Comprehensive Annual Financial Report

of the

Park Employees' and
Retirement Board Employees'
Annuity and Benefit Fund

Component Unit of the Chicago Park District
State of Illinois

For the years ended December 31, 2020 and 2019

Prepared by the Administrative Staff of the Retirement Board

Park Employees' Annuity and Benefit Fund
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Chicago, Illinois 60603
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Certificate of Achievement for Excellence in Financial Reporting

Presented to

Park Employees' and Retirement Board
Employees' Annuity and Benefit Fund
Illinois

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

December 31, 2019

Executive Director/CEO

Transmittal Letter

Retirement Board of the
PARK EMPLOYEES' ANNUITY AND BENEFIT FUND
55 East Monroe Street
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Chicago, Illinois 60603
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June 28, 2021

To the Members of the Park Employees' and
Retirement Board Employees' Annuity and Benefit Fund

The Park Employees' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Fund) presents its Comprehensive Annual Financial Report (Annual Report) for the year ended December 31, 2020. The accuracy of the information contained in the report, including all disclosures, is the sole responsibility of the Fund. The intent of the Annual Report is to present the financial condition of the Fund and its related results of operations. The statements and disclosures contained in the Annual Report are necessary to assist the Fund's participants, taxpayers and other interested parties in fully understanding the Fund's financial condition. Readers of the Annual Report are directed to review the Management Discussion and Analysis (MD&A) narrative of the Financial Section for important overview and analysis.

Fund Background

The Fund is a single employer, defined benefit plan covering the eligible public employees of the Chicago Park District. The Fund was created by an act of the Legislature of the State of Illinois, approved June 21, 1919 and effective July 1, 1919, covering the three major park systems of Chicago. With the statutory consolidation of the separate park districts of Chicago on May 1, 1934, the Chicago Park District was created authorizing the Fund to cover its employees. The Fund is administered in accordance with Chapter 40 of the Illinois Compiled Statutes, Act 5, Articles 1 and 12.

Responsibilities of the Board of Trustees

The Board of Trustees is composed of seven members. Four members are elected by the active participants for four-year terms and the Chicago Park District Board of Commissioners appoints three members for three-year terms. Elected members' terms are staggered so that one member is elected each year. All Trustees serve the Fund without compensation. The Board of Trustees elects a President, Vice President and Secretary from within its ranks at its annual meeting in July. These elected office holders each have a prescribed set of duties. The Board of Trustees has various duties and responsibilities which include: invest funds in accordance with state law and its internal investment policy; approve the appointments of all necessary consultants and advisors; develop and approve all rules, regulations, and policies governing the operation of the Fund; review and approve all applications for disability, annuities, and other benefits; and monitor the financial and operational activities of the Fund. The day-to-day operations of the Fund are the responsibility of the Executive Director.

Overview

At December 31, 2020, total Fund membership, including active, inactive, disability, retired members and beneficiaries is 10,729. The Fund's fiduciary net position decreased by $6.3 million during 2020 resulting in a net position restricted for pension benefits of $348.3 million. The additions to the Fund, which include employer and employee contributions and net investment income, totaled $74.7 million. During 2020, the Chicago Park District contributed the required tax levy contribution equal to 1.1 times the total employee contributions received two years prior. The total Fund deductions for 2020 were $81.0 million, which is an increase in comparison to the total deductions from prior year. Fund deductions include annuity payments, disability and death benefits, refund of employee contributions, and administrative expenses. For a full

Overview (Continued)

understanding of the Fund's financial condition, we encourage the reader to review the Financial Section as well as the Actuarial Section of this report.

Accounting Method and Internal Controls

The Annual Report was prepared to conform with the principles of governmental accounting and reporting as pronounced by the Governmental Accounting Standards Board (GASB) and the American Institute of Certified Public Accountants (AICPA). In recording assets and liabilities, revenues and expenses, the accrual basis of accounting is used. All revenues including contributions are recognized when earned and expenses are recorded when incurred.

The Fund employs a system of internal controls to adequately safeguard its assets and assure the reliability of its financial records which includes the financial statements, supporting schedules and statistical tables. The internal control structure is designed to provide reasonable, but not absolute assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of control should not exceed the benefits likely to be derived, and that the valuation costs and benefits require estimates and judgments by management. An evaluation of the internal control structure during the Fund's annual independent audit disclosed no material weaknesses. Management, with the assistance of its outside auditors, continually reviews the system of internal control to insure its adequacy and effectiveness.

Actuarial Status

The Fund's independent actuary, Segal Consulting, conducts an actuarial valuation of the Fund annually. Each actuarial valuation involves a projection of the benefits expected to be paid in the future to all members of the Fund. The projection is based on the characteristics of members at the valuation date, the benefit provisions in effect on that date, and assumptions of future events and conditions. Segal Consulting also conducts an actuarial experience review every five years. These studies serve as the basis for recommended changes in actuarial assumptions and methods adopted by the Fund.

The funded ratio is the Fund's actuarial value of assets divided by the Fund's actuarial accrued liability. At December 31, 2020, the actuarial value of assets is $342,131,743 and the actuarial accrued liability is $1,190,365,644. The Fund's funded ratio at December 31, 2020 is 28.7% compared to 29.9% for the year ended December 31, 2019. The unfunded actuarial accrued liability at December 31, 2020 amounted to $848,233,901. The Fund's actuarial accrued liability increased during the current year, which resulted in a decrease in the Fund's funded ratio. The calculations of these figures are discussed further within the note disclosures of the Financial Section and within the Actuarial Section of this report.

Investment Policy and Performance

The Fund's investment policy was developed to insure the long-term financing of its funding requirements. Utilizing the services of Marquette Associates, Inc., the Trustees review the investment policy on an on-going basis making amendments as needed. The Fund's current investment policy, which details investment authority, asset allocation, diversification, liquidity, performance measurement, and objectives, is provided in the Investment Section of this report. The policy is designed to obtain the highest expected return on investments consistent with the level of risk for a public pension fund with the funded status described above.

As of December 31, 2020, the fair value of investments was $329,229,908, which compares to $334,338,923 as of December 31, 2019. As of December 31, 2020, the Fund's annual investment rate of return was 9.3% compared to 17.0% for December 31, 2019. The Fund's 9.3% rate of return exceeded the portfolio's annual targeted rate of return of 7.25% even during times of instability within the financial markets. A more enhanced discussion about the Fund's performance history can be found in the Investment Section of this report.

Supplemental Employer Contributions

The leadership of the Chicago Park District has recognized the severity of the financial burden on the Fund and for the last six years the Chicago Park District has made voluntary contributions to the Fund that exceed the amount required under the law by over 90 million dollars.

GFOA Award

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Park Employees' and Retirement Board Employees' Annuity and Benefit Fund for its comprehensive annual financial report for the year ended December 31, 2019. In order to be awarded a Certificate of Achievement, a public pension fund must publish an easily readable and efficiently organized Comprehensive Annual Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Governmental Accounting Standards Board

The Fund is currently in full compliance with all pronouncements from the Governmental Accounting Standards Board.

Retirement Board

The annual election for an employee representative to the Retirement Board was held on Friday, June 25, 2021. Edward L. Affolter was re-elected for a four year term beginning July 1, 2021.

Acknowledgments

All the statistical and financial information compiled and presented in this Annual Report is due to the combined efforts of the administrative staff of the Fund. Their efforts are hereby acknowledged with thanks and appreciation.

On behalf of the Retirement Board,

Edward L. Affolter

Edward L. Affolter, President

PARK EMPLOYEES' ANNUITY AND BENEFIT FUND
MEMBERS
as of December 31, 2020

Elected by the Employees

Edward L. Affolter
Term expires June 30, 2021
Matthew Duggan
Term expires June 30, 2022

Frank Hodorowicz
Term expires June 30, 2023
Brian Biggane
Term expires June 30, 2024

Appointed by the Chicago Park District Board of Commissioners

Steven J. Lux
Term expires June 30, 2023

Pamela A. Munizzi
Term expires June 30, 2021

Cecilia Prado
Term expires June 30, 2021

OFFICERS

Edward L. Affolter, President
Brian Biggane, Vice President
Frank Hodorowicz, Secretary

ADMINISTRATIVE STAFF

Steve Swanson, Executive Director (*effective February 1, 2021*)
Jaime L. McCabe, Comptroller

CONSULTANTS

Jacobs, Burns, Orlove & Hernandez, Attorney

Baker Tilly, LLP, Auditor

The Segal Company, Consulting Actuary

Marquette Associates, Inc., Investment Consultant

CUSTODIAN

The Northern Trust Company of Chicago

INVESTMENT ADVISORS

Ariel Investments - *Chicago*

Ativo Capital – *Chicago*

Denali Advisors – *San Diego*

Entrust – *New York*

GoldPoint Partners, LLC – *New York*

Great Lakes Advisors, LLC - *Chicago*

HarbourVest Partners, LLC – *Boston*

Industry Funds Managements (IFM) – *New York*

LM Capital Group, LLC – *San Diego*

MacKay Shields – LLC – *New York*

Mesirow Financial Capital Partners – *Chicago*

National Investment Services - *Milwaukee*

Northern Trust Asset Management - *Chicago*

Parametric – *Washington*

PineBridge Investments – *New York*

Principal Global Investors – *Des Moines*

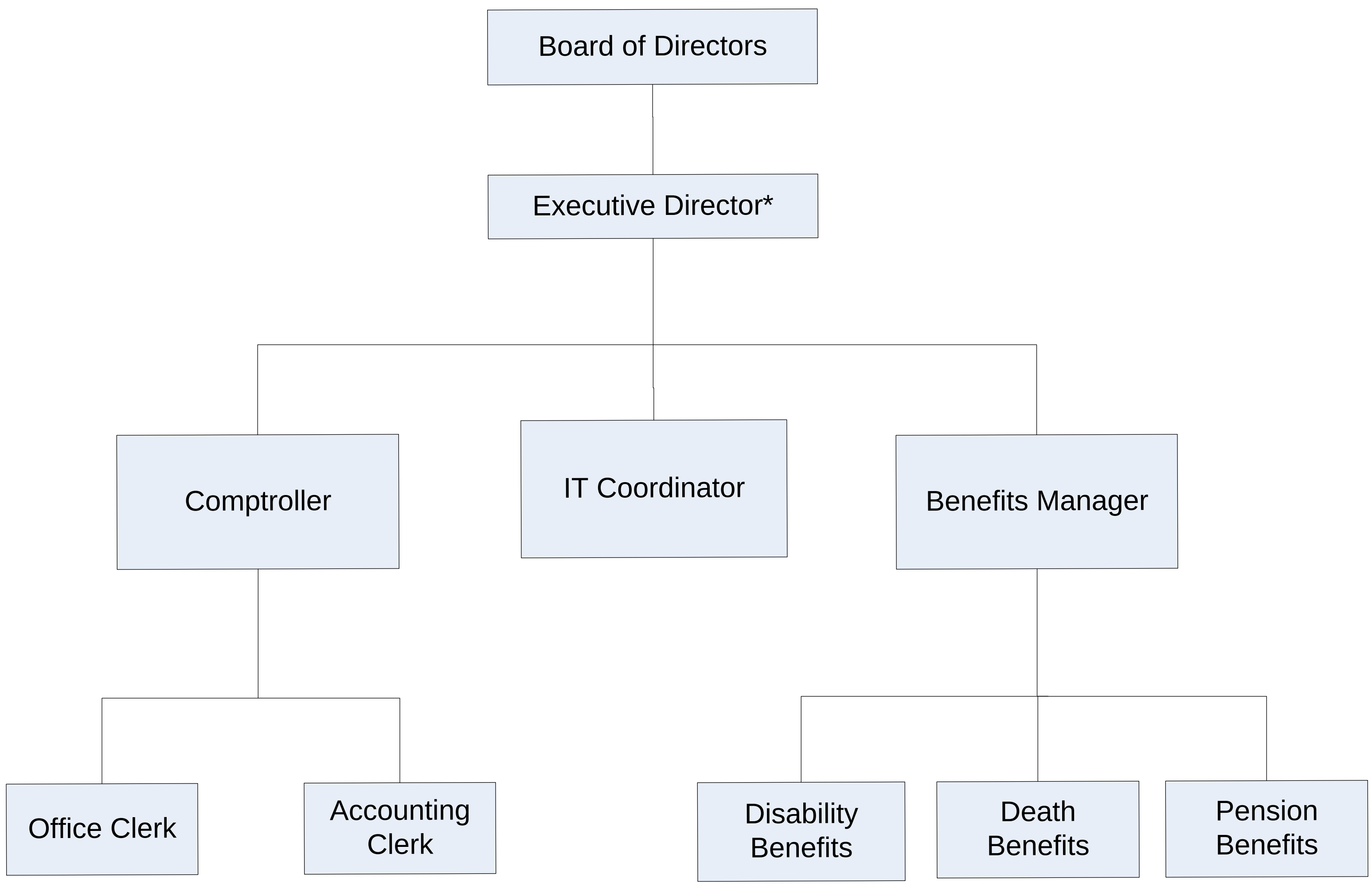
UBS Realty Investors – LLC – *Hartford*

ULLICO Investment Company – *Washington D.C.*

William Blair & Company - *Chicago*

PARK EMPLOYEES' AND RETIREMENT BOARD EMPLOYEES'
ANNUITY AND BENEFIT FUND

ORGANIZATION CHART



*The Executive Director is responsible for the handling of all investment matters. The Fund does not internally manage any investments.

For a listing of the Fund's investment managers and associated investment fees, see page 45.
For a listing of the Fund's brokers and associated commissions, see page 53.

Independent Auditor's Report

The Retirement Board
Park Employees' and Retirement Board Employees'
Annuity and Benefit Fund of Chicago

Report on the Financial Statements

We have audited the accompanying financial statements of fiduciary net position of the Park Employees' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (the Fund), a component unit of the Chicago Park District, as of December 31, 2020 and 2019, the statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Fund's 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 an opinion on these financial statements based on our audits. 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 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 auditors' 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 Fund's 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 Fund's 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 fiduciary net position of the Fund, as of December 31, 2020 and 2019 and the changes in the fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Independent Auditor's Report (Continued)

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that 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 inquires 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 Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Fund's basic financial statements. The supplementary information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in all material respects, in relation to the basic financial statements as a whole.

Baker Tilly Virchow Krause, LLP

Chicago, Illinois
June 15, 2021

Management's Discussion and Analysis

Management Discussion and Analysis for the Year Ended December 31, 2020

The Management Discussion and Analysis (MD&A) of the Park Employees' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Fund) financial performance provides an overview and analysis of the Fund's financial activities for the years ended December 31, 2020 and 2019. Please read the MD&A in conjunction with the basic financial statements and the accompanying note disclosures to have a better understanding of the financial condition and performance of the Fund. Information provided for the year ended December 31, 2018 is presented for comparative purposes only.

Using this Report

The Management Discussion and Analysis introduces the Fund's basic financial statements. The basic financial statements include the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position, which are prepared on an accrual basis of accounting in accordance with Government Accounting Standards Board (GASB) pronouncements and reflect the Fund's overall financial condition.

The Statements of Fiduciary Net Position reports the Fund's assets at fair value and liabilities as amounts owed as of the statement date, resulting in the net position restricted for pension benefits.

The Statements of Changes in Fiduciary Net Position illustrate the additions and deductions made to the Fund during the statement date. These additions include employee and employer contributions, as well as net investment income. The deductions consist of benefit payments, refunds of contributions and administrative and general expenses. The net result indicates an increase or decrease in Fund net position restricted for pension benefits.

The accompanying notes are an integral part of the financial statements. They provide information essential to achieve full understanding of the Fund's financial statements.

The required supplementary information, presented following the notes to the financial statements, is required by GASB. These schedules offer the reader additional details, which may be useful in evaluating the financial condition and performance of the Fund. The schedules include the Schedule of Changes in Employer's Net Pension Liability and Related Ratios, the Schedule of Employer Contributions, the Schedule of Investment Returns, as well as related disclosures. Other supplementary information consists of schedules of Tax Levies Receivable, Administrative and General Expenses, Professional Expenses, and Investment Expenses.

Financial Highlights

a) The Fund's fiduciary net position decreased during the year by $6.3 million or 1.8 percent compared to an increase of $12.3 million or 3.6 percent for the year ended December 31, 2019.
b) The Fund's 2020 investment return of 9.3 percent exceeded the portfolio's annual targeted rate of return of 7.25 percent.
c) The Fund's five-year rate of return of 8.5 percent exceeded the portfolio's annual targeted rate of return of 7.25 percent.
d) The Fund's ten-year rate of return of 8.2 percent exceeded the portfolio's annual targeted rate of return of 7.25 percent.
e) For the year ended December 31, 2020, the additions to the Fund's fiduciary net position of $74.7 million is $17.7 million less than the year ended December 31, 2019 additions.
f) For the year ended December 31, 2020, the deductions to the Fund's fiduciary net position of $81.0 million is $1 million more when compared to the deductions for the year ended December 31, 2019.
g) The Fund's actuarially computed funded ratio is 28.7 percent at December 31, 2020, which is 1.2 percent less than at December 31, 2019.

Management's Discussion and Analysis (Continued)

Net Position Restricted for Pension Benefits

The Fund's net position restricted for pension benefits at December 31, 2020 is $348,294,515. This is $6,261,773 less than the December 31, 2019 net position restricted for pension benefits of $354,556,288. This compares to an increase of $12,300,415 for the year ended December 31, 2019. The statutorily required contribution due from employer is the tax levy that is paid by the Chicago Park District. Under the current law, the tax multipliers used for the 2020, 2019 and 2018 tax levies were 1.1 times the amount of employee contributions received from two years prior. Since employee contributions received during these years has been consistent, so has the tax levy calculation. The Fund's investment portfolio increases and decreases from year to year depending on the strength of the financial markets. During the current year, the Fund faced highly turbulent financial markets. Fortunately, the Fund's diversified portfolio was able to produce positive returns for the year. Also, from time to time, the Fund is still experiencing a cash flow shortage and continues to liquidate portfolio assets to supplement benefit payments. The following tables are comparative summaries of fiduciary net position restricted for pension benefits:

Statements of Fiduciary Net Position – Current Year

	December 31, 2020	December 31, 2019	Increase (Decrease)
Assets			
Contributions due from employer	$ 14,376,581	$ 14,572,731	$ (196,150)
Miscellaneous receivables and other assets	5,934,932	6,720,620	(785,688)
Property and equipment	131,686	145,461	(13,775)
Investments, at fair value	329,229,908	334,338,923	(5,109,015)
Invested securities lending collateral	16,670,194	19,769,592	(3,099,398)
Total assets	$366,343,301	$375,547,327	$ (9,204,026)
Liabilities			
Accrued expense and other liabilities	$ 1,378,592	$ 1,221,447	$ 157,145
Securities lending collateral	16,670,194	19,769,592	(3,099,398)
Total liabilities	$ 18,048,786	$ 20,991,039	$ (2,942,253)
Fiduciary net position restricted for pension benefits	$348,294,515	$354,556,288	$ (6,261,773)

Statements of Fiduciary Net Position – Prior Period

	December 31, 2019	December 31, 2018	Increase (Decrease)
Assets			
Contribution due from employer	$ 14,572,731	$ 14,464,069	$ 108,662
Miscellaneous receivables and other assets	6,720,620	6,804,981	(84,361)
Property and equipment	145,461	138,555	6,906
Investments, at fair value	334,338,923	323,404,925	10,933,998
Invested securities lending collateral	19,769,592	24,113,674	(4,344,082)
Total assets	$375,547,327	$368,926,204	$ 6,621,123
Liabilities			
Accrued expense and other liabilities	$ 1,221,447	$ 2,556,657	$ (1,335,210)
Securities lending collateral	19,769,592	24,113,674	(4,344,082)
Total liabilities	$ 20,991,039	$ 26,670,331	$ (5,679,292)
Fiduciary net position restricted for pension benefits	$354,556,288	$342,255,873	$ 12,300,415

Management's Discussion and Analysis (Continued)

Changes in Fiduciary Net Position

The Fund's total additions during the year ended December 31, 2020 decreased by $17,673,120 as compared to an increase of $69,744,751 for the year ended December 31, 2019. Even during times of instability within the financial markets during 2020, the Fund recorded a net investment gain during the year of $28,131,778 as compared to net investment gain of $52,032,781 in 2019 and a net investment loss of $17,128,885 in 2018. Additions from employer contributions increased from $27,682,089 in 2019 to $33,939,927 in 2020. The Chicago Park District recognizes the financial burden the Fund is currently facing and in 2020, 2019 and 2018, the Fund received voluntary contributions from the Chicago Park District in addition to the tax levy of approximately $20.7 million, $13.0 million, and $14.4 million, respectively. The employee contributions decreased slightly during the year from $12,664,855 in 2019 to $12,634,900 in 2020. Due to the COVID-19 global pandemic, the Chicago Park District was on a hiring freeze for most of 2020 which resulted in fewer employee contributions.

The number of retirees and beneficiaries also decreased slightly from 2,854 and 2,843 in 2018 and 2019, respectively, to 2,775 in 2020. During the year, the Fund experienced fewer applications for retirement than in prior years but a higher number of deaths. While the Fund's total number of retirees and beneficiaries decreased the total benefit payments in 2020 increased in comparison to 2019 mainly due to annual increases. The following tables are comparative summaries of changes in fiduciary net position restricted for pension benefits:

Statements of Changes in Fiduciary Net Position – Current Year

	December 31, 2020	December 31, 2019	Increase (Decrease)
Additions			
Employer contributions	$ 33,939,927	$ 27,682,089	$ 6,257,838
Employee contributions	12,634,900	12,664,855	(29,955)
Net investment (loss) income (includes security lending activities)	28,131,778	52,032,781	(23,901,003)
Total additions	$ 74,706,605	$ 92,379,725	$(17,673,120)
Deductions			
Retirement benefits	$ 64,754,238	$ 63,644,273	$ 1,109,965
Spousal benefits	12,298,065	12,187,742	110,323
Child benefits	21,250	18,450	2,800
Disability benefits	377,695	387,046	(9,351)
Death benefits	311,000	228,500	82,500
Total benefits	77,762,248	76,466,011	1,296,237
Refund of contributions	1,607,760	2,084,438	(476,678)
Administrative and general expenses	1,598,370	1,528,861	69,509
Total deductions	$ 80,968,378	$ 80,079,310	$ 889,068
Net increase (decrease)	(6,261,773)	12,300,415	(18,562,188)
Beginning of year net position	354,556,288	342,255,873	12,300,415
End of year net position	$348,294,515	$354,556,288	$ (6,261,773)

Management's Discussion and Analysis (Continued)

Changes in Fiduciary Net Position (Continued)

Statements of Changes in Fiduciary Net Position – Prior Period

	December 31, 2019	December 31, 2018	Increase (Decrease)
Additions			
Employer contributions	$ 27,682,089	$ 27,638,402	$ 43,687
Employee contributions	12,664,855	12,125,457	539,398
Net investment (loss) income (includes security lending activities)	52,032,781	(17,128,885)	69,161,666
Total additions	$ 92,379,725	$ 22,634,974	$ 69,744,751
Deductions			
Retirement benefits	$ 63,644,273	$ 61,178,336	$ 2,465,937
Spousal benefits	12,187,742	12,108,228	79,514
Child benefits	18,450	16,900	1,550
Disability benefits	387,046	268,389	118,657
Death benefits	228,500	229,000	(500)
Total benefits	76,466,011	73,800,853	2,665,158
Refund of contributions	2,084,438	2,725,967	(641,529)
Administrative and general expenses	1,528,861	1,501,039	27,822
Total deductions	$ 80,079,310	$ 78,027,859	$ 2,051,451
Net increase (decrease)	12,300,415	(55,392,885)	67,693,300
Beginning of year net position	342,255,873	397,648,758	(55,392,885)
End of year net position	$354,556,288	$342,255,873	$ 12,300,415

Actuarial Update

The actuarial valuation for the year ended December 31, 2020 includes the changes in actuarial assumptions adopted by the Board in 2018 and projects that the Fund could lack available funding to pay benefits during the year 2028, unless new legislation is enacted to require actuarial based employer contributions. The valuations for 2020 and 2019 also reflect GASB 67 requirements that improve financial reporting for local governmental pension plans. The notes to the financial statements include information about the individual components of the Fund's net pension liability. The net pension liability is equal to the difference between the total pension liability and the Fund's fiduciary net position. The Fund's required supplementary information provides the reader with a more enhanced look on how the total pension liability, the fiduciary net position and net pension liability is measured.

The Fund's actuarially computed funded ratio is 28.7 percent at December 31, 2020, which is 1.2 percent less than at December 31, 2019. The funded ratio is based on the percentage of the actuarial value of assets available to pay the actuarial accrued liability.

