

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, 2020

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

Table of Contents

Letter of Transmittal	1
Member Statistics.....	8
Board of Trustees and Staff	11
Report of Independent Auditor	12
Management's Discussion and Analysis	14
Basic Financial Statements	
Statement of Plan Net Position	18
Statement of Changes in Plan Net Position	19
Notes to the Financial Statements.....	20
Required Supplementary Information	
Schedule of Changes in Net Pension Liability	30
Schedule of Employer Contributions.....	31
Schedule of Investment Returns	32

CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM

428 East Fourth Street • Suite 205 • Charlotte, North Carolina • (704) 626-2728 • Fax (704) 626-7365

December 28, 2020

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

The Financial Annual Financial Report ("Report") of the Charlotte Firefighters' Retirement System ("System"), a Component Unit of the City of Charlotte ("City"), North Carolina, for the fiscal year ended June 30, 2020 is herewith submitted. The Board and the System's 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 System'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).

HISTORY

The System was organized pursuant to Chapter 926 of the 1947 Session Laws, as amended, of the State of North Carolina, and is officially known as the Charlotte Firefighters' Retirement System Act ("Act"). The System was established on the fifth day of April 1947, for the purpose of providing retirement, disability and survivor benefits to the uniformed employees of the Fire Department of the City of Charlotte. The System retains a Letter of Determination from the Internal Revenue Service issued May 2017.

ADMINISTRATION OF THE SYSTEM

The administration and responsibility for the proper operation of the System is vested with the System's Board of Trustees ("Board"), which is comprised by the following Trustees as defined by the Act: (a) a Chairperson who is a Mecklenburg County resident and who is appointed by the Resident Judge of the Superior Court of Mecklenburg County to serve as Chairperson for a three year term; (b) three Citizen Trustees who are Mecklenburg County residents and who are appointed by the Resident Judge of the Superior Court of Mecklenburg County for three year staggered terms; (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 Member Trustees who are elected by the active Members for three year staggered terms; and (g) one Retiree Trustee who is elected by the Retirees for a term of three years.

The current Board members are listed on page 11.

COMMITTEES

The Board operationally functions under a committee structure. An Investment Committee and a Benefits Committee are annually appointed by the Chairperson 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 Trustee, another a Member Trustee, and the other an ex-officio (i.e., City official) Trustee. During the past fiscal year, John M. Carr, Citizen Trustee served as Chair of the Investment Committee and Melinda Manning, Citizen Trustee served as Chair of the Benefits Committee. Other committees may be appointed for specific projects at the discretion of the Chairperson.

PROFESSIONAL SERVICES

The Board 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 the policies and direction of the Board; (b) the City Attorney and their staff serve as the legal advisor to the Board although additional outside legal counsel may be engaged by the Board from time to time for specialized services; (c) a consulting actuary who is engaged by the City of Charlotte to perform such studies and evaluations of the System as may be necessary and/or desirable in connection with the System's administration and funding, including preparation of the 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 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 to review and evaluate medical evidence and propose recommendations regarding disability retirements; (f) investment management professionals employed to invest the system's assets consistent with the objectives and direction of the Board, and (g) an investment consultant to advise the Board on matters of investment policy and strategy, conduct manager searches and monitor performance of the investment managers.

The Board may engage other professionals with expertise in various fields for specific services as deemed necessary.

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 auditor's opinion and statements contained in the auditor's report. The

annual actuarial valuation report and the actuary's valuation certification will accompany the annual report. 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.

MAJOR INITIATIVES

The Board of Trustees continued collaborative discussions with the City regarding a long-term funding initiative. These discussions resulted in an additional employer contribution of \$1M with a commitment to increase the employer contribution rate from 12.65% to 14% beginning in fiscal year 2021. The long-term funding solutions concentrated on requesting additional funding from the City of Charlotte to reach towards the appropriate contribution levels as determined by the actuaries. A proposal of incremental increases over the next five years will be submitted to the City along with additional Act amendments for clarity and consistency.

During the year, as its primary duty, the Investment Committee spent considerable time reviewing the performance of all existing managers. The Committee met with each manager. As a result of continuing global market and economic volatility in light of the global pandemic, the Committee had in-depth discussions with managers and the investment consultant to review the target asset allocation of the portfolio and to review risk management policies. A new mid-cap growth investment manager, MFS Investment Management, was approved to replace William Blair & Company.

Investments and managers will continue to be closely monitored by the Investment Committee on both a proactive and retrospective basis to assure continued success as well as continued commitment to a well-diversified portfolio and prudent asset allocation. The total portfolio gross of fee investment return for the year ended June 30, 2020 of 3.58% reflected the continuing volatility of the global markets and economic conditions. The last 5 and 10-year gross of fee rates of returns were 6.28% and 9.49% respectively.

Detailed information concerning the System's investments may be found in the *Notes to the Financial Statements* beginning on Page 20.

The Benefits Committee met on a regular basis during the year. The Committee spent a considerable amount of time researching and discussing the methods and assumptions used in the annual actuarial valuation, historical and projected funding requirements, and benefit provisions. The Committee reviewed the Act and is expected to make edit recommendations to the Board early in the next fiscal year, including increased employer contribution levels, military service purchase cost, and various language updates for clarity and consistency.

The effects of the global pandemic related to COVID-19 forced the staff to work from home. The System was poised to transition to remote work and execute their contingency plan. The administration of the System has maintained smooth operations and staff provided uninterrupted services to all members.

A retiree portal supported by the System's custodian bank, USBank, was implemented. The portal provides retirees and beneficiaries in payment status access to their benefit payment information including but not limited to tax withholding elections, 1099-R reporting and banking information.

