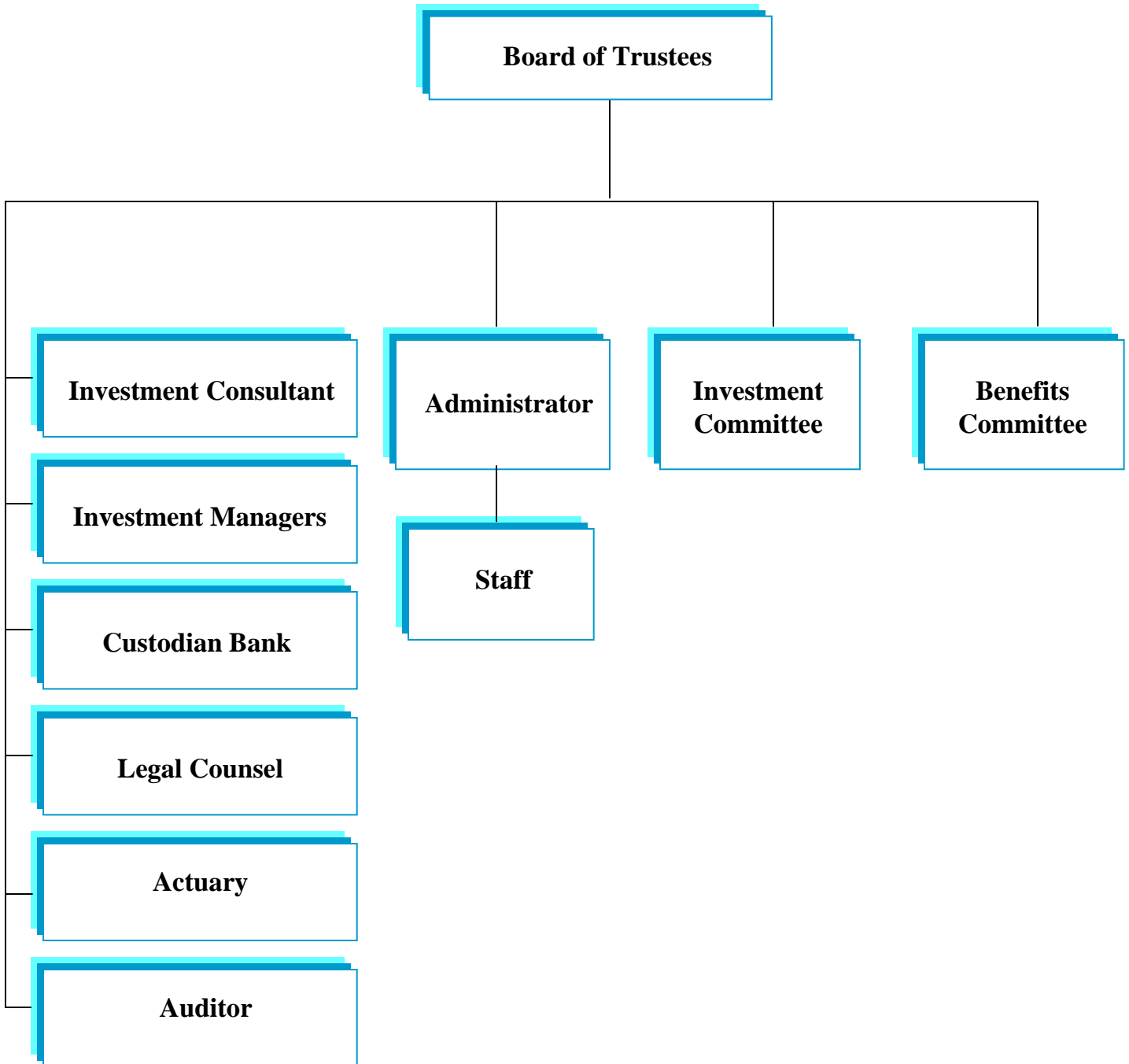
F. Traylor Renfro, Citizen Appointee

### **STAFF**

Barbara J. Avard, Administrator

Patricia E. Adams, Retirement Analyst

# CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM ORGANIZATIONAL CHART



# Certificate of Achievement for Excellence in Financial Reporting

Presented to

Charlotte Firefighters'  
Retirement System, North Carolina

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
June 30, 2010

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



*Linda C. Davidson*

President

*Jeffrey R. Emer*

Executive Director



Public Pension Coordinating Council

***Recognition Award for Funding  
2011***

Presented to

***Charlotte Firefighters' Retirement System***

In recognition of meeting professional standards for  
plan funding as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in black ink that reads "Alan H. Winkle". The signature is written in a cursive style with a large, stylized 'A' and 'W'.

Alan H. Winkle  
Program Administrator



**PROFESSIONAL SERVICE PROVIDERS  
TO THE  
CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM**

**ACTUARY**

Cavanaugh Macdonald Consulting, LLC

**CUSTODIAN BANK**

State Street Bank and Trust Company, NA

**INDEPENDENT AUDITORS**

Cherry, Bekaert & Holland, L.L.P., Raleigh, North Carolina

**INVESTMENT ADVISORS**

Aronson + Johnson + Ortiz, L.P., Domestic Equities  
Baring Asset Management, Inc., Non-U.S. Fixed Income  
Barrow, Hanley, Mewhinney & Strauss, Inc., Core Plus Domestic Fixed Income  
BlackRock Realty, Real Estate  
Robeco-Boston Partners Asset Management, L.P., Domestic Equities  
Cadence Capital Management, Domestic Equities  
D. E. Shaw Investment Management, L.L.C., Domestic Equities  
Eagle Asset Management, Domestic Equities  
Investment Counselors of Maryland, Domestic Equities  
Morgan Stanley, Non-U.S. Equities  
State Street Global Advisors, Domestic Fixed Income Index & Equities Index  
T. Rowe Price International, Inc., Non-U.S. Equities  
Winslow Capital Management, Inc., Domestic Equities

**INVESTMENT CONSULTANT**

Callan Associates, Inc.

**MEDICAL ADVISORS**

CMC-NorthEast Medical Center, Concord, North Carolina

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM SUMMARY OF PLAN PROVISIONS**

### **1. Eligibility for Membership**

Membership is mandatory for all uniformed employees of the Charlotte Fire Department who are subject to the provisions of the Civil Service Act.

### **2. Normal Service Retirement**

A member may elect to retire at any time after attaining age 50 with 25 or more years of service, age 60 with 5 or more years of service or at any age with 30 or more years of service.

### **3. Normal Service Retirement Benefit**

A member receives 2.6% of final average salary per year of credited service not to exceed the limit imposed by Section 415 of the IRS Code. Final average salary is defined as the average monthly earnings during the highest paid consecutive 24 months during the final 60 months of service.

### **4. Early Retirement**

A member may retire early before age 50 at any time after completion of 25 years of membership service.

### **5. Early Retirement Benefit**

The early retirement benefit is calculated in the same manner as for normal service retirement, but reduced by 3.0% per year or .25% for each month the early retirement date precedes age 50.

### **6. Disability Retirement Benefits**

(a) In Line of Duty No minimum age or service requirements. Disability retirement benefits are the greater of 78% of final average salary determined as of date of disability incurred in the line of duty or 2.6% of final average salary times membership service. (b) Not In Line of Duty Payable in the event of total and permanent disability after 10 years of service. Disability retirement

benefit is 39% of final average salary, plus 1.95% of such salary for each year of service in excess of 10 years, maximum benefit not to exceed the limits imposed by Section 415 of the IRS Code determined as of date of disability.

### **7. Retirement Bonus Payment**

A retiree may receive an annual bonus payment in the month of January following an annual actuarial valuation when the actuary recommends such a payment and provides the Board with a fiscal note which evaluates the effect of such a payment on the system's funded status. A retiree must have been retired for at least one year as of December 31 in order to be eligible for a bonus payment.

### **8. Benefit Upon Termination of Employment**

(a) Less Than 5 Years Lump-sum distribution of member's contributions.  
(b) 5 Or More Years Normal service retirement benefits payable at age 60 or lump sum distribution of member's contribution plus interest compounded at 4.0 % per plan year of participation.

### **9. Death Benefits**

(a) Prior to Retirement Member's contributions, plus those made by City on his or her behalf, together with interest at 4.0 % per year, are payable to the named beneficiary in a lump sum or annuity. Under certain conditions, the beneficiary may elect to receive an actuarial equivalent monthly benefit under the 66 2/3% Joint and Survivor Option.  
(b) After Retirement Pre-retirement death benefit as of date of retirement, less any retirement benefits already

## CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM SUMMARY OF PLAN PROVISIONS

received, is paid to retiree's named beneficiary.

**10. Optional Benefits (Other Than Lifetime Benefits)** All optional benefits are actuarially equivalent to lifetime retirement benefits.

Option 1 - 10 Years Certain and Life Thereafter Reduced lifetime monthly benefit to member. If member dies within 10 years following retirement, benefit continues to the named beneficiary for balance of 10 year period.

Option 2 - 100% Joint & Survivor Reduced monthly lifetime benefit which continues after retiree's death to the designated beneficiary for beneficiary's lifetime.

Option 3 - 75% Joint & Survivor Similar to Option 2, but 3/4 of retiree's benefit continues to the designated beneficiary after retiree's death.

Option 4 - 66 2/3% Joint & Survivor Similar to Option 2, but 2/3 of retiree's benefit continues to the designated beneficiary after retiree's death.

Option 5 - 50% Joint and Survivor Similar to Option 2, but 1/2 of retiree's benefit continues to the designated beneficiary after retiree's death.

Option 6 A retiree may elect any of the Options 2-5 with an added provision which allows the benefit to revert to the amount of the lifetime benefit (single life annuity amount) in the event the beneficiary predeceases the retiree.

### **11. Requirements for Electing Optional Benefits**

Any of the options may be elected at any time between 30 and 90 days prior to early or normal retirement. A disability retiree may elect to receive the benefit under Option 5, subject to approval by the Board of the disability retirement application.

### **12. Purchase of Membership Service Credit for Prior Active Military Duty**

Up to five years of additional service may be purchased upon completion of 5 years in the CFRS, for active duty served prior to CFRS membership. This service may be used to qualify for normal service retirement, but not early retirement.

### **13. Return from Active Military Duty**

Membership service credit is granted to a member who returns to CFRS membership from active duty served during any period of national emergency condition or entry at any time through the operation of the compulsory military service law of the United States of America.

### **14. Accumulated Sick Leave and Vacation at Retirement**

Membership service is credited for the balance of any unpaid sick leave and/or vacation at the time of retirement. Also, a member receives the inclusion of the amount of lump sum payoff at retirement for any vacation and/or sick leave attributable to the member's period of final average salary.

### **15. Purchase of Membership Service for Prior Government Service**

Up to five years of additional service may be purchased upon completion of 5 years of service in the CFRS, for prior

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM SUMMARY OF PLAN PROVISIONS**

service with another government employer. 50% of prior government service may be purchased up to the maximum. The cost of such service is calculated at full actuarial cost and may be used to qualify for normal service requirement but not early retirement.

### **16. Purchase of Membership Service for Withdrawn Service**

Prior service with the Charlotte Fire Department and contributions withdrawn from the CFRS may be purchased in total at full actuarial cost upon completion of 5 years of service in the CFRS.

**This summary of plan provisions is intended for information purposes and is in no way intended to supplant or replace the language of the Charlotte Firefighters' Retirement System Act which is the controlling document relating to benefits and any disputes regarding same. The CFRS Act should be reviewed prior to applying for or selecting benefits from the system.**



## Independent Auditors' Report

Board of Trustees  
Charlotte Firefighters' Retirement System  
Charlotte, North Carolina

We have audited the accompanying comparative statements of plan net assets of the Charlotte Firefighters' Retirement System (the "CFRS"), a component unit of the City of Charlotte, North Carolina, as of June 30, 2011 and 2010, and the related comparative statements of changes in plan net assets for the years then ended, which collectively comprise the CFRS' basic financial statements as listed in the table of contents. These financial statements are the responsibility of the CFRS' management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinions.

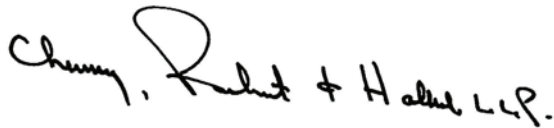
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the CFRS as of June 30, 2011 and 2010 and the change in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America.

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

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the CFRS' financial statements as a whole. The accompanying financial information listed as Supplementary Schedules in the accompanying table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements. This information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects, when considered in relation to the basic financial statements taken as a whole.

The introductory, investment, actuarial and statistical sections and glossary of terms as listed in the accompanying table of contents, are presented for purposes of additional analysis and are not a required part of the financial statements. Such information has not been subjected to auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on it.

**CHERRY, BEKAERT & HOLLAND, L.L.P.**

A handwritten signature in black ink that reads "Cherry, Bekaert & Holland L.L.P." in a cursive, flowing script.

Raleigh, North Carolina  
December 27, 2011

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents Management's Discussion and Analysis of the Charlotte Firefighters' Retirement System's ("System") financial statements and the significant events, conditions and decisions which affected the operations and performance of the CFRS during the years ended June 30, 2011 and 2010.

### Overview of the Financial Statements and Accompanying Information

- 1) Fund Financial Statements. The System presents Statements of Plan Net Assets as of June 30, 2011 and 2010 and Statements of Changes in Plan Net Assets for the years then ended. These statements reflect resources available for payment of benefits as of year-end and the sources and uses of those funds during the year. For purposes of discussion and analysis, the condensed information shown below includes three fiscal years.
- 2) Notes to the Financial Statements. The notes to the financial statements are an integral part of the financial statements and have additional detailed information to provide a better understanding of the financial statements. Information in the notes discloses the System organization, benefits and contributions, how the asset values are determined, contingencies and commitments.
- 3) Required Supplementary Information. The required supplementary information consists of a schedule concerning the funding status of the System, employer contributions and this Management's Discussion and Analysis.
- 4) Other Supplementary Schedules. Other schedules include detailed information on administrative expenses incurred by the System, a schedule of investment manager fees by asset class and fees paid to consultants for professional services.

#### Comparative Statements of Plan Net Assets (in thousands)

	Years ended June 30		
	2011	2010	2009
Cash and Cash equivalents	\$4,622	\$5,403	\$4,077
Investments	361,240	289,960	267,734
Capital assets	364	234	252
Other assets	921	854	786
Total assets	\$367,147	\$296,451	\$272,849
Liabilities	(1,077)	(766)	(745)
Net Assets	\$366,070	\$295,685	\$272,104

#### Comparative Statements of Changes in Plan Net Assets (in thousands)

	Years ended June 30		
	2011	2010	2009
Contributions	\$15,958	\$15,198	\$15,052
Net Investment Gain/(Loss)	75,299	28,394	(67,070)
Total Additions/(Loss)	\$91,257	\$43,592	\$(52,018)
Benefits	(20,080)	(19,210)	(18,146)
Other deductions	(792)	(801)	(628)
Total Deductions	\$(20,872)	\$(20,011)	\$(18,774)
Change in Net Assets	\$ 70,385	\$23,581	\$(70,792)

## **Financial Analysis**

The CFRS provides retirement benefits to the uniformed firefighters of the City of Charlotte. The System benefits are funded through member and employer contributions and investment income. As reflected in the Comparative Statements of Changes in Plan Net Assets on *Page 24*, the net assets of the System increased approximately \$70.4 million and \$23.6 million during the years ended June 30, 2011 and June 30, 2010 respectively and decreased \$70.8 million during the year ended June 30, 20, 2009. These results reflect the extremely volatile market environment since the preceding several years of positive results, intense global economic issues in financial markets and the improving market conditions of the past year.

## **Funded Ratio**

The funded ratio of the plan measures the ratio of actuarially determined assets against actuarial liabilities and is a good indicator of the fiscal strength of a pension fund's ability to meet obligations to its members. The System is required by the Act to perform an annual actuarial valuation. The valuation as of July 1, 2011 showed the funded status of the System decreasing to 89.5% from 90.5% at July 1, 2010 and 95.7% at July 1, 2009. The System valuations use a 5-year smoothed market basis. The System had an unfunded liability of \$42.8 million, \$37.7 million and \$16.0 million for the years ended June 30, 2011, 2010 and 2009, respectively. The decrease in the funded ratio was principally due to lower returns across all global markets as a result of the depressed global economy of the past several years.

## **Contributions and Income**

Additions to Plan Net Assets include employer and member contributions and net income from investment activities. Member contributions were approximately \$8.3 million, \$7.8 million and \$7.7 million for the years ended June 30, 2011, 2010 and 2009, respectively, an annual increase of \$530,000 and \$47,000 over the past two fiscal years. The member rate is 12.65% of eligible compensation, set by statute and made on a tax-deferred basis. The employer rate is set at 12.65% by statute to equally match that of members. Employer contributions were approximately \$7.7 million, \$7.4 million and \$7.3 million for the years ended June 30, 2011, 2010 and 2009, respectively. The variances between employer and member contributions may be attributed to significant prior government and military service purchases made by members and contributions not made by members who have been placed on military deployment during the past several years.

Net investment gains of approximately \$75.3 million during fiscal 2011 and \$28.4 million during fiscal 2010 and losses of \$67.1 in fiscal 2009, resulted in returns of 26.22%, 10.90% and (19.23%) respectively as measured by Callan Associates, Inc. The positive returns in investment income in 2011 were the result of improving global equity market conditions combined with continued volatility in worldwide financial markets. The System outperformed its composite benchmark on a relative basis by 272 basis points and the Callan Public Fund Sponsor Database median return by 463 basis points. For the 5-year period ended June 30, 2011, the System returns were 5.09% compared to its composite benchmark returns of 4.77% and its actuarial assumed rate of return of 7.75%.