Management's Discussion and Analysis (Continued)

Investment Performance

The Fund's annual investment return for the year ended December 31, 2020 was 9.3 percent, which is lower than the 17.0 percent return reported for the year ended December 31, 2019 and higher than the -5.1 percent return reported for the year ended December 31, 2018. In 2020, every asset class in the investment portfolio, other than real estate, generated positive returns for the year. The Fund's U.S. equity portfolio, which returned 14.3 percent and International equity portfolio, which returned 12.3 percent were the primary drivers of the Fund's return in 2020. Performance in 2020 was also helped by strong returns in the Fund's private equity portfolio, which returned 9.1 percent, and the Fund's fixed income portfolio, which returned 9.3 percent. The Fund's 9.3 percent return for 2020 underperformed its performance benchmark by approximately 300 basis points. The Fund's underperformance vs. its' benchmark in 2020 was driven by an overweight to value stocks and small cap stocks in the U.S. equity portfolio, which significantly underperformed growth stocks and large cap stocks during the year. Over the trailing three-year period, the Fund underperformed its' performance benchmark by 150 basis points. Over the trailing five-year period, the Fund underperformed its performance benchmark by 60 basis points. Over the trailing ten-year period, the Fund returned 8.2 percent, outperforming the performance benchmark by 30 basis points, outperforming the 7.25 percent actuarial rate of return, and ranked in the upper 49th percentile as measured against its peers.

Supplemental Employer Contributions

In 2020, in addition to the contributions required by 40 ILCS 5/12-149, the employer made a supplemental contribution of $20.7 million to the Fund, for total employer contributions of $33.9 million. In 2019, in addition to the contributions required, the employer made a supplemental contribution of $13.0 million to the Fund, for total employer contributions of $27.7 million. For 2021, in addition to the contributions required by 40 ILCS 5/12-149, the employer has budgeted a supplemental contribution of $29.7 million to the Fund, for total employer contributions of $43.2 million. The supplemental employer contributions have assisted in preventing further deterioration of the Fund's financial condition.

Contacting the Fund's Financial Management

This report is intended to provide a general overview of the Park Employees' and Retirement Board Employees' Annuity and Benefit Fund of Chicago for its employees and other interested parties. If you have questions, requests, or need additional information, please visit the Fund's website at www.chicagoparkpension.org or contact the Fund at 55 East Monroe Street, Suite 2720, Chicago, Illinois 60603.

Statements of Fiduciary Net Position

December 31, 2020 and 2019

Assets	2020	2019
Receivables:		
Contributions from employer	$ 14,376,581	$ 14,572,731
Employee contributions	262,539	633,376
Workers' compensation offset of duty disability benefits, net of allowance for loss of $16,615 in 2020 and 2019	55,067	69,872
Due from broker	-	109,379
Accrued investment income	214,752	360,215
Miscellaneous receivables	21,148	241,876
Total receivables	14,930,087	15,987,449
Investments, at fair value:		
Common stocks	46,568,393	43,787,794
Fixed income	27,974,249	59,247,177
Collective investment funds	107,283,908	81,295,724
Mutual funds	18,355,546	19,208,421
Hedged equity	25,951,241	24,807,129
International equity	21,343,216	21,776,682
Private equity	20,885,335	18,031,007
Real estate	31,443,567	37,047,140
Infrastructure	24,460,163	24,353,479
Short-term investments	4,964,290	4,784,370
Total investments, at fair value	329,229,908	334,338,923
Invested Securities Lending Collateral	16,670,194	19,769,592
Property and Equipment – net	131,686	145,461
Prepaid annuity benefits	5,349,711	5,252,036
Other prepaid expenses	31,715	53,866
	5,381,426	5,305,902
Total assets	$ 366,343,301	$ 375,547,327

See notes to financial statements

Statements of Fiduciary Net Position

December 31, 2020 and 2019

	2020	2019
Liabilities		
Accounts payable	$ 488,079	$ 320,002
Accrued benefits payable	805,298	568,215
Accrued payroll liabilities	46,022	28,271
Unamortized rent abatement	39,193	47,165
Securities lending collateral	16,670,194	19,769,592
Due to broker	-	257,794
Total liabilities	18,048,786	20,991,039
Net Position		
Net position restricted for pension benefits	$ 348,294,515	$ 354,556,288

See notes to financial statements

Statements of Changes in Fiduciary Net Position

Years Ended December 31, 2020 and 2019

	2020	2019
Additions		
Contributions:		
Employer contributions	$ 33,939,927	$ 27,682,089
Employee contributions	12,634,900	12,664,855
Total contributions	46,574,827	40,346,944
Investment income:		
Net appreciation in fair value of investments	23,730,507	46,929,814
Interest	1,370,695	1,937,813
Dividends	748,054	906,148
Partnership and real estate income	3,812,192	3,941,161
	29,661,448	53,714,936
Less investment expenses	1,590,121	1,732,391
Net income from investing activities	28,071,327	51,982,545
Security lending activities:		
Securities lending income	222,105	723,855
Borrower rebates	(118,869)	(631,714)
Bank fees	(42,855)	(42,030)
Net Income from securities lending activities	60,381	50,111
Other income	70	125
Total additions	$ 74,706,605	$ 92,379,725

See notes to financial statements

Statements of Changes in Fiduciary Net Position

Years Ended December 31, 2020 and 2019

	2020	2019
Deductions		
Benefits		
Annuity payments	$ 77,073,553	$ 75,850,465
Disability and death benefits	688,695	615,546
Total benefits	77,762,248	76,466,011
Refunds of contributions	1,607,760	2,084,438
Administrative and general expenses	1,598,370	1,528,861
Total deductions	80,968,378	80,079,310
Net increase (decrease)	(6,261,773)	12,300,415
Net position restricted for pension benefits		
Beginning of year	354,556,288	342,255,873
End of year	$ 348,294,515	$ 354,556,288

See notes to financial statements

Notes to Financial Statements

1. Summary of Significant Accounting Policies

The Park Employees' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (the Fund) is the administrator of a single employer defined benefit plan (PERS) established by the State of Illinois to provide annuities and benefits for substantially all employees of the Chicago Park District.

The accounting policies of the Fund conform to accounting principles generally accepted in the United States of America as applicable to governmental units. The accepted standard-setting body for establishing governmental accounting and financial reporting principles is the Governmental Accounting Standards Board (GASB).

Reporting Entity

As defined by generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), the financial reporting entity consists of a primary government, as well as its component units, which are legally separate organizations for which the appointed officials of the primary government are financially accountable. Financial accountability is defined as:

(1) Appointment of a voting majority of the component unit's board and either a) the ability to impose will by the primary government, or b) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government; or

(2) Fiscal dependency on the primary government.

Based upon the required criteria, the Fund has no component units. The Fund is considered a component unit fund of the Chicago Park District and, as such, is included in the Chicago Park District's financial statements as a pension trust fund. Accordingly, these financial statements present only the Park Employees' and Retirement Board Employees' Annuity and Benefit Fund and are not intended to present fairly the financial position of the Chicago Park District and the result of its operations in conformity with generally accepted accounting principles.

Fund Accounting

The Fund uses a fund to report on its fiduciary net position and the changes in its fiduciary net position. Fund accounting is designed to demonstrate legal compliance and to aid financial management by segregating transactions related to certain government functions or activities. A fund is a separate accounting entity with a self-balancing set of accounts. The Fund is classified in this report in the fiduciary category.

Measurement Focus and Basis of Accounting

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. The Fund is accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets, deferred outflows of resources, liabilities and deferred inflows of resources associated with the operation of these funds are included on the balance sheet.

The Pension Fund is accounted for using the accrual basis of accounting. Consequently, its additions are recognized when they are earned and its deductions are recognized when they are incurred. The financial statements are prepared using the accrual basis of accounting.

Notes to Financial Statements (Continued)

1. Summary of Significant Accounting Policies (continued)

Investments

Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date of such sale or exchange. Dividend income is recognized based on the dividends declared.

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Fair values for bonds, stocks and mutual funds are determined by quoted market prices. Investments for which market quotations are not readily available are valued at their fair values as determined by the bank administrator under the direction of the Board of Trustees, with the assistance of a valuation service.

Prepaid Items

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items using the consumption method.

Capital Assets

Capital assets, which include property and equipment are defined by the government as the cost of any major outlays for additions and improvements. Depreciation has been provided using the straight-line method over periods ranging from 3-7 years. Leasehold improvements are amortized using the straight-line method over the remaining term of the lease.

Use of Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Actual results may differ from those estimates.

Risk and Uncertainties

The Fund invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of the investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statement of fiduciary net position.

Administrative Expenses

Administrative expenses are budgeted and approved by the Fund’s Board of Trustees. Funding for these expenses is included in the employer contributions as determined by the annual actuarial valuation.

Notes to Financial Statements (Continued)

2. Plan Description

Plan Administration

The Fund is a defined benefit single-employer pension plan. Although this is a single-employer pension plan, the defined benefits and employee and minimum employer contributions are governed by Illinois Compiled Statutes (40 ILCS 5/12-1) and may be amended only by the Illinois legislature.

The Plan is governed by a seven-member board. Three members are appointed by the park commissioner's and four members of the board are elected from among the employees.

Plan Membership

At December 31, 2020 and 2019, membership of the Fund was as follows:

	2020	2019
Retirees and beneficiaries currently receiving benefits	2,775	2,843
Vested terminated members entitled to benefits	158	147
Current employees	2,890	3,132

Benefits Provided

As provided for in the Illinois Compiled Statutes, the Fund provides retirement benefits as well as death and disability benefits to employees grouped into two tiers. Tier 1 is for employees that contributed prior to January 1, 2011 and Tier 2 is for employees that contributed after that date. The following is a summary of the Fund as provided for in Illinois Compiled Statutes.

Tier 1

Covered employees attaining the age of 50 or more with ten or more years of creditable service are entitled to receive a service retirement pension. The retirement pension is based upon the average of the four highest consecutive years of salary within the last ten years of service. If the employee retires prior to the attainment of age 60, the rate associated with the service is reduced by one-quarter percent for each full month the employee is under age 60. There is no reduction if the participant has 30 years of service. Employees with four years of service at age 60 may receive a retirement benefit.

Tier 2

Covered employees attaining the age of 62 or more with ten or more years of creditable service are entitled to receive discounted service retirement pension. Employees attaining the age 67 or more, with at least 10 years of service are entitled to receive a non-discounted annuity benefit. The annuity is discounted one-half percent for each full month the employee is under age 67. The retirement pension is based upon the average of the eight highest consecutive years of salary within the last ten years of service prior to retirement. Pensionable salary is limited to $115,929 in 2020 and $114,952 in 2019.

Notes to Financial Statements (Continued)

2. Plan Description (continued)

Post-Retirement Increase

Tier 1

An employee annuitant under Tier 1 who retires at age 50 or older with at least 30 years of service is eligible to receive an increase of three percent, based on the annuity granted at retirement, payable following the first 12 months of benefits on either the next January or July. If the employee annuitant retires before the age of 60 with less than 30 years of service, then the increases begin on the January or July following the later of the attainment of age 60 or 12 months of benefits received.

Tier 2

An employee annuitant under Tier 2 that is eligible to receive an increase in the annuity benefit, shall receive an annual increase equal to the lesser of three percent or one-half the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12 month period ending with the September preceding the increase. The increase is based on the amount of the originally granted benefit (simple). This increase begins after age 67 on the first January following one full year of benefits received.

Surviving Spouse Pension

Tier 1

Upon the death of an employee annuitant under Tier 1, the surviving spouse, meeting certain eligibility requirements, is entitled to a spousal annuity. The surviving spouse is entitled to the lesser of a money purchase calculation, 50 percent of the highest salary or 75 percent of the granted annuity. With 20 years of service, the entitlement becomes the higher of the eligible money purchase calculation or 50 percent of retiree's annuity at the time of death. The surviving spouse is also eligible to receive an increase of three percent compounded, on the January following one full year after the date of death of the employee or annuitant.

Tier 2

The annuity payable to the surviving spouse of an employee annuitant under Tier 2 is equal to 66 2/3 percent of the participant's earned retirement annuity at the time of death without reduction due to age. The surviving spouse is also eligible to receive an increase equal to the lesser of three percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12 month period ending with the September preceding the increase, on the January following one full year after the date of death of the employee or annuitant.

Child Annuity

Under Tier 1 and Tier 2, unmarried children under the age of 18 of a deceased employee or annuitant having at least two years of service are entitled to a benefit. The child's annuity is an amount equal to $100 a month when there is a surviving spouse or $150 when there is no surviving spouse, subject to maximum limitations.

Notes to Financial Statements (Continued)

2. Plan Description (continued)

Ordinary Disability Benefit

Under Tier 1 and Tier 2, an employee who becomes disabled as the result of any cause other than an accidental injury incurred while in the performance of an act of duty is entitled to an ordinary disability benefit at the amount equal to 45 percent of the employee's annual salary at the time of disablement. An employee can receive ordinary disability for a period equal to one fourth of his/her service credits up to a maximum of five years, exclusive of the disability period. Tier 2 participants have salary limitations similar to employee contributions.

Duty Disability Benefit

Under Tier 1 and Tier 2, an employee who becomes disabled as the result of a work related injury incurred while in the performance of an act of duty is entitled to a duty disability benefit in the amount equal to 75 percent of the employee's annual salary at the time of injury, reduced by any benefits received by the employee under the provisions of the Workers' Compensation Act. Tier 2 participants have salary limitations similar to employee contributions.

Contributions

Participants are required by Illinois Compiled Statutes (ILCS) to contribute 9.0 percent of their salary to the Fund. If a participant leaves covered employment before the age of 55, accumulated participant contributions are refundable without interest. The District is required by state statute to contribute the remaining amounts necessary to finance the requirements of the Fund on an actuarially funded basis. It is required to levy a tax at a rate not more than an amount equal to the total amount of contributions by the employees to the Fund made in the fiscal year two years prior to the year for which the annual applicable tax is levied, multiplied by a factor of 1.1 annually. The District had no legal obligations to fund pension costs above that allowed by statute. The District's contributions to the Fund were $33,939,927 and $27,682,089 for the years ended December 31, 2020 and 2019, respectively.

3. Deposits and Investments

Investment Policy

Illinois Compiled Statutes authorize the Fund to make deposits/investments in insured commercial banks, savings and loan institutions, obligations of the U.S. Treasury and U.S. Agencies, corporate and municipal debentures and obligations, insured mortgage notes and loans, mutual funds meeting certain requirements, common and preferred stocks, stock options, real estate, collective investment funds, and private equity partnerships. The Fund allows funds to be invested in any type of security authorized by the Illinois Pension Code.

The Fund's policy in regard to the allocation of invested assets is established and may be amended by the Board. It is the policy of the Board to pursue an investment strategy that reduces risk through prudent diversification of the portfolio across a broad selection of distinct asset classes. The Fund's investment policy discourages the use of cash equivalents, except to meet liquidity needs, and aims to refrain from dramatically shifting asset class allocations over the short term.

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Investment Policy (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 were 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. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2020 and 2019 are summarized below in the following table:

	2020		2019	
Asset Class	**Target**	**Long-Term Expected Real Rate of Return**	**Target**	**Long-Term Expected Real Rate of Return**
Fixed income	20.5%	1.15%	20.5%	1.15%
Domestic equity	28.5	6.40	28.5	6.40
International equity	18.0	7.05	18.0	7.05
Emerging market	2.0	9.00	2.0	9.00
Risk parity	0.0	3.32	0.0	3.32
Hedge equity	7.0	3.32	7.0	3.32
Private equity	7.0	10.40	7.0	10.40
Real estate/real assets	10.0	4.50	17.0	4.50
Infrastructure	7.0	5.75	n/a	n/a

Fair Value of Investments

The Fund's investments are reported at fair value in the accompanying statement of fiduciary net position. The methods used to measure fair value may produce an amount that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Fund believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The Fund 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 the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2020 and 2019.

Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent), as a practical expedient are not classified in the fair value hierarchy.

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Fair Value of Investments (continued)

Equity securities and short-term investment securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt securities classified in Level 2 or Level 3 are valued using matrix pricing techniques maintained by the various pricing vendors. Matrix pricing is used to value securities based on the securities relationship to a benchmark's quoted price. Equity securities classified in Level 2 are securities with a theoretical price calculated by applying a standardized formula to derive a price from a related security.

Equity securities classified in Level 2 are valued with last trade data having limited trading volume.

The valuation method for certain fixed income and alternative investments is based on the investments' NAV per share (or its equivalent), provided by the investment managers. The NAV is based on the fair value of the underlying investments held by the Fund less its liabilities. This practical expedient is not used when it is determined to be probable that the Fund will sell the investment for an amount different than the reported NAV.

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Fair Value of Investments (continued)

The following table summarizes the valuation of the Fund's investments by the fair value hierarchy levels for the years ended December 31, 2020 and 2019:

	December 31, 2020			
Investment Type	**Level 1**	**Level 2**	**Level 3**	**Total**
Investments measured at fair value				
Equity securities:				
Common stock	$ 46,492,783	$ 51,208,980	$ -	$ 97,701,763
Common stock, foreign	18,355,546	29,843,179	-	48,198,725
Total equity securities	64,848,329	81,052,159	-	145,900,488
Debt securities:				
Government bonds	-	10,817,301	-	10,817,301
Government agencies	-	1,073,332	-	1,073,332
Corporate bonds	-	10,581,011	26	10,581,037
Government mortgage-backed securities	-	5,083,696	-	5,083,696
Index linked government bonds	-	418,883	-	418,883
Total debt securities	-	27,974,223	26	27,974,249
Short-term investment securities:				
Funds short-term investments	4,964,290	-	-	4,964,290
Total short-term investment securities	4,964,290	-	-	4,964,290
Total investments measured by fair value level	$ 69,812,619	$ 109,026,382	$ 26	178,839,027
Investments measured at net asset value (NAV):				
Hedged equity				25,951,241
Collective investments funds				26,307,359
International equity				21,343,216
Private equity				20,885,335
Real estate				31,443,567
Infrastructure				24,460,163
Total investments measured at NAV				150,390,881
Total investments measured at fair value				$ 329,229,908
Collateral from securities lending		$ 16,670,194		$ 16,670,194

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Fair Value of Investments (continued)

	December 31, 2019			
Investment Type	Level 1	Level 2	Level 3	Total
Investments measured at fair value				
Equity securities:				
Common stock	$ 43,787,794	$ 51,745,614	$ -	$ 95,533,408
Common stock, foreign	19,208,421	29,550,110	-	48,758,531
Total equity securities	62,996,215	81,295,724	-	144,291,939
Debt securities:				
Government bonds	-	19,208,547	-	19,208,547
Government agencies	-	1,574,019	-	1,574,019
Corporate bonds	-	13,821,245	1,853	13,823,098
Municipal bonds	-	24,915	-	24,915
Government mortgage-backed securities	-	14,050,683	87,425	14,138,108
Commercial mortgage-backed securities	-	9,304,603	86,067	9,390,670
Asset backed securities	-	382,277	27,884	410,161
Non-government backed CMO’s	-	74,338	-	74,338
Index linked government bonds	-	603,321	-	603,321
Total debt securities	-	59,043,948	203,229	59,247,177
Short-term investment securities:				
Funds short-term investments	4,784,370	-	-	4,784,370
Total short-term investment securities	4,784,370	-	-	4,784,370
Total investments measured by fair value level	$ 67,780,585	$ 140,339,672	$ 203,229	208,323,486
Investments measured at net asset value (NAV):				
Hedged equity				24,807,129
International equity				21,776,682
Private equity				18,031,007
Real estate				37,047,140
Infrastructure				24,353,479
Total investments measured at NAV				126,015,437
Total investments measured at fair value				$ 334,338,923
Collateral from securities lending		$ 19,769,592		$ 19,769,592

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Fair Value of Investments (continued)

Investments measured at NAV for fair value are not subject to level classification. The valuation methods for investments measured at the NAV per share (or its equivalent) for the years ended December 31, 2020 and 2019 are presented on the following tables:

	2020			
Investments Measured at Net Asset Value (NAV)	Fair Value	Underfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Hedged equity	$ 25,951,241	$ -	Monthly	5 days
International equity	21,343,216	-	Daily/Quarterly	5-30 days
Private equity	20,885,335	12,132,839	N/A	N/A
Real estate	31,443,567	-	Quarterly	60-90 days
Infrastructure	24,460,163	-	Quarterly	90 days
Collective investment funds	26,307,359	-	Daily	1-3 days

	2019			
Investments Measured at Net Asset Value (NAV)	Fair Value	Underfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Hedged equity	$ 24,807,129	$ -	Monthly	5 days
International equity	21,776,682	-	Daily/Quarterly	5-30 days
Private equity	18,031,007	11,332,500	N/A	N/A
Real estate	37,047,140	-	Quarterly	60-90 days
Infrastructure	24,353,479	-	Quarterly	90 days

Hedged Equity

The hedged equity investment consists of one open-end long/short equity hedge fund of funds portfolio that primarily invests both long and short in publicly traded US equities.

International Equity

The international equity investment consists of two fund's portfolio that primarily invests both long and short in publicly traded international equities.

Private Equity Partnerships

The private equity investments consist of ten closed-end limited partnership private equity fund of funds. Generally, the types of partnership strategies included in these portfolios are venture capital, buyouts, special situations, mezzanine, and distressed debt. Private equity partnerships have an approximate life of 10-15 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying investments are realized. The Fund has no plans to liquidate the total portfolio.

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Fair Value of Investments (continued)

Real Estate

The real estate investments consists of two core open-end estate funds and one value-added open-end real estate fund that primarily invest in U.S. commercial real estate.

Infrastructure

The infrastructure investments consist of two core open-end infrastructure funds that primarily invest in global infrastructure assets.

The Fund shall apply the prudent investor rule in investing for funds under its supervision. The prudent investor rule means that in making investments, the fiduciaries shall exercise the judgment and care, under the circumstances then prevailing, that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the management of large investments entrusted to it, with regards to preservation of capital and income and not speculation. The funds belonging to the Fund must be invested exclusively for the benefit of their members and in accordance with the respective Fund's investment goals and objectives.

Collective Investment Funds

The collective investment funds consist of core plus fixed income commingled fund and an opportunistic fixed income commingled fund that primarily invest in US dollar denominated bonds with exposure to both investment grade and below investment grade securities.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the value of an investment. The Fund does not maintain a policy relative to interest rate risk. The Board of Trustees recognized that its investments are subject to short-term volatility. However, their goal is to maximize total return within prudent risk parameters.

As of December 31, 2020, the Fund's investments were as follows (expressed in thousands):

		Maturity (in Years)			
Investment Type	**Fair Value**	**Less Than 1**	**1-5**	**6-10**	**More Than 10**
Corporate bonds	$10,581	$ 302	$ 2,991	$ 5,651	$ 1,637
Government agencies	1,073	-	586	487	-
Government bonds	10,817	430	3,426	3,501	3,460
Index linked government bonds	419	-	-	419	-
Government mortgage backed	5,084	-	57	271	4,756
Total	$27,974	$ 732	$ 7,060	$10,329	$ 9,853

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Interest Rate Risk (continued)

As of December 31, 2019, the Fund's investments were as follows (expressed in thousands):

		Maturity (in Years)			
Investment Type	Fair Value	Less Than 1	1-5	6-10	More Than 10
Commercial mortgage backed	$ 9,391	$ -	$ -	$ 225	$ 9,166
Corporate bonds	13,823	171	4,943	6,106	2,603
Municipal bonds	25	-	-	-	25
Government agencies	1,574	-	688	886	-
Government bonds	19,209	-	7,711	6,505	4,993
Asset backed securities	410	-	136	139	135
Index linked government bonds	603	-	-	603	-
Government mortgage backed	14,138	-	24	397	13,717
Nongovernment backed CMO's	74	-	-	-	74
Total	$59,247	$ 171	$13,502	$14,861	$30,713

Some investments are more sensitive to interest rate changes than others. Variable and floating rate collateralized mortgage obligations (CMOs), asset-backed securities (ABS), interest-only and principal-only securities are examples of investments whose fair values may be highly sensitive to interest rate changes.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The Fund's investment policy requires diversification of the investment portfolio to minimize risk of loss resulting from over-concentration in a particular type of security, risk factor, issuer or maturity.

Investments that represent five percent or more of the Fund's net position (except those issued or guaranteed by the U.S. Government) are separately identified as follows:

	2020	2019
Collective investment funds, common stock:		
NTGI QM Collective Daily US Market cap Equity	$ 41,374,954	$ 43,096,645
NTGI QM Collective Daily All Country World Index	21,171,394	22,215,836
Mackay Shields Core Plus Bond CIT – CL 1	19,212,298	n/a
Hedged equity, Parametric Defensive Equity Fund	25,951,241	24,807,129
Mutual funds, William Blair	18,355,546	19,208,421

Custodial Credit Risk - Deposits

With respect to deposits, custodial credit risk refers to the risk that, in the event of a bank failure, the government's deposits may not be returned to it. As of December 31, 2020 and 2019, the Fund's bank deposits were covered by FDIC insurance.