The Active Member Portal continues to be widely utilized by the active members. The portal provides active members the ability to perform estimates and pension benefit modeling. Once in the site, the member also has access to their annual pension statement, beneficiary information, Plan Benefit Q&A and links to various other resources.

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 the Board. 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, participants of the 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 considers and adopts a budget for each 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 U.S. generally accepted principles of governmental accounting and reporting promulgated by GASB. 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.

An annual actuarial valuation is performed by the System's actuary Cavanaugh Macdonald Consulting, LLC. The actuarially calculated contribution rates are developed using the entry age cost method. This cost method attempts to allocate the cost of each member's benefit as a level percent of compensation over the member's projected service from date of hire to date of retirement or exit. The calculated contribution rates include a current or "normal" cost for the year plus an amortization amount to reduce any unfunded accrued liability.

An Experience Study was conducted by Cavanaugh Macdonald during this fiscal year. As a result, the actuary recommended several changes to the assumptions used in determining the costs of the plan. The most significant changes included a change to the amortization methodology, adopting a mortality table specific to public safety workers, and lowering the assumed rate of return on investments.

Revenues and Funding

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

Contributions by Members: A System Member contributes an amount equal to the Member's eligible compensation multiplied by the current contribution rate of 12.65%. Member contributions are made on a tax-deferred basis and record is kept of each member's accumulated contributions. This accumulated amount 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 contributed an amount equal to the Member's eligible compensation multiplied by the statutory contribution rate of 12.65%. In this fiscal year, the City also made a one-time lump sum payment of \$1M as part of the funding initiative. Any other differences between the aggregate City and Member contributions are due to (a) service purchases made by Members for which the City does not make contributions and (b) City contributions for those Members away on military deployments during which Members 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 the System's strong funding status. Statutorily, since 1947, the Board has exercised responsibility for investing the System's assets in a prudent and diligent manner.

The reader of this Report should note that year-to-year investment return variation is a function of unrealized gains or losses on securities' valuations and the subsequent realization of gains or losses on the sale of investments and is not necessarily reflective of actual investment cash flow or income.

The primary critical concern of the Board is the System's funding adequacy. High funding levels are directly related to benefit security for participants. It is the responsibility of the Board to make prudent and sound investment decisions in order to increase the assets and thereby the funding level of the System. The Board has a goal of maintaining the funding of the System at or near 100%. Although the statutory contribution rate of 12.65% for the employer and employee has been sufficient for over 20 years, the combined Member

and City contributions along with projected investment returns will not be sufficient in the long-term. The Funding level is also influenced by changes to benefits and economic and demographic assumptions. The resulting funding level as of July 1, 2020 of 76.5%, is down from 82.7% as of July 1, 2019. Major contributing factors to this decline in the funding level were updates to the assumptions used in determining the plan's costs which included lowering the assumed rate of return from 7.5% to 7.25%, updating the mortality tables for public safety workers, increasing the additional service added at retirement due to unused sick time to one year from two-thirds of a year, and changing the amortization methodology to a layered closed period.

A more complete discussion of System funding status may be found in the *Actuarial Report* found on the System's website, www.Charlottefireretire.com/Reports

Expenses

The primary expense of the System relates to the purpose for which it was created, namely, the payment of benefits to retirees and their beneficiaries. Benefit payments and refunds to terminated members were responsible for 98.2% of all deductions from plan assets, which is 0.1% lower than the prior year. Administrative costs and depreciation accounted for 1.8% of deductions from plan assets for fiscal year 2020, compared to 1.72% for the prior year. A more detailed discussion of System expenses may be found in the *Management's Discussion and Analysis* beginning on Page 14.

OTHER INFORMATION

Independent Audit

Pursuant to North Carolina law, the System is required to undergo an annual audit by a certified public accountant. The Board has selected the independent certified public accounting firm of Cherry Bekaert, LLP to provide these services. The auditors' report on the financial statements and required supplementary information begins on Page 12.

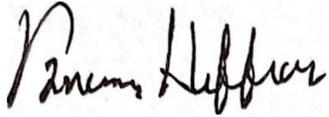
Acknowledgments

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 System and the City of Charlotte.

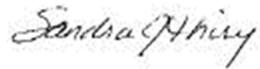
Several individuals assisted with the preparation of this report and we wish to acknowledge their efforts and assistance. Tony Bass, Administrative Officer III; City Finance Staff, Betty Mattos, Chief Accountant; Kelly Kay, Accountant III; and Alexandra Gatti, Accountant II all contributed many hours to ensure the accuracy and completeness of this report.

