Employees' Retirement System of Tulsa County

Annual Comprehensive Financial Report

YEAR ENDED JUNE 30, 2022 AND JUNE 30, 2021

Pension Trust Fund of Tulsa County, Oklahoma

Tulsa County, Oklahoma

Employees' Retirement System of Tulsa County (TCERS)

ANNUAL COMPREHENSIVE FINANCIAL REPORT
A PENSION TRUST FUND OF TULSA COUNTY, OKLAHOMA
FOR THE FISCAL YEARS ENDED
JUNE 30, 2022, AND JUNE 30, 2021

Prepared and issued by:
Michael Willis
Tulsa County Clerk

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218 W. 6th St.
Tulsa, Oklahoma 74129
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Introductory Section

TULSA COUNTY EMPLOYEES' RETIREMENT SYSTEM

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Phone: 918.596.5854
Fax: 918.596.5867

October 31, 2022

Dear Participants:

On behalf of the Board of Trustees, I am pleased to present the Annual Comprehensive Financial Report of the Employees' Retirement System of Tulsa County, Oklahoma for the fiscal year ended June 30, 2022. **Your fund had a negative 14% annual return**. Your retirement fund balance was $297,074,715 as compared to the fund balance of $344,854,962 on June 30, 2021.

On a positive note, please keep in mind that as the fund balance is reported each year, the larger perspective is the broad range of yearly valuations that averaged together provides a complete and more positive picture. The other important issue is the funding status, your fund is at a 76% funding level.

Your Board of Trustees will be taking actions to continue strengthening your fund and will address the unfunded liability by starting the legislative process to increase the maximum rate of contributions.

I would also like to express my sincere appreciation to each Board member for their service and to Traci Scullawl, secretary to the Board, for her tireless efforts to keep our meetings running smoothly, record keeping and her interaction with employees and retirees.

Your trustees will continue implementing and monitoring the conservative balanced and diversified strategies set in place to protect your retirement fund. We are committed to adhering to sound conservative policies and values with regard to investment strategies and benefit enhancements. Your Board of Trustees are proud to represent you.

Sincerely,

John C Baker III

John C. Baker III, Chairman
Board of Trustees

Letter of Transmittal

Employees' Retirement System of Tulsa County
218 W. 6th St.
Tulsa, Oklahoma 74119

January 31, 2023

To the Board of Trustees and Members of the Employees' Retirement System of Tulsa County:

State law requires, that after July 1 and before December 1 of each year, the Employees' Retirement System of Tulsa County (TCERS) publish an annual report that covers the operation of TCERS during the past fiscal year, including income, disbursements, and the financial condition at the fiscal year. This report is published, in part, to fulfill that requirement for the fiscal year end June 30, 2022.

The letter of transmittal contains the following four sections: formal transmittal of the Annual Comprehensive Financial Report, profile of the government, information useful in assessing the government's economic condition, and awards and acknowledgements.

Management's discussion and analysis (MD&A) immediately follows the independent auditor's report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

Financial Information

The responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, including all disclosures rests with the Board of Trustees. The current responsibility for the fund's accounting and investment control has been delegated to the Tulsa County Treasurer, who serves as an Ex-Officio member to the Board of Trustees. The responsibility for financial statement preparation rests with the Tulsa County Clerk, who serves as an Ex-Officio Member and Clerk to the Board of Trustees. All financial disclosures necessary to enable the reader to gain an understanding of the TCERS's financial activities have been included.

The financial statements of TCERS are presented in accordance with the generally accepted accounting principles promulgated by the Governmental Accounting Standards Board (GASB).

This financial report also complies with the provisions of Title 19 OSA 953.1 of the Oklahoma Statutes. The accompanying financial statements (Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position) are reported on an accrual basis of accounting and in conformity with generally accepted accounting principles. Under the accrual basis of accounting, revenues are recognized when earned instead of when received and expenses are recognized when incurred instead of when actually paid.

Internal Control and Independent Audit

Internal controls are currently in place, which are designed to provide reasonable, but not absolute, assurance that (1) assets are safeguarded from theft or misuse, (2) accounting data is accurate and reliable, and (3) compliance with managerial policies is encouraged. The internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable

LETTER OF TRANSMITTAL (continued)

reliable, and (3) compliance with managerial policies is encouraged. The internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived from it, and (2) the valuation of costs and benefits requires estimates and judgment by management. In accordance with Title 19 OSA 171 of the Oklahoma Statutes, the State Auditor and Inspector is to perform an annual audit of all books and records of Tulsa County. The public accounting firm of Stanfield + O'Dell PC was selected by the Trustees of TCERS to audit the financial statements of TCERS. Since the retirement system has been classified as a "pension trust fund" of Tulsa County, these financial statements and related note disclosures are also incorporated into Tulsa County's Annual Comprehensive Financial Report.

Profile of the TCERS

TCERS is governed by Title 19 OSA 951 through 965 of the Oklahoma Statutes and is operated to provide retirement, survivor, and disability benefits to general employees of Tulsa County and certain other organizations as permitted by law. The other entities and departments included within the TCERS are not necessarily considered component units of the TCERS for financial reporting purposes. The management of TCERS does not prepare or adopt a separate annual budget for TCERS's operations.

TCERS is a single employer, defined benefit pension plan. The employer and employee contribution rates for each member are established by the Tulsa County Board of County Commissioners after recommendation by the TCERS Board of Trustees based on an actuarial calculation which is performed to determine the adequacy of such contribution rates.

Members qualify for full retirement benefits at the specified normal retirement age of 62, or when the sum of the member's age and years of credited service equals 80. Members may start drawing early at age 55 at an actuarial reduced rate. For any member hired on or after July 1, 2017, members qualify for full retirement benefits at the specified normal retirement age of 65, or when the sum of the member's age and years of credited service equals 90. Members may start drawing early at age 55 at an actuarial reduced rate.

The Board of Trustees approves the benefit payment amount for each employee who retires. Employees must submit the required paperwork at least 15 days prior to the effective date of retirement. The investment and administrative expenses and refunds to terminated employees are listed as an agenda item for the Board of Trustees' monthly meeting and approved prior to disbursement.

Information Useful in Assessing the Government's Economic Condition

Revenues - Additions to Plan Fiduciary Net Position

The funds needed to finance retirement benefits are accumulated through the collection of employer and employee contributions and through income from investments. Contributions and investment income for fiscal years 2022 and 2021 are shown for comparison purposes.

	2022	2021	Amount Increase	Percentage Increase
Contributions:				
Employer	$13,110,737	$12,673,435	$ 437,302	3.45%
Employee	3,058,324	2,955,046	103,278	3.49%
Net investment Income	(38,136,022)	69,454,873	(107,590,895)	(154.91)%
Total (deductions)/additions	$(21,966,961)	$85,083,354	$(107,050,315)	(125.82)%

LETTER OF TRANSMITTAL (continued)

Expenses - Deductions from Plan Fiduciary Net Position

The primary deductions of a retirement system include the payment of benefits to retirees and beneficiaries, the refund of contributions to former members and the cost of administering the retirement system. Expenses of the retirement system for fiscal years 2022 and 2021 are shown for comparison purposes.

	2022	**2021**	**Amount Increase**	**Percentage Increase**
Benefits	$25,513,789	$24,191,894	$1,321,895	5.46%
Administration	93,154	151,189	(58,035)	(38.39)%
Refunds	206,343	176,411	29,932	16.97%
Total deductions	$25,813,286	$24,519,494	$1,293,792	5.28%

Investment Activities
Investments of the TCERS's funds are governed by Title 19 OSA 953.1A, as amended, of the Oklahoma Statutes. The Board of Trustees has retained a select number of outside investment management firms to provide for investment of the monies of the retirement system except for certain judgments against Oklahoma government entities and a small amount of cash. BOK Financial is the custodian of all cash and investments. A complete listing of the fees and commissions paid to investment managers retained by the Board of Trustees can be found on page 52, Schedule of Fees and Commissions and on page 46 in the Schedule of Investment Expenses, a supporting schedule for the **Financial Section** of this report.

The Board of Trustees adopted an Investment Policy which provides a framework for the management of the TCERS's investments. This Policy establishes the TCERS's investment policies and objectives.

TCERS experienced a total fund return of -10.86% for the fiscal year. The three-year annualized return is 4.38%. The five-year annualized return is 4.39%.

Additional information on the TCERS's investments is contained in the **Investment Section** of this report.

Net Position Restricted for Pensions
Funds are derived from the excess of additions over deductions and are accumulated to meet future benefit obligations to retirees and beneficiaries. This accumulated balance is referred to as the net position restricted for pensions in the Statement of Fiduciary Net Position in the financial section of this report. The total pension liability is not disclosed in the financial statements but is disclosed in the required supplementary information schedules immediately following the notes to the financial statements. These schedules show the fair value of assets wherein the excess or shortfall of investment income over or under the expected rate of return of 6.00% is recognized over a five-year period.

Two actuarial valuations are prepared by an actuarial firm: one for *funding* purposes and the other for *accounting* purposes. The actuarial valuation done for *funding* purposes measures the present value of Actuarial Accrued Liabilities (AAL) estimated to be payable in the future to current retirees, beneficiaries, and employees for service earned to date. For plan year beginning July 1, 2022, the retirement system has an Unfunded Actuarial Accrued Liability (UAAL) of $101,098,559. This July 1, 2022, funding valuation determined the funding ratio to be 76%. The actuarially determined Annual Contribution Rate (ADC) for plan year beginning July 1, 2022, was set equal to 12.23% of payroll for the amortization of the UAAL, plus the normal cost rate of 9.20% for a total contribution rate of 21.43% of payroll.

The actuarial valuation performed for plan year beginning July 1, 2022, for *accounting* purposes was done in accordance with GASB 67. This valuation was used to determine the Total Pension Liability

LETTER OF TRANSMITTAL (continued)

(TPL) with pension expense to be recognized by Tulsa County and its component units. The Total Pension Liability (TPL) differs somewhat from the Actuarial Accrued Liability (AAL) in that it measures the present value of projected benefit payments attributed to past periods of member service in accordance with specific requirements of GASB 67. One of those requirements relates to the determination of the discount rate. The discount rate for TCERS, as determined in accordance with GASB 67, was 4.75%. Another requirement in determining the Total Pension Liability (TPL) is the use of the Entry Age Normal Cost Method which is the same method that is used for funding purposes. Consequently, the AAL was $428,952,887 and the TPL was $583,127,912 as of June 30, 2022. However, the determination of annual pension expense in accordance with GASB 67 differs significantly from the amount of actual employer contributions. Each component of pension expense is detailed in a required supplementary Schedule of Changes in Fiduciary Net Pension Liability located following the notes to the financial statements. In addition, the Net Pension Liability (NPL), as determined in accordance with GASB 67, differs from the Unfunded Actuarial Accrued Liability (UAAL) that was determined by the *funding* valuation. The main difference relates to the way plan assets are valued. For *accounting* purposes, plan assets are valued at fair market value and not valued using the actuarial method (which employs a technique known as smoothing) that is used for funding. Consequently, the net pension liability (NPL) used for accounting purposes was $286,053,197, while the unfunded actuarial accrued liability (UAAL) was $101,098,559. For plan year beginning July 1, 2022, the NPL was greater than the UAAL.

Professional Services-Professional Consultants
Professional consultants perform services essential to the efficient operation of the TCERS. The public accounting firm of Stanfield + O'Dell PC currently audits the financial statements of the TCERS. The independent auditor's report on the financial statements is included in the beginning part of the **Financial Section** of this report. Milliman conducts an actuarial valuation for the TCERS as of the last day of the fiscal year for the subsequent fiscal year. The actuary's certification letter is included in the beginning part of the **Actuarial Section** of this report.

Major Initiatives
The Board of Trustees of the Retirement System (Board) and the Board of County Commissioners of Tulsa County (BOCC) approved the following adjustments to the TCERS:

Effective May 29, 2007, the BOCC and the Board approved a Resolution allowing retirees to return to work for Tulsa County on a part-time basis after the first month of retirement and remain eligible for retirement benefits, as permitted by 19 O.S. 2007, Section 956, as amended.

Beginning July 1, 2007, the total employer and employee contributions shall not exceed sixteen and one-half percent (16.5%) of the monthly compensation of each member, as permitted by 19 O.S. 2007, Section 956, as amended.

Effective July 1, 2008, the actuarial assumption of the effective rate of return on investments was reduced from 8 percent to 7.75 percent.

Effective July 1, 2010, the elected official service credit was repealed.

Effective July 1, 2010, the BOCC and the Board approved a resolution to reduce the percentage of benefit schedule used to calculate benefits for persons who were not vested as of June 30, 2010 or hired after June 30, 2010. The spousal benefit percentage was reduced from 70% to 67% and the disability benefit percentages were reduced for the same persons.

On March 6, 2014, the Internal Revenue Service (IRS) issued a favorable determination letter on the plan. The letter expired on January 31, 2019. The IRS has since discontinued the renewal of the determination letters.

LETTER OF TRANSMITTAL (continued)

In October 2014, the Board implemented a Funding Policy to ensure that the Fund will be fully funded.

In October 2015, the BOCC and the Board approved a resolution changing the employee-member contribution rate, effective January 1, 2016, from 1% to 1.5% and effective July 1, 2016, from 1.5% to 2% of the employee's base salary.

Effective July 1, 2016, the actuarial assumption of the effective rate of return on investments was reduced from 7.75% to 7.25%.

Effective July 1, 2017, the employee contribution amount increased to 2.5% of the monthly base salary.

Effective July 1, 2017, the BOCC and the Board approved a resolution changing the retirement age to 65, Rule of 80 to Rule of 90, and early drawing percentages used to calculate early drawing retiree benefits, for employees hired on or after July 1, 2017.

Effective July 1, 2019, the BOCC and the Board approved a resolution changing the employer contribution rate from 14% to 15%. Effective January 1, 2020, the employee-member contribution rate increased from 2.5% to 3.5% of the employee's base salary.

Awards and Acknowledgements

Certificate of Achievement
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Employees' Retirement System of Tulsa County for its annual comprehensive financial report for the fiscal year ended June 30, 2021. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized annual comprehensive financial report, whose content conforms to program standards. Such financial reports must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. TCERS has received a Certificate of Achievement for each consecutive year, since 1996. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgments
We wish to extend special thanks to Rachael Johnson in the Tulsa County Treasurer's Office for her help in preparing the **Investment Section** of this report. We also wish to extend special thanks to Traci Scullawl, Second Deputy, Tulsa County Clerk's office for preparing this ACFR.

Respectfully submitted,

Michael Willis
Secretary Board of Trustees – TCERS
Tulsa County Clerk

BOARD OF TRUSTEES

Sunilyn Hertt, Chairman joined Tulsa County in September 2013. Hertt is a Training and Information Specialist in the Human Resources department. She was elected to the Board of Trustees, effective July 2018. She has serviced as Chairman and Vice-Chairman. Hertt resigned from Tulsa County January 21, 2022.

Smiley Elmore, Member joined the Sheriff's office in June 2020. Elmore is the Chaplain in the Sheriff's office. He was elected to the Board of Trustees in March 2022 to fill the unexpired term of Hertt.

John Baker, Vice-Chairman was elected to the Board effective July 1, 2011, as the retiree member. He worked in the Tulsa County Health Department for 39 years serving the citizens of Tulsa County before he retired. He has served as Chairman, Vice-Chairman, and Investment Committee Chairman.

Toni L. Kizer, Member joined the County Clerk's office in July 2001. Kizer is the Director of Accounting in the County Clerk's office. She was elected to the Board of Trustees in 1997. She has served as Chairman, Vice-Chairman, and Investment Committee Chairman.

Heather Little, Member joined the Treasurer's office in May 2011. Little is an Internal Auditor in the Treasurer's office. She was elected to the Board of Trustees in May 2015. She has served as Chairman, Vice-Chairman, and Investment Committee Chairman.

Kris Koepsel, Appointed Member was appointed by the Board of County Commissioners in August 2021. He is a lawyer whose practice is concentrated in business, government, and employment law. Koepsel serves on the Board's Investment Committee.

Melissa Lord, Appointed Member was appointed by the Board of County Commissioners in July 2019. She is a Senior Investment Consultant and Director of Retirement Consulting within Strategic Investment Advisors at BOK Financial. She serves on the Board's Investment Committee.

BOARD OF TRUSTEES (continued)

Michael Willis was elected **County Clerk** in June 2016 and took office January 1, 2017. He serves as Clerk to the Board of Trustees.

Stan Sallee was elected **County Commissioner for District 1**, in November 2018 and took office January 1, 2019. He served on the Board of Trustees from July 1, 2021, to December 30, 2021.

Karen Keith was elected **County Commissioner for District 2**, in November 2008 and took office January 1, 2009. She served on the Board of Trustees from January 1, 2022, to June 30, 2022.

John Fothergill was appointed **County Treasurer** in October 2020. He was elected February 2021. He serves as Treasurer to the Board of Trustees. Fothergill also serves on the Board's Investment and Benefits Committee.

Summary of Plan Provisions

History

The Employees' Retirement System of Tulsa County (TCERS) was established by Resolution of the Tulsa County Board of County Commissioners (BOCC) effective July 1, 1965. This action was permitted by Title 19 OSA 951 through 965 of the Oklahoma Statutes to encourage continuity of dedicated service on the part of the employees and to promote public efficiency.