The most significant deduction from investment income is investment manager fees. The System's assets are managed 100% by external investment advisors hired by the Board of Trustees. Many of these managers are paid a fee based on the assets under management. Some of the active managers are paid a base fee plus the possibility of performance incentive. Some of the managers were generally compensated less than in prior years because of the effect of lower asset values during most of the year. Further, some performance fees were payable during the year for prior out-performance. Investment expenses for the years ended June 30, 2011, 2010 and 2009 were approximately \$1.9 million, \$1.7 million and \$1.7 million, respectively.

Prudent investment of the System's assets, diligent monitoring of investment advisors and a commitment to periodic allocation rebalancing in addition to conservative administrative costs has enabled the System to maintain a high funded status. The Board of Trustees is committed to maintaining the System at or near 100% funding and will dedicate its efforts to that goal.

### **Benefits, Refunds and Expenses**

The most significant recurring deduction to Plan Net Assets is benefit payments. During fiscal 2011, the System paid approximately \$20.3 million, up from \$19.4 million in fiscal 2010 and \$18.3 million in fiscal 2009, in benefits and refunds. The increased level of payments in fiscal year 2011 was due primarily to new retirements. The System does not provide an automatic Cost of Living Adjustment (COLA). Due to the funding ratio of the System, the Board of Trustees was unable to provide a bonus payment for retirees and beneficiaries receiving benefits as of January 1, 2011.

The administrative costs of the System represented approximately .15% of the net ending assets in fiscal year 2011, an annual decrease equivalent to .05% over the past two fiscal years.

### **Plan Assets**

During fiscal year 2011, investments allocated to domestic and international equity portfolios increased approximately \$66.4 million, after experiencing increases of \$21.1 million and decreases of \$65.8 million in fiscal years 2010 and 2009, respectively. The increase is attributable to investment returns. The System does not invest in alternative classes of investments such as hedge funds, venture capital and private equity. It also does not have a securities lending program at this time. During fiscal years 2011, 2010 and 2009, investments allocated to domestic and non-U.S. fixed income increased approximately \$2.9 million, \$5.1 million and \$4.5 million, respectively. These results are attributable to investment results and continuing volatility of global bond markets combined with historically low interest rates and global currency issues during this period.

The System values its assets at "fair value" as discussed in accounting policies footnote 2(d) (*Page 29*) to the financial statements. Fair value is the value the System expects to receive in a current sale between a willing buyer and a willing seller that are equally motivated; that is, other than a forced or liquidation sale. The value of publicly traded securities, stocks and bonds, are determined using the latest quote from national exchanges or pricing services. These prices reflect the securities' pricing at the close of business and can be affected by such factors as liquidity, current events and the size of lots being traded. Real Estate is valued using appraisal values by approved appraisers who meet professional qualifications. The appraisal process

involves a significant amount of judgment and estimates. As a result, the ultimate value on the sale of the asset may differ from the appraised value. The System utilizes an open-end commingled real estate investment trust (REIT) for its real estate investment allocation.

### **Contacting the CFRS Management**

This financial report is designed to provide the City Council, participants of the System, citizens, taxpayers and other interested parties with an overview of its operations and financial position and to demonstrate its accountability. Questions concerning this report or requests for additional information should be directed to the Administrator, Charlotte Firefighters' Retirement System, 428 East 4<sup>th</sup> Street, Suite 205, Charlotte, NC 28202.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
COMPARATIVE STATEMENTS OF PLAN NET ASSETS  
(In Thousands)**

	June 30	
	<u>2011</u>	<u>2010</u>
<b>ASSETS:</b>		
Cash and cash equivalents	\$ 4,622	\$ 5,403
Receivables:		
Employer contributions	263	236
Member contributions	258	225
Interest and dividends	400	393
Total receivables	<u>921</u>	<u>854</u>
Investments, at fair value:		
Equity securities - stocks	140,291	87,142
Fixed income securities - bonds	38,554	37,929
Mutual funds	<u>182,395</u>	<u>164,889</u>
Total investments	<u>361,240</u>	<u>289,960</u>
Capital assets, at cost, net of accumulated depreciation of \$235 - 2011 and \$201 - 2010	<u>364</u>	<u>234</u>
Total assets	367,147	296,451
<b>LIABILITIES:</b>		
Accounts payable	<u>1,077</u>	<u>766</u>
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>	<u>\$366,070</u>	<u>\$295,685</u>

*The notes to the financial statements are an integral part of this statement.*

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
COMPARATIVE STATEMENTS OF CHANGES IN PLAN NET ASSETS  
(In Thousands)**

	Years Ended June 30	
	<u>2011</u>	<u>2010</u>
ADDITIONS:		
Contributions:		
Member	\$ 8,288	\$ 7,758
Employer	<u>7,670</u>	<u>7,440</u>
Total contributions	<u>15,958</u>	<u>15,198</u>
Investment income:		
Net appreciation in fair value of investments	73,501	26,550
Interest	1,510	1,617
Dividends	<u>2,179</u>	<u>1,896</u>
	77,190	30,063
Less investment expense	<u>1,891</u>	<u>1,669</u>
Net investment income	<u>75,299</u>	<u>28,394</u>
Total additions	<u>91,257</u>	<u>43,592</u>
DEDUCTIONS:		
Benefits	20,080	19,210
Refunds	248	200
Administration	510	583
Depreciation	<u>34</u>	<u>18</u>
Total deductions	<u>20,872</u>	<u>20,011</u>
Change in net assets	70,385	23,581
Net assets - beginning	<u>295,685</u>	<u>272,104</u>
Net assets - ending	<u>\$366,070</u>	<u>\$295,685</u>

*The notes to the financial statements are an integral part of this statement.*

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

1. PLAN DESCRIPTION:

The Charlotte Firefighters' Retirement System (the System), a single-employer, defined benefit plan, was organized pursuant to the 1947 Session Laws of the State of North Carolina, for the purpose of providing retirement, disability and death benefits to civil service employees of the Charlotte Fire Department. Membership is mandatory at the date of employment. The System is administered by a Board of Trustees. The City of Charlotte's (City) payroll for members covered by the System for the year ended June 30, 2011 and 2010 was \$59 million and \$59 million, respectively.

At June 30, the System's membership consisted of:

	<u>2011</u>	<u>2010</u>
Retired participants and beneficiaries		
currently receiving benefits	505	492
Terminated participants and beneficiaries		
entitled to benefits but not yet		
receiving benefits	8	5
Active participants	<u>1,028</u>	<u>1,031</u>
Total	<u>1,541</u>	<u>1,528</u>

Benefits vest after five years of credited service. The requirements for normal service retirement are: (a) any age with 30 years of service credit, (b) age 50 with 25 years of service credit, or (c) age 60 with five years service credit. The normal service retirement monthly benefits are 2.6 percent of final average salary multiplied by the years of credited service. Salary in the final year includes portions of cashed-in vacation and sick days. Final average salary is the monthly average received by the member during any two consecutive years of membership which produces the highest average and is contained within the last five years of membership. The minimum monthly benefit is \$902.75. Members less than age 50 may elect early retirement with 25 years of service credit. Early retirement benefits are reduced by 3 percent for each year the early retirement date precedes age 50.

If an employee ceases employment with less than five years of service credit, accumulated employee contributions are refunded to the employee or designated beneficiary. After five or more years of service, the employee may elect to receive a refund of the employee's accumulated contributions with interest compounded annually at 4 percent or receive an accrued benefit at age 60.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

Death and disability benefits are also available. Benefit and contribution provisions are established by State law and may be amended only by the North Carolina legislature.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:**

**a. Basis of Presentation**

The System provides services exclusively to the City; therefore, the System is included as a blended component unit and reported as a Fiduciary Pension Trust Fund in the City's basic financial statements.

The financial statements are presented in accordance with Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, as amended by GASB Statement No. 50, Pension Disclosures, which establish reporting standards for defined benefit pension plans of state and local government entities.

GASB Statement No. 9, Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting, as amended by GASB Statement No. 25, exempts pension plans from presenting a statement of cash flows. As a result, the System has chosen not to present this statement.

**b. Basis of Accounting**

The financial statements are presented on the accrual basis of accounting. Property is stated at historical cost. Depreciation is computed using the straight-line method over an estimated useful life of twenty-five years for buildings and five years for intangible assets. Contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Interest and dividend income is reported as earned. The net appreciation in the fair value of investments includes realized gains and losses on investments that were both bought and sold during the year.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

c. Cash and Cash Equivalents/Investments

Short-term, highly liquid investments are considered cash equivalents. Short-term refers to investments with an original maturity of three months or less at date of acquisition. Highly liquid investments are those that are readily convertible to known amounts of cash and so near their maturity that the risk of changes in value because of changes in interest rates is insignificant.

The carrying amount of deposits and investments were \$4,622 and \$361,240 at June 30, 2011 and \$5,403 and \$289,960 at June 30, 2010, respectively.

Deposits

All deposits of the System are made in board-designated official depositories and are insured or collateralized with securities held by the System's agent in the System's name. The System has no formal policy regarding custodial credit risk for deposits. The bank balances at June 30, 2011 and 2010 were \$160 and \$224, respectively.

Investments

The North Carolina Act (Act) which established the System requires the Board of Trustees to act with the same care, skill, prudence and diligence under the circumstances then prevailing, that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims. The Act requires the Trustees to design an investment plan to further the purpose of the System by giving consideration to the following: (a) diversification of investments, (b) liquidity and return relative to cash flow needs and (c) projected return. In accordance with the Act, the Board of Trustees has developed and periodically revises a policy statement of investment goals, objectives, and guidelines, which specifically define vehicles that may be used for the investment of System funds. The System invests in United States government securities, corporate bonds, common stocks and mutual funds.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

The investments and maturities at June 30, 2011, were as follows:

<u>Investment type</u>	<u>Fair Value</u>	<u>Investment Maturities (in Years)</u>		
		<u>1 - 5</u>	<u>6 - 10</u>	<u>More than 10</u>
U.S. Treasuries	\$ 4,770	\$ 1,924	\$ 1,751	\$ 1,095
U.S. Agencies	12,901	176	-	12,725
Corporate bonds	20,883	8,732	5,189	6,962
Common stocks	140,291	N/A	N/A	N/A
Mutual funds	182,395	N/A	N/A	N/A
Total	<u>\$ 361,240</u>	<u>\$ 10,832</u>	<u>\$ 6,940</u>	<u>\$ 20,782</u>

*Interest Rate Risk.* The System does not have a formal investment policy that limits investment maturities.

*Credit Risk.* The System is authorized to invest in bonds with a quality rating of no less than investment grade and unrated U.S. Treasuries and Agencies.

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2011 are as follows:

<u>Quality Rating</u>	<u>Fair Value</u>	<u>Percentage of Portfolio</u>
AAA	\$ 11,412	29.60%
Baa>AA	14,643	37.98
B>Ba	87	0.23
Total credit risk debt securities	<u>26,142</u>	<u>67.81</u>
US Government fixed income securities:		
Government National Mortgage Association	3,426	8.89
U.S. Treasury	4,770	12.37
Not rated	4,216	10.93
Total fixed income securities	<u>\$ 38,554</u>	<u>100.00%</u>

*Concentration of Credit Risk.* The System limits the amount of equity holdings in any one company to eight percent of the market value of the portfolio; the amount of equity holdings in any one sector to thirty percent of the market value of the portfolio; and the amount of fixed-income securities in any one corporation to five percent of the market value of the portfolio. There is no limit on securities backed by the full faith and credit of the U.S. Government or any of its instrumentalities. The System has no formal policy regarding custodial credit risk for investments.



**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
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In accordance with the Act, the System has invested in collateralized mortgage obligations (CMO) and mortgage backed securities. CMO and mortgage backed securities are based on cash flows from principal and interest payments on underlying mortgages. CMO rates trade in sympathy with treasury rates. The System held \$1,461 and \$1,850 of these securities at June 30, 2011 and 2010, respectively.

d. Method Used to Value Investments

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities and mutual funds traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair value.

e. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, disclosure of contingent assets and liabilities, and the actuarial present value of accumulated plan benefits at the date of the financial statements. Actual results could differ from those estimates.

f. Capital Assets

Capital asset activity for the year ended June 30, 2011, was as follows:

	Beginning <u>Balance</u>	<u>Increase</u>	<u>Decrease</u>	Ending <u>Balance</u>
Capital assets, being depreciated:				
Buildings	\$ 435	\$ -	\$ -	\$ 435
Intangibles	-	164	-	164
Total capital assets being depreciated	<u>435</u>	<u>164</u>	<u>-</u>	<u>599</u>
Less accumulated depreciation for:				
Buildings	201	18	-	219
Intangibles	-	16	-	16
Total accumulated depreciation	<u>201</u>	<u>34</u>	<u>-</u>	<u>235</u>
Capital assets, net	<u>\$ 234</u>	<u>\$ 130</u>	<u>\$ -</u>	<u>\$ 364</u>

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
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(Dollar Amounts in Thousands)**

**3. CONTRIBUTIONS:**

Pursuant to the Act that established the System, the City is required to match the member's contribution. The Act establishes the contribution rate pursuant to the Board of Trustees' recommendation and approval by the Charlotte City Council. The current rate is 12.65 percent. The total contributions for the year ended June 30, 2011 were \$16.0 million, which consisted of \$7.7 million from the City and \$8.3 million from employees. For 2010 contributions were \$15.2 million, which consisted of \$7.4 million from the City and \$7.8 million from employees. Administrative costs are funded through contributions and investment earnings.

An actuarial study is completed annually as of July 1 to determine the actuarial requirements of this funding method. The actuarial method used is the Entry Age Actuarial Cost Method. The contributions made by the City and the members of the System compared to the actuarially determined requirements intended to cover normal cost and amortized unfunded actuarial accrued liabilities follows:

	<u>In Dollars</u>		<u>Percent of Covered Payroll</u>	
	<u>2011</u>	<u>2010</u>	<u>2011</u>	<u>2010</u>
Contributions made by -				
City	\$ 7,670	\$ 7,440	12.98%	12.59%
Members	<u>8,288</u>	<u>7,758</u>	<u>14.03</u>	<u>13.13</u>
Total	<u>\$15,958</u>	<u>\$15,198</u>	<u>27.01%</u>	<u>25.72%</u>
Actuarially determined contributions -				
Normal cost	\$13,649	\$14,295	23.10%	24.19%
Amortization of unfunded actuarial accrued liability	<u>2,309</u>	<u>903</u>	<u>3.91</u>	<u>1.53</u>
Total	<u>\$15,958</u>	<u>\$15,198</u>	<u>27.01%</u>	<u>25.72%</u>

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

The funded status as of July 1, 2011, the most recent actuarial valuation date, is as follows:

Actuarial Value of Assets	Actuarial Liability (AAL) --Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
(a)	(b)	(b-a)	(a/b)	(c)	[(b-a)/c]
\$ 366,147	\$ 408,999	\$ 42,852	89.5%	\$ 59,086	72.5%

The schedules of funding progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information as to whether the actuarial values of assets are increasing or decreasing over time relative to the AALs for benefits.

Additional information as of the latest actuarial valuation is as follows:

Valuation date	7/1/2011
Actuarial cost method	Entry age
Amortization method	Level Percent of Pay, Open
Remaining amortization period	30 years
Asset valuation method	5-year smoothed market value
Actuarial assumptions:	
Investment rate of return	7.75%
Projected salary increases	4.25 to 11.25%
Includes inflation at	3.25%
Cost-of-living adjustments	None

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
NOTES TO THE FINANCIAL STATEMENTS – (Continued)  
FOR THE YEARS ENDED JUNE 30, 2011 AND 2010  
(Dollar Amounts in Thousands)**

**4. CONCENTRATIONS:**

The System had individual fixed income or equity investments at June 30 managed by the following organizations that represented five percent or more of the System's net assets:

	<u>2011</u>	<u>2010</u>
State Street Global Advisors	16%	22%
Morgan Stanley	13	13
Barrow, Hanley, Mewhinney & Strauss	11	13
Winslow Capital Management	11	10
Aronson + Johnson + Ortiz	10	9
Cadence Capital Management	6	5
Eagle Asset Management	6	-
Investment Counselors of Maryland	6	5
Robeco Boston Partners	6	6
DE Shaw Investment Management	5	5

In addition, the System owned individual assets at June 30 that represented five percent or more of the System's net assets:

	<u>2011</u>	<u>2010</u>
Morgan Stanley Pooled International Equity Trust	11%	11%
State Street Global Advisors Fixed Income Index	11	13
ICM Small Company Portfolio	6	5
DE Shaw Investment Management	5	5
State Street Global Advisors S&P 500 Flagship Fund	5	5
State Street Global Advisors Russell 2000 Growth Common Trust Funds	-	5

***CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA***  
**NOTES TO THE FINANCIAL STATEMENTS – (Continued)**  
**FOR THE YEARS ENDED JUNE 30, 2011 AND 2010**  
**(Dollar Amounts in Thousands)**

5. TREND INFORMATION:

Six-year historical trend information, designed to provide information about the System's progress made in accumulating sufficient assets to pay benefits when due, is presented as required supplementary information.