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Custodial Credit Risk - Investments

With respect to investments, custodial credit risk refers to the risk that, in the event of the failure of the counterparty to the investment, the Fund will not be able to recover the value of its investments that are in possession of an outside party. As of December 31, 2020 and 2019, no investments were exposed to custodial credit risk.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Fund maintains a highly diversified portfolio of debt securities encompassing a wide range of credit ratings. Each fixed income manager is given a specific set of guidelines to invest within, based on the mandate for which it was hired. The guidelines specify which range of credit the manager may invest. These ranges include investment grade and high yield categories.

The Fund's investment policy authorizes investments in any type of security allowed for in Illinois statutes regarding the investment of public funds. The following tables present the Fund's ratings as of December 31, 2020 and 2019 (expressed in thousands).

2020

S & P Credit Rating	Fair Value	Comm'l Mortgage Backed	Corp. Bonds	Gov't Agencies	Muni. bonds	Asset Backed	Gov't Mortgage Backed	Non Gov't Backed CMO
AA	$ 1,275	$ -	$ 355	$ 920	$ -	$ -	$ -	$ -
A	2,072	-	2,072	-	-	-	-	-
BBB	7,003	-	7,003	-	-	-	-	-
BB	870	-	870	-	-	-	-	-
CCC	281	-	281	-	-	-	-	-
NR	-	-	-	-	-	-	-	-
US Gov't Agency	5,237	-	-	153	-	-	5,084	-
Total	$16,738	$ -	$10,581	$ 1,073	$ -	$ -	$ 5,084	$ -

2019

S & P Credit Rating	Fair Value	Comm'l Mortgage Backed	Corp. Bonds	Gov't Agencies	Muni. bonds	Asset Backed	Gov't Mortgage Backed	Non Gov't Backed CMO
AAA	$ 900	$ 407	$ 83	$ -	$ -	$ 410	$ -	$ -
AA	1,981	199	641	1,141	-	-	-	-
A	4,582	-	4,557	-	25	-	-	-
BBB	7,750	-	7,750	-	-	-	-	-
BB	315	-	315	-	-	-	-	-
B	389	-	389	-	-	-	-	-
NR	8,947	8,785	88	-	-	-	-	74
US Gov't Agency	14,571	-	-	433	-	-	14,138	-
Totals	$39,435	$ 9,391	$13,823	$ 1,574	$ 25	$ 410	$14,138	$ 74

Notes to Financial Statements (Continued)

3. Deposits and Investments (continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment or a deposit. Forward currency contracts may be used to manage exposure to foreign currencies. The Fund has not adopted a formal policy related to foreign currency risk. At December 31, 2020 and 2019, the Fund had $48.2 and $48.8 million, respectively, in foreign investments, all of which was in mutual funds that were held in U.S. dollars. At December 31, 2020 and 2019, the Fund had $21.3 million and $21.8 million in foreign investments in two international equity hedge funds all of which were held in U.S. dollars.

Rate of Return

For the years ended December 31, 2020 and 2019, the annual money-weighted rate of return on plan investments, net of investment expense, was 9.3 percent and 17.0 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

4. Securities Lending

Under the provisions of state statutes, the Fund lends securities (both equity and fixed income) to qualified and Fund approved brokerage firms for collateral that will be returned for the same securities in the future. The Fund's custodian, the Northern Trust Co., manages the securities lending program, which includes the securities of the Fund as well as other lenders, and receives cash, U.S. Treasury securities or letters of credit as collateral. The collateral received cannot be pledged or sold by the Fund unless the borrower defaults. However, the Fund does have the right to close the loan at any time. All security loan agreements are initially collateralized at 102 percent of the loaned securities. Whenever adjustments are needed to reflect changes in the fair value of the securities loaned, the collateral is adjusted accordingly. Cash collateral is invested in the lending agent’s short-term investment pool, which at year end has a weighted average maturity of 74 days. As December 31, 2020 and 2019, the Fund had loaned to borrowers securities with a fair value of $16,344,210 and $19,304,111 respectively. As of December 31, 2020, the fair value of the collateral received by the Fund was $16,670,194 and the collateral invested by the Fund was $16,671,069. As of December 31, 2019, the fair value of the collateral received by the Fund was $19,769,592 and the collateral invested by the Fund was $19,773,079.

At year end, the Fund has no credit risk exposure to the borrowers because the amounts the Fund owes the borrowers exceed the amounts the borrowers owe the Fund.

Notes to Financial Statements (Continued)

5. Capital Assets

Capital asset activity for the years ended December 31, 2020 and 2019 were as follows:

	2020	2019
Furniture and equipment	$ 85,601	$ 76,842
Computer software	228,026	225,893
Leasehold improvements	2,271	2,271
	315,898	305,006
Less accumulated depreciation and amortization	184,212	159,545
Net property and equipment	$ 131,686	$ 145,461

Depreciation and amortization expense was $24,667 and $22,913 for 2020 and 2019, respectively.

6. Operating Leases

The Fund has entered into an operating lease for office space through April 30, 2026. The lease provides that the lessee pay monthly base rent subject to annual increases, plus an escalation rent computed on costs incurred by the lessor. Upon executing the amendment, the Fund received rent abatements in the amount of $115,587 which are being amortized over the life of the lease. The unamortized portion was $39,193 and $47,165 at December 31, 2020 and 2019, respectively. The total rental expense was $192,731 and $194,084 for 2020 and 2019, respectively.

Following is a schedule of minimum future rental payments for each of the next six years under the noncancelable operating lease at December 31, 2020:

Years ending December 31:	
2021	$ 101,678
2022	104,006
2023	106,335
2024	108,663
2025	110,992
2026	37,256
Total	$ 568,930

The Fund leases office equipment under noncancelable operating leases that expire at various dates through January, 2024. Total rent expense incurred under these operating leases was $28,161 and $27,728 for 2020 and 2019, respectively.

Notes to Financial Statements (Continued)

6. Operating Leases (continued)

Minimum future rental payments under noncancelable operating leases having remaining terms in excess of one year as of December 31, 2020 for each of the next four years are as follows:

Years ending December 31:	
2021	$ 19,912
2022	19,912
2023	7,941
2024	519
Total	$ 48,284

7. Commitments

The Fund has committed to purchase $95,000,000 interests in private equity partnerships. At December 31, 2020 and 2019, the Fund had a remaining contractual obligation of $12,132,839 and $11,332,500 respectively, to purchase additional interests in the private equity partnerships.

8. Deferred Compensation Plan

The Fund is a governmental eligible employer as defined by Code Section 457(e)(1)(A) and has established a deferred compensation plan (457(b)) for eligible employees. Individual contributions to the plan are equal to the amount of salary reductions elected by each participant for the year up to a maximum allowable by Internal Revenue Service regulations. Total employee contributions were $48,550 and $40,550 for 2020 and 2019, respectively. Employer contributions are not allowed.

Notes to Financial Statements (Continued)

9. Pension Liability of the Participating Employer

Net Pension Liability

The components of the net pension liability as of December 31, 2020 and 2019 were as follows:

	2020	2019
Total pension liability	$ 2,277,440,135	$ 2,046,085,330
Plan fiduciary net position	348,294,515	354,556,288
Plan net pension liability	1,929,145,620	1,691,529,042
Plan fiduciary net position as a percentage of the total pension liability	15.29%	17.33%

The schedule of changes in the employer's net pension liability and related ratios, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information related to the funded status of the Fund.

Actuarial Assumptions

The total pension liability above was determined by an actuarial valuation performed as of December 31, 2020 and 2019 using the following actuarial methods and assumptions applied to all periods included in the measurement:

Actuarial valuation date	December 31, 2020
Actuarial cost method	Entry age normal
Actuarial assumptions:	
Projected salary increases	20% to 2.75%
Inflation	2.50%
Investment rate of return	2.22%, net of investment expense
Cost of living adjustments	Retirees – 3% of the original benefit for employees who first became a participant before January 1, 2011.
	Retirees – lesser of 3% and ½ CPI of the original benefit for employees who first become a participant on or after January 1, 2011.
	Beneficiary – 3% compounded for beneficiaries of employees who first became a participant by January 1, 2011.
Asset valuation method	Market

Notes to Financial Statements (Continued)

9. Pension Liability of the Participating Employer (continued)

Actuarial Assumptions (continued)

Actuarial valuation date	December 31, 2019
Actuarial cost method	Entry age normal
Actuarial assumptions:	
Projected salary increases	20% to 2.75%
Inflation	2.50%
Investment rate of return	2.84%, net of investment expense
Cost of living adjustments	Retirees – 3% of the original benefit for employees who first became a participant before January 1, 2011. Retirees – lesser of 3% and ½ CPI of the original benefit for employees who first become a participant on or after January 1, 2011. Beneficiary – 3% compounded for beneficiaries of employees who first became a participant by January 1, 2011.
Asset valuation method	Market

Post-retirement mortality rates relating to 2019 and 2020, for healthy annuitants were based on 110 percent of PubG-2010 Healthy Annuitant Table, with mortality improvements projected generationally using scale MP-2017. For active participants, mortality rates were based on 110 percent of PubG-2010 Healthy Employee Table, with mortality improvements projected generationally using scale MP-2017.

The actuarial assumptions used in the December 31, 2020 and December 31, 2019 valuations were based on the results of an actuarial experience studies for a five-year period ending December 31, 2018.

Discount Rate

The discount rate used to measure the total pension liability was 2.22 percent, for December 31, 2020. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the 9 percent contribution rate for 2021 and thereafter. Employer contributions will be made at the 1.1 multiple of member contributions from two years prior to 2021 and thereafter. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the Fund’s fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. The projected benefit payments through 2026 were discounted at the expected long-term rate of returns (7.25 percent). Starting in 2027, the projected benefit payments were discounted at the municipal bond index (2.12 percent, based on the Bond Buyer 20-GO Municipal Bond Index as of December 31, 2020). Therefore, a single equivalent blended discount rate of 2.22 percent was calculated using the long-term expected rate of return and municipal bond index.

Notes to Financial Statements (Continued)

9. Pension Liability of the Participating Employer (continued)

Discount Rate (continued)

The discount rate used to measure the total pension liability was 2.84 percent, for December 31, 2019. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the 9 percent contribution rate for 2020 and thereafter. Employer contributions will be made at the 1.1 multiple of member contributions from two years prior to 2020 and thereafter. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the Fund's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. The projected benefit payments through 2025 were discounted at the expected long-term rate of returns (7.25 percent). Starting in 2026, the projected benefit payments were discounted at the municipal bond index (2.74 percent, based on the Bond Buyer 20-GO Municipal Bond Index as of December 26, 2019). Therefore, a single equivalent blended discount rate of 2.84 percent was calculated using the long-term expected rate of return and municipal bond index.

Discount Rate Sensitivity

The following is a sensitivity analysis of the net pension liability to changes in the discount rate as of December 31, 2020. The table below presents the pension liability of the Fund calculated using the discount rate of 2.22 percent as well as what the net pension liability would be if it were to be calculated using a discount rate that is 1 percentage point lower (1.22 percent) or 1 percentage point higher (3.22 percentage) than the current rate:

	1% Decrease (1.22%)	Current Discount Rate	1% Increase (3.22%)
Net pension liability	$2,323,041,621	$1,929,145,620	$1,614,340,720

For comparison purposes, the net pension liability as of December 31, 2019, calculated using the discount rate of 2.84 percent, as well as what the net pension liability would be if it were to be calculated using a discount rate that is 1 percentage point lower (1.84 percent) or 1 percentage point higher (3.84 percent) than the current rate:

	1% Decrease (1.84%)	Current Discount Rate	1% Increase (3.84%)
Net pension liability	$2,031,154,003	$1,691,529,042	$1,418,852,853

Notes to Financial Statements (Continued)

10. Effect of New Accounting Standards on Current-Period Financial Statements

The Governmental Account Standards Board (GASB) has approved the following:

- Statement No. 87, *Leases;*
- Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period;*
- Statement No. 91, *Conduit Debt Obligations;*
- Statement No. 92, *Omnibus 2020;*
- Statement No. 93, *Replacement of Interbank Offered Rates;*
- Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements;*
- Statement No. 96, *Subscription-Based Information Technology Arrangements;*
- Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans-an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32.*

The statements listed above through Statement No. 93 had their required effective dates postponed by one year with the issuance of Statement No. 95, *Postponement of Effective Dates of Certain Authoritative Guidance,* with the exception of Statement No. 87, which was postponed by one and a half years.

Required Supplementary Information

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios
Last Seven Fiscal Years

	2014	2015	2016	2017
Total Pension Liability				
Service cost	$ 12,975,774	$ 13,417,795	$ 13,763,768	$ 20,115,813
Interest	64,929,834	65,921,805	66,523,889	68,982,467
Change of benefit terms	-	-	93,579,710	36,183,940
Differences between expected and actual experience	5,447,687	682,159	(4,556,757)	2,785,815
Change of assumptions	-	-	198,725,863	370,422,560
Benefit payments, including refunds of employee contributions	(70,536,042)	(70,602,016)	(74,077,877)	(78,138,027)
Net change in total pension liability	12,817,253	9,419,743	293,958,596	420,352,568
Total Pension Liability, Beginning	888,023,364	900,840,617	910,260,360	1,204,218,956
Total Pension Liability, Ending (a)	$ 900,840,617	$ 910,260,360	$ 1,204,218,956	$ 1,624,571,524
Plan Fiduciary Net Position				
Employer contributions	$ 11,225,438	$ 30,588,976	$ 30,890,241	$ 20,920,614
Employee contributions	10,831,434	12,368,636	12,246,115	13,675,292
Net investment income (loss)	27,490,520	8,823,613	30,920,231	51,082,314
Benefit payments, including refunds of employee contributions	(70,536,042)	(70,602,016)	(74,077,877)	(78,138,027)
Administrative expenses	(1,458,831)	(1,533,700)	(1,537,698)	(1,682,136)
Other	100,518	88,113	102,572	91,779
Net change in plan fiduciary net position	(22,346,963)	(20,266,378)	(1,456,416)	5,949,836
Plan Fiduciary Net Position, Beginning	435,768,679	413,421,716	393,155,338	391,698,922
Plan Fiduciary Net Position, Ending (b)	$ 413,421,716	$ 393,155,338	$ 391,698,922	$ 397,648,758
Employer's net pension liability - ending (a)-(b)	$ 487,418,901	$ 517,105,022	$ 812,520,034	$ 1,226,922,766
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	45.89%	43.19%	32.53%	24.48%
Covered Payroll	$ 118,987,507	$ 122,382,584	$ 121,126,918	$ 135,315,008
Employer's Net Pension Liability as a Percentage of Covered Payroll	409.64%	422.53%	670.80%	906.72%

Notes to Schedule:
The Fund implemented GASB Statement No. 67 in fiscal year 2014. Information prior to fiscal year 2014 is not available.

Required Supplementary Information (Continued)

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios
Last Seven Fiscal Years (continued)

	2018	2019	2020
Total Pension Liability			
Service cost	$ 38,102,341	$ 33,317,058	$ 51,348,187
Interest	59,290,982	69,086,515	58,440,058
Change of benefit terms	-	-	-
Differences between expected and actual experience	5,001,084	15,529,818	(2,309,221)
Change of assumptions	(3,471,090)	359,734,367	203,245,789
Benefit payments, including refunds of employee contributions	(76,526,820)	(78,550,449)	(79,370,008)
Net change in total pension liability	22,396,497	399,117,309	231,354,805
Total Pension Liability, Beginning	1,624,571,524	1,646,968,021	2,046,085,330
Total Pension Liability, Ending (a)	$ 1,646,968,021	$ 2,046,085,330	$ 2,277,440,135
Plan Fiduciary Net Position			
Employer contributions	$ 27,638,402	$ 27,682,089	$ 33,939,927
Employee contributions	12,125,457	12,664,855	12,634,900
Net investment income (loss)	(17,196,812)	51,982,545	28,071,327
Benefit payments, including refunds of employee contributions	(76,526,820)	(78,550,449)	(79,370,008)
Administrative expenses	(1,501,039)	(1,528,861)	(1,598,370)
Other	67,927	50,236	60,451
Net change in plan fiduciary net position	(55,392,885)	12,300,415	(6,261,773)
Plan Fiduciary Net Position, Beginning	397,648,758	342,255,873	354,556,288
Plan Fiduciary Net Position, Ending (b)	$ 342,255,873	$ 354,556,288	$ 348,294,515
Employer's net pension liability - ending (a)-(b)	$ 1,304,712,148	$ 1,691,529,042	$ 1,929,145,620
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	20.78%	17.33%	15.29%
Covered Payroll	$ 133,112,100	$ 139,204,051	$ 138,942,498
Employer's Net Pension Liability as a Percentage of Covered Payroll	980.16%	1215.14%	1388.45%

Notes to Schedule:
The Fund implemented GASB Statement No. 67 in fiscal year 2014. Information prior to fiscal year 2014 is not available.

Required Supplementary Information (Continued)

Schedule of Employer Contributions
Last Ten Fiscal Years

	Actuarially determined contribution	Contributions in relation to the actuarially determined contributions	Contribution deficiency	Covered payroll	Contributions as a percentage of covered payroll
2012	$28,051,528	$10,868,361	$17,183,167	$114,223,909	9.51%
2012**	16,786,671	5,268,363	11,518,308	58,231,511	9.05
2013	41,834,857	15,707,814	26,127,043	117,781,596	13.34
2014	35,307,186	11,225,438	24,081,748	118,987,507	9.43
2015	36,273,994	30,588,976	5,685,018	122,382,584	24.99
2016	37,130,268	30,890,241	6,240,027	121,126,918	25.50
2017	45,253,238	20,920,614	24,332,624	135,315,008	15.46
2018	50,929,734	27,638,402	23,291,332	133,112,100	20.76
2019	61,887,790	27,682,089	34,205,701	139,204,051	19.89
2020	67,297,212	33,939,927	33,357,285	138,942,498	24.43

** For the six months ended December 31, 2012, as a result of Public Act 097-0973, the Fund's year end was changed from June 30th to December 31st.

Notes to Schedule

Methods and assumptions used to determine contribution rates.

Valuation Date	December 31, 2020
Actual Cost Method	Entry Age
Amortization Method	Level percentage of payroll
Amortization Period	22 years (closed period)
Asset Valuation Method	5-year smoothed market
Actuarial Assumption:	
Investment rate of return	7.25%, net of investment expense
Projected salary increases	20% to 2.75% based on service
Inflation rate	2.50%

Required Supplementary Information (Continued)

Schedule of Investment Returns
Last Seven Fiscal Years

	2014	2015	2016	2017	2018	2019	2020
Annual money-weighted rate of return, net of investment expense	5.60%	5.61%	5.77%	5.58%	-5.10%	17.00%	9.30%

Notes to Schedule
The Fund implemented GASB Statement No. 67 in fiscal year 2014. Information prior to fiscal year 2014 is not available.

Supplementary Information

Tax Levies Receivable
Years Ended December 31, 2020 and 2019

Levy Year	Tax Levy	Collections	Tax Levies Receivable	Allowance for Uncollectible Taxes	Allowance for Uncollectible Write-offs as a Percentage of Tax Levy	Net Tax Levies Receivable
At December 31, 2020:						
2020	$13,152,470	$ -	$13,152,470	$ -	$ -	$13,152,470*
At December 31, 2019:						
2019	$14,572,731	$ -	$14,572,731	$ -	$ -	$14,572,731

* Collected in May 2021

Supplementary Information (Continued)

Schedule of Administrative and General Expenses
Years Ended December 31, 2020 and 2019

	2020	2019
Actuary expense	$ 50,200	$ 50,638
Auditing	29,450	28,000
IT consultant	41,660	36,629
Conference and convention expense	7,807	24,679
Contributions for annuities of Retirement Board employees	102,627	89,655
Depreciation	24,667	22,913
Equipment rental	28,161	27,728
Filing fee – State of Illinois	8,000	8,000
File storage expense	9,036	7,614
Hospitalization	93,629	91,590
Legal	78,908	47,627
Legislative consultant	36,000	36,000
Office supplies and expenses	22,492	25,252
Postage	7,970	9,318
Insurance - surety bond and other	13,311	14,171
Rent expense	192,731	194,084
Salaries	788,767	750,540
Payroll tax	10,752	10,299
Bank fees	19,243	19,646
Telephone	9,167	8,790
Transportation	1,939	3,651
Trustees' election expense	21,853	22,037
	$ 1,598,370	$ 1,528,861

Supplementary Information (Continued)

Schedule of Professional Expenses
Years Ended December 31, 2020 and 2019

	2020	2019
Legal	$ 78,908	$ 47,627
Actuary expense	50,200	50,638
Auditing	29,450	28,000
IT consultant	41,660	36,629
Legislative consultant	36,000	36,000
	$236,218	$198,894

Supplementary Information (Continued)

Schedule of Investment Expenses
Years Ended December 31, 2020 and 2019

	2020	2019
U.S. Equity		
Great Lakes Advisors, LLC	$ 52,911	$ 64,283
Ariel Investments	147,872	151,949
RBC Global Asset Management	-	28,779
Northern Trust Quantitative Advisors	9,355	9,221
	210,138	254,232
Non U.S. Equity		
Ativo Capital	82,812	89,804
Northern Trust Quantitative Advisors	12,510	14,730
	95,322	104,534
Fixed Income		
Entrust Global	2,177	-
LM Capital Group, LLC	26,638	27,419
National Investment Services	1,692	-
MacKay Shields, LLC	41,778	66,161
Chicago Equity Partners	19,131	42,337
ULLICO Investment Company	29,024	65,754
	120,440	201,671
Hedged Equity		
Parametric	76,609	83,988
	76,609	83,988
Risk Parity		
Invesco	-	655
	-	655
Real Estate		
Principal Global Investors	156,242	155,754
UBS Realty Investors, LLC (Trumbull)	187,908	212,824
	344,150	368,578
Private Equity		
HarbourVest Partners, LLC	75,000	69,349
Mesirow Financial Capital Partners	175,817	159,026
GoldPoint Partners, LLC (NYL)	25,000	25,000
	275,817	253,375
Infrastructure		
ULLICO Infrastructure	215,606	214,985
IFM Global Infra (US) L.P.	89,539	85,373
	305,145	300,358
Other		
Custody, Northern Trust Co.	62,500	70,000
Investment consultant, Marquette Associates	100,000	95,000
	162,500	165,000
Total	$1,590,121	$1,732,391

INTRODUCTION

The Fund is authorized to invest in bonds, notes, and other obligations of the U.S. Government; corporate debentures and obligations; insured mortgage notes and loans; common and preferred stocks; stock options; real estate; collective investment funds; and private equity partnerships as set forth in the Illinois Compiled Statutes. Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date of such sale or exchange. Dividend income is recognized based on dividends declared. Investments are reported at fair value. Short term investments are reported at cost, which approximates fair value. Fair value for bonds and stocks are determined by quoted market prices and for investments for which market quotations are not readily available are valued at their fair values as determined by a bank administrator under the direction of the Board of Trustees, with the assistance of a valuation service.

The Investment Section was prepared by staff with assistance from Marquette Associates, Inc., the Fund's investment consultant and Northern Trust Company, the Fund's custodian. Return calculations were prepared using a time-weighted rate of return methodology in accordance with the performance presentation standards of the CFA Institute.

Investment Recap

Market Environment

The U.S. stock market increased by 20.8% during the year ending December 31, 2020 (fiscal year), as measured by the Dow Jones Total US Stock Index. Within the U.S. stock market, there was some differentiation in returns between large-cap, mid-cap, and small-cap stocks over the year, with returns of 21.0%, 17.1%, and 20.0% for the Russell 1000, Russell Mid-Cap and Russell 2000 respectively. In addition, value stocks significantly underperformed growth stocks, with returns of 2.9% and 38.3% for the Russell 3000 Value and Russell 3000 Growth respectively.

The non-U.S. equity markets, as measured by the MSCI ACWI ex US Index, significantly underperformed their U.S. counterparts, posting a return of 10.7% during the year. Emerging markets, as measured by the MSCI Emerging Markets Index, outperformed non-U.S. developed markets, as measured by the MSCI EAFE Index, over the year with returns of 18.3% and 7.8%, respectively.

The broad bond market, as measured by the Barclays Aggregate Index, returned 7.5% during the year. The credit sector, as measured by the Barclays U.S. Credit Index, outperformed the government sector, as measured by the Barclays U.S. Government Index, over the year with returns of 9.4% and 7.9%, respectively.