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

Respectfully Submitted,

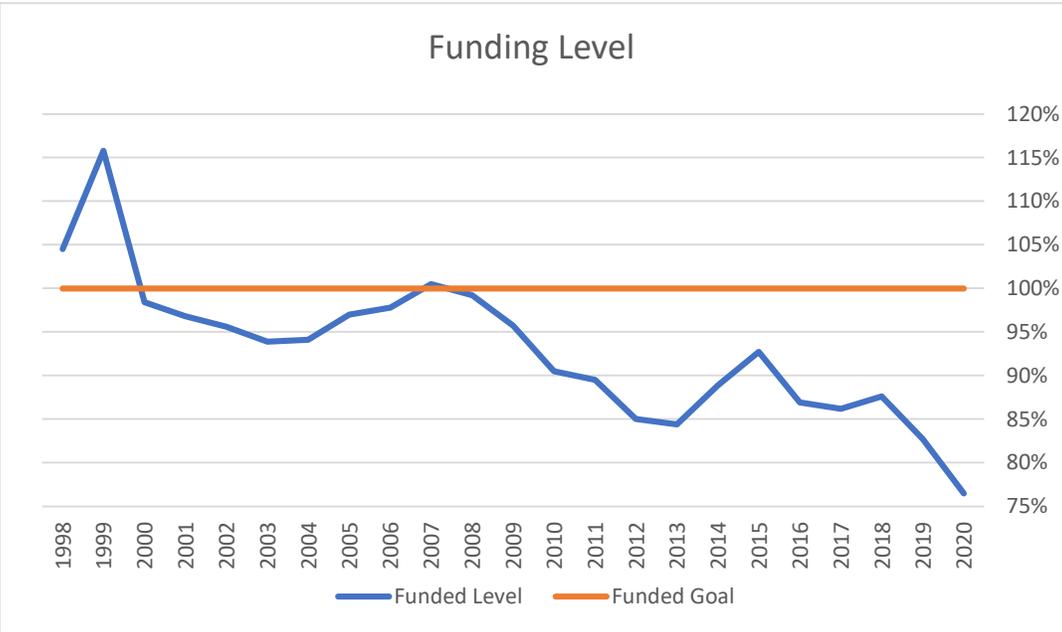
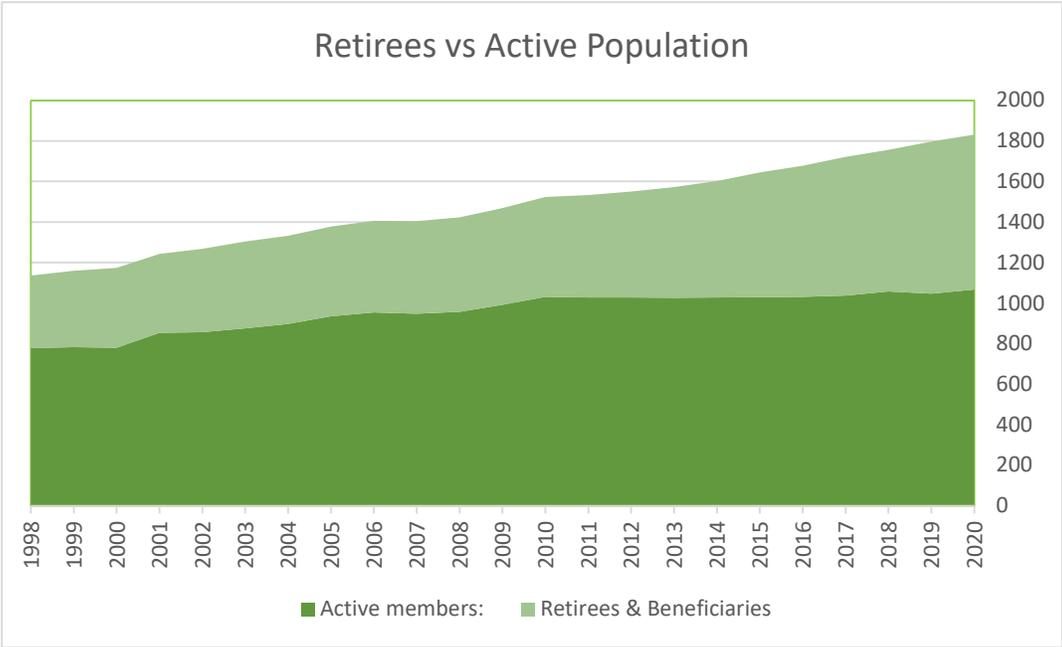
A handwritten signature in black ink, appearing to read "Vanessa Heffron". The signature is written in a cursive style with a large initial "V".

Vanessa Heffron, Chairperson, Board of Trustees

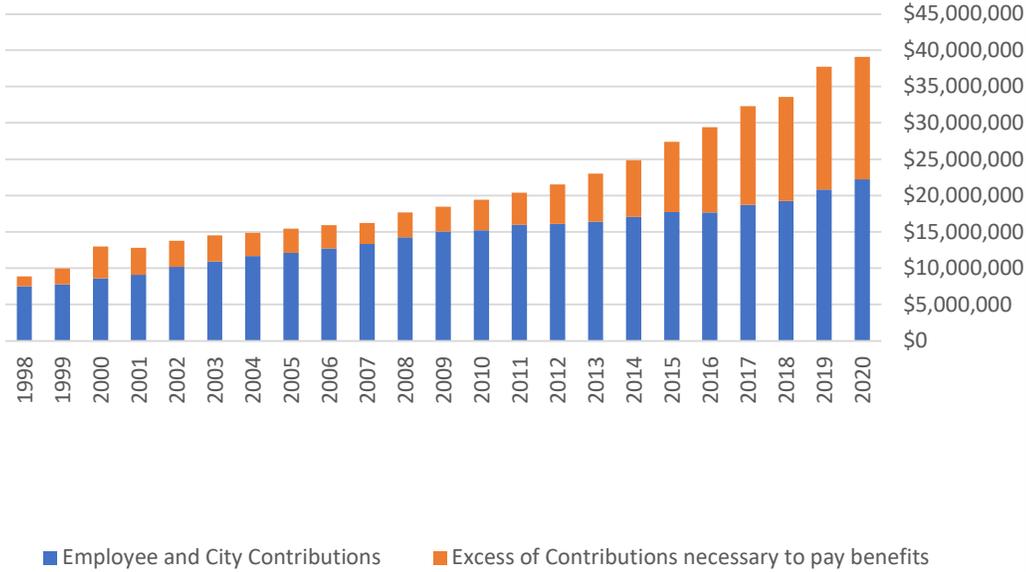
A handwritten signature in black ink, appearing to read "Sandra J. Thiry". The signature is written in a cursive style with a large initial "S".