Administration

TCERS is a single-employer defined benefit plan that is governed by a nine-member Board of Trustees. Ex-officio members include the Tulsa County Clerk, the Tulsa County Treasurer, and the Chairman of the Tulsa County BOCC. Two members are appointed by the Chairman of the BOCC subject to the approval of the entire Commission Board. Three members, who must be current employees, are elected at large from all participating employees. The final member, who must be retired and drawing benefits, is also elected at large from all participating employees and members. Effective July 1, 2003, retired members and beneficiaries of the system shall be allowed to vote in the election in which their representative is elected. All four are elected for three-year terms.

The Board of Trustees is given the authority to establish policy and procedures as necessary to ensure proper administration and the integrity of the TCERS. Trustees meet the last Tuesday of each month at 10:30 a.m. in Room 131 of the Tulsa County Headquarters Building, unless otherwise noted on the annual meeting notice filed in the County Clerk's office prior to December 15 and posted on the tulsacounty.org website. All meetings are open to any interested party and are conducted in accordance with the Oklahoma Open Meetings Act.

Contributions

In accordance with Title 19 OSA 954 of the Oklahoma Statutes, contribution rates as set by the Board are applied to all full-time base salaries and wages and the resulting contributions are credited to the pension fund monthly. During the fiscal year ended June 30, 2003, the County contributed 8½% (the legal maximum was 10%) of the employee's base salary while the employees contributed $1 per year. On July 1, 2003, the County's contribution rate increased to 10%.

Beginning July 1, 2007, the total employer and employee contributions shall not exceed 16.5% of the monthly compensation of each member. On July 1, 2007, the County's contribution rate increased to 12%. On July 1, 2010, the County's contribution rate increased to 14%, and the employee contribution rate increased to 0.05% of the base salary.

Effective July 1, 2012, the BOCC and the Board of Trustees approved a Resolution changing the employee contribution to a pre-tax basis.

On July 1, 2012, the employee's contribution rate increased to 0.25% of the base salary. On July 1, 2013, the employee's contribution rate increased to 1% of the base salary. Effective January 1, 2016, the employee's contribution rate increased to 1.50% of the base salary. Effective July 1, 2016, the employee's contribution rate increased from 1.50% to 2% of the base salary. Effective July 1, 2017, the employee's contribution rate increased from 2% to 2.5% of the base salary.

Beginning July 1, 2019, the total employer and employee contributions shall not exceed 18.5% of the monthly compensation of each member. On July 1, 2019, the County's contribution rate increased to 15%. Effective January 1, 2020, the employee's contribution rate increased from 2.5% to 3.5% of the base salary.

Employee Membership

Membership is mandatory for all regular, full-time County employees, including those paid in whole or in part from the Court Fund, Law Library, and Election Board. In 1965, the employees covered by TCERS could count all their full-time regular employment service and were required to pay into TCERS three percent (3%) of their base salary up to a maximum of $600 per month for at least 18

SUMMARY OF PLAN PROVISIONS (continued)

months before anyone could retire with benefits. The past service time was not funded and resulted in the start of the unfunded liability of the fund. A BOCC Resolution dated April 10, 1974 limited service credit prior to establishment of the fund to those employees who were contributing to the fund on March 6, 1974. The comparison of the TCERS membership for the past two fiscal years is a required disclosure in the notes to the financial statements and is also analyzed in the Management Discussion and Analysis.

Entities and Departments
Entities and departments, which currently participate in the TCERS, are:

Tulsa County	Oklahoma State University Extension Agency Center
Court Fund	Tulsa Area Emergency Management Agency (civil defense)
Drainage District #12	Tulsa Health Department
Law Library	Tulsa County Public Facilities Authority (fairgrounds)

These entities and departments are not necessarily considered component units of the TCERS as determined by GASB Statement No. 14, as amended by GASB Statement No. 61.

Retirement Benefits
To be eligible for retirement benefits, a regular retiree must be at least 62 years of age and have a minimum of five year's participation in the TCERS. The five years is not required to be continuous. Participants of the TCERS who take an unpaid leave of absence for personal illness (unless it meets the requirements of the Family and Medical Leave Act) for a period of one year or less will not be given credit toward retirement for this time off. This leave of absence will not affect consecutive employment with the County.

A member may also qualify for the Rule of 80 retirement if their age in years and months added to their years and months of participation in the TCERS equal the sum of 80 or more. There is no reduction of benefits for retirees in this category and there are no age requirements beyond those mentioned in the preceding sentence.

As of November 1, 2000, employees who are vested can retire as early as age 55 at a reduced benefit that is based on a specific percentage reduction table provided by the actuary. The percentages used to calculate normal retirement benefits are as follows:

	Percentage of Benefit			Percentage of Benefit	
Years of Credited Service	If Vested as of June 30, 2010	If Vested after June 30, 2010	Years of Credited Service	If Vested as of June 30, 2010	If Vested after June 30, 2010
5	12.5%	10.0%	13	34.0%	26.0%
6	15.0%	12.0%	14	37.0%	28.0%
7	17.5%	14.0%	15	40.0%	30.0%
8	20.0%	16.0%	16	42.0%	34.0%
9	22.5%	18.0%	17	44.0%	38.0%
10	25.0%	20.0%	18	46.0%	42.0%
11	28.0%	22.0%	19	48.0%	46.0%
12	31.0%	24.0%	20	50.0%	50.0%

21+	All vested employees: For each additional year of credited service beyond the 20th, the benefit percentage increases by 1.5%, to a maximum of 100%. (If the total of all credited service results in a fractional year of 183 days of more, the employee/member will receive credit for a full year.)

SUMMARY OF PLAN PROVISIONS (continued)

For members hired after June 30, 2017, to be eligible for retirement benefits, a regular retiree must be at least 65 years of age and have a minimum of five year's participation in the TCERS. The five years is not required to be continuous. Participants of the TCERS who take an unpaid leave of absence for personal illness (unless it meets the requirements of the Family and Medical Leave Act) for a period of one year or less will not be given credit toward retirement for this time off. This leave of absence will not affect consecutive employment with the County.

For members hired after June 30, 2017, a member may also qualify for the Rule of 90 retirement if their age in years and months added to their years and months of participation in the TCERS equal the sum of 90 or more. There is no reduction of benefits for retirees in this category and there are no age requirements beyond those mentioned in the preceding sentence.

Under normal retirement, the monthly annuity payable to the employee is based on the above percentages applied to the average compensation of the highest paid three years of employment. Benefits are calculated on the average base payroll earnings of the employee and do not include overtime, allowances, et cetera.

Disability Benefits
Disability benefits are available to participants who have become totally and permanently disabled as a direct result of County employment. The employee must have the required eight years participation in the retirement system to receive benefits. Medical proof of disability, as well as a written statement of condition and cause from the employee's supervisor must accompany applications for disability. The TCERS's Board of Trustees may require additional medical proof and makes the final determination of eligibility. There are no age requirements.

The percentage and base salary used to calculate benefits for employees who qualify for disability retirement is the same as that used in calculating regular retirement benefits except that the maximum percentage which may be applied is 40% (for a disability retiree having 15 or more credited years of service), if vested as of June 30, 2010. Anyone vested or hired after June 30, 2010, the maximum percentage is 40% (for a disability retiree having 18 years or more credited years of service.

A review of all disability retirees is conducted by the TCERS Board of Trustees each August, at which time disability retirees must submit medical proof that they remain disabled. This requirement for the annual disability review ends when the retiree reaches age 62.

Surviving Spouse
As of November 1, 2000, a surviving spouse is eligible to receive 70% of the retirement benefit of a vested, deceased employee who was retired, or who had reached the Rule of 80. If the vested employee had not reached the age of 62 or attained the Rule of 80, the surviving spouse can either start receiving full retirement benefits when their spouse would have reached the age of 62 or attained the Rule of 80 or start receiving retirement benefits at a reduced percentage calculated by an actuarial formula when their spouse would have reached the age of 55.

As of July 1, 2010, a surviving spouse of a member who was not vested as of June 30, 2010, or was hired after June 30, 2010, is eligible to receive 67% of the retirement benefit to which the employee/retiree was entitled.

For members hired after June 30, 2017, a surviving spouse is eligible to receive 67% of the retirement benefit of a vested, deceased employee who was retired, or who had reached the Rule of 90. If the vested employee had not reached the age of 65 or attained the Rule of 90, the surviving spouse can either start receiving full retirement benefits when their spouse would have reached the age of 65 or attained the Rule of 90 or start receiving retirement benefits at a reduced percentage calculated by an actuarial formula when their spouse would have reached the age of 55.

SUMMARY OF PLAN PROVISIONS (continued)

Military Service Credit
For all employees hired on or after July 1, 2000, a new military service policy became effective. Military service credit is provided to those TCERS members who submit acceptable documentation of honorable discharge from full-time active military duty in the Armed Services of the United States (Air Force, Army, Navy, Marine Corps, or Coast Guard).

The following provisions apply in crediting the employee's active military service prior to employment: TCERS members may qualify for up to four years of credit for active military service (less any time credited in another retirement system). Military service credit allowed under this provision may not be counted toward vesting in the retirement system under the regular five-year service requirement or under the Rule of 80. Military retirees and those eligible to become military retirees are ineligible for the TCERS military service credit unless documentation is presented to confirm that either the Armed Forces or the Veterans Administration of the United States has found the employee to have a 20% or greater service-related disability.

Persons employed prior to July 1, 2000, have an additional option for calculating military service credit.

Effective July 1, 2006, the Board of Trustees repealed the military service credit previously created by TCERS and left in effect only the military service credit created by State Statute pursuant to 19 O.S. Section 956.

Return of Vested or Non-Vested Employee
In the event a **vested** or **non-vested** former employee returns to work as a regular employee in a TCERS participating department or division, the employee may acquire additional service credit to apply toward vesting and retirement, if the employee left prior contributions to TCERS intact.

Income Tax - Retirees
Effective with the year 1989, a portion of benefits from the TCERS is not subject to Oklahoma state income tax. However, for federal income tax purposes, the greater portion of your benefit will be taxable each month. The Tax Reform Act of 1986 changed the way the taxable amount of benefits is computed for those retiring after July 1, 1986. The new regulations spread the non-taxable portion (those which employees paid in) of their retirement benefit over the actuarially forecasted lifetime (and the surviving spouse, if applicable). A 1099-R statement will be mailed at the end of each January. It will show (1) the gross amount of retirement benefits for the previous calendar year, (2) the amount withheld from retirement benefits, and (3) the taxable amount of retirement benefits for the year.

INTRODUCTORY SECTION
List of Professional Consultants*

Actuary
Milliman

Auditors
Stanfield + O'Dell, PC

Custodian Bank
BOK Financial

Investment Consultants
AndCo

Investment Managers
Aberdeen Asset Management
Barrow, Hanley, Mewhinney & Strauss, LLC
Chickasaw Capital Management
Bryant, Segall & Hamill
Loomis Sayles
Principal Enhanced Property Fund GP, LLC (PEPF)
PRISA II LP
State Street Global Advisors
Tocqueville Asset Management
Wasatch Hoisington

* The Schedule of Investment Expenses and Schedule of Payments to Consultants (page 46) in the Supporting Schedules for Financial Section, and the Schedule of Fees and Commissions (page 52) in the Investment Section contain additional information regarding professional advisors and consultants.

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Tulsa County Employees' Retirement System
Oklahoma

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

Financial Section

Stanfield + O'Dell
CPAs & ADVISORS

Independent Auditor's Report

The Board of Trustees
Employees' Retirement System of Tulsa County, Oklahoma

Report on the Financial Statements

Opinion

We have audited the financial statements of Employees' Retirement System of Tulsa County, Oklahoma (the System), a component unit of Tulsa County, Oklahoma, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2022 and 2021, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

The System's management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis on pages 22 to 29 as well as the schedule of changes in net position liability and related ratios, contributions from employer and investment returns on pages 43 through 45, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The accompanying schedule of administrative expenses, investment expenses and payments to consultants on page 46 is presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedule of administrative expenses, investment expenses and payments to consultants 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. Such 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 schedule of administrative expenses, investment expenses and payments to consultants is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Management is responsible for the other information included in the annual comprehensive financial report. The other information comprises the introductory, investment, actuarial, and statistical sections, as listed in the table of contents of the 2022 annual comprehensive financial report but does not include the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 3, 2023, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Stanfield + O'Dell, P.C.

Tulsa, Oklahoma
February 3, 2023

Management's Discussion and Analysis
(Unaudited)

Management's Discussion and Analysis (MD&A) of the Employees' Retirement System of Tulsa County's (TCERS) financial performance provides an overview of the financial activities and funding condition for the fiscal years ending June 30, 2022, 2021, and 2020.

TCERS is classified as a Pension Trust Fund and is reported as a component unit of Tulsa County. The Pension Trust Fund accounts for the activities of the TCERS, which accumulates resources for pension benefit payments to qualified retirees, beneficiaries, and future retirees. The accompanying basic financial statements of TCERS are reported on an accrual basis of accounting and are reported in conformity with generally accepted accounting principles. Under the accrual basis of accounting, revenues are recognized when earned instead of when received and expenses are recognized when incurred instead of when paid.

Please review the MD&A in conjunction with the transmittal letter and the basic financial statements.

Financial Highlights

- The fiduciary net position restricted for pensions for fiscal year 2022 decreased by $47,780,247 (-13.86%). The fiduciary net position restricted for pensions for fiscal year 2021 increased by $60,563,860 (21.30%). All the fiduciary net position restricted for pension benefits is available to meet TCERS's ongoing obligations to plan members and their beneficiaries.

- Employer contributions for fiscal year 2022 increased by $437,302 (3.45%) compared to 2021. Employer contributions for fiscal year 2021 increased by $199,102 (1.60%) compared to 2020.

- Employee contributions for fiscal year 2022 increased by $103,278 (3.49%) compared to 2021. Employee contributions for fiscal year 2021 increased by $453,693 (18.14%) compared to 2020.

- The net investment income for fiscal year 2022 decreased by $107,590,895 (-154.91%) compared to 2021, mainly due to the net depreciation in the fair value of investments that occurred during fiscal year ended June 30, 2022. The net investment income for fiscal year 2021 increased by $66,210,785 (2,040.97%) compared to 2020, mainly due to the realized gains and losses that occurred during fiscal year ended June 30, 2021.

- Benefit payments increased by $1,321,895 (5.46%) during fiscal year ended June 30, 2022.
- Benefit payments increased by $1,430,678 (6.29%) during fiscal year ended June 30, 2021.

Using the Annual Comprehensive Financial Report

The basic financial statements reflect the activities of TCERS and are reported in the Statements of Fiduciary Net Position, the Statements of Changes in Fiduciary Net Position, and the Notes to Financial Statements. All activities are recorded using an accrual basis of accounting and the economic resource measurement focus. The accrual basis of accounting recognizes increases and decreases in economic resources as soon as the underlying event or transaction occurs. Transactions are recognized when earned and incurred regardless of the timing of cash flows.

The operating statement of the TCERS focuses on changes in economic resources during the period. Net position (total assets and total deferred outflows less total liabilities and total deferred inflows) is used as a practical measure of economic resources. Accordingly, the TCERS operating statement includes all transactions and events that increase or decrease net position, such as additions and deductions.

A discussion of the actual components of this annual comprehensive financial report, including the basic financial statements, is presented in the transmittal letter.

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

Statements of Fiduciary Net Position

The Statements of Fiduciary Net Position shows the financial position of plan assets and liabilities by investment and accounting categories. The excess of assets and deferred outflows over liabilities and deferred inflows is reported as Net position restricted for pensions. Over time, increases or decreases in net position restricted for pensions may serve as a useful indicator of whether the financial position of the TCERS is improving or deteriorating. The following condensed comparative summary of the Statements of Fiduciary Net Position as of June 30, 2022, 2021, and 2020, demonstrates that the TCERS is primarily focused on the cash, receivables, investments, liabilities, and net position restricted for pensions.

	2022	2021	2020
Cash	$ 481,823	$ 291,406	$ 522,389
Receivables	2,127,471	2,090,927	2,206,228
Investments	295,367,952	343,374,321	282,581,947
Total assets	297,977,246	345,756,654	285,310,564
Total liabilities	902,531	901,692	1,019,462
Net position restricted for pensions	$297,074,715	$344,854,962	$284,291,102

During each fiscal year, the average daily balance of cash on hand typically varies within a range of $150,000 to $1,000,000. The cash balance for all three fiscal years was within the range of the projected average daily cash balance. Total receivables increased by $36,544 during fiscal year ended June 30, 2022, mainly due to the increase in payments from brokers for unsettled trades.

Investments at fair value decreased by $48,006,369 (-13.98%) during the fiscal year ended June 30, 2022. Investments at fair value increased by $60,792,374 (21.51%) during the fiscal year ended June 30, 2021.

The average return on investments of 4.38% for the past three fiscal years is less than the expected portfolio returns of 7.25%. During the last fiscal year, the intermediate fixed income portfolio outperformed the benchmark Bloomberg Barclay's Intermediate U.S. Govt/Credit Index rate of -7.28% and finished the year with a return of -6.84%. The core fixed income portfolio underperformed the benchmark Bloomberg Barclay's U.S. Aggregate Index rate of -10.29% and finished the year with a return of -10.72%. The high yield fixed income portfolio underperformed the benchmark ICE BofA Merrill Lynch High Yield Master II rate of -12.69% and finished the year with a return of -13.74%. The active duration fixed income portfolio underperformed the benchmark Bloomberg Barclay's U.S. Aggregate Index rate of -10.29% and finished the year with a return of -20.14%. The S&P 500 index fund mirrored the benchmark S&P 500 Index rate of -10.62% and finished the year with a return of -10.63%. The small/mid (smid) cap equity portfolio outperformed the benchmark Russell MidCap Index rate of -17.30% and finished the year with a return of -13.22%. The international equity portfolio underperformed the benchmark MSCI EAFE (net) Index rate of -17.77% and finished the year with a return of -25.18%. The Master Limited portfolio outperformed the benchmark Alerian MLP Index rate of 4.33% and finished the year with a return of 10.77%. The real estate portfolio outperformed the benchmark NCREIF Fund Index rate of 29.51% and finished the year with a return of 31.69%.