6. INTERNAL REVENUE STATUS:

The Internal Revenue Service has determined that the System meets the requirements of Section 401(a) of the Internal Revenue Code and is exempt from Federal income tax under Section 501(a) of the Code.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
REQUIRED SUPPLEMENTARY INFORMATION  
(Dollar Amounts in Thousands)**

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) --Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b-a)/c]
7/1/2006	\$ 309,859	\$ 316,907	\$ 7,048	97.8%	\$ 50,038	14.1%
7/1/2007	336,423	334,816	(1,607)	100.5	52,463	(3.1)
7/1/2008	358,536	361,375	2,839	99.2	55,219	5.1
7/1/2009	360,003	376,027	16,024	95.7	56,890	28.2
7/1/2010	357,652	395,393	37,741	90.5	59,080	63.9
7/1/2011	366,147	408,999	42,852	89.5	59,086	72.5

Schedule of Employee and Employer Contributions

Year Ended June 30	Annual Required Contributions	Percentage Contributed
2006	\$ 12,700	100.0%
2007	13,346	100.0
2008	14,245	100.0
2009	15,052	100.0
2010	15,198	100.0
2011	15,958	100.0

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF CASH RECEIPTS AND DISBURSEMENTS  
(Dollar Amounts in Thousands)**

	<u>Years Ended June 30</u>	
	<u>2011</u>	<u>2010</u>
<b>CASH RECEIPTS:</b>		
Contributions:		
Member	\$ 8,255	\$ 7,742
Employer	<u>7,643</u>	<u>7,403</u>
Total contributions	15,898	15,145
Investing activities:		
Sales of investments	132,136	131,554
Interest	1,532	1,600
Dividends	<u>2,150</u>	<u>1,898</u>
Total investing activities	<u>135,818</u>	<u>135,052</u>
Total cash receipts	<u>151,716</u>	<u>150,197</u>
<b>CASH DISBURSEMENTS:</b>		
Benefits	20,012	19,146
Refunds	95	212
Administration	465	571
Acquisition of capital assets	164	-
Investing activities:		
Purchase of investments	129,915	127,230
Investment expense	<u>1,846</u>	<u>1,712</u>
Total investing activities	<u>131,761</u>	<u>128,942</u>
Total cash disbursements	<u>152,497</u>	<u>148,871</u>
Net increase (decrease) in cash and cash equivalents	(781)	1,326
CASH AND CASH EQUIVALENTS, beginning of year	<u>5,403</u>	<u>4,077</u>
CASH AND CASH EQUIVALENTS, end of year	<u>\$ 4,622</u>	<u>\$ 5,403</u>

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF ADMINISTRATIVE EXPENSES AND DEPRECIATION  
Year Ended June 30, 2011  
(Dollar Amounts in Thousands)**

PERSONAL SERVICES:

Staff Salaries	\$ 187
Insurance	12
Retirement	12
Social Security	11
401 (k) Contributions	<u>3</u>

Total Personal Services	<u>225</u>
-------------------------	------------

PROFESSIONAL SERVICES:

Other	104
Actuarial Services	32
Audit	11
Legal Counsel	2
Health Services	<u>0</u>

Total Professional Services	<u>149</u>
-----------------------------	------------

COMMUNICATION:

Travel and Training	51
Postage	10
Printing	8
Meetings	2
Telecommunications	2
Books and Subscriptions	1
Parking	<u>1</u>

Total Communication	<u>75</u>
---------------------	-----------

MISCELLANEOUS:

Depreciation	34
Office Condominium Fees	24
Insurance	22
Annual Retiree Reunion	4
Office Equipment Maintenance	3
Professional Memberships	3
Office and Computer Supplies	2
Miscellaneous and Contingency	2
Office Furniture and Equipment	<u>1</u>

Total Miscellaneous	<u>95</u>
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TOTAL ADMINISTRATIVE EXPENSES AND DEPRECIATION	<u>\$ 544</u>
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**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF INVESTMENT EXPENSES  
Year Ended June 30, 2011  
(Dollar Amounts in Thousands)**

**INVESTMENT MANAGEMENT FEES:**

Morgan Stanley	\$ 416
Robeco Boston Partners	230
Winslow Capital Management	151
Investment Counselors of Maryland	130
T. Rowe Price	128
Barrow, Hanley, Mewhinney & Strauss	122
Eagle Asset Management	115
Aronson + Johnson + Ortiz	100
Cadence Capital Management	78
Baring Asset Management	77
DE Shaw Investment Management	68
BlackRock	52
State Street Global Advisors	21
	<hr/>
Total Investment Management Fees	1,688
	<hr/>

**TRUST AND BANK FEES:**

State Street Bank and Trust Company NA	108
Bank of America	4
Litigation Settlement	(25)
	<hr/>
Total Trust and Bank Fees	87
	<hr/>

**INVESTMENT CONSULTING FEES:**

Callan Associates Inc.	120
Commission Recapture	(4)
	<hr/>
Total Investment Consulting Fees	116
	<hr/>

<b>TOTAL INVESTMENT EXPENSES</b>	<b>\$ 1,891</b>
	<hr/> <hr/>

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**  
**SCHEDULE OF PROFESSIONAL SERVICE EXPENSES**  
**Year Ended June 30, 2011**  
**(Dollar Amounts in Thousands)**

	Official System Position	Payments	Nature of Services
Morgan Stanley	Investment Advisor	\$ 410	Investment Management
Robeco Boston Partners	Investment Advisor	225	Investment Management
Barrow, Hanley, Mewhinney & Strauss	Investment Advisor	152	Investment Management
Winslow Capital	Investment Advisor	144	Investment Management
State Street Bank and Trust Company NA	Trust Custodian	133	Trust Custodial Services
Investment Counselors of Maryland	Investment Advisor	130	Investment Management
T Rowe Price	Investment Advisor	128	Investment Management
Callan Associates Inc	Investment Consultant	119	Investment Consulting
Tegrit Financial	Consultant	114	Consulting
LR Wechsler, LTD	Consultant	97	Consulting
Aronson+Johnson+Ortiz	Investment Advisor	96	Investment Management
Eagle Asset Management	Investment Advisor	75	Investment Management
Baring Asset Management	Investment Advisor	74	Investment Management
Cadence Capital Management	Investment Advisor	72	Investment Management
DE Shaw Investment Management	Investment Advisor	67	Investment Management
BlackRock	Investment Advisor	52	Investment Management
Ceridian Employer Services	Payroll Service	43	Benefits Processing
Cavanaugh Macdonald Consulting	Actuary	32	Actuarial Services
Edwards, Church & Muse	Insurance Carrier	25	Insurance
State Street Global Advisors	Investment Advisor	24	Investment Management
Cherry, Bekaert & Holland, LLP	Independent Auditor	11	Audit
ProFIT/CS, LLC	IT Consultant	7	IT Services
IKON Management	Printer	6	Printing Services
Bank of America	Banker	4	Banking Services
SMS Catering Service	Caterer	4	Catering Service
Womble, Carlyle, Sandridge & Rice	Legal Counsel	2	Legal Services
Allegra Printing & Imaging	Printer	2	Printing Services
The Travelers	Insurance Carrier	2	Insurance
Star Stationers	Office Supplier	2	Office Supplies
Pitney Bowes Credit Corporation	Telecommunication	1	Postal Machine Supplier
Office Depot	Office Supplier	1	Office Supplies
Dash Courier Service	Courier Service	1	Delivery Services
The Berwyn Group	Independent Auditor	1	Audit
Echostone	Computer Supplier	1	Computer Products
Central Parking System	Parking	1	Parking
Subtotal		2,258	
Accrued at June 30, 2010		(406)	
Accrued at June 30, 2011		480	
<b>TOTAL PROFESSIONAL SERVICE EXPENSES</b>		<b>\$ 2,332</b>	

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**

**SCHEDULE OF INVESTMENTS**

**Year Ended June 30, 2011**

**(Dollar Amounts in Thousands)**

Type of Investment	June 30, 2010		Sales Redemptions	Net Appreciation (Depreciation)	June 30, 2011		Percentage Fair Value
	Fair Value	Purchases			Fair Value		
<b>FIXED INCOME:</b>							
U. S. government securities	\$ 15,769	\$ 25,397	\$ 23,532	\$ 37	\$ 17,671	4.83%	
Corporate bonds	22,160	8,201	9,531	53	20,883	5.71%	
Total fixed income	37,929	33,598	33,063	90	38,554	10.54%	
<b>COMMON AND PREFERRED STOCK:</b>	87,142	89,834	81,038	44,353	140,291	38.35%	
<b>MUTUAL FUNDS:</b>							
Domestic Equities	58,936	6,337	1,164	(5,398)	58,711	16.05%	
Fixed Income Bond Index	37,737		293	1,216	38,660	10.56%	
International Equities	45,158	147	52	12,994	58,247	15.92%	
International Fixed Income	12,682			1,847	14,529	3.97%	
Real Estate	10,376			1,872	12,248	3.35%	
Total mutual funds	164,889	6,484	1,509	12,531	182,395	49.85%	
<b>SHORT-TERM INVESTMENTS:</b>	5,403	79,436	80,286	69	4,622	1.26%	
	\$ 295,363	\$ 209,352	\$ 195,896	\$ 57,043	\$ 365,862	100.00%	

*Note: Short-term Investments are reflected as Cash and Cash Equivalents in the Statement of Plan Net Assets. A portfolio listing is available for review at the System's office. This schedule is not computed on a consistent basis with that used in the Statement of Changes in Plan Net Assets.*



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September 6, 2011

SAN FRANCISCO

NEW YORK

CHICAGO

ATLANTA

DENVER

The Charlotte Firefighters' Retirement System ("CFRS") investment program objective is to provide plan participants with retirement benefits. This is accomplished by the implementation of a carefully planned and executed long-term investment program. The Board of Trustees ("Board") has exclusive control of all retirement system investments and is responsible for establishing investment objectives, strategies, and policies.

The Board is charged with the responsibility of investing CFRS' assets to provide for the benefits of the members of the System. To achieve that goal the Board follows a policy of preserving capital, while seeking means of enhancing revenues and protecting against undue losses in any particular investment area. The Board diversifies the investment of the assets among classes of securities to reduce risk while maximizing the long-range return.

**Asset Allocation Policy**

Based on its analysis of capital and money market return patterns, both historical and projected, the Board considers the following asset allocation targets to be consistent with the return requirements and risk tolerance of the fund:

<b>Asset Class</b>	<b>Target Weight</b>	<b>Asset Class Benchmark</b>
Domestic Equity	51%	Russell 3000 Stock Index
International Equity	14%	MSCI Europe, Australia, Far East Index
Emerging Markets Equity	2%	MSCI Emerging Markets Free Index
Real Estate	6%	NCREIF Open-End Diversified Core Index
Domestic Fixed Income	23%	Barclays Aggregate Bond Index
International Fixed Income	4%	Citicorp Non-U.S. Government Bond Index

**Total Fund Goals**

The System's primary funding goal is to achieve a return of at least 7.75% and maintain a funded status that provides for the security of retirement income to participants in the Plan. The Fund's investment goal is to attain an annualized total return over a rolling period of five years which exceeds the fund benchmark by 75 basis points. The fund benchmark assumes a passive implementation of the asset allocation policy.

**Total Fund Returns**

For the fiscal year 2011, CFRS produced a return of 26.22 % which exceeded the fund benchmark, as described above, by 2.72%.

The five-year annualized return of 5.09% exceeded the fund benchmark by 0.32%. In the Callan Public Fund Universe, CFRS' total fund performance ranks at the 37<sup>th</sup> percentile for five-years and the 22<sup>th</sup> percentile since inception (23 years). The performance calculations presented above were prepared by the Systems' custodial bank using a time-weighted rate of return methodology based upon the market value of assets.

Kind regards,

*Gwelda Swilley-Burke*  
Gwelda Swilley-Burke

  
Mike Swinney

# **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM INVESTMENT POLICY, GOALS, OBJECTIVES & GUIDELINES**

## **BACKGROUND**

The Charlotte Firefighters' Retirement System is the primary retirement income vehicle for its members and is co-sponsored by the City of Charlotte and the uniformed employees of the Charlotte Fire Department. The Board will discharge its investment responsibilities and make all decisions solely in the interest of plan participants and their beneficiaries.

### **Funding Philosophy**

The Board's funding goal for the system is to be as fully funded as prudently possible so that:

- the ability to pay all benefit obligations when due is ensured;
- the City of Charlotte and the Board have maximum flexibility in determining the future level of contributions; and
- a funding "cushion" is maintained for unexpected developments and for possible future changes in retirement benefit levels.

Investment results are considered to be a critical element in achieving the system's funding goal stated above.

### **Risk Tolerance**

In establishing investment objectives and guidelines that are consistent with the Board's funding goal, several factors were examined to determine the system's financial ability to withstand variability of investment return. The Board analyzed the system's financial and legal characteristics, work force

demographics, actuarial and funding policies as well as actual experience.

The assets of the system should be invested with a risk orientation that is consistent with a moderate ability to assume risk. The Board defines a moderate risk orientation as:

- a willingness to tolerate some interim fluctuations in market value and rates of return in order to achieve the asset allocation objective stated below; and
- a desire to limit the volatility in the fund's rate of return to a level that approximates the average volatility experienced by other U.S. defined benefit retirement plans.

## **INVESTMENT OBJECTIVES & GUIDELINES**

### **Asset Allocation**

The system's risk tolerance is, in large part, a function of the asset mix established for the fund. Based on its analysis of capital and money market return patterns, both historical and projected, the Board considers the following asset allocation to be consistent with the risk tolerance previously defined.

### **Total Fund Asset Mix Ranges**

The Total Fund Asset Mix Guidelines will be implemented and maintained by the following distribution through a combination of "Specialist" Investment Managers and internal management in each of the asset class categories as follows:

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM  
INVESTMENT POLICY, GOALS, OBJECTIVES & GUIDELINES**

<u>"Specialist" Managers</u>	<u>Target Allocation</u>	<u>Acceptable Range</u>
Domestic Equity	51%	+/-5%
Non-U.S. Equity	16%	+3/-2%
Real Estate	6%	+2/-3%
Domestic Fixed Income	23%	+/-4%
Non-U.S. Fixed	4%	+/-2%

**Total Fund Asset Mix Ranges**

This distribution of assets among the aforementioned investment managers and the individual manager guidelines will produce the following Total Fund Asset Mix Ranges:

<u>Asset Class</u>	<u>Market Value Exposure</u>	
	<u>Maximum</u>	<u>Minimum</u>
Domestic Equities	56%	46%
Non-U.S. Equities	19%	14%
Real Estate	8%	3%
Domestic Fixed Income	27%	19%
Non-U.S. Fixed	6%	2%

These guidelines are to be pursued by the fund on a long term basis (five year goal) but will be revised if significant changes occur within the economic and/or capital market environments.

**INVESTMENT GOALS**

In formulating investment goals for the system's assets, the Board placed primary emphasis on the following:

- Achieving investment results that will accomplish the stated funding goal for the system. Inflation is the key factor driving the cost of retirement programs. The primary function of a retirement plan investment program is to help pay the cost of providing retirement benefits by offsetting the impact of inflation on costs. Therefore,

investment performance that exceeds the rate of inflation, thereby providing a real rate of return, will contribute to the proper funding of the system.

- Receiving from its investment managers, performance that is above average compared to other comparably styled managers.
- Annual income production sufficient to cover benefit payments, administrative costs and investment manager, trustee, actuary, performance measurement and consultant fees.

Accordingly, the specific goals set forth below reflect the above general goals.

**Total Fund Goals**

As noted in a prior section, the system's primary funding goal is to achieve and maintain a funded status that provides for the security of retirement income to participants in the plan.

Given the impact of inflation on retirement plan funding, the primary total fund investment goal is to achieve a positive inflation adjusted (real) return. The Board recognizes that over short and intermediate periods of time its goal may be difficult to achieve because rapid increases or decreases in the level of inflation tend to adversely impact the capital markets. For this reason, the total fund inflation adjusted goal is established in the context of a longer-term time horizon:

- The fund's overall annualized total return (price change plus income) should exceed the return

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM INVESTMENT POLICY, GOALS, OBJECTIVES & GUIDELINES**

available from a policy of "rolling over" 91-day Treasury Bills (as a proxy for the inflation rate) by at least 325 basis points per year measured over a period of 10 years. A 325 basis points annual premium above "risk free" Treasury Bill rates is consistent with the desired risk tolerance.

- The fund's annualized total return over a rolling period of five years should exceed by 75 basis points the return that would have been achieved if the fund had been invested 51.0% in the Russell 3000 Stock Index, 14.0% in the Morgan Stanley Capital International (MSCI) Europe, Australia Far East (MSCI-EAFE) Index, 2.0% Morgan Stanley Capital International Emerging Markets Index (MSCI-EM), 23.0% in the Barclays Aggregate Bond Index (Barclays Aggregate), 6% in the National Council of Real Estate Investment Fiduciaries (NCREIF) Open-End DCE Index, and 4% in the Citigroup Non-US Government Bond Index.

### **Domestic Equity Segment Goals**

The following performance goals have been established for the fund's domestic equity segment:

- The domestic equity segment total return should rank in the upper 50% compared to the domestic equity results of other retirement fund portfolios measured over a period of five years.

- The domestic equity segment total return should exceed the total return of the Russell 3000 Stock Index by at least 50 basis points per year measured over a period of five years.

### **Non-Domestic Equity Segment Goals**

The following performance goals have been established for the Non-domestic equity segment of the system's assets:

- The non-domestic equity segment total return should rank in the upper 50% compared to the non-domestic equity results of other retirement fund portfolios measured over a period of five years.
- The non-domestic equity segment total return should exceed the total return of the Morgan Stanley Capital International Europe, Australia, Far East Index (MSCI-EAFE) by at least 200 basis points per year measured over a period of five years.