Sandra J. Thiry, Administrator

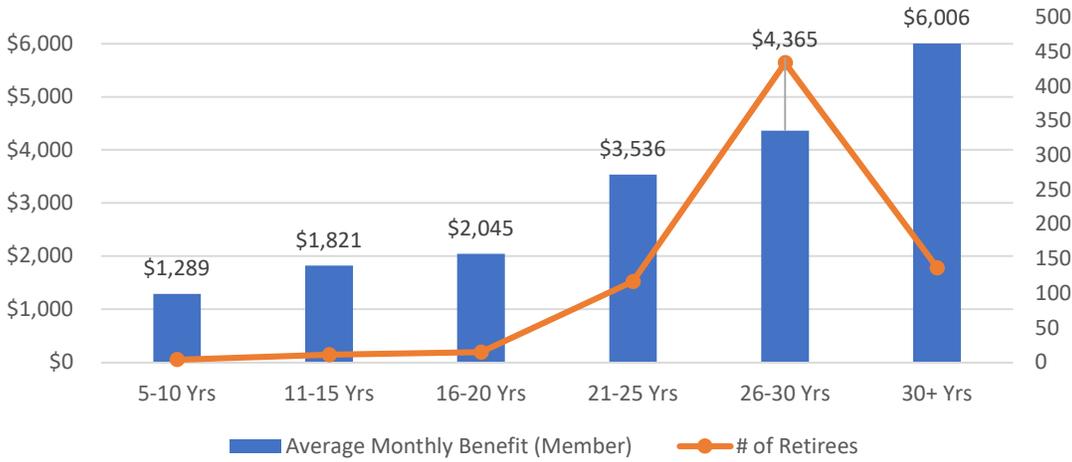
Membership Statistics



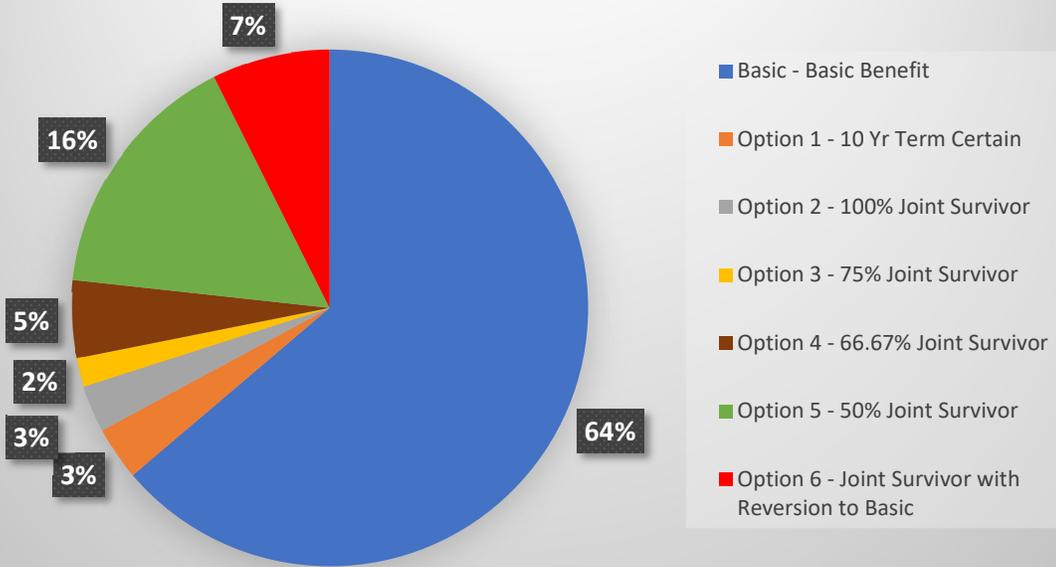
Benefit Payments vs Contributions



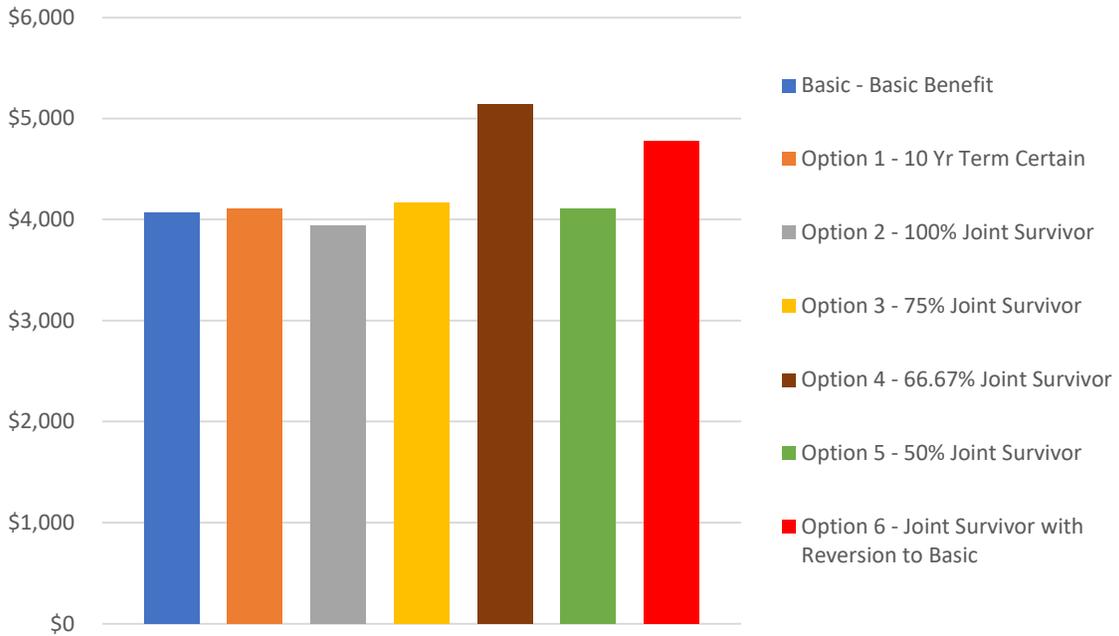
Average Monthly Benefit by Years of Service Member FY2020