Liabilities increased by $839 (.09%) during the fiscal year ended June 30, 2022, due primarily to the decrease in accounts and accrued expenses. Liabilities decreased by $117,770 (-11.55%) during the fiscal year ended June 30, 2021, due primarily to the decrease in obligations payable to brokers for unsettled trades. The net position restricted for pensions decreased by $47,780,247 (-13.86%) mainly due to the net depreciation in the fair value of investments, for the year ending June 30, 2022. The net position restricted for pensions increased by $60,563,860 (21.30%) mainly due to the net appreciation in the fair value of investments, for the year ending June 30, 2021.

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

Statements of Changes in Fiduciary Net Position

The Statements of Changes in Fiduciary Net Position itemizes additions, deductions and net position restricted for pensions. The Statement of Changes in Fiduciary Net Position demonstrates how the TCERS assets have increased (decreased) during the fiscal years ended June 30, 2022, 2021, and 2020. The following condensed comparative summary of the Statements of Changes in Fiduciary Net Position reflects the activities of the TCERS regarding employer and employee contributions, net investment income, benefits paid, administration expenses, refunds, and the net increase (decrease) in net position restricted for pension benefits.

	2022	**2021**	**2020**
Additions:			
Contributions:			
Members	$ 3,058,324	$ 2,955,046	$ 2,501,353
Employer	13,110,737	12,673,435	12,474,333
Net Investment income	(38,136,022)	69,454,873	3,244,088
Total (deductions)/additions	(21,966,961)	85,083,354	18,219,774
Deductions:			
Benefits	25,513,789	24,191,894	22,761,216
Administration expense	93,154	151,189	119,813
Refunds	206,343	176,411	128,836
Total deductions	25,813,286	24,519,494	23,009,865
Net increase (decrease) in net position restricted for pensions	$(47,780,247)	$60,563,860	$(4,790,091)

The ending net position restricted for pensions for fiscal year ending June 30, 2022, was $297,074,715 compared to $344,854,962 for fiscal year ending June 30, 2021.

Collections of employer and employee retirement contributions, as well as earnings from investments and dividends, provide the reserves necessary to finance retirement benefits and cover administrative expense. Contributions and net investment income totaled ($21,966,961) during the fiscal year ending June 30, 2022, which is a ($107,050,315) (-125.82%) decrease in total additions from what was reported the previous fiscal year. Contributions and net investment income increased $66,863,580 (366.98%) from fiscal year ended June 30, 2020, to June 30, 2021.

Employer contributions are based on a percentage of an employee's pay and increased $437,302 (3.45%) in 2022 as compared to 2021. Employee contributions increased $103,278 (3.49%) when comparing fiscal year 2022 to 2021.

Net investment income was ($38,136,022) for fiscal year 2022, which represents a $107,590,895 decrease from fiscal year 2022 compared to fiscal year 2021, due mainly to the net depreciation in fair value of investments of $107,297,497. When comparing fiscal year ended June 30, 2020, to June 30, 2021, there was a $67,189,898 net appreciation in the fair value of investments in 2021. Comparing fiscal year 2022 to 2021, the fair value of the U.S. Government & Agency obligations and treasury bond mutual funds decreased by $9,487,870. The fair value of domestic corporate bonds and bond mutual funds and foreign bonds and obligations decreased by $22,551,498. The fair value of domestic equities and international equities decreased by $14,646,217 and by $3,864,981, respectively. The money market mutual funds portfolio decreased by $1,784,521. The real estate portfolio increased by $4,312,568 and the judgments increased by $16,150. Investments during the fiscal year ended June 30, 2022, underperformed the expected rate of return. Interest received was $841,818 (-33.24%) lower during fiscal year 2022. Dividends received were $714,274 (17.94%) higher during fiscal year 2022.

The primary deductions of a retirement system include the payment of benefits to retirees and beneficiaries, the refund of contributions to former members, and the cost of administering the retirement system. The benefits paid increased by $1,321,895 (5.49%) during fiscal year 2022, and by

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

$1,430,678 (6.29%) during fiscal year 2021, due to an increase in the number of employees retiring and the amount of benefits paid to those new retirees. Administration expenses, as of June 30, 2022, were $58,034 (-38.39%) lower when compared to the previous fiscal year, due to two payments of fiduciary insurance being paid in the same fiscal year. Refunds represent a return of a nonvested portion of the employee's contribution made to the retirement system which varies from year to year and remains a relatively small expense. The refund of contributions was $29,933 (16.97%) higher when compared to the previous fiscal year, due to more vested employees withdrawing funds.

Analysis of Financial Position and Results of Operations
To analyze the TCERS financial position and results of operations during the reporting periods, the following topics are presented: plan membership, funding and reserves, actuarial assumptions and methods, and asset allocation.

Plan Membership
As of June 30, 2022, 2021, and 2020, the TCERS members are as follows:

	2022	**2021**	**2020**
Retirees and beneficiaries receiving benefits	1,439	1,388	1,347
Terminated employees entitled to benefits not yet received	734	711	671
Current active employees:			
Fully vested	882	925	975
Nonvested	857	846	861
Total members	3,907	3,870	3,854

Funding and Reserves
Funds are derived from the excess of additions over deductions and are accumulated to meet future benefit obligations to retirees and beneficiaries. This accumulated balance is referred to as the net position restricted for pensions in the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position presented in the financial section of this report. In addition to the basic financial statements and various note disclosures, defined benefit plans are also required to provide three schedules of long-term actuarial data. The three required supplementary information schedules are the Schedule of Changes in Fiduciary Net Pension Liability and Related Ratios, Schedule of Employer Contributions, and the Schedule of Investment Returns, all of which are presented in the Required Supplementary Information immediately following the notes to the financial statements.

The Schedule of Changes in Fiduciary Net Pension Liability and Related Ratios presents detailed information about the pension liabilities for which the pension plan's assets are held and managed. The detailed information shows various components of changes in the net pension liability. This schedule also reports a ratio of Fiduciary Net Position as a percentage of the total pension liability. This percentage is an indication of the funding status of the TCERS and, generally, the greater the percentage, the stronger the retirement system. A high level of funding gives plan members more assurance that their pension benefits are secure. The ratio of plan Fiduciary Net Position to the total pension liability is 50.95% on June 30, 2022. This schedule will ultimately include ten years of information once such data becomes available. Since this is the ninth year to include this RSI schedule in accordance with GASB 67, *Financial Reporting for Pension Plans,* only nine fiscal year's information is reported.

The Schedule of Employer Contributions shows the actuarially determined contributions for TCERS and the actual contributions made by TCERS. For the fiscal year ended June 30, 2022, management of TCERS contributed approximately $670,000 less than the actuarially determined contribution, which amounted to 15.34% of covered payroll. Additionally, the significant actuarial assumptions and methods used to develop the contribution rate are listed.

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

The Schedule of Investment Returns shows the money-weighted rate of return (net of investment expense) to be -11.23% for fiscal year 2022. When compared to the expected rate of return of 6.00%, the actual return was lower during fiscal year 2022. This helps to understand the investment performance of TCERS. As with the other schedules above, ten-year information about the money-weighted rate of return will be reported once that data becomes available.

Actuarial Assumptions and Methods
An actuarial firm prepares two actuarial valuations: one for funding purposes and the other for *accounting* purposes.

The June 30, 2022, funding actuarial valuation is used to determine the level of annual required contributions (ARC) based on actuarial assumptions approved by the TCERS Board of Trustees. The Plan's Actuary utilized the Entry Age Normal Cost Method to calculate the plan's Actuarial Accrued Liability (AAL). The actuarial value of assets is compared to the actuarial accrued liability, resulting in either an unfunded actuarial accrued liability or a surplus. The June 30, 2022, funding valuation determined the funding ratio to be 76%, leaving an unfunded actuarial accrued liability (UAAL) of 24%. The UAAL is allocated on a level basis over the future earnings of members who are still employed as of the valuation date. Actuarial gains and losses are reflected in the actuarially determined contribution rate. The main funding actuarial assumptions and methods include:

- The assumed rate of return on investment is 7.25%. Prior to July 1, 2016, the assumed rate of return on investment was 7.75%.
- The mortality assumption is the RP-2014 Employee, Healthy Annuitant and Disabled mortality tables, male and female rates. The healthy mortality rates are projected generationally from 2006 using the MP-2017 scale.
- A salary scale is used to estimate salaries for plan members. The salary scale has different percentage increases based on the employee's current age. There is a separate, defined inflation and merit/promotion component for each projected salary increase. Effective July 1, 2012, the salary scale was decreased by 1% at all ages.
- No provision has been made for automatic post-retirement cost of living adjustments. (This is consistent with plan provisions, which do not provide automatic post-retirement cost of living adjustments).
- The actuarial value of assets is based on the five-year expected return method which employs a technique known as "smoothing."
- Effective July 1, 2018, each year's change in unfunded accrued liability is amortized as a separate layer on a closed basis over 20 years as a level percent of pay. The unfunded accrued liability that existed prior to July 1, 2018, will continue to be amortized on a closed basis over 30 years from July 1, 2003, as a level percent of pay.

The actuarial valuation performed for plan year beginning July 1, 2022, for accounting purposes was done in accordance with GASB 67. This valuation was used to determine the Total Pension Liability (TPL) with pension expense to be recognized by Tulsa County and its component units. The Total Pension Liability (TPL) differs somewhat from the Actuarial Accrued Liability (AAL) in that it measures the present value of projected benefit payments attributed to past periods of member service in accordance with specific requirements of GASB 67. One of those requirements relates to the determination of the discount rate. The discount rate for TCERS, as determined in accordance with GASB 67, was 4.75%. Another requirement in determining the Total Pension Liability (TPL) is the use of the Entry Age Normal Cost Method which is the same method that is used for funding purposes. Consequently, the AAL was $428,952,887 and the TPL was $583,127,912 as of June 30, 2022. However, the determination of annual pension expense in accordance with GASB 67 differs significantly from the amount of actual employer contributions. Each component of pension expense is detailed in the required supplementary Schedule of Changes in Net Pension Liability described in the previous section. In addition, the Net Pension Liability (NPL), as determined in accordance with GASB 67, differs from the Unfunded Actuarial Accrued Liability (UAAL) that was determined by the

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

funding valuation described in the paragraph above. The main difference relates to the way plan assets are valued. For accounting purposes, plan assets are valued at fair market value and not valued using the actuarial method (which employs a technique known as smoothing) that is used for funding. Consequently, the net pension liability (NPL) used for accounting purposes was $286,053,197 while the unfunded actuarial accrued liability (UAAL) was $101,098,559. On June 30, 2022, the NPL was greater than the UAAL.

Asset Allocation
The portfolio mix based on the total fair value of investments at the end of fiscal year 2022 is: 2.84% in money market mutual funds, 16.27% in Domestic corporate bonds and bond mutual funds, 16.72% in U.S. Government & Agency Obligations and Treasury Bond Mutual Funds, 23.86% in core domestic equities, 23.67% in small/mid (smid) cap equity securities, 10.22% in international equities, 6.34% in real estate and 0.08% in judgments. The portfolio mix based on the total fair value of investments at the end of fiscal year 2021 is: 2.96% in money market mutual funds, 20.56% in Domestic corporate bonds and bond mutual funds, 17.15% in U.S. Government & Agency Obligations and Treasury Bond Mutual Funds, 23.64% in core domestic equities, 21.51% in small/mid (smid) cap equity securities, 9.92% in international equities, 4.19% in real estate and 0.07% in judgments. The retirement system's portfolio is currently 53% equity, 5% master limited partnerships, 4% real estate and 38% fixed income.

In January 2022, the Board amended the investment policy to shift the asset allocation to 55% for Equities, 5% for Master Limited Partnerships, 35% for Fixed Income and 5% for real estate.

JUNE 30, 2022 TARGET ALLOCATION	**MINIMUM**	**TARGET**	**MAXIMUM**
Core Equity	**7.50%**	**17.50%**	**27.50%**
SMid Capitalization Equity	**15.00%**	**25.00%**	**35.00%**
International Equity	**2.50%**	**12.50%**	**17.50%**
MLPs	**0.00%**	**5.00%**	**15.00%**
Core Fixed Income	**0.00%**	**8.75%**	**18.75%**
Intermediate Fixed Income	**0.00%**	**8.75%**	**18.75%**
High Yield Fixed Income	**0.00%**	**7.50%**	**17.50%**
Active Duration Fixed Income	**0.00%**	**10.00%**	**20.00%**
Real Estate	**0.00%**	**5.00%**	**15.00%**
Cash and Equivalents	**0.00%**	**0.00%**	**5.00%**

Net investment income amounted to ($38,136,022) during fiscal year 2022, while total contributions added $16,169,061. The net depreciation in fair value of investments as of June 30, 2022, was ($43,277,047). Net investment income compared to total investments as of June 30, 2022, is -12.91%.

Market environment and results
The unexpectedly high inflation, ongoing COVID-19 effects and conflict in Ukraine all contributed to an uncertain economic environment and volatility in the financial markets. The impact on the fund will depend on the duration of the economic environments as our Investment Consultant continues to monitor the environment. The net position restricted for pensions of the TCERS decreased from $345 million to $297 million (-13.86%) from July 1, 2021, to June 30, 2022. Over the ten-year period ended June 30, 2022, the funding ratio has varied from a low of 74% to a high of 88%; the current funding ratio of 76% reflects the effects of the continuous market volatility.

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

Major Initiatives
Effective July 1, 2006, the Board of County Commissioners (BOCC) and the Board of Trustees (Board) repealed the military service credit previously created by the Employees' Retirement System of Tulsa County and left in force the military service credit created by State Statute pursuant to 19 O.S. Section 956.

Effective May 29, 2007, the BOCC and the Board approved a resolution allowing retirees to return to work for Tulsa County on a part-time basis after the first month of retirement and remain eligible for retirement benefits, as permitted by 19 O.S. 2007, Section 956, as amended.

Beginning July 1, 2007, the total employer and employee contributions shall not exceed 16.5% of the monthly compensation of each member, as permitted by 19 O.S. 2007, Section 954, as amended.

Effective July 1, 2008, the actuarial assumption of the effective rate of return on investments was reduced from 8% to 7.75%.

Effective July 1, 2010, the BOCC and the Board approved a resolution changing the employer contribution rate to 14% and the employee-member contribution rate to five basis points (0.05%) of the employee's base salary.

Effective July 1, 2012, the BOCC and the Board approved a resolution changing the employee-member contribution rate from five basis points (0.05%) to 25 basis points (0.25%) of the employee's base salary.

Effective July 1, 2012, the BOCC and the Board approved a resolution to make the employee contribution a pre-tax basis.

Effective July 1, 2013, the BOCC and the Board approved a resolution changing the employee-member contribution rate from twenty-five basis points (0.25%) to one percent (1%) of the employee's base salary.

On March 6, 2014, the Internal Revenue Service issued a favorable determination letter on the plan. The letter expired on January 31, 2019. The IRS has since discontinued the renewal of the determination letters.

In October 2014, the Board implemented a Funding Policy to ensure the Fund is fully funded.

On October 19, 2015, the BOCC and the Board approved a resolution changing the employee-member contribution rate from one percent 1% to 1.50% of the employee's base salary, effective January 1, 2016, and effective July 1, 2016, an increase from 1.50% to 2% of the employee's base salary. Effective July 1, 2017, the employee-member contribution rate increased from 2% to 2.5% of the employee's base salary.

Effective with the July 1, 2016, actuarial study, the actuarial assumption of the effective rate of return on investments was reduced from 7.75% to 7.25%.

Effective July 1, 2017, the BOCC and the Board approved a resolution to change the current retirement age from 62 to age 65, to replace the Rule of 80 with Rule of 90, and the early drawing percentages were decreased for employees hired after June 30, 2017.

Beginning July 1, 2019, the total employer and employee contributions shall not exceed 18.5% of the monthly compensation of each member, as permitted by 19 O.S. 2007, Section 954, as amended.

Effective July 1, 2019, the BOCC and the Board approved a resolution changing the employer contribution rate from 14% to 15%. Effective January 1, 2020, the employee-member contribution rate increased from 2.5% to 3.5% of the employee's base salary.

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

The Board of Trustees continues to fulfill their mission to maintain stability while earning a competitive yield on the assets of the TCERS. Of utmost importance to the Trustees is to assure that required reserves are available for payment of current and prospective retirement benefits.

Contacting the Retirement System's Financial Management

This financial report is designed to provide citizens, taxpayers, plan members and others with a general overview of the TCERS finances and to show accountability for money it receives, disburses, and is entrusted with. Questions concerning any data provided in this report or requests for additional information should be directed to Tulsa County Clerk, Employees' Retirement System of Tulsa County, 218 W. 6th St, 7th Floor, Tulsa, Oklahoma 74119.

