

TENNESSEE CONSOLIDATED RETIREMENT SYSTEM

A Program of the Tennessee Treasury Department | A Component Unit of the State of Tennessee

Annual Comprehensive Financial Report

For the Fiscal Year Ended June 30, 2023



Prepared by:
State of Tennessee Department of Treasury

David H. Lillard, Jr., State Treasurer
Jamie Wayman, TCRS Director



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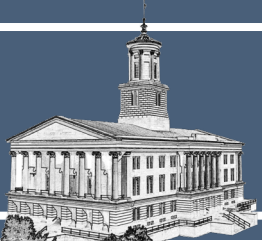
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Introduction

Chairman of the Board's Letter

Professional Awards

Letter of Transmittal

Administration and Mission

The Council on Pensions

The Board of Trustees

Professional Consultants

Treasury Department Executive Staff

Organizational Chart





State of Tennessee

DAVID H. LILLARD, JR.
STATE TREASURER615.741.2956
David.Lillard@tn.govTREASURY DEPARTMENT
STATE CAPITOL
Nashville, Tennessee 37243-0225

December 13, 2023

Dear Members of the Tennessee Consolidated Retirement System:

It is my pleasure to submit this annual financial report of the Tennessee Consolidated Retirement System. This is the thirty-sixth consecutive year that the financial report is being submitted to the Government Finance Officers Association for review. All previous reports have received the Certificate of Achievement for Excellence in Financial Reporting.

Administration: TCRS manages the plan to secure the financial future of its more than 585,000 active, inactive and retired members. TCRS remains financially strong and well-funded. TCRS has been recognized as one of the top three best-funded pension plan in the country. TCRS paid a total of \$3.12 billion to our 156,738 retired members in fiscal year 2023, over 92% of whom remain in Tennessee. Members are provided comprehensive financial education and retirement counseling at no additional cost to the member. Information about the TCRS pension plans can be found at treasury.tn.gov/tcrs.

Investments: The return on investments during the fiscal year ended June 30, 2023 was 6.66%, slightly under the plan's assumed rate of return of 6.75%. A conservative, highly diversified portfolio minimized the risks. The five and ten-year returns were 7.82% and 8.08%, respectively, both exceeding the actuarially required rate of return.

Financial Soundness of the Plan: TCRS is considered one of the best-funded public pension plans in the nation. All three national ratings agencies: S&P, Moody's, and Fitch, recognize Tennessee for fully funding its annual actuarially determined contribution every year since 1972.

The General Assembly, the Board of Trustees and the TCRS staff have worked diligently to provide the best possible management of the system, invest the system assets in a prudent manner without undue risk, fund the system on an actuarially-strong basis and provide the best possible services to the members in the system.

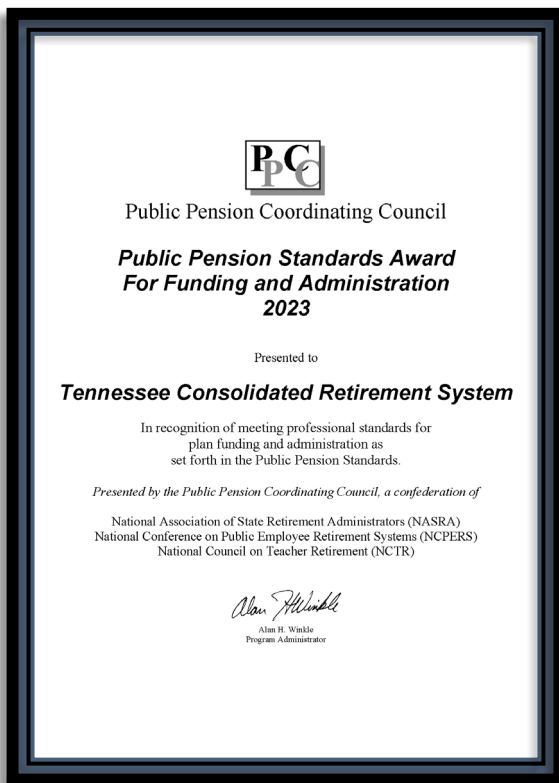
Sincerely,

David H. Lillard, Jr., State Treasurer
Chairman of the Board



**CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE
IN FINANCIAL REPORTING**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Tennessee Consolidated Retirement System (TCRS) for our Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022. This was the 35th consecutive year that TCRS has achieved this prestigious award.



PUBLIC PENSION STANDARDS AWARD

The Tennessee Consolidated Retirement System (TCRS) was awarded a Public Pension Standards Award for our Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022. This prestigious award was presented by the Public Pension Coordinating Council, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR). TCRS received the award in recognition of meeting professional standards for plan funding and administration as set forth in the Public Pension Standards.



Tennessee Consolidated Retirement System
A program of the Tennessee Treasury Department

David H. Lillard, Jr.
State Treasurer

Jamie Wayman
Director

December 13, 2023

Board of Trustees
Tennessee Consolidated Retirement System
Nashville, TN 37243

Ladies and Gentlemen:

We are pleased to present to you the Tennessee Consolidated Retirement System (TCRS) annual comprehensive financial report for the fiscal year ended June 30, 2023. Responsibility for the accuracy of the data and the fairness and completeness of this presentation, including all disclosures, rests with the management of TCRS. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to provide a precise representation of the financial position and results of operations of the system.

This report has been prepared in accordance with generally accepted accounting principles as promulgated or adopted by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants. Specific accounting treatments are detailed in the Notes to the Financial Statements found in the Financial Section of this report. Management is responsible for establishing and maintaining internal controls for TCRS. The accounting systems are designed to include internal controls to provide reasonable assurances regarding safekeeping of assets and the reliability of financial records. These internal controls have been created to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely derived, and second, the valuation of the cost and benefits requires estimates and judgments by management. By statute, the Comptroller of the Treasury serves as the independent auditor for the system.

For additional discussion regarding financial information, please review Management's Discussion and Analysis located in the Financial Section of this report.

PROFILE OF TCRS

TCRS was established in 1972 with the consolidation of seven separate retirement systems for state employees, public higher education institution employees, public school teachers and employees of political subdivisions electing to participate in TCRS. The State of Tennessee is responsible for the pension benefits of state employees and higher education employees and funds a significant portion of the retirement liability for teachers through the Basic Education Program. Each of the 603 participating political subdivisions is responsible for the pension benefits of its employees. TCRS is a qualified pension plan under Section 401(a) of the Internal Revenue Code. As such, the system is exempt from federal income taxation on its investment earnings. Since January 1, 1987, member contributions have been tax deferred under Section 414(h) of the Internal Revenue Code.

(continued)



TCRS was established as a retirement program for the public employees of Tennessee. A variety of services are provided for the membership including: investing assets; counseling of rights and benefits; publishing newsletters, booklets, pamphlets and financial statements; processing deductions for retiree insurance programs and federal income tax; calculating death, disability and retirement benefits; and processing refund and prior service requests.

ECONOMIC CONDITION

Funding of TCRS is provided through employee and employer contributions plus earnings from the invested assets. A standard actuarial “advanced funding” method is used to provide for the accumulation of assets to fund the cost of retirement, disability and death benefits provided by the system. The funding objective of TCRS is being met as the state and political subdivisions continue to make contributions to the plan at the rates established by the Board of Trustees. The Board is utilizing a strong actuarial method and has adopted reasonable actuarial assumptions for the determination of the appropriate employer contribution rates.

An actuarial valuation of TCRS is performed by an independent actuarial firm annually to determine the funding requirements for the employers participating in TCRS. As of June 30, 2022, the latest valuation date, the legacy plan had the following funded ratios on a fair value basis: state employees, 93.80%; K-12 teachers, 104.42%; and political subdivisions in aggregate 99.60%. As of June 30, 2022, the hybrid retirement plan had the following funded ratios on a fair value basis: state employees, 104.81% and K-12 teachers, 104.55%. Experience studies are performed on a quadrennial basis. The results of the June 30, 2020 experience study have been incorporated into the June 30, 2021 actuarial valuation which produced employer contribution rates for the period July 1, 2022-June 30, 2023. The Tennessee General Assembly and Governor appropriated a \$350 million extraordinary contribution to the State and Higher Education Legacy Pension Plan in fiscal year 2023, above the actuarially determined contributions. This is the second extraordinary contribution made to improve the funding of the liabilities for benefits already earned and promised to members; \$250 million was appropriated in fiscal year 2022.

The TCRS is invested in the Tennessee Retiree Group Trust (TRGT). The TRGT portfolio is diversified among domestic and international stocks and bonds, real estate, private equity and short-term securities. A diversified portfolio is used to manage risk and to minimize significant exposure to unpredictable events. Staff consults with the TCRS general consultant periodically to determine the optimal, long-term mix of assets to best meet the plan’s investment objectives. TCRS has adopted a conservative investment strategy that has yielded excellent returns with a low level of risks.

Because TCRS is a well-funded pension plan, volatility in investment income will cause employer contribution rates to fluctuate. Investment strategies have been adopted that somewhat reduce, but do not eliminate, this volatility. The investment market outlook continues to create significant challenges in meeting the 6.75% investment return assumed by TCRS. A premium will continue to be placed on security selection.

The current TCRS Investment Policy can be found at <https://treasury.tn.gov/Retirement/Boards-and-Governance/Reporting-and-Investment-Policies>. TCRS pension funds represent 99% of the TRGT. For fiscal year 2023, the TRGT investments provided a 6.66% rate of return. The annualized rate of return was 8.89%, 7.82%, and 8.08% over the trailing three, five, and ten years, respectively. For further information on investments of TRGT, please refer to the TRGT Financial Statements at <https://treasury.tn.gov/Explore-Your-TN-Treasury/About-the-Treasury/Department-Reports>.

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AWARDS AND ACKNOWLEDGMENTS

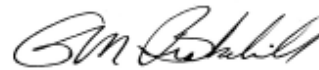
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to Tennessee Consolidated Retirement System for its annual comprehensive financial report for the fiscal year that ended June 30, 2022. This was the 35th consecutive year that the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements. The GFOA Certificate of Achievement is valid for a period of one year only. We believe that our current annual comprehensive financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

TCRS is also the recipient of the Public Pension Principles Achievement Award. This program, administered by the Public Pension Coordinating Council, recognizes the professional achievements of public employee retirement systems.

The dedicated effort of the Treasury Department team to assemble the information contained in this publication is hereby acknowledged with our sincerest appreciation. The report will be provided to state legislators, members of the Board of Trustees, state officials, participating employers and other interested parties.

A handwritten signature in cursive script that reads "Jamie Wayman".

Jamie Wayman
TCRS Director

A handwritten signature in cursive script that reads "Michael Brakebill".

Michael Brakebill
Chief Investment Officer



ADMINISTRATION

The State Treasurer is a constitutional officer elected every two years by a joint session of the General Assembly. He serves as the Chief Executive Officer of the Treasury Department, a part of the legislative branch of state government. The administration and operation of the Tennessee Consolidated Retirement System are among the primary responsibilities of the State Treasurer. In order to meet the statutory requirements and fiduciary responsibilities of administering TCRS, the Treasurer appoints two executive officers: the Director of TCRS and the Chief Investment Officer.

The Director of TCRS is responsible for the daily operation of the retirement system which includes providing counseling services for the active and retired members; issuance of payments to retired members, disabled members, beneficiaries of deceased members and refunds to terminated employees; enrollment of members; maintenance of member account balances and records; establishment of service credit and issuance of various publications to inform members of their rights and benefits.

The Chief Investment Officer is responsible for the investment and oversight of TCRS assets in accordance with statutory guidelines and the investment policies and strategies established by the Board of Trustees.

Other divisions within the Treasury Department, which support the operations of TCRS, include Information Systems, Accounting, Management Services, Financial Empowerment, Internal Audit, Financial Strategies and Analysis, Human Resources, and Communications. Through these divisions, data processing services, accounting services, records maintenance, control reviews and personnel services are provided.

The administrative budget of TCRS is subject to approval by the General Assembly and is part of the overall annual budget process of the State of Tennessee. Funding for the operation of TCRS is provided by three sources. The State of Tennessee is responsible for the operational cost associated with state employees and higher education employees. Local education agencies are responsible for the operational cost related to K-12 teachers. Political subdivisions are responsible for the operational cost associated with their employees.

MISSION

The mission of the TCRS is to provide superior services to constituents in a cost-effective manner through qualified personnel while maintaining the highest ethical standards. The mission is accomplished by TCRS in cooperation with the Board of Trustees, the Council on Pensions and the TCRS membership through the following objectives:

- ❖ **Exemplary Service** — To provide accurate, courteous and prompt service to members of TCRS.
- ❖ **Benefit Standards** — To provide retirement coverage through TCRS, Social Security and personal savings vehicles which will allow public employees to maintain their standard of living after retirement.
- ❖ **Funding Standards** — To provide for the long-term funding of TCRS on an actuarial basis which will ensure that sufficient assets will be accumulated to pay the statutory benefits of current and future retirees.
- ❖ **Staffing** — To attract and retain professional, highly-trained staff in an atmosphere conducive to innovation, challenges and a high level of performance.
- ❖ **Research** — To continuously perform studies on pension issues and to compare the TCRS plan with other public and private pension systems.
- ❖ **Management** — To manage by leading, planning, organizing and controlling the operation of TCRS in a cost-effective manner for the benefit of members and Tennessee taxpayers utilizing personnel, technology and capital efficiently while providing the highest level of service.
- ❖ **Ethical Standards** — To maintain the highest ethical standards.
- ❖ **Investment Return** — To obtain the highest available return on investments consistent with the preservation of principal while maintaining sufficient liquidity to react to the changing environment and to pay benefits when due.



THE COUNCIL ON PENSIONS

Created as a legislative oversight committee, the Council on Pensions develops, recommends and establishes pension and retirement standards and maintains a progressive state policy on retirement.

The Council periodically reviews Tennessee's retirement provisions and recommends changes in state law as deemed necessary. Since its creation, the Council has continuously performed studies and comparisons of other pension systems, including those of other states, private industry and the federal government's Social Security program. All proposed legislation affecting Tennessee's retirement laws must be reviewed by the Council before the legislature may take action. The Council is authorized to prepare and propose amendments which are then forwarded to the standing committees. Information regarding the actuarial cost or impact of proposed legislation is provided by the Council to the other members of the legislature. The staff of TCRS also serves as staff to the Council.

The voting membership of the Council consists of the Speaker of each house of the General Assembly; the officers of the House and the Senate Committees on Finance, Ways and Means; and three additional members of each finance committee. The Speaker of the Senate may designate a member of the Senate and the Speaker of the House of Representatives may designate a member of the House to serve as alternates to vote or otherwise act at Council meetings in absence of the respective speaker. Nonvoting members include the Commissioner of Human Resources, the Commissioner of Finance and Administration, the Comptroller of the Treasury, the State Treasurer and the Director of TCRS.

(continued)



NON-VOTING MEMBERS



David H. Lillard, Jr.
State Treasurer



Jamie Wayman
TCRS Director



Jason Mumpower
Comptroller of the Treasury



Juan Williams
*Commissioner of
Human Resources*



Jim Bryson
*Commissioner of
Finance and Administration*

(continued)



VOTING MEMBERS - SENATORS



**Senator
Bo Watson**
*Council Vice-Chair
Finance, Ways and Means Chair*



**Lieutenant Governor
Randy McNally**
Speaker of the Senate



**Senator
Adam Lowe**
Speaker's Designee



**Senator
Joey Hensley**
*Finance, Ways and Means
Second Vice-Chair*



**Senator
John Stevens**
*Finance, Ways and Means
First Vice-Chair*



**Senator
Page Walley**



**Senator
Dawn White**



**Senator
Jeff Yarbrow**

(continued)



VOTING MEMBERS - REPRESENTATIVES



**Representative
Patsy Hazlewood**
*Council Chair
Finance, Ways and Means Chair*



**Speaker
Cameron Sexton**
Speaker of the House



**Representative
Charlie Baum**
*Finance, Ways and
Means Vice-Chair*



**Representative
Karen D. Camper**



**Representative
David B. Hawk**



**Representative
Gary Hicks**
*Finance, Ways and Means
Sub-Committee Chair*



**Representative
Sam Whitson**



**Representative
Ryan Williams**



THE BOARD OF TRUSTEES

The Tennessee Consolidated Retirement System Board of Trustees is responsible for the general administration and proper operation of TCRS within the requirements and provisions of state statute (T.C.A., Title 8, Chapters 34-37). The 20-member Board meets quarterly and is subject to the call of the chair for special meetings. Nine voting members constitute a quorum and nine affirmative votes are needed for decision making.

The Board consists of nine ex-officio members, nine representatives of the active TCRS membership and two representatives for retirees. Ex-officio members include the chair and vice-chair of the Legislative Council on Pensions (as nonvoting members), the Commissioner of Human Resources, the Commissioner of Finance and Administration, the Comptroller of the Treasury, the Secretary of State and the Administrative Director of the Courts. In addition, the State Treasurer sits as Chair of the Board and the Director of TCRS serves as Secretary.