Option Selected at Retirement (Member) FY2020



Average Monthly Benefit by Benefit Type (Member)



CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM

CHARLOTTE, NORTH CAROLINA

BOARD OF TRUSTEES

Vanessa Heffron, Chairman of the Board, Citizen Appointee

John M. Carr, Vice Chairman, Citizen Appointee

Kelly Flannery, Treasurer, Ex-Officio

Ryan S. Pope, Secretary, Elected Member

Sheila Simpson, Ex-Officio

Open, Citizen Appointee

Marvin O. Wilson, Jr., Elected Retiree

Teresa Smith, Ex-Officio

Joseph Hager, Elected Member

Melinda Manning, Citizen Appointee

Lee Thompson, Elected Member

STAFF

Sandra J. Thiry, Administrator

Tony Bass, Financial Analyst

Tyralyn Phelps, Benefits Analyst

Desiré Dixon, Administrative Analyst

Report of Independent Auditor

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

Report on Financial Statements

We have audited the accompanying financial statements of the Charlotte Firefighters' Retirement System (the "CFRS"), a component unit of the City of Charlotte, North Carolina, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the CFRS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective net position of the CFRS as of June 30, 2020, and the respective changes in net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

OTHER MATTERS

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and the 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.

Supplementary Schedules and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the CFRS' basic financial statements. The letter of transmittal, member statistics and board of trustees and staff schedule ("Introductory Schedules") are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Introductory Schedules have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Cheryl Behart LLP

Charlotte, North Carolina
December 18, 2020

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 Charlotte Firefighters’ Retirement System during the year ended June 30, 2020.

Overview of the Financial Statements and Accompanying Information

- 1) Fund Financial Statements. The System presents Statements of Plan Net Position as of June 30, 2020 and Statements of Changes in Plan Net Position for the year then ended. This statement reflects 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 two 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.

Comparative Statements of Plan Net Position (in thousands)

	Years ended June 30	
	2020	2019
Cash and Cash equivalents	\$ 7,916	\$ 6,964
Investments	549,369	551,288
Capital assets	268	293
Other assets	1,264	1,041
Total assets	558,817	559,586
Liabilities	(777)	(718)
Net Position	\$ 558,040	\$ 558,868

Comparative Statements of Changes in Plan Net Position (in thousands)

	Years ended June 30	
	2020	2019
Contributions	\$ 22,220	\$ 20,803
Net Investment Gain/(Loss)	17,216	22,930
Total Additions/(Loss)	39,436	43,733
Benefits	(38,642)	(35,709)
Other deductions	(1,622)	(1,048)
Total Deductions	(40,264)	(36,757)
Change in Net Position	\$ (828)	\$ 6,976

Financial Analysis

The Charlotte Firefighters' Retirement System 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 Statement of Changes in Plan Net Position on *Page 14*, the net position of the System decreased approximately \$828 thousand during the year ended June 30, 2020. These results reflect the extremely volatile Global Market environment.

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, 2020 showed the funded status of the System decreasing to 76.5% from 82.7% at July 1, 2019. The System valuations use a 5-year smoothed market basis. The System had an unfunded liability of \$179 million for the year ended June 30, 2020 compared to the \$118 million for the year ended June 30, 2019. Liabilities increased due to various reasons including additional benefits for certain retirees but primarily due to the change in the rate of return assumption, updated mortality table and the change to the amortization method. These changes resulted in a decrease in the funded ratio.

Contributions and Income

Additions to Plan Net Position include employer and member contributions and net income from investment activities. Member contributions were approximately \$10.8 and \$10.6 million for the years ended June 30, 2020 and 2019, respectively, an annual increase of \$160,000 for fiscal year 2020 and an increase of \$700,000 for fiscal year 2019. 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. However, the City has committed to pay 14% of eligible payroll beginning in fiscal year 2021. Employer contributions were approximately \$11.5 million and \$10.2 million for the years ended June 30, 2020 and 2019. The variances between employer and member contributions include a one time \$1M contribution from the City of Charlotte and the remainder 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 years.

Net investment gains of approximately \$17 million during fiscal 2020 and \$23 million during fiscal 2019, resulted in returns of 3.58% and 4.61%, respectively as measured by Callan, LLC. The positive returns in investment income in 2020 were largely the result of U.S. Equity and U.S. Fixed Income market performance. The System performed below its composite benchmark on a relative basis by 28 basis points and performed above the Callan Public Fund Sponsor Database median return by 32 basis points. For the 5-year period ended June 30, 2020, the System returns were 6.28% compared to its composite benchmark returns of 6.45% and its actuarial assumed rate of return of 7.5%.

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 more than in prior years because of the effect of higher asset values

during the year. Investment expenses for the years ended June 30, 2020 and 2019 were both approximately \$2.9 million.

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 achieve a modest funded status. The Board of Trustees is committed to maintaining the System at or near 100% funding and continue to dedicate its efforts to that goal.

Benefits, Refunds and Expenses

The most significant recurring deduction to Plan Net Position is benefit payments. During fiscal 2020, the System paid approximately \$39.5 million, up from \$36.1 million in fiscal 2019, in benefits and refunds. The increased level of payments in fiscal year 2020 was due primarily to the increase in benefits due to additional benefits paid to retirees related to the *Kurzel et al. vs City of Charlotte* lawsuit, new retirements and an active member's death. 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, 2019.

The administrative costs of the System represented approximately .13% of the ending net position in fiscal year 2020 increased from .11% from fiscal year 2019. The increase in costs were primarily due to the addition of a full-time employee and additional actuarial and legal expenses related to the long-term funding initiative.