Statements of Fiduciary Net Position

For Fiscal Years Ended June 30, 2022 and 2021

	2022	2021
Assets:		
Cash	$ 481,823	$ 291,406
Receivables:		
Interest and dividends	531,935	598,050
Due from brokers for unsettled trades	293,456	206,158
Contributions from employer/employees	1,302,080	1,286,719
Total receivables	2,127,471	2,090,927
Investments, at fair value:		
Money market mutual funds	8,387,832	10,172,353
U.S. Government and Agency obligations and Treasury bond mutual funds	49,388,983	58,876,853
Domestic corporate bonds and bond mutual funds	46,423,488	68,130,902
Foreign bonds and obligations	1,631,506	2,475,590
Domestic equities	140,386,089	155,032,306
International equities	30,197,534	34,062,515
Real Estate	18,712,153	14,399,585
Judgments	240,367	224,217
Total investments	295,367,952	343,374,321
Total assets	297,977,246	345,756,654
Liabilities:		
Accounts payable and accrued expenses	160,018	165,174
Due to brokers for unsettled trades	742,513	736,518
Total liabilities	902,531	901,692
Net position restricted for pensions	**$ 297,074,715**	**$ 344,854,962**

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Fiduciary Net Position

For Fiscal Years Ended June 30, 2022 and 2021

	2022	2021
Additions:		
Member contributions	$ 3,058,324	$ 2,955,046
Employer contributions	13,110,737	12,673,435
Total contributions	16,169,061	15,628,481
Investment Income:		
Interest	1,690,858	2,532,677
Dividends	4,695,914	3,981,640
Net appreciation (decline) in fair value of investments	(43,277,047)	64,020,451
	(36,890,275)	70,534,768
Less investment expense:	1,245,747	1,079,895
	1,245,747	1,079,895
Net investment income	(38,136,022)	69,454,873
Total additions	(21,966,961)	85,083,354
Deductions		
Benefits	25,513,789	24,191,894
Administrative expense	93,154	151,189
Refunds of contributions	206,343	176,411
Total deductions	25,813,286	24,519,494
Net increase (decrease)	(47,780,247)	60,563,860
Net position restricted for pension		
Beginning of Year	344,854,962	284,291,102
End of Year	$ 297,074,715	$ 344,854,962

The accompanying notes are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS
JUNE 30, 2022 AND 2021

1. PLAN DESCRIPTION

A. Administration

The Employees' Retirement System of Tulsa County (TCERS) is a single employer defined benefit retirement plan. It was established July 1, 1965, by Resolution of the Tulsa County Board of County Commissioners (BOCC), as authorized by Title 19 OSA 951 through 965 of the Oklahoma Statutes. The TCERS was established to encourage continuity of dedicated service on the part of the employees and to promote public efficiency.

The operation of the TCERS is governed by the Oklahoma Statutes and the responsibility for its administration (including establishing or amending benefit provisions) rests with a nine-member Board of Trustees. Ex-Officio members include the Tulsa County Clerk, the Tulsa County Treasurer, and the Chairman of the Tulsa County Board of County Commissioners. Two members are appointed by the Chairman of the Board of County Commissioners subject to the approval of the entire Commission Board. Three members, who must be current employees, are elected at large from all participating employees. The final member, who must be retired and drawing benefits, is also elected at large from all participating employees and members. Effective July 1, 2003, retired members and beneficiaries of the system shall be allowed to vote in the election in which their representative is elected. All four are elected for three-year terms. Trustees meet the last Tuesday of each month at 10:30 a.m. in Room 131 of the Tulsa County Headquarters Building, unless otherwise noted on the annual meeting notice filed in the County Clerk's office prior to December 15 and posted on the tulsacounty.org website. All meetings are open to any interested party and are conducted in accordance with the Oklahoma Open Meetings Act.

B. Participating Entities and Departments

The participating entities and departments of the TCERS are as follow:

Tulsa County	Oklahoma State University Extension Agency Center
Court Fund	Tulsa Area Emergency Management Agency (civil defense)
Drainage District #12	Tulsa City-County Health Department
Law Library	Tulsa County Public Facilities Authority (fairgrounds)

Membership in the TCERS is mandatory for all eligible employees. An employee becomes eligible on the first day of employment as a regular, full-time employee. Oklahoma Statutes include elected and appointed salaried County officials as employees for retirement system purposes. No seasonal, temporary, hourly, part-time, or contracted worker is eligible to be a member of the TCERS.

C. Number of Members

As of June 30, 2022 and 2021, the TCERS members are as follows:	**2022**	**2021**
Retirees and beneficiaries receiving benefits	1,439	1,388
Terminated employees entitled to benefits not yet received	734	711
Current active employees:		
Fully vested	882	925
Nonvested	852	846
Total members	3,907	3,870

D. Benefits Paid to Members

Benefits are determined by multiplying the average of the highest paid three years of annual salary times a percentage based on the years of credited service at the date of retirement. A member is fully vested after five years of full-time service as a regular employee. The five-year period is not required to be continuous. Unreduced benefits may be received at age 62. A member may also be eligible for full benefits under the Rule of 80 in which the total service time

NOTES TO THE FINANCIAL STATEMENTS (continued)

D. Benefits Paid to Members – Continued

and employee's age equals 80. The TCERS allows an employee who has attained age 55 with at least five years of credited service, the opportunity to draw retirement benefits at an actuarially reduced percentage from the normal rate at age 62. For employees hired after June 30, 2017, unreduced benefits may be received at age 65. A member may also be eligible for full benefits under the Rule of 90 in which the total service time and employee's age equals 90. The TCERS allows an employee who has attained age 55 with at least five years of credited service, the opportunity to draw retirement benefits at an actuarially reduced percentage from the normal rate at age 65. The TCERS also provides additional benefits to active members upon disability and to the surviving spouse upon death of the retiree.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Accounting

The accompanying financial statements are prepared using the accrual basis of accounting and in conformity with accounting principles generally accepted in the United States of America. Member and employer contributions are recognized as revenues in the period in which employee services are performed and expenses are recorded when incurred regardless of when payment is made. Contributions from members are recognized when the employer makes payroll deductions from plan members. Employer contributions are recognized when due and the employer has made a formal commitment to provide the benefits. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Subsequent events have been reviewed through February 3, 2023.

B. Method Used to Value Investments

Investments are reported at fair value. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in arriving at that value. Corporate bonds are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

Approximately 17% of the net position restricted for pensions for both June 30, 2022 and 2021, was invested in U.S. Government and Agency obligations and Treasury bond mutual funds. The TCERS has no investments in stocks and bonds of any commercial or industrial organization whose market value equals 5% or more of TCERS's assets available for benefits.

C. Basis of Presentation

The financial statements of the TCERS are presented in accordance with the generally accepted accounting principles promulgated by the Governmental Accounting Standards Board (GASB).

The TCERS is considered a pension trust fund in Tulsa County's Annual Comprehensive Financial Report and is a blended component unit of Tulsa County. Copies of Tulsa County's Annual Comprehensive Financial Report are available from the County Clerk's office.

D. Administration Fees

Administrative expenses are paid for by the plan from contributions received and investment earnings.

E. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and additions and deductions during the period reported. Actual results could differ from those estimates.

NOTES TO THE FINANCIAL STATEMENTS (continued)

3. CONTRIBUTIONS

Title 19 OSA 954 of the Oklahoma Statutes provides for annual contributions to be made by Tulsa County for amortizing any net pension liability. The Board of Trustees of the TCERS recommends to the Board of County Commissioners, the percentage of the employer and employee's contribution level to be contributed to the retirement system. The Board of County Commissioners, within the limits allowed by law, establishes both the employer and employee levels of contributions to support the retirement system.

Beginning July 1, 2019, the total employer and employee contributions shall not exceed 18.5% of the monthly compensation of each member.

An actuarial study determines the contribution required to fund the retirement system. The study calculates the current contribution amount required to pay the benefits of present and future retirees. The maximum contribution rate for employees shall not exceed the contribution rate of the County.

For fiscal year 2022 and 2021, the employer contribution rate is 15% of the employee's base salary and the employee-member contribution rate is 3.5% of the employee's base salary.

There are no legally required reserve accounts as of June 30, 2022 or 2021.

4. DEPOSITS AND INVESTMENTS

A. Deposits

At June 30, 2022 and 2021, the TCERS's cash balance was $481,823 and $291,406, respectively, and was maintained in a demand account in the Retirement System's name at BOK Financial.

Custodial credit risk for deposits is the risk that in the event of bank failure, TCERS's deposits may not be returned or the TCERS may not be able to recover collateral securities in the possession of an outside party. According to Title 62 OSA 517.4, Security for Local Public Deposits Act, the amount of the collateral securities or instruments to be pledged for the security of public deposits shall be established by the treasurer of the public entity. The Tulsa County Treasurer with the approval of the TCERS requires deposits to be 110% secured by collateral valued at market or par, whichever is lower, less the amount of Federal Deposit Insurance Corporation (FDIC) insurance. BOK Financial has placed the required collateral securities in a restricted account at a Federal Reserve Bank which serves Oklahoma. The market value of pledged securities shall be provided not less than quarterly to the treasurer by either the financial institution holding the deposit or the financial institution holding the collateral securities, which market value must have been obtained from an independent, recognized, and documented source. TCERS's deposits are not exposed to custodial credit risk because the deposits are insured by FDIC insurance and are collateralized.

B. Investments

Investments of TCERS funds are governed by Title 19 OSA 953.1A, as amended, of the Oklahoma Statutes. The Oklahoma Statutes place no limitations or restrictions on the choice of investment vehicles other than those a prudent investor would select. The Board of Trustees has retained five outside investment management firms to manage seven different portfolios for the TCERS except for certain judgments against Oklahoma government entities and a small amount of cash. BOK Financial is the custodian of cash and investments. TCERS's investment securities are not exposed to custodial credit risk because all securities are held by a third-party custodian rather than a counterparty and are carried in street name.

NOTES TO THE FINANCIAL STATEMENTS (continued)

As of June 30, 2022 and 2021, the composition of the retirement system's investments is shown in the following tables:

June 30, 2022	Fair Value	Cost	Average Credit Quality/ Rating (1)	Weighted Average Number of Years to Maturity (2)
Money Market Mutual Funds	$ 8,387,832	$ 8,387,832	N/A	0.09
U.S. Treasuries	39,328,691	44,454,670	N/A	18.81
U.S. Agency Obligations				
FHMS (collateralized Mtg Obligation)	939,649	962,013	N/A	5.42
FHLMC (Freddie Mac)	2,641,546	2,793,996	AAA	5.25
FNMA (Fannie Mae)	5,050,593	5,415,145	AAA	7.72
GNMA (Ginnie Mae)	1,428,504	1,546,643	AAA	3.14
Total U.S. Agency Obligations	10,060,292	10,717,797		
Corporate Bonds & Bond Mutual Funds	48,054,994	54,882,085	N/A	5.25
Domestic equities	140,386,089	92,640,498	N/A	N/A
International equities	30,197,534	32,523,972	N/A	N/A
Real Estate	18,712,153	14,371,141	N/A	N/A
Judgments	240,367	240,367	N/A	N/A
Total Investments	$295,367,952	$258,218,362		

June 30, 2021	Fair Value	Cost	Average Credit Quality/ Rating (1)	Weighted Average Number of Years to Maturity (2)
Money Market Mutual Funds	$ 10,172,353	$ 10,172,353	N/A	-
U.S. Treasuries	43,070,494	39,744,163	N/A	15.01
U.S. Agency Obligations				
FHMS (collateralized Mtg Obligation)	1,935,408	1,803,043	N/A	1.35
FHLMC (Freddie Mac)	3,324,859	3,250,432	AAA	3.60
FNMA (Fannie Mae)	8,922,318	8,823,201	AAA	3.95
GNMA (Ginnie Mae)	1,623,774	1,610,926	AAA	3.50
Total U.S. Agency Obligations	15,806,359	15,487,602		
Corporate Bonds & Bond Mutual Funds	70,606,492	69,198,732	N/A	7.25
Domestic equities	155,032,306	78,909,148	N/A	N/A
International equities	34,062,515	23,246,243	N/A	N/A
Real Estate	14,399,585	13,978,308	N/A	N/A
Judgments	224,217	224,217	N/A	N/A
Total Investments	$343,374,321	$250,960,766		

(1) Ratings are provided where applicable to indicate **Credit Risk**. N/A indicates not applicable.
(2) **Interest Rate Risk** is estimated using weighted average years to maturity.

As of June 30, 2022, the retirement system had the following fixed income investments and maturities:

		Investment Maturities (in Years)			
June 30, 2022	Fair Value	Less than 1	1-5	6-10	More than 10
U.S. Treasuries and Treasury Bonds	$39,328,691	0.69%	9.08%	1.28%	26.40%
U.S. Agencies (1)	10,060,292	0.36%	2.86%	7.49%	2.42%
Corporate Bonds & Bond Mutual Funds	48,054,994	5.33%	22.50%	17.85%	3.75%
Totals	$97,444,977	6.37%	34.44%	26.61%	32.58%

NOTES TO THE FINANCIAL STATEMENTS (continued)

As of June 30, 2021, the retirement system had the following fixed income investments and maturities:

		Investment Maturities (in Years)			
June 30, 2021	Fair Value	Less than 1	1-5	6-10	More than 10
U.S. Treasuries and Treasury Bonds	$ 43,070,494	0.00%	8.16%	3.09%	17.22%
U.S. Agencies (1)	15,806,359	0.25%	8.59%	1.39%	0.00%
Corporate Bonds & Bond Mutual Funds	70,606,492	7.48%	32.04%	16.83%	4.97%
Totals	$129,483,345	7.72%	48.79%	21.31%	22.19%

(1) Includes Government National Mortgage Association (GNMA) investments, which are explicitly guaranteed by the U.S. Government.

TCERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. TCERS has the following recurring fair value measurements as of June 30, 2022:

Investments Measured at Fair Value as of **June 30, 2022**	Fair Value Measurements Using			
	Total Assets	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money Market Mutual Fund	$ 8,387,832	$ 8,387,832	$ -	$ -
Debt Securities:				
Treasury Bonds	12,478,576	12,478,576	-	-
Agency Bonds	10,060,292	-	10,060,292	-
Municipal Bonds	2,711,380	-	2,711,380	-
Corporate Bonds	24,230,158	-	24,230,158	-
Sovereign Debt	39,980	-	39,980	-
Foreign Corporate Bonds	1,591,526	-	1,591,526	-
Registered Investment Companies	46,332,065	46,332,065	-	-
Total Debt Securities	97,443,977	58,810,641	38,633,336	-
Equity Securities:				
Common stock	107,378,024	107,378,024	-	-
Common Collective Trusts	52,803,279	-	52,803,279	-
Alternative Investments – Infrastructure	10,402,320	10,402,320	-	-
Total Equity Securities	170,583,623	117,780,344	52,803,279	-
Judgments	240,367	-	-	240,367
Investments Measured at the Net Asset Value (NAV)				
Real Estate Funds	18,712,153	-	-	-
Total Investments	$295,367,952	$184,978,817	$91,436,615	$240,367

NOTES TO THE FINANCIAL STATEMENTS (continued)

TCERS categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. TCERS has the following recurring fair value measurements as of June 30, 2021:

Investments Measured at Fair Value as of **June 30, 2021**	Fair Value Measurements Using			
	Total Assets	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Money Market Mutual Fund	$ 10,172,353	$ 10,172,353	$ -	$ -
Debt Securities:				
Treasury Bonds	18,006,488	18,006,488	-	-
Agency Bonds	15,806,358	-	15,806,358	-
Municipal Bonds	4,038,547	-	4,038,547	-
Corporate Bonds	36,341,197	-	36,341,197	-
Sovereign Debt	96,735	-	96,735	-
Foreign Corporate Bonds	2,378,855	-	2,378,855	-
Registered Investment Companies	52,815,164	52,815,164	-	-
Total Debt Securities	129,483,344	70,821,652	58,661,692	-
Equity Securities:				
Common stock	120,409,503	120,409,503	-	-
Common Collective Trusts	57,652,199	-	57,652,199	-
Alternative Investments – Infrastructure	11,033,120	11,033,120	-	-
Total Equity Securities	189,094,822	131,442,623	57,652,199	-
Judgments	224,217	-	-	224,217
Investments Measured at the Net Asset Value (NAV)				
Real Estate Funds	14,399,585	-	-	-
Total Investments	$343,374,321	$212,436,628	$116,313,891	$224,217

Money market mutual funds, debt securities, equity securities, and alternative investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those investments. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using one of the following: a) quoted prices for similar, but not identical, assets or liabilities in active markets, b) quoted prices for identical or similar assets or liabilities in inactive markets, c) inputs other than quoted market prices that are observable, such as interest rate and yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates, and d) other inputs derived from or corroborated by observable market inputs. Other miscellaneous investments classified in Level 3 of the fair value hierarchy are valued using unobservable inputs to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. Unobservable inputs reflect TCERS own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). Unobservable inputs shall be developed based on the best information available in the circumstance, which might include TCERS own data.

Investments measured at Net Asset Value as of June 30, 2022:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate Funds	$18,712,153	-	Quarterly	0 to 90 days

Real Estate Funds – these investments include two real estate funds that invest primarily in U.S. commercial real estate. The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the TCERS' ownership interest in partner's capital.