The Federal Reserve lowered the Fed Funds rate two times in 2020. The Fed lowered rates by 0.50% on March 3, 2020 and lowered rates by another 1.00% on March 16, 2020. Real GDP decreased at a 2.3% annualized rate in 2020. This was well below the increase of 2.1% in 2019, the increase of 2.2% in 2018 and the increase of 2.9% in 2017. Inflation, as measured by the Core Consumer Price Index, posted an increase of 1.4% for the year ending December 31, 2020, well below the 2.3% inflation rate in 2019. The unemployment rate was 6.7% on December 31, 2020, well above the 3.5% rate on December 31, 2019 but down significantly from the peak 14.8% unemployment rate in April 2020.

Performance Commentary

The Pension Fund posted a calendar year return of 9.3%, net of fees, underperforming the custom benchmark by 2.1%. The best performing asset class for the year was US Equities, which returned 14.3%, net of fees. The worst performing asset class for the year was Real Estate, which returned -1.2%, net of fees.

The Fund posted a three-year annualized return of 6.6%, net of fees, underperforming the custom benchmark by 1.5%. On a five-year basis, the Fund returned 8.5%, net of fees, 0.60% below the custom benchmark. On a ten-year basis, the Fund returned 8.2%, 0.30% ahead of the custom benchmark.

The fixed income market, as measured by the Barclays Capital Aggregate Index, returned 7.5% during the year. The Fund's fixed income portfolio returned 9.3%, net of fees, over that period, outperforming the benchmark by 1.8%. At the end of the year, the Fund's fixed income assets comprised 17.2% of the total Fund's assets.

Investment Recap (Continued)

Performance Commentary (Continued)

The broad U.S. stock market, as measured by the Dow Jones Total US Stock Index, returned 20.8% during the year. The Fund's U.S. Equity portfolio returned 14.3%, net of fees, over that period, underperforming the benchmark by 6.5%. The underperformance of the U.S. Equity portfolio was the result of an overweight to value stocks, which significantly underperformed growth stocks in 2020. Outperformance from actively managed funds within the US Equity portfolio helped to offset the drag from the value tilt in the portfolio. The U.S. Equity portfolio was led by the NTGI Wilshire 5000 Index portfolio, which returned 20.8%, net of fees, for the year, in line with its benchmark. At the end of the year, the Fund's U.S. stock market assets comprised 29.9% of the total Fund's assets.

The international stock market, as measured by the MSCI ACWI ex US Index, returned 10.7% during the year. The Fund's International Equity portfolio returned 12.3%, net of fees, over that period, outperforming the benchmark by 1.6%. The International portfolio was led by the William Blair non-US Small-Cap portfolio, which returned 29.2%, net of fees, for the year, slightly above its benchmark. At the end of the year, the Fund's international stock market assets comprised 21.1% of the total Fund's assets.

The real estate market, as measured by the NCREIF Fund Index, returned 0.3% during the year. The Fund's real estate portfolio returned -1.2%, net of fees, over that period, underperforming the benchmark by 1.6%. At the end of the year, the Fund's real estate assets comprised 9.5% of the total Fund's assets.

Summary of Investments

Years ended December 31, 2020 and December 31, 2019

	December 31, 2020				December 31, 2019			
Type of Investment	Fair Value	%	Book Value	%	Fair Value	%	Book Value	%
Fixed income	$ 27,974,249	8	$ 26,439,946	10	$ 59,247,177	18	$ 55,405,843	20
Domestic equities	97,701,763	30	59,274,871	23	95,533,408	29	62,487,923	23
International equities	69,541,941	21	52,268,157	20	70,535,213	21	58,498,857	21
Collective investments	26,307,359	8	25,910,900	10	-	-	-	-
Hedged equity	25,951,241	8	19,700,000	8	24,807,129	7	19,700,000	7
Private equity	20,885,335	6	35,158,606	13	18,031,007	5	32,209,684	12
Real estate	31,443,567	10	21,205,054	8	37,047,140	11	24,572,358	9
Infrastructure	24,460,163	7	15,255,402	6	24,353,479	7	15,088,998	6
Short-term	4,964,290	2	4,964,290	2	4,784,370	2	4,784,370	2
Total Assets	$329,229,908	100	$260,177,226	100	$334,338,923	100	$272,748,033	100

* Investment assets do not reflect the amounts due to or from brokers at year end. Net due to broker is $148,415 at December 31, 2019.

Statement of Investment Policy for the Park Employees' Annuity and Benefit Fund of Chicago

ADOPTED 10/94

REVISED 8/1/98; 5/19/99; 2/16/00; 5/20/03; 2/29/08; 4/21/11; 7/16/15, 2/21/19, 12/17/20

The purpose of this statement is to establish the investment policy for the management of the assets of the Park Employees' Annuity and Benefit Fund.

Distinction of Responsibilities

The Trustees are responsible for establishing the investment policy that is to guide the investment of Fund assets. The target allocation that the Trustees deem appropriate for the Fund is displayed below. The Fund's investments are distributed to a number of asset classes to minimize investment risk through diversification and simultaneously provide enhanced investment performance. The Trustees review the investment policy every three to five years.

Investment managers appointed by the Trustees to execute the policy will invest Fund assets in accordance with established guidelines but will apply their own judgments concerning relative investment values. In particular, the investment managers are accorded full discretion, within established guidelines and policy limits, to select individual investments and diversify their portfolios.

Allocation of Assets

It is the Trustees' policy to invest the Fund's assets in the following proportions:

	Board Approved Policy		
Asset Category	**Target (%)**	**Range (%)**	
U.S. Equity	28.5%	18.5%	38.5%
Non-U.S. Equity	20.0	10.0	30.0
Private Equity	7.0	0.0	14.0
Hedged Equity	7.0	0.0	15.0
Real Estate	10.0	5.0	15.0
Infrastructure	7.0	0.0	15.0
U.S. Bonds	20.5	15.5	25.5
	100.0%		

Normal cash flows (contributions and benefit payments) will be used to maintain the allocation as close as practical to the target allocation. If normal cash flows are insufficient to maintain the allocation within the permissible range as of any calendar quarter-end, the Trustees shall transfer balances as necessary between the asset types to bring the allocation back within the permissible ranges.

Active and Passive Investments

The Board of Trustees has directed that a prescribed percentage of specific asset classes be invested passively through the use of index funds. The Board of Trustees has approved the following passive investment percentages:

Asset Category	% Indexed
U.S. Equity	51.9%
Non-U.S. Equity	42.9%
U.S. Bonds	0.0%

Statement of Investment Policy for the Park Employees' Annuity and Benefit Fund of Chicago (Continued)

Diversification
The portfolio is to be diversified within each asset class to reduce the impact of large losses in individual investments in a manner that is consistent with Retirement Board policy, and otherwise at the discretion of each investment manager.

Liquidity
The cash flow needs of the Fund are approximately 15% of the total Fund assets annually.

Individual Investment Management Performance Benchmark
Individual performance benchmarks will be established by the Board of Trustees and used to evaluate individual manager's performance.

Investment Objective
The investment objective of the Fund is to equal or exceed the rate of return of a benchmark comprised of 28.5% Wilshire 5000 Stock Index, 20.0% MSCI All Country World Ex-US Index, 20.5% BarCap Aggregate Index, 7% Cambridge All Private Equity Index, 7% HFRX Hedged Equity Index, 10.0% NCREIF ODCE Index, and 7% CPI+4% on a net-of-fee basis. As a secondary benchmark, the Fund is to achieve an above-median ranking in a universe of other public funds over a reasonable measurement period.

Schedule of Investment Performance

	Years ended December 31, 2020 - 2015						Year ended December 31, 2020		
	12/31/20	12/31/19	12/31/18	12/31/17	12/31/16	12/31/15	3 Years	5 Years	10 Years
Total Fund	9.3%	17.0%	-5.1%	14.2%	8.4%	1.9%	6.6%	8.5%	8.2%
Benchmark Portfolio	11.4	16.6	-3.0	13.8	6.7	1.4	8.1	9.1	7.9
Public Funds Median Return	13.0	19.5	-4.4	14.7	7.4	-0.4	9.0	9.8	8.2
Actuarial Assumed Rate of Return	7.25	7.25	7.5	7.5	7.5	7.5	7.25	7.4	7.4
Consumer Price Index	1.4	2.3	1.9	2.2	2.1	0.8	1.9	1.9	1.7
Fixed Income	9.3%	7.7%	0.0%	3.4%	2.5%	0.9%	5.6%	4.5%	4.0%
BarCap Aggregate	7.5	8.7	0.0	3.5	2.6	0.6	5.3	4.4	3.8
Universe Median	7.7	8.9	-0.2	5.2	4.3	0.0	5.2	5.0	4.4
U.S. Equities	14.3%	28.8%	-11.5%	18.1%	14.0%	-0.4%	9.2%	11.9%	11.9%
Dow Jones Total US Stock Index	20.8	30.9	-5.3	21.2	12.6	0.4	14.4	15.4	13.7
Universe Median	17.6	29.9	-6.1	20.2	12.7	-0.1	12.8	14.2	12.8
Non-U.S. Equities	12.3%	24.2%	-16.5%	28.4%	9.7%	-4.9%	5.2%	10.4%	6.0%
MSCI ACWI Ex US	10.7	21.5	-14.2	27.2	4.5	-5.3	4.9	8.9	4.9
Universe Median	12.2	22.8	-15.1	28.3	4.3	-3.8	5.4	9.5	5.8
Hedged Equities	4.6	16.3	-2.9%	10.1%	2.9%	-4.4%	5.7%	6.0%	5.1%
HFRX Hedged Equity	4.6	10.7	-9.4	10.0	0.1	-2.3	1.6	2.9	0.8
Universe Median	7.9	7.7	-2.1	5.8	2.0	-0.5	4.8	4.2	3.8
Risk Parity	n/a	n/a	-6.0%	10.4%	12.6%	-3.2%	n/a	n/a	n/a
60% MSCI World/40% BarCap Agg	n/a	n/a	-5.1	14.5	5.7	-0.1	n/a	n/a	n/a
Real Estate	-1.2%	3.3%	7.5%	6.4%	9.1%	14.3%	3.1%	4.9%	8.6%
NCREIF-ODCE	0.3	4.4	7.4	6.7	7.8	13.9	4.0	5.3	8.9
Universe Median	0.5	5.0	7.3	6.4	7.1	13.3	4.3	5.6	8.8
Infrastructure	1.0%	11.2%	15.3%	10.9%	9.2%	n/a	8.9%	9.4%	n/a
CPI+4%	5.4%	6.4%	6.0	6.2	6.2	n/a	5.9	6.0	n/a
Private Equity	9.1%	7.4%	7.0%	11.2%	5.9%	8.9%	7.2%	8.5%	10.5%
Cambridge All Private Equity	10.8	8.9	11.5	13.1	6.9	5.4	11.9	13.0	12.4

NOTE: The basis for the calculations is a time-weighted rate of return based on the market rate of return.

As of February 21, 2019, the Policy Benchmark consists of 28.5% Wilshire 5000 Stock Index, 20.0% MSCI All Country World Ex-US Index, 20.5% BarCap Aggregate Index, 7% Cambridge All Private Equity Index, 7% HFRX Hedged Equity Index, 10.0% NCREIF ODCE Index, and 7% CPI+4%. Prior to February 21, 2019, the Policy Benchmark consisted of 28.5% Wilshire 5000 Stock Index, 20.0% MSCI All Country World Ex-US Index, 25.5% BarCap Aggregate Index, 7% Venture Economics All Private Equity Index, 10% HFRX Hedged Equity Index, and 9.0% NCREIF ODCE Index. Prior to August 1, 2016, the Policy Benchmark consisted of 32.5% Wilshire 5000 Stock Index, 16.0% MSCI All Country World Ex-US Index, 25.5% BarCap Aggregate Index, 7% Venture Economics All Private Equity Index, 10% HFRX Hedged Equity Index, and 9.0% NCREIF ODCE Index. Prior to December 1, 2013, the Policy Benchmark consisted of 27% BarCap Aggregate, 27% Wilshire 5000, 17% MSCI ACWI ex U.S., 12% NCREIF ODCE, 10% HFRX Hedged Equity, and 7% Venture Economics All Private Equity Index. Prior to April 1, 2011, the Policy Benchmark consists of 35% BarCap Aggregate, 38% Wilshire 5000, 12% MSCI ACWI ex U.S., 10% NCREIF Property Index, and 5% Venture Economics All Private Equity Index. Prior to February 29, 2008, the Policy Benchmark consisted of 35% BarCap Aggregate, 38% Wilshire 5000, 12% MSCI EAFE, 10% NCREIF Property Index, and 5% Venture Economics All Private Equity Index.

Schedule of Ten Largest Stock and Bond Holdings

For the year ended
December 31, 2020

U.S. Stocks*

Shares	Holdings	Fair Value
37,615	Viacom CBS Inc	$ 1,401,535
34,600	KKR & Co Inc	1,400,954
74,600	Mattel Inc	1,301,770
36,300	Envista Holdings Corp	1,224,399
11,700	Affiliated Managers Group Inc	1,189,890
27,800	Lazard Ltd	1,175,940
10,965	Madison Square Garden Entertainment	1,151,764
54,400	Nielsen Holdings	1,135,328
7,650	Mohawk Industries Inc	1,078,268
14,800	Stericycle Inc	1,026,084

International Stocks*

Shares	Holdings	Fair Value
46,443	Taiwan Semicon Man	$ 875,547
3,607	ADR Alibaba Group Holding Ltd	839,563
10,957	Tencent Holdings Ltd	800,620
9,097	Samsung Electronic	682,351
2,367	Nestle S.A.	282,834
578	Roche Holdings Ltd	205,067
1,825	Novartis	175,649
350	Asml Holding	169,059
3,889	Meituan	148,755
228	Lvmh Moet Hennessy Louis Vuitton	142,632

Bonds*

Holdings	Fair Value
United States Treasury Bond 4.5% due 2/15/2036	$ 587,047
Aercap Ireland Cap 4.45% due 4/6/2026	546,443
WI US Treasury 3.0% due 2/15/2047	523,031
United States Treasury Bond 5.375% due 2/15/2031	467,213
United States Treasury Bond 2.25% due 11/15/2027	444,156
United States Treasury Bond 3.1.25% due 11/15/2028	443,994
United States Treasury Bond 3.50% due 2/15/2039	441,327
United States Treasury Bond 2.0% due 2/15/2025	428,266
United States Treasury Inflation Index Note 0.5% due 1/15/2028	418,883
United States Treasury Note 2.0% due 2/15/2023	415,750

* A complete listing of all individual securities held is available for review upon request.

Schedule of Investment Brokerage Commissions

Broker Name	Shares*	Commission
Loop Capital Markets LLC	420,385	$ 10,420
Cabrera Capital Markets LLC	369,572	8,381
Academy Securities Inc	315,800	6,316
Williams Capital Group LP	314,900	6,298
Penserra Securities LLC	272,475	5,450
CastleOak Sec/Cantor Clearing	149,625	2,993
Blayloack Robert Van LLC	113,800	2,276
International Trading Inc	21,680	807
BMO Capital Markets Corp	15,300	612
Broker commissions under $500	46,885	1,241
Total Broker Commissions	2,040,422	$44,794

** Total shares traded at an average cost of $0.20 per share.*

Segal Consulting

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May 20, 2021

Board of Trustees
Park Employees' Annuity and Benefit Fund of Chicago
55 East Monroe Street, Suite 2720
Chicago, Illinois 60603

Dear Board Members:

We are pleased to submit this annual Actuarial Valuation and Review as of December 31, 2020. It summarizes the actuarial data used in the valuation, establishes the net pension liability under Governmental Accounting Standards Board (GASB) Statement No. 67 and the funding requirements for the fiscal year ending December 31, 2021, and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Park Employees' Annuity and Benefit Fund of Chicago.

Asset and Membership Data
The census information and financial information on which our calculations were based was prepared by the Fund staff. That assistance is gratefully acknowledged. We have not subjected the census data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data.

Plan Changes
The plan provisions are unchanged since the last actuarial valuation.

Actuarial Assumptions and Methods
The actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the Fund's actuary. The assumptions and methods used for the December 31, 2020 actuarial valuation were based on an experience analysis covering the five-year period ending December 31, 2017 and were adopted by the Board, effective for the December 31, 2018 valuation. These actuarial assumptions and methods comply with the parameters set by the Actuarial Standards of Practice and the parameters for disclosure in GASB Statement No. 67. The investment return assumption is based on the Fund being invested according to the target asset allocation in the Investment Policy Statement. To the extent that the liquidation of assets to pay benefit payments and expenses requires a shift in investment allocation to more liquid, lower return asset classes, a lower discount rate may be required in the future.

Funding Adequacy
The funding policy of the Fund, adopted by the Board, is to have contributions sufficient to amortize the unfunded liability over the 30-year period ending December 31, 2042. However, the actual amount of employer contributions each year is set by statute. For Fiscal 2021, actual employer contributions come from a property tax levied by the Chicago Park District equal to the total amount of contributions made by employees in the calendar year two years prior to the year of the levy, multiplied by 1.1. The 1.1 factor is known as the tax multiple.

The employer contributions mandated by the Illinois Pension Code are insufficient to avoid insolvency, and without a change, the Fund is in imminent danger of insolvency and the assets are projected to be depleted in the next eight years (during 2028). Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. If the Fund becomes insolvent, the employer will be required to make contributions on a "pay as you go" basis, which means the employer would have to pay all benefits as they become due.

Financial Results and Membership Data

This report includes the following schedules for the Actuarial and Financial sections of the Comprehensive Annual Financial Report, which were prepared by Segal:

- Actuarial
  - Active Member Valuation Data
  - Retirees and Beneficiaries Added to and Removed from Rolls
  - Solvency Test
  - Analysis of Financial Experience

- Financial
  - Schedule of Changes in Employer's Net Pension Liability
  - Schedule of Employer's Net Pension Liability
  - Schedule of Employer Contributions

Limitation of Actuarial Measurements

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements 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; and changes in plan provisions or applicable law.

Qualifications

The actuarial calculations were directed under our supervision. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Fund.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: Matthew A. Strom

Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

Kim Nicholl

Kim Nicholl, FSA, FCA, MAAA, EA
Senior Vice President and Actuary

SECTION 1: Actuarial Valuation Summary

Purpose

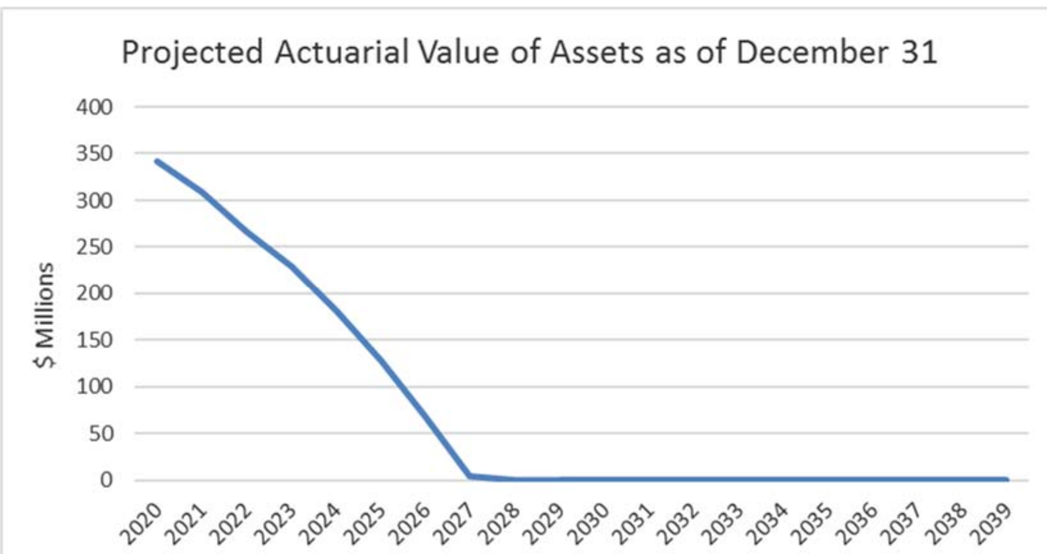
This report has been prepared by Segal to present a valuation of the Park Employees' Annuity and Benefit Fund of Chicago (the Fund) as of December 31, 2020. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Fund, as outlined in 40 ILCS 5/12 and administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of December 31, 2020, provided by Fund staff;
- The assets of the Fund as of December 31, 2020, provided by Fund staff;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Valuation Highlights

The following key findings were the result of this actuarial valuation:

1. **The Fund is now projected to become insolvent during 2028. The graph below shows a 20-year projection of the actuarial value of assets. A 40-year projection of the Fund's financial status is shown in Exhibit V.**



2. **The funding approach mandated by the Illinois Pension Code is inadequate. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance.**

SECTION 1: Actuarial Valuation Summary (Continued)

Valuation Highlights (Continued)

3. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of December 31, 2020, is 28.7%, compared to 29.9% as of December 31, 2019. This ratio is a measure of funding status, its history is a measure of funding progress. Using the fair value of assets, the funded ratio as of December 31, 2020, is 29.3%, compared to 30.3% as of December 31, 2019. These measurements are not necessarily appropriate for assessing the sufficiency of Fund assets to cover the estimated cost of settling the Fund's benefit obligation or the need for or the amount of future contributions.

4. Employer contributions to the Fund come from a tax levied upon all taxable property in the City of Chicago. The amount of tax that is levied is 1.1 times the amount of employee contributions made two years prior. The 1.1 factor is known as the tax multiple. For the fiscal year beginning January 1, 2021, the actuarially determined contribution amount (ADC) based on the Board's funding policy is $70,492,027. Based on the 1.1 tax multiple, and using the Fund's assumption of 3% loss on collections (the Park District has been absorbing this loss, however, the Park District is not guaranteed to do so in the future), we have estimated the employer contribution for the fiscal year beginning January 1, 2021, to be $13,159,834. **Compared to the ADC of $70,492,027, the contribution deficiency is $57,332,193 as of January 1, 2021. In the prior fiscal year, actual contributions were $33,380,379 less than the ADC. Each year of a contribution deficiency leads to an increased deficiency in all future years.**

5. In 2020, in addition to the contributions required by 40 ILCS 5/12-149, the employer made additional contributions of about $20.6 million to the Fund. For 2021, including the contributions required by 40 ILCS 5/12-149, the employer has budgeted for a total contribution of $43.2 million to the Fund.

6. For the year ended December 31, 2020, Segal has determined that the asset return on a fair value basis was 8.3%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 8.0%. This represents an experience gain when compared to the assumed rate of 7.25%. As of December 31, 2020, the actuarial value of assets ($342.1 million) represents 98.2% of the fair value ($348.3 million).

7. The portion of deferred investment gains and losses recognized in the calculation of the December 31, 2020, actuarial value of assets resulted in a gain of $2,439,429. Additionally, the demographic and liability experience resulted in a $1,922,686 net gain.

8. The total unrecognized investment gain as of December 31, 2020, is $6,161,650. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment losses derived from future experience. This implies that earning the assumed rate of investment return of 7.25% per year (net of investment expenses) on a **fair value** basis will result in investment gains on the actuarial value of assets in the next few years. Therefore, if the actual fair value return is equal to the assumed 7.25% rate and all other actuarial assumptions are met, the contribution requirements would decrease over the next few years.

9. As mentioned above, the current method used to determine the actuarial value of assets yields an amount that is 98.2% of the fair value of assets as of December 31, 2020. Guidelines in Actuarial Standard of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding fair value. We believe the actuarial asset method currently complies with these guidelines.

SECTION 1: Actuarial Valuation Summary (Continued)

Valuation Highlights (Continued)

10. When measuring pension liability for GASB purposes, the same actuarial cost method (Entry Age method) that is used for funding purposes is used to determine the total pension liability. However, as of December 31, 2020, the GASB blended discount rate calculation results in a lower discount rate (2.22%) than is used for funding purposes (7.25%). This means that the total pension liability (TPL) measure for financial reporting shown in this report will differ from the actuarial accrued liability (AAL) measure for funding. We note that the same is true for the normal cost component of the annual plan cost for funding and financial reporting.

11. The net pension liability (NPL) is equal to the difference between the total pension liability (TPL) and the Plan's fiduciary net position. The Plan's fiduciary net position is equal to the fair value of assets. The NPL as of December 31, 2020, is $1,929,145,620.

12. This actuarial report as of December 31, 2020, is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the cost of the plan, while increases in asset values (in excess of expected) will decrease the cost of the plan.