Plan Assets

Investments allocated to domestic and international equity portfolios decreased approximately \$6.3 million and \$3.7 million respectively in 2020 and 2019. 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 2020 and 2019, investments allocated to domestic and non-U.S. fixed income increased approximately \$7 million and \$9.8 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(f) (*Page 21*) 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.

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 4th Street, Suite 205, Charlotte, NC 28202.

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

**STATEMENT OF PLAN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2020**

(Dollar Amounts in Thousands)

ASSETS:

Cash and cash equivalents	\$	7,916
Receivables:		
Employer contributions		344
Member contributions		311
Interest and dividends		600
Total receivables		<u>1,255</u>
Prepaid items		9
Investments, at fair value:		
Equity securities - stocks		146,050
Fixed income securities - bonds		120,376
Mutual funds		282,943
Total investments		<u>549,369</u>
Capital assets		670
Less accumulated depreciation		<u>402</u>
Total capital assets, net		<u>268</u>
Total assets		<u>558,817</u>

LIABILITIES:

Accounts payable		<u>777</u>
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NET POSITION RESTRICTED FOR PENSIONS

\$ 558,040

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**
STATEMENT OF CHANGES IN PLAN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)

ADDITIONS:

Contributions:

Member	\$ 10,770
Employer	11,450
Total contributions	<u>22,220</u>

Investment income:

Net appreciation in fair value of investments	13,084
Interest	2,789
Dividends	4,259
	<u>20,132</u>

Less investment expense	<u>2,916</u>
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Net investment income	<u>17,216</u>
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Total additions	<u>39,436</u>
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DEDUCTIONS:

Benefits	38,642
Refunds	887
Administration	672
Depreciation	63
Total deductions	<u>40,264</u>

Net (decrease) in plan net position	(828)
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Net position - beginning	<u>558,868</u>
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Net position - ending	<u>\$ 558,040</u>
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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 YEAR ENDED JUNE 30, 2020
(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 an eleven member Board of Trustees. The City of Charlotte's ("City") payroll for members covered by the System for the year ended June 30, 2020 was \$83 million.

At June 30, 2020 the System's membership consisted of:

Inactive members or beneficiaries	
currently receiving benefits	765
Inactive members entitled to but not yet	
receiving benefits	16
Active plan members	<u>1,067</u>
Total	<u>1,848</u>

Benefits vest after 5 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 5 years of service credit. The normal service retirement monthly benefits are 2.6% 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 2 consecutive years of membership which produces the highest average and is contained within the last 5 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% for each year the early retirement date precedes age 50.

If an employee ceases employment with less than 5 years of service credit, accumulated employee contributions are refunded to the employee or designated beneficiary. After 5 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% or receive an accrued benefit at age 60.

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.

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%. Administrative costs are funded through contributions and investment earnings.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)**

The contributions made by the City and the members of the System for the year ended June 30, 2020 were as follows:

	<u>In Dollars</u>	<u>Percent of Covered Payroll</u>
Contributions made by -		
City	\$11,450	13.87%
Members	<u>10,770</u>	<u>13.05</u>
Total	<u>\$22,220</u>	<u>26.92%</u>

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. 67, Financial Reporting for Pension Plans an amendment of GASB Statement No. 25, which establishes standards of financial reporting for state and local government pension plans administered through trusts that meet certain criteria.

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 25 years for buildings and 5 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 YEAR ENDED JUNE 30, 2020
(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 amounts of deposits and investments were \$7,916 and \$549,369 at June 30, 2020.

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 balance at June 30, 2020 was \$188.

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 YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)**

The investments and maturities at June 30, 2020 were as follows:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Investment Maturities (in Years)</u>			
		<u>Less than 1</u>	<u>1 - 5</u>	<u>6 - 10</u>	<u>More than 10</u>
U.S. Treasuries	\$ 8,815	\$ -	\$ 624	\$ 2,367	\$ 5,824
U.S. Agencies	25,277	-	-	173	25,104
*Corporate Bonds	60,337	682	21,350	18,507	19,798
Common Stocks	146,050	N/A	N/A	N/A	N/A
**Mutual Funds	308,890	N/A	N/A	N/A	N/A
Total	<u>\$ 549,369</u>	<u>\$ 682</u>	<u>\$ 21,974</u>	<u>\$ 21,047</u>	<u>\$ 50,726</u>

*Corporate Bonds include \$7,659 high yield bonds reported in U.S. Bonds in the investments measured as NAV in the investment fair value hierarchy table.

**Mutual Funds include \$17,150 investments measured as fair value in the investment fair value hierarchy table.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA**
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. The following is a summary of the fair value hierarchy of the fair value of investments as of June 30, 2020:

Investment by fair value level	6/30/2020	Fair Value Measurements Using Quoted Prices in Active Markets for Identical Assets (Level 1)	Fair Value Measurements Using Quoted Prices in Active Markets for Similar Assets (Level 2)	Fair Value Measurements Using Unobservable Inputs (Level 3)
U.S. Treasuries	\$ 8,815	\$ 8,815	\$ -	\$ -
U.S. Agencies	25,277	-	25,277	-
Corporate bonds	52,678	-	52,678	-
Common stocks	146,050	146,050	-	-
Mutual funds	17,150	-	17,150	-
Total investments by fair value level	249,970	\$ 154,865	\$ 95,105	\$ -

Category	Investments Measured as NAV	Unfunded Commitment	Redemption Frequency	Redemption Notice Period
U.S. equity	\$ 40,726	-	Daily	N/A
International equity	142,620	-	Daily	N/A
U.S. Bonds	39,290	-	Daily	N/A
International bonds	25,947	-	1st of Month Openings	N/A
Fixed income	21,502	-	Quarterly	45 Days
International fixed income	29,314	-	Quarterly - 1st day of Qtr	N/A
Total investments	\$ 299,399	\$ -		