Investments measured at Net Asset Value as of June 30, 2021:

	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate Funds	$14,399,585	-	Quarterly	0 to 90 days

Real Estate Funds – these investments include two real estate funds that invest primarily in U.S. commercial real estate. The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the TCERS' ownership interest in partner's capital.

TCERS Investment Guidelines

The Board of Trustees of TCERS has formally adopted investment guidelines for the investment managers. The investment managers are expected to execute all transactions as efficiently as possible. There are no specific restrictions on portfolio turnover or preference for long or short holding periods. The Board does, however, anticipate that long-term performance will be enhanced by investment strategies, not trading strategies.

All securities transactions are affected through brokerage firms. The TCERS assets may be invested in publicly traded common and preferred stocks, convertible bonds, and non-convertible fixed income securities, whether interest bearing or discount instruments, including money market instruments, subject to any restrictions specifically outlined in the Statement of Investment Policies, Guidelines, and Objectives (Policy).

The Board has adopted the following Asset Allocation among stocks, bonds, and cash to serve as a general guideline in investing the Plan's assets.

	Minimum	Target	Maximum
Core Equity	**7.50%**	**17.50%**	**27.50%**
SMid Capitalization Equity	**15.00%**	**25.00%**	**35.00%**
International Equity	**2.50%**	**12.50%**	**17.50%**
MLPs	**0.00%**	**5.00%**	**15.00%**
Core Fixed Income	**0.00%**	**8.75%**	**18.75%**
Intermediate Fixed Income	**0.00%**	**8.75%**	**18.75%**
High Yield Fixed Income	**0.00%**	**7.50%**	**17.50%**
Active Duration Fixed Income	**0.00%**	**10.00%**	**20.00%**
Real Estate	**0.00%**	**5.00%**	**15.00%**
Cash and Equivalents	**0.00%**	**0.00%**	**5.00%**

TCERS's Risk Disclosures

Credit Risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Generally, the TCERS's investing activities are approved by the Board of Trustees and managed under the custody of the County Treasurer. Investing is performed in accordance with investment policies adopted by the Board of Trustees and complies with the Investment Policy adopted by the Board of County Commissioners and with State Statutes.

The TCERS Investment Policy designates a core fixed income portfolio and an intermediate fixed income portfolio. It allows, but does not require, each manager to invest up to 15% of their respective portfolios in bonds below "investment grade," but not lower than "B". Total fixed income exposure, from any single issuer except U.S. Government, its agencies, or instrumentalities, shall not exceed 7.0% of the total allocation of the portfolio, except below investment grade issuers, which shall not exceed 2.5% of the portfolio. Within the above parameters, the two fixed income managers have complete discretion as to credit rating.

As of June 30, 2022, the core fixed income portfolio had an average credit rating of Aa2, with 24.6% to Governments and Agencies, 62.7% in AAA rated bonds, 2.2% in AA rated bonds, 15.2% in A rated bonds and 19.9% in BBB rated bonds. The fixed income portfolio had an average credit rating of A1, with 23.6% to Governments and Agencies, 21.1% in AAA rated bonds, 4.8% in AA rated bonds, 17.4% in A rated bond, 23% in BBB rated bonds, 9.6% in BB rated issues and .6% in B rated bonds.

Concentration of Credit Risk is the risk of loss attributed to the magnitude of the TCERS's investment in a single issuer. Excluding investments in common collective trust funds, the retirement system did not have any investments that exceed 5% of the total portfolio. The TCERS's investments that were below investment grade did not exceed 2.5% of the portfolio. U.S. Government securities are excluded from these restrictions. Equity fund managers are given the guideline that no single security in each manager's portfolio can constitute more than 5% of the portfolio's equity allocation at the time of purchase, nor can it be more than 7% of the equity allocation of the portfolio after accounting for price appreciation.

Interest Rate Risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments held for longer periods are subject to increased risk of adverse interest rate changes. TCERS's investment policy provides that to the extent practicable, investments are matched with anticipated cash flows. Investments are diversified to minimize the risk of loss resulting from over-concentration of assets in a specific maturity period, a single issuer, or an individual class of securities.

Foreign Currency Risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The Board of Trustees has stated in the Policy the guidelines for the international equity portfolio manager. The constraints on the international equity portfolio manager are to diversify internationally across the global equity markets. The international equity manager invests in only non-U.S. dollar denominated equity securities. The manager is required to invest in a prudent manner and to operate under the restrictions indicated in their prospectus. These include regional constraints, diversification requirements and the type of securities held.

TCERS's international equity portfolio comprises 10.2% and 9.9% of the total portfolio investments at fair value as of June 30, 2022, and 2021, respectively. The managers of these portfolios do not hedge the foreign currency risk and the Policy does not require it.

Pension Trust investing is restricted by Oklahoma Statutes to the Prudent Investor Rule.

TCERS's investments in foreign equities and debt securities are shown by monetary unit to indicate possible foreign currency risk. TCERS's exposure to foreign currency risk at June 30, 2022 and 2021 follows:

June 30, 2022			**June 30, 2021**	
	Equities			**Equities**
South Africa Rand	$ -		South Africa Rand	$ 356,234
Euro	12,401,899		Euro	11,818,169
British Pound	2,096,365		British Pound	2,371,524
Hong Kong Dollar	495,730		Hong Kong Dollar	619,230
Japanese Yen	5,059,530		Japanese Yen	6,374,608
Swiss Franc	-		Swiss Franc	544,711
	$20,053,524			$22,084,476

International equities also included $10,144,010 and $11,978,039 in US dollar denominated investments which consisted primarily of American Depositary Receipts as of June 30, 2022 and 2021, respectively.

NOTES TO THE FINANCIAL STATEMENTS (continued)

For the years ended June 30, 2022 and 2021, realized gains on the sale of investments of $11,986,919 and $6,879,976, respectively, have been included in net appreciation or depreciation. The calculation of realized gains and losses is independent of the calculation of the changes in the fair value of investments. Realized gains and losses for 2022 and 2021 include unrealized amounts from the prior periods. For the years 2022 and 2021, net appreciation on real estate investment includes fees of $37,055 and $21,518, respectively.

Rate of Return – For the years ended June 30, 2022 and 2021, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expense, were -11.23% and 24.82%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested.

5. NET PENSION LIABILITY OF THE COUNTY

The components of the net pension liability of the County at June 30, 2022 and 2021, follows:

	2022	2021
Total Pension Liability	$583,127,912	$477,644,823
Plan Fiduciary Net Position	(297,074,715)	(344,854,962)
County's Net Pension Liability	$286,053,197	$132,789,861
Plan Fiduciary Net Position as a percentage Of the total pension liability	50.95%	72.20%

Actuarial Assumptions. The total pension liability was determined by an actuarial valuation for plan year beginning July 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement. Also presented are assumptions for the fiscal year ended June 30, 2021:

Valuation Date	July 1, 2022	July 1, 2021
Inflation	2.50%	2.50%
Salary increases including inflation	Age 20-34 5.0% Age 35-49 3.5% Age 50-70 2.5%	Age 20-34 5.0% Age 35-49 3.5% Age 50-70 2.5%
Mortality	Actives: RP-2014 Employees Mortality Table, male and female rates, with generational projection from 2006 based on the MP-2017 scale. Healthy Inactives: RP-2014 Healthy Annuitant Mortality Table, male and female rates, with generational projection from 2006 based on the MP-2017 scale. Disabled Inactives: RP-2014 Disabled Mortality Table, male and female rates.	Actives: RP-2014 Employees Mortality Table, male and female rates, with generational projection from 2006 based on the MP-2017 scale. Healthy Inactives: RP-2014 Healthy Annuitant Mortality Table, male and female rates, with generational projection from 2006 based on the MP-2017 scale. Disabled Inactives: RP-2014 Disabled Mortality Table, male and female rates.
Turnover	Crocker, Sarason and Straight T-7 rates, increased by 0.2 for the first year and 0.1 for the second year	Crocker, Sarason and Straight T-7 rates, increased by 0.2 for the first year and 0.1 for the second year
Discount Rate, compounded annually	4.75%	6.00%

NOTES TO THE FINANCIAL STATEMENTS (continued)

Disability: Various rates based on age. Selected rates for both June 30, 2022 and 2021 are:

Age	Rate per 1,000 Male	Female
25	0.106	0.124
30	0.128	0.128
40	0.173	0.198
50	0.226	0.399
55	0.366	0.573
60	0.492	0.623
65	0.570	0.605

Retirement Rate: At the following rates upon attaining age 62 with five years of participation or any age with 80 points or age 65 with five years of participation or any age with 90 points, if hired after June 30, 2017:

Age	Rate
Under 55	0%
55-64	20%
65-69	30%
70	100%

Marital Status: 85% percent are assumed to be married. Males are assumed to be four years older than their spouses.

The actuarial assumptions used in the June 30, 2022, valuation was based on the results of an actuarial experience study for the period July 1, 2012, through June 30, 2017. These assumptions were effective July 1, 2018.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions and portfolio standard deviation are per the Plan's independent investment consultant. Actual long-term historical results achieved by the Fund were also considered. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2021, (see the discussion on the pension plan's investment policy) are summarized in the following table:

Asset Class	Index	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Core Fixed Income	Barclays Aggregate	18.75%	1.95%	1.84%
US Intermediate Bonds	Barclays US Gvt/Credit	8.75%	1.48%	1.39%
US High Yield Bonds	ICE BofA US High Yield	7.50%	4.24%	3.70%
US Large Caps	S&P 500	17.50%	5.57%	4.08%
US Mid-Caps	Russell MidCap	25.00%	5.95%	3.96%
Foreign Developed Equity	MSCI EAFE NR	12.50%	6.99%	5.25%
Private Real Estate Property	NCREIF Property	5.00%	4.88%	3.57%
Master Limited Partnerships	Alerian MLP	5.00%	6.71%	3.25%

NOTES TO THE FINANCIAL STATEMENTS (continued)

Discount rate. The discount rate used to measure the total pension liability was 4.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that County contributions will be made at 15%. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the County as of June 30, 2022, calculated using the discount rate of 4.75%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (3.75%) or 1 percentage point higher (5.75%) than the current rate:

	1% Decrease 3.75%	Current Discount Rate 4.75%	1% Increase 5.75%
Total pension liability	$671,277,288	$583,127,912	$512,003,536
Fiduciary net pension	297,074,715	297,074,715	297,074,715
County's net pension liability	374,202,573	286,053,197	214,928,821

The following presents the net pension liability of the County as of June 30, 2021, calculated using the discount rate of 6.00%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.00%) or 1 percentage point higher (7.00%) than the current rate:

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Total pension liability	$542,292,508	$477,644,823	$424,724,690
Fiduciary net pension	344,854,962	344,854,962	344,854,962
County's net pension liability	197,437,546	132,789,861	79,869,728

EMPLOYEES' RETIREMENT SYSTEM TULSA COUNTY
Administered by the Tulsa County Clerk

Required Supplementary Information

(Unaudited)
For Fiscal Years Ended

Schedule of Changes in Net Pension Liability and Related Ratios

Year Ended June 30,	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 9,758	$ 8,608	$ 7,949	$ 6,788	$ 6,422	$ 6,409	$ 6,073	$ 5,714	$ 5,635
Interest	28,484	28,155	27,636	27,201	25,420	24,721	24,740	23,398	22,703
Differences between expected and actual experience	-	-	-	(1,408)	6,401	(1,046)	438	(2,337)	(294)
Plan Changes	6,233	(2,846)	2,438	15	-	(238)	(470)	-	-
Changes of assumptions	86,729	14,216	26,020	22,907	7,494	-	18,308	7,382	(2,894)
Benefit payments, including refunds of member contributions	(25,720)	(24,368)	(22,890)	(21,966)	(21,128)	(19,342)	(18,165)	(17,208)	(16,252)
Net change in total pension liability	105,483	23,765	41,153	33,537	24,609	10,504	30,924	16,949	8,898
Total pension liability - beginning	477,645	453,880	412,727	379,190	354,581	344,077	313,153	296,204	287,306
Total pension liability - ending (a)	$ 583,128	$ 477,645	$ 453,880	$ 412,727	$ 379,190	$ 354,581	$ 344,077	$ 313,153	$ 296,204
Plan fiduciary net position									
Contributions - employer	$ 13,111	$ 12,673	$ 12,474	$ 11,103	$ 10,818	$ 10,847	$ 10,893	$ 10,459	$ 9,678
Contributions - member	3,058	2,955	2,501	1,975	1,922	1,542	969	743	688
Net investment income	(38,136)	69,455	3,244	6,612	15,830	24,595	221	523	41,471
Benefit payments, including refunds of member contributions	(25,720)	(24,368)	(22,890)	(21,965)	(21,129)	(19,342)	(18,165)	(17,208)	(16,252)
Administrative expense	(93)	(151)	(119)	(96)	(140)	(119)	(120)	(128)	(128)
Net change in plan fiduciary net position	(47,780)	60,564	(4,790)	(2,371)	7,301	17,523	(6,202)	(5,611)	35,457
Plan fiduciary net position - beginning	344,855	284,291	289,081	291,452	284,151	266,628	272,830	278,441	242,984
Plan fiduciary net position - ending (b)	297,075	344,855	284,291	289,081	291,452	284,151	266,628	272,830	278,441
Net pension liability - ending (a) - (b)	$ 286,053	$ 132,790	$ 169,589	$ 123,646	$ 87,738	$ 70,430	$ 77,449	$ 40,323	$ 17,763
Plan fiduciary net position as a percentage of the total pension liability	50.95%	72.20%	62.64%	70.04%	76.86%	80.14%	77.49%	87.12%	94.00%
Covered payroll	$ 85,455	$ 79,247	$ 83,401	$ 80,413	$ 76,500	$ 76,796	$ 76,561	$ 76,834	$ 72,407
Net pension liability as a percentage of covered payroll	334.74%	167.56%	203.34%	153.76%	114.69%	91.71%	101.16%	52.48%	24.53%

Notes to Schedule:

1. Only the nine most recent fiscal years are presented because 10-year data is not yet available.
2. Actuarial Assumptions, Methods and Plan Provisions

All actuarial assumptions, methods and plan provisions remained the same as the prior year.

Required Supplementary Information

(Unaudited)
For Fiscal Years Ended

Schedule of Contributions from Employer

Fiscal Year Ending June 30		Actuarially determined contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2022	$	13,781,911	13,110,737	671,174	85,455,087	15.34%
2021		14,073,262	12,673,435	1,399,827	79,247,098	15.99%
2020		13,052,158	12,474,333	577,825	83,400,750	14.96%
2019		12,161,561	11,103,394	1,058,167	80,413,486	13.81%
2018		10,568,348	10,817,651	(249,303)	76,499,726	14.14%
2017		10,839,414	10,846,636	(7,222)	76,796,017	14.12%
2016		8,925,910	10,892,672	(1,966,762)	76,560,913	14.23%
2015		8,657,780	10,459,118	(1,801,338)	76,834,455	13.61%
2014		8,694,876	9,678,256	(983,380)	72,406,610	13.37%

Notes to Schedule:

1. Only the nine most recent fiscal years are presented because 10-year data is not yet available.

2. Valuation Date: July 1, 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, and 2014

3. Actuarially determined contribution rate is calculated as of June 30 prior to the end of the fiscal year in which contributions are reported

4. Methods and assumptions used to determine contribution rates:
   Actuarial cost method - Entry age normal
   Amortization method - Level percent of payroll, layered
   Remaining amortization period at July 1, 2022 - 20 years (11 year closed period for unfunded accrued liability as of July 1, 2017)
   Asset valuation method - Actuarial:
     Smoothing period - 5 years
     Recognition method - Non-asymptotic
     Corridor - 80% - 120%
   Inflation - 2.5%
   Salary increases - 5% grading down to 2.5%
   Investment rate of return - 7.25% as of July 1, 2022, 2021, 2020, 2019, 2018, July 1, 2017, and July 1, 2016 and 7.75% as of July 1, 2015 and 2014

Required Supplementary Information
(Unaudited)
For Fiscal Years Ended

Schedule of Investment Returns

Year ended June 30,	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	-11.23%	24.82%	1.14%	2.31%	5.66%	9.36%	0.08%	0.19%	17.29%

Note to Schedule:

Only the nine most recent fiscal years are presented because 10-year data is not yet available.

Supporting Schedules for Financial Section (Unaudited)

Schedule of Administrative Expenses
For Year Ended June 30, 2022

Professional Services:		
Actuarial	$ 19,500	
Audit	19,500	
Legal	1,645	
Total Professional Services		$ 40,645
Other Administrative Expenses:		
Fiduciary Liability Insurance	$ 39,392	
Printing and postage	4,693	
Travel & Training	751	
Software Maintenance	7,063	
Miscellaneous	611	
Total Other Administrative Expenses		52,510
Total Administrative Expenses		$ 93,154

Schedule of Investment Expenses
For Year Ended June 30, 2022

Investment Managers		
Barrow, Hanley, Mewhinney & Strauss (fixed income)	$ 84,266	
Barrow, Hanley, Mewhinney & Strauss (mid-cap equity)	455,026	
Chickasaw Capital Management	204,578	
Segal Bryant & Hamill	66,172	
State Street Global Advisors	9,240	
Tocqueville Asset Management	308,247	
Total Investment Managers		$ 1,127,529
Independent Financial Consultant		
AndCo	$ 80,000	
Total Independent Financial Consultant		80,000
Other Investment Expenses		
BOK Financial bank custody fees	$ 49,493	
Less Commission Recapture	(11,203)	
Less Class Action Reimbursement	(72)	
Total Other Investment Expenses		38,218
Total Investment Expenses		$ 1,245,747

Schedule of Payments to Consultants
For Year Ended June 30, 2022

Individual or firm	Commission/Fee	Nature of Service
Milliman	$ 19,500	Actuary

For information on fees paid to investment professionals please refer to the Schedule of Investment Expenses. The payment to Milliman is also included in the Schedule of Administrative Expenses.