Employee representation consists of three teachers, one from each grand division of the state; two state employees from departments other than those represented by ex-officio members; one public safety officer and three representatives of local governments. Retiree representation includes a retired teacher and a retired state employee.

Three teachers and one retired teacher are selected for three-year terms by the Speaker of the Senate and the Speaker of the House of Representatives. State employees elect two representatives who also serve three-year terms.

One representative is appointed for a two-year term by each of the following organizations: The Tennessee County Services Association, the Tennessee Municipal League and the Tennessee County Officials Association. The public safety representative and the state retiree representative are appointed by the Governor. All employee representatives must be vested members of TCRS.

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EX-OFFICIO MEMBERS



David H. Lillard, Jr.
State Treasurer



Jamie Wayman
TCRS Director



Tre Hargett
Secretary of State



Jason Mumpower
Comptroller of the Treasury



**Representative
Patsy Hazlewood**
*Council Chair
Non-Voting*



**Senator
Bo Watson**
*Council Vice-Chair
Non-Voting*



Juan Williams
*Commissioner of
Human Resources*



Jim Bryson
*Commissioner of
Finance and Administration*



Michelle Long
*Administrative Director
of the Courts*

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ELECTED OR APPOINTED MEMBERS



Michael Barker
Retired Teacher



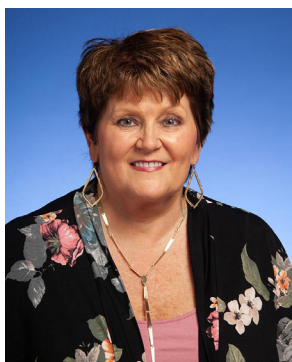
Mike Cox
State Employee
Term Expires:
June 30, 2025



Tim Ellis
Tennessee
Municipal League
Term Expires: June 30, 2023



Dr. Kim Lackey Fisher
East Tennessee Teacher
Term Expires:
June 30, 2025



Patsy Moore
West Tennessee Teacher
Term Expires:
June 30, 2023



Mark Stanfill
State Employee
Term Expires:
June 30, 2025



Gayle VanHooser
Tennessee County
Officials Association
Term Expires:
June 30, 2023



Robert Wormsley
Tennessee County
Services Association
Term Expires: June 30, 2023

Vacant
Middle Tennessee Teacher

Vacant
Public Safety

Vacant
Retired State Employee



PROFESSIONAL CONSULTANTS

Independent professional consultants are appointed by the Board of Trustees to advise the Board and the TCRS staff on investment, medical and actuarial issues. Service fees related to investment professionals may be found on pages 65-67.

GENERAL INVESTMENT CONSULTANT

An investment consultant is employed to assist in the long-term financial planning process, to evaluate various investment strategies, to measure investment performance, to determine whether the system's objectives are being met, to research investment proposals regarding the use of new asset classes or variations of existing asset classes and to provide investment information on various issues which may arise.

Mark Brubaker
Verus
San Francisco, California

PRIVATE EQUITY AND STRATEGIC LENDING CONSULTANT

Thomas Martin
Aksia
San Diego, California

Mike Krems
Aksia
San Diego, California

REAL ESTATE INVESTMENT CONSULTANT AND ADVISORS

The real estate consultant provides general market advice relative to real estate, measures performance of real estate properties, assists in the formulation of policy and assists in the selection of real estate advisors.

Martin Rosenberg
The Townsend Group
Cleveland, Ohio

The real estate investment advisors identify prospective real estate transactions and provide asset management services.

Alec Burleigh
AEW Capital Management L.P.
Boston, Massachusetts

Chris Conklin
RREEF America LLC
Chicago, Illinois

Tony Ferrante
Heitman
Chicago, Illinois

Preston Meyer
J.P. Morgan Investment Management, Inc.
New York, New York

Christine M. Mullis
L&B Realty Advisors, LLP
Dallas, Texas

(continued)

**INTERNATIONAL EQUITY INVESTMENT MANAGERS**

The international equity investment managers are responsible for purchasing stock of companies domiciled in foreign countries as set out in the investment policy.

Justin Atkinson
Walter Scott & Partners, Ltd.
Edinburgh, Scotland, UK

Melville Bucher
Martin Currie Investment Management
Edinburgh, Scotland, UK

Leona Yang
TimesSquare Capital Management
New York, New York

James Bolante
Fiera Capital
Boston, Massachusetts

Vanessa DeMeo
PanAgora Asset Management, Inc.
Boston, Massachusetts

Jill Farrell
American Century Investments
Kansas City, Missouri

Ben Kottler
Marathon Asset Management
London, England

Thomas Leventhorpe
J.P. Morgan Asset Management
New York, New York

Chris Moore
WCM Asset Management
Laguna Beach, California

Rebecca Norman
Kabouter Management
Chicago, Illinois

Brett Peven
Pzena Investment Management
New York, New York

Todd Rittenhouse
Mondrian Investment Partners
Philadelphia, Pennsylvania

Adam Waclawsky
Acadian Asset Management
Boston, Massachusetts

MASTER CUSTODIAN BANK

The Master Custodian bank settles all financial investment transactions and provides custody services for TCRS assets.

William Claxton
State Street Corporation
Boston, Massachusetts

THE MEDICAL ADVISORS

The Tennessee Consolidated Retirement System contracts with the University of Massachusetts Medical School (UMass) to serve as the Medical Advisor. UMass Medical School evaluates applications for disability retirement to determine whether the applicants are totally and permanently disabled and unable to engage in gainful employment. Additionally, UMass Medical School reviews medical data submitted by disabled retirees who are subject to periodic evaluation.

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CONSULTING ACTUARY

An independent consulting firm performs an actuarial valuation every year to determine the funding status of the TCRS and recommend employer contribution rates. The actuary also conducts an experience study every four years to evaluate and adjust actuarial assumptions and methods.

Justin Thacker
USI Consulting Actuaries
Brentwood, Tennessee

OTHER PROFESSIONAL SERVICES

State statute provides that the state Attorney General and Reporter will be the legal advisor of the Board and that the Office of the Comptroller of the Treasury will conduct an annual audit of the TCRS. These officers are as follows:

Jonathan Skrmetti
Attorney General/Reporter
Nashville, Tennessee

Jason Mumpower
Comptroller of the Treasury
Nashville, Tennessee



TREASURER’S OFFICE

State Treasurer David H. Lillard, Jr., JD, LLM
 Chief Operating Officer Mary Jo Price, JD
 Communications Director Shelli King
 Chief of Staff..... Roy West
 Executive Assistant to the Treasurer Heather Szczepczenski

TCRS INVESTMENTS

Chief Investment Officer Michael Brakebill, CFA, CAIA
 Deputy Chief Investment Officer Thomas Kim, CFA
 Private Equity Director Daniel Crews, CFA
 Strategic Lending Director Jeff Dunn, CFA
 Director of Investment Operations..... Kevin Gentry, CPA, CIA, CISA, CGMA
 Equity Director Carrie Green, CFA
 Fixed Income Director Markus Klar, CFA, FRM
 Real Estate Director..... J.P. Rachmaninoff, CPA

RETIREMENT ADMINISTRATION

TCRS Director Jamie Wayman, CPA, CEBS
 TCRS Deputy Director Sara Queirolo, CPA
 TCRS Assistant Director for Financial Operations..... Chad Leake, CPA
 TCRS Assistant Director of Retirement Policy and Compliance..... Victoria Knab, CPA
 TCRS Associate Assistant Director of Member Services. Sarah Simpson, CEBS
 Administrator of Old Age and Survivors Insurance Alison Cleaves, JD
 Director of Outreach..... Drew Freeman
 Director of Employer Reporting and Customer Service..... Altovisse Robertson

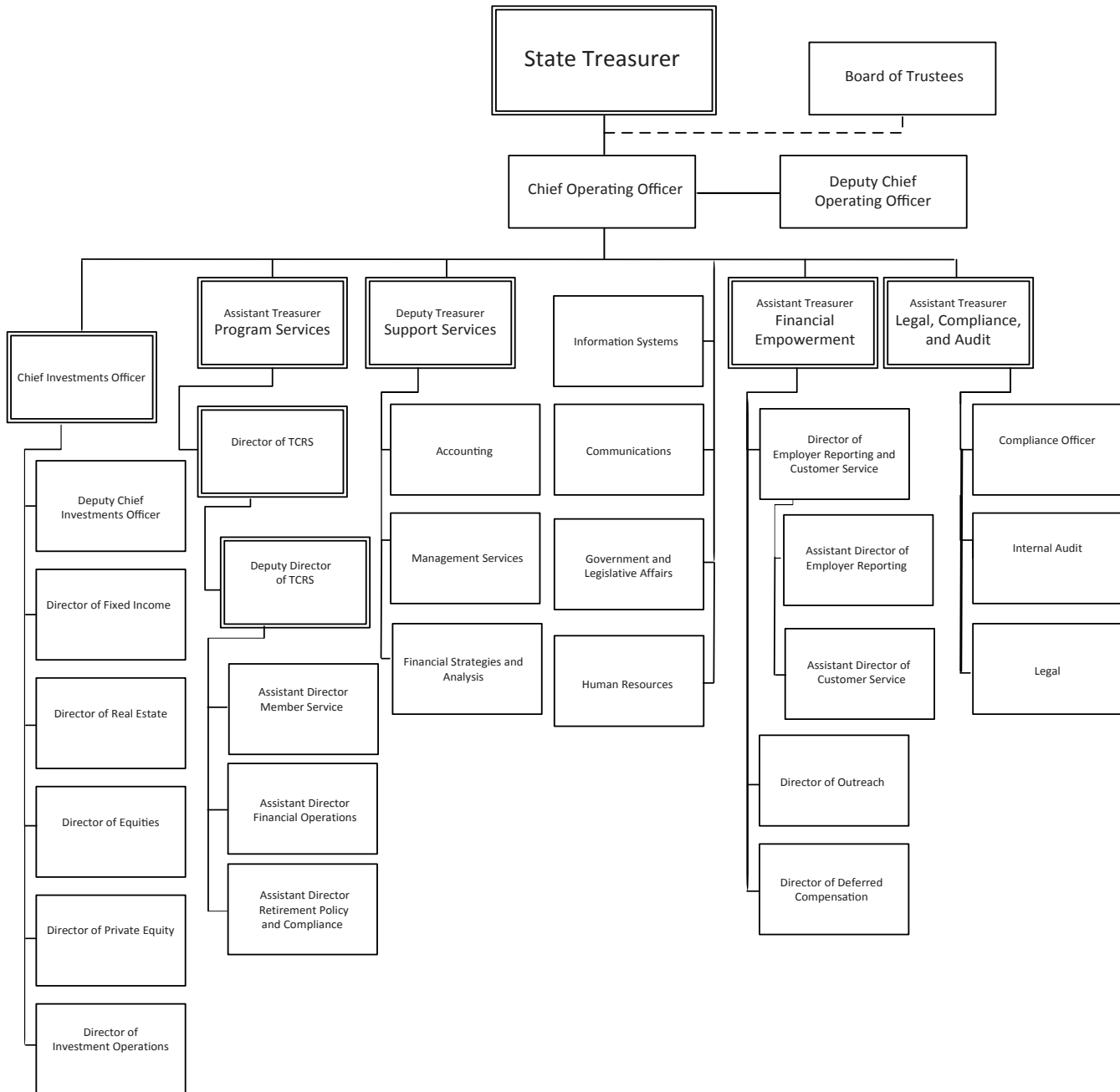
TREASURY DIVISIONS

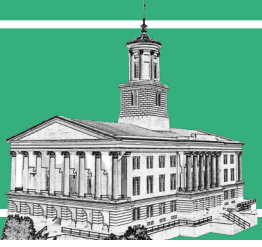
Deputy Treasurer, Support Services Rick DuBray, CPA
 Assistant Treasurer, Financial Empowerment Ashley Nabors
 Assistant Treasurer, Legal, Compliance and Audit Alison Cleaves, JD
 Assistant Treasurer, Program Services..... Steve Summerall, ARM, CEBS
 Director of Compliance Jonathan Schwartz
 Director of Deferred Compensation..... Hunter Bethea
 Director of Accounting Brian Derrick, CPA
 Deputy Director of Accounting Connie Gibson, CPA
 Director of Management Services Kerry Hartley, CPA

*The Treasurer is housed on the 1st floor of the State Capitol Building.
 Divisions are housed in the Andrew Jackson Building.*



ORGANIZATIONAL CHART





Financial Section

Independent Auditor's Report

Management's Discussion and Analysis

Financial Statements

Notes to the Financial Statements

Required Supplementary Information

Notes to Required Supplementary Information

Schedule of Administrative Expenses

Schedule of Investment Expenses

Schedule of Expenses for Consultants





JASON E. MUMPOWER
Comptroller

Independent Auditor's Report

Members of the General Assembly
Members of the Board of Trustees
The Honorable David H. Lillard, Jr., Treasurer

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying statement of fiduciary net position of the Tennessee Consolidated Retirement System, pension trust funds of the State of Tennessee, as of June 30, 2023, the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the Tennessee Consolidated Retirement System's basic financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Tennessee Consolidated Retirement System as of June 30, 2023, and the changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis of Opinion

We conducted our audit 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 Tennessee Consolidated Retirement 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. Tennessee statutes, in addition to audit responsibilities, entrust certain other responsibilities to the Comptroller of the Treasury. Those responsibilities include serving as a member of the board of trustees of the Tennessee Consolidated

(continued)



Retirement System. We do not believe that the Comptroller's service in this capacity affected our ability to conduct an independent audit of the Tennessee Consolidated Retirement System.

Responsibilities of Management for the Financial Statements

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

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 Tennessee Consolidated Retirement 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 Responsibility 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 and *Government Auditing Standards* 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 and *Government Auditing Standards*, 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 Tennessee Consolidated Retirement System's internal control. Accordingly, no such opinion is expressed.

(continued)



- 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 Tennessee Consolidated Retirement 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.

Emphasis of Matter

As discussed in Note A, the financial statements present only the Tennessee Consolidated Retirement System, pension trust funds, and do not purport to, and do not, present fairly the financial position of the State of Tennessee as of June 30, 2023, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in net pension liability, schedule of net pension liability, schedule of investment returns, and schedule of pension plan contributions, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which 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 basic financial statements as a whole. The accompanying schedule of administrative expenses, schedule of investment expenses, and schedule of expense for consultants is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was

(continued)



derived from, and relates directly to, the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 12, 2023, on our consideration of the Tennessee Consolidated Retirement System’s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, and contracts, and other matters. The purpose of that report is 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 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 Tennessee Consolidated Retirement System’s internal control over financial reporting and compliance.

Katherine J. Stickel, CPA, CGFM, Director
Division of State Audit
December 12, 2023



The management of the Tennessee Consolidated Retirement System (TCRS) provides this discussion and analysis as an overview of the TCRS' financial activities for the fiscal year ended June 30, 2023. This section should be read in conjunction with the Independent Auditor's Report, the audited financial statements, and the accompanying notes. The financial statements, notes and this discussion are the responsibility of management.

FINANCIAL HIGHLIGHTS

- The net position for the TCRS plans (total assets minus total liabilities) at June 30, 2023 was \$64.7 billion, increasing \$2.9 billion (4.7 percent) from the plan net position at June 30, 2022. The net position is restricted for future benefit obligations. This increase in plan net position is primarily the result of an increase in net investment income.
- Net investment income for fiscal year 2023 was 4.1 billion. During fiscal year 2023, the TCRS received a time-weighted rate of return on its portfolio of 6.66 percent, compared to a (3.63) percent loss for fiscal year 2022.
- Contribution revenue for fiscal year 2023 totaled \$2.0 billion, representing an increase of 11.5 percent compared to fiscal year 2022.
- Total benefits and refunds paid for fiscal year 2023 were \$3.2 billion, representing an increase of 4.9 percent over fiscal year 2022 total benefits and refunds paid of \$3.0 billion. The growth is primarily due to the retiring members' benefits exceeding the benefits of long-term retired members whose benefits ceased due to death. Additionally, a 3 percent cost of living adjustment was given in July 2022.
- Total administrative expenses for fiscal year 2023 were \$25.0 million, representing an increase of 12.4 percent from fiscal year 2022 administrative expenses of \$22.2 million.

OVERVIEW OF THE FINANCIAL STATEMENTS

The TCRS financial statements consist of the *Statement of Fiduciary Net Position*, the *Statement of Changes in Fiduciary Net Position*, and the *Notes to the Financial Statements*. In addition, *Required Supplementary Information* and the *Notes to the Required Supplementary Information* are presented, which includes this *Management's Discussion and Analysis*. These financial statements, notes to the financial statements and required supplementary information were prepared in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans*. Collectively, this information presents the combined net position held in trust for pensions for each of the plans administered by TCRS as of June 30, 2023.