SECTION 1: Actuarial Valuation Summary (Continued)

Summary of Key Valuation Results

	2021	2020
Contributions for fiscal year beginning:		
Actuarially determined contribution requirement	$70,492,027	$67,297,212
Expected employer contributions	13,159,843	12,757,896
Actual employer contribution	--	33,939,927
Funding elements for fiscal year beginning:		
Employer normal cost, including administrative expenses	$5,772,874	$6,457,619
Fair value of assets	348,294,515	354,556,288
Actuarial value of assets	342,131,743	349,960,428
Actuarial accrued liability	1,190,365,644	1,170,602,980
Unfunded actuarial accrued liability	848,233,901	820,642,552
Funded ratio	28.74%	29.90%
GASB Information:		
Long-term expected rate of return	7.25%	7.25%
Municipal bond index	2.12%	2.74%
Single equivalent discount rate	2.22%	2.84%
Total pension liability	$2,277,440,135	$2,046,085,330
Plan fiduciary net position	348,294,515	354,556,288
Net pension liability	1,929,145,620	1,691,529,042
Plan fiduciary net position as a percentage of total pension liability	15.29%	17.33%
Demographic data for plan year beginning:		
Number of retired participants and beneficiaries	2,775	2,843
Number of vested former participants	158	147
Number of active participants	2,890	3,132
Total salary supplied by the Fund	$135,162,943	$136,105,381
Average salary	46,769	43,456

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits:** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.

SECTION 1: Actuarial Valuation Summary (Continued)

Important Information About Actuarial Valuations (Continued)

- **Participant data:** An actuarial valuation for the plan is based on data provided to the actuary by the Fund staff. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets:** The valuation is based on the fair value of assets as of the valuation date, as provided by the Fund staff. The Fund staff uses an “actuarial value of assets” that differs from fair value to gradually reflect year-to-year changes in the fair value of assets in determining the contribution requirements.
- **Actuarial assumptions:** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results that does not mean that the previous assumptions were unreasonable.

The user of Segal’s actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan’s assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the Board is aware of any event or trend that was not considered in the valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal’s valuation is based on our understanding of applicable guidance in these areas and of the Fund’s provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements 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; and changes in plan provisions or applicable law.

As Segal has no discretionary authority with respect to the management or assets of the Fund, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Fund.

SECTION 2: Actuarial Valuation Results

A. Membership Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive members, retirees, and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

Member Population: 2012 – 2020

Census Date	Active Members	Vested Terminated Members*	Retired and Beneficiaries**	Ratio of Actives to Retirees and Beneficiaries
June 30, 2012	2,977	153	2,921	1.02
December 31, 2012	3,053	152	2,906	1.05
December 31, 2013	3,076	148	2,904	1.06
December 31, 2014	2,973	147	2,891	1.03
December 31, 2015	3,063	145	2,876	1.07
December 31, 2016	3,114	149	2,870	1.09
December 31, 2017	3,543	150	2,876	1.23
December 31, 2018	3,187	145	2,854	1.12
December 31, 2019	3,132	147	2,843	1.05
December 31, 2020	2,890	158	2,775	1.04

**Excludes terminated members due a refund of employee contributions.*

** Excludes QILDROs

SECTION 2: Actuarial Valuation Results

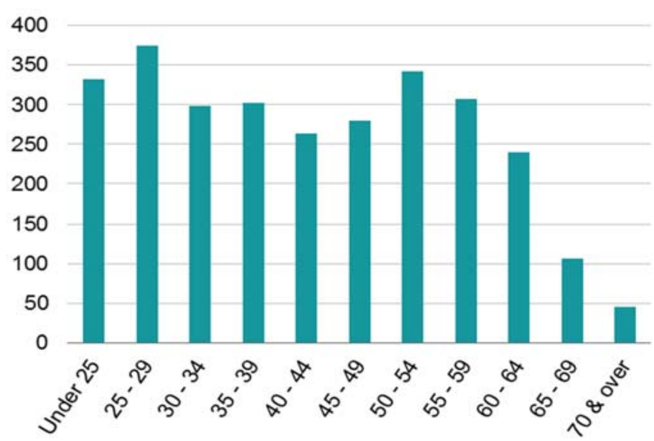
A. Membership Data (Continued)

Active Members
Plan costs are affected by the age, years of service and payroll of active members. In this year's valuation, there were 2,890 active members with an average age of 42.9, average years of service of 10.9 years and average salary of $46,769. The 3,132 active participants in the prior valuation had an average age of 41.8, average years of service of 10.0 years and average salary of $43,456.

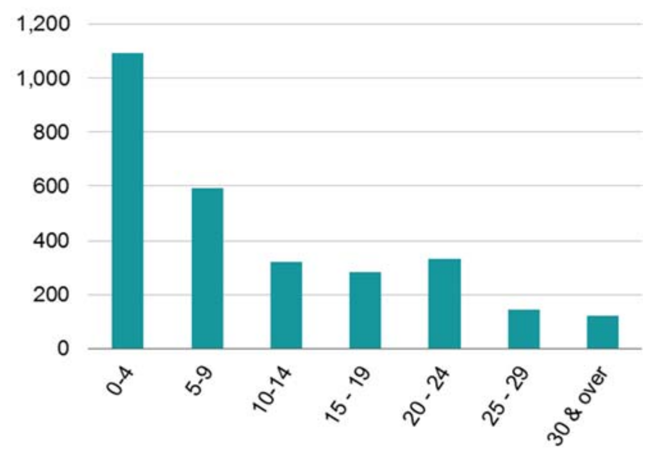
These graphs show a distribution of active members by age and by years of service.

Distribution of Active Members as of December 31, 2020

Actives by Age



Actives by Years of Service



Inactive Participants
In this year's valuation, there were 158 members with a vested right to a deferred or immediate vested benefit.

In addition, there were 4,906 members entitled to a return of their employee contributions.

SECTION 2: Actuarial Valuation Results (Continued)

A. Membership Data (Continued)

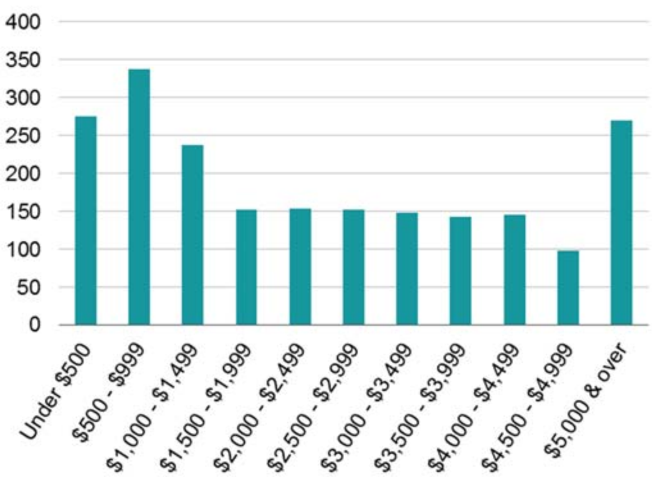
Retirees and Beneficiaries

As of December 31, 2020, 2,116 retirees, 648 beneficiaries, and 11 dependent children were receiving total monthly benefits of $6,383,953. For comparison, in the previous valuation, there were 2,144 retirees, 686 beneficiaries, and 13 dependent children receiving total monthly benefits of $6,329,549.

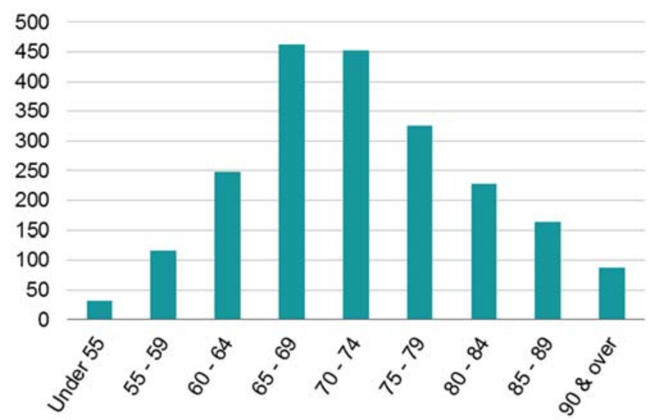
These graphs show a distribution of the current retirees and beneficiaries based on their monthly amount and age.

Distribution of Retirees as of December 31, 2020

Retirees by Monthly Amount



Retirees by Age



SECTION 2: Actuarial Valuation Results (Continued)

B. Financial Information

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to fair value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize fair value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

Determination of Actuarial Value of Assets for Fiscal Years Ended December 31

				2020		2019
1.	Actuarial value of assets as of prior valuation date			$349,960,428		$366,806,612
2.	Employer and employee contributions and other income			46,574,827		40,346,944
3.	Benefits and expenses			80,968,378		80,079,310
4.	Expected investment income			24,125,367		25,153,186
5.	Total investment income, including income for securities lending			28,131,708		52,032,656
6.	Investment gain/(loss): (5) – (4)			4,006,341		26,879,470
7.	Expected actuarial value of assets: (1) + (2) - (3) + (4)			339,692,314		352,227,557
8.	Calculation of unrecognized return	Original Amount*	Percent Recognized		Percent Recognized	
	(a) Year ended December 31, 2020	$4,006,341	20%	801,268	--	--
	(b) Year ended December 31, 2019	26,879,470	20%	5,375,894	20%	5,375,894
	(c) Year ended December 31, 2018	-44,600,621	20%	-8,920,124	20%	-8,920,124
	(d) Year ended December 31, 2017	23,345,719	20%	4,669,144	20%	4,669,144
	(e) Year ended December 31, 2016	2,566,234	20%	513,247	20%	513,247
	(f) Year ended December 31, 2015	-19,526,450	0%	0	20%	-3,905,290
	(g) Total recognized return			2,439,429		-2,267,129
9.	Actuarial value of assets as of current valuation date: (7) + (8g)			$342,131,743		$349,960,428

* *Total return minus expected return on actuarial value*

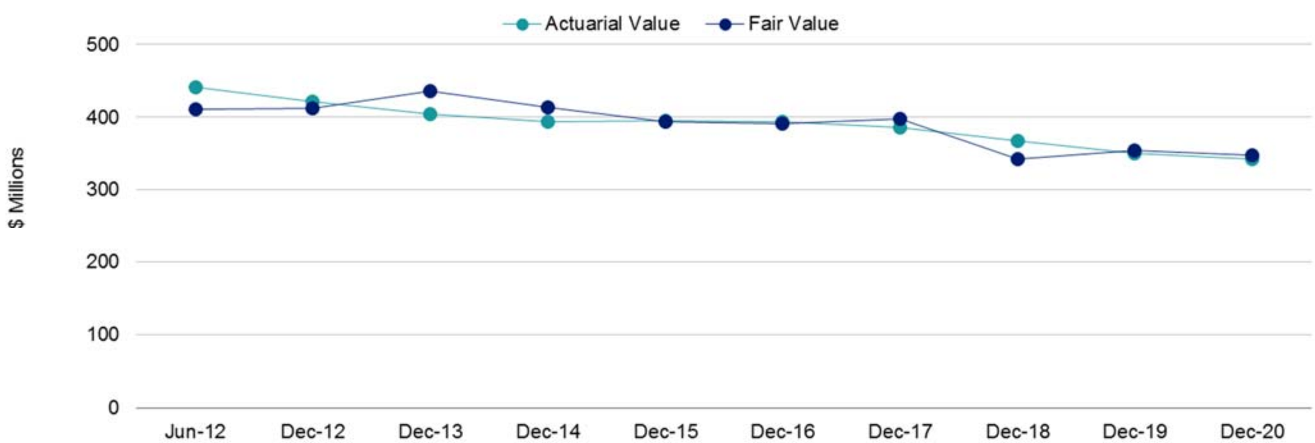
SECTION 2: Actuarial Valuation Results (Continued)

B. Financial Information (Continued)

Both the actuarial value and fair value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the fair value of assets. The actuarial asset value is significant because the Fund's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the fair value over the past ten valuation dates.

Actuarial Value of Assets vs. Fair Value of Assets as of June 30, 2012 – December 31, 2020



SECTION 2: Actuarial Valuation Results (Continued)

C. Actuarial Experience

To calculate the actuarially determined contribution requirement, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience. If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total gain is $4,350,329: $2,439,429 from investment gains and $1,910,900 in gains from all other sources. The net experience variation from individual sources other than investments was 0.2% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

Actuarial Experience for Year Ended December 31, 2020

1. Net gain from investments*	$2,439,429
2. Net loss from administrative expenses	(11,786)
3. Net gain from other experience**	1,922,686
4. Net experience gain: (1) + (2) + (3)	$4,350,329

* *Details on the next page*

SECTION 2: Actuarial Valuation Results (Continued)

C. Actuarial Experience (Continued)

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Fund's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets for the year ended December 31, 2020 was 7.25%. The actual rate of return on an actuarial basis for the year ended December 31, 2020, was 7.98%.

Since the actual return for the year was more than the assumed return, the Fund experienced an actuarial gain during the fiscal year ended December 31, 2020, with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

Investment Experience

1. Actual return	$26,564,796
2. Average value of assets	332,763,688
3. Actual rate of return: (1) ÷ (2)	7.98%
4. Assumed rate of return	7.25%
5. Expected return: (2) x (4)	24,125,367
6. Actuarial gain: (1) – (5)	$2,439,429

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the fair value investment return for the last ten valuation years, including five-year and ten-year averages.

Investment Return

Fiscal Year Ended	Fair Value	Actuarial Value
June 30, 2012	0.9%*	-0.6%*
December 31, 2012	6.3%*	1.0%*
December 31, 2013	16.9%**	6.5%*
December 31, 2014	6.9%**	10.4%*
December 31, 2015	1.9%**	8.2%*
December 31, 2016	8.4%**	8.0%*
December 31, 2017	14.2%**	10.0%*
December 31, 2018	-5.1%**	5.4%*
December 31, 2019	17.0%**	6.6%*
December 31, 2020	9.3%**	8.0%*
Average Returns		
Last 5 years	8.5%	7.6%
Last 10 years	7.9%	6.6%

* As determined by Segal

** As determined by Investment Consultant

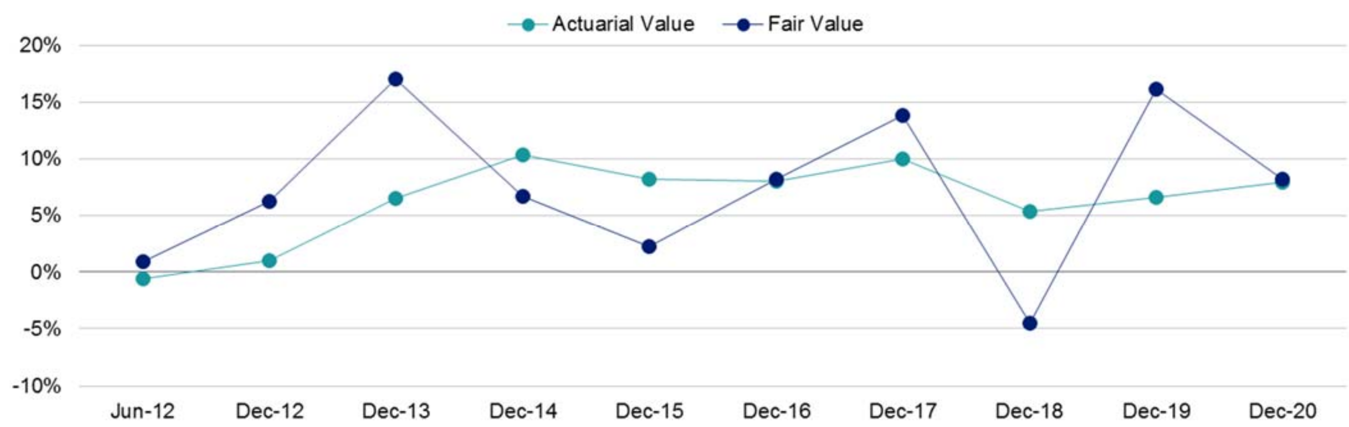
SECTION 2: Actuarial Valuation Results (Continued)

C. Actuarial Experience (Continued)

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the fair value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling the actuarially required contribution.

This chart illustrates how this leveling effect has actually worked over the years 2012 - 2020.

Fair and Actuarial Rates of Return for Years Ended June 30, 2012 - December 31, 2020



Administrative Expenses

Administrative expenses for the year ended December 31, 2020 totaled $1,598,370 compared to the assumption of $1,532,725. This resulted in a loss of $11,786 for the year when adjusted for timing.

SECTION 2: Actuarial Valuation Results (Continued)

C. Actuarial Experience (Continued)

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended December 31, 2020, amounted to $1,922,686, which is 0.2% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Fund for the year ended December 31, 2020 is shown in the chart below.

Experience Due to Changes in Demographics for Year Ended December 31, 2020

1.	Turnover	-$2,245,258
2.	Retirement	-1,209,835
3.	Experience among retired members and beneficiaries related to mortality	6,113,208
4.	Salary/service increase for continuing actives	879,676
5.	Other	-1,501,237
6.	Net Gain	$1,922,686

SECTION 2: Actuarial Valuation Results (Continued)

D. Development of Employer Costs

At the discretion of the Board, the actuarial valuation includes the calculation of a funding policy benchmark contribution amount referred to as the actuarially determined contribution. The amount of actuarially determined contribution is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the actuarially determined contribution of 50.18% of payroll.

The actuarially determined contribution is calculated on a level percentage of pay basis and is based on a closed 30-year period, which ends on December 31, 2042. As of January 1, 2021, there are 22 years remaining on the amortization period.

The chart compares this valuation's actuarially determined contribution with the prior valuation.

Actuarially Determined Contribution

	Year Beginning January 1			
	2021		2020	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost*	$16,948,567	12.06%	$17,626,255	12.41%
2. Administrative expenses	1,593,091	1.13%	1,532,725	1.08%
3. Expected employee contributions*	-12,768,784	-9.09%	-12,922,180	-9.10%
4. Employer normal cost: (1) + (2) + (3)	5,772,874	4.11%	6,236,800	4.39%
5. Employer normal cost, adjusted for timing*	5,977,267	4.25%	6,457,619	4.55%
6. Actuarial accrued liability	1,190,365,644		1,170,602,980	
7. Actuarial value of assets	342,131,743		349,960,428	
8. Unfunded/(overfunded) actuarial accrued liability: (6) – (7)	848,233,901		820,642,552	
9. Payment on unfunded actuarial accrued liability	64,514,760	45.92%	60,839,593	42.82%
10. Actuarially determined contribution, adjusted for timing*: (5) + (9)	70,492,027	50.18%	67,297,212	47.37%
11. Projected payroll	$140,488,179		$142,076,419	

* *Recommended contributions are assumed to be paid at the middle of every month.*

SECTION 2: Actuarial Valuation Results (Continued)

D. Development of Employer Costs (Continued)

The actuarially determined contribution as of January 1, 2021, is based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

The chart reconciles the actuarially determined contribution from the prior valuation to the amount determined in this valuation.

Reconciliation of Actuarially Determined Contribution from January 1, 2020 to January 1, 2021

Actuarially Determined Contribution as of January 1, 2020	$67,297,212
Effect of expected change in amortization payment due to payroll growth	1,520,989
Effect of change in administrative expense assumption	62,503
Effect of change in other actuarial assumptions	0
Effect of contributions less than recommended contribution	2,577,873
Effect of investment gains	-177,320
Effect of other gains and losses on accrued liability	-138,902
Effect of net other changes	-650,328
Total change	$3,194,815
Actuarially Determined Contribution as of January 1, 2021	$70,492,027

SECTION 2: Actuarial Valuation Results (Continued)

E. Risk

Since the actuarial valuation results are dependent on a given set of assumptions and data as of a specific date, there is a risk that emerging results may differ significantly as actual experience differs from the assumptions.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a brief discussion of some risks that may affect the Fund. Upon request, a more detailed assessment of the risks can be provided to enable a better understanding of the risks specific to this Fund.

Investment Risk (the risk that returns will be different than expected)

Since the Plan's assets are much larger than contributions, investment performance may create significant volatility in contribution requirements. For example, if the actual return on the fair value of assets for the next Plan Year were 1% different from the assumed (either higher or lower), the projected unfunded actuarial liability would change by 0.1%, or about $0.8 million and the actuarially determined contribution requirements would increase or decrease by approximately $0.6 million. The fair value rate of return over the last 10 years has ranged from a low of -5.1% to a high of 17.0%, with an average of 7.9%. A fair value rate of return of 6.3% during 2021 would move the projected year of insolvency a year sooner; from 2028 into 2027.

Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the Plan's funding policy and actuarially determined contribution requirement.

Contribution Risk

The Plan's funding policy contribution requires payment of the Employer's normal cost and an amortization payment according to a schedule sufficient to pay down unfunded actuarial liability over time. If the Plan's funding policy contribution were adhered to, contribution risk would be negligible.

However, Plan contributions are set by statute. The statutorily-required amount systematically underfunds the Plan. For Fiscal 2021, actual employer contributions come from a property tax levied by the Chicago Park District equal to the total amount of contributions made by employees in the calendar year two years prior to the year of the levy, multiplied by 1.1, the tax multiple.

If contributions remain at current level and future experience matches the current assumptions, we project the unfunded actuarial accrued liability will not be paid off and the Fund will become insolvent.

Demographic Risk (the risk that participant experience will be different than assumed)

Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
- More or less active participant turnover than assumed.
- Individual salary increases higher or lower than assumed.

Actual Experience Over the Last 10 years and Implications for the Future

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The investment gain/(loss) for a year has ranged from a gain of $37 million to a loss of $45 million.
- The non-investment gain/(loss) for a year has ranged from a gain of $5 million to a loss of $9 million.
- The funded percentage on the actuarial value of assets has ranged from a low of 28.74% to a high of 50.87%.

SECTION 3: Supplemental Information

EXHIBIT A – Table of Fund Coverage

Category	Year Ended December 31 2020	Year Ended December 31 2019	Change From Prior Year
Active members in valuation:			
Number	2,890	3,132	-7.7%
Average age	42.9	41.8	+1.1
Average years of service	10.9	10.0	+0.9
Total salary supplied by the Fund	$135,162,943	$136,105,381	-0.7%
Average salary	$46,769	$43,456	+7.6%
Total active vested members with at least 10 years of service	1,235	1,264	-2.3%
Vested terminated members	158	147	+7.5%
Non-vested terminated members eligible for a return of contributions	4,906	4,756	+3.2%
Service retirees:			
Number in pay status*	2,116	2,144	-1.3%
Average age	72.5	72.3	+0.2
Average monthly benefit	$2,561	$2,484	+3.1%
Beneficiaries:			
Number in pay status	659	699	-5.7%
Average age	79.3	78.1	+1.2
Average monthly benefit	$1,464	$1,403	+4.3%
Total number of members	10,729	10,878	-1.4%

* Excluding QILDROS

SECTION 3: Supplemental Information (Continued)

EXHIBIT B – Participants in Active Service as of December 31, 2020 By Age, Years of Service, and Average Payroll provided by the Fund

		Years of Service								
Age	**Total**	**0-4**	**5-9**	**10-14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**	**40 & over**
Under 25	332	324	8	-	-	-	-	-	-	-
	$22,669	$22,550	$27,489	-	-	-	-	-	-	-
25 – 29	374	233	134	7	-	-	-	-	-	-
	31,317	28,846	35,289	$37,540	-	-	-	-	-	-
30 – 34	298	116	113	63	6	-	-	-	-	-
	44,145	38,616	50,357	43,266	$43,291	-	-	-	-	-
35 – 39	302	98	70	59	65	10	-	-	-	-
	50,624	42,352	55,654	51,225	56,474	$54,900	-	-	-	-
40 – 44	264	78	54	38	39	52	3	-	-	-
	56,132	40,396	67,840	56,395	63,015	62,141	$57,559	-	-	-
45 – 49	280	61	69	36	35	55	23	1	-	-
	58,867	33,635	63,230	63,634	70,726	66,731	68,180	$63,639	-	-
50 – 54	342	69	39	42	60	64	43	25	-	-
	53,426	32,785	58,162	44,923	61,692	58,994	66,119	61,368	-	-
55 – 59	307	60	49	33	30	70	32	24	9	-
	55,124	40,085	46,203	41,714	53,043	63,639	75,871	69,156	$73,526	-
60 – 64	240	39	36	22	27	52	25	16	14	9
	54,214	40,085	46,203	41,714	53,043	58,778	56,333	80,114	83,027	$58,432
65 – 69	106	14	12	15	18	21	14	7	2	3
	54,733	25,298	48,540	47,176	56,141	62,855	67,593	70,730	86,595	70,772
70 & over	45	2	7	5	2	10	6	5	7	1
	48,244	53,311	25,594	47,693	36,818	57,184	51,400	54,890	53,267	45,548
Total	2,890	1,094	591	320	282	334	146	78	32	13
	$46,769	$31,363	$50,251	$49,043	$59,193	$61,764	$66,266	$68,064	$74,068	$60,288

SECTION 3: Supplemental Information (Continued)