### **Real Estate Segment Goals**

The following performance goals have been established for the real estate segment of the system's assets:

- The total real estate segment return should rank in the upper 50% compared to the real estate results of other retirement fund portfolios measured over a period of five years.
- The total real estate segment return should exceed the NCREIF Open-End DCE Index



## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM INVESTMENT POLICY, GOALS, OBJECTIVES & GUIDELINES**

by at least 100 basis points per year over a period of five years.

measured over a period of five years.

### **Domestic Fixed Income Segment Goals**

The following performance goals have been established for the domestic fixed income segment of the system's assets:

- The total domestic fixed income segment return should rank in the upper 50% compared to the fixed income results of other retirement fund portfolios measured over a period of five years.
- The total domestic fixed income return should exceed the total return of the Barclays Aggregate Bond Index by at least 25 basis points per year measured over a period of five years.

### **Non-Domestic Fixed Income Segment Goals**

The following performance goals have been established for the fund's non-domestic fixed income segment of the system's assets:

- The total non-domestic fixed income segment should rank in the upper 50% compared to the non-domestic fixed income results of other retirement fund portfolios measured over a period of five years.
- The total non-domestic fixed income return should exceed the total return of the Citicorp Non-US Government Bond Index by at least 100 basis points per year

### **Internal Account**

The following performance goals have been established for the Fund's Internal Account segment of the system's assets:

The internal account is used solely for payment of benefit payments and administrative expenses and shall be invested in a U.S. Treasury Money Market account with the Fund's Custodian at all times.

### **INVESTMENT PERFORMANCE**

The investment performance of the system is being monitored by Callan Associates, Inc., a highly respected portfolio evaluation service provider and consultant in the United States.

A summary of the Charlotte Firefighters' Retirement System's performance results, along with a brief description of issues to be considered in interpreting the results follow. Since the purpose of the summary is to provide an overview, the reader is cautioned against forming conclusions that may be premature.

The information provided is prepared for the Charlotte Firefighters' Retirement System Comprehensive Annual Financial Report to provide a profile of the system's performance.

### **Total Annualized Rate of Return**

This shows how the Charlotte Firefighters' Retirement System performed over multi-year periods

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM INVESTMENT POLICY, GOALS, OBJECTIVES & GUIDELINES**

compared with a customized portfolio of asset class investments invested in the same proportion as the CFRS fund targets.

### **Segment Annualized Rate of Return**

This shows how each asset class component of the Charlotte Firefighters' Retirement System performed over the multi-year periods. Since the system's total return is comprised of the combination of each segment, reviews are important because academic studies have clearly shown that the asset allocation decision (the decision on what segments and proportion invested in each) determines between 70% to 95% of the total annualized rate of return.

Percentile rank indicates the annualized rate of return of a comparable portfolio that attained that level of performance in each segment component as measured by the Callan Associates, Inc. universe. A low percentage indicates a relatively higher return. The reader can choose a time period of particular interest and examine the return the CFRS earned for that period. For any time period one chooses to examine, the median serves as an effective standard for determining what a "reasonable" return for that period would have been (the median is that return which outranked 50% of the funds in the Callan universe and which was outranked by 50% of the funds).

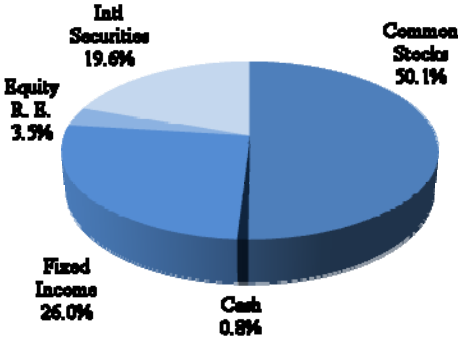
**This summary should be regarded only as an introduction to evaluating the Charlotte Firefighters' Retirement System's investment performance results. Nevertheless, it is hoped that this brief overview will be of some assistance.**

### **RETURN ON INVESTMENT**

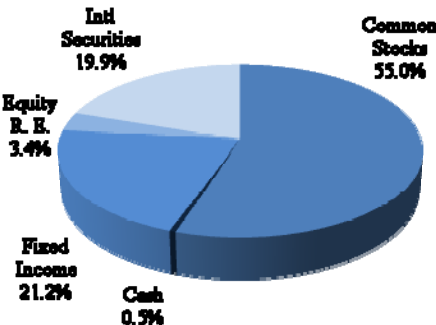
The return on investments, which is defined as the income plus or minus the appreciation or depreciation in value, is analyzed each quarter. The Charlotte Firefighters' Retirement System return on investments is compared with the returns of the Callan Associates, Incorporated universe which is comprised of over 80% of the professionally managed investments in the United States. Evaluation for the various time periods ended June 30, 2011 are shown on subsequent pages. All returns are "time weighted", annualized "total" rates of return in and are based on market values.

# PORTFOLIO DISTRIBUTION

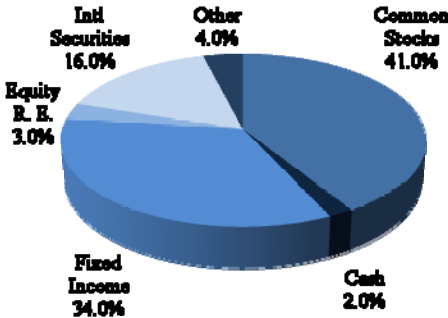
**'CHARLOTTE FIREFIGHTERS'  
RETIREMENT SYSTEM  
AS OF JUNE 30, 2010**



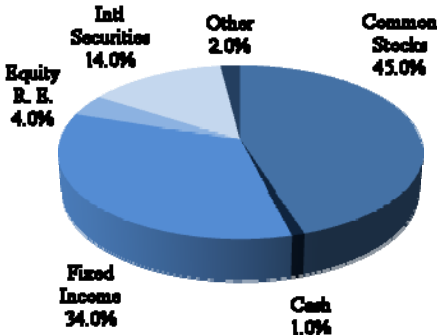
**'CHARLOTTE FIREFIGHTERS'  
RETIREMENT SYSTEM  
AS OF JUNE 30, 2011**



**PUBLIC PENSION FUNDS UNIVERSE\*  
AS OF JUNE 30, 2010**

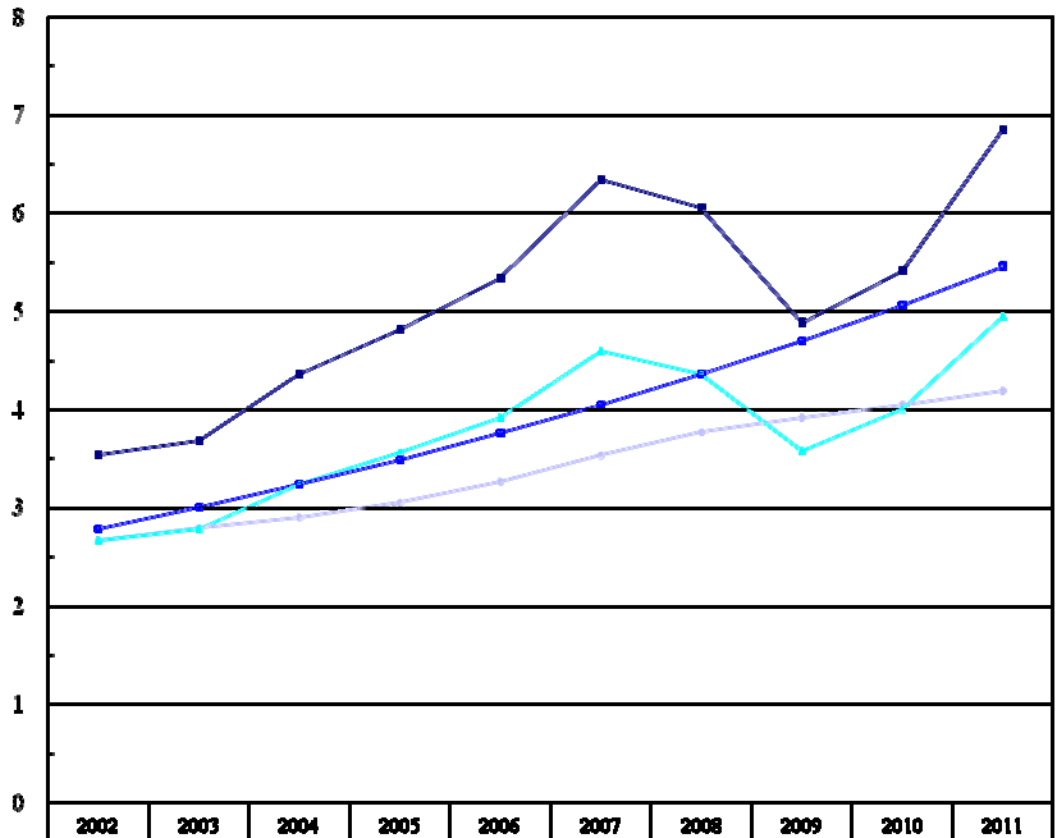


**PUBLIC PENSION FUNDS UNIVERSE\*  
AS OF JUNE 30, 2011**



\*Callan Associates, Inc. © 2011

**TOTAL FUND INVESTMENT GOALS – LAST TEN YEARS**  
**Years Ended June 30**



CFRS	3.5473	3.6917	4.3603	4.8199	5.3419	6.3414	6.0567	4.8920	5.4252	6.8477
T-BILLS +3.25%	2.6746	2.7957	2.9070	3.0567	3.2701	3.5386	3.7732	3.9222	4.0559	4.1942
CUSTOMIZED INDEX	2.6681	2.7885	3.2486	3.5657	3.9237	4.6017	4.3633	3.5818	4.0098	4.9521
ACTUARIAL ASSUMPTIONS 7.75%	2.7912	3.0076	3.2407	3.4919	3.7625	4.0541	4.3683	4.7068	5.0716	5.4646

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
INVESTMENT RESULTS  
Periods Ended June 30**

RATE OF RETURN	FISCAL YEAR										Average Rates Over 10 Years	Cumulative 10-Year Rate
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
CFRS	-4.16%	4.07%	18.11%	10.54%	10.83%	18.71%	-4.49%	-19.23%	10.90%	26.22%	7.15%	71.50%
Consumer Price Index	0.74%	2.10%	3.17%	2.59%	4.47%	2.67%	5.55%	-1.98%	1.36%	4.06%	2.47%	24.73%
Customized Index	-6.33%	4.51%	16.50%	9.76%	10.04%	17.28%	-5.18%	-17.91%	11.95%	23.50%	6.41%	64.12%
Market Indicators												
* Callan Real Estate Median	5.88%	11.73%	***	***	***	***	***	***	***	***	1.76%	17.61%
* Citicorp Non-US Govt Bond	15.73%	17.90%	7.60%	7.75%	-0.01%	2.20%	18.72%	3.53%	1.52%	13.95%	8.89%	88.89%
* Custom Mid Value Index	2.52%	-1.55%	32.08%	***	***	***	***	***	***	***	3.31%	33.05%
* JP Morgan Emer Mkts Debt Plus	-5.21%	35.38%	4.78%	21.37%	5.24%	11.94%	5.16%	2.43%	17.44%	11.75%	11.03%	110.28%
* BC Aggregate Index	8.63%	10.40%	0.32%	6.80%	-0.81%	6.12%	7.12%	6.05%	9.50%	3.90%	5.80%	58.03%
* MSCI EAFE Index	-9.49%	-6.46%	32.37%	13.65%	26.56%	27.00%	-10.61%	-31.35%	5.92%	30.36%	7.80%	77.95%
* MSCI Emerging Markets Free	1.31%	6.96%	33.51%	34.89%	35.91%	45.45%	4.89%	-27.82%	23.48%	28.17%	18.68%	186.75%
* NCREIF OpEnd DivCor Eq-N	5.50%	7.64%	10.83%	18.02%	18.67%	16.71%	6.95%	-31.35%	-8.48%	19.46%	6.40%	63.95%
* Russell 1000 Growth	-2.41%	7.26%	9.48%	1.68%	6.12%	19.04%	-5.96%	-24.50%	13.62%	35.01%	5.93%	59.34%
* Russell 1000 Value	5.63%	11.00%	17.54%	14.06%	12.10%	21.86%	-18.78%	-29.03%	16.92%	28.94%	8.02%	80.24%
* Russell 2000 Stock Index	-8.60%	-1.64%	33.37%	9.45%	14.58%	16.43%	-16.19%	-25.01%	21.48%	37.41%	8.13%	81.28%
* Russell 2000 Growth	0.89%	11.37%	17.13%	4.29%	14.58%	16.83%	-10.83%	-24.85%	17.96%	43.50%	9.09%	90.87%
* Russell 3000 Stock Index	-17.24%	0.77%	20.46%	8.05%	9.56%	20.07%	-12.69%	-26.56%	15.72%	32.37%	5.05%	50.51%
* Russell Mid Cap Growth	2.79%	14.86%	18.81%	10.86%	13.04%	19.73%	-6.42%	-30.33%	21.30%	43.25%	10.79%	107.89%
* Russell Mid Cap Value	12.70%	16.55%	26.22%	21.80%	14.25%	22.09%	-17.09%	-30.52%	28.91%	34.28%	12.92%	129.19%
* S&P Mid Cap Index	-4.72%	-0.71%	27.98%	***	***	***	***	***	***	***	2.26%	22.55%
* S&P/Citigroup World ex-US EMI	-0.98%	0.77%	44.36%	18.88%	31.45%	31.74%	-14.49%	-31.34%	14.80%	36.99%	13.22%	132.18%
* Standard & Poor's 500 Index	-17.99%	0.25%	19.11%	6.32%	8.63%	20.59%	-13.12%	-26.21%	14.43%	30.69%	4.27%	42.70%
* Total Real Estate Database	7.59%	8.20%	11.40%	19.63%	20.07%	15.24%	7.63%	-28.94%	-8.35%	15.17%	6.76%	67.64%
* Treasury Bills	2.63%	1.53%	0.98%	2.15%	3.98%	5.21%	3.63%	0.95%	3.41%	3.41%	2.79%	27.88%
* Wilshire 5000 Stock Index	-16.62%	1.27%	***	***	***	***	***	***	***	***	-1.54%	-15.35%

Investment results are shown on a time-weighted rate of return based on the market rate of return.

\*\*\*Callan Real Estate Median Index substituted by CFRS with the NCREIF Total Index.

\*\*\*Wilshire 5000 Stock Index substituted in October 2003 with the Russell 3000 Stock Index.

See Glossary for explanation of the Market Indices shown in this Table.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
INVESTMENT RESULTS  
Periods Ended June 30**

	<b>Last Year</b>	<b>Last 3 Years</b>	<b>Last 5 Years</b>
<b>Domestic Equity</b>	<b>37.81%</b>	<b>5.47%</b>	<b>4.91%</b>
Russell 3000	32.37%	4.00%	3.35%
SSgA S&P 500 Flagship	30.75%	3.43%	3.02%
S&P 500 Index	30.69%	3.34%	2.94%
DE Shaw	30.16%	5.86%	-
Russell 1000 Index	31.93%	3.68%	3.30%
Winslow Capital Management	40.57%	5.20%	-
Russell 1000 Growth	35.01%	5.01%	5.33%
Aronson + Johnson + Ortiz	33.11%	4.00%	1.88%
Russell 1000 Value	28.94%	2.28%	1.15%
Cadence Capital Management	44.14%	1.92%	4.30%
Blended Benchmark	43.25%	6.58%	6.28%
Robeco Boston Partners	42.40%	13.07%	10.13%
Blended Benchmark	34.28%	6.35%	4.01%
Eagle Asset Management	-	-	-
Russell 2000 Growth	43.50%	8.35%	5.79%
Investment Counselors of Maryland	32.39%	6.10%	4.61%
Blended Benchmark	31.35%	7.09%	2.24%
<b>Domestic Fixed-Income</b>	<b>4.72%</b>	<b>7.29%</b>	<b>7.08%</b>
Barrow, Hanley, MeWhinney & Strauss	5.54%	8.09%	7.61%
SSgA Bond Market Fund	3.89%	6.48%	6.55%
BC Aggregate Index	3.90%	6.46%	6.52%
<b>International Equity</b>	<b>29.96%</b>	<b>1.32%</b>	<b>4.96%</b>
Morgan Stanley International Equity	29.27%	0.46%	3.44%
MSCI EAFE Index	30.36%	-1.77%	1.48%
Morgan Stanley Emerging Markets	26.86%	2.22%	10.58%
MSCI Emerging Markets Free	28.17%	4.53%	11.75%
T. Rowe Price	34.57%	4.43%	5.96%
Blended Benchmark	35.68%	2.34%	3.83%
<b>International Fixed Income</b>	<b>14.56%</b>	<b>7.46%</b>	<b>8.62%</b>
Baring International Fixed Income	14.56%	7.46%	8.62%
Citicorp Non-U.S. Govt Bond	13.95%	6.20%	7.76%
JP Morgan Emerging Markets Debt Plus	11.75%	10.37%	9.62%
<b>Real Estate</b>	<b>20.96%</b>	<b>-16.68%</b>	<b>-6.12%</b>
BlackRock	20.96%	-16.68%	-6.12%
Blended Benchmark	19.34%	-9.16%	-1.34%
<b>Total Fund</b>	<b>26.22%</b>	<b>4.18%</b>	<b>5.09%</b>
Treasury Bill + 3.25%	3.41%	3.67%	5.25%
Consumer Price Index (W)	4.06%	1.12%	2.30%
Composite Benchmark	23.50%	4.31%	4.77%

Returns for periods longer than one year are annualized.