Investment Section

Putting clients first.

October 31, 2022

Tulsa County Employees' Retirement System
Board of Trustees
Tulsa County Headquarters Building
218 West 6th Street
Tulsa, OK 74119-1004

Annual Consultant Review

The fiscal year ended June 30, 2022, was a difficult period for investors due to looming economic and market issues. Unexpectedly high inflation, ongoing COVID-19 effects, and conflict in Ukraine all contributed to an uncertain economic environment. In this difficult period, the Employees' Retirement System of Tulsa County earned a fiscal year total return of -10.9% which was below its actuarial return assumption and modestly below its custom total fund performance benchmark. During the previous fiscal year, the total portfolio earned a return of +25.6%. Investment returns were volatile during the most recent fiscal year; equity and bond portfolio returns both were negative. The passive equity portfolio matched its benchmark's loss of -10.6% while the System's small/mid cap equity portfolio posted a loss of -13.2%. The international equity portfolio suffered a loss of -25.2% which underperformed its benchmark. The System's core bond portfolios declined -6.8% and -10.7%. One outperformed their benchmark while the other did not. The active duration bond portfolio posted a one-year loss of -20.1%, suffering from rapidly rising inflation and interest rates. The high yield bond allocation fell -13.7%. The MLP portfolio was the sole positive return during the year, gaining +10.8%. The accompanying basic financial statements and performance comparisons are reported on an accrual basis of accounting and are reported in conformity with Generally Accepted Accounting Principles. Under the accrual basis of accounting, revenues are recognized when earned instead of when received and expenses are recognized when incurred rather than paid.

During the year, we worked with the Board on several projects to monitor and improve the investment portfolio:

- Strategic Portfolio Planning
- Investment Policy Review
- Asset Allocation Review
- Education and Review of Investment and Market Performance
- Investment Manager Monitoring and Review
- Regular Performance Reviews with the Board
- Continued Exploration of Asset Classes to Enhance Performance
- Closely Monitored the Master Limited Partnership Allocation
- Closely Monitored the High Yield Bond Allocation
- Closely Monitored the System's First Two Real Estate Investment Funds.

Our firm's goal is to provide valuable perspective and guidance for the System's investments. Along with the Board and the Investment Committee, we work to maintain a patient, long-term focus on the System's investments, despite inevitable market volatility. We look forward to continuing our relationship with the Board and Staff.

Respectfully submitted,

/s/ Douglas Anderson
Douglas J. Anderson
Consultant

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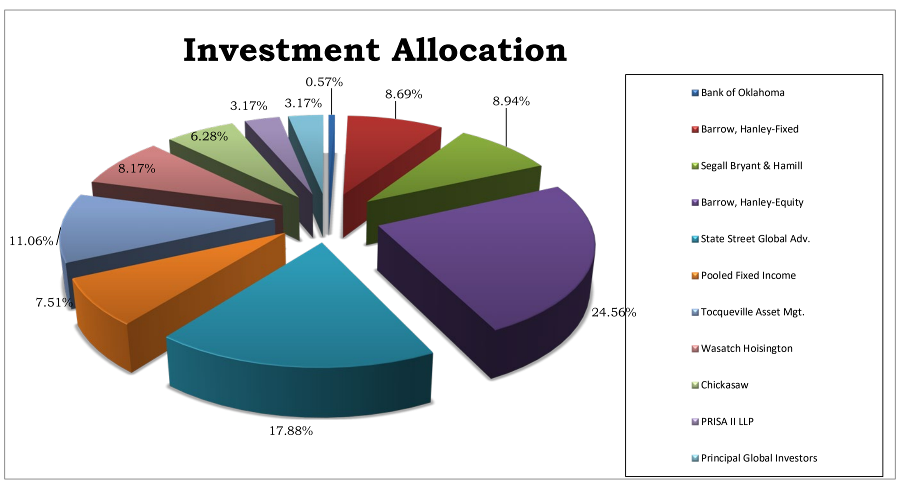
[1] Returns shown are time-weighted rates of return, gross of investment management fees, based on market value of the assets. Market value of assets is received from the System's custodian. While this source is believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Past performance is not an indication of future performance.

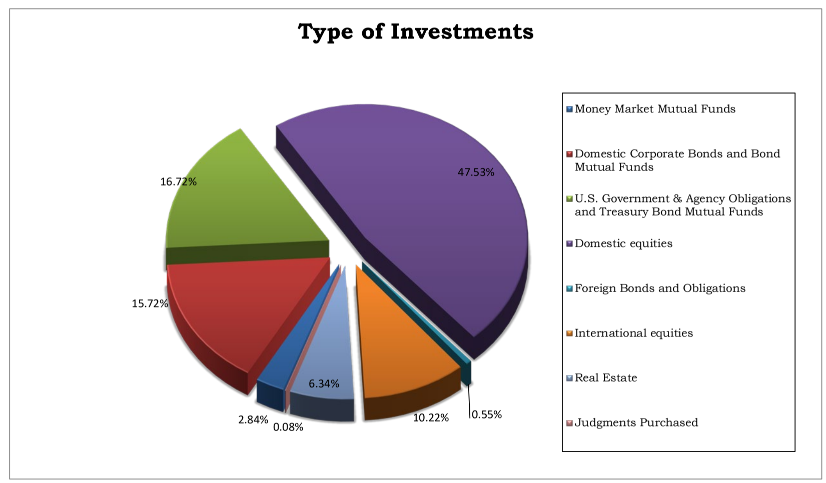
AndCo Consulting | 531 W Morse Blvd | Suite 200 | Winter Park, FL 32789 | (844) 44-ANDCO | *AndCoConsulting.com*

Type of Investments at Fair Value/Investment Allocation
For Fiscal Year Ended June 30, 2022

Types of Investments	Bank of Oklahoma	Barrow, Hanley-Fixed	Segall Bryant & Hamill	Barrow, Hanley-Equity	State Street Global Adv.	Pooled Fixed Income	Tocqueville Asset Mgt.	Wasatch Hoisington	Chickasaw	PRISA II LLP	Principal Global Investors	Total at Fair Value	% of total 2020-2021
Money Market Mutual Funds	$ 1,436,641	$ 503,341	$ 461,721	$ 2,068,370	$ 3,038	$ 368	$ 2,469,258	$ 5	$ 1,442,528	2,552	10	$ 8,387,832	2.84%
Domestic Corporate Bonds and Bond Mutual Funds	-	11,930,033	13,931,631	-	-	20,561,824	-	-	-	-	-	46,423,488	15.72%
U.S. Government & Agency Obligations and Treasury Bond Mutual Funds	-	13,230,881	12,019,367	-	-	-	-	24,138,735	-	-	-	49,388,983	16.72%
Domestic equities	-	-	-	70,479,707	52,803,279	-	-	-	17,103,103	-	-	140,386,089	47.53%
Foreign Bonds and Obligations	-	-	-	-	-	1,631,506	-	-	-	-	-	1,631,506	0.55%
International equities	-	-	-	-	-	-	30,197,534	-	-	-	-	30,197,534	10.22%
Real Estate	-	-	-	-	-	-	-	-	-	9,362,005	9,350,148	18,712,153	6.34%
Judgments Purchased	240,367	-	-	-	-	-	-	-	-	-	-	240,367	0.08%
Total	$ 1,677,008	$ 25,664,255	$ 26,412,719	$ 72,548,077	$ 52,806,317	$ 22,193,698	$ 32,666,792	$ 24,138,740	$ 18,545,631	9,364,557	9,350,158	$ 295,367,952	100.00%
Percent of total investments	0.57%	8.69%	8.94%	24.56%	17.88%	7.51%	11.06%	8.17%	6.28%	3.17%	3.17%	100.00%	

Investment Portfolio
For Fiscal Year Ended June 30, 2022





Investment Portfolio Summary
For Fiscal Year Ended June 30, 2022 and June 30, 2021

	2022			
	Fair Value	Percentage	Cost	Percentage
Money Market Mutual Funds	$ 8,387,832	2.84%	$ 8,387,832	3.25%
Domestic Corporate Bonds and Bond Mutual Funds	46,423,488	15.72%	53,104,760	20.57%
Foreign Bonds and Obligations	1,631,506	0.55%	1,777,325	0.69%
U.S. Government and Agency obligations and treasury bond mutual funds	49,388,983	16.72%	55,172,467	21.37%
Domestic Equities	140,386,089	47.53%	92,640,498	35.88%
International Equities	30,197,534	10.22%	32,523,972	12.60%
Real Estate	18,712,153	6.34%	14,371,141	5.57%
Judgments Purchased	240,367	0.08%	240,367	0.09%
Total	$ 295,367,952	100.0%	$ 258,218,362	100.0%

	2021			
	Fair Value	Percentage	Cost	Percentage
Money Market Mutual Funds	$ 10,172,353	2.96%	$ 10,172,353	4.05%
Domestic Corporate Bonds and Bond Mutual Funds	68,130,902	19.84%	69,198,732	27.57%
Foreign Bonds and Obligations	2,475,590	0.72%		0.00%
U.S. Government and Agency obligations and treasury bond mutual funds	58,876,853	17.15%	55,231,765	22.01%
Domestic Equities	155,032,306	45.15%	78,909,148	31.44%
Real Estate	34,062,515	9.92%	23,246,243	9.26%
International Equities	14,399,585	4.19%	13,978,308	5.57%
Judgments Purchased	224,217	0.07%	224,217	0.09%
Total	$ 343,374,321	100.0%	$ 250,960,766	100.0%

Investment Transaction Summary
For Fiscal Year Ended June 30, 2022

	Money Market Mutual Funds	Domestic Corporate Bonds and Bond Mutual Funds	Gov't & Agency Issues	Domestic Equities	International Equities	Real Estate	Judgments	Total
Balance at beginning of year, at cost	$ 10,172,353	$ 69,198,732	$ 55,231,765	$ 78,909,148	$ 23,246,243	$ 13,978,308	$ 224,217	250,960,766
Purchases	119,727,466	14,814,120	25,533,003	32,556,099	17,199,570	544,320	102,000	210,476,578
Sales and Maturities	(121,511,987)	(29,130,767)	(25,592,301)	(18,824,749)	(7,921,841)	(151,487)	(85,850)	(203,218,982)
Balance at end of year, at cost	$ 8,387,832	$ 54,882,085	$ 55,172,467	$ 92,640,498	$ 32,523,972	$ 14,371,141	$ 240,367	258,218,362
Fair Value	$ 8,387,832	$ 48,054,994	$ 49,388,983	$ 140,386,089	$ 30,197,534	$ 18,712,153	$ 240,367	295,367,952

List of Largest Assets Held

Largest Equity Holdings (By Fair Value)
For Fiscal Year Ending June 30, 2022

	Shares	Stock	Fair Value
1)	53,458	State Street Global Advisors S&P 500 Flagship Fund	$ 52,803,279
2)	101,391	Air Transport Services Group	2,912,963
3)	128,092	Allegheny Technologies Inc	2,908,969
4)	108,245	Ofg Bancorp	2,749,423
5)	44,681	Darling Ingredients Inc	2,671,924
6)	48,877	Texas Capital Bancshares Inc	2,572,885
7)	133,248	Enerpac Tool Group Corp	2,534,377
8)	36,396	Cabot Corp	2,321,701
9)	56,205	Super Micro Computer Inc	2,267,872
10)	74,445	Adient LTD	2,205,805

Largest Bond Holdings (By Fair Value)
For Fiscal Year Ending June 30, 2022

	Par	Bonds	Fair Value
1)	1,693,946	Wasatch Hoisington U.S. Treasury FD#0029	$ 24,138,735
2)	2,089,108	Loomis Sayles Inst Hi Inc #1178	11,176,729
3)	1,649,192	Aberdeen Global High Income-I FD#5497	11,016,600
4)	2,415,000	U.S. Treasury Note 2.750% due 11-15-2023	2,408,504
5)	1,550,000	U.S. Treasury Note 2.375% due 05-15-2027	1,500,850
6)	1,530,000	U.S. Treasury Note 1.125% due 02-28-2025	1,456,499
7)	1,280,000	U.S. Treasury Note 0.750% due 04-30-2026	1,173,555
8)	1,140,000	U.S. Treasury Note 1.250% due 08-31-2024	1,098,458
9)	1,435,000	U.S. Treasury Bond 1.375% due 08-15-2050	945,220
10)	730,000	U.S. Treasury Note 2.625% due 02-15-2029	710,925

A complete list of the portfolio holdings is obtainable from the Tulsa County Treasurer's office, 218 W. 6th St., 8th Fl., Tulsa, Oklahoma 74119.

Investment Performance Measurements
For Fiscal Year Ending June 30, 2022

Portfolio Description	One Year Return	Three Year Return	Five Year Return
Total Fund	**-10.86%**	**4.38%**	**4.39%**
Benchmark (Policy Index)	-10.59%	4.09%	4.64%
Large Cap Index Fund	**-10.63%**	**10.60%**	**11.32%**
Benchmark (S&P 500)	-10.62%	10.60%	11.31%
Small/Mid (smid) Cap Equity Portfolio	**-13.22%**	**11.07%**	**8.31%**
Benchmark (Russell Midcap Index)	-17.30%	6.59%	7.96%
International Value Portfolio	**-25.18%**	**-38.00%**	**36.00%**
Benchmark (MSCI EAFE (Net) Index)	-17.77%	1.07%	2.20%
Master Limited Partnership Portfolio (Chickasaw)	**10.77%**	**3.15%**	**0.07%**
Benchmark (Alerian MLP Index)	4.33%	0.07%	-0.29%
Intermediate Fixed Income Portfolio	**-6.84%**	**0.48%**	**1.65%**
Benchmark (Bloomberg Barclays Intermediate US Govt/Credit Ind	-7.28%	-0.16%	1.13%
Core Fixed Income Portfolio	**-10.72%**	**-0.49%**	**1.17%**
Benchmark (Bloomberg Barclays U.S. Aggregate Index)	-10.29%	-0.94%	0.88%
Active Duration Fixed Income Portfolio	**-20.14%**	**-3.33%**	**0.30%**
Benchmark (Bloomberg Barclays U.S. Aggregate Index)	-10.29%	-0.94%	0.88%
High Yield Fixed Income Portfolio	**-13.74%**	**0.68%**	**1.14%**
Benchmark (BofA Merrill Lynch High Yield Master II)	-12.69%	-0.05%	1.95%
Real Estate Portfolio	**31.69%**	**N/A**	**N/A**
NCREIF Fund Index-ODCE (VW)	29.51%	12.66%	10.54%

Note: Investment returns shown in this schedule are time-weighted rates of return based on the market value of the assets.

Schedule of Fees and Commissions
For Fiscal Year Ending June 30, 2022

	Assets under Management	Fees	Basis Points
Investment manager's fees			
Fixed income managers	$ 52,080,875	$ 150,437	29
Active domestic equity managers	90,672,729	659,604	73
Active international equity manager	32,634,814	308,247	94
Passive equity manager (1)	52,806,316	9,240	2
Real estate managers	18,714,715	93,104	50
Total investment managers' fees		$ 1,220,632	

(1) Fees paid to the passive equity manager are net of securities lending income of $542.

Other investment service fees:	
Custodian fees	$ 49,493
Total other investment service fees:	$ 49,493

TCERS's active equity managers paid brokerage commissions totaling $66,832 for the year.
The five brokers receiving the largest amounts of commissions were:

Brokerage Firm	Total Commissions
CAP INSTITUTIONAL SERVICES INC	$ 21,627
BNP PARIBAS SECURITIES	9,406
CJS SECURITIES INC	7,612
ITG/POSIT	4,344
LIQUIDNET INC	4,162
	$ 47,151

The number of shares traded through each brokerage firm is not available. TCERS has a commission recapture agreement with CAP Institutional Services. Each month, they rebate a portion of their commissions to TCERS. Rebates, which totaled $11,203 for the year, are credited against Investment Expense.
Chicago Clearing Corporation paid a class action reimbursement in the amount of $73 that was credited against Investment Expense.

Actuarial Section

500 North Broadway
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St. Louis, MO 63102
USA

Tel + 314 231 3031

milliman.com

December 13, 2022

Board of Trustees
Employees' Retirement
System of Tulsa County
218 West 6th Street, 7th Floor
Tulsa, OK 74119

RE: Employees' Retirement System of Tulsa County 2022 Actuary's Report

Dear Board of Trustees:

As part of our engagement with the Board, we performed an actuarial valuation of the Employees' Retirement System of Tulsa County. Actuarial valuations are performed annually, and the most recent actuarial valuation is as of July 1, 2022 for the Plan Year ending June 30, 2023. Our findings are set forth in this actuary's report. This report reflects the benefit provision and contribution rates in effect as of July 1, 2022 and was developed using models intended for valuations that use standard actuarial techniques.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the County. This information includes, but is not limited to, statutory provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different, and our calculations may need to be revised.

The valuation results have been developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods are prescribed by the System's Board. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this valuation are those that have been so prescribed and are described in this report. The System is solely responsible for communicating to Milliman any changes required thereto.