EXHIBIT C – History of Active Member Valuation Data

Actuarial Valuation Date	Active Members	Percent Increase	Annual Salaries	Percent Increase	Average Salary	Percent Increase
06/30/2012	2,977	6.51%	109,798,508	1.96%	36,882	(4.27%)
12/31/2012	3,053	2.55%	113,934,756*	3.77%	37,319	1.18%
12/31/2013	3,076	0.75%	115,617,428	1.48%	37,587	0.72%
12/31/2014	2,973	(3.35%)	120,376,477	4.12%	40,490	7.72%
12/31/2015	3,063	3.03%	126,294,812	4.92%	41,232	1.83%
12/31/2016	3,114	1.67%	124,502,908	(1.42%)	39,982	(3.03%)
12/31/2017	3,543	13.78%	134,258,328	7.84%	37,894	(5.22%)
12/31/2018	3,187	(10.05%)	129,923,175	(3.23%)	40,767	7.58%
12/31/2019	3,132	(1.73%)	136,105,381	4.76%	43,456	6.60%
12/31/2020	2,890	(7.73%)	135,162,943	(0.69%)	46,769	7.62%
Average Increase/(Decrease)						
Last 5 years		(0.81%)		1.45%		2.71%
Last 10 years		0.54%		2.35%		2.07%

* *Annualized for short plan year.*

SECTION 3: Supplemental Information (Continued)

EXHIBIT D - Reconciliation of Member Data

	Active Members	Inactive Members	Retirees	Beneficiaries	Total
Number as of December 31, 2019	3,132	4,903	2,144	699	10,878
New participants	90	N/A	N/A	N/A	90
Terminations	(205)	205	0	0	0
Retirements	(54)	(21)	75	N/A	0
New disabilities	0	0	N/A	N/A	0
Died with beneficiary	(3)	(1)	(23)	27	0
Died without beneficiary	(3)	0	(80)	(67)	(150)
Refunds	(71)	(33)	0	0	(104)
Rehires	4	(4)	0	0	0
Data adjustments	0	15	0	0	15
Number as of December 31, 2020	2,890	5,064	2,116	659	10,729

SECTION 3: Supplemental Information (Continued)

EXHIBIT E - Schedule of Pensioners and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		Rolls – End of Year			
Fiscal Year	Number	Annual Allowances	Number	Annual Allowances	Number*	Annual Allowances	% Increase in Avg. Annual Allowances	Average Annual Allowances
6/2012	167	4,681,195	158	2,797,326	2,908	63,980,341	2.7	22,001
12/2012	71	2,470,960	91**	1,290,060	2,888	65,161,241	2.6	22,563
12/2013	147	4,594,883	147	2,788,285	2,888	66,967,839	2.8	23,188
12/2014	126	4,085,581	138	2,781,597	2,876	68,271,823	2.4	23,738
12/2015	94	1,823,238	106	2,271,591	2,864	67,823,470	-0.7	23,681
12/2016	126	5,283,834	133	2,711,190	2,857	70,396,114	4.0	24,640
12/2017	107	3,628,199	104	1,952,677	2,860	72,071,636	2.3	25,200
12/2018	135	5,446,939	153	2,967,901	2,842	74,550,674	4.1	26,232
12/2019	128	4,578,087	140	3,174,168	2,830	75,954,593	2.3	26,839
12/2020	80	3,824,254	146	3,171,408	2,764	76,607,439	3.3	27,716

* *Does not include child beneficiaries receiving a pension.*
*** Includes removal of 21 QILDROs for participant count purposes.*

SECTION 3: Supplemental Information (Continued)

EXHIBIT F – Summary Statement of Income and Expenses on a Fair Value Basis at Fiscal Year Ended December 31

	Year Ended December 31, 2020		Year Ended December 31, 2019	
Net position at fair value at the beginning of the year		$354,556,288		$342,255,873
Contribution income:				
Employer contributions	$33,939,927		$27,682,089	
Employee contributions	12,634,900		12,664,855	
Less administrative expenses	-1,598,370		-1,528,861	
Net contribution income		44,976,457		38,818,083
Securities lending income		60,381		50,111
Other income		70		125
Investment income:				
Interest, dividends and other income	$5,930,941		$6,785,122	
Asset appreciation	23,730,507		46,929,814	
Less investment and administrative fees	-1,590,121		-1,732,391	
Net investment income		28,071,327		51,982,545
Total income available for benefits		$73,108,235		$90,850,864
Less benefit payments:				
Annuity payments	-$77,073,553		-$75,850,465	
Disability & death	-688,695		-615,546	
Refund of contributions	-1,607,760		-2,084,438	
Net benefit payments		-$79,370,008		-$78,550,449
Change in reserve for future benefits		-$6,261,773		$12,300,415
Net position at fair value at the end of the year		$348,294,515		$354,556,288

SECTION 3: Supplemental Information (Continued)

EXHIBIT G – Summary of Fund Assets at Fiscal Year Ended December 31

	Year Ended December 31, 2020		Year Ended December 31, 2019	
Accounts receivable		$14,930,087		$15,987,449
Investments, at fair value:				
Collective investment funds	$107,283,908		$81,295,724	
Bonds	27,974,249		59,247,177	
Common and preferred stocks	46,568,393		43,787,794	
Real estate	31,443,567		37,047,140	
Private equity partnerships	20,885,335		18,031,007	
Hedged equity	25,951,241		24,807,129	
Infrastructure	24,460,163		24,353,479	
Mutual funds	18,355,546		19,208,421	
International equity	21,343,216		21,776,682	
Short-term investments	4,964,290		4,784,370	
Total investments at fair value		329,229,908		334,338,923
Invested securities lending collateral		16,670,194		19,769,592
Prepaid annuity benefits		5,349,711		5,252,036
Furniture and fixtures, net		131,686		145,461
Prepaid expenses		31,715		53,866
Total assets		$366,343,301		$375,547,327
Less accounts payable:				
Accounts payable	-$534,101		-$348,273	
Accrued benefits and member contributions payable	-805,298		-568,215	
Securities lending collateral	-16,670,194		-19,769,592	
Due to broker	0		-257,794	
Deferred rent	-39,193		-47,165	
Total accounts payable		-$18,048,786		-$20,991,039
Net position at fair value		$348,294,515		$354,556,288
Net position at actuarial value		$342,131,743		$349,960,428

SECTION 3: Supplemental Information (Continued)

EXHIBIT H – Development of the Fund Through December 31, 2020

Fiscal Year Ended	Employer Contributions*	Employee Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
June 30, 2012	$10,868,361	$10,404,827	-$2,804,426	$1,644,603	$65,502,658	$440,692,006
December 31, 2012	5,268,363	5,371,084	4,121,362	723,802	33,281,012	421,448,001
December 31, 2013	15,707,814	10,732,730	26,107,300	1,367,443	68,335,967	404,292,435
December 31, 2014	11,225,438	10,831,434	39,408,258	1,458,831	70,536,042	393,762,692
December 31, 2015	30,588,976	12,368,636	31,067,518	1,533,700	70,602,016	395,652,106
December 31, 2016	30,890,241	12,246,115	30,432,110	1,537,699	74,077,876	393,604,997
December 31, 2017	20,920,614	13,675,292	37,038,766	1,682,136	78,138,027	385,419,506
December 31, 2018	27,638,402	12,125,457	19,651,105	1,501,039	76,526,820	366,806,612
December 31, 2019	27,682,089	12,664,855	22,886,182	1,528,861	78,550,449	349,960,428
December 31, 2020	33,939,927	12,634,900	28,131,778	1,598,370	79,370,008	342,131,743

** On an actuarial basis, net of investment fees, and includes other income.*

SECTION 3: Supplemental Information (Continued)

EXHIBIT I – Development of Unfunded Actuarial Accrued Liability

	Plan Year Ended December 31			
		2020		**2019**
1. Unfunded actuarial accrued liability at beginning of year		$820,642,552		$775,491,353
2. Normal cost (including administrative expenses) at beginning of year		19,158,980		17,952,526
3. Total contributions		46,574,827		40,346,944
4. Interest				
(a) Unfunded actuarial accrued liability and normal cost	$60,885,611		$57,524,681	
(b) Total contributions	1,528,086		1,323,754	
(c) Total interest: (4a) – (4b)		59,357,525		56,200,927
5. Expected unfunded actuarial accrued liability: (1) + (2) – (3) + (4c)		$852,584,230		$809,297,862
6. Changes due to (gain)/loss from:				
(a) Investments	($2,439,429)		$2,267,129	
(b) Demographics and other	(1,910,900)		9,077,561	
(c) Total changes due to (gain)/loss: (6a) + (6b)		($4,350,329)		$11,344,690
7. Assumption changes		0		0
8. Unfunded accrued liability at end of year: (5) + (6c) + (7)		$848,233,901		$820,642,552

SECTION 3: Supplemental Information (Continued)

EXHIBIT J - Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Pensioners: The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Cost Method: A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.

Actuarial Gain or Loss: A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the Fund's assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

Actuarially Equivalent: Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV): The 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. Each such amount or series of amounts is:

a. Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)
b. Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
c. Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

SECTION 3: Supplemental Information (Continued)

EXHIBIT J - Definitions of Pension Terms (Continued)

Actuarial Present Value of Future Plan Benefits: The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would be provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation: The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).

Actuarial Value of Assets (AVA): The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.

Actuarially Determined: Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

Actuarially Determined Contribution (ADC): The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Fund's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.

Amortization Method: A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.

Amortization Payment: The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

SECTION 3: Supplemental Information (Continued)

EXHIBIT J - Definitions of Pension Terms (Continued)

Assumptions or Actuarial Assumptions: The estimates upon which the cost of the Fund is calculated including:

a. Investment return - the rate of investment yield that the Fund will earn over the long-term future;

b. Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates;

c. Retirement rates - the rate or probability of retirement at a given age;

d. Turnover rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;

e. Salary increase rates - the rates of salary increase due to inflation and productivity growth.

Closed Amortization Period: A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.

Decrements: Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or termination.

Defined Benefit Plan: A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.

Defined Contribution Plan: A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.

Employer Normal Cost: The portion of the Normal Cost to be paid by the employers. This is equal to the Normal Cost less expected member contributions.

Experience Study: A periodic review and analysis of the actual experience of the Fund that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

Funded Ratio: The ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL). Plans sometimes calculate a market funded ratio, using the fair value of assets (MVA), rather than the AVA.

GASB: Governmental Accounting Standards Board.

SECTION 3: Supplemental Information (Continued)

EXHIBIT J - Definitions of Pension Terms (Continued)

GASB 67 and GASB 68: Governmental Accounting Standards Board Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Investment Return: The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

Net Pension Liability (NPL): The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.

Normal Cost: That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.

Open Amortization Period: An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period with level percentage of payroll is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never decrease, but will become smaller each year, in relation to covered payroll, if the actuarial assumptions are realized.

Plan Fiduciary Net Position: Fair value of assets.

Total Pension Liability (TPL): The actuarially accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.

Unfunded Actuarial Accrued Liability: The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus.

Valuation Date or Actuarial Valuation Date: The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

SECTION 4: Reporting Information

EXHIBIT I - Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Pensioners as of the valuation date (including 648 beneficiaries and 11 dependent children)		2,775
2.	Members inactive as of the valuation date with vested rights		158
3.	Members active as of the valuation date		2,890
	Fully vested	1,235	
	Not vested	1,655	
4.	Other non-vested inactive members as of the valuation date		4,906

The actuarial factors as of the valuation date are as follows:

1.	Employer normal cost, including administrative expenses		$5,772,874
2.	Actuarial accrued liability		1,190,365,644
	Retirees and beneficiaries	$795,731,449	
	Inactive members with vested rights	25,054,751	
	Active members	369,579,444	
3.	Actuarial value of assets ($348,294,515 at fair value)		342,131,743
4.	Unfunded actuarial accrued liability: (2) – (3)		$848,233,901
5.	Funded ratio: (3) ÷ (2)		28.7%

SECTION 4: Reporting Information (Continued)

EXHIBIT I – Summary of Actuarial Valuation Results (continued)

Actuarially Determined Contribution Split by Tier

		Total		Tier I		Tier II	
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll
1.	Total normal cost	$16,948,567	12.06%	$12,358,924	14.57%	$4,589,643	8.25%
2.	Administrative expenses*	1,593,091	1.13%	1,564,097	1.84%	28,994	0.03%
3.	Expected employee contributions	-12,768,784	-9.09%	-7,700,072	-9.08%	-5,068,712	-9.11%
4.	Employer normal cost: (1) + (2) + (3)	5,772,874	4.11%	6,222,949	7.33%	-450,075	-0.81%
5.	Employer normal cost, adjusted for timing**	5,977,268	4.25%	6,443,278	7.59%	-466,010	-0.84%
6.	Actuarial accrued liability	1,190,365,644		1,168,701,352		21,664,292	
7.	Actuarial value of assets	342,131,743					
8.	Unfunded actuarial accrued liability: (6) - (7)	848,233,901					
9.	Payment on unfunded actuarial accrued liability	64,514,760	45.92%				
10.	Actuarially determined contribution, adjusted for timing**: (5) + (9)	$70,492,027	50.18%				
11.	Estimated employer contributions provided by the Fund, reflecting 3% loss on collections***	$13,159,834					
12.	Projected payroll	140,488,179		84,847,879		55,640,300	

** Administrative expenses are split by % of accrued liability.*
*** Recommended contributions are assumed to be paid at the middle of every month.*
**** The Park District has been absorbing the 3% loss on collections, however, the Park District is not guaranteed to do so in the future.*

SECTION 4: Reporting Information (Continued)

EXHIBIT II - Comparison of Employer Contribution to Actuarially Determined Contribution

Fiscal Year Ended	Actuarially Determined Contribution (ADC)*	Actual Contributions	Percentage Contributed
June 30, 2012	$28,051,528	$10,868,361	38.7%
December 31, 2012	16,786,671	5,268,636	31.4%
December 31, 2013	41,834,857	15,707,814	37.5%
December 31, 2014	35,307,186	11,225,438	31.8%
December 31, 2015	36,273,994	30,588,976	84.3%
December 31, 2016	37,130,268	30,890,241	83.2%
December 31, 2017	45,253,238	20,920,614	46.2%
December 31, 2018	50,929,734	27,638,402	54.3%
December 31, 2019	61,887,790	27,682,089	44.7%
December 31, 2020	67,297,212	33,939,927	50.4%
December 31, 2021	70,492,027	- -	- -

* *Prior to 2015, this amount was the Annual Required Contribution (ARC)*

SECTION 4: Reporting Information (Continued)

EXHIBIT III - Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
06/30/2012	$440,692,006	$866,370,565	$425,678,559	50.87%	$114,223,909	372.67%
12/31/2012	421,448,001	971,807,222	550,359,221	43.37%	58,231,511	472.56%**
12/31/2013	404,292,435	888,023,364	483,730,929	45.53%	117,781,596	410.70%
12/31/2014	393,762,692	900,840,617	507,077,925	43.71%	118,987,507	426.16%
12/31/2015	395,652,106	910,260,360	514,608,254	43.47%	122,382,584	420.49%
12/31/2016	393,604,997	1,005,493,093	611,888,096	39.15%	121,126,918	505.16%
12/31/2017	385,419,506	1,039,279,444	653,859,938	37.09%	135,315,008	483.21%
12/31/2018	366,806,612	1,142,297,965	775,491,353	32.11%	133,112,100	582.59%
12/31/2019	349,960,428	1,170,602,980	820,642,552	29.90%	139,204,051	589.52%
12/31/2020	342,131,743	1,190,365,644	848,233,901	28.74%	138,942,498	610.50%

* *Not less than zero*
** *Adjusted for annualized covered payroll*

SECTION 4: Reporting Information (Continued)

EXHIBIT IV - Solvency Test at December 31

	12/31/2020	12/31/2019	12/31/2018	12/31/2017	12/31/2016
1. Actuarial accrued liability (AAL)					
a. Active member contributions	$174,600,431	$173,843,745	$164,316,381	$173,903,043	$172,808,623
b. Retirees and beneficiaries	795,731,449	789,231,586	778,565,525	706,084,520	694,881,116
c. Active and inactive members (employer financed)	220,033,764	207,527,649	199,416,059	159,291,881	137,803,354
d. Total	$1,190,365,644	$1,170,602,980	$1,142,297,965	$1,039,279,444	$1,005,493,093
2. Actuarial value of assets	342,131,743	349,960,428	366,806,612	385,419,506	393,604,997
3. Cumulative portion of AAL covered					
a. Active member contribution	100.0%	100.0%	100.0%	100.0%	100.0%
b. Retirees and beneficiaries	21.1%	22.3%	26.0%	30.0%	31.8%
c. Active and inactive members (employer financed)	0.0%	0.0%	0.0%	0.0%	0.0%

	12/31/2015	12/31/2014	12/31/2013	12/31/2012	06/30/2012
1. Actuarial accrued liability (AAL)					
a. Active member contributions	$173,241,768	$169,952,178	$171,065,449	$166,554,660	$158,144,793
b. Retirees and beneficiaries	625,396,307	625,641,580	621,827,982	662,153,615	599,353,146
c. Active and inactive members (employer financed)	111,622,285	105,246,859	95,129,933	143,098,947	108,872,626
d. Total	$910,260,360	$900,840,617	$888,023,364	$971,807,222	$866,370,565
2. Actuarial value of assets	395,652,106	393,762,692	404,292,435	421,448,001	440,692,006
3. Cumulative portion of AAL covered					
a. Active member contribution	100.0%	100.0%	100.0%	100.0%	100.0%
b. Retirees and beneficiaries	35.6%	35.8%	37.5%	38.5%	47.1%
c. Active and inactive members (employer financed)	0.0%	0.0%	0.0%	0.0%	0.0%

SECTION 4: Reporting Information (Continued)

EXHIBIT V – Projections of Contributions, Liabilities, and Assets

Based on the results of the December 31, 2020, actuarial valuation, we have projected valuation results for a 40-year period commencing with Fiscal Year 2021.

For purposes of the projections, all assets, contributions, and benefit payments have been included. Our projections of contributions, liabilities, and assets are based on the actuarial assumptions, membership data and benefit provisions that were used for the regular actuarial valuation.

In order to determine projected contributions, liabilities, and assets, certain calculations needed to be made that are not normally required in a regular actuarial valuation. Benefit payout requirements, actuarial liabilities, and payroll were estimated over the 40-year period from 2021 through 2059 by projecting the membership of the Fund over the 40-year period, taking into account the impact of new entrants into the Fund over the 40-year period.

To make the required projections, assumptions needed to be made regarding the age and salary distribution of new entrants as well as the size of the active membership of the Fund. The assumptions regarding the profile of new entrants to the Fund were based on the recent experience of the Fund with regard to new entrants. The size of the active membership of the Fund was assumed to remain constant over the 40-year projection period. The results of our projections are shown on the following pages.

For purposes of this projection, we have assumed that all available assets, including accumulated contributions made by existing active members, will be used to pay benefits until insolvency; at that point, request for refund of contributions from terminating active members will be treated as benefit payments that must be funded by employer contributions. However, the legality of this situation is undetermined at this time, and if it is determined that the reserve for accumulated active member contributions cannot be paid to existing annuitants, the Fund would become insolvent earlier than 2028.

The fair value of assets is assumed to earn the assumption of 7.25% each year of the projection until the projected date of insolvency. In reality, as the insolvency date approaches, invested assets will likely be rebalanced into more liquid, lower return assets in order to pay the benefits that are due. To the extent that actual returns are less than the 7.25% assumption as a result of this rebalancing, the Fund would become insolvent earlier than 2028.

For purposes of this projection, budgeted supplemental contributions for future years are not included. The projection only reflects statutorily-required contributions expected to be made by the employer.

SECTION 4: Reporting Information (Continued)

EXHIBIT V – Projections of Contributions, Liabilities, and Assets (Continued)

Fiscal Year	Employee Contributions	Employer Contributions	Payroll	Normal Cost	Benefit Payouts	Estimated Expenses	Total Actuarial Liability	Actuarial Value of Assets	Unfunded Actuarial Liability	Funded Ratio
2020							$1,190,365.6	$342,131.7	$848,233.9	28.7%
2021	$12,768.8	13,159.8	140,488.2	16,948.6	82,583.2	1,654.3	1,209,267.7	308,528.5	900,739.2	25.5%
2022	12,540.9	13,481.4	137,955.9	16,674.7	83,785.1	1,712.2	1,228,000.9	266,678.8	961,322.1	21.7%
2023	12,415.8	13,624.3	136,566.2	16,497.3	85,127.9	1,772.1	1,246,510.5	229,389.0	1,017,121.6	18.4%
2024	12,323.3	13,381.1	135,538.0	16,296.3	86,584.8	1,834.2	1,264,636.8	182,121.3	1,082,515.5	14.4%
2025	12,255.8	13,247.7	134,788.4	16,109.5	88,086.6	1,898.4	1,282,320.6	128,803.9	1,153,516.7	10.0%
2026	12,200.9	13,148.9	134,178.2	15,919.4	89,660.8	1,964.8	1,299,451.4	69,678.1	1,229,773.3	5.4%
2027	12,147.5	13,076.9	133,585.0	15,704.9	91,355.6	2,033.6	1,315,837.9	4,244.6	1,311,593.3	0.3%
2028	12,103.0	78,987.2	133,090.9	15,500.4	93,230.0	2,104.7	1,331,250.7	0.0	1,331,250.7	0.0%
2029	12,054.0	85,304.2	132,545.9	15,256.8	95,179.8	2,178.4	1,345,499.3	0.0	1,345,499.3	0.0%
2030	12,017.4	87,322.4	132,139.9	15,046.8	97,085.1	2,254.7	1,358,581.3	0.0	1,358,581.3	0.0%
2031	11,984.3	89,533.5	131,772.2	14,833.0	99,184.3	2,333.6	1,370,207.0	0.0	1,370,207.0	0.0%
2032	11,958.0	91,559.7	131,479.3	14,616.3	101,102.4	2,415.2	1,380,455.6	0.0	1,380,455.6	0.0%
2033	11,943.6	93,491.9	131,320.0	14,404.6	102,935.8	2,499.8	1,389,320.4	0.0	1,389,320.4	0.0%
2034	11,946.4	95,441.9	131,351.1	14,204.1	104,801.0	2,587.3	1,396,680.0	0.0	1,396,680.0	0.0%
2035	11,944.5	97,056.4	131,329.6	13,987.2	106,323.1	2,677.8	1,402,763.2	0.0	1,402,763.2	0.0%
2036	11,971.8	98,829.5	131,632.3	13,798.8	108,029.7	2,771.6	1,407,317.0	0.0	1,407,317.0	0.0%
2037	11,981.9	97,921.2	131,744.9	13,597.8	107,034.6	2,868.6	1,413,016.6	0.0	1,413,016.6	0.0%
2038	12,010.8	99,271.2	132,065.6	13,407.0	108,313.0	2,969.0	1,417,599.9	0.0	1,417,599.9	0.0%
2039	12,046.5	100,239.4	132,462.7	13,218.9	109,213.0	3,072.9	1,421,381.2	0.0	1,421,381.2	0.0%
2040	12,109.4	100,951.8	133,161.1	13,065.0	109,880.8	3,180.4	1,424,579.6	0.0	1,424,579.6	0.0%
2041	12,186.2	101,435.8	134,015.3	12,929.9	110,330.3	3,291.7	1,427,399.2	0.0	1,427,399.2	0.0%
2042	12,281.3	101,544.2	135,071.4	12,840.2	110,418.5	3,406.9	1,430,235.6	0.0	1,430,235.6	0.0%
2043	12,401.1	101,245.5	136,403.3	12,782.2	110,120.5	3,526.2	1,433,524.2	0.0	1,433,524.2	0.0%
2044	12,545.8	100,728.5	138,010.4	12,754.5	109,624.6	3,649.6	1,437,535.3	0.0	1,437,535.3	0.0%
2045	12,706.8	99,788.1	139,799.6	12,753.9	108,717.6	3,777.3	1,442,776.6	0.0	1,442,776.6	0.0%
2046	12,897.7	98,735.9	141,920.3	12,796.4	107,724.0	3,909.5	1,449,473.0	0.0	1,449,473.0	0.0%
2047	13,096.2	97,649.2	144,125.6	12,871.9	106,699.0	4,046.4	1,457,798.1	0.0	1,457,798.1	0.0%
2048	13,302.0	96,505.4	146,413.3	12,962.2	105,619.5	4,188.0	1,467,942.3	0.0	1,467,942.3	0.0%
2049	13,521.3	95,297.2	148,849.1	13,058.9	104,483.9	4,334.6	1,480,102.3	0.0	1,480,102.3	0.0%
2050	13,747.4	93,730.0	151,361.8	13,188.7	102,991.1	4,486.3	1,494,830.0	0.0	1,494,830.0	0.0%
2051	14,003.2	92,267.3	154,203.4	13,355.6	101,627.2	4,643.3	1,512,217.9	0.0	1,512,217.9	0.0%
2052	14,265.1	91,088.1	157,113.9	13,545.6	100,547.4	4,805.8	1,532,189.1	0.0	1,532,189.1	0.0%
2053	14,523.1	89,764.7	159,981.0	13,734.4	99,313.8	4,974.0	1,555,089.0	0.0	1,555,089.0	0.0%
2054	14,802.8	88,486.7	163,088.5	13,940.9	98,141.4	5,148.1	1,581,085.5	0.0	1,581,085.5	0.0%
2055	15,095.3	87,094.3	166,338.4	14,166.8	96,861.3	5,328.3	1,610,535.6	0.0	1,610,535.6	0.0%
2056	15,408.7	85,753.7	169,820.9	14,428.0	95,647.6	5,514.8	1,643,658.6	0.0	1,643,658.6	0.0%
2057	15,735.6	84,429.2	173,452.9	14,706.4	94,457.0	5,707.8	1,680,715.4	0.0	1,680,715.4	0.0%
2058	16,079.9	83,312.8	177,278.6	15,016.0	93,485.1	5,907.6	1,721,798.0	0.0	1,721,798.0	0.0%
2059	16,437.5	81,934.4	181,251.2	15,341.5	92,257.5	6,114.4	1,767,480.2	0.0	1,767,480.2	0.0%

SECTION 4: Reporting Information (Continued)

EXHIBIT VI - Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions: The information and analysis used in supporting each assumption that has a significant effect on this actuarial valuation is shown in the Experience Review dated October 25, 2018. Current data is reviewed in conjunction with each annual valuation.