Investment results are shown on a time-weighted rate of return based on the market rate of return.

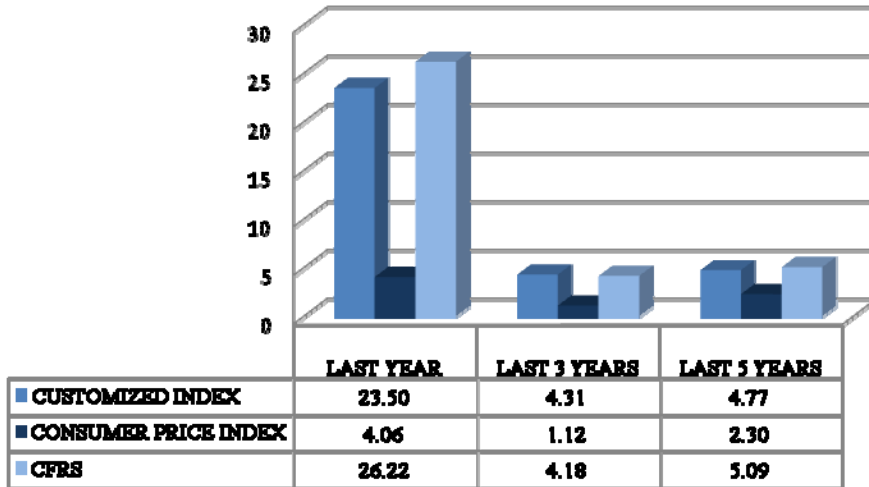
Benchmarks revised as of July 1, 2004.

For performance purposes, blended benchmarks will be used until 36 months of rolling periods have expired.

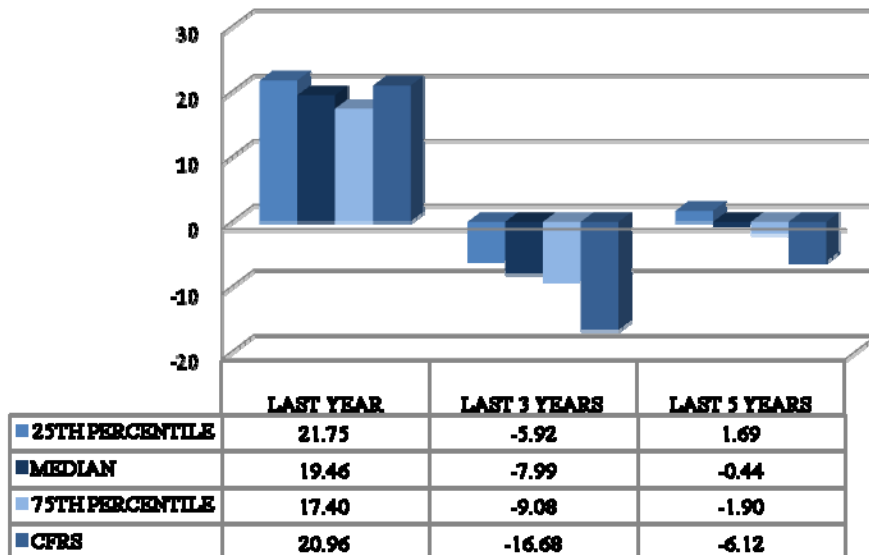
See Glossary for explanation of the Market Indices shown in this Table.

## RETURN ON INVESTMENTS

### TOTAL PORTFOLIO

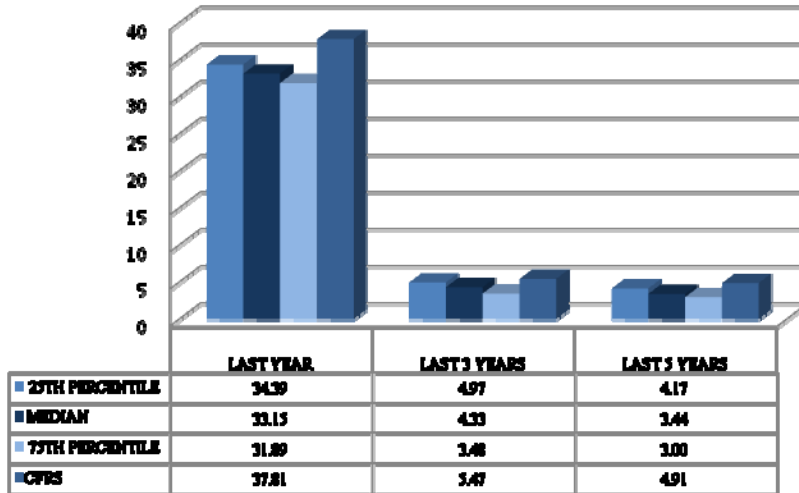


### REAL ESTATE

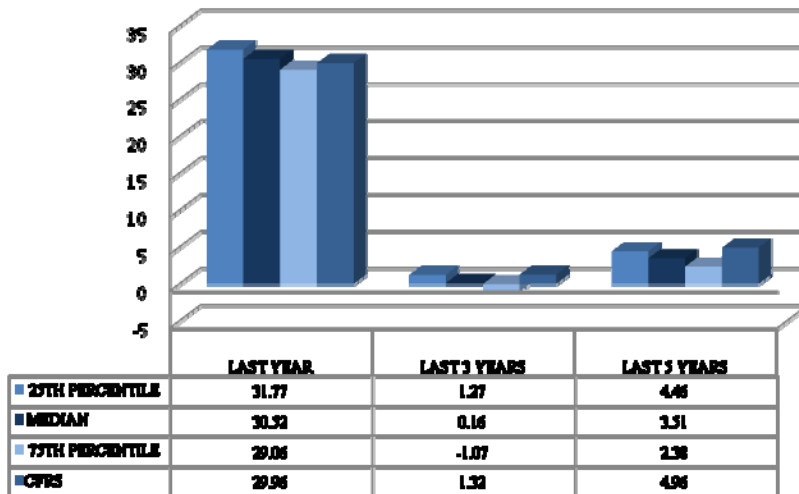


# RETURN ON INVESTMENTS

## DOMESTIC EQUITY

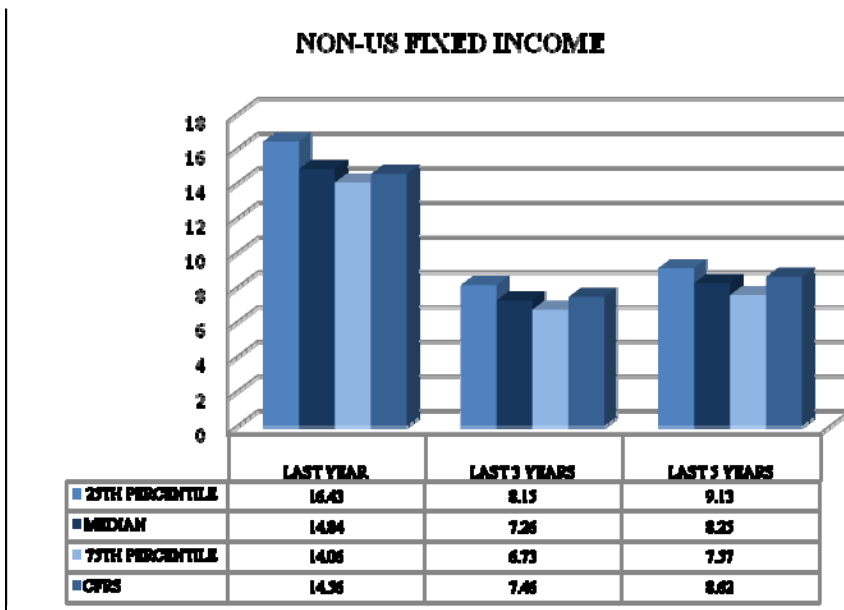
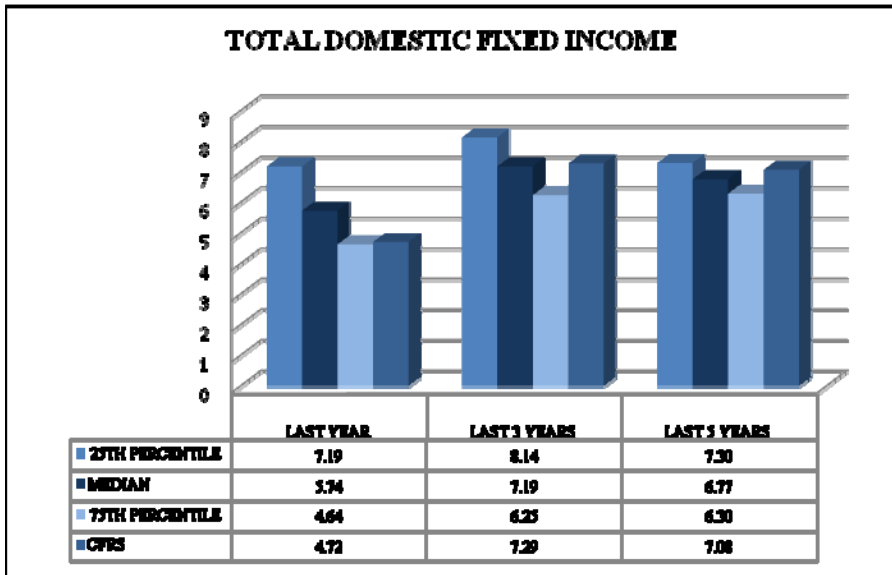


## INTERNATIONAL EQUITY



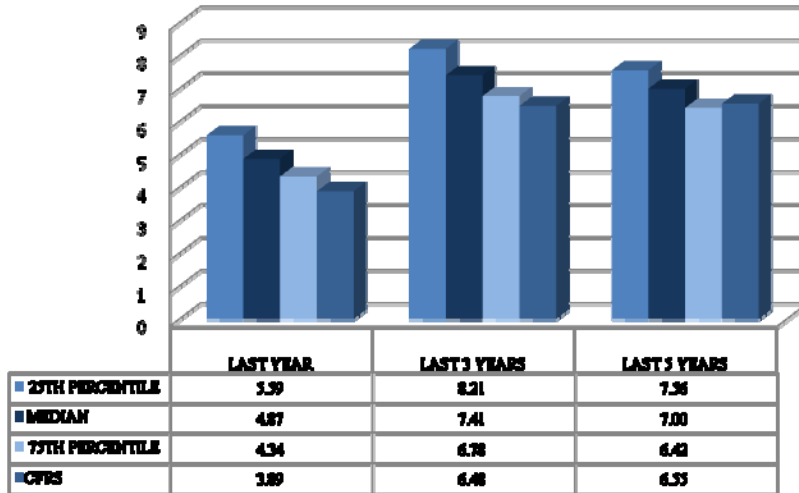


## RETURN ON INVESTMENTS

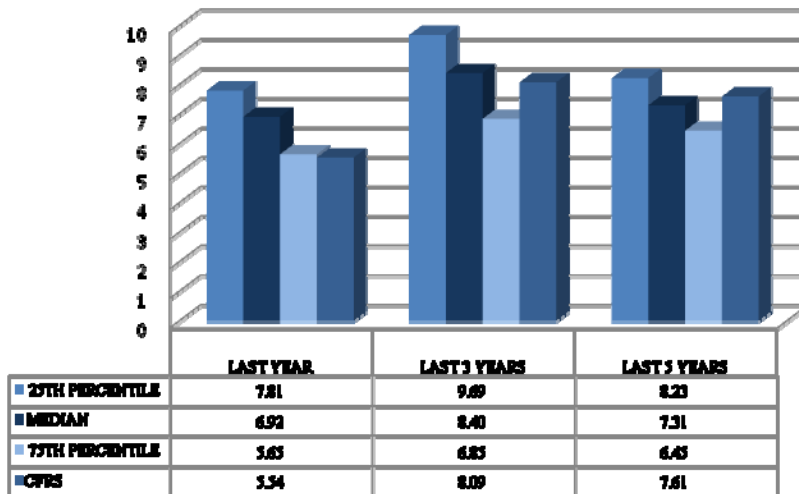


## RETURN ON INVESTMENTS

### DOMESTIC FIXED INCOME - PASSIVE



### DOMESTIC FIXED INCOME - CORE PLUS ACTIVE



**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**  
**LIST OF LARGEST ASSETS HELD**  
**(Dollar and Share Amounts in Thousands)**

**Largest Stock Holdings (By Fair Value)**  
**June 30, 2011**

	Shares	Stock	Fair Value
1)	205	Morgan Stanley Pooled International Equity Trust	\$ 40,716
2)	645	ICM Small Company Portfolio	20,344
3)	19,604	DE Shaw 130/30	19,604
4)	68	SSgA S&P 500 Flagship Fund	18,764
5)	1	BlackRock Realty Granite Fund	12,248
6)	240	T Rowe Price International Discovery Fund	11,037
7)	97	Morgan Stanley Emerging Markets Trust	6,494
8)	6	Apple Inc	1,947
9)	14	Chevron Corp	1,429
10)	23	Qualcomm Inc	1,329

**Largest Bond Holdings (By Fair Value)**  
**June 30, 2011**

	Par/Units	Bond	Fair Value
1)	1,558	SSgA Bond Market Index Fund	\$ 38,660
2)	42	Baring International Trust Fund - Non-Dollar Fixed Income/Emerging Deb	14,529
3)	307	Barrow Hanley High Yield Fund	4,216
4)	1,445	US Treasury Notes 3.625% due 2/15/2021 Rating AAA	1,507
5)	1,335	US Treasury Notes 2.000% due 1/31/2016 Rating AAA	1,361
6)	1,060	US Treasury Notes 4.250% due 11/15/2040 Rating AAA	1,036
7)	681	FNMA #AH3373 5.000% due 1/1/2041 Rating AAA	725
8)	655	FHLMC #G13833 4.500% due 5/1/2025 Rating AAA	697
9)	652	FNMA #AB1231 5.000% due 7/1/2040 Rating AAA	694
10)	572	FNMA #984277 5.500% due 6/1/2038 Rating AAA	619

*A portfolio listing is available for review at the System's office.*

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**

**SCHEDULE OF FEES AND COMMISSIONS**

**Year Ended June 30, 2011**

**(Dollar Amounts in Thousands)**

	Assets under management	Fees
<b>INVESTMENT MANAGERS' FEES:</b>		
Equity managers	\$ 259,578	\$ 1,416
Fixed income managers	94,036	220
Real estate managers	12,248	52
Total investment managers' fees	\$ 365,862	1,688
<b>OTHER INVESTMENT SERVICE FEES:</b>		
Investment consultant fees		120
Custodian fees		108
Banking fees		4
Commission Recapture		(4)
Litigation Settlement		(25)
Total investment service fees		203
<b>TOTAL INVESTMENT FEES</b>		<b>\$ 1,891</b>

Brokerage Firm	Number of Shares Traded	Total Commissions	Percentage Cost of Transactions
Sanford C Bernstein Co LLC	782	16	0.02
BNY ConvergeX LJR	490	11	0.02
Deutsche Bank Securities Inc	567	6	0.01
Piper Jaffray	204	6	0.03
Liquidnet Inc	192	5	0.03
Barclays Capital LE	137	4	0.03
Broadcort Capital (Thru ML)	181	4	0.02
Goldman Sachs & Co	151	4	0.03
Investment Technology Group Inc	257	4	0.02
JP Morgan Securities Inc	155	4	0.03
SG Americas Securities LLC	352	4	0.01
Bloomberg Tradebook LLC	172	3	0.02
Credit Suisse Securities (USA) LLC	120	3	0.03
Merrill Lynch Professional Clearing Corp	68	3	0.04
UBS Securities LLC	122	3	0.02
Citigroup Global Markets Inc	83	2	0.02
Cowen & Co LLC	41	2	0.05
Instinet	49	2	0.04
Morgan Stanley Co Inc	77	2	0.03

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**

**SCHEDULE OF FEES AND COMMISSIONS - (continued)**

**Year Ended June 30, 2011**

**(Dollar Amounts in Thousands)**

Brokerage Firm	Number of Shares Traded	Total Commissions	Percentage Cost of Transactions
Rafferty Capital Markets LLC	82	2	0.02
RBC Capital Markets	84	2	0.02
SJ Levinson & Sons LLC	47	2	0.04
BTIG LLC	100	1	0.01
Citation Group	24	1	0.04
Friedman Billings & Ramsey	30	1	0.03
Guzman & Co	79	1	0.01
ISI Group Inc	26	1	0.04
Jefferies & Co Inc	48	1	0.02
JMP Securities	14	1	0.07
JNK Securities Inc	32	1	0.03
Knight Direct LLC	38	1	0.03
Knight Equity Markets LP	31	1	0.03
Macquarie Securiteis (USA) Inc	22	1	0.05
Merrill Lynch Pierce Fenner & Smith Inc	26	1	0.04
Morgan Keegan & Co Inc	23	1	0.04
Pacific Crest Securities	36	1	0.03
Penson Financial Services Inc	33	1	0.03
Robert W Baird & Co Inc	31	1	0.03
Stifel Nicolaus & Co Inc	35	1	0.03
William Blair & Co LLC	35	1	0.03

*The CFRS participates in a commission recapture program with BNY ConvergeEx Group-LJR Recapture Services. Pursuant to this agreement, BNY ConvergeEx Group-LJR Recapture Services agrees to refund 75% of net brokerage commissions to the System in connection with such transactions.*

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF INVESTMENT SUMMARY  
Year Ended June 30, 2011  
(Dollar Amounts in Thousands)**

TYPE OF INVESTMENT	<u>Fair Value</u>	<u>Percent of total Fair Value</u>
<b>FIXED INCOME:</b>		
Corporate Obligations	\$ 20,883	5.71%
Government and Agencies	17,671	4.83%
Total Fixed Income	<u>38,554</u>	<u>10.54%</u>
<b>COMMON STOCK:</b>		
Consumer Discretionary	19,967	
Consumer Staples	6,621	
Energy	12,573	
Financials	20,278	
Health Care	17,125	
Industrials	20,070	
Information Technology	29,393	
Materials	6,929	
Private Placement	228	
Telecommunication Services	3,385	
Utilities	3,722	
Total Common Stock	<u>140,291</u>	<u>38.35%</u>
<b>MUTUAL FUNDS:</b>	182,395	49.85%
<b>CASH AND CASH EQUIVALENTS:</b>	<u>4,622</u>	<u>1.26%</u>
<b>TOTAL</b>	<u>\$ 365,862</u>	<u>100.00%</u>



## Cavanaugh Macdonald

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*The experience and dedication you deserve*

October 27, 2011

Board of Trustees  
Charlotte Firefighters' Retirement System  
428 East Fourth Street  
Suite 205  
Charlotte, NC 28202

Dear Members of the Board:

We are pleased to submit herewith the results of the annual actuarial valuation of the City of Charlotte Firefighters' Retirement System prepared as of July 1, 2011. The purpose of this report is to provide a summary of the funded status of the System as of July 1, 2011, to recommend rates of contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). In performing the valuation, we relied on data provided by the System. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the entry age cost method. A five-year smoothed market value of plan assets was used for the actuarial value of assets. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 3.25% annually. The annual required employer contribution rate is 14.39% of payroll for the fiscal year ending June 30, 2013. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. There have been no changes to assumptions, methods, or plan provisions since the previous valuation.