This valuation is based on an investment return assumption of 7.25% as adopted by the System's Board. That assumption is considered a *prescribed assumption* as defined by Actuarial Standard of Practice 27 (ASOP 27). As outlined in our Experience Study dated

June 2018, using Milliman's capital market outlook, we would recommend a discount rate lower than 7.25%. Since the time of that Experience Study, Milliman's capital market outlook has lowered even further. That capital market outlook indicates that there is approximately a 25% chance that the System's investment return will meet or exceed the 7.25% assumption. Using a lower investment return assumption would result in significantly higher liabilities as well as a significantly higher actuarially determined contribution. Except as otherwise noted, the actuarial methods and assumptions comply with Actuarial Standards of Practice.

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

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 (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and actuarial cost methods, and the Board has adopted them as indicated in this report.

Actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for the System. Actuarial computations presented in the separate disclosure report under GASB Statements No. 67 and 68 are for purposes of assisting the System and participating employers in fulfilling their financial accounting requirements. The calculations in the valuation report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in the disclosure report have been made on a basis consistent with our understanding of the plan provisions described in this report, and of GASB Statements No. 67 and 68. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use and benefit of Tulsa County. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

(a) The County may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The County may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

Milliman, Inc. has prepared the following trend data schedules presented in the Financial Section of the Comprehensive Annual Financial Report:

- Plan Membership
- Funding and Reserves
- Actuarial Assumptions and Methods
- Number of Members
- Net Pension Liability of the County
- Required Supplementary Information

Milliman, Inc. has prepared the following supporting schedules presented in the Actuarial Section of the Comprehensive Annual Financial Report:

- Summary of Actuarial Assumptions and Methods
- Summary of Principal Provisions of Plan
- Solvency Test
- Schedule of Active Participants and Average Monthly Accrued Benefits by Age and Service
- Retirees and Beneficiaries – Added to and Removed from Retiree Payroll
- Active Members – Valuation Data
- Ratio of Recipients to Active Members – Valuation Data
- Actuarial Analysis of Financial Experience
- Schedule of Actuarially Determined Annual Required Contributions (ARC) versus Actual Contributions as a Percentage of Payroll (restated for GASB #27)
- Schedule of Funding Progress

Milliman, Inc. has prepared the following supporting schedules presented in the Statistical Section of the Comprehensive Annual Financial Report:

- Actuarial Accrued Liabilities versus Fair Value of Assets
- Number of Benefit Recipients and Average Annual Benefit Received
- Current Period Retirees, Average Monthly Benefits and Average Salary by Age and Years of Service

The consultants who worked on this assignment are retirement actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

We hereby certify that, to the best of our knowledge and belief, this report, including all costs and liabilities based on actuarial assumptions and methods adopted by the System's Board, is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Michael A. Sudduth, FSA, EA
Consulting Actuary

David Kent, FSA, EA
Consulting Actuary

MAS/DK/crd

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The actuarial assumptions and methods have been adopted by the Board of Trustees of the Tulsa County Employees' Retirement System with the recommendation of the actuary. The most recent study of plan experience is dated June 2018. The actuarial assumptions are based on that study, except for the investment rate of return, which was adopted by the Board of Trustees, effective July 1, 2016. The actuarial assumptions and methods used for funding purposes are the same as those used for financial reporting purposes. The plan's actuary annually calculates an actuarially determined contribution (ADC) to assist with this determination. The Schedule of Contributions from Employer in the Required Supplementary Information portion of the Financial Section presents the ADC required and the contribution effort made towards the ADC by the employer.

1. **Investment rate of return and discount rate for actuarial liabilities** – Seven and one-fourth (7.25) percent per annum. Seven and three-fourths (7.75) percent per annum was assumed prior to July 1, 2016.

2. **Retirement age** - Sixty-two (62) years or Sixty-five (65) years, if hired after June 30, 2017, or younger if total years' service and age add up to at least 80 or 90, if hired after June 30, 2017. Upon reaching retirement age, the following assumptions are used:

Age	Percent Retiring
55-64	20%
65-69	30%
70	100%

3. **Salary increase rate** - Estimated rates of salary increase are as follows:

	Percentage	Components of salary increase	
Age	Increase	Inflation	Merit/Promotion
20-34	5.0%	2.5%	2.5%
35-49	3.5%	2.5%	1.0%
50-70	2.5%	2.5%	0%

4. **Expenses** - No increases in operating expenses are expected.

5. **Return of contribution** - All employees withdrawing after five years of service are assumed to leave their contributions on deposit and receive a deferred annuitant benefit.

6. **Benefit increases after retirement** - No provisions have been made for post-retirement increases in benefits. The plan does not have an automatic cost of living adjustment.

7. **Actuarial cost method** - The Entry Age Normal Cost Method is used for calculating the plan's Actuarial Accrued Liability (as required under GASB 67 and GASB 68). Under this method, each participant's benefits are level as a percentage of salary, starting at the original participation date and continuing until the assumed retirement, termination, disability, or death.

   Effective July 1, 2018, each year's change in unfunded accrued liability is amortized as a separate layer over 20 years as a level percent of pay, with 2.5% per year projected payroll growth. The unfunded accrued liability that existed prior to July 1, 2018, will continue to be amortized on a closed basis over a 30-year period, measured from July 1, 2003, as a level percent of pay, with 2.5% per year projected payroll growth. Prior to July 1, 2003, actuarial gains and losses were amortized over 15 years and benefit improvements over 20 years.

8. **Asset valuation method** - Asset valuation is based on the five-year expected return method for actuarially determined assets. Prior to July 1, 2014, asset valuation was based on market value.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – continued

9. **Marital status** - Husbands are assumed to be four years older than wives and 85% of the participants are assumed to be married.

10. **Valuation compensation** - Annual rate of pay at the valuation date of July 1, 2022.

11. **Maximum benefit** - The maximum benefit limitation in effect as of June 30, 2022, under the Internal Revenue Code, Section 415.

12. **Mortality Rates** – Active mortality is based on the RP-2014 Employees Mortality Table, male and female rates. Healthy inactive mortality is based on the RP-2014 Healthy Annuitant Mortality Table, male and female rates. Disabled inactive mortality is based on the RP-2014 Disabled Mortality Table, male and female rates. All healthy mortality rates incorporate a generational projection from 2006 based on the MP-2017 scale.

13. **Terminations** - Crocker, Sarason & Straight T-7 rates, increased by 0.2 for the first year of employment and 0.1 for the second year. Sample ultimate rates are presented below:

Age	Rate
20	9.945%
25	9.682%
30	9.312%
35	8.718%
40	7.770%
45	6.377%
50	4.252%
55	1.565%
60	0.149%
63+	0.000%

14. **Disability Rates** – A Disability Table with sample rates is presented below:

Annual Disability Rates per 1000 Individuals

Age	Males	Females
25	.106	.124
30	.128	.128
40	.173	.198
50	.226	.399
55	.366	.573
60	.492	.623
65	.570	.605

15. **Changes in Actuarial Assumptions** - These actuarial assumptions and methods have been in effect since July 1, 1990, except for the following:

- The change in inflation rate from 4% to 3%, effective July 1, 1997, and from 3% to 2.5%, effective July 1, 2014.
- The changes in the amortization period for actuarial gains/losses and benefit enhancements, effective July 1, 2003, and July 1, 2018.
- The change in the rate of return from 8.00% to 7.75%, effective July 1, 2008, and from 7.75% to 7.25%, effective July 1, 2016.

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS – continued

- The change in mortality from the 1983 GAM Mortality Tables to the RP-2000 Mortality Tables, projected five years using Scale AA, effective July 1, 2008, and projected ten years using Scale AA, effective July 1, 2014, and with generational projection, effective July 1, 2015, and the change to the RP-2014 Mortality Tables with generational projection from 2006 of healthy rates using the MP-2017 scale effective July 1, 2018.
- The change in the retirement rates from 75% at age 62 and 50% at ages 63-69 to 40% at ages 62-69, effective July 1, 2008, and 30% at ages 62-69, effective July 1, 2014, and the change in retirement rates from 15% to 20% at ages 55-59, from 25% to 20% at age 61, and from 30% to 20% at ages 62-64 effective July 1, 2018.
- The change in the turnover rates from the T-6 rates increased by 0.6 in the first year of employment and 0.3 in the second year of employment to the T-6 rates increased by 0.3 in the first year of employment and 0.1 in the second year of employment, effective July 1, 2008, and to the T-7 rates increased by 0.2 in the first year of employment and 0.1 in the second year of employment, effective July 1, 2014, and the change in retirement rates from 15% to 20% at ages 55-59, from 25% to 20% at age 61, and from 30% to 20% at ages 62-64 effective July 1, 2018.
- The change in the salary scale from 6% grading down to 4% to 5% grading down to 3%, effective July 1, 2012, and 5% grading down to 2.5%, effective July 1, 2014.
- The change in the asset valuation method from market value to the five-year expected return method, effective July 1, 2014.

SUMMARY OF PRINCIPAL PROVISIONS OF PLAN

The Board of Trustees of the Employees' Retirement System of Tulsa County is responsible for establishing and maintaining a funding policy.

1. **Eligibility** - Employee membership in the Tulsa County Employees' Retirement System (TCERS) is mandatory for all eligible employees. An employee becomes eligible on the first day of employment as a full-time regular employee.

2. **Average salary -** The average salary is the average of the three highest years of annual salary.

3. **Contributions** - Members currently contribute 2.5% of base pay per month. The rate increased from 2.5% to 3.5% on January 1, 2020. The County contributes 15% of the employee's base pay per month.

4. **Normal retirement benefit** - a) After attainment of age 62 and five years of service, or any age with the completion of the Rule of 80, b) The benefit is based on the average of the highest three years of the employee's annual salary, and c) The benefit is a percentage of the average salary per year of service.

5. **Normal retirement benefit for employees hired after June 30, 2017** - a) After attainment of age 65 and five years of service, or any age with the completion of the Rule of 90, b) The benefit is based on the average of the highest three years of the employee's annual salary, and c) The benefit is a percentage of the average salary per year of service.

6. **Early retirement benefit** – a) As of November 1, 2000, after attainment of age 55 and five years of service, b) The benefit is equal to the normal retirement benefit actuarially reduced from age 62 for early commencement, c) For employees hired after June 30, 2017, the benefit is equal to the normal retirement benefit actuarially reduced from age 65 for early commencement.

7. **Disability benefits** – The disability must be a direct result of performance of duties to the County and the employee must have a minimum of eight years of credited service. The same salary computation will be applied to disability percentages except that the maximum percentage, which may be applied, is 40% (for a disability retiree having 15 or more credited years of service).

8. **Survivor death benefits** - Beneficiaries of participants who are vested receive benefits based on the average of the highest three years' salary received. This amount is applied to applicable percentages. For participants vested as of June 30, 2010, the calculated monthly benefit is 70% of what the participant would have been eligible to receive as of the date of the participant's death. For participants not vested as of June 30, 2010, the calculated monthly benefit is 67% of what the participant would have been eligible to receive as of the date of the participant's death. In all cases the benefit is deferred to the date the employee would have been eligible for benefits.

9. **Other separation benefits** - For nonvested participants, the employee may make a request for refund of his/her contributions excluding interest or in the case of a deceased employee, the beneficiary may make a request for refund of the deceased employee's contribution.

10. **Actuarial cost method** - The actuarial cost method used for funding purposes is the same as the actuarial cost method used for financial reporting purposes.

Solvency Test

Last Ten Years

	Actuarial Accrued Liability					Portion of Accrued Liability Covered by Actuarial Assets				
	(1) Active Member Contributions	(2) Retired, Vested Terminations and Beneficiaries	(3) Active Member Employer Financed	(4) Total Actuarial Accrued Liabilities	Actuarial Value of Assets	(1)	(2)	(3)	(4)	Market Value of Assets
6-30-22	$ 11,015,884	$ 284,315,683	$ 133,621,320	$ 428,952,887	$ 327,854,328	100%	100%	24%	76%	$ 297,074,715
6-30-21	9,470,391	272,530,524	131,008,923	413,009,838	322,814,106	100%	100%	32%	78%	344,854,962
6-30-20	7,853,383	258,160,846	138,208,509	404,222,738	307,667,546	100%	100%	30%	76%	284,291,102
6-30-19	6,207,901	244,359,154	139,253,334	389,820,389	305,279,902	100%	100%	39%	78%	289,081,193
6-30-18	4,998,041	238,712,603	135,479,882	379,190,526	304,409,317	100%	100%	56%	80%	291,452,345
6-30-17	3,698,339	218,662,356	132,220,241	354,580,936	296,144,461	100%	100%	55%	84%	266,628,249
6-30-16	2,585,700	207,678,435	133,813,256	344,077,391	284,471,252	100%	100%	69%	83%	272,830,244
6-30-15	1,939,471	186,513,868	124,700,080	313,153,419	274,395,287	100%	100%	66%	88%	278,440,894
6-30-14	1,422,614	173,099,122	121,681,954	296,203,690	255,438,010	100%	100%	56%	86%	255,438,010
6-30-13	892,029	162,104,869	124,308,817	287,305,715	242,984,123	100%	100%	64%	85%	242,984,123

Schedule of Active Participants and Average Monthly Accrued Benefits by Age and Service

Age		Service 0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	Total
Under 20		21									21
	$	25									25
20 - 24		123									123
	$	81									81
25 - 29		160	34	1							195
	$	115	415	799							171
30 - 34		136	60	11	2						209
	$	124	543	881	1,430						297
35 - 39		93	47	30	16	1					187
	$	153	624	1,003	1,387	1,686					522
40 - 44		67	31	36	33	8					175
	$	166	578	1,099	1,850	2,426					852
45 - 49		69	36	22	31	28	7				193
	$	156	675	1,017	1,810	2,721	2,963				1,091
50 - 54		57	34	14	33	27	23	4			192
	$	129	623	981	1,893	2,630	3,563	3,726			1,420
55 - 59		64	43	20	31	16	11	7		1	193
	$	170	611	923	1,823	2,481	3,153	3,814		3,934	1,125
60 - 64		42	31	31	26	17	6	4	3	2	162
	$	203	586	955	1,734	2,085	2,698	3,718	4,369	3,461	1,160
65 - 69		12	17	10	7	6	2			3	57
	$	174	682	1,443	1,996	2,320	3,021			4,050	1,302
70 - 74		5	3	3	3	2	1				17
	$	190	817	2,072	1,311	2,044	2,402				1,179
75 +		3	3	1	3						10
	$	218	608	529	1,251						676
Total		852	339	179	185	105	50	15	3	6	1,734
	$	132	$ 589	$ 1,036	$ 1,773	$ 2,490	$ 3,240	$ 3,765	$ 4,369	$ 3,834	$ 774

Average age	43.9	years
Average service	8.1	years

Note that first line of each cell is the number of participants and the second line is the average monthly accrued benefit.

Retirees and Beneficiaries - Added to and Removed from Retiree Payroll Last Ten Years

Since Previous Valuation Data				On Valuation Date				
Valuation Date	Number Added	Number Removed	Total Number	Annual Benefit Amount	Percentage Increase in Annual Allowances	Average Annual Benefit	Annual Allowances Added to the Rolls	Annual Allowances Removed from the Rolls
6-30-22	104	53	1439	$ 25,948,074	4.98%	$ 18,032	$ 2,067,060	$ 837,088
6-30-21	105	64	1388	24,718,102	5.14%	17,808	2,114,882	906,327
6-30-20	88	38	1347	23,509,547	6.49%	17,453	1,933,839	500,600
6-30-19	79	56	1297	22,076,308	2.48%	17,021	1,356,350	821,184
6-30-18	109	32	1274	21,541,142	7.66%	16,908	1,922,022	388,899
6-30-17	89	45	1197	20,008,019	5.51%	16,715	1,590,184	546,057
6-30-16	106	29	1153	18,963,892	7.49%	16,447	1,674,291	352,205
6-30-15	88	36	1076	17,641,806	5.63%	16,396	1,486,218	545,134
6-30-14	82	35	1024	16,700,722	6.15%	16,309	1,474,631	507,082
6-30-13	89	32	977	15,733,173	10.03%	16,104	1,750,160	316,119

Active Members - Valuation Data Last Ten Years

Valuation Date	Number of Active Members	Annual Covered Payroll	Average Annual Earnings	Percentage Change In Average Annual Earnings
6-30-22	1,734	$ 85,455,087	$ 49,282	10.13%
6-30-21	1,771	79,247,098	44,747	-1.49%
6-30-20	1,836	83,400,750	45,425	1.85%
6-30-19	1,803	80,413,486	44,600	1.21%
6-30-18	1,736	76,499,726	44,067	4.03%
6-30-17	1,813	76,796,017	42,359	0.81%
6-30-16	1,822	76,560,913	42,020	3.09%
6-30-15	1,885	76,834,455	40,761	-1.15%
6-30-14	1,756	72,406,610	41,234	5.87%
6-30-13	1,730	67,382,622	38,949	2.28%

Ratio of Recipients to Active Members - Valuation Data Last Ten Years

Valuation Year	Number of Recipients	Active Members	Ratio of Recipients to Active Members
2022	1,439	1,734	82.99%
2021	1,388	1,771	78.37%
2020	1,347	1,836	73.37%
2019	1,297	1,803	71.94%
2018	1,274	1,736	73.39%
2017	1,197	1,813	66.02%
2016	1,153	1,822	63.28%
2015	1,076	1,885	57.08%
2014	1,024	1,756	58.31%
2013	977	1,730	56.47%