Mortality Rates:

Healthy Post-Retirement Mortality: 110% of PubG-2010 Healthy Annuitant Table, with mortality improvements projected generationally using scale MP-2017

Pre-retirement: 110% of PubG-2010 Healthy Employee Table, with mortality improvements projected generationally using scale MP-2017

The mortality tables specified above were determined to contain provisions appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the most recent experience study rate.

Termination Rates: Select and ultimate termination rates are based on recent experience of the Fund. Ultimate rates applicable for members with eight or more years of service are shown for sample ages in the table below. Select rates are as follows:

Years of Service	Rate (%)
0 - 0.99	17.5
1 - 1.99	13.0
2 - 2.99	13.0
3 - 3.99	12.5
4 - 4.99	12.5
5 - 5.99	10.0
6 - 6.99	10.0
7 - 7.99	10.0

Ultimate rates:

Age	Rate (%)
20	7.0
25	7.0
30	6.0
35	4.0
40	4.0
45	4.0
50	3.0
55	3.0

SECTION 4: Reporting Information (Continued)

EXHIBIT VI - Actuarial Assumptions and Actuarial Cost Method (Continued)

Retirement Rates:

For employees first hired prior to January 1, 2011, rates of retirement for each age from 50 to 75 based on the recent experience of the Fund were used. Sample rates are shown below.

	Rate (%)	
Age	**<30 Years of Service**	**30+ Years of Service**
50	2.5	30.0
55	2.0	20.0
60	5.0	5.0
65	15.0	15.0
70	20.0	20.0
75	100.0	100.0

For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 75 were used. Sample rates are shown below.

Age	Rate (%)
62	50.0
65	20.0
67	50.0
70	20.0
75	100.0

Salary Increases:

Assumed salary increases are based on the recent experience of the Fund were used. Rates are shown below.

Years of Service	Rate (%)
0 - 0.99	20.00
1 - 1.99	7.50
2 - 2.99	5.00
3 - 3.99	3.50
4 – 4.99	3.50
5+	2.75

SECTION 4: Reporting Information (Continued)

EXHIBIT VI - Actuarial Assumptions and Actuarial Cost Method (Continued)

Valuation of Inactive Vested Participants: The liability for an inactive member is equal to his or her existing account balance, or, if the participant has at least 10 years of service, twice the existing account balance.

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Spouse: 75% of members were assumed to be married and female spouses are assumed to be two years younger than males.

Disability Benefit Valuation: Disability benefits are valued in normal cost by annualizing the actual monthly disability payment amounts for the month prior to the valuation date.

Investment Return: 7.25% per year, net of investment expenses

Inflation: 2.50% per year

Payroll Growth: 2.50% per year

Administrative Expenses: Equal to actual expenses for the prior year, increased by 3.5% each year.

Actuarial Value of Assets: The actuarial value of assets was determined by smoothing unexpected gains and losses over a period of 5 years. The gain or loss for a year is calculated as the total investment income on the fair value of assets, minus expected investment return on the prior actuarial value of assets. The final actuarial value is equal to the expected actuarial value plus (or minus) 20% of the calculated gain (or loss) in the prior 5 years.

Actuarial Cost Method: Entry Age Normal. Under this method, a normal cost is calculated for each employee that is the level annual contribution as a percent of pay required to be made from the employee's date of hire for as long as he/she remains active so that sufficient assets will be accumulated to provide his/her benefit. The accrued liability is the difference between the present value of all future benefits and the present value of all future normal costs.

SECTION 4: Reporting Information (Continued)

EXHIBIT VII - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership: Any person employed by the Chicago Park District in a position requiring service for 6 months or more in a calendar year is required to become a member of the Fund as a condition of employment.

Employee Contributions: All members of the Fund are required to contribute 9% of salary to the Fund as follows: 7% for the retirement pension, 1% for the spouse's pension, and 1% for the automatic increases in the retirement pension. In addition, employees are required to contribute $3.60 per month toward the cost of the single sum death benefit.

Tiers: Tier 1: First hired before January 1, 2011.
Tier 2: First hired on or after January 1, 2011.

Retirement Pension: a. Eligibility – An employee may retire at age 50 with at least 10 years of service or at age 60 with 4 years of service. If retirement occurs before age 60, the retirement pension is reduced ¼ of 1% of each month that the age of the member is below 60. However, there is no reduction if the employee has at least 30 years of service.

b. Amount – The retirement pension is based on the average of the 4 highest consecutive years of salary within the last 10 years. For an employee who withdraws from service on or after December 31, 2003, the amount of the retirement pension is 2.4% of highest average salary for each year of service.

The maximum pension payable is 80% of the highest annual salary.

An employee who was a participant before July 1, 1971 is entitled to the pension provided under the money purchase formula if it provides a greater pension than that provided under the above fixed benefit formula.

An employee who first becomes a participant on or after January 1, 2011 is subject to the following provisions:

1. The highest salary for annuity purposes is equal to the average monthly salary obtained by dividing the participant's total salary during the 96 consecutive months of service within the last 120 months of service in which the total compensation was the highest by the number of months in that period.

2. For 2021, the annual salary is limited to $116,740.42. Limitations for future years shall automatically be increased by the lesser of 3% or one-half the percentage change in the Consumer Price Index-U during the preceding calendar year.

3. A participant is eligible to retire with unreduced benefits after attainment of age 67 with at least 10 years of service credit. However, a participant may elect to retire at age 62 with at least 10 years of service credit and receive a retirement annuity reduced by ½ of 1% for each month that the age of the member is below 67.

SECTION 4: Reporting Information (Continued)

EXHIBIT VII - Summary of Plan Provisions (Continued)

Post-Retirement Increase:

An employee retiring at age 60 or over, or an employee with 30 or more years of service, is entitled to automatic annual increases of 3% of the originally granted pension following one year's receipt of pension payments. In the case of an employee with less than 30 years of service who retires before age 60, the increases begin following the later of attainment of age 60 and receipt of one year's pension payments.

Automatic annual increases (AAI) in the retirement annuity for employees who first became a participant on or after January 1, 2011 are equal to the lesser of 3% or one-half the annual change in the Consumer Price Index-U, whichever is less, based on the originally granted retirement annuity.

Surviving Spouse's Pension:

A surviving spouse is entitled to a pension upon the death of an employee while in service or on retirement. If the surviving spouse is age 60 or over and the employee or retiree had at least 20 years of service, the minimum surviving spouse's pension is 50% of the deceased employee's or retired employee's pension at the date of death. If the age of the surviving spouse is less than 60, the pension is reduced ½ of 1% for each month the surviving spouse is under age 60. If the employee had less than 20 years of service, the surviving spouse is entitled to a pension under the money purchase formula, taking into account employee and employer contributions toward the surviving spouse's pension.

Surviving spouse's pensions are subject to annual increases of 3% per year based on the current amount of pension.

For employees who first become a participant on or after January 1, 2011, the initial survivor's annuity is equal to 66 2/3% of the participant's earned retirement annuity at the date of death, subject to automatic annual increases of the lesser of 3% or one-half of the increase in the Consumer Price Index-U during the preceding calendar year, based on the originally granted survivor's annuity.

Children's Pension:

Unmarried children of a deceased employee under the age of 18 are entitled to a children's pension. If either parent is living, the pension is $100.00 per month. If no parent survives, the pension for each child is $150.00 per month. The total amount payable to a spouse or children may not exceed 60% of the employee's final salary.

Single Sum Death Benefit:

A death benefit is payable upon the death of an employee in service in addition to any other benefits payable to the surviving spouse or minor children. The death benefit payable is as follows:

$3,000 benefit during the first year of service,
$4,000 benefit during the second year of service,
$5,000 benefit during the third year of service,
$6,000 benefit during the fourth through ninth year of service, and
$10,000 benefit if death occurs after ten or more years of service.

Upon the death of a retired member with ten or more years of service, the $10,000 maximum benefit is reduced to $6,000 if death occurs during the first year of retirement. Thereafter, it is reduced by $1,500 for each year or fraction of a year while on retirement, but shall not be less than $3,000.

SECTION 4: Reporting Information (Continued)

EXHIBIT VII - Summary of Plan Provisions (Continued)

Ordinary Disability Benefit:	An ordinary disability benefit is payable after eight consecutive days of absence for illness without pay. The amount of the benefit is 45% of salary. The benefit is payable for a period not to exceed ¼ of the length of service or five years, whichever is less.
Occupational Disability Benefit:	Upon disability resulting from an injury incurred while on duty, an employee is entitled to a disability benefit of 75% of salary from the first day of absence without pay. The benefit is payable during the period of disability until the employee attains age 65 if disability is incurred before age 60, or for a period of five years if disability is incurred after age 60.
Occupational Death Benefit:	Upon the death of an employee resulting from an injury incurred in the performance of duty, the surviving spouse is entitled to an occupational death benefit of 50% of salary. Each unmarried child under the age of 18 is entitled to a benefit of $100 per month. The combined payments to a family may not exceed 75% of the employee's final salary. The total payments are reduced by Workmen's Compensation benefits.
Refunds:	An employee who terminates employment before qualifying for a pension is entitled to a refund of employee contributions. The refund is payable to any employee who withdraws before age 55, regardless of the length of service. It is also payable to an employee who withdraws between age 55 and 60 with less than 10 years of service, and to an employee who withdraws after age 60 with less than 5 years of service. An employee who is unmarried at date of retirement is entitled to a refund of the full amount contributed for the spouse's pension, without interest.
Plan Year:	January 1 through December 31. Prior to December 31, 2012, the plan year was July 1 through June 30.
Employer Contributions:	The tax multiple is 1.1.

SECTION 5: GASB 67 Information

EXHIBIT 1 - Net Pension Liability

The components of the net pension liability of the Fund at December 31, 2020 were as follows:

Total pension liability	$2,277,440,135
Plan fiduciary net position	348,294,515
Net pension liability	1,929,145,620
Plan fiduciary net position as a percentage of the total pension liability	15.29%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2020, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	Service-based ranging from 20.00% to 2.75%
Single equivalent discount rate	2.22%, net of pension plan investment expense, including inflation
Cost of living adjustments	3% of original benefit for employees who first became a participant before January 1, 2011; the lesser of 3% and ½ of CPI of original benefit for employees and beneficiaries of employees who first became a participant on or after January 1, 2011; 3% compounded for beneficiaries of employees who first became a participant by January 1, 2011.

For healthy annuitants, mortality rates were based on the 110% of PubG-2010 Healthy Annuitant Table, with mortality improvements projected generationally using scale MP-2017. For active participants, mortality rates were based on 110% of PubG-2010 Healthy Employee Table, with mortality improvements projected generationally using scale MP-2017.

The actuarial assumptions used in the December 31, 2020, valuation were based on the results of an experience study for the five-year period ending December 31, 2018.

Discount rate: The discount rate used to measure the total pension liability was 2.22%. The projection of cash flows used to determine the discount rate assumed member contributions will be made at the 9% contribution rate for 2021 and thereafter.

Employer contributions will be made at the 1.1 multiple of member contributions from two years prior for 2021 and thereafter. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. The projected benefit payments through 2026 were discounted at the expected long-term rate of return (7.25%). Starting in 2027, the projected benefit payments were discounted at the municipal bond index (2.12%, based on the Bond Buyer 20-GO Municipal Bond Index as of December 26, 2020). Therefore, a single equivalent, blended discount rate of 2.22% was calculated using the long-term expected rate of return and the municipal bond index

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the Fund, calculated using the discount rate of 2.22%, as well as what the Fund's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (1.22%) or 1-percentage-point higher (3.22%) than the current rate:

	1% Decrease (1.22%)	**Current Discount Rate (2.22%)**	**1% Increase (3.22%)**
Net pension liability as of December 31, 2020	$2,323,041,621	$1,929,145,620	$1,614,340,720

SECTION 5: GASB 67 Information (Continued)

EXHIBIT 2 - Schedules of Changes in Net Pension Liability

	2020	2019
Total pension liability		
Service cost	$51,348,187	$33,317,058
Interest	58,440,058	69,086,515
Change of benefit terms	0	0
Differences between expected and actual experience	-2,309,221	15,529,818
Changes of assumptions	203,245,789	359,734,367
Benefit payments, including refunds of employee contributions	-79,370,008	-78,550,449
Net change in total pension liability	231,354,805	399,117,309
Total pension liability – beginning	2,046,085,330	1,646,968,021
Total pension liability – ending (a)	2,277,440,135	2,046,085,330
Plan fiduciary net position		
Contributions – employer	33,939,927	27,682,089
Contributions – employee	12,634,900	12,664,855
Net investment income	28,071,327	51,982,545
Benefit payments, including refunds of employee contributions	-79,370,008	-78,550,449
Administrative expense	-1,598,370	-1,528,861
Other	60,451	50,236
Net change in plan fiduciary net position	-6,261,773	12,300,415
Plan fiduciary net position – beginning	354,556,288	342,255,873
Plan fiduciary net position – ending (b)	348,294,515	354,556,288
Fund's net pension liability – ending (a) – (b)	1,929,145,620	1,691,529,042
Plan fiduciary net position as a percentage of the total pension liability	15.29%	17.33%
Covered employee payroll	$138,942,498	$139,204,051
Fund's net pension liability as percentage of covered employee payroll	1,388.45%	1,215.14%

SECTION 5: GASB 67 Information (Continued)

EXHIBIT 3 - Schedule of Employer Contribution – Last Ten Fiscal Years

Fiscal Year Ended	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
June 30, 2012	$28,051,528	$10,868,361	$17,183,167	$114,223,909	9.51%
December 31, 2012	16,786,671	5,268,363	11,518,308	58,231,511	9.05%
December 31, 2013	41,834,857	15,707,814	26,127,043	117,781,596	13.34%
December 31, 2014	35,307,186	11,225,438	24,081,748	118,987,507	9.43%
December 31, 2015	36,273,994	30,588,976	5,685,018	122,382,584	24.99%
December 31, 2016	37,130,268	30,890,241	6,240,027	121,126,918	25.50%
December 31, 2017	45,253,238	20,920,614	24,332,624	135,315,008	15.46%
December 31, 2018	50,929,734	27,638,402	23,291,332	133,112,100	20.76%
December 31, 2019	61,887,790	27,682,089	34,205,701	139,204,051	19.89%
December 31, 2020	67,297,212	33,939,927	33,357,285	138,942,498	24.43%

SECTION 5: GASB 67 Information (Continued)

Notes to EXHIBIT 3

Valuation date	Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year.
Methods and assumptions used to establish "actuarially determined contribution" for the fiscal year ended December 31, 2020:	
Actuarial cost method	Entry Age Actuarial cost method
Amortization method	22-year closed, level percentage of payroll amortization
Asset valuation method	5-year smoothed fair value
Actuarial assumptions:	
Investment rate of return	7.25%, net of investment expense
Projected salary increases	Service-based ranging from 20.00% to 2.75%
Mortality	For healthy annuitants, mortality rates were based on 110% of PubG-2010 Healthy Annuitant Table, with mortality improvements projected generationally using scale MP-2017. For active participants, mortality rates were based on 110% of PubG-2010 Healthy Employee Table, with mortality improvements projected generationally using scale MP-2017.
Cost of living adjustments	3% of original benefit for employees who first became a participant before January 1, 2011; the lesser of 3% and 1/2 of CPI of original benefit for employees and beneficiaries of employees who first became a participant on or after January 1, 2011; 3% compounded for beneficiaries of employees who first became a participant by January 1, 2011.
Other assumptions:	Same as those used in the December 31, 2020, actuarial funding valuations based on the results of an experience study for the five-year period ending December 31, 2018.

Statistical Section Overview

The information in this section is not covered by the Independent Auditor's Report but is presented as supplemental data for the benefit of the readers of the Comprehensive Annual Financial Report. The objectives of the statistical section information are to provide financial statement users with additional historical perspective, context, and detail to assist in using the financial statements, notes to financial statements, and required supplementary information, to better understand and assess the Fund's overall financial health.

Contents

MEMBERSHIP STATISTICS

	December 31, 2020	December 31, 2019
Active participants	2,890	3,132
Retired employees’ - annuities	2,116	2,144
Surviving spouses’ - annuities	648	686
Children - annuities	11	13
Member retirements granted during the year	75	93
New members	90	320
Withdrawals with refund	104	165

The above schedule provides details about the changes in the number of active participants, as well as the changes in the number and type of annuitants for the year.

Active Members and Total Annual Salaries by Age for the year ended December 31, 2020

Table I

	Male		Female		Total	
Age at 12/31/20	Number	Annual Salaries	Number	Annual Salaries	Number	Annual Salaries
18	1	$ 3,098	-	$ -	1	$ 3,098
19	1	23,785	3	57,487	4	81,272
20	16	366,384	20	440,447	36	806,831
21	31	613,063	31	531,955	62	1,145,018
22	40	880,980	41	791,795	81	1,672,775
23	31	619,958	26	476,456	57	1,096,414
24	32	755,357	26	571,548	58	1,326,905
25	50	1,236,647	41	890,338	91	2,126,985
26	36	885,622	28	749,993	64	1,635,615
27	38	1,212,698	38	993,709	76	2,206,407
28	33	1,014,044	41	1,211,079	74	2,225,123
29	41	1,425,337	29	965,335	70	2,390,672
30	44	1,539,969	29	1,167,072	73	2,707,041
31	28	1,217,209	27	1,396,844	55	2,614,053
32	28	1,060,375	32	1,434,674	60	2,495,049
33	31	1,313,752	21	840,933	52	2,154,685
34	34	1,873,990	24	1,035,023	58	2,909,013
35	42	2,068,758	33	1,352,201	75	3,420,959
36	38	1,763,175	15	863,745	53	2,626,920
37	29	1,680,310	29	1,491,889	58	3,172,199
38	38	1,647,315	15	741,904	53	2,389,219
39	37	2,049,531	24	942,900	61	2,992,431
40	35	1,872,304	24	1,223,553	59	3,095,857
41	31	1,985,170	20	774,773	51	2,759,943
42	40	2,394,523	20	923,205	60	3,317,728
43	26	1,572,134	24	1,314,523	50	2,886,657
44	31	1,899,110	19	961,053	50	2,860,163
45	29	1,737,269	20	1,000,702	49	2,737,971
46	30	1,462,184	30	1,601,195	60	3,063,379
47	32	2,021,835	28	1,718,948	60	3,740,783
48	37	2,066,107	18	845,872	55	2,911,979
49	33	2,194,209	24	1,336,031	57	3,530,240
50	32	1,750,820	31	1,669,092	63	3,419,912
51	54	2,655,351	23	1,338,270	77	3,993,621
52	41	2,123,058	25	1,306,613	66	3,429,671
53	49	2,661,922	23	1,097,659	72	3,759,581
54	42	2,289,531	27	1,420,416	69	3,709,947

Active Members and Total Annual Salaries by Age for the year ended December 31, 2020

Table I
(continued)

Age at 12/31/20	Male Number	Male Annual Salaries	Female Number	Female Annual Salaries	Total Number	Total Annual Salaries
55	30	$ 1,735,814	22	$ 950,365	52	$ 2,686,179
56	41	2,360,141	39	2,017,344	80	4,377,485
57	34	1,979,816	29	1,319,556	63	3,299,372
58	40	2,343,206	17	1,006,711	57	3,349,917
59	31	1,788,209	22	1,022,712	53	2,810,921
60	31	2,132,586	27	1,480,852	58	3,613,438
61	35	1,702,398	21	1,056,533	56	2,758,931
62	36	1,842,039	19	1,102,982	55	2,945,021
63	33	1,613,692	14	692,548	47	2,306,240
64	22	1,295,552	12	525,811	34	1,821,363
65	20	1,244,102	12	647,502	32	1,891,604
66	16	754,484	6	340,994	22	1,095,478
67	11	529,039	11	510,710	22	1,039,749
68	9	745,996	11	521,059	20	1,267,055
69	13	684,754	3	165,219	16	849,973
70	10	557,592	2	136,310	12	693,902
71	7	366,716	3	123,774	10	490,490
72	4	215,813	2	104,087	6	319,900
73	7	259,757	-	-	7	259,757
74	2	63,525	1	16,665	3	80,190
75	3	87,351	-	-	3	87,351
76	2	48,799	1	44,476	3	93,275
77	1	27,203	-	-	1	27,203
78	-	-	1	105,923	1	105,923
79	-	-	1	45,902	1	45,902
80	1	45,146	1	45,548	2	90,694
81	1	114,896	-	-	1	114,896
83	1	32,922	-	-	1	32,922
84	1	99,000	-	-	1	99,000
87	-	-	1	12,050	1	12,050
	1,683	$80,607,432	1,207	$51,474,865	2,890	$132,082,297

	Male	Female	Both
Average Age:	43.9	41.6	42.9
Average Salary:	$47,895	$42,647	$45,703

Note: The average salary reported by The Segal Company is annualized in order to take a conservative approach in reporting. The variances are immaterial in nature.

Active Members and Total Annual Salaries by Length of Service for the year ended December 31, 2020 **Table II**

	Male		Female		Total	
Years of Service	Number	Annual Salaries	Number	Annual Salaries	Number	Annual Salaries
< 1	52	$ 203,227	58	$ 379,395	110	$ 582,622
1	169	5,058,873	136	3,049,960	305	8,108,833
2	163	5,430,535	113	2,940,534	276	8,371,069
3	129	4,556,216	78	2,695,518	207	7,251,734
4	110	4,339,844	86	2,982,387	196	7,322,231
5	99	5,287,996	65	2,556,984	164	7,844,980
6	69	3,554,524	48	1,939,586	117	5,494,110
7	70	3,638,115	41	1,993,472	111	5,631,587
8	50	2,562,579	40	1,971,740	90	4,534,319
9	62	3,665,939	47	2,434,829	109	6,100,768
10	33	1,697,384	17	697,457	50	2,394,841
11	26	982,726	18	870,052	44	1,852,778
12	44	2,310,570	12	629,416	56	2,939,986
13	49	2,397,664	36	1,776,635	85	4,174,299
14	42	2,092,950	43	2,102,371	85	4,195,321
15	60	3,282,361	37	1,897,641	97	5,180,002
16	35	2,537,344	18	1,056,846	53	3,594,190
17	21	1,043,808	15	903,091	36	1,946,899
18	19	1,372,406	9	594,956	28	1,967,362
19	39	2,318,050	29	1,509,436	68	3,827,486
20	34	2,096,549	28	1,747,079	62	3,843,628
21	48	3,204,661	34	2,102,296	82	5,306,957
22	45	2,691,981	23	1,333,792	68	4,025,773
23	31	1,878,680	28	1,650,682	59	3,529,362
24	29	1,788,764	34	2,134,681	63	3,923,445
25	17	880,952	20	1,319,641	37	2,200,593
26	13	873,285	15	1,053,042	28	1,926,327
27	9	573,455	11	748,958	20	1,322,413
28	12	887,447	11	802,183	23	1,689,630
29	24	1,665,597	14	870,279	38	2,535,876
30	13	991,666	8	436,632	21	1,428,298
31	12	850,706	14	959,935	26	1,810,641
32	6	486,418	4	202,417	10	688,835
33	3	219,758	3	185,357	6	405,115
34	10	611,421	5	364,651	15	976,072

Active Members and Total Annual Salaries by Length of Service for the year ended December 31, 2020

Table II
(continued)

	Male		Female		Total	
Years of Service	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**
35	10	$ 752,386	2	$ 128,949	12	$ 881,335
36	4	265,482	-	-	4	265,482
37	3	253,101	-	-	3	253,101
38	4	247,748	3	187,696	7	435,444
39	6	534,806	-	-	6	534,806
40	4	220,634	1	80,023	5	300,657
41	1	72,217	-	-	1	72,217
42	3	146,452	1	62,394	4	208,846
47	-	-	1	76,324	1	76,324
48	1	80,155	-	-	1	80,155
51	-	-	1	45,548	1	45,548
	1,683	$80,607,432	1,207	$51,474,865	2,890	$132,082,297

	Male	Female	Both
Average Service:	11.0	10.8	10.9
Average Salary:	$47,895	$42,647	$45,703

Note: The average salary reported by The Segal Company is annualized in order to take a conservative approach in reporting. The variances are immaterial in nature.