The valuation has been prepared in accordance with the parameters set forth in Statement Nos. 25 and 27 of the Governmental Accounting Standards Board. The annual required contribution (ARC) of the City under GASB for the fiscal year ending June 30, 2013 is 14.39% of payroll, which will amortize the unfunded accrued liability of \$42,851,622 over a 30-year period.

We have prepared the Schedule of Active Member Valuation Data, Schedule of Retired Members and Beneficiaries Added to and Removed from Rolls, the Solvency Test and the Analysis of Financial Experience for the actuarial section of the Annual Report and the Schedule of Funding Progress and Trend Information for the financial section of the Annual Report.

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This is to certify that the independent consulting actuary is a Member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

In our opinion, in order for the System to operate in an actuarially sound manner, contributions equal to the ARC are necessary for future fiscal years. Assuming that the annual required employer contributions to the System are made by the City from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

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

We trust that the report will meet the approval of the Board and will furnish the desired information concerning the financial condition of the System.

Respectfully submitted,

A handwritten signature in blue ink that reads "Todd B. Green".

Todd B. Green, ASA, FCA, MAAA  
Principal and Senior Actuary

A handwritten signature in blue ink that reads "Cathy Turcot".

Cathy Turcot  
Principal and Managing Director

TBG/CT:dmw





**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM  
REPORT OF THE ACTUARY  
ON THE ANNUAL VALUATION  
PREPARED AS OF JULY 1, 2011**

**SECTION I – SUMMARY OF PRINCIPAL RESULTS**

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below.

<b>Valuation Date</b>	<b>July 1, 2011</b>	<b>July 1, 2010</b>
Active members:		
Number	1,028	1,031
Annualized compensation	\$ 59,086,270	\$ 59,079,990
Retired members and beneficiaries:		
Number	505	492
Annual allowances	\$ 20,386,139	\$ 19,428,912
Number of terminated vested members*	8	5
Assets:		
Market Value	\$ 366,069,651	\$ 295,685,261
Actuarial Value	366,146,738	357,651,656
Unfunded actuarial accrued liability	\$ 42,851,622	\$ 37,740,769
Funded Ratio	89.5%	90.5%
Amortization Period	30 years	30 years
<b>Fiscal Year Ending</b>	<b>June 30, 2013</b>	<b>June 30, 2012</b>
City annual required contribution rate (ARC):		
Normal (including expenses of 0.75%)	10.01%	9.89%
Accrued liability	<u>4.38</u>	<u>3.86</u>
Total	14.39%	13.75%
Member contribution rate	12.65%	12.65%

\*In addition, there are 25 inactive members as of July 1, 2011 that are expected to receive a refund of member contributions that have not yet been paid.

2. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule G. There have been no changes since the previous valuation.



3. Schedule E of this report outlines the full set of actuarial assumptions and methods used in the valuation. There have been no changes since the previous valuation.
4. The entry age actuarial cost method was used to prepare the valuation. Schedule F contains a brief description of the actuarial cost method.
5. Comments on the valuation results as of July 1, 2011 are given in Section IV and further discussion of the contributions is set out in Section V.

### **SECTION II – MEMBERSHIP DATA**

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the City. The valuation included 1,028 active members with annualized compensation totaling \$59,086,270.
2. The following table shows the number of retired members and beneficiaries as of July 1, 2011 together with the amount of their annual retirement benefits payable under the System as of that date.

#### **THE NUMBER AND ANNUAL BENEFITS OF RETIRED MEMBERS AND BENEFICIARIES AS OF JULY 1, 2011**

GROUP	NUMBER*	ANNUAL RETIREMENT BENEFITS
Service Retirements	424	\$ 18,661,858
Disability Retirements	51	1,212,900
Beneficiaries of Deceased Members	<u>30</u>	<u>511,381</u>
Total	505	\$ 20,386,139

\*In addition, there are 8 terminated members entitled to deferred vested benefits and 25 other inactive members expected to receive a refund of member contributions that have not yet been paid.



3. Table 1 of Schedule H shows the distribution by age and years of membership service of the number of active members included in the valuation, while Table 2 shows the number and annual benefits of retired members and beneficiaries included in the valuation, distributed by age. Table 3 shows the schedule of active member valuation data and Table 4 shows the schedule of retired members and beneficiaries added to and removed from the rolls.

### **SECTION III – ASSETS**

As of July 1, 2011, the total market value of assets amounted to \$366,069,651. The actuarial value of assets used for the current valuation was \$366,146,738. Schedule C shows the development of the actuarial value of assets as of July 1, 2011. Schedule D shows the allocation of the System's assets and the market value of assets for three years.

### **SECTION IV – COMMENTS ON VALUATION**

1. Schedule B of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of July 1, 2011. The valuation was prepared in accordance with the actuarial assumptions set forth in Schedule E and the actuarial cost method which is described in Schedule F.
2. The valuation balance sheet shows that the System has total prospective liabilities of \$550,080,125 of which \$191,742,473 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and terminated members entitled to deferred benefits, and \$358,337,652 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has a total present actuarial value of assets of \$366,146,738 as of July 1, 2011. The difference of \$183,933,387 between the total liabilities and the total present assets represents the present value of future contributions.
3. The contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that normal contributions at the rate of 21.91% of payroll are required under the entry age method. Of this amount, 12.65% is paid by the members and the remaining 9.26% is required by the City.
4. Prospective normal contributions at the rate of 21.91% have a present value of \$141,081,765. When this amount is subtracted from \$183,933,387, which is the present value of the total future



contributions to be made, there remains \$42,851,622 as the amount of unfunded accrued liability contributions. The development of the unfunded accrued liability is shown in Schedule A.

#### **SECTION V – CONTRIBUTIONS PAYABLE**

1. The contributions consist of a normal contribution and an accrued liability contribution as determined by actuarial valuation.
2. The normal contribution rate is calculated as the level percentage of payroll which, if applied for the average new member during the entire period of his anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be 21.91%.
3. Section 24 of Title V of the Charlotte Firefighters' Retirement System Act states that each member shall contribute an amount equal to the Member's Compensation multiplied by 12.65%.
4. The City normal contribution rate is equal to the difference between the normal contribution rate of 21.91% and the member contribution rate of 12.65%, or 9.26% of payroll. An additional 0.75% is required for expenses, making the total City normal rate 10.01% of payroll.
5. Section 25 of Title V of the Charlotte Firefighters' Retirement System Act states that the City of Charlotte shall contribute an amount equal to the Member's Compensation multiplied by 12.65%. For the fiscal year ending June 30, 2013, these contributions are not sufficient to fund the system in an actuarially sound manner. The annual required employer contribution (ARC) rate beginning July 1, 2012 is 14.39% of payroll.
6. Based on a total employer rate of 14.39%, the annual accrued liability contribution rate is determined to be 4.38% of payroll. This rate will be sufficient to amortize the unfunded actuarial accrued liability of \$42,851,622 within approximately 30 years following the valuation date, on the assumption that the payroll will increase 3.25% each year.



7. The following table summarizes the employer contributions which were determined by the July 1, 2011 valuation and are recommended for use.

**CITY ANNUAL REQUIRED CONTRIBUTIONS (ARC)  
FOR FISCAL YEAR ENDING JUNE 30, 2013**

CONTRIBUTION	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION
Normal (including expenses of 0.75%)	10.01%
Accrued Liability	<u>4.38</u>
Total	14.39%

**SECTION VI – ACCOUNTING INFORMATION**

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS  
AS OF JULY 1, 2011**

GROUP	NUMBER*
Retired participants and beneficiaries currently receiving benefits	505
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	8
Active Participants	<u>1,028</u>
Total	1,541

\*In addition, there are 25 inactive members expected to receive a refund of member contributions that have not yet been paid.





2. Another such item is the schedule of funding progress as shown below.

**SCHEDULE OF FUNDING PROGRESS**  
(dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
7/01/2006	\$309,859	\$316,907	\$7,048	97.8%	\$50,038	14.1%
7/01/2007	336,423	334,816	(1,607)	100.5	52,463	(3.1)
7/01/2008 <sup>1</sup>	358,536	361,375	2,839	99.2	55,219	5.1
7/01/2009	360,003	376,027	16,024	95.7	56,890	28.2
7/01/2010 <sup>2</sup>	357,652	395,393	37,741	90.5	59,080	63.9
7/01/2011	366,147	408,999	42,852	89.5	59,086	72.5

<sup>1</sup>Reflects 4% COLA effective January 1, 2008.

<sup>2</sup>Economic and demographic assumptions were changed as of July 1, 2010 due to an experience review.

3. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2011.

**Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending June 30, 2011**

(a)	Employer annual required contribution	\$ 8,131,000
(b)	Interest on net pension obligation	(537,000)
(c)	Adjustment to annual required contribution	<u>(394,000)</u>
(d)	Annual pension cost (a) + (b) - (c)	\$ 7,988,000
(e)	Employer contributions made for fiscal year ending June 30, 2011	<u>7,670,000</u>
(f)	Increase (decrease) in net pension obligation (d) - (e)	\$ 318,000
(g)	Net pension obligation beginning of fiscal year	<u>(6,927,000)</u>
(h)	Net pension obligation end of fiscal year (f) + (g)	\$ (6,609,000)



**TREND INFORMATION**  
(dollar amounts in thousands)

<u>Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation (NPO)</u>
June 30, 2009	\$6,560	111.9%	\$(7,692)
June 30, 2010	8,205	90.7	(6,927)
June 30, 2011	7,988	96.0	(6,609)

4. The annual required contribution (ARC) as a percentage of payroll, determined in accordance with the parameters of GASB 25/27, is shown below.

**EMPLOYER ANNUAL REQUIRED CONTRIBUTION (ARC)  
FOR FISCAL YEAR ENDING JUNE 30, 2013**

<b>CONTRIBUTION</b>	<b>PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION</b>
Normal (including expenses)	10.01%
Accrued liability	<u>4.38</u>
Total	14.39%

5. Additional information as of July 1, 2011 follows:

Valuation date	7/01/2011
Actuarial cost method	Entry age
Amortization period	Level Percent of Pay, Open
Remaining amortization period	30 years
Asset valuation method	Five-year smoothed market value
Actuarial assumptions:	
Investment rate of return (includes inflation)	7.75%
Projected salary increases (includes inflation)	4.25 - 11.25%
Inflation	3.25%
Cost-of-living adjustments	None



**SECTION VII – EXPERIENCE**

1. As an aid to the Board in adopting service and mortality tables, the actuary prepared an experience investigation for the five-year period ending June 30, 2009. The valuation was based on the assumptions adopted by the Board at the April 22, 2010 Board meeting as a result of that investigation.
2. The following table shows the estimated change in the unfunded accrued liability from various factors that resulted in an increase of \$5,110,853 in the unfunded accrued liability from \$37,740,769 to \$42,851,622 during the fiscal year ending June 30, 2011.

**ANALYSIS OF FINANCIAL EXPERIENCE – CHANGE IN UNFUNDED ACCRUED LIABILITY**  
(dollar amounts in thousands)

<b>ITEM</b>	<b>AMOUNT OF INCREASE/(DECREASE)</b>
Interest (7.75%) added to previous unfunded accrued liability	\$ 2,925
Accrued Liability Contribution	(2,309)
Recognized Asset (Gain)/Loss	14,154
Liability (Gain)/Loss	(944)
Salary Increases	(8,715)
Amendments (COLA)	0
Assumption and Method Changes	<u>0</u>
Increase/(Decrease) in Unfunded Accrued Liability	\$5,111





**SCHEDULE A**

**DEVELOPMENT OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY  
AS OF JULY 1, 2011**

(1)	Present value of prospective benefits:	
(a)	Present active members	\$ 358,337,652
(b)	Present retired members, beneficiaries and former members entitled to deferred vested benefits and refunds	<u>191,742,473</u>
(c)	Total	\$ 550,080,125
(2)	Present value of future System and member normal contributions before expenses	<u>141,081,765</u>
(3)	Actuarial accrued liabilities 1(c) – (2)	\$ 408,998,360
(4)	Actuarial value of assets	<u>366,146,738</u>
(5)	Unfunded actuarial accrued liability (3) – (4)	\$ 42,851,622



**SCHEDULE B**  
**VALUATION BALANCE SHEET**

The present and prospective assets and liabilities of the System as of July 1, 2011:

<u>ACTUARIAL LIABILITIES</u>		
Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and terminated members entitled to deferred benefits and refunds		\$ 191,742,473
Present value of prospective benefits payable on account of present active members		<u>358,337,652</u>
Total liabilities		<u>\$ 550,080,125</u>
<u>PRESENT AND PROSPECTIVE ASSETS</u>		
Actuarial value of assets		\$ 366,146,738
Present value of future contributions		
City and member normal contributions	\$ 141,081,765	
Unfunded accrued liability contributions		<u>42,851,622</u>
Total prospective contributions		\$ 183,933,387
Total assets		<u>\$ 550,080,125</u>



**SOLVENCY TEST**  
(dollar amounts in millions)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
7/1/11	\$77.9	\$191.7	\$139.4	\$366.1	100%	100%	69.2%
7/1/10 <sup>1</sup>	73.4	185.9	136.1	357.7	100	100	72.3
7/1/09	69.0	171.2	135.8	360.0	100	100	88.2
7/1/08 <sup>2</sup>	62.6	164.6	134.1	358.5	100	100	97.9
7/1/07	60.1	151.4	123.2	336.4	100	100	100.0
7/1/06	52.8	149.7	114.4	309.9	100	100	93.9
7/1/05 <sup>3</sup>	49.8	145.5	105.0	291.2	100	100	91.3
7/1/04	46.7	139.5	106.1	274.9	100	100	83.6
7/1/03	42.5	137.3	98.0	261.0	100	100	82.9
7/1/02	39.7	130.5	95.5	254.0	100	100	87.7

All figures prior to July 1, 2005 were reported by a prior actuarial firm.

<sup>1</sup>Economic and demographic assumptions were changed as of July 1, 2010 due to an experience review.

<sup>2</sup>Reflects 4% COLA effective January 1, 2008.

<sup>3</sup>Demographic assumptions were changed as of July 1, 2005 due to an experience review.