Actuarial Analysis of Financial Experience

Last Ten Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Prior Valuation Unfunded Actuarial Accrued Liability (Surplus)	$ 90,195,732	96,555,192	84,540,487	$ 74,781,209	$ 58,436,475	$ 59,606,139	$ 38,758,132	$ 40,765,680	$ 44,321,592	$ 55,660,411
Expected Increase (Decrease) from Prior Valuation	(2,535,891)	(1,127,856)	(1,559,341)	(615,568)	5,948,629	(1,104,473)	15,542,865	5,069,859	18,856,382	349,633
Salary Increases Greater (Less) than Expected	5,818,046	(2,351,654)	1,039,157	1,796,699	2,042,783	(538,392)	52,160	(781,877)	707,817	(563,951)
Asset Return Less (Greater) than Expected	8,472,561	(1,891,761)	11,548,906	11,995,368	4,518,750	1,746,524	4,644,090	(5,398,093)	(22,738,932)	(11,352,659)
All Other Experience	(851,889)	(988,189)	985,983	(3,417,221)	3,834,572	(1,035,097)	1,078,628	(897,437)	(381,179)	228,158
Change in Benefits	-	-	-	-	-	(238,226)	(469,736)	-	-	-
Ending Unfunded Actuarial Accrued Liability (Surplus)	$ 101,098,559	90,195,732	96,555,192	$ 84,540,487	$ 74,781,209	$ 58,436,475	$ 59,606,139	$ 38,758,132	$ 40,765,680	$ 44,321,592

Schedule of Actuarially Determined Annual Required Contributions (ARC) versus Actual Contributions as a Percentage of Payroll (restated for GASB #27)

Last Ten Years

Plan Year	Actuarial Valuation	Employer Plus Employee Contribution Rate	Employer Plus Employee Actuarially Determined Contribution	Employer Plus Employee Actual Contribution
2022 - 2023	21.4%	18.50%	$ 18,315,730	$ TBD
2021 - 2022	20.9%	18.50%	16,555,559	16,169,061
2020 - 2021	20.4%	18.50%	16,992,288	15,628,482
2019 - 2020	19.2%	18.00%	15,464,563	14,975,686
2018 - 2019	18.4%	16.50%	14,074,054	13,078,385
2017 - 2018	16.3%	16.50%	12,488,248	12,740,001
2016 - 2017	16.2%	16.00%	12,370,632	12,388,679
2015 - 2016	12.6%	15.00%	9,694,255	11,861,626
2014 - 2015	13.0%	15.00%	9,381,846	11,202,878
2013 - 2014	13.9%	15.00%	9,368,702	10,365,806

Required Supplementary Information

Schedule of Funding Progress Last Ten Years

Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Unfunded AAL (UAAL) (2)-(1)	(4) Excess of Assets over AAL (1)-(2)	(5) Funding Ratios (1)/(2)	(6) Annual Covered Payroll*	(7) UAAL as a % of Covered Payroll (3)/(6)	(8) Excess as a Percentage of Covered Payroll (4)/(6)
6-30-22	$ 327,854,328	$ 428,952,887	$ 101,098,559	$ 0	76.43%	$ 85,455,087	118.31%	0.00%
6-30-21	322,814,106	413,009,838	90,195,732	0	78.16%	79,247,098	113.82%	0.00%
6-30-20	307,667,546	404,222,738	96,555,192	0	76.11%	83,400,750	115.77%	0.00%
6-30-19	305,279,902	389,820,389	84,540,487	0	78.31%	80,413,486	105.13%	0.00%
6-30-18	304,409,317	379,190,526	74,781,209	0	80.28%	76,499,726	97.75%	0.00%
6-30-17	296,144,461	354,580,936	58,436,475	0	83.52%	76,796,017	76.09%	0.00%
6-30-16	284,471,252	344,077,391	59,606,139	0	82.68%	76,560,913	77.85%	0.00%
6-30-15	274,395,287	313,153,419	38,758,132	0	87.62%	76,834,455	50.44%	0.00%
6-30-14	255,438,010	296,203,690	40,765,680	0	86.24%	72,406,610	56.30%	0.00%
6-30-13	242,984,123	287,305,715	44,321,592	0	84.57%	67,382,622	65.78%	0.00%

*The amount reflected in the annual covered payroll as of June 30, 2022 includes Tulsa County regular payroll, the City/County Health Department, the Public Facilities Authority, the Drainage Districts, the Law Library, the Court Fund, the Oklahoma State University Extension Agency Center and the Tulsa Area Emergency Management Agency.

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Statistical Section

The Statistical Section presents detailed information as a context for understanding the information presented in the financial statements, note disclosures, and required supplementary information and assessing the retirement system overall financial health.

Financial Trends

These schedules contain trend information to help the reader understand how the retirement system's financial performance and financial position have changed over time.

Revenue Capacity

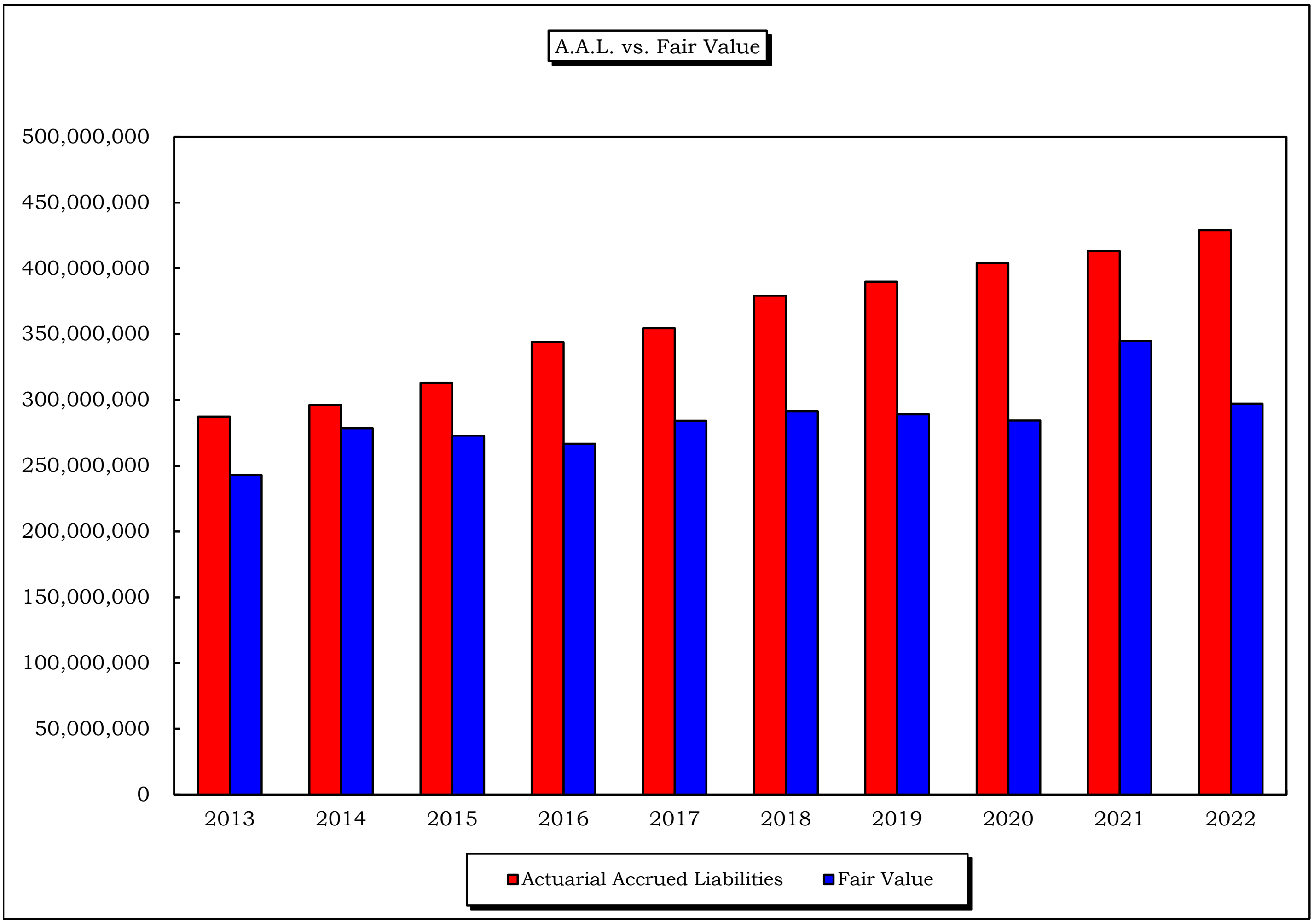
These schedules contain information to help the reader assess the retirement system's most significant revenue sources, contributions, and investment income.

Demographic and Economic Information

The schedules contain trend information to help the reader understand how benefit payments have changed as the number of retirees, beneficiaries, and disabled retirees have changed.

Operating Information

The schedule contains trend information to help the reader understand the number of active members and their average annual salary divided among the various participants in the retirement system.



June 30,	Actuarial Accrued Liabilities	Change From Prior Year	Fair Value	Change From Prior Year
2013	$ 287,305,715	4.20%	$ 242,984,123	10.42%
2014	296,203,690	3.10%	278,440,894	14.59%
2015	313,153,419	5.72%	272,830,244	-2.02%
2016	344,077,391	9.88%	266,628,249	-2.27%
2017	354,580,936	3.05%	284,151,062	6.57%
2018	379,190,526	6.94%	291,452,345	2.57%
2019	389,820,389	2.80%	289,081,193	-0.81%
2020	404,222,738	3.69%	284,291,102	-1.66%
2021	413,009,838	2.17%	344,854,962	21.30%
2022	428,952,887	3.86%	297,074,715	-13.86%

Schedule of Changes in Fiduciary Net Position

Year Ended June 30,	Additions: Employer Contributions	Additions: Employee Contributions	Additions: Investment and Miscellaneous Income (Loss) *	Deductions: Benefit Payments	Deductions: Administration Expenses	Deductions: Refunds	Total Changes in Fiduciary Net Position
2022	$ 13,110,737	$ 3,058,324	$ (38,136,022)	$ 25,513,789	$ 93,154	$ 206,343	$ (47,780,247)
2021	12,673,435	2,955,046	69,454,873	24,191,894	151,189	176,411	60,563,860
2020	12,474,333	2,501,353	3,244,088	22,761,216	119,813	128,836	(4,790,091)
2019	11,103,394	1,974,991	6,612,045	21,805,708	95,999	159,875	(2,371,152)
2018	10,817,651	1,922,350	15,829,765	21,060,579	140,364	67,540	7,301,283
2017	10,846,636	1,542,043	24,595,498	19,328,625	119,139	13,600	17,522,813
2016	10,892,672	968,954	221,600	18,158,915	120,026	6,280	(6,201,995)
2015	10,459,118	743,760	523,062	17,200,098	128,153	8,339	(5,610,650)
2014	9,678,256	687,550	41,471,287	16,250,014	128,012	2,296	35,456,771
2013	9,540,702	169,520	28,333,222	14,975,183	129,909	8,976	22,929,376

Schedule of Revenue by Source

Year Ended June 30,	County Contributions	County Contribution as % of Covered Payroll	Employee Contributions and Reinstatements	Employee Contribution as % of Covered Payroll	Investment and Miscellaneous Income (Loss) *	Total Additions
2022	$ 13,110,737	15.34%	$ 3,058,324	3.58%	$ (38,136,022)	$ (21,966,961)
2021	12,673,435	15.99%	2,955,046	3.73%	69,454,873	85,083,354
2020	12,474,333	14.96%	2,501,353	3.00%	3,244,088	18,219,774
2019	11,103,394	13.81%	1,974,991	2.46%	6,612,045	19,690,430
2018	10,817,651	14.14%	1,922,350	2.51%	15,829,765	28,569,766
2017	10,846,636	14.12%	1,542,043	2.01%	24,595,498	36,984,177
2016	10,892,672	14.23%	968,954	1.27%	221,600	12,083,226
2015	10,459,118	13.61%	743,760	0.97%	523,062	11,725,940
2014	9,678,256	13.37%	687,550	0.95%	41,471,287	51,837,093
2013	9,540,702	14.16%	169,520	0.25%	28,333,222	38,043,444

* Net of Investment Expense

Schedule of Expenses by Type

Year Ended June 30,	Benefits Payments	Administration Expenses	Refunds	Total Expenses
2022	$ 25,513,789	$ 93,154	$ 206,343	$ 25,813,286
2021	24,191,894	151,189	176,411	24,519,494
2020	22,761,216	119,813	128,836	23,009,865
2019	21,805,708	95,999	159,875	22,061,582
2018	21,060,579	140,364	67,540	21,268,483
2017	19,328,625	119,139	13,600	19,461,364
2016	18,158,915	120,026	6,280	18,285,221
2015	17,200,098	128,153	8,339	17,336,590
2014	16,250,014	128,012	2,296	16,380,322
2013	14,975,183	129,909	8,976	15,114,068

Schedule of Benefit Expenses and Refunds by Type

Year Ended	Benefits			Refunds		Total Benefit Payment
June 30,	Retiree	Survivor	Disability	Death	Separation	and Refunds
2022	$ 23,078,333	$ 2,422,543	$ 12,913	$ 656	$ 205,687	$ 25,720,132
2021	21,881,133	2,297,849	12,913	16,043	160,367	24,368,305
2020	20,598,781	2,149,522	12,913	5,847	122,989	22,890,052
2019	19,762,157	2,030,638	12,913	8,735	151,140	21,965,583
2018	19,064,982	1,982,683	12,913	13,239	54,301	21,128,118
2017	17,457,235	1,858,477	12,913	2,917	10,683	19,342,225
2016	16,313,937	1,828,360	16,618	0	6,280	18,165,195
2015	15,422,634	1,767,902	9,562	5,272	3,067	17,208,437
2014	14,529,613	1,712,991	7,410	1,952	344	16,252,310
2013	13,364,569	1,603,204	7,410	8,505	471	14,984,159

Number of Benefit Recipients and Average Annual Benefit Received

Last Ten Years

Date	Regular Retirees Number	Regular Retirees Amount	Beneficiaries Number	Beneficiaries Amount	Disabilities Retirees Number	Disabilities Retirees Amount	Total Benefit Recipients	Average Annual Benefit
7/1/22	1222	$ 19,148	216	$ 11,740	1	$ 12,913	1439	$ 18,032
7/1/21	1178	18,927	209	11,526	1	12,913	1388	17,808
7/1/20	1141	18,606	205	11,060	1	12,913	1347	17,453
7/1/19	1094	18,204	202	10,633	1	12,913	1297	17,021
7/1/18	1069	18,168	204	10,329	1	12,913	1274	16,908
7/1/17	1003	17,596	193	10,285	1	12,913	1197	16,715
7/1/16	973	17,580	179	10,311	2	12,913	1154	16,447
7/1/15	900	17,580	174	10,344	1	10,162	1075	16,396
7/1/14	854	17,521	169	10,238	1	7,410	1024	16,309
7/1/13	811	17,346	165	10,047	1	7,410	977	16,104

Current Period Retirees, Average Monthly Benefits and Average Salary by Age and Years of Service

Current Age	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	Over 40	Total	
Under 55			2		1	2	3	2		10	**Count**
			$ 887		688	2,823	3,688	2,152		2,348	**Benefit**
			$ 5,537		3,565	4,395	5,465	5,629		5,108	**Salary**
55 - 59		13	9	8	14	11	3	1		59	**Count**
		$ 210	489	784	1,857	3,173	2,640	3,237		1,448	**Benefit**
		$ 2,239	2,947	3,376	3,617	5,447	3,836	4,287		3,542	**Salary**
60 - 64		42	46	38	33	29	24	15	1	228	**Count**
		$ 397	769	1,472	1,986	3,070	3,141	3,657	3,675	1,739	**Benefit**
		$ 2,641	3,042	3,963	4,061	5,117	4,764	5,099	4,594	3,856	**Salary**
65 - 69		76	78	56	37	35	32	7	2	323	**Count**
		$ 472	849	1,521	2,145	2,674	3,176	4,347	4,727	1,553	**Benefit**
		$ 3,162	2,986	3,622	4,154	4,484	5,240	5,783	5,622	3,734	**Salary**
70 - 74	1	74	75	52	35	36	25	13		311	**Count**
	$ 620	493	862	1,431	2,145	2,833	3,239	4,365		1,579	**Benefit**
	$ 2,083	2,795	2,968	3,578	4,149	4,656	5,050	5,682		3,635	**Salary**
75 - 79	6	66	43	53	28	27	17	5	2	247	**Count**
	$ 778	512	878	1,324	1,953	2,324	2,839	4,271	6,630	1,404	**Benefit**
	$ 2,274	2,754	2,920	3,118	3,891	4,183	4,197	5,620	7,178	3,328	**Salary**
80 and Over	1	42	56	61	54	26	16	2	3	261	**Count**
	$ 1,793	566	754	1,069	1,553	1,765	2,152	4,175	4,009	1,217	**Benefit**
	$ 3,112	2,554	2,452	2,610	3,245	3,409	3,736	5,389	5,767	2,907	**Salary**
Total	8	313	309	268	202	166	120	45	8	1,439	**Count**
	$ 885	477	817	1,333	1,907	2,613	2,997	3,984	4,802	1,503	**Benefit**
	$ 2,355	2,799	2,899	3,325	3,818	4,477	4,727	5,450	5,937	3,514	**Salary**