Investments classified in Level 1 of the fair value hierarchy are valued using quoted prices in active markets. Level 2 debt securities are valued using a matrix pricing technique and fund of funds are valued using net asset values. Matrix pricing is used to value securities based on the securities benchmark quoted prices.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA**
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)

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, 2020 were as follows:

<u>Quality Rating</u>	<u>Fair Value</u>	<u>Percentage of Portfolio</u>
AAA	\$ 5,521	5.85%
Ba1>Aa1	54,816	58.05%
Total credit risk debt securities	60,337	63.90%
U.S. Government fixed income securities:		
Government National Mortgage Association	4,547	4.82%
U.S. Treasury	8,815	9.33%
Not Rated	20,730	21.95%
Total fixed income securities	<u>\$ 94,429</u>	<u>100.00%</u>

Custodial Credit Risk. The System has no formal policy regarding custodial credit risk for investments.

Concentration of Credit Risk. The System limits the amount of equity holdings in any one company to 8% of the market value of the portfolio; the amount of equity holdings in any one sector to 30% of the market value of the portfolio; and the amount of fixed-income securities in any one corporation to 5% 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.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)**

d. Concentrations

The System had individual fixed income or equity investments at June 30, 2020 managed by the following organizations that represented 5% or more of the System's net investments:

State Street Global Advisors	21%
Barrow Hanley	17
Morgan Stanley	13
Winslow Capital Management	9
Aronson + Johnson + Ortiz	6
UBS Trumbull Property Fund	5
Colchester	5
T. Rowe Price	5

In addition, the System owned individual assets at June 30, 2020 that represented 5% or more of the System's net investments:

State Street Global Advisors MSCI EAFE Index	8%
Morgan Stanley Core	8
State Street Global Advisors Russell 1000 Index SL	7
State Street Global Advisors Bond Market Index Fund	6
UBS Trumbull Properties	5
T. Rowe Int Small Cap	5

e. Rate of Return

For the year ended June 30, 2020 the annual money-weighted rate of return on the System's investments, net of pension plan investment expense was 3.32%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)**

f. Method Used to Value Investments

Investments are reported at 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. Mortgages are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Investments that do not have an established market are reported at estimated fair value.

g. 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.

*During 2020, an outbreak of a novel strain on coronavirus (“Covid-19”) emerged globally. As a result of the spread of COVID-19, economic uncertainties have arisen that could negatively impact the CFRS’s revenue and operations for an indeterminable time period. Other financial impacts could occur that are unknown at this time.

h. Capital Assets

Capital asset activity for the year ended June 30, 2020 was as follows:

	Beginning Balance	Increase	Decrease	Ending Balance
Capital assets, being depreciated:				
Buildings	\$ 422	\$ 16	\$ -	\$ 438
Intangibles	<u>210</u>	<u>22</u>	<u>-</u>	<u>232</u>
Total capital assets being depreciated	<u>632</u>	<u>38</u>	<u>-</u>	<u>670</u>
Less accumulated depreciation for:				
Buildings	288	16	-	304
Intangibles	<u>51</u>	<u>47</u>	<u>-</u>	<u>98</u>
Total accumulated depreciation	<u>339</u>	<u>63</u>	<u>-</u>	<u>402</u>
Capital assets, net	<u>\$ 293</u>	<u>\$ (25)</u>	<u>\$ -</u>	<u>\$ 268</u>

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA**
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)

3. NET PENSION LIABILITY:

The components of the net pension liability as of June 30, 2020 were as follows:

Total pension liability	\$1,244,191
Plan net position	<u>(558,040)</u>
Net pension liability	<u>\$686,151</u>
 Plan fiduciary net position as a percentage of the total liability	 44.85%

Actuarial Assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	3.75-9.00%, including inflation
Investment rate of return	7.25%, net of pension plan investment expense, including inflation

Mortality rates were based on the Pub-2010 Safety Retiree Headcount-Weighted Below Median Mortality Table adjusted by 87.5% for males projected generationally with Scale MP-2019 for the period after service retirement. The Pub-2010 Safety Disabled Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2019 is used for the period after disability retirement. The Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally with projection Scale MP-2019 is used for deaths in active service.

The actuarial assumptions used in the July 1, 2020 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019.

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

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA**
NOTES TO THE FINANCIAL STATEMENTS – (Continued)
FOR THE YEAR ENDED JUNE 30, 2020
(Dollar Amounts in Thousands)

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Broad Domestic Equity	36.0%	7.6%
International Equity	26.0%	7.5%
Domestic Fixed Income	23.0%	3.0%
Non US Fixed Income	5.0%	2.3%
Real Estate	<u>10.0%</u>	6.2%
Total	<u>100.0%</u>	

Discount Rate. The discount rate used to measure the total pension liability was 3.38%. The projection of cash flows used to determine the discount rate assumed that plan member and employer contributions will be made at the current contribution rates. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the plan year ending June 30, 2046. Therefore, the long-term expected rate of return on pension plan investments of 7.25% was applied to all periods of projected benefit payments through June 30, 2046 and the applicable municipal bond index rate of 2.19%, based on the Bond Buyer General Obligation 20-year Municipal Bond Index Rate published weekly by The Bond Buyer (www.bondbuyer.com) as of June 30, 2020, was applied to all periods of projected benefit payments after June 30, 2046. The Single Equivalent Interest Rate (SEIR) of 3.38% that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability as of June 30, 2020.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the System as of June 30, 2020, calculated using the discount rate of 3.38%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (2.38%) or one percentage point higher (4.38%) than the current rate (\$ thousands):