**SCHEDULE C**

**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

(1)	Actuarial Value of Assets as of July 1, 2010	\$ 357,651,656
(2)	Market Value of Assets as of July 1, 2011	366,069,651
(3)	Market Value of Assets as of July 1, 2010	295,685,261
(4)	Net Cash Flow During Plan Year	
	(a) Contributions	15,958,000
	(b) Benefit Payments	<u>20,838,000</u>
	(c) Net Cash Flow (a) – (b)	(4,880,000)
(5)	Investment Return (2) – (3) – (4c)	75,264,390
(6)	Expected Investment Return [(3) x 7.75%] + [(4)c x 7.75% x 0.5]	22,726,508
(7)	Investment Gain/(Loss) for Phased-In Recognition (5) – (6)	52,537,882
(8)	Recognized Amounts for Plan Year	
	(a) Current Year 0.20 x (7)	10,507,576
	(b) First Prior Year	1,494,855
	(c) Second Prior Year	(18,703,539)
	(d) Third Prior Year	(9,184,882)
	(e) Fourth Prior Year	<u>6,534,564</u>
	(f) Total Recognized Investment Gain/(Loss)	(9,351,426)
(9)	Actuarial Value of Assets as of July 1, 2011 (1) + (4)(c) + (6) + (8)(f)	\$ 366,146,738
(10)	Rate of Return on Actuarial Value	3.77%
(11)	Rate of Return on Market Value	25.67%



**SCHEDULE D**

**ASSET INFORMATION**

Reconciliation of Market value of Assets  
(In Thousands)

	<u>Years Ended June 30</u>	
	<u>2011</u>	<u>2010</u>
Market Value of Assets - Beginning of Year	<u>295,685</u>	<u>272,104</u>
<b>ADDITIONS:</b>		
Contributions:		
Member	\$ 8,288	\$ 7,758
Employer	<u>7,670</u>	<u>7,440</u>
Total Contributions	<u>15,958</u>	<u>15,198</u>
Investment Income (loss):		
Net Appreciation (depreciation) in fair value of investments	73,501	26,550
Interest	1,510	1,617
Dividends	<u>2,179</u>	<u>1,896</u>
	<u>77,190</u>	<u>30,063</u>
Less Investment Expense	<u>1,891</u>	<u>1,669</u>
Net Investment Income (loss)	<u>75,299</u>	<u>28,394</u>
Total Additions (loss)	<u>91,257</u>	<u>43,592</u>
<b>DEDUCTIONS:</b>		
Benefits	20,080	19,210
Refunds	248	200
Administration	510	583
Depreciation	34	18
Total Deductions	<u>20,872</u>	<u>20,011</u>
Change in Net Assets	70,385	23,581
Market Value of Assets - End of Year	<u>\$ 366,070</u>	<u>\$ 295,685</u>

Allocation of Market Value of Assets

	June 30, 2011	June 30, 2010	June 30, 2009
Cash	\$ (90,969)	\$ (159,503)	\$ (995,230)
Cash Equivalents	4,712,602	5,562,307	5,072,587
Fixed Income Investments	91,742,569	88,348,480	83,781,080
Equity Investments	269,497,448	201,611,816	183,953,108
Other	364,057	234,077	251,484
Accrued Income	399,688	393,368	377,499
Accrued Contributions	521,487	460,807	407,991
Accrued Liabilities/Expenses	<u>(1,077,232)</u>	<u>(766,091)</u>	<u>(744,767)</u>
Total Market Value	<u>\$ 366,069,650</u>	<u>\$ 295,685,261</u>	<u>\$ 272,103,752</u>



**SCHEDULE E**

**OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS**

**The assumptions and methods used in the valuation were selected by the Actuary and adopted by the Board April 22, 2010.**

INVESTMENT RATE OF RETURN: 7.75% per year, compounded annually.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

<u>Years of Service</u>	<u>Rate*</u>
≤ 5	11.25%
6	10.25
7	8.75
8	7.75
9	6.75
10 - 14	5.25
15	4.75
16	4.25

\*Includes inflation of 3.25% and real rate of salary increase component of 1.00%

SEPARATIONS FROM ACTIVE SERVICE: For death rates, the RP 2000 Employee Mortality Table was used. Representative values of the assumed annual rates of separation from active service are as follows:

<u>Age</u>	<u>Annual Rate of</u>		
	<u>Withdrawal</u>	<u>Disability*</u>	<u>Death</u>
20	1.8%	0.04%	0.03%
25	1.5	0.04	0.04
30	1.0	0.06	0.04
35	0.8	0.16	0.08
40	0.6	0.29	0.11
45	0.4	0.43	0.15
50		0.70	0.21
55		1.00	0.30

\*65% of the disabilities are assumed to be in the line of duty.



Annual Rate of Retirement\*

Age	Age 60 with 5 Years Service or 25 Years Service	Age 50 with 25 Years Service*	30 Years Service
< 50	12%	N/A	40%
50 – 53	12	25%	40
54 – 56	12	50	40
57 – 64	12	20	40
65	100	100	100

\*An additional 20% are assumed to retire when first eligible.

DEATHS AFTER RETIREMENT: The RP-2000 Combined Healthy Retiree Mortality Table is used for the period after retirement and for dependent beneficiaries. The UP 1994 Mortality Table set forward five years is used for the period after disability retirement.

EXPENSES: 0.75% of payroll.

PERCENT MARRIED: 100% of active members are assumed to be married with the male three years older than his spouse.

ASSETS: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected actuarial value.

VALUATION METHOD: Entry age actuarial cost method. See Schedule F for a brief description of this method.

UNUSED SICK AND VACATION DAYS: 12% load on Final Average Salary at Retirement for cashed-in vacation and sick days. In addition, 1/2 year added to credited service at retirement.

PAYROLL GROWTH ASSUMPTION: 3.25% per year.





## **SCHEDULE F**

### **ACTUARIAL COST METHOD**

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.75%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level percentage of payroll which, if applied for the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.





**SCHEDULE G**

**SUMMARY OF MAIN SYSTEM PROVISIONS  
AS INTERPRETED FOR VALUATION PURPOSES**

Member	An employee of the Charlotte Fire Department who is subject to the provisions of the Civil Service Act.
Membership Service Credit	Service for all periods of employment with the Charlotte Fire Department for which contributions have been paid.
Final Average Salary	A member's average monthly compensation for the highest 2 consecutive years within the last 5 years of membership service. Salary in the final year includes cashed-in vacation and sick days.
Accrued Benefit	The monthly amount of retirement benefits earned by a member as of any date computed on his Final Average Salary and Membership Service Credit at that date.
Service Retirement Benefit	
Eligibility	Age 50 and 25 years of membership service credit, age 60 and 5 years of membership service credit or 30 years of membership service credit.
Benefit	Monthly benefit is 2.6% of final average salary multiplied by years of membership service credit. The minimum monthly benefit is \$902.75.
Early Retirement Benefit	
Eligibility	25 years of membership service credit.
Benefit	Accrued benefit reduced by 3% for each year member is under age 50.
In the Line of Duty Disability Retirement Benefit	
Eligibility	No requirements.
Benefit	78% of final average salary or normal retirement benefit if greater.
Not in the Line of Duty Disability Retirement Benefit	
Eligibility	10 years of service.
Benefit	39% of final average salary plus 1.95% of such salary for each year of membership service credit in excess of 10 years, not less than \$902.75 per month.



Deferred Vested  
Retirement Benefit

Eligibility

5 years of service. Member contributions not withdrawn.

Benefit

Accrued benefit payable at age 60. A member may choose a refund of contributions with 4% interest in lieu of this benefit.

Termination Benefit

If a member is terminated with less than 5 years of membership service credit, he is entitled to a return of his accumulated contributions.

Death Benefit

If a member dies in service, his beneficiary is entitled to receive a lump sum equal to the return of the member's accumulated contributions, plus those contributions made by the City on his behalf, plus interest of 4% per year. In lieu of the lump sum, his beneficiary may elect an annuity which is the actuarial equivalent of the lump sum. If the deceased member was eligible for a service or early retirement on the day before death, the spouse may elect to receive the actuarial equivalent monthly benefit under the 66-2/3% Joint and Survivor Option.

Optional Forms of Benefit

- (1) 10 year certain and life annuity.
- (2) 100%, 75%, 66-2/3% or 50% joint and survivorship annuity.
- (3) Joint and survivorship annuity with a pop-up provision.

Contributions

The City and the members each contribution 12.65%.



**SCHEDULE H**

**TABLE 1**

**DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE GROUPS  
AS OF JULY 1, 2011**

Attained Age	Completed Years of Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Over	
<b>Under 25</b>	11	33								44
Average Pay	\$36,275	\$37,874								\$37,474
<b>25 to 29</b>	6	73	51							130
Average Pay	\$37,263	\$38,989	\$49,196							\$42,914
<b>30 to 34</b>	6	37	73	56						172
Average Pay	\$37,884	\$39,519	\$52,353	\$60,035						\$51,589
<b>35 to 39</b>	3	20	53	83	27					186
Average Pay	\$37,263	\$39,398	\$53,353	\$60,770	\$70,323					\$57,366
<b>40 to 44</b>	1	5	14	60	46	55	1			182
Average Pay	\$35,461	\$41,129	\$52,751	\$60,884	\$65,340	\$68,071	\$75,476			\$62,954
<b>45 to 49</b>		3	1	28	23	95	25			175
Average Pay		\$39,841	\$53,700	\$58,814	\$66,081	\$65,956	\$69,789			\$64,859
<b>50 to 54</b>				5	11	47	35	3		101
Average Pay				\$58,880	\$62,000	\$64,848	\$71,704	\$83,464		\$67,171
<b>55 to 59</b>			2		3	14	6	8		33
Average Pay			\$52,547		\$76,734	\$68,175	\$83,229	\$75,222		\$72,451
<b>60 to 64</b>						4		1		5
Average Pay						\$60,227		\$91,112		\$66,404
<b>65 to 69</b>										0
Average Pay										\$0
<b>70 &amp; up</b>										0
Average Pay										\$0
<b>Total Count</b>	27	171	194	232	110	215	67	12	0	1,028
Average Pay	\$36,932	\$39,014	\$51,834	\$60,345	\$66,695	\$66,293	\$72,078	\$78,606	\$0	\$57,477

Average Age: 39.5  
Average Service: 13.3



**TABLE 2**  
**NUMBER OF RETIRED MEMBERS AND BENEFICIARIES**  
**AND THEIR BENEFITS BY AGE**

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
50 & Under	16	\$ 585,299	\$ 36,581
51 - 55	61	2,884,865	47,293
56 - 60	107	4,743,065	44,328
61 - 65	113	4,471,096	39,567
66 - 70	79	3,180,752	40,263
71 - 75	57	2,346,285	41,163
76 - 80	45	1,450,659	32,237
Over 80	<u>27</u>	<u>724,119</u>	<u>26,819</u>
Total	505	\$ 20,386,140	\$ 40,369

**TABLE 3**  
**SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

<u>Valuation Date</u>	<u>Number Prior Year</u>	<u>Exits</u>	<u>New Entrants &amp; Rehires</u>	<u>Number Current Year</u>	<u>Annual Payroll</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay</u>
7/1/11	1031	30	27	1028	\$59,086,270	\$57,477	0.3%
7/1/10	991	25	65	1031	59,079,990	57,304	0.0
7/1/09	957	22	56	991	56,890,253	57,407	-0.5
7/1/08	948	27	36	957	55,219,358	57,700	4.3
7/1/07	953	25	20	948	52,462,717	55,340	5.4
7/1/06	935	25	43	953	50,037,809	52,506	4.1
7/1/05	897	22	60	935	47,165,418	50,444	2.8
7/1/04	876	17	38	897	44,009,056	49,062	3.9
7/1/03	856	29	49	876	41,354,976	47,209	1.4
7/1/02	853	31	34	856	39,848,691	46,552	4.3

Results prior to the 7/1/05 valuation were reported by a prior actuarial firm.



**TABLE 4**  
**SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES**  
**ADDED TO AND REMOVED FROM ROLLS**

<u>Year Ended</u>	<u>Rolls – Beginning of Year</u>		<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls – End of Year</u>		<u>% Increase in Annual Allowances</u>	<u>Average Annual Allowances</u>
	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>	<u>No.</u>	<u>Annual Allowances</u>		
7/1/11	492	\$19,428,912	22	\$1,180,748	9	\$223,521	505	\$20,386,139	4.9%	\$40,369
7/1/10	477	18,461,651	22	1,136,772	7	169,511	492	19,428,912	5.2	39,490
7/1/09	466	17,656,422*	23	1,176,339	12	371,110	477	18,461,651	4.6	38,704
7/1/08	456	16,204,943	22	1,813,530*	12	362,051	466	17,656,422*	9.0	37,889
7/1/07	452	15,910,529	15	652,817	11	358,403	456	16,204,943	1.9	35,537
7/1/06	443	15,438,131	18	707,890	9	235,492	452	15,910,529	3.1	35,200
7/1/05	435	14,887,728	19	854,621	11	304,218	443	15,438,131	3.7	34,849
7/1/04	427	14,512,752	16	629,172	8	254,196	435	14,887,728	2.6	34,225
7/1/03	411	13,754,121	23	970,560	7	211,929	427	14,512,752	5.5	33,988
7/1/02	389	12,824,893	29	1,202,320	7	273,092	411	13,754,121	7.2	33,466

Results prior to the 7/1/05 valuation were reported by the prior actuarial firm.

\* Includes 4.00% benefit adjustment effective January 1, 2008.



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**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
PARTICIPANT INFORMATION  
Year Ended June 30, 2011**

**SERVICE RETIREMENTS**

<b>Name</b>	<b>Date of Retirement</b>
Alexander, Theresa R.	04/23/2011
Bradey, Kenneth W.	01/01/2011
Broome, Donald S.	12/18/2010
Chandler, Harold L.	07/17/2010
Chapman, Timothy M.	07/03/2010
Correll, Richard D.	12/18/2010
Covington, Cynthia J.	12/25/2010
Davis, James T.	01/01/2011
Hare, Graylen D.	12/25/2010
Helms, Keith V.	12/25/2010
Lloyd, Charles S.	11/06/2010
Middleton, Allen K.	12/18/2010
Mull, Donald C.	12/25/2010
Norman, Edward S.	08/28/2010
Simmons, Maurice	05/21/2011
Smith Sr., Edwin D.	07/03/2010
Starr, Larry D.	12/18/2010
Witherspoon Jr., Ira G.	09/18/2010
Wood, Amanda J.	12/25/2010

**EARLY RETIREMENTS**

<b>Name</b>	<b>Date of Retirement</b>
Sikes, Lynita M.	08/21/2010
Starnes, Hilda J.	03/19/2011

**IN MEMORIAM  
Retiree Deaths**

<b>Name</b>	<b>Date of Death</b>
Bagwell Sr., Larry E.	06/17/2011
Davis, Thomas A.	12/25/2010
Griffin, Jack M.	05/16/2011
Johnston, Kenneth L.	06/08/2011
Mangum, Wade L.	02/25/2011
Philmon, Oswald M.	12/05/2010
Shirey Jr., Charles D.	11/09/2010
Suddreth, Alfred G.	07/05/2010
Suddreth, John H.	02/02/2011
Westbrook, Louis E.	08/15/2010

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA**

**CHANGES IN NET ASSETS  
for Fiscal Years Ended June 30  
(Dollar Amounts in Thousands)**

Revenues by Source and Expenses by Type

Fiscal Year	Revenues by Source				Expenses by Type				Change in Net Assets
	Employee Contributions	Employer Contributions	Investment Income	Total Revenues	Benefits	Administrative Expenses	Refunds	Total Expenses	
2002	\$ 5,114	\$ 5,062	\$ (11,825)	\$ (1,649)	\$ 13,605	\$ 364	\$ 275	\$ 14,244	\$ (15,893)
2003	5,640	5,278	7,190	18,108	14,138	402	443	14,983	3,125
2004	6,099	5,554	39,495	51,148	14,549	355	41	14,945	36,203
2005	6,254	5,871	26,267	38,392	15,217	389	105	15,711	22,681
2006	6,471	6,229	29,440	42,140	16,052	394	171	16,617	25,523
2007	6,772	6,574	56,552	69,898	16,609	441	241	17,291	52,607
2008	7,327	6,918	(17,818)	(3,573)	17,081	489	112	17,682	(21,255)
2009	7,711	7,341	(67,070)	(52,018)	18,146	490	138	18,774	(70,792)
2010	7,758	7,440	28,394	43,592	19,210	601	200	20,011	23,581
2011	8,288	7,670	75,299	91,257	20,080	544	248	20,872	70,385



**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF BENEFIT AND REFUND EXPENSES BY TYPE  
for Fiscal Years Ended June 30  
(Dollar Amounts in Thousands)**

Fiscal Year Ending	Age & Service Benefits			Death in Service Benefits	Retiree Disability Benefits			Refunds Death	Refunds Separation	Total
	Retirees	Survivors	QDROs		Duty	Non-duty	Survivor			
2002	\$12,076	\$143	\$23	\$0	\$522	\$797	\$44	\$10	\$265	\$13,880
2003	12,545	163	29	0	554	804	43	311	132	14,581
2004	12,952	189	32	0	542	793	41	0	41	14,590
2005	13,383	192	33	0	514	769	50	276	105	15,322
2006	14,186	212	48	1	528	783	55	239	171	16,223
2007	14,712	219	59	13	538	791	59	218	241	16,850
2008	15,379	258	61	22	526	757	78	0	112	17,193
2009	16,395	273	67	36	553	743	79	0	138	18,284
2010	17,439	260	115	46	545	725	80	0	200	19,410
2011	18,316	265	112	46	500	682	159	0	248	20,328

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT  
as of June 30, 2011**

Amount of Monthly Benefit	Number of Retirees	Type of Retirement									Option Selected						
		1	2	3	4	5	6	7	8	9	Basic	Opt.1	Opt.2	Opt.3	Opt.4	Opt.5	Opt.6
Deferred	8								8		8						
\$ 1 - 500	6	1			1	1	1			2	4					2	
501 - 600	3									3	3						
601 - 700	1							1			1						
701 - 800	1									1	1						
801 - 900	1								1		1						
901-1000	4			1					3		4						
Over 1000	489	353	70	11	2	22	26	2		3	333	6	11	10	19	93	17
Totals	513	354	70	12	3	23	28	6	8	9	355	6	11	10	19	95	17

Type of Retirement

- 1 - Service retirement
- 2 - Early retirement
- 3 - Survivor payment - normal or early retirement
- 4 - Survivor payment - death in service
- 5 - Duty disability retirement
- 6 - Non-duty disability retirement
- 7 - Survivor payment - disability retirement
- 8 - Former member with deferred future benefit
- 9 - Spouse payment - QDRO

Option Selected

- Basic - Basic Benefit
- Option 1 - 10CC
- Option 2 - 100% Joint Survivor
- Option 3 - 75% Joint Survivor
- Option 4 - 66.67% Joint Survivor
- Option 5 - 50% Joint Survivor
- Option 6 - Joint Survivor with Reversion to Basic