The *Statement of Fiduciary Net Position* and the *Statement of Changes in Fiduciary Net Position* report information about the fiduciary net position (total assets in excess of total liabilities) as of the end of the fiscal year and the changes in the fiduciary net position during the fiscal year. These statements include all assets and liabilities using the accrual basis of accounting. Under the accrual basis of accounting, the current year's revenues and expenses are included in the financial activity, regardless of when cash is received or paid. The difference between the total assets and total liabilities on the *Statement of Fiduciary Net Position*, or net position restricted for pensions, provides a measurement of the financial position of the TCRS as of the end of the fiscal year. The *Statement of Changes in Fiduciary Net Position* provides information on the activities that caused the financial position to change during the fiscal year. Over time, increases or decreases in the fiduciary net position of the TCRS are one indicator of whether the system's financial health is improving or deteriorating.

The *Notes to the Financial Statements* are essential to the reader's understanding of the financial statements and provide additional information regarding the TCRS, such as descriptions of the plans administered by the TCRS, including contribution and benefit provisions, and information about the accounting policies and investment activities.

(continued)



ANALYSIS OF ASSETS, LIABILITIES AND PLAN NET POSITION

At June 30, 2023, the TCRS had a net position (total assets in excess of total liabilities) of \$64.7 billion, an increase of \$2.9 billion (4.7 percent) from \$61.8 billion at June 30, 2022. The assets of the TCRS consist primarily of investments. Condensed financial information comparing the TCRS' fiduciary net position for the past two fiscal years follows.

FIDUCIARY NET POSITION

	June 30, 2023	June 30, 2022	Increase (Decrease) Amount	Percentage Change
ASSETS				
Cash and cash equivalents	\$ 24,515,203	\$ 24,710,006	\$ (194,803)	(0.8) %
Cash collateral for securities on loan	3,123,507,286	3,304,996,382	(181,489,096)	(5.5) %
Member and employer receivables	121,706,485	118,862,186	2,844,299	2.4 %
Investments	64,544,117,978	61,631,108,711	2,913,009,267	4.7 %
Capital assets	<u>2,509,852</u>	<u>5,793,693</u>	<u>(3,283,841)</u>	(56.7) %
TOTAL ASSETS	<u>67,816,356,804</u>	<u>65,085,470,978</u>	<u>2,730,885,826</u>	4.2 %
LIABILITIES				
Death benefits, refunds and other payables	30,863,552	32,595,652	(1,732,100)	(5.3) %
Cash collateral for securities on loan	<u>3,123,507,286</u>	<u>3,304,996,382</u>	<u>(181,489,096)</u>	(5.5) %
TOTAL LIABILITIES	<u>3,154,370,838</u>	<u>3,337,592,034</u>	<u>(183,221,196)</u>	(5.5) %
NET POSITION RESTRICTED FOR PENSIONS	<u>\$ 64,661,985,966</u>	<u>\$ 61,747,878,944</u>	<u>\$ 2,914,107,022</u>	4.7 %

(continued)



ANALYSIS OF REVENUES AND EXPENSES

Contribution rates for fiscal year 2023 remained steady with the exception of an extraordinary contribution of \$350 million authorized by the General Assembly to the State Legacy Plan. A significant change in the investment markets resulted in growth of the fund for fiscal year 2023. Gross investment income for fiscal year 2023 increased \$6.6 billion (270.9 percent) from fiscal year 2022.

Investment expenses for fiscal year 2023 totaled \$206 million for a 177.4 percent increase over fiscal year 2022 investment expenses of \$74 million. These expenses were split between portfolio management investment expenses of \$63 million and \$142 million in expenses attributed to the securities lending program. The increase in investment expense is mainly attributable to higher interest rates which directly affect the expenses for the securities lending program. The TCRS investment portfolio realized a time-weighted rate of return of 6.66 percent and net investment income of \$4.1 billion.

Total benefits paid during the year ended June 30, 2023 were \$3.1 billion, an increase of 5.4 percent over fiscal year 2022 total benefits which can be attributed to an increase in the number of retirees and a 3 percent cost of living adjustment given in July 2022. Total refunds paid decreased \$7.5 million, a decrease of 13.5 percent, in fiscal year 2023 from fiscal year 2022, likely because of a stabilizing work force post-pandemic.

Administrative expenses for the year ended June 30, 2023 were \$25.0 million, an increase of 12.4 percent from fiscal year 2022 administrative expenses. The increase in administrative costs can be primarily attributed to increased expenses for information system services.

Condensed financial information comparing the TCRS' revenues and expenses for the past two fiscal years follows.

Revenue by Type

Expressed in Thousands

	<u>Year ended June 30, 2023</u>		<u>Year ended June 30, 2022</u>	
	<u>Amount</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>
Employee Contributions	\$ 474,413	7.8%	\$ 433,122	-63.0%
Employer Contributions	1,525,030	25.0%	1,358,967	-197.6%
Other Contributions	906	0.0%	1,327	-0.2%
Net Investment Income (Loss)	4,110,624	67.2%	(2,481,223)	360.8%
Total	<u>\$ 6,110,973</u>	<u>100.0%</u>	<u>\$ (687,807)</u>	<u>100.0%</u>

Expenses by Type

Expressed in Thousands

	<u>Year ended June 30, 2022</u>		<u>Year ended June 30, 2021</u>	
	<u>Amount</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>
Benefit Payments	\$ 3,123,960	97.7%	\$ 2,967,492	97.5%
Refunds	47,882	1.5%	55,349	1.8%
Administrative	25,024	0.8%	22,263	0.7%
Total	<u>\$ 3,196,866</u>	<u>100.0%</u>	<u>\$ 3,045,104</u>	<u>100.0%</u>

(continued)



**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
CHANGES IN FIDUCIARY NET POSITION**

	For the Year Ended June 30, 2023	For the Year Ended June 30, 2022	FY23 - FY22 Increase (Decrease) Amount	FY23 - FY22 Percentage Change
ADDITIONS				
Contributions	\$ 2,000,348,959	\$ 1,793,415,962	\$ 206,932,997	11.5%
Investment income (loss)	4,154,791,281	(2,430,765,942)	6,585,557,223	270.9%
Less: Investment expense	(63,311,236)	(68,115,497)	(4,804,261)	(7.1)%
Net income from securities lending activities	<u>19,145,504</u>	<u>17,658,960</u>	<u>1,486,544</u>	8.4%
Net investment income (loss)	<u>4,110,625,549</u>	<u>(2,481,222,479)</u>	<u>6,591,848,028</u>	265.7%
TOTAL ADDITIONS (DEDUCTIONS)	<u>6,110,974,508</u>	<u>(687,806,517)</u>	<u>6,798,781,025</u>	988.5%
DEDUCTIONS				
Annuity benefits	3,120,176,496	2,960,551,325	159,625,171	5.4%
Death benefits	3,783,981	6,940,392	(3,156,411)	(45.5)%
Refunds	47,882,314	55,349,050	(7,466,736)	(13.5)%
Administrative expenses	<u>25,024,695</u>	<u>22,263,337</u>	<u>2,761,358</u>	12.4%
TOTAL DEDUCTIONS	<u>3,196,867,486</u>	<u>3,045,104,104</u>	<u>151,763,382</u>	5.0%
NET INCREASE (DECREASE)	2,914,107,022	(3,732,910,621)	6,647,017,643	178.1%
NET POSITION RESTRICTED FOR PENSIONS				
BEGINNING OF YEAR	<u>61,747,878,944</u>	<u>65,480,789,565</u>	<u>(3,732,910,621)</u>	(5.7)%
END OF YEAR	<u>\$ 64,661,985,966</u>	<u>\$ 61,747,878,944</u>	<u>\$ 2,914,107,022</u>	4.7%

(continued)



ECONOMIC FACTORS, FUTURE FUNDING PROVISIONS, OVERALL OUTLOOK

For the year ended June 30, 2023, the portfolio delivered a return of 6.66 percent which was close to the actuarial assumed return of 6.75 percent. The fund gained 8.89 percent for the trailing three-year period and 8.08 percent for the trailing ten-year period. According to the Verus performance benchmark, the fund trailed 75 percent of its peers for the current year and beat 61 percent and 75 percent for the trailing three and ten-year periods respectively.

Public equity markets performed very well during the fiscal year while public fixed income struggled. Alternative assets had tepid returns. Developed international equities led for the year and rose 19.47 percent and U.S. Equity portfolio rose 18.79 percent. Fixed Income lagged with a drop of 2.75 percent which was the result of rising interest rates. Real Estate and Private Equity had slightly negative returns (-4.07 percent and -3.42 percent respectively) while Strategic Lending performed well with a return of 8.14 percent.

An actuarial valuation was performed as of June 30, 2021 that determined the employer contribution rates for the period July 1, 2022 through June 30, 2023. An actuarial experience study to establish demographic and economic assumptions was completed effective June 30, 2020, was adopted by the Board of Trustees during fiscal year 2021 and was utilized in actuarial valuations dated June 30, 2021 and later.

CONTACTING THE TCRS

This report is designed to provide a financial overview of the TCRS to state legislators, members of the Board of Trustees of the TCRS, state officials, participating employers, members of the TCRS and any other interested parties. Questions or requests for additional information regarding the financial information presented in this report may be addressed in writing to the Tennessee Treasury Department, Consolidated Retirement System, 502 Deaderick Street, Nashville, TN 37243-0201.



STATEMENT OF FIDUCIARY NET POSITION
JUNE 30, 2023



STATEMENT OF FIDUCIARY NET POSITION
AS OF JUNE 30, 2023

Expressed in Thousands

	Public Employee Retirement Plan	Teacher Legacy Pension Plan	Teacher Retirement Plan	Total
ASSETS				
Cash and cash equivalents	\$ 12,844	\$ 11,336	\$ 335	\$ 24,515
Cash collateral for securities on loan	1,636,466	1,444,388	42,653	3,123,507
Receivables				
Employer receivable	48,559	27,452	5,469	81,480
Member receivable	14,104	16,427	9,696	40,227
Total receivables	<u>62,663</u>	<u>43,879</u>	<u>15,165</u>	<u>121,707</u>
Investment in Tennessee Retiree Group Trust	33,815,917	29,846,816	881,385	64,544,118
Capital assets (net)	<u>1,315</u>	<u>1,161</u>	<u>34</u>	<u>2,510</u>
TOTAL ASSETS	<u>35,529,205</u>	<u>31,347,580</u>	<u>939,572</u>	<u>67,816,357</u>
LIABILITIES				
Accounts payable				
Death benefits and refunds payable	741	654	19	1,414
Federal withholding payable	10,106	8,920	263	19,289
Retiree insurance premium payable	5,323	4,699	139	10,161
Cash collateral for securities on loan	<u>1,636,466</u>	<u>1,444,388</u>	<u>42,653</u>	<u>3,123,507</u>
TOTAL LIABILITIES	<u>1,652,636</u>	<u>1,458,661</u>	<u>43,074</u>	<u>3,154,371</u>
NET POSITION RESTRICTED FOR PENSIONS	<u>\$ 33,876,569</u>	<u>\$ 29,888,919</u>	<u>\$ 896,498</u>	<u>\$ 64,661,986</u>

See accompanying Notes to the Financial Statements.



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2023



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2023

Expressed in Thousands

	Public Employee Retirement Plan	Teacher Legacy Pension Plan	Teacher Retirement Plan	Total
ADDITIONS				
Contributions				
Employer contributions	\$ 1,186,096	\$ 281,850	\$ 57,084	\$ 1,525,030
Member contributions	211,513	163,017	99,883	474,413
Other contributions	906	0	0	906
Total contributions	<u>1,398,515</u>	<u>444,867</u>	<u>156,967</u>	<u>2,000,349</u>
Investment income (loss)	2,167,462	1,934,988	52,341	4,154,791
Less: Investment expense	<u>(33,028)</u>	<u>(29,486)</u>	<u>(797)</u>	<u>(63,311)</u>
Net income (loss) from investing activities	<u>2,134,434</u>	<u>1,905,502</u>	<u>51,544</u>	<u>4,091,480</u>
Securities lending activities				
Securities lending income	84,221	75,188	2,034	161,443
Less: Securities lending expense	<u>(74,234)</u>	<u>(66,272)</u>	<u>(1,793)</u>	<u>(142,299)</u>
Net income from securities lending activities	<u>9,987</u>	<u>8,916</u>	<u>241</u>	<u>19,144</u>
Net investment income (loss)	<u>2,144,421</u>	<u>1,914,418</u>	<u>51,785</u>	<u>4,110,624</u>
TOTAL ADDITIONS	<u>3,542,936</u>	<u>2,359,285</u>	<u>208,752</u>	<u>6,110,973</u>
DEDUCTIONS				
Annuity benefits	1,687,035	1,432,684	457	3,120,176
Death benefits	2,000	1,706	78	3,784
Refunds	26,960	15,238	5,684	47,882
Administrative expense	<u>16,270</u>	<u>6,512</u>	<u>2,242</u>	<u>25,024</u>
TOTAL DEDUCTIONS	<u>1,732,265</u>	<u>1,456,140</u>	<u>8,461</u>	<u>3,196,866</u>
NET INCREASE (DECREASE)	1,810,671	903,145	200,291	2,914,107
FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS				
BEGINNING OF YEAR	<u>32,065,898</u>	<u>28,985,774</u>	<u>696,207</u>	<u>61,747,879</u>
END OF YEAR	<u>\$ 33,876,569</u>	<u>\$ 29,888,919</u>	<u>\$ 896,498</u>	<u>\$ 64,661,986</u>

See accompanying Notes to the Financial Statements.



The Tennessee Consolidated Retirement System (TCRS) is a public employee retirement system comprised of defined benefit pension plans covering Tennessee state employees, employees of the state's higher education systems, teachers, and employees of political subdivisions in Tennessee. The TCRS was established in 1972 by a statutory enactment of the Tennessee General Assembly. The provisions of the TCRS are codified in *Tennessee Code Annotated* Title 8, Chapters 34-37. In accordance with *Tennessee Code Annotated* Title 8, Chapter 34, Section 202, all funds invested, securities, cash, and other property of the TCRS are held in trust and can be expended only for the purposes of the trust. Although the assets for all pension plans within the TCRS are commingled for investment purposes, the assets of each separate plan may legally be used only for the payment of benefits to the members of that plan and for its administration, in accordance with the terms of the plan.

A: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting entity: The TCRS is included in the State of Tennessee financial reporting entity as a discretely presented component unit. The state appoints the majority of the TCRS Board of Trustees, its governing body, and approves its operating budget. The TCRS is presented as such in the *Tennessee Annual Comprehensive Financial Report*. That report is available on the state's website at <https://www.tn.gov/finance/rd-doa/fa-accfin-ar.html>.

Measurement focus and basis of accounting: The accompanying financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). The financial statements have been prepared using the flow of economic resources measurement focus and the accrual basis of accounting. Under the accrual method, revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred regardless of the timing of related cash flows.

Plan member and employer contributions are recognized in the period of time for which they are due, in accordance with legal provisions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

Cash and cash equivalents: Cash and cash equivalents includes cash, cash management pools, and cash invested in a short-term, open-end mutual fund under the contractual arrangement for master custody services. Cash received by the TCRS, that cannot be invested immediately in securities or is needed for operations, is invested in the State Pooled Investment Fund sponsored by the State of Tennessee and administered by the State Treasurer. That report is available on the state's website at <https://treasury.tn.gov>.

Method used to value investments: Assets of the TCRS are invested in the Tennessee Retiree Group Trust (TRGT). A report of TRGT is available on the state's website at <https://treasury.tn.gov>. As of June 30, 2023, the TCRS owns 99 percent of the net asset value in the TRGT. The TRGT is not registered with the Securities and Exchange Commission (SEC) as an investment company. The State of Tennessee has not obtained a credit quality rating for the TRGT from a nationally recognized credit ratings agency. The fair value of investment positions in the TRGT is determined daily based on the fair value of the pool's underlying portfolio. Furthermore, the State had not obtained or provided any legally binding guarantees to support the value of participant shares during the fiscal year. There are no restrictions on the sale or redemption of shares.

Investments are reported at fair value. Securities traded on a national exchange are valued at the last reported sales price. Investment income consists of realized and unrealized appreciation (depreciation) in the fair value of investments and interest and dividend income. Interest income is recognized when earned. Securities and securities transactions are recorded in the financial statements on trade-date basis.

The fair value of assets of the TRGT held at June 30, 2023 represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Assets held are categorized for

(continued)



fair value measurement within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

- Level 1 - Unadjusted quoted prices for identical assets or liabilities in active markets that can be accessed at the measurement date.
- Level 2 - Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; assets or liabilities that have a bid-ask spread price in an inactive dealer market, brokered market and principal-to-principal market; and Level 1 assets or liabilities that are adjusted.
- Level 3 - Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments where fair value is measured using the Net Asset Value (“NAV”) per share have no readily determinable fair value and have been determined to be calculated consistent with FASB principles for investment companies.

Where inputs used in the measurement of fair value fall into different levels of the hierarchy, fair value of the instrument in its entirety are categorized based on the lowest level input that is significant to the valuation. This assessment requires professional judgement and as such management developed a fair value committee that worked in conjunction with our custodian and investment professionals to make these valuations. All assets held were valued individually and aggregated into classes so to be represented in the table below.

Short-term securities generally include investments in money market-type securities reported at cost plus accrued interest.

Equity and equity derivative securities classified in Level 1 are valued using last reported sales prices quoted in active markets that can be accessed at the measurement date. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities. Equity securities classified in Level 3 are valued with last trade data having limited trading volume.

US Treasury Bills, Bonds, Notes and Futures classified in Level 1 are valued using last reported sales prices quoted in active markets that can be accessed at the measurement date. Debt and debt derivative securities classified in Level 2 are valued using a bid-ask spread price from multiple independent brokers, dealers, or market principals, which are known to be actively involved in the market. Level 3 debt securities are valued using proprietary information, a single pricing source, or other unobservable inputs related to similar assets or liabilities.

Real estate investments classified in Level 3 are valued using the last valuations provided by external investment advisors or independent external appraisers. Generally, all direct real estate investments are appraised by a qualified independent appraiser(s) with the professional designation of Member of the Appraisal Institute (“MAI”), or its equivalent, every three (3) years beginning from the acquisition date of the property. The appraisals are performed using generally accepted valuation approaches applicable to the property type.

Investments in private mutual funds, traditional private equity funds, strategic lending funds and real estate funds that report using GAAP, the fair value, as well as the unfunded commitments, was determined using the prior quarter’s NAV, as reported by the fund managers, plus the current cash flows. These assets were then categorized by investment strategy. In instances where the fund investment reported using non-GAAP standards, the investment was valued using the same method, but was classified in Level 3.

(continued)



NOTES TO THE FINANCIAL STATEMENTS
JUNE 30, 2023 (CONTINUED)



INVESTMENTS MEASURED AT FAIR VALUE

As of June 30, 2023

Expressed in Thousands

Investments at Fair Value Level	GAAP Hierarchy Level 1	GAAP Hierarchy Level 2	GAAP Hierarchy Level 3	NAV	Total Investments
Government Agencies		\$ 87,440	\$ 1,256		\$ 88,696
Government Bonds	\$ 3,601,719	29,528			3,631,247
Government Inflation Indexed	5,748				5,748
Government Mortgage Backed		3,665,989	48,533		3,714,522
Government Asset Backed		71,086			71,086
Municipal Bonds		17,371	5,888		23,259
Commercial Mortgage Backed		13,191	249,793		262,984
Corporate Asset Backed Securities		73,069	857,506		930,575
Corporate Bonds		4,127,657	79,028		4,206,685
Corporate Equities	28,794,463		41,316		28,835,779
Preferred Stocks	64,931	14,168	43,356		122,455
Limited Partnership Units			1,432,692	\$ 13,710,738	15,143,430
Real Estate			3,750,537	3,425,435	7,175,972
Derivatives		777			777
TOTAL TRGT INVESTMENTS AT FAIR VALUE	\$ 32,466,861	\$ 8,100,276	\$ 6,509,905	\$ 17,136,173	\$ 64,213,215
Cash and Cash Equivalents					874,142
Cash Collateral on Loaned Securities					3,154,310
Investment Income Receivable					148,359
Derivatives Receivable					113,604
Investments Sold					189,854
TOTAL ASSETS OF TRGT					\$ 68,693,484

(continued)



The following table sets forth the additional disclosures of the TRGT’s investments, which are stated at fair value based on the net asset value “NAV” (expressed in thousands), as a practical expedient, reported by the investment managers or general partners:

Asset Classification	Strategy	Number of Funds	NAV	Remaining Life	Redemption Terms	Redemption Restrictions
Limited Partnerships	Traditional Private Equity and Strategic Lending	167	\$13,710,738	Various	N/A	Various transfer and sale restrictions
Real Estate	Real Estate Commingled Investments	43	\$3,425,434	N/A	N/A	Various transfer and sale restrictions

Traditional Private Equity and Strategic Lending: The private equity asset class is categorized into two component portfolios: traditional and strategic lending. Generally speaking, the types of private equity strategies include venture capital, buyout, natural resource, secondary, special situations, tactical, structured credit, and high yield debt. The majority of these investments have an approximate life of 10 years or greater and are considered illiquid. During the life of the partnerships, distributions are received as underlying partnership investments are realized. Transfer or sale of the partnership interest are restricted over the life of the partnership. The TRGT has no plans to liquidate any of these investments.

Real Estate Commingled Investments: The real estate asset class is comprised of two different investment types: direct investments and commingled investments. A commingled investment is a pooled investment vehicle comprised of real estate investments that is overseen by an external investment manager or general partner. Generally speaking, the commingled real estate investment strategies include office, retail, industrial, multi-family, and diversified. The majority of these investments have an approximate life of 10 years or greater and are considered illiquid. During the life of the pooled investment vehicle, distributions are received as underlying investments are realized. Transfer or sale of the interest are restricted over the life of the investment. The TRGT has no plans to liquidate any of these investments.

Capital assets: Capital assets consist of internally generated computer software, reported at historical cost less any applicable amortization. Capital assets are defined by the state as assets with an initial individual cost of \$5,000 or more and an estimated useful life in excess of two years. The computer software was valued at \$2.5 million at year end and is being amortized using the straight-line method over the ten-year estimated life of the system. The amortization expense for the current year was \$3.3 million.

(continued)



B: PLAN DESCRIPTIONS

Plan administration: The Tennessee Treasury Department, an agency in the legislative branch of state government, administers the plans of the TCRS.

At June 30, 2023, there were three defined benefit pension plans within the TCRS. The Public Employee Retirement Plan is an agent, multiple employer defined benefit pension plan for state government employees and for political subdivisions electing to participate in the TCRS. The Teacher Legacy Pension Plan is a cost-sharing, multiple-employer defined benefit pension plan for teachers of local education agencies (LEAs). The Teacher Legacy Pension Plan closed to new membership on June 30, 2014 but will continue providing benefits to existing members and retirees. Beginning July 1, 2014, the Teacher Retirement Plan became effective for teachers employed by LEAs after June 30, 2014. The Teacher Retirement Plan is a separate cost sharing, multiple employer defined benefit pension plan.

The general administration and responsibility for proper operation of the TCRS plans are vested in a 20-member Board of Trustees, consisting of 18 voting members and two non-voting members. The Board has nine ex-officio members, two of whom are non-voting. The seven voting ex-officio members are the State Treasurer, Secretary of State, Comptroller of the Treasury, Commissioner of Finance and Administration, Commissioner of Human Resources, Director of the TCRS, and the Administrative Director of the Courts. The two non-voting ex-officio members are the chair and vice-chair of the Legislative Council on Pensions.

Three active teacher members, one from each grand division of the state, and a retired teacher member are selected for three-year terms by the Speaker of the House of Representatives and the Speaker of the Senate. Two active state employee members, who are from departments other than those represented by ex-officio members, are elected by state employees for three-year terms. A board member is appointed for a two-year term by each of the following organizations: Tennessee County Services, Tennessee Municipal League, and the Tennessee County Officials Association. Two members, a public safety employee and a retired state employee, are appointed by the Governor for two-year terms. All members must be vested members of the TCRS, except for ex-officio members.

Plan membership: At June 30, 2023, the membership of the pension plans consisted of the following:

	<u>Public Employee Retirement Plan</u>	<u>Teacher Legacy Pension Plan</u>	<u>Teacher Retirement Plan</u>	<u>Total</u>
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	123,344	55,568	198	179,110
Inactive Employees Entitled to But Not Yet Receiving Benefits	167,140	30,202	18,079	215,421
Active Plan Members	148,050	45,431	36,339	229,820
Total Membership	<u>438,534</u>	<u>131,201</u>	<u>54,616</u>	<u>624,351</u>
Number of participating employers	651	213	213	

Membership above includes all plans whether open or closed.

(continued)



Benefits provided: The TCRS provides retirement, disability, and death benefits. The benefits of the TCRS are established by state law (*Tennessee Code Annotated* Title 8, Chapters 34-37). In general, the benefits may be amended prospectively by the General Assembly for employees becoming members of the TCRS after June 30, 2014. Amendments of benefits for employees becoming members before July 1, 2014 can be restricted by precedent established by the Tennessee Supreme Court.

Teacher Legacy Pension Plan

Members of the Teacher Legacy Pension Plan are eligible to retire at age 60 with 5 years of service credit or after 30 years of service credit regardless of age. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service-related disability benefits are provided regardless of length of service. Five years of service is required for non-service-related disability eligibility. The service related and non-service-related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic cost of living adjustments (COLAs) after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the consumer price index (CPI) during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent.

Teacher Retirement Plan

Members of the Teacher Retirement Plan are eligible to retire at age 65 with 5 years of service credit or pursuant to the rule of 90 where age and years of service total 90. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service-related disability benefits are provided regardless of length of service. Five years of service is required for non-service-related disability eligibility. The service related and non-service-related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic cost of living adjustments (COLAs) after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the consumer price index (CPI) during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. The Teacher Retirement Plan includes provisions to control employer contributions and unfunded liabilities. As such, plan provisions are automatically changed when employer contributions and unfunded liabilities exceed statutory limits.

Public Employee Retirement Plan

For state employees, there are two major tiers of benefits and eligibility requirements. State employees becoming members before July 1, 2014 are eligible to retire at age 60 with 5 years of service credit or after 30 years of service credit regardless of age. State employees becoming members after June 30, 2014 are eligible to retire at age 65 with five years of service or pursuant to the rule of 90 where age and years of service total 90. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service-related disability benefits are provided regardless of length of service. Five years of service is required for non-service-related disability eligibility. The service related and non-service-related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic COLAs after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year.

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The COLA is based on the change in the CPI during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. There are additional classes of employees that include state judges, elected members of the general assembly, and public safety officers which have different benefit structures and eligibility requirements. These classifications represent an immaterial percentage of the state employee membership.

For political subdivision employees, there are various tiers of benefits and eligibility requirements. Each political subdivision adopts the benefit structure that the entity provides to its employees. Unreduced service retirement benefits are determined using a multiplier of the member's highest 5 consecutive year average compensation multiplied by the member's years of service credit. Plan members are eligible for service-related disability benefits regardless of length of service. Five years of service is required for non-service-related disability eligibility. The service related and non-service-related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. If adopted as a benefit provision by the political subdivision, member and beneficiary annuitants are entitled to automatic COLAs after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the CPI during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. There are additional classes of employees, local judges, elected officials, and public safety officers, which may have different benefit structures and eligibility requirements. These classifications represent an immaterial percentage of the political subdivisions' membership.

Contributions: Pursuant to *Tennessee Code Annotated* Title 8, Chapter 37, the Board of Trustees adopted an actuarially determined contribution (ADC) for each participating employer, as recommended by an independent actuary following an actuarial valuation.

For the Teacher Legacy Pension Plan, LEAs are required by statute to contribute the ADC. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, the unfunded accrued liability, and the cost of administration. Teachers are required by statute to contribute 5 percent of salary. For the year ended June 30, 2023, the required ADC for LEAs was 8.69 percent of covered payroll.

For the Teacher Retirement Plan, LEAs are required by statute to contribute the greater of the ADC or 4 percent. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, the unfunded accrued liability, and the cost of administration. Teachers are required by statute to contribute 5 percent of salary. For the year ended June 30, 2023, the required ADC for LEAs was 2.87 percent of covered payroll while actual contributions were 4 percent of covered payroll.

For the Public Employee Retirement Plan, each governmental entity is required by statute to contribute the ADC except that the contribution rate for state employees hired after June 30, 2014 is the greater of the ADC or 4 percent. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the plan year, the unfunded accrued liability, and the cost of administration. For the year ended June 30, 2023, the required ADC varied for each participating employer, with approximately ninety-six percent of all employer rates less than twenty (20) percent. By statute, state employees hired before July 1, 2014 are noncontributory while employees hired after June 30, 2014 contribute 5 percent of salary. As adopted by the governmental entity, political subdivision employees may be noncontributory, contribute 2.5 percent of salary, or contribute 5 percent of salary.

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Reserves: The statute governing the Teacher Retirement Plan and certain employers in the Public Employee Retirement Plan provide for a minimum employer contribution rate of 4 percent. The statute further provides that the amount of the employer contributions in excess of the actuarially determined contribution rate is deposited into a stabilization reserve for each plan. The statute may be amended by the Tennessee General Assembly. Assets in the stabilization reserve are commingled for investment purposes and receive a pro rata share of investment earnings. The amount in the stabilization reserve is not considered in calculating the actuarially determined employer contribution rate for each plan. The statute provides that the assets in the stabilization reserve will be utilized should the actuarially determined contribution rate exceed 4 percent. In such case, the required employer contribution in excess of 4 percent will be transferred from the stabilization reserve to the account of the Teachers Retirement Plan or certain Public Employee Retirement Plan employers. By statute, the Board of Trustees may adopt a policy to suspend the deposits into the stabilization reserve in any given year when the stabilization reserve reaches a certain level that is determined by the Board. If deposits are suspended, then the employer contribution will be the actuarially determined contribution rate for that year rather than the higher 4 percent. The Board has not adopted a policy at this time.

From July 1, 2014, through June 30, 2018, the funds contributed to the stabilization reserves were held by TCRS in the pension trust fund. As of June 30, 2023, there was \$75,082,566 in the stabilization reserve on behalf of the Teachers Retirement Plan and \$69,019,820 in the various stabilization reserves on behalf of the Public Employee Retirement Plan held by TCRS. Effective July 1, 2018, all future stabilization reserve contributions are held in a separate trust outside of TCRS for the benefit of each employer that participates in the stabilization reserve trust. The amounts reflected in the Stabilization Reserve Trust can only be moved to the entity's pension trust at the direction of the entity (employer) with the approval of the Board of Trustees of the Pension Stabilization Reserve Trusts.

C: DEPOSITS AND INVESTMENTS

Statutory Authority: The Tennessee Retiree Group Trust (TRGT) was established in 2015 by a statutory enactment of the Tennessee General Assembly. The provisions of the TRGT are codified in *Tennessee Code Annotated (TCA)* Title 8, Chapters 34-37. Pursuant to this statute the Tennessee Consolidated Retirement System (TCRS) and its board of directors with the State Treasurer (Treasurer) as custodian, authorized by TCA 8-37-104 adopted this group trust for the purpose of pooling funds of TRGT with other assets in the custody of the Treasurer, solely for investment purposes. The assets invested consist exclusively of assets of exempt pension and profit-sharing trusts and individual retirement accounts, custodial accounts, retirement income accounts, governmental plans and tax-exempt trusts under the Internal Revenue Code of 1986 and Rev. Rul. 81-100, as modified by Rev. Ruls. 2004-67, 2008-40 and 2011-1 (referred to herein as "Retirement Assets"). The Custodian shall be responsible for the managing and directing the investment of the Group Trust Funds in the same manner as it invests funds of the TCRS.

The TRGT is authorized to invest in securities in accordance with the investment policy of the TCRS. That policy allows the Trust to invest in bonds, debentures, preferred stock and common stock, real estate and in other good and solvent securities subject to the approval of the Board of Trustees, but further subject to the following statutory restrictions and provisions:

- a. The total sum invested in common and preferred stocks shall not exceed seventy-five percent (75 percent) of the total of the funds of the trust.
- b. The total sum invested in notes and bonds or other fixed income securities exceeding one year in maturity shall not exceed seventy-five percent (75 percent) of the total funds of the trust.

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- c. Within the restrictions in (a) and (b) above, fifteen percent (15 percent) of the total of the funds of the retirement system may be invested in securities of the same kinds, classes, and investment grades as those otherwise eligible for investment in various approved foreign countries. However, upon action of the TCRS Board of Trustees with subsequent approval by the Council on Pensions, limit has been authorized at an amount not to exceed twenty-five percent (25 percent).
- d. Within the restrictions in (a) and (b) above, funds may be invested in Canadian securities which are substantially of the same kinds, classes and investment grades as those otherwise eligible for investment.
- e. The total amount of securities loaned under a securities lending program cannot exceed thirty percent (30 percent) of total assets.
- f. The total sum invested in alternative assets shall not exceed forty percent (40 percent) of the fair value of total assets.

State statute also authorizes the TRGT to invest in forward contracts to hedge its foreign currency exposure and to purchase or sell domestic equity index futures contracts for the purpose of asset allocation relating to the domestic equity portfolio. The total amount of the financial futures contract obligation shall not exceed ten percent (10 percent) of the fair value of the TRGT's total assets. Position sizes will be measured by notional amounts. Options will be measured in their notional equivalents.

Investment policy: The TRGT investment authority is established pursuant to *Tennessee Code Annotated* Title 8, Chapter 37. The statute provides the Board of Trustees with the responsibility to establish the investment policy of the TRGT. The investment policy may be amended by the Board. The TRGT assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided by the TCRS. The following was the Board's adopted asset allocation policy as of June 30, 2023:

Portfolio	Strategic Target
Equity – United States	31%
Equity – Canadian	2%
Equity – International Developed Markets	12%
Equity – Emerging Markets	4%
Core Fixed Income Securities	20%
Private Equity – Traditional	10%
Private Equity – Strategic Lending	10%
Real Estate	10%
Cash and Cash Equivalents	1%
TOTAL	100%

Securities Lending: The TRGT is authorized to engage in securities lending agreements by TCA 8-37-104(a) (6) with the terms established in the investment policy whereby TRGT loans securities to brokers and dealers (borrower) and in turn, TRGT receives collateral as either cash or securities. TRGT pays the borrower interest on the collateral received and invests the collateral with the goal of earning a higher yield than the interest rate paid to the borrower. Loans are limited to no more than thirty percent (30%) of the fair value of the total assets in the TRGT portfolio and provided further that such loans are secured by collateral. Securities received as collateral hereunder shall have a fair value equal to at least one hundred two percent (102%) of the fair value of the loaned

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domestic security or one hundred five percent (105%) of any foreign security. Cash received as collateral shall equal at least one hundred percent (100%) of the fair value of the loaned securities and may be invested by or on behalf of the TRGT in any instrument the TRGT may be directly invested. Cash Collateral is held in the TRGT name and is not subject to custodial credit risk. During the year there were no violations of legal or contractual provisions by the TRGT.

The TRGT securities lending program is managed by a third-party lending agent, Deutsche Bank AG. The TRGT may loan any debt or equity securities which is owned by TRGT. Our securities lending agent manages the average maturities of securities on loan against the average maturities of securities on collateral invested. The maturity gap has a limit of 33 days. This is monitored by investment staff on a periodic basis to ensure compliance.

At June 30, 2023, the TRGT had the following securities on loan and received the collateral as shown below:

SECURITIES LENDING

As of June 30, 2023

Securities on Loan	Fair Value of Securities on Loan	Cash Collateral Received
Fixed	\$ 934,388,922	\$ 955,138,826
Equity	2,151,395,348	2,199,170,985
Total	<u>\$ 3,085,784,270</u>	<u>\$ 3,154,309,811</u>

The TRGT has the ability to sell the collateral securities only in the case of a borrower default.

Credit Risk: Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit quality distribution for the TRGT's investments in fixed income securities at year end is included in the schedule below. Securities are rated using Standard and Poor's and/or Moody's and are presented below using the Standard and Poor's rating scale. The State Pooled Investment Fund has not obtained a credit quality rating from a nationally recognized credit ratings agency.

TRGT's investment policy specifies that bond issues subject for purchase are investment grade bonds rated by one of the Nationally Recognized Statistical Rating Organizations (NRSROs). There is no requirement to divest an asset if it is downgraded after purchase. For short-term investments, the investment policy provides for the purchase of only the highest quality debt issues. Commercial paper should be rated in the highest tier by all rating agencies which rate the paper, with a minimum of two ratings required. Commercial paper cannot be purchased if a rating agency has the commercial paper on a negative credit watch. The investment policy also requires preparation of a credit analysis report on the corporation prior to purchasing commercial paper.

As noted below, the TRGT does not utilize its own bank accounts but invests in the State Pooled Investment Fund for its operating cash purposes. Required risk disclosures relative to the State Pooled Investment Fund are presented in the State of Tennessee Treasurer's Report. That report is available on the state's website at <https://treasury.tn.gov>.

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At June 30, 2023, the TRGT had the following investments:

**CREDIT QUALITY DISTRIBUTION FOR SECURITIES WITH CREDIT EXPOSURE
AS A PERCENTAGE OF TOTAL INVESTMENTS**

As of June 30, 2023

Expressed in Thousands

Rating	Fair Value	Percentage of Total Investments
AAA	\$ 572,090	0.891%
AA	308,418	0.480%
A	1,089,984	1.697%
BBB	2,587,331	4.029%
BB	410,680	0.640%
B	150,557	0.234%
CCC	51,901	0.081%
CC	3,401	0.005%
D	320	0.000%
NR	<u>3,786,327</u>	5.896%
	<u>\$ 8,961,009</u>	
U. S. Government Agencies and Obligations explicitly guaranteed by the U. S. Government	<u>4,699,486</u>	
Total Fixed Income Securities	<u>\$ 13,660,495</u>	
Equity	28,835,779	
Real Estate	7,175,972	
Private Equities	8,747,136	
Strategic Lending	6,396,294	
Preferred Stock not Classified as Fixed Income	122,455	
Derivative Instruments (Not Rated)	777	
Short term investment fund with custodian (NR)	(6,403)	
Short term investments classified as cash (NR)	<u>(719,290)</u>	
Total Investments in TRGT	<u><u>\$ 64,213,215</u></u>	

(continued)



Interest Rate Risk: Interest rate risk is the risk that future changes in prevailing market rates of interest will have an adverse effect on the fair value of debt investments. The fair values of securities with long terms to maturity may be highly sensitive to interest rate changes. The investment policy for the TRGT states that the maturity of its debt securities may range from short-term instruments, including investments in the State Pooled Investment Fund, to long-term bonds, with consideration of liquidity needs. However, the policy does not specifically address limits on investment maturities. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows weighted for those cash flows as a percentage of the investment's full price. The TRGT had the following investments and effective duration at June 30, 2023.

EFFECTIVE DURATION OF DEBT INVESTMENTS

As of June 30, 2023

Expressed in Thousands

Investment Type	Fair Value	Effective Duration (years)
Government Agencies	\$ 88,696	7.53
Government Bonds	3,631,247	14.52
Government Inflation Indexed	5,748	0.54
Government Mortgage Backed	3,714,522	5.12
Government Asset Backed	71,086	5.44
Municipal Bonds	23,259	8.68
Commercial Mortgage Backed	262,984	2.33
Corporate Asset Backed	930,575	0.66
Corporate Bonds	4,206,685	7.95
Short-Term Securities	725,693	0.00
Total Debt Investments in TRGT	\$ 13,660,495	7.88

Asset-Backed Securities: The TRGT invests in various collateralized mortgage obligations (CMOs) which are mortgage-backed securities. These securities are based on cash flows from interest and principal payments on underlying mortgages and could therefore be more sensitive to prepayments by mortgagees as a result of a decline in interest rates. The fair value CMOs at June 30, 2023 was \$262,983,713 of which \$209,919,200 were CMOs that are generally more sensitive to interest rate of changes.

(continued)



Foreign Currency Risk: Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The investment policy limits the asset allocation for international investments to twenty-five percent of total assets. The TRGT's exposure to foreign currency risk was as follows:

FOREIGN CURRENCY-DENOMINATED INVESTMENTS

As of June 30, 2023

Expressed in Thousands

Currency	Total Fair Value	Equity	Cash
Australian Dollar	\$ 372,430	\$ 372,407	\$ 23
British Pound Sterling	1,383,117	1,379,437	3,680
Canadian Dollar	1,124,075	1,122,986	1,089
Danish Krone	296,184	296,184	0
Euro Currency	3,736,141	3,732,735	3,406
Hong Kong Dollar	158,310	158,310	0
Japanese Yen	1,436,021	1,426,419	9,602
New Israeli shekel	3,897	3,897	0
New Zealand Dollar	1,543	1,543	0
Norwegian Krone	50,613	50,214	399
Singapore Dollar	105,411	105,406	5
Swedish Krona	228,196	226,451	1,745
Swiss Franc	562,684	562,661	23
Total	\$ 9,458,622	\$ 9,438,650	\$ 19,972

Custodial Credit Risk: Custodial Credit Risk for deposits is the risk that in the event of a bank failure, the TRGT deposits may not be returned to TRGT. The TRGT does not have an explicit policy with regards to Custodial Credit Risk for deposits. At year end, the TRGT had uninsured and uncollateralized cash deposits of \$19,971,796 in foreign currency held by our master custodian, State Street Bank, in State Street's name. These deposits were used for investments pending settlement.

Rate of Return: For the year, the money-weighted rate of return on investments in the TRGT, net of investment expense, was 6.71 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Derivatives:

Futures - The TRGT may buy or sell fixed income and equity index futures contracts for the purposes of making asset allocation changes in an efficient and cost-effective manner and to improve liquidity. Gains (losses) on futures hedge losses (gains) produced by any deviation from the TRGT target allocation. The gains and losses resulting from daily fluctuations in the fair value of the outstanding futures contract are settled daily, on the following day, and a receivable or payable is established for any unsettled gain or loss as of the financial statement date. As of June 30, 2023, the TRGT was under contract for fixed income and equity index futures and the resulting receivable is reflected in the financial statements at fair value.

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Foreign Currency Forward Contracts - The international securities expose the TRGT to potential losses due to a possible rise in the value of the US dollar. The TRGT investment managers can reduce foreign currency exposure by selling foreign currency forward contracts, at agreed terms and for future settlement, usually within a year. The manager will reverse the contract by buying the foreign currency before the settlement date. A gain (loss) on this transaction pair will hedge a loss (gain) on the currency movement of the international security. Foreign currency forward contracts expose the TRGT to foreign currency risk as they are denominated in foreign currency. TRGT did not hold any foreign currency forward contracts at June 30, 2023.

Mortgages - The TRGT is authorized to invest in To Be Announced (TBA) mortgage-backed securities similar to the foreign currency forward contracts. The TRGT enters into agreements to purchase pools of mortgage-backed securities prior to the actual security being identified. The TRGT will roll this agreement prior to settlement date to avoid taking delivery of the security. Any unrealized gain on TBA mortgage-backed securities has been reflected in the financial statements as an investment. Any unrealized loss on TBA mortgage-backed securities has been included in the payable established for the mortgages. The notional amounts of these agreements have been included in the financial statements as a receivable and a payable. The TRGT invests in these derivatives to adjust its exposure to mortgage coupon risk and to replicate the return on mortgage-backed securities portfolios without actually purchasing the security.

Credit Default Swaps - The TRGT may invest in Credit Default Swaps to offset credit risk of fixed income investments. The TRGT may enter into a contract and pay an ongoing premium in exchange for the seller to pay the security's value and interest payments if a default occurs. As of June 30, 2023, the TRGT was under contract for Credit Default Swaps and the resulting payable is reflected in the financial statements at fair value.

The fair value balances and notional amounts of derivative instruments outstanding at year end, classified by type, and the changes in fair value of derivative instrument types for the year ended as reported in the financial statements are as follows:

DERIVATIVE SUMMARY

As of June 30, 2023

Expressed in Thousands

	Changes in Fair Value		Fair Value at June 30, 2023		
	Financial Statement Classification	Amount	Financial Statement Classification	Amount	Notional Amount
Futures Contracts	Investment Income (Loss)	\$ (45,384)	Derivative Instruments Receivable	\$ 3,952	\$ 2,725,643
Swaps Contracts	Investment Income (Loss)	\$ 20	Derivative Instruments Payable	\$ 0	\$ (26)
TBA Mortgage Backed Securities	Investment Income (Loss)	\$ 777	Derivative Instrument	\$ 777	\$ (77,215)

Futures, Credit Default Swaps, and TBA mortgage-backed securities are exchange traded and their price is based on quoted market prices at year end. It is the TRGT policy to conduct derivative transactions through the custodian bank and high-quality money center banks or brokerage firms. The credit risk of futures contracts is managed by maintaining a daily variation margin.

Alternative Investments: The TRGT has investments in strategic lending, private equity funds and real estate with an estimated fair value of \$22,319,402,038 at June 30, 2023. Because these investments are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investments existed, and such differences could be material. Title to real property invested in by TRGT is held by real estate investment holding companies.

(continued)



Commitments:

Standby Commercial Paper Purchase Agreement: The TRGT has agreed to serve as standby commercial paper purchaser for commercial paper issued by the Funding Board of the State of Tennessee. By serving as a standby commercial paper purchaser, the TRGT receives an annual fee of 35 basis points on the \$350 million maximum issuance under this agreement during times when both Moody’s and Standard and Poor’s investment ratings assigned to the State of Tennessee’s general obligation bonds are Aaa and AAA respectively, 45 basis points during times when either Moody’s or Standard and Poor’s has assigned ratings of Aa and AA respectively, or 55 basis points during times when either Moody’s or Standard and Poor’s has assigned ratings lower than Aa and AA respectively. In the unlikely event that the TRGT would be called upon to purchase the commercial paper, the TRGT would receive interest at a rate equal to prime plus 150 basis points subject to a floor of 5 percent (5%); provided, however, in no even shall the Standby Purchase Rate be in excess of the maximum rate as define in Section 47-14-103, *Tennessee Code Annotated*.

Alternative Investments: The TRGT had unfunded commitments of \$8,139,028,807 in private equity, strategic lending, and real estate commitments at year end.

D: NET PENSION LIABILITY (ASSET) FOR COST-SHARING PLANS

The components of net pension liability at June 30, 2023 were as follows:

	<u>Teacher Legacy Pension Plan</u>	<u>Teacher Retirement Plan</u>
Total Pension Liability	\$ 28,516,536,176	\$ 859,797,638
Plan Fiduciary Net Position	<u>(29,888,918,646)</u>	<u>(896,497,859)</u>
Net Pension Liability (Asset)	<u>\$ (1,372,382,470)</u>	<u>\$ (36,700,221)</u>
Percent of Net Position to Pension Liability	104.81%	104.27%

Actuarial assumptions: The total pension liability was determined by an actuarial valuation as of June 30, 2022 rolled-forward to a measurement date and a reporting date of June 30, 2023, using the following actuarial assumptions applied to all prior periods included in the measurement:

Inflation	2.25 percent
Salary Increases	Graded salary ranges from 8.72 to 3.44 percent based on age, including inflation, averaging 4.00 percent
Investment Rate of Return	6.75 percent, net of pension plan investment expense, including inflation
Cost of Living Adjustment	2.125 percent

(continued)



The mortality improvement assumption adopted with the 2020 experience study utilizes the most current projection scale published by the Society of Actuaries as of the actuarial valuation date. As of June 30, 2022, the projection scale was updated from Scale MP-2020 to Scale MP-2021. This change was included with other experience gains or losses.

The actuarial assumptions used in the June 30, 2022 actuarial valuation were based on the results of an actuarial experience study performed for the period July 1, 2016 through June 30, 2020.

The long-term expected rate of return on pension plan investments was established by the TCRS Board of Trustees in conjunction with the June 30, 2020 actuarial experience study. This return was selected from a blend of values developed using historical market returns and future capital market projections. The future capital market projections were produced using a building-block method in which a best-estimate of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) is developed for each major asset class. These best-estimates are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 2.25 percent. The best-estimates of geometric real rates of return and the TCRS investment policy target asset allocation for each major asset class are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return	Target Allocations
U.S. equity	4.88%	31%
Developed market international equity	5.37%	14%
Emerging market international equity	6.09%	4%
Private equity and strategic lending	6.57%	20%
U.S. fixed income	1.20%	20%
Real estate	4.38%	10%
Short-term securities	0.00%	1%
		100%

The long-term expected rate of return on pension plan investments was established by the TCRS Board of Trustees as 6.75 percent based on a comparison of historical market returns and future capital market projections.

(continued)



Discount rate: The discount rate used to measure the total pension liability was 6.75 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions from plan members will be made at the statutorily required contribution rates and that employer contributions from LEAs will be made at the actuarially determined rate as required by statute. 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 plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of net pension liability (asset) to changes in the discount rate: The following presents the Teacher Legacy Pension Plan’s and Teacher Retirement Plan’s net pension liability (asset) for LEAs using the discount rate of 6.75 percent, as well as what its net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

Plan	1 Percent Decrease (5.75%)	Current Discount Rate (6.75%)	1 Percent Increase (7.75%)
Teacher Legacy Pension Plan	\$ 2,341,486,212	\$ (1,372,382,470)	\$ (4,473,188,079)
Teacher Retirement Plan	\$ 206,327,298	\$ (36,700,221)	\$ (214,980,132)

E: OTHER ACCOUNTING DISCLOSURES

Additional Funding: The 112th General Assembly of the State of Tennessee appropriated a one-time additional contribution of \$350 million to the Public Employee Retirement Plan for state and higher education employees to be effective July 1, 2022 in accordance with Public Chapter 1130, Section 43, Item 9.

Subsequent event: The General Assembly of the State of Tennessee appropriated a one-time additional contribution of \$300 million to the Public Employee Retirement Plan for state and higher education employees to be effective July 1, 2023 in accordance with Public Chapter 418, Section 43, Item 9.



SCHEDULE OF CHANGES TO NET PENSION LIABILITY FOR TEACHER LEGACY PENSION PLAN
Fiscal Year Ended June 30

Total pension liability	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Service cost	\$ 356,535,272	\$ 364,886,082	\$ 320,188,346	\$ 324,597,317	\$ 345,065,162	\$ 345,257,426	\$ 351,528,106	\$ 359,568,654	\$ 393,173,920	\$ 404,576,942
Interest	1,848,905,166	1,782,323,366	1,764,235,143	1,716,256,039	1,695,569,610	1,636,816,010	1,618,619,959	1,582,470,751	1,578,251,721	1,483,656,307
Change in benefit terms	0	0	0	0	0	0	0	0	0	0
Difference between expected and actual experience	268,985,486	(218,848,998)	(37,149,799)	(442,566,506)	72,474,157	(119,208,468)	(296,555,977)	(764,354,573)	46,576,630	0
Change of assumptions	0	1,536,567,661	0	0	0	346,381,384	0	0	0	0
Benefit payments including refunds of member contributions	(1,449,629,132)	(1,393,386,731)	(1,359,548,443)	(1,314,913,673)	(1,268,406,149)	(1,218,622,546)	(1,172,892,841)	(1,138,014,028)	(1,096,410,122)	(1,037,013,093)
Net change in total pension liability	1,024,796,792	2,071,541,380	687,725,247	283,373,177	844,702,780	990,623,806	500,699,247	39,670,804	921,592,149	851,220,156
Total pension liability - beginning	27,491,739,384	25,420,198,004	24,732,472,757	24,449,099,580	23,604,396,800	22,613,772,994	22,113,073,747	22,073,402,943	21,151,810,794	20,300,590,638
Total pension liability - ending (a)	\$ 28,516,536,176	\$ 27,491,739,384	\$ 25,420,198,004	\$ 24,732,472,757	\$ 24,449,099,580	\$ 23,604,396,800	\$ 22,613,772,994	\$ 22,113,073,747	\$ 22,073,402,943	\$ 21,151,810,794
Plan fiduciary net position										
Contributions - employer	\$ 281,849,740	\$ 339,111,442	\$ 337,066,627	\$ 353,767,319	\$ 350,734,176	\$ 318,336,627	\$ 319,576,407	\$ 327,521,593	\$ 338,301,211	\$ 348,474,887
Contributions - members	163,017,032	166,006,995	164,846,662	167,155,248	168,919,223	176,442,688	177,940,219	181,763,296	187,121,567	195,520,938
Net investment income	1,914,418,556	(1,170,762,130)	6,455,724,460	1,215,904,780	1,759,945,606	1,867,629,821	2,365,586,643	560,785,122	646,526,936	3,054,117,822
Benefit payments including refunds of member contributions	(1,449,629,132)	(1,393,386,731)	(1,359,548,443)	(1,314,913,673)	(1,268,406,149)	(1,218,622,546)	(1,172,892,841)	(1,138,014,028)	(1,096,410,122)	(1,037,013,093)
Administrative expenses	(6,511,874)	(4,928,016)	(4,589,319)	(4,571,564)	(5,201,742)	(5,789,356)	(5,347,136)	(6,893,993)	(5,635,689)	(2,663,319)
Net change in plan fiduciary net position	903,144,322	(2,063,958,440)	5,593,499,987	417,342,110	1,005,991,114	1,137,997,234	1,684,863,292	(74,838,010)	69,903,903	2,558,437,235
Plan fiduciary net position - beginning	28,985,774,324	31,049,732,764	25,456,232,777	25,038,890,667	24,032,899,553	22,894,902,319	21,210,039,027	21,284,877,037	21,214,973,134	18,656,535,899
Plan fiduciary net position - ending (b)	\$ 29,888,918,646	\$ 28,985,774,324	\$ 31,049,732,764	\$ 25,456,232,777	\$ 25,038,890,667	\$ 24,032,899,553	\$ 22,894,902,319	\$ 21,210,039,027	\$ 21,284,877,037	\$ 21,214,973,134
Net pension liability (asset) - ending (a)-(b)	\$ (1,372,382,470)	\$ (1,494,034,940)	\$ (5,629,534,760)	\$ (723,760,020)	\$ (589,791,087)	\$ (428,502,753)	\$ (281,129,325)	\$ 903,034,720	\$ 788,525,906	\$ (63,162,340)

(continued)



**REQUIRED SUPPLEMENTARY INFORMATION
(CONTINUED)**



SCHEDULE OF CHANGES TO NET PENSION LIABILITY FOR TEACHER RETIREMENT PLAN

Fiscal Year Ended June 30

Total pension liability	2023	2022	2021	2020	2019	2018	2017	2016	2015
Service cost	\$ 150,358,613	\$ 128,738,485	\$ 98,704,242	\$ 85,848,628	\$ 74,297,210	\$ 60,633,198	\$ 43,440,149	\$ 28,980,449	\$ 15,581,497
Interest	49,813,956	38,097,642	28,379,472	20,721,440	14,804,562	9,275,807	5,159,135	2,175,079	583,011
Change in benefit terms	0	0	0	0	0	0	0	0	0
Difference between expected and actual experience	2,232,194	(4,960,240)	(3,478,690)	(10,298,460)	1,446,372	763,491	2,054,643	(1,477,409)	0
Change of assumptions	0	40,871,729	0	0	0	2,496,211	0	0	0
Benefit payments including refunds of member contributions	(6,218,383)	(6,103,207)	(4,252,985)	(3,695,228)	(2,206,627)	(1,628,598)	(1,021,752)	(283,467)	(34,531)
Net change in total pension liability	196,186,380	196,644,409	119,352,039	92,576,380	88,341,517	71,540,109	49,632,175	29,394,652	16,129,977
Total pension liability - beginning	663,611,258	466,966,849	347,614,810	255,038,430	166,696,913	95,156,804	45,524,629	16,129,977	0
Total pension liability - ending (a)	\$ 859,797,638	\$ 663,611,258	\$ 466,966,849	\$ 347,614,810	\$ 255,038,430	\$ 166,696,913	\$ 95,156,804	\$ 45,524,629	\$ 16,129,977
Plan fiduciary net position									
Contributions - employer	\$ 57,083,930	\$ 34,326,459	\$ 29,152,958	\$ 25,616,933	\$ 20,529,121	\$ 34,957,065	\$ 26,262,053	\$ 17,538,589	\$ 8,310,132
Contributions - members	99,883,171	85,525,154	72,213,168	63,182,574	52,929,975	43,730,696	32,848,220	21,855,921	10,390,077
Net investment income	51,784,955	(25,502,829)	115,660,117	16,947,487	18,475,708	13,554,381	10,058,396	1,011,283	294,742
Benefit payments including refunds of member contributions	(6,218,383)	(6,103,207)	(4,252,985)	(3,695,228)	(2,206,627)	(1,628,598)	(1,021,752)	(283,467)	(34,531)
Administrative expenses	(2,242,488)	(3,198,368)	(2,559,673)	(2,295,363)	(2,018,230)	(1,846,534)	(1,417,125)	(819,972)	(280,047)
Net change in plan fiduciary net position	200,291,185	85,047,209	210,213,585	99,756,403	87,709,947	88,767,010	66,729,792	39,302,354	18,680,373
Plan fiduciary net position - beginning	696,206,674	611,159,465	400,945,879	301,189,476	213,479,529	124,712,519	57,982,727	18,680,373	0
Plan fiduciary net position - ending (b)	\$ 896,497,859	\$ 696,206,674	\$ 611,159,465	\$ 400,945,879	\$ 301,189,476	\$ 213,479,529	\$ 124,712,519	\$ 57,982,727	\$ 18,680,373
Net pension liability (asset) - ending (a) - (b)	\$ (36,700,221)	\$ (32,595,416)	\$ (144,192,616)	\$ (53,331,069)	\$ (46,151,046)	\$ (46,782,616)	\$ (29,555,715)	\$ (12,458,098)	\$ (2,550,396)

This schedule is intended to show information for ten years. Additional years information will be shown as it becomes available.

(continued)



SCHEDULE OF THE TEACHER LEGACY PENSION PLAN'S NET PENSION LIABILITY (ASSET)

Fiscal Year Ended June 30

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability	\$ 28,516,536,176	\$ 27,491,739,384	\$ 25,420,198,004	\$ 24,732,472,757	\$ 24,449,099,580	\$ 23,604,396,800	\$ 22,613,772,994	\$ 22,113,073,747	\$ 22,073,402,943	\$ 21,151,810,794
Plan fiduciary net position	29,888,918,646	28,985,774,324	31,049,732,764	25,456,232,777	25,038,890,667	24,032,899,553	22,894,902,319	21,210,039,027	21,284,877,037	21,214,973,134
Net pension liability (asset)	<u>\$ (1,372,382,470)</u>	<u>\$ (1,494,034,940)</u>	<u>\$ (5,629,534,760)</u>	<u>\$ (723,760,020)</u>	<u>\$ (589,791,087)</u>	<u>\$ (428,502,753)</u>	<u>\$ (281,129,325)</u>	<u>\$ 903,034,720</u>	<u>\$ 788,525,906</u>	<u>\$ (63,162,340)</u>
Plan fiduciary net position as a percentage of total pension liability	104.81%	105.43%	122.15%	102.93%	102.41%	101.82%	101.24%	95.92%	96.43%	100.30%
Covered payroll	\$ 3,246,618,701	\$ 3,291,063,367	\$ 3,282,482,099	\$ 3,326,750,965	\$ 3,352,756,393	\$ 3,501,703,581	\$ 3,536,976,053	\$ 3,622,228,641	\$ 3,742,270,034	\$ 3,925,131,835
Net pension liability (asset) as a percentage of covered payroll	(42.27)%	(45.40)%	(171.50)%	(21.76)%	(17.59)%	(12.24)%	(7.95)%	24.93%	21.07%	(1.61)%

(continued)



SCHEDULE OF THE TEACHER RETIREMENT PLAN'S NET PENSION LIABILITY (ASSET)

Fiscal Year Ended June 30

	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total pension liability	\$ 859,797,638	\$ 663,611,258	\$ 466,966,849	\$ 347,614,810	\$ 255,038,430	\$ 166,696,913	\$ 95,156,804	\$ 45,524,629	\$ 16,129,977
Plan fiduciary net position	896,497,859	696,206,674	611,159,464	400,945,879	301,189,476	213,479,529	124,712,519	57,982,727	18,680,373
Net pension liability (asset)	<u>\$ (36,700,221)</u>	<u>\$ (32,595,416)</u>	<u>\$ (144,192,615)</u>	<u>\$ (53,331,069)</u>	<u>\$ (46,151,046)</u>	<u>\$ (46,782,616)</u>	<u>\$ (29,555,715)</u>	<u>\$ (12,458,098)</u>	<u>\$ (2,550,396)</u>
Plan fiduciary net position as a percentage of total pension liability	104.27%	104.91%	130.88%	115.34%	118.10%	128.06%	131.06%	127.37%	115.81%
Covered payroll	\$ 1,987,897,627	\$ 1,709,064,462	\$ 1,442,090,457	\$ 1,261,909,185	\$ 1,056,859,310	\$ 873,677,206	\$ 655,205,868	\$ 441,775,131	\$ 207,753,299
Net pension liability (asset) as a percentage of covered payroll	(1.85)%	(1.91)%	(10.00)%	(4.23)%	(4.37)%	(5.35)%	(4.51)%	(2.82)%	(1.23)%

This schedule is intended to show information for ten years. Additional years' information will be shown as it becomes available.

(continued)



SCHEDULE OF THE TEACHER LEGACY PENSION PLAN'S CONTRIBUTIONS
Fiscal Year Ended June 30

	Actuarially- Determined Contribution	Contributions in Relation to the Actuarially- Determined Contribution	Contribution Deficiency	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	\$ 281,849,740	\$ 281,849,740	\$ 0	\$ 3,246,618,701	8.69%
2022	339,111,442	339,111,442	0	3,291,063,367	10.30%
2021	337,066,627	337,066,627	0	3,282,482,099	10.27%
2020	353,767,319	353,767,319	0	3,326,750,965	10.63%
2019	350,734,176	350,734,176	0	3,352,756,393	10.46%
2018	318,336,627	318,336,627	0	3,501,703,581	9.08%
2017	319,576,407	319,576,407	0	3,536,976,053	9.04%
2016	327,521,593	327,521,593	0	3,622,228,641	9.04%
2015	338,301,211	338,301,211	0	3,742,270,034	9.04%
2014	348,474,888	348,474,888	0	3,931,983,889	8.86%

(continued)



SCHEDULE OF THE TEACHER RETIREMENT PLAN'S CONTRIBUTIONS

Fiscal Year Ended June 30

	Actuarially-Determined Contribution	Contributions in Relation to the Actuarially-Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	\$ 57,083,930	\$ 57,083,930	\$ 0	\$ 1,987,897,627	2.87%
2022	34,326,459	34,326,459	0	1,709,064,462	2.01%
2021	29,152,958	29,152,958	0	1,442,090,457	2.02%
2020	25,616,933	25,616,933	0	1,261,909,185	2.03%
2019	20,529,122	20,529,122	0	1,056,859,310	1.94%
2018	14,251,505	34,957,065	(20,705,560)	873,677,206	4.00%
2017	10,221,212	26,262,053	(16,040,841)	655,205,868	4.01%
2016	11,044,378	17,538,589	(6,494,211)	441,775,131	3.97%
2015	5,193,832	8,310,132	(3,116,300)	207,753,299	4.00%

This schedule is intended to show information for ten years. Additional years' information will be shown as it becomes available.

SCHEDULE OF THE PUBLIC EMPLOYEES RETIREMENT PLAN, THE TEACHER LEGACY PENSION PLAN, AND THE TEACHER RETIREMENT PLAN INVESTMENT RETURNS

Fiscal Year Ended June 30

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	6.71%	-3.83%	25.78%	5.05%	7.76%	8.40%	11.30%	2.78%	3.29%	16.49%

(continued)



Method and assumptions used in calculations of actuarially determined contributions.

The actuarially determined contributions for the fiscal year ended June 30, 2023 for Local Education Agencies for the Teacher Legacy Plan and the Teacher Retirement Plan were calculated as a result of an actuarial valuation performed as of June 30, 2021. The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule:

	<u>Teacher Legacy Plan</u>	<u>Teacher Retirement Plan</u>
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level Dollar Amortization	Level Dollar Amortization
Remaining amortization period	N/A	N/A
Inflation	2.25 percent	2.25 percent
Cost of living adjustments	2.125 percent	2.125 percent
Salary increases	Graded salary ranges from 8.72 percent to 3.44 percent based on age, including inflation, averaging 4.00 percent	Graded salary ranges from 8.72 percent to 3.44 percent based on age, including inflation, averaging 4.00 percent
Investment rate of returns	6.75 percent, net of pension plan investment expense, including inflation	6.75 percent, net of pension plan investment expense, including inflation



**SCHEDULE OF ADMINISTRATIVE EXPENSES
FOR THE YEAR ENDED JUNE 30, 2023**



**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
SCHEDULE OF ADMINISTRATIVE EXPENSES
For the Year Ended June 30, 2023**

	<u>Public Employee Retirement Plan</u>	<u>Teacher Legacy Pension Plan</u>	<u>Teacher Retirement Plan</u>	<u>TOTAL</u>
PERSONNEL SERVICES				
Employee Benefits	\$ 1,010,845	\$ 404,570	\$ 139,321	\$ 1,554,736
Salaries and Wages	2,650,329	1,060,742	365,286	4,076,357
Training	16,810	6,728	2,317	25,855
TOTAL PERSONNEL SERVICES	<u>3,677,984</u>	<u>1,472,040</u>	<u>506,924</u>	<u>5,656,948</u>
PROFESSIONAL SERVICES				
Accounting	616,667	246,808	84,993	948,468
Actuarial Services	44,963	17,995	6,197	69,155
Information Systems	4,801,088	1,921,539	661,718	7,384,345
Legal Services	433,919	173,667	59,806	667,392
Management Services	279,166	111,731	38,477	429,374
Medical Services	110,690	44,302	15,256	170,248
Plan Administration and Outreach Services	2,237,713	895,600	308,417	3,441,730
Treasurer Office, Internal Audit, HR	930,858	372,557	128,297	1,431,712
TOTAL PROFESSIONAL SERVICES	<u>9,455,064</u>	<u>3,784,199</u>	<u>1,303,161</u>	<u>14,542,424</u>
COMMUNICATION				
Postage	243,627	97,507	33,579	374,713
Printing	97,860	39,166	13,488	150,514
Telephone	33,704	13,490	4,645	51,839
Travel	14,002	5,604	1,930	21,536
TOTAL COMMUNICATION	<u>389,193</u>	<u>155,767</u>	<u>53,642</u>	<u>598,602</u>
OPERATING EXPENSES				
Amortization of Intangible Assets	2,135,059	854,515	294,268	3,283,842
Office Space	76,969	30,805	10,608	118,382
Supplies and Maintenance	5,860	2,345	808	9,013
Utilities and Fuel	10	4	2	16
TOTAL OPERATING EXPENSES	<u>2,217,898</u>	<u>887,669</u>	<u>305,686</u>	<u>3,411,253</u>
MISCELLANEOUS				
Other Services and Charges	530,194	212,199	73,075	815,468
TOTAL MISCELLANEOUS	<u>530,194</u>	<u>212,199</u>	<u>73,075</u>	<u>815,468</u>
TOTAL ADMINISTRATIVE EXPENSES	<u>\$ 16,270,333</u>	<u>\$ 6,511,874</u>	<u>\$ 2,242,488</u>	<u>\$ 25,024,695</u>



SCHEDULE OF INVESTMENT EXPENSES
FOR THE YEAR ENDED JUNE 30, 2023



The Tennessee Consolidated Retirement System (TCRS) is a participant in the Tennessee Retiree Group Trust (TRGT) and owns 99% of the net asset value. All TRGT participants share equally in the gains, losses, and expenses of the trust. All participants are charged an annual investment expense of 13 basis points (0.13%) and this amount is deducted from the net asset value (NAV) of TRGT daily. For financial statement purposes, plan administrative expenses, actual and accrued, are totaled and evaluated against the fee collected. Any amount in excess or a deficiency is rebated to/charged to plan participants based on their date of participation in that fiscal year. The expenses reflected in this schedule reflect all plan investment expenses for TRGT.

Personnel Services		
	Employee Benefits	\$ 2,198,260
	Salaries and Wages	7,828,867
	Training	41,045
	Total Personnel Services:	<u>10,068,172</u>
Professional Services		
	Accounting	753,947
	Information Systems	253,111
	Investment Administration and Outreach Services	41,084
	Legal Services	740,112
	Management Services	165,063
	Treasurer Office, Internal Audit, HR	903,843
	Total Professional Services:	<u>2,857,160</u>
Operating Expenses		
	Communication	166,089
	Office Space	71,927
	Supplies and Maintenance	11,696
	Utilities and Fuel	3,955
	Other Services and Charges	6,737
	Total Operating Expenses:	<u>260,404</u>
Investment Fees		
	Alternative Asset Fees	92,908
	External Investment Manager Fees	34,238,719
	Investment Consulting Fees	1,241,254
	Investment Custodian Fees	1,691,699
	Legal Fees	278,509
	Real Estate Manager Fees	3,230,951
	Other Investment Professional Fees	9,984,219
	Total Investment Fees Charged:	<u>50,758,259</u>
Total Investment Expenses of TRGT		<u>\$ 63,943,995</u>
	Investment Expense Charged to Other TRGT Participants	(632,759)
Total Investment Expenses of TCRS		<u>\$ 63,311,236</u>



**SCHEDULE OF EXPENSES FOR CONSULTANTS
FOR THE YEAR ENDED JUNE 30, 2023**



**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
SCHEDULE OF EXPENSES FOR CONSULTANTS
For the Year Ended June 30, 2023**

	<u>Public Employee Retirement Plan</u>	<u>Teacher Legacy Pension Plan</u>	<u>Teacher Retirement Plan</u>	<u>TOTAL</u>
ACTUARIAL SERVICES				
Findley Inc	\$ 44,963	\$ 17,995	\$ 6,197	\$ 69,155
TOTAL ACTUARIAL SERVICES	44,963	17,995	6,197	69,155
CALL CENTER SERVICES				
Empower	1,113,046	445,475	153,408	1,711,929
TOTAL CALL CENTER SERVICES	1,113,046	445,475	153,408	1,711,929
INFORMATION SYSTEMS SERVICES				
Deloitte Consulting LLP	677,530	271,167	93,382	1,042,079
TOTAL INFORMATION SYSTEMS SERVICES	677,530	271,167	93,382	1,042,079
LEGAL SERVICES				
Ice Miller	33,435	13,382	4,608	51,425
Williams & Jensen PLLC	32,866	13,154	4,530	50,550
TOTAL LEGAL SERVICES	66,301	26,536	9,138	101,975
MEDICAL REVIEW SERVICES				
University of Massachusetts Worcester	110,690	44,302	15,256	170,248
TOTAL MEDICAL REVIEW SERVICES	110,690	44,302	15,256	170,248
PLAN ADMINISTRATIVE SERVICES				
Missouri Department of Health & Senior Service	171	68	23	262
PBI Research Services	64,692	25,892	8,916	99,500
University of Tennessee	28,607	11,450	3,943	44,000
USI Consulting Group	410,439	164,270	56,570	631,279
TOTAL PLAN ADMINISTRATIVE SERVICES	503,909	201,680	69,452	775,041
OTHER SERVICES				
Background Online	58	23	8	89
TOTAL OTHER SERVICES	58	23	8	89
TOTAL EXPENSES FOR CONSULTANTS	\$ 2,516,497	\$ 1,007,178	\$ 346,841	\$ 3,870,516

Note: For information regarding fees paid to investment professionals, refer to the Investment Section of this report.



Investment Section

Report by Investment Consultant

Letter from TCRS Chief Investment Officer

Statutory Investment Authority

Investment Performance Review

Asset Allocation

Largest Holdings

Investment Summary

Schedules of Investment Fees and Commissions





October 30, 2023

Mr. Jamie Wayman
 Director
 Tennessee Consolidated Retirement System
 Andrew Jackson Building
 Nashville, TN 37243-0230

Re: 2023 Annual Comprehensive Financial Report Performance Letter

Dear Mr. Wayman:

TCRS generated a return of 6.66% for the fiscal year ended June 30, 2023, underperforming its policy index return of 8.57%. Risk assets delivered strong returns in the first half of 2023, building off the positive momentum seen towards the end of 2022. Fiscal year performance was positive across all public equity markets, while fixed income, real estate and private equity posted negative returns. Economic growth proved to be resilient, despite the discontinuation of the large amount of pandemic-related stimulus and a sharp rise in interest rates. Earlier in the year many economists had forecast a U.S. recession in mid-to-late summer (especially after a series of regional bank failures, notably Silicon Valley Bank and First Republic); however, sentiment eased considerably as the prospect of a “soft-landing” gained traction. Falling headline inflation, resilient labor market data, and the first rate pause from the Federal Reserve all contributed to a more positive macroeconomic outlook.

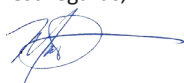
TCRS ranked in the 75th percentile of its peer group (Investment Metric’s Public DB >\$1 billion) for the fiscal year. The System’s higher allocation to illiquid asset classes such as Private Equity, Real Estate, and Strategic Lending versus traditional asset classes (Domestic Equity and International Equity) contributed to the third quartile peer group ranking. This was a reversal from the previous fiscal year, where illiquid asset classes contributed positively to relative performance.

As of June 30, 2023, the Plan’s asset allocation and one-year respective returns were:

Asset Class	% of Assets	One Year Returns
Domestic Equity	28.6%	18.79%
Canada	1.6%	6.63%
International Developed	11.6%	19.47%
International Emerging Markets	3.4%	11.52%
Domestic Fixed Income	17.8%	-2.75%
Real Estate	11.7%	-4.07%
Private Equity	13.4%	-3.42%
Strategic Lending	11.1%	8.14%
Cash and Cash Equivalents	0.8%	2.74%
Total	100%	6.66%

During this fiscal year, public equities contributed strongly to absolute performance with significant alpha contributions from International Equity managers.

Best regards,



Mark Brubaker, CFA
 Managing Director



DAVID H. LILLARD, JR.
STATE TREASURER

STATE OF TENNESSEE

MARY JO PRICE
CHIEF OPERATING OFFICER

MICHAEL BRAKEBILL
CHIEF INVESTMENT OFFICER



JAMIE WAYMAN
DIRECTOR OF TCRS

TREASURY DEPARTMENT
STATE CAPITOL
NASHVILLE, TENNESSEE 37243-0225

December 13, 2023

Dear Members,

I am pleased to present the Investment Section of the TCRS Comprehensive Annual Financial Report for the fiscal year ending June 30, 2023.

The Tennessee Retiree Group Trust (TRGT) contained \$65.1 billion in assets as of June 30, 2023. Assets for the TCRS are comingled in the TRGT for investment purposes and TCRS represents \$64.5 billion, or 99%, of the TRGT.

TRGT assets are invested to preserve principal value, to achieve a superior rate of return within acceptable risk levels and to provide the liquidity necessary to pay beneficiaries in a timely manner. The portfolio is diversified among domestic and international stocks and bonds, real estate, private equity and short-term securities. A diversified portfolio is used to manage risk and to minimize significant exposure to unpredictable events. Staff consults with the TRGT general investment consultant periodically to determine the optimal, long-term mix of assets to best meet the plan's investment objectives. The investment performance for TCRS was computed using a fair value based, time-weighted rate of return and is based on it being a sub-component of the TRGT.

The TRGT posted a return of 6.66% for the fiscal year with an annualized gain of 8.08% for the trailing ten-year period. Performance for the year was satisfying given the shock of rapid rises in short-term interest rates as the Federal Reserve maneuvered to dampen inflation. The ten-year return exceeded the actuarial required return and the portfolio was managed in a manner to protect capital in an adverse environment.

The experienced investment staff of the Tennessee Treasury is committed to providing superior investment returns in a financially-sound manner with the highest ethical and professional standards. With the leadership of our Board, our Treasurer and our dedicated staff, this goal will be met.

Sincerely,

Michael Brakebill
Chief Investment Officer



Statutory Investment Authority

The investment authority for the Board of Trustees of TCRS is set out in Tennessee Code Annotated, Section 8-37-104. Pursuant to this authority and the investment terms, conditions and limitations outlined therein, the Board of Trustees approves the TCRS’ investment policy. The Board approved TCRS’ revised and restated investment policy on March 26, 2021. The policy became effective July 1, 2021.

The Tennessee Retiree Group Trust (TRGT) was established in 2015 by a statutory enactment of the Tennessee General Assembly. The provisions of the TRGT are codified in *Tennessee Code Annotated* (TCA) Title 8, Chapters 34-37. Pursuant to this statute the Tennessee Consolidated Retirement System (TCRS) and its Board of Trustees with the State Treasurer (Treasurer) as custodian, authorized by TCA 8-37-104 adopted this group trust for the purpose of pooling funds of TCRS with other assets in the custody of the Treasurer, solely for investment purposes. The Custodian shall be responsible for the managing and directing the investment of the Group Trust Funds in accordance with the investment policies of the TCRS.

TCRS’ primary investment objective, as set by the Board, is to establish a stable, diversified investment portfolio that, in the long-term, will meet or exceed the assumed actuarial rate of return, as adopted by the Board, in order to provide sufficient liquidity to pay beneficiaries in a timely manner.

TCRS’ policies and the strategies implemented by the Treasury Investment Division staff serve to benefit plan members in several ways. The emphasis on a conservative asset allocation and high quality securities helps to ensure the soundness of the system and the ability to provide the needed funds upon a member’s retirement.

Funds in the retirement system are actively managed, primarily by the Treasury Investment Division, through a diversified portfolio of high-quality domestic and international bonds, domestic and international stocks, real estate, private equity, and short-term instruments. Pursuant to *Tennessee Code Annotated*, Section 8-37-114, the Treasury Investment Division engages outside investment managers. In those instances, the Investment Division endeavors to use emerging investment managers to the greatest extent feasible within the bounds of financial and

fiduciary prudence, as prescribed under *Tennessee Code Annotated*, Section 8-37-113. During fiscal year 2022-2023, no assets were under the control of emerging investment managers.

To assist in the fiduciary responsibility for managing the TRGT portfolio during fiscal year 2023, Verus served as the general investment consultant for TRGT. The Townsend Group served as the real estate investment consultant and Aksia served as the private equity consultant.

State Street Bank and Trust Company was the master bank custodian for TRGT, providing safekeeping and accounting services for the investment portfolio during fiscal year 2023.

Cost of Investment Operation

The cost to operate the investment program for TRGT is about thirteen basis points (0.13%). This cost includes the cost of personnel, operational cost, master bank custodian cost, record keeping, and external manager fees. Commission costs for publicly listed securities and management fees for private equity investments are capitalized, meaning commission costs and management fees are not included in the expenses, but are recorded in the value of the assets. Recent peer comparisons of investment management fees and expenses indicate the investment program is managed very cost effectively.

Performance Measurement

Verus provided performance measurement for the TRGT, which delivered a return of 6.66% during the fiscal year. Public equity markets rebounded strongly in the second half of the fiscal year, driven by a prevailing “soft-landing” narrative that bolstered the positive market sentiment. At the same time, valuations in private equity and real estate began to adjust to lingering concerns in the public markets. TRGT’s International Developed Markets Portfolio realized a 19.47% return, followed by Equity U.S. Equity portfolio delivering 18.79%, and Emerging Markets posting a positive 11.52%. Strategic Lending was a bright spot in the alternative asset space, gaining 8.14%. Real Estate and Private Equity posted returns of -4.07% and -3.42%, respectively. The Fixed Income portfolio also remained under pressure throughout the year, losing -2.75% in fair value.



TRGT INVESTMENT PERFORMANCE REVIEW

Updated from Verus Report for Period Ending June 30, 2023

	Annualized Returns		
	Current Year	3-Year	5-Year
Pension Plan Portfolio	6.66%	8.89%	7.82%
Policy Index (1)	8.57%	8.21%	7.53%
As-Allocated Index	7.79%	8.19%	7.42%
Domestic Equity	18.79%	14.07%	10.95%
S&P 1500 Index	19.24%	14.67%	11.83%
Canadian Equity	6.63%	13.78%	8.02%
S&P TSX 60 Index	6.91%	13.73%	8.00%
Domestic Fixed Income	-2.75%	-6.28%	0.60%
FTSE LPF Index	-2.46%	-6.77%	0.46%
International Developed Equity	19.47%	9.88%	5.32%
International Developed Equity Index	17.51%	8.44%	3.93%
International Emerging Mkts Equity	11.52%	10.59%	4.51%
International Emerging Mkts Custom Index	12.62%	10.71%	4.82%
Real Estate	-4.07%	12.56%	9.72%
NCREIF ODCE Index	-3.09%	8.40%	7.45%
Private Equity	-3.42%	26.01%	20.59%
Private Equity Custom Index	-3.97%	24.96%	14.41%
Strategic Lending Portfolio	8.14%	9.75%	7.01%
SL Benchmark	9.65%	4.65%	3.72%

Verus

Ranking of TCRS Portfolio	Percentile Rankings	Risk Adjusted Basis
Last three years	39	41
Last five years	11	19

The percentile ranking is the position of the TRGT portfolio as compared with other public funds with one being the best and 100 being the worst. The investment performance for TRGT was computed using a market, time weighted rate of return by an independent consultant.

(1) Effective 10/1/21, Policy Index is 31% S&P 1500/ 2% S&P TSX 60/ 12% MSCI EAFE IMI net/ 4% MSCI Emerging Markets net -0.50%/ 20% FTSE LPF/ 10% NCREIF 1Q Lag/ 10% Cambridge custom/ 10% Strategic Lending/ 1% FTSE T-Bill 1 Month.



TRGT ASSET ALLOCATION

As of June 30, 2023

Asset Class	Fair Value	Percentage
Domestic Equity	\$ 18,104,525,375	28%
Domestic Fixed Income	13,742,163,300	21%
International Equity	8,044,212,666	13%
International Private Equities & Strategic Lending	1,360,054,067	2%
International Fixed Income	34,383,286	0%
Short-Term Securities	2,693,443,730	4%
Real Estate	7,175,971,591	11%
Private Equities & Strategic Lending	13,783,376,380	21%
Totals	\$ 64,938,130,395	100%

This table describes the asset allocation of the entire TRGT investment portfolio. TCRS is commingled with the TRGT portfolio and owns 99% of the net asset value in TRGT.

This schedule classifies Canadian investments as domestic securities, convertible bonds as fixed income securities, and preferred stock as fixed income securities. For investment purposes, convertible bonds and preferred stock are considered equity securities. Accordingly, the asset allocation percentages in this schedule will vary from the investment consultant's asset allocation percentages.

**TRGT LARGEST STOCK HOLDINGS***As of June 30, 2023**by Fair Value*

Shares	Security Name	Fair Value
6,316,499	APPLE INC	\$ 1,225,211,311
3,117,329	MICROSOFT CORP	1,061,575,218
4,856,569	ALPHABET INC CL C	585,073,278
3,920,490	AMAZON.COM INC	511,075,076
982,528	NVIDIA CORP	415,628,995
1,120,008	TESLA INC	293,184,494
982,703	META PLATFORMS INC CLASS A	282,016,107
1,531,296	JPMORGAN CHASE + CO	222,711,690
606,742	BERKSHIRE HATHAWAY INC CL B	206,899,022
851,561	VISA INC CLASS A SHARES	202,228,706

TRGT LARGEST BOND HOLDINGS*As of June 30, 2023**by Fair Value*

Par Value	Security Name	Yield	Maturity	Moody's Rating	Fair Value
\$ 584,750,000	US TREASURY N/B	4.08%	2/15/2041	Aaa	\$ 424,674,688
317,650,000	FED HOME LN DISCOUNT NT	4.84%	7/3/2023	Aaa	317,606,800
291,500,000	US TREASURY N/B	3.90%	5/15/2050	Aaa	163,877,656
190,336,000	US TREASURY N/B	4.08%	2/15/2046	Aaa	146,439,760
222,500,000	US TREASURY N/B	3.90%	8/15/2050	Aaa	129,258,594
178,300,000	US TREASURY N/B	4.10%	8/15/2041	Aaa	125,255,750
188,194,000	US TREASURY N/B	4.04%	8/15/2040	Aaa	121,032,266
117,766,000	US TREASURY N/B	3.87%	2/15/2053	Aaa	113,036,959
170,500,000	US TREASURY N/B	3.90%	11/15/2050	Aaa	105,869,844
124,000,000	US TREASURY N/B	4.04%	8/15/2047	Aaa	99,703,750

A complete portfolio listing is available upon request.

Key to Ratings: All ratings presented are from Moody's Investors Service with the exception of some of the government agency securities. Moody's does not rate these securities. Standard & Poor's does provide rating for the securities (AAA is Standard & Poor's highest rating). Government Securities are not rated per se' but are considered the best quality securities.

Moody's rates securities as follows:

Aaa	Best Quality
Aa	High Quality
A	Upper Medium Quality
Baa	Medium Quality
NR	Not Rated



TRGT INVESTMENT SUMMARY

June 30, 2023

	Domestic		International		Total	
	Fair Value	%	Fair Value	%	Fair Value	%
Fixed Income						
Government Bonds	\$ 4,038,677,383	6.22%	\$	0.00%	\$ 4,038,677,383	6.22%
Corporate Bonds	4,206,685,471	6.48%		0.00%	4,206,685,471	6.48%
Municipal/Provincial Bonds	23,258,838	0.03%		0.00%	23,258,838	0.03%
Total Bonds	8,268,621,692	12.73%	0	0.00%	8,268,621,692	12.73%
Corporate Asset Backed	930,574,890	1.43%		0.00%	930,574,890	1.43%
Commercial Mortgage Backed	262,983,713	0.40%		0.00%	262,983,713	0.40%
Government Agencies	406,303,082	0.63%		0.00%	406,303,082	0.63%
Government Mortgage Backed Securites	3,714,522,238	5.72%		0.00%	3,714,522,238	5.72%
Government Asset Backed	71,085,720	0.11%		0.00%	71,085,720	0.11%
Preferred Stock	88,071,965	0.14%	34,383,286	0.05%	122,455,251	0.19%
Total Fixed Income	13,742,163,300	21.16%	34,383,286	0.05%	13,776,546,586	21.21%
Common Stock						
Consumer Discretionary	1,880,877,763	2.90%	989,642,780	1.52%	2,870,520,543	4.42%
Consumer Staples	1,102,056,035	1.70%	681,344,624	1.05%	1,783,400,659	2.75%
Energy	761,319,003	1.17%	395,751,573	0.61%	1,157,070,576	1.78%
Financials	2,231,954,532	3.44%	1,380,945,997	2.13%	3,612,900,529	5.56%
Healthcare	2,386,030,790	3.67%	1,050,906,512	1.62%	3,436,937,302	5.29%
Industrials	1,852,582,391	2.85%	1,596,875,455	2.46%	3,449,457,846	5.31%
Information Technology	4,588,524,245	7.07%	826,962,787	1.27%	5,415,487,032	8.34%
Materials	553,011,110	0.85%	587,058,300	0.91%	1,140,069,410	1.76%
Private Placements	62,336	0.00%	14,041,873	0.02%	14,104,209	0.02%
Real Estate	17,385,985	0.03%	38,889,498	0.06%	56,275,483	0.09%
Telecommunication Services	1,324,572,062	2.04%	243,795,967	0.38%	1,568,368,029	2.42%
Utilities	411,643,213	0.63%	189,489,025	0.29%	601,132,238	0.93%
Corporate Equities	951,679,566	1.47%	45,600,958	0.07%	997,280,524	1.54%
Depository Receipts	42,826,344	0.06%	2,852,651	0.00%	45,678,995	0.06%
Rights/Warrants	0	0.00%	54,666	0.00%	54,666	0.00%
Total Common Stock	18,104,525,375	27.88%	8,044,212,666	12.39%	26,148,738,041	40.27%

(continued)



TRGT INVESTMENT SUMMARY (CONTINUED)

June 30, 2023

	Domestic		International		Total	
	Fair Value	%	Fair Value	%	Fair Value	%
Short Term Investments						
Pooled Funds and Mutual Funds	2,693,443,730	4.15%		0.00%	2,693,443,730	4.15%
Total Short Term Investments	2,693,443,730	4.15%		0.00%	2,693,443,730	4.15%
Real Estate	7,175,971,591	11.05%		0.00%	7,175,971,591	11.05%
Private Equities & Strategic Lending	13,783,376,380	21.23%	1,360,054,067	2.09%	15,143,430,447	23.32%
Total Investments	55,499,480,376	85.47%	9,438,650,019	14.53%	64,938,130,395	100.00%
Derivatives & Options					777,392	
Short Term Investments Classified as Cash Equivalents	(725,692,637)				(725,692,637)	
Total Investments of the Tennessee Retiree Group Trust	<u>\$ 54,774,565,131</u>		<u>\$ 9,438,650,019</u>		<u>\$ 64,213,215,150</u>	

This schedule classifies Canadian investments as domestic securities, convertible bonds as fixed income securities, and preferred stock as fixed income securities. For investment purposes, convertible bonds and preferred stock are considered equity securities. Accordingly, the asset allocation percentages in this schedule will vary from the investment consultant's asset allocation percentages.



TRGT SCHEDULE OF FEES

	Average Assets Under Management	Fees
Asset Management		
External Investment Manager Fees	\$ 7.9 Billion	\$ 33,330,150
Real Estate Asset Management	7.2 Billion	10,773,845
Private Equities & Strategic Lending Asset Management	15.1 Billion	77,780
Total Asset Management		<u>\$ 44,181,775</u>
Other Investment Services Fees		
Custodian Bank	\$ 64.2 Billion	\$ 1,886,167
General Investment Consultant	64.2 Billion	431,064
Real Estate Investment Consultant	7.2 Billion	343,750
Private Equities & Strategic Lending Investment Consultant	15.1 Billion	914,580
Total Investment Services Fees		<u>\$ 3,575,561</u>

(continued)



SCHEDULES OF INVESTMENT FEES AND COMMISSIONS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



TRGT SCHEDULES OF COMMISSIONS

Domestic Exchange Traded Shares

Broker Name	DOMESTIC		
	Number of Shares Traded	Total Commissions	Commission per Share
Instinet	38,215,236	\$ 764,294	0.0200
Jane Street Equities	40,921,044	306,908	0.0075
JP Morgan Chase & Company	3,129,946	62,599	0.0200
OTHER BROKERS*	57,316,765	970,729	0.0169
TOTALS	139,582,991	\$ 2,104,530	

Program Trades where total commission cost includes trading commission, liquidity fees, and market impact fees.

Broker Name	DOMESTIC		
	Number of Shares Traded	Total Commissions	Commission per Share
Merrill Lynch/Bank of America	17,171,763	\$ 368,083	0.0214
Goldman Sachs Group	19,642,010	147,316	0.0075
UBS Securities, LLC	17,807,487	133,559	0.0075
Credit Suisse	5,135,892	102,718	0.0200
Morgan Stanley & Company	6,735,479	50,517	0.0075
OTHER BROKERS*	67,364,039	644,269	0.0089
TOTALS	133,856,670	\$ 1,446,462	

*LESS THAN \$100,000 TOTAL COMMISSION PER BROKERAGE FIRM

(continued)



SCHEDULES OF INVESTMENT FEES AND COMMISSIONS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



International Exchange Traded Shares

Broker Name	INTERNATIONAL		
	Number of Shares Traded	Total Commissions	Commission per Share
Instinet	60,694,621	\$ 823,531	0.0136
Goldman Sachs Group	127,821,762	813,695	0.0064
Morgan Stanley & Company, Inc	79,155,237	318,226	0.0040
JP Morgan Chase & Company	49,377,030	296,619	0.0060
UBS Securities, LLC	54,674,347	282,460	0.0052
Barclays Capital	14,803,346	246,013	0.0166
Merrill Lynch	38,333,210	229,098	0.0060
Credit Suisse	6,338,207	114,307	0.0180
Sanford C Bernstein, LLC	7,062,058	101,063	0.0143
Citigroup Global	11,846,664	35,085	0.0030
HSBC Bank	10,536,018	7,810	0.0007
OTHER BROKERS*	366,447,403	2,696,233	0.0074
TOTALS	827,089,903	\$ 5,964,140	

Shares for international stocks are based on the actual foreign shares traded while the commission is expressed in U.S. dollars. Therefore, commissions per share between domestic and international are not comparable.

*LESS THAN \$100,000 TOTAL COMMISSION PER BROKERAGE FIRM



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ACTUARIAL VALUATIONS

Actuarial valuations of the TCRS are performed by an independent actuarial consulting firm to assess the funded status of the system and to determine employer contribution rates for its various components. The valuation performed as of June 30, 2021 set employer rates effective July 1, 2022 through June 30, 2023. The June 30, 2022 valuation established contributions rates beginning July 1, 2023. The Board of Trustees of the system is responsible for adopting the employer contribution rates after reviewing the actuarial results.

FUNDING OF PENSIONS

It is the policy of the state to fund pensions by actuarially-determined contributions which are intended to provide funding for both the normal liability cost and the unfunded actuarial accrued liability cost. This policy seeks to ensure that sufficient assets will be available to pay the benefits as promised by the pension plan.

ACCRUED LIABILITY

Unfunded accrued liability is equal to the excess of the Entry Age Normal Past Service Liability over the valuation assets for each group. A tier approach is utilized with new actuarial gains and losses from each actuarial valuation.

SPECIFICS

Valuations are based on demographic data (employees' ages, salaries and service credits), economic projections (salary increases, interest rates and investment earnings) and decrement estimates (mortality and disability rates).

The economic projections and decrement estimates used for valuation purposes utilized the assumptions recommended by the actuary and adopted by the Board of Trustees based on an actuarial experience study conducted every four years. The earnings rate assumption adopted by the Board is subject to the approval of the Council on Pensions.

QUADRENNIAL EXPERIENCE STUDY

A quadrennial experience study was conducted as of June 30, 2020. The system made adjustments to the mortality assumptions to reflect TCRS experience, including an assumption for future mortality improvement. In addition, the system lowered the long-term inflation assumption, which also lowered other economic assumptions such as the discount rate, COLA and salary scale for all groups. Assumptions developed from the June 30, 2020 experience study were used in each actuarial valuation beginning with the June 30, 2021 valuation.

FUNDING POLICY

The TCRS Board of Trustees adopted a funding policy for TCRS on September 26, 2014. The policy outlines the procurement of actuarial services, the assumptions to be used in the experience study, the components of the actuarial valuation, and performance of an actuarial audit. The funding policy can be found in the Reporting and Investment Policies section of the TCRS website at treasury.tn.gov/tcrs.



November 13, 2023

Mr. David H. Lillard, Jr.
Chairman, Board of Trustees
Tennessee Consolidated Retirement System
502 Deaderick Street
Nashville, Tennessee 37243-0201

USI Consulting Group
5301 Virginia Way
Suite 400
Brentwood, TN 37027
www.usicg.com
Tel: 615.665.1640

Re: Actuary's Certification Letter

Dear Mr. Lillard:

The purpose of this letter is to certify the actuarial adequacy of contributions being made by the State of Tennessee, Local Education Agencies and participating Political Subdivisions to the Tennessee Consolidated Retirement System and to discuss the approach currently being taken toward meeting the financing objectives of the Plan.

The most recent actuarial valuation for funding purposes completed as of the year ending June 30, 2023 for the Tennessee Consolidated Retirement System was performed as of June 30, 2022. In addition, a valuation for accounting purposes pursuant to GASB 67 and 68 was performed as of June 30, 2022 and was used to satisfy June 30, 2023 reporting date requirements. These valuations were based on a set of actuarial assumptions (described in detail in the section headed "Summary of Actuarial Assumptions and Methods") which was adopted by the Board of Trustees on the recommendation of the actuary after a study of actual experience under the TCRS during the four-year period ending June 30, 2020. Actuarial valuations are performed annually for both funding and accounting purposes.

The Tennessee Consolidated Retirement System implemented a new hybrid plan design for all new employees hired on or after July 1, 2014. Employees hired prior to this date continue to participate in the legacy plans. The funding and accounting valuations reflect this change and provide separate reporting for each plan. There have been no significant changes in the level of benefits provided by the plans since the date of the preceding valuation.

In performing the 2022 valuations, we relied on employee data and asset information provided by the administrative staff of the Tennessee Consolidated Retirement System. In the case of employee data, each individual record was audited for reasonableness and internal consistency, although the validity of the information was not traced to source documents. With respect to plan assets, a general review for consistency with the information furnished for prior valuations was performed.



Certain tables presented in the Annual Comprehensive Financial Report are derived from the 2022 actuarial valuation reports prepared by USI Consulting Group. The tables were prepared by the staff of the Tennessee Consolidated Retirement System and examined by our firm. These tables include the following –

Financial Section

- Schedules of Changes in Net Pension Liability
- Schedules of Net Pension Liability
- Schedule of Contributions

Actuarial Section

- Summary of Actuarial Assumptions and Methods
- Actuarial Data
- Actuarial Balance Sheet
- Short-Term Solvency Test
- Summary of Accrued and Unfunded Accrued Liabilities
- Selected Actuarial Funding Information
- Analysis of Financial Experience

The Schedule of Retired Member Activity in the Actuarial Data section was prepared by our firm using information gathered from prior actuarial valuations.

The 2022 actuarial valuations were prepared in accordance with accepted actuarial standards, including the overall appropriateness of the assumptions and methods. The assumptions and methods used for funding and accounting purposes meet the parameters set by Actuarial Standards of Practice as promulgated from time to time by the Actuarial Standards Board. The funding valuations were also in accordance with the pension funding policy adopted by the TCRS Board of Trustees. In addition, the 2022 actuarial valuations for accounting purposes were prepared in accordance with the Governmental Accounting Standards Board Statements 67 and 68. I am a Member of the American Academy of Actuaries and a consulting actuary with USI Consulting Group of Brentwood, Tennessee, with experience in performing valuations for public retirement systems and have met the Qualification Standards of the American Academy of Actuaries. All calculations were performed either by me or by other qualified actuaries under my direct supervision.

Based upon the valuation results and the contribution rates adopted by the Board of Trustees, it is our opinion that the Tennessee Consolidated Retirement System continues to fund its liabilities in accordance with standard actuarial principles of advance funding, continuing a program first adopted in 1975.

Sincerely,

Justin C. Thacker, F.S.A.



The following assumptions were adopted by the Board of Trustees for use with actuarial valuations beginning with the July 1, 2021 valuation. The assumptions used are based on the consulting actuary's recommendations resulting from the June 30, 2020 actuarial experience study.

General Actuarial Methods

- **Actuarial Cost Method (Entry Age Normal)** — Unfunded accrued liability tiers by year are being amortized over various periods not to exceed 20 years using the level dollar amortization method in accordance with the funding policy. The amortization period related to local government unfunded accrued liabilities varies by entity.
- **Treatment of Actuarial Gains and Losses** — Under the Entry Age Normal method, a tier approach is utilized with new actuarial gains and losses from each actuarial valuation. Each new tier of unfunded accrued liabilities is amortized over a period in accordance with the TCRS funding policy.
- **Asset Valuation Method** — Assets are valued on a basis which reflects a ten-year moving average of the fair value. The actuarial value of assets must be within 80-120 percent of the fair value of assets.
- **Valuation Data** — The administrative staff of TCRS furnishes the actuary with demographic data relating to the active life members and the retired life members. The fair value of system assets are also provided by retirement system staff. All data is reviewed for reasonableness and consistency from year to year, but is not audited by the actuary.
- **Post-Retirement Adjustments** — Retirement benefits are assumed to increase at the geometric rate of 2.125 percent annually, reflecting the 1997 adoption of compounded cost-of-living adjustments.

Economic Assumptions

- **Investment Return Rate** — 6.75 percent per annum, compounded annually.
- **Employee Salary Increases** — Graded scale that reflects the plan experience pattern of declining escalation rates as participant ages increase. No explicit assumption is made regarding the portion attributable to the effects of inflation on salaries. Active membership is assumed to remain constant. For the legacy pension plan, increase in Social Security Wage Base — 2.75 percent annual increase.

(continued)



Decrement Assumptions

Post-Retirement Mortality—Mortality assumptions utilize the RP-2014 industry standard base table for annuitants adjusted for TCRS experience, with mortality improvements projected six years beyond each actuarial valuation date for the Legacy Plan and projected generationally for the Hybrid Plan.

Pre-Retirement Mortality — Mortality assumptions utilize the RP-2014 industry standard base table for non-annuitants adjusted for TCRS experience, with mortality improvements projected fifteen years beyond each actuarial valuation date for the Legacy Plan and projected generationally for the Hybrid Plan.

Withdrawal Due to Disability — Sample rates of disability based on experience:

Turnover Assumption — Tables for probabilities of separation due to termination of employment are developed utilizing a “two-year select and ultimate” approach.

Male

Age	Teachers	State	Political Subdivisions
Age 30	0.01%	0.07%	0.03%
Age 40	0.08%	0.16%	0.08%
Age 50	0.17%	0.27%	0.38%

Female

Age	Teachers	State	Political Subdivisions
Age 30	0.01%	0.04%	0.03%
Age 40	0.08%	0.14%	0.08%
Age 50	0.17%	0.33%	0.38%

Teachers

	1st Year Employment	2nd Year Employment	Ultimate
Male			
Age 30	