	1% Decrease <u>(2.38%)</u>	Current Rate <u>(3.38%)</u>	1% Increase <u>(4.38%)</u>
System's net pension liability	\$ 889,831	\$ 686,151	\$ 522,583

4. INTERNAL REVENUE STATUS:

The Internal Revenue Service (IRS) 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
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY
(Dollar Amounts in Thousands)**

	2020	2019	2018	2017	2016	2015	2014
Total pension liability							
Service Cost	\$ 26,921	\$ 22,649	\$ 24,023	\$ 26,438	\$ 15,387	\$ 15,049	\$ 13,967
Interest	46,105	44,028	41,792	37,701	37,984	36,036	34,249
Benefit changes	-	9,692	-	-	-	-	-
Difference between expected and actual experience	16,673	25,476	(4,229)	19,244	(2,503)	1,664	-
Changes of assumptions or other inputs	315,693	85,552	(31,043)	(60,216)	211,217	-	-
Benefit payments	(38,642)	(35,709)	(33,120)	(31,075)	(28,333)	(26,406)	(23,928)
Refunds of contributions	(887)	(416)	(212)	(70)	(416)	(69)	67
Net change in total pension liability	365,863	151,272	(2,789)	(7,978)	233,336	26,274	24,355
Total pension liability - beginning	878,328	727,056	729,845	737,823	504,487	478,213	453,858
Total pension liability - ending (a)	\$ 1,244,191	\$ 878,328	\$ 727,056	\$ 729,845	\$ 737,823	\$ 504,487	\$ 478,213
Plan fiduciary net position							
Contributions - employer	\$ 11,450	\$ 10,193	\$ 9,333	\$ 9,106	\$ 8,694	\$ 8,589	\$ 8,348
Contributions - member	10,770	10,610	9,909	9,636	8,991	9,138	8,723
Net investment income	17,216	22,930	46,981	57,681	2,266	20,421	73,607
Benefit payments	(38,642)	(35,709)	(33,120)	(31,075)	(28,333)	(26,406)	(23,928)
Administrative expense	(672)	(583)	(735)	(621)	(657)	(625)	(691)
Refunds of contributions	(887)	(416)	(212)	(70)	(416)	(69)	67
Other	(63)	(49)	(28)	(13)	-	(48)	(48)
Net change in plan fiduciary net position	(828)	6,976	32,128	44,644	(9,455)	11,000	66,078
Plan net position - beginning	558,868	551,892	519,764	475,120	484,575	473,575	407,497
Plan net position - ending (b)	\$ 558,040	\$ 558,868	\$ 551,892	\$ 519,764	\$ 475,120	\$ 484,575	\$ 473,575
Net pension liability - ending (a) - (b)	\$ 686,151	\$ 319,460	\$ 175,164	\$ 210,081	\$ 262,703	\$ 19,912	\$ 4,638
Plan net position as a percentage of the total pension liability	44.85%	63.63%	75.91%	71.22%	64.39%	96.05%	99.03%
Covered payroll	\$ 82,609	\$ 80,577	\$ 73,779	\$ 71,984	\$ 68,727	\$ 65,821	\$ 64,190
Net pension liability as a percentage of covered payroll	830.60%	396.47%	237.42%	291.84%	382.24%	30.25%	7.22%

Note to Schedule:

In 2014, the System began reporting in accordance with GASB Statement 67 which requires 10 years of information. Additional years will be displayed as they become available.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
THE CITY OF CHARLOTTE, NORTH CAROLINA
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF EMPLOYER CONTRIBUTIONS
Last Ten Fiscal Years
(Dollar Amounts in Thousands)**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined employer contribution	\$ 14,713	\$ 14,625	\$ 13,088	\$ 9,495	\$ 10,206	\$ 11,454	\$ 10,849	\$ 9,214	\$ 8,409	\$ 8,131
Actual employer contributions	11,450	10,193	9,333	9,106	8,694	8,589	8,348	8,100	7,720	7,670
Annual contribution deficiency (excess)	\$ 3,263	\$ 4,432	\$ 3,755	\$ 389	\$ 1,512	\$ 2,865	\$ 2,501	\$ 1,114	\$ 689	\$ 461
Covered payroll	\$ 82,609	\$ 80,577	\$ 73,779	\$ 71,984	\$ 68,727	\$ 67,897	\$ 65,992	\$ 64,032	\$ 61,028	\$ 60,632
Actual contributions as a percentage of covered payroll	13.86%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%

Notes to Schedule

Valuation Date: Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percent of pay, open
Remaining amortization period	30 years
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increases	3.75 - 9.00%, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	Mortality rates were based on the Pub-2010 Safety Retiree Headcount-Weighted Below Median Mortality Table adjusted by 87.5% for males projected generationally with Scale MP-2019 for the period after service retirement. The Pub-2010 Safety Disabled Retiree Headcount-Weighted Mortality Table projected generationally with Scale MP-2019 is used for the period after disability retirement. The Pub-2010 Safety Employee Headcount-Weighted Mortality Table projected generationally with projection Scale MP-2019 is used for deaths in active service.

**CHARLOTTE FIREFIGHTERS' RETIREMENT SYSTEM, A COMPONENT UNIT OF
 THE CITY OF CHARLOTTE, NORTH CAROLINA
 REQUIRED SUPPLEMENTARY INFORMATION
 SCHEDULE OF INVESTMENT RETURNS
 Last Six Fiscal Years
 (Dollar Amounts in Thousands)**

	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	3.32%	4.28%	9.54%	12.47%	0.78%	4.66%	18.60%

Note to Schedule:

In 2014, the System began reporting in accordance with GASB Statement 67 which requires 10 years of information. Additional years will be displayed as they become available.