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF AVERAGE BENEFIT PAYMENTS  
for Fiscal Years Ended June 30**

	Membership Service Credit					
	<u>5-10</u>	<u>10-15</u>	<u>15-20</u>	<u>20-25</u>	<u>25-30</u>	<u>30+</u>
Period 7/1/2001 to 6/30/2002						
Average Monthly Benefit	\$ 2,291	\$ 1,389	\$ 1,669	\$ 2,017	\$ 2,621	\$ 3,531
Average Final Average Salary	3,112	2,049	2,684	2,761	3,277	3,439
Number of Active Retirants	1	16	13	33	237	113
Period 7/1/2002 to 6/30/2003						
Average Monthly Benefit	\$ 2,291	\$ 1,343	\$ 1,595	\$ 2,026	\$ 2,759	\$ 3,571
Average Final Average Salary	3,112	2,049	2,684	2,793	3,571	3,621
Number of Active Retirants	1	16	13	34	253	112
Period 7/1/2003 to 6/30/2004						
Average Monthly Benefit	\$ 413	\$ 1,264	\$ 1,662	\$ 2,080	\$ 2,800	\$ 3,603
Average Final Average Salary	3,112	2,115	2,845	2,914	3,656	3,680
Number of Active Retirants	1	17	14	34	257	113
Period 7/1/2004 to 6/30/2005						
Average Monthly Benefit	\$ 413	\$ 1,264	\$ 1,591	\$ 2,185	\$ 2,847	\$ 3,696
Average Final Average Salary	3,112	2,115	2,845	3,118	3,768	3,831
Number of Active Retirants	1	17	14	36	263	114
Period 7/1/2005 to 6/30/2006						
Average Monthly Benefit	\$ 277	\$ 1,264	\$ 1,655	\$ 2,174	\$ 2,892	\$ 3,722
Average Final Average Salary	1,556	2,115	3,064	3,166	3,899	3,889
Number of Active Retirants	2	17	15	36	271	114
Period 7/1/2006 to 6/30/2007						
Average Monthly Benefit	\$ 277	\$ 1,264	\$ 1,566	\$ 2,161	\$ 2,918	\$ 3,779
Average Final Average Salary	1,556	2,115	2,873	3,277	3,980	4,002
Number of Active Retirants	2	17	16	35	273	116
Period 7/1/2007 to 6/30/2008						
Average Monthly Benefit	\$ 396	\$ 1,315	\$ 1,704	\$ 2,316	\$ 3,084	\$ 4,124
Average Final Average Salary	1,556	2,115	2,928	3,548	4,082	4,294
Number of Active Retirants	2	17	17	37	281	115
Period 7/1/2008 to 6/30/2009						
Average Monthly Benefit	\$ 396	\$ 1,408	\$ 1,704	\$ 2,345	\$ 3,134	\$ 4,241
Average Final Average Salary	1,556	2,230	2,928	3,562	4,206	4,460
Number of Active Retirants	2	18	17	36	291	118
Period 7/1/2009 to 6/30/2010						
Average Monthly Benefit	\$ 396	\$ 1,377	\$ 1,704	\$ 2,387	\$ 3,215	\$ 4,272
Average Final Average Salary	1,556	2,246	2,928	3,708	4,369	4,561
Number of Active Retirants	2	17	17	39	299	123
Period 7/1/2010 to 6/30/2011						
Average Monthly Benefit	\$ 396	\$ 1,380	\$ 1,687	\$ 2,388	\$ 3,286	\$ 4,339
Average Final Average Salary	1,556	2,285	2,843	3,679	4,531	4,676
Number of Active Retirants	2	16	16	35	310	126

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF  
THE CITY OF CHARLOTTE, NORTH CAROLINA  
SCHEDULE OF BONUS HISTORY  
for Fiscal Years Ended June 30  
(Dollar Amounts in Thousands)**

<u>Year</u>	<u>Bonus Distribution</u>	<u>Annual Benefits</u>	<u>Retirees</u>	<u>Bonus Percentage</u>	<u>Consumer Price Index*</u>
1990	\$ 26	\$ 3,332	198	0.78%	4.6%
1991	142	3,735	221	3.80%	6.1%
1992	115	4,236	237	2.71%	3.1%
1993	90	4,892	255	1.84%	2.9%
1994	69	6,339	292	1.09%	2.7%
1995	65	6,429	292	1.01%	2.7%
1996	109	6,641	294	1.64%	2.5%
1997	366	7,388	312	4.95%	3.3%
1998	600	7,948	331	7.55%	1.6%
1999	734	8,753	357	8.39%	1.9%
2000	808	9,733	371	8.30%	3.2%
2001	1,070	12,998	398	8.23%	1.3%
▶ 2002	197	13,064	395	1.51%	0.7%
**2003	-	-	-	-	2.1%
**2004	-	-	-	-	3.2%
**2005	-	-	-	-	2.6%
**2006	-	-	-	-	4.5%
▶▶ 2007	266	15,966	454	1.67%	2.7%
**2008	-	-	-	-	5.6%
**2009	-	-	-	-	-2.0%
**2010	-	-	-	-	1.4%
**2011	-	-	-	-	4.1%

Average Percentage of Bonus Amount Per Retiree over 22-year Period: 2.43%  
Average Percentage of Bonus Amount Per Retiree over 5-year Period : 0

\*Source: Callan Associates, Inc.

▶ In 2002, each eligible retiree received a \$500 bonus.

\*\*Pursuant to the Actuary's recommendations, the Board of Trustees did not approve bonuses for 2003 - 2006, 2008 - 2011.

▶▶ In 2007, each eligible retiree received a \$600 bonus.

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM GLOSSARY OF KEY ACTUARIAL, FINANCIAL AND INVESTMENT TERMS**

### **ACCRUED BENEFIT**

The amount of a pension plan participant's benefit (whether or not vested) as of a specified date, determined in accordance with the terms of the pension plan and based on compensation (if applicable) and service to that date.

### **ACTIVE PARTICIPANTS**

Eligible individuals who have hours of service and make contributions to a retirement plan.

### **ACTUARIAL ACCRUED LIABILITY**

The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Sometimes referred to as "accrued liability".

### **ACTUARIAL ASSUMPTIONS**

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

### **ACTUARIAL PRESENT VALUE (APV)**

The discounted value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.

### **ACTUARIAL VALUATION**

An examination by an actuary of a group of people, with regard to certain characteristics of the people in that group. Some of the characteristics are age, service, salaries, rate of turnover by death or termination. The actuary can then determine whether contributions are sufficient to fund liabilities earned.

### **ALPHA**

This is a statistic that measures a portfolio's Return in excess of the market return adjusted for risk. A positive alpha indicates that a

portfolio was positively rewarded for the residual risk which was taken for that level of market exposure.

### **AMENDMENT**

Changes made to an existing plan.

### **AMORTIZE**

To pay off an interest-discounted amount with periodic payments of interest and principal as opposed to paying off with a lump sum payment.

### **AUDIT**

An examination by someone or some firm outside an organization of the accounting records developed by the staff of the organization. Recommendations and suggestions for better record keeping and management are often part of an audit.

### **AUDITOR**

A certified public accountant who examines an organization's accounting records according to a set of procedures and issues a report.

### **BARCLAYS CAPITAL AGGREGATE BOND INDEX**

Formerly the Lehman Brothers Aggregate Bond Index, this index is composed of U.S. Government, Corporate and mortgage-backed securities with maturities of at least one year.

### **BENEFICIARY/BENEFICIARIES**

The person(s) to whom a share of a deceased participant's account balance is payable.

### **BENEFITS**

Payments to which participants may be entitled under a pension plan, including pension benefits, death benefits and benefits due on termination of employment.

### **CALLAN REAL ESTATE MEDIAN**

A database comprised totally of the open-end funds of banks and insurance companies.

### **CITICORP EXTENDED MARKET BOND (EMB) MARKET EX-US**

An index that is comprised of the bottom 20% of the cumulative available market capital of the

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM**

### **GLOSSARY OF KEY ACTUARIAL, FINANCIAL AND INVESTMENT TERMS**

Citicorp (previous Salomon Smith Barney) Broad Market Index. The EMB ex-US defines the small stock index.

#### **CITICORP NON-US DOLLAR WORLD BOND INDEX**

An index that is composed of the Citicorp (formerly Salomon Brothers) World Bond Index excluding U.S. bonds. The index consists of Government bonds, Eurobonds and foreign bonds rated at least AA with remaining maturities of 5 or more years. The index is weighted by the outstanding principal amount of each issue and is expressed in terms of U.S. dollars.

#### **COMPENSATION**

The amount of a participant's taxable and nontaxable wages that is considered for purposes of a certain employee benefit requirement.

#### **CONSUMER PRICE INDEX (CPI)**

A measure of the average change in prices for a fixed market basket of goods and services. This market basket is based on the spending patterns of urban wage earners and clerical workers, who represent 40 percent of the total civilian population.

#### **COST-OF-LIVING ADJUSTMENT (COLA)**

Provision for the adjustment of payment designed to offset changes in the cost of living, usually as measured by the consumer price index.

#### **CUSTOM MIDCAP VALUE INDEX**

A customized mid cap value index consisting of 50 percent of the Standard and Poor's Mid Cap Value and 50 percent of the Russell Mid Cap Value.

#### **DEFINED BENEFIT PENSION PLAN**

A pension plan that defines an amount of pension benefit to be provided, usually as a function of one or more factors, such as age, years of service and/or compensation.

#### **DISABILITY**

Inability to pursue an occupation because of physical or mental impairment.

#### **DISCOUNT RATE**

The rate used to adjust a series of future payments to reflect the time value of money. For the purpose of calculating the pension benefit obligation defined by G.A.S.B., this rate is equal to the estimated long-term rate of return on current and future investments of the pension plan.

#### **DIVERSIFICATION**

The practice of investing in several different businesses, industries and classes of investment securities in order to minimize total portfolio risks.

#### **EARLY RETIREMENT**

Provision made in a retirement plan to allow employees who have met certain conditions, such as length of service and specified age, to retire prior to their regularly scheduled retirement age. In general, in case of such early retirement, the benefits which a participant can expect to receive from the plan will be less than those offered at full retirement age.

#### **FIDUCIARY FUND TYPE**

The trust and agency funds used to account for assets held by a government unit in a trustee capacity or as an agent for individuals, private organizations, other government units and/or other funds.

#### **FRMS UNIVERSE INDEX**

An index composed of all common stock issues used in the Fundamental Risk Measurement Service (FRMS) by Barra. The index contains about 5,700 companies and is capitalization-weighted. This index was terminated by Barra as of September 30, 1999.

#### **FUNDING RATIO**

The actuarial value of benefit obligations accrued to date, compared to the pension plan assets expressed as a percentage.

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM GLOSSARY OF KEY ACTUARIAL, FINANCIAL AND INVESTMENT TERMS**

### **GASB**

Governmental Accounting Standards Board is the body which creates the various accounting standards for governmental and non-profit organizations. Currently based in Norwalk, Connecticut.

### **INVESTMENT POLICY**

A formal statement outlining the broad investment objectives of the plan.

### **J. P. MORGAN EMERGING MARKETS**

#### **BOND INDEX PLUS**

An index that tracks total returns for traded external debt instruments in the emerging markets. The instruments include external currency-denominated Brady bonds, loans and Eurobonds, as well as U.S. dollar local markets instruments.

#### **LEVEL-COST FINANCING**

A method of financing a retirement system in which contributions, as a percentage of payroll, remain level from generation to generation, if benefit provisions are not changed.

### **MERRILL LYNCH 1-3 YEAR GOVERNMENT CORPORATE BOND INDEX**

An unmanaged index trading short-term U.S. government securities and short-term domestic investment-grade corporate bonds with maturities between 1 and 2.99 years.

### **MORGAN STANLEY CAPITAL INTERNATIONAL EAFE INDEX**

An index that is composed of approximately 1,000 equity securities representing stock exchanges of Europe, Australia, New Zealand and the Far East. The index is capitalization-weighted, includes currency changes and is expressed in terms of U.S. dollars.

### **MORGAN STANLEY CAPITAL INTERNATIONAL EMERGING MARKETS FREE INDEX**

An index composed of about 549 equity securities representing the stock exchanges of 13 countries in Central Asia and the Far East, Latin America, Europe, and the Middle East. Only 20

percent of Korea's market capitalization is included in the index. The index is market capitalization-weighted and is expressed in terms of U.S. dollars.

### **NCREIF INDEX**

The National Council of Real Estate Investment Fiduciaries (NCREIF) calculates a number of real estate benchmarks. This core index is comprised of return series of various properties in each region of the U.S. The index comprises properties by type and subtype by region and division. The return series analyzes appreciation, income, market value and total return. This benchmark is compiled on a one-quarter lag basis.

### **NET PENSION OBLIGATION (NPO)**

The standardized measure of funding status and progress required by the GASB to be disclosed in the notes to the financial statements. It is the actuarial present value of credited projected benefits, prorated on service and is counted at a rate equal to the expected return on present and future plan assets.

### **NORMAL COST**

The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method. This amount does not include any payment related to an unfunded actuarial accrued liability. For plans financed in part by employee contributions, normal cost ordinarily refers to the total of employee contributions and employer normal cost.

### **PENSION CONTRIBUTION**

The amount paid into a pension plan by an employer (or employee), pursuant to the terms of the plan, state law, actuarial calculations or some other basis of determination.

### **PORTFOLIO**

The total of all investments held.

### **PRUDENT PERSON**

Requires that a plan fiduciary use the "care, skill and diligence" that would be used by a reasonably prudent person familiar with "such matters". While essentially an extension of the

## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM GLOSSARY OF KEY ACTUARIAL, FINANCIAL AND INVESTMENT TERMS**

common-law requirement of good faith in handling other people's money, it creates a "prudent expert" test that places an additional burden on the plan sponsor---to know what a person in this position of responsibility should know, rather than a reliance on the knowledge level of the general populace.

### **QUALIFIED DOMESTIC RELATIONS ORDER (QDRO)**

A domestic relations order that creates or recognizes the existence of an alternate payee's right or assigns an alternate payee the right to receive all or a portion of the benefits payable with respect to a participant under a qualified retirement plan, and that it complies with certain special requirements. Only a spouse, former spouse or dependent can be the alternate payee.

### **RISK**

The possibility that the expected rate of return may not be attained for the total portfolio or for specific asset classes.

### **RUSSELL 1000 INDEX**

An index which measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately, 92% of the total market capitalization of the Russell 3000 Index.

### **RUSSELL 1000 GROWTH INDEX**

Measures the performance of the large-cap growth segment of the U.S. equities.

### **RUSSELL 1000 VALUE INDEX**

Measures the performance of the large-cap value segment of U.S. equities.

### **RUSSELL 2000 INDEX**

An index composed of the 2000 smallest stocks in the Russell 3000 Index, representing approximately 11 percent of the U.S. equity market capitalization.

### **RUSSELL 2000 GROWTH INDEX**

Measures the performance of the small-cap growth segment of the U.S. Equities.

### **RUSSELL 2000 VALUE INDEX**

Measures the performance of the small-cap value segment of the U.S. equities.

### **RUSSELL 3000 Index**

The Russell 3000 Index offers investors access to the broad U.S. equity universe representing approximately 98% of the U.S. market. The Russell 3000 is constructed to provide a comprehensive, unbiased and stable barometer of the broad market. It is completely reconstituted annually to ensure new and growing equities are reflected.

### **RUSSELL MIDCAP INDEX**

Measures the performance of the 800 smallest companies in the Russell 1000 index, which represent approximately 35% of the total market capitalization of the Russell 1000 Index.

### **SECTION 415**

Sets out the maximum contribution and benefit limitations of the Internal Revenue Code for qualified plans.

### **STANDARD AND POOR'S 500 INDEX**

An index that is a composite of 400 industrial, 40 financial, 40 utility and 20 transportation common stocks. The index is capitalization-weighted with each stock weighted by its proportion of the total market value of all 500 issues. Thus, larger companies have a greater effect on the index.

### **TOTAL RATE OF RETURN**

Cash income plus capital appreciation, less capital depreciation, realized and unrealized, adjusted for capital contributions and withdrawals expressed as a percentage on an accrual basis.

### **TOTAL REAL ESTATE FUNDS**

A database that consists of both open and closed-end commingled funds managed by real estate firms. The returns represent the overall performance of commingled institutional capital invested in real estate properties.



## **CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM GLOSSARY OF KEY ACTUARIAL, FINANCIAL AND INVESTMENT TERMS**

### **TREASURY BILLS**

Short-term direct obligations of the U.S. Government, usually issued with maturities of three months, six months, or one year. Because of their safety and liquidity, Treasury bills are often used as risk-free proxies in portfolio analytics.

### **TRUSTEE**

A fiduciary holding property on behalf of another. An individual with the responsibility of administering all aspects of a pension fund.

### **UNFUNDED ACTUARIAL ACCRUED LIABILITIES**

The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

### **VESTED BENEFIT**

A benefit for which the employer has an obligation to make payment even if an employee terminates; thus, the benefit is not contingent on an employee's future service.

### **WILSHIRE 5000 TOTAL MARKET INDEX**

An index which measures the performance of all U.S. headquartered equity securities with readily available price data. Over 7,000 capitalization weighted security returns are used to adjust the index. The Wilshire 5000 base is its 12/31/80 capitalization of \$1,404,596 billion. Therefore, the index is an excellent approximation of dollar changes in the U.S. equity market.



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