Retirement Pensions by Age and Annual Payments **Table III**
for the year ended December 31, 2020

	Male		Female		Total	
Age at 12/31/20	Number	Annual Salaries	Number	Annual Salaries	Number	Annual Salaries
51	6	$ 49,755	2	$ 58,416	8	$ 108,171
52	5	59,875	1	16,881	6	76,756
53	5	109,224	7	260,511	12	369,735
54	9	245,021	3	107,611	12	352,632
55	10	241,393	8	279,146	18	520,539
56	13	566,889	6	171,487	19	738,376
57	16	580,940	5	124,410	21	705,350
58	19	690,506	8	195,688	27	886,194
59	21	713,521	16	520,696	37	1,234,217
60	27	745,230	13	346,363	40	1,091,593
61	42	1,468,896	19	410,870	61	1,879,766
62	46	1,822,208	10	379,212	56	2,201,420
63	36	1,424,565	16	375,154	52	1,799,719
64	47	1,485,157	18	681,996	65	2,167,153
65	66	2,380,617	24	754,199	90	3,134,816
66	67	2,426,428	26	842,346	93	3,268,774
67	72	2,352,565	28	769,726	100	3,122,291
68	60	1,908,380	32	730,358	92	2,638,738
69	77	2,815,341	33	921,900	110	3,737,241
70	79	2,401,665	32	934,646	111	3,336,311
71	64	2,437,535	20	550,170	84	2,987,705
72	58	1,750,920	19	515,548	77	2,266,468
73	69	2,202,325	21	535,044	90	2,737,369
74	49	1,376,805	17	305,272	66	1,682,077
75	56	1,443,840	13	282,316	69	1,726,156
76	37	1,269,730	23	491,445	60	1,761,175
77	54	1,785,370	17	390,333	71	2,175,703
78	49	1,486,853	19	282,733	68	1,769,586
79	32	1,033,120	13	378,929	45	1,412,049
80	38	1,379,305	15	207,634	53	1,586,939
81	27	909,827	13	256,923	40	1,166,750
82	44	1,250,145	9	168,972	53	1,419,117
83	31	941,725	8	65,507	39	1,007,232
84	24	511,687	12	346,077	36	857,764
85	32	990,841	4	101,062	36	1,091,903

Retirement Pensions by Age and Annual Payments for the year ended December 31, 2020

Table III (continued)

	Male		Female		Total	
Age at 12/31/20	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**
86	26	$ 1,034,842	13	$ 147,099	39	$ 1,181,941
87	23	814,755	4	134,740	27	949,495
88	21	581,165	12	158,868	33	740,033
89	22	484,452	4	82,070	26	566,522
90	11	400,407	4	117,882	15	518,289
91	10	341,229	-	-	10	341,229
92	11	320,741	4	52,006	15	372,747
93	9	312,725	5	73,751	14	386,476
94	1	6,315	3	59,698	4	66,013
95	1	50,803	1	25,602	2	76,405
96	2	149,859	2	45,774	4	195,633
97	2	83,830	2	41,564	4	125,394
98	2	54,548	-	-	2	54,548
99	3	178,790	1	5,440	4	184,230
	1,531	$50,072,665	585	$14,704,075	2,116	$64,776,740

	Male	Female	Both
Average Age:	72.2	71.4	72.0
Average Annual:	$32,706	$25,135	$30,613

Note: The average salary reported by The Segal Company is annualized in order to take a conservative approach in reporting. The variances are immaterial in nature.

Retirement Pensions by Age at Time of Retirement **Table IV**
for the year ended December 31, 2020

	Male		Female		Total	
Age at 12/31/20	Number	Annual Salaries	Number	Annual Salaries	Number	Annual Salaries
50	155	$ 4,628,141	46	$ 1,272,427	201	$ 5,900,568
51	103	4,251,703	28	1,214,319	131	5,466,022
52	85	3,294,115	25	727,972	110	4,022,087
53	73	2,907,728	25	859,612	98	3,767,340
54	86	3,564,562	32	1,220,548	118	4,785,110
55	101	3,180,601	50	1,137,076	151	4,317,677
56	95	2,809,145	32	706,321	127	3,515,466
57	75	2,578,701	25	848,303	100	3,427,004
58	78	2,301,309	29	713,610	107	3,014,919
59	55	1,943,407	26	630,510	81	2,573,917
60	99	3,045,685	50	813,198	149	3,858,883
61	62	2,016,625	30	562,373	92	2,578,998
62	88	2,195,827	41	883,383	129	3,079,210
63	45	1,257,287	17	388,130	62	1,645,417
64	47	1,405,917	18	339,228	65	1,745,145
65	69	2,110,532	30	619,369	99	2,729,901
66	47	1,261,466	20	556,459	67	1,817,925
67	45	1,390,700	18	343,063	63	1,733,763
68	22	839,822	17	301,657	39	1,141,479
69	23	942,089	6	83,015	29	1,025,104
70	20	456,292	5	99,453	25	555,745
71	15	521,900	3	88,996	18	610,896
72	8	201,097	3	90,121	11	291,218
73	2	32,366	1	7,967	3	40,333
74	8	171,337	2	24,595	10	195,932
75	9	246,129	-	-	9	246,129
76	5	196,844	1	4,682	6	201,526
77	-	-	4	155,027	4	155,027
78	2	87,850	-	-	2	87,850
79	3	40,725	1	12,661	4	53,386
80	2	109,726	-	-	2	109,726
81	1	35,358	-	-	1	35,358

Retirement Pensions by Age at Time of Retirement
for the year ended December 31, 2020

Table IV
(continued)

	Male		Female		Total	
Age at 12/31/20	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**	**Number**	**Annual Salaries**
82	2	$ 40,655	-	-	2	$ 40,655
85	1	7,024	-	-	1	7,024
	1,531	$50,072,665	585	$14,704,075	2,116	$64,776,740

	Male	Female	Both
Average Age:	58.3	58.7	58.4
Average Annual Payments:	$32,706	$25,135	$30,613

Surviving Spouses' Pension by Age and Annual Payments for the year ended December 31, 2020 **Table V**

Age at 12/31/20	Number	Annual Payments	Age at 12/31/20	Number	Annual Payments
42	1	$ 3,842	77	24	$ 493,136
49	2	6,318	78	26	516,641
51	1	35,593	79	14	195,152
52	3	26,889	80	23	385,682
53	2	41,925	81	26	404,176
54	2	45,590	82	32	531,956
55	1	10,050	83	20	346,584
56	3	34,438	84	22	348,419
57	5	43,315	85	19	290,941
58	4	48,303	86	23	428,244
59	4	66,246	87	18	260,975
60	5	99,385	88	17	297,683
61	13	247,868	89	23	416,724
62	6	152,954	90	16	308,620
63	6	107,199	91	14	236,698
64	7	166,987	92	14	251,432
65	12	375,940	93	21	316,797
66	12	180,887	94	6	115,272
67	12	296,298	95	12	151,834
68	11	207,882	96	9	121,918
69	20	353,724	97	8	101,618
70	20	404,826	98	1	7,828
71	9	170,577	99	4	36,631
72	16	302,515	100	2	27,779
73	21	384,857	103	1	10,956
74	24	424,538		648	$11,501,940
75	10	200,788			
76	21	458,510			

Average Age: 78.8 yrs
Average Annual Payments: $17,750

Surviving Spouses' Pension by Age at Commencement for the year ended December 31, 2020

Table VI

Age at Commencement	Number	Annual Payments	Age at Commencement	Number	Annual Payments
27	1	$ 4,320	62	14	$ 237,791
28	2	12,754	63	12	245,765
29	2	5,937	64	24	384,668
30	1	16,108	65	18	374,528
31	2	12,446	66	15	281,767
33	2	25,605	67	25	434,448
34	1	8,305	68	16	391,779
35	1	2,885	69	27	511,819
36	5	45,179	70	17	293,427
37	2	10,320	71	18	323,658
38	3	21,771	72	19	280,377
39	5	84,952	73	14	213,203
40	2	46,217	74	19	302,112
41	5	83,224	75	16	267,367
42	7	129,909	76	24	398,967
43	5	77,369	77	14	292,116
44	9	105,129	78	17	288,124
45	9	138,899	79	14	222,722
46	5	84,651	80	13	185,750
47	4	83,773	81	8	136,416
48	8	177,588	82	8	114,256
49	10	214,627	83	9	96,325
50	15	275,271	84	6	94,352
51	9	175,986	85	9	113,455
52	5	109,751	86	4	46,636
53	14	270,123	87	5	124,437
54	13	335,943	88	2	31,783
55	15	373,962	89	2	5,436
56	10	216,514	90	5	66,971
57	12	290,475	91	3	32,815
58	17	388,959	92	2	25,818
59	16	283,863	96	1	9,833
60	15	348,393		648	$11,501,940
61	16	211,811			

Average Age: 64.6 yrs
Average Annual Payments: $17,750

Annuities and Refunds by Type **Table VII**

Last Ten Years

		Surviving		Refunds	
Year Ended	Retirement	Spouse	Children	Employees’	Pensioners’
June 30, 2012	$52,051,852	$10,801,985	$14,719	$1,786,275	$201,878
December 31, 2012	26,428,994	5,529,729	10,859	789,406	188,506
December 31, 2013	54,256,588	11,319,614	21,619	2,033,334	82,829
December 31, 2014	55,519,537	11,665,763	20,800	2,427,646	301,745
December 31, 2015	56,094,931	11,823,316	17,100	1,493,229	554,946
December 31, 2016	58,967,909	12,043,511	18,000	2,228,079	281,414
December 31, 2017	59,488,303	12,252,673	15,900	1,834,626	191,179
December 31, 2018	61,178,336	12,108,228	16,900	2,589,760	136,207
December 31, 2019	63,644,273	12,187,742	18,450	1,792,130	292,308
December 31, 2020	64,754,238	12,298,065	21,250	1,592,251	15,509

Death and Disability Benefits **Table VIII**

Last Ten Years

Year Ended	Death Benefit	Ordinary Disability	Duty Disability	Total
June 30, 2012	$371,225	$366,541	$(91,817) (a)	$645,949
December 31, 2012	136,775	187,808	8,935	333,518
December 31, 2013	266,000	302,316	53,667	621,983
December 31, 2014	279,500	281,640	39,411	600,551
December 31, 2015	317,000	207,846	93,648	618,494
December 31, 2016	255,000	184,173	99,790	538,963
December 31, 2017	305,000	217,423	(26,959) (a)	495,464
December 31, 2018	229,000	219,793	48,596	497,389
December 31, 2019	228,500	291,886	95,160	615,546
December 31, 2020	311,000	280,742	96,953	688,695

(a) Reflects net of recoveries of prior duty disability payments in accordance with state statute.

Number of Active Participants **Table IX**

Last Ten Years

Year Ended	Male Participants	Female Participants	Total
June 30, 2012	1,804	1,173	2,977
December 31, 2012	1,829	1,224	3,053
December 31, 2013	1,819	1,257	3,076
December 31, 2014	1,742	1,231	2,973
December 31, 2015	1,796	1,267	3,063
December 31, 2016	1,800	1,314	3,114
December 31, 2017	2,114	1,429	3,543
December 31, 2018	1,871	1,316	3,187
December 31, 2019	1,818	1,314	3,132
December 31, 2020	1,683	1,207	2,890

Active Participants Statistical Averages **Table X**

Last Ten Years

	Male			Female			Combined		
Year Ended	Annual Salary	Age	Service	Annual Salary	Age	Service	Annual Salary	Age	Service
June 30, 2012	$36,623	42.9	10.2	$32,585	39.7	9.1	$35,032	41.6	9.8
December 31, 2012	19,201	43.3	10.1	16,829	39.7	8.9	18,250	41.9	9.6
December 31, 2013	37,809	43.1	10.0	32,664	39.5	8.9	35,706	41.6	9.6
December 31, 2014	41,199	43.4	10.7	35,245	39.8	9.6	38,734	41.9	10.3
December 31, 2015	40,361	43.0	10.5	34,578	40.0	9.6	37,969	41.8	10.1
December 31, 2016	41,248	42.7	10.4	34,041	39.5	9.3	38,207	41.3	9.9
December 31, 2017	35,986	41.9	8.9	32,383	39.6	8.7	34,532	41.0	8.8
December 31, 2018	40,973	42.6	9.8	35,712	39.9	9.5	38,800	41.5	9.7
December 31, 2019	44,525	43.0	10.2	38,312	40.1	9.6	41,919	41.8	10.0
December 31, 2020	47,895	43.9	11.0	42,647	41.6	10.8	45,703	42.9	10.9

Retirees and Beneficiaries Receiving Benefits — Table XI

Last Ten Years

Year Ended	Retirees	Surviving Spouses	Children	Total
June 30, 2012	2,104	804	13	2,921
December 31, 2012	2,090	798	18	2,906
December 31, 2013	2,102	786	16	2,904
December 31, 2014	2,101	773	17	2,891
December 31, 2015	2,097	767	12	2,876
December 31, 2016	2,113	744	13	2,870
December 31, 2017	2,115	745	16	2,876
December 31, 2018	2,136	706	12	2,854
December 31, 2019	2,144	686	13	2,843
December 31, 2020	2,116	648	11	2,775

Average Annual Retirees/Surviving Spouses' Benefit Payments — Table XII

Last Ten Years

	Average Annual Payments	
Year Ended	Retiree	Spouse
June 30, 2012	$25,367	$13,544
December 31, 2012	25,747	14,018
December 31, 2013	26,330	14,500
December 31, 2014	26,855	15,062
December 31, 2015	26,683	15,525
December 31, 2016	28,048	16,119
December 31, 2017	28,678	16,577
December 31, 2018	29,571	17,101
December 31, 2019	29,808	17,127
December 31, 2020	30,613	17,750

Funded Ratio **Table I**

Last Ten Years

Year Ended	(1) Actuarial Value of Assets	(2) Unfunded Accrued Liabilities	(3) Statutory Reserve Requirements (1) + (2)	(4) % Percent Funded (1) / (3)
June 30, 2012	$440,692,006	$425,678,559	$866,370,565	50.9%
December 31, 2012	421,448,001	550,359,221	971,807,222	43.4
December 31, 2013	404,292,435	483,730,929	888,023,364	45.5
December 31, 2014	393,762,692	507,077,925	900,840,617	43.7
December 31, 2015	395,652,106	514,608,254	910,260,360	43.5
December 31, 2016	393,604,997	611,888,096	1,005,493,093	39.1
December 31, 2017	385,419,506	653,859,938	1,039,279,444	37.1
December 31, 2018	366,806,612	775,491,353	1,142,297,965	32.1
December 31, 2019	349,960,428	820,642,552	1,170,602,980	29.9
December 31, 2020	342,131,743	848,233,901	1,190,365,644	28.7

Ratio of Unfunded Liability to Payroll **Table II**

Last Ten Years

Year Ended	Covered Payroll	Unfunded Liability	Liability % of Payroll
June 30, 2012	$114,223,909	$425,678,559	372.6%
December 31, 2012	58,231,511	550,359,221	472.6
December 31, 2013	117,781,596	483,730,929	410.7
December 31, 2014	118,987,507	507,077,925	426.2
December 31, 2015	122,382,584	514,608,254	420.5
December 31, 2016	121,126,918	611,888,096	505.2
December 31, 2017	135,315,008	653,859,938	483.2
December 31, 2018	133,112,100	775,491,353	582.6
December 31, 2019	139,204,051	820,642,552	589.5
December 31, 2020	138,942,498	848,233,901	610.5

Revenue by Sources

Table III

Last Ten Years

Year Ended	Employer Contributions	Employee Contributions	Net Investment Income/(Loss) (a)	Total
June 30, 2012	$10,868,361	$10,404,827	$3,861,173	$25,134,361
December 31, 2012	5,268,363	5,371,084	24,956,796	35,596,243
December 31, 2013	15,804,452	10,732,730	66,642,528	93,179,710
December 31, 2014	11,225,438	10,831,434	27,591,038	49,647,910
December 31, 2015	30,588,976	12,368,636	8,911,726	51,869,338
December 31, 2016	30,890,241	12,246,115	31,022,803	74,159,159
December 31, 2017	20,920,614	13,675,292	51,174,093	85,769,999
December 31, 2018	27,638,402	12,125,457	(17,128,885)	22,634,974
December 31, 2019	27,682,089	12,664,855	52,032,781	92,379,725
December 31, 2020	33,939,927	12,634,900	28,131,778	74,706,605

(a) includes income from securities lending

Required Schedules (GASB No. 44)

Average Benefit Payments
Table I

Last Ten Years

(Dollars in Thousands)

	Years of Credited Service						
	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30+
Period 7/1/11 to 6/30/12							
Average monthly benefit	$ 572	$ 871	$ 995	$ 1,419	$ 1,999	$ 3,222	$ 3,909
Average final average salary	$ 7,210	$ 4,957	$ 3,198	$ 4,088	$ 4,339	$ 5,175	$ 4,633
Number of retired members	21	14	7	9	14	13	22
Period 7/1/12 to 12/31/12							
Average monthly benefit	$ 444	$ 1,040	$ 687	$ 1,245	$ 2,199	$ 3,727	$ 4,432
Average final average salary	$ 6,780	$ 5,896	$ 2,590	$ 3,180	$ 4,638	$ 5,510	$ 5,677
Number of retired members	9	5	6	7	4	4	16
Period 1/1/13 to 12/31/13							
Average monthly benefit	$ 581	$ 822	$ 1,311	$ 1,288	$ 2,221	$ 3,234	$ 3,877
Average final average salary	$ 7,186	$ 4,677	$ 4,797	$ 3,344	$ 4,428	$ 4,780	$ 5,076
Number of retired members	10	17	21	12	16	14	20
Period 1/1/14 to 12/31/14							
Average monthly benefit	$ 299	$ 736	$ 941	$ 1,364	$ 2,615	$ 3,762	$ 4,608
Average final average salary	$ 5,274	$ 4,072	$ 3,198	$ 3,320	$ 4,844	$ 5,705	$ 5,893
Number of retired members	13	8	11	15	13	9	21
Period 1/1/15 to 12/31/15							
Average monthly benefit	$ 466	$ 914	$ 1,019	$ 1,623	$ 2,323	$ 3,478	$ 3,740
Average final average salary	$ 7,554	$ 5,306	$ 3,671	$ 3,652	$ 4,401	$ 5,433	$ 4,752
Number of retired members	8	10	16	14	7	7	22
Period 1/1/16 to 12/31/16							
Average monthly benefit	$ 391	$ 869	$ 1,087	$ 1,546	$ 1,984	$ 3,249	$ 3,973
Average final average salary	$ 6,774	$ 5,489	$ 3,956	$ 3,407	$ 3,949	$ 4,619	$ 4,838
Number of retired members	13	13	11	12	11	12	27
Period 1/1/17 to 12/31/17							
Average monthly benefit	$ 608	$ 1,113	$ 1,168	$ 1,554	$ 2,414	$ 3,041	$ 4,732
Average final average salary	$ 7,626	$ 6,255	$ 4,107	$ 3,824	$ 4,909	$ 4,502	$ 5,605
Number of retired members	12	13	16	18	8	9	22
Period 1/1/18 to 12/31/18							
Average monthly benefit	$ 445	$ 992	$ 1,091	$ 2,184	$ 2,033	$ 3,543	$ 4,438
Average final average salary	$ 5,497	$ 5,913	$ 4,057	$ 5,639	$ 3,948	$ 5,185	$ 5,641
Number of retired members	5	7	19	14	17	9	31
Period 1/1/19 to 12/31/19							
Average monthly benefit	$ 628	$ 1,313	$ 788	$ 1,675	$ 2,166	$ 4,016	$ 4,414
Average final average salary	$ 8,882	$ 8,164	$ 3,028	$ 4,052	$ 4,230	$ 5,991	$ 5,568
Number of retired members	13	11	15	14	11	9	20
Period 1/1/20 to 12/31/20							
Average monthly benefit	$ 641	$ 1,015	$ 945	$ 1,974	$ 2,340	$ 4,115	$ 4,252
Average final average salary	$ 8,277	$ 5,351	$ 3,211	$ 4,895	$ 4,602	$ 6,403	$ 5,377
Number of retired members	13	3	7	14	7	10	21

Required Schedules (GASB No. 44)

Principal Participating Employers — Table II

Current Year and Nine Years Ago

Participating Government	December 31, 2020 Covered Employees'	Rank	Percentage of Total System	June 30, 2012 Covered Employees'	Rank	Percentage of Total System
Chicago Park District	2,882	1	99.71%	2,966	1	99.63%
Retirement Board of the Park Employees' Annuity and Benefit Fund	8	2	0.29	11	2	0.37
City of Chicago	-	3	0.00	-	3	0.00
Total (3 Governments)	2,890		100.00%	2,977		100.00%

Changes in Fiduciary Net Position — Table III

Last Ten Years

(Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	Six Months Ended 12/31/12	June 30, 2012
	For the years ended December 31,									
ADDITIONS										
Employer Contributions	$33,940	$27,682	$27,638	$20,921	$30,890	$30,589	$11,226	$15,804	$ 5,268	$10,868
Employee Contributions	12,635	12,665	12,126	13,675	12,246	12,369	10,831	10,733	5,371	10,405
Investment Income (Loss)	28,132	52,033	(17,129)	51,174	31,023	8,912	27,591	66,643	24,957	3,861
Total Additions	74,707	92,380	22,635	85,770	74,159	51,870	49,648	93,180	35,596	25,134
DEDUCTIONS (see Table IV)										
Benefit Payments	77,762	76,466	73,801	72,252	71,568	68,554	67,807	66,220	32,303	63,514
Refunds	1,608	2,084	2,726	5,886*	2,509	2,048	2,729	2,116	978	1,988
Administrative Expenses	1,599	1,529	1,501	1,682	1,538	1,534	1,459	1,464	724	1,645
Total Deductions	80,969	80,079	78,028	79,820	75,615	72,136	71,995	69,800	34,005	67,147
Changes in Fiduciary Net Position	$(6,262)	$12,301	$(55,393)	$ 5,950	$(1,456)	$(20,266)	$(22,347)	$23,380	$ 1,591	$(42,013)

*Includes refund of increased contributions and reduced disability benefits per court order.

Required Schedules (GASB No. 44)

Benefit and Refund Deductions from Fiduciary Net Position by Type — Table IV

Last Ten Years

(Dollars in Thousands)

	For the years ended December 31,								Six Months Ended	June 30,
	2020	2019	2018	2017	2016	2015	2014	2013	12/31/12	2012
TYPE OF BENEFIT										
Age and Service Benefits										
Retirees	$64,754	$63,644	$61,178	$59,488	$58,968	$56,095	$55,520	$54,256	$26,429	$52,052
Spousal	12,298	12,188	12,108	12,253	12,044	11,823	11,666	11,320	5,529	10,802
Children	21	18	17	16	18	17	21	22	11	15
Death Benefits	311	229	229	305	255	317	280	266	137	371
Disability Benefits										
Member-Duty	97	95	49	(27)	99	94	39	54	9	(92)
Member-Non-Duty	281	292	220	217	184	208	281	302	188	366
Total Benefits	$77,762	$76,466	$73,801	$72,252	$71,568	$68,554	$67,807	$66,220	$32,303	$63,514
TYPE OF REFUND										
Separation	$ 1,592	$ 1,792	$ 2,590	$ 1,835	$ 2,228	$ 1,493	$ 2,427	$ 2,033	$ 789	$ 1,786
Death	16	292	136	191	281	555	302	83	189	202
Refund of increased contributions and reduced disability benefits	-	-	-	3,860	-	-	-	-	-	-
Total Refunds	$ 1,608	$ 2,084	$ 2,726	$ 5,886	$ 2,509	$ 2,048	$ 2,729	$ 2,116	$ 978	$ 1,988

Retired Members by Type of Benefit — Table V

Amount of Monthly Benefit	Number of Retired Members	Type of Retirement 1	2	3
$ 1 - $ 250	152	88	53	11
251 - 500	261	188	73	-
501 - 750	254	185	69	-
751 - 1,000	212	153	59	-
1,001 - 1,250	190	132	58	-
1,251 - 1,500	148	105	43	-
1,501 - 1,750	136	85	51	-
1,751 - 2,000	127	67	60	-
Over 2,000	1,295	1,113	182	-
Total	2,775	2,116	648	11

Type of Retirement

1 Normal Retirement for age and service, including incentive retirements
2 Beneficiary payment, normal surviving spouse
3 Beneficiary payments, child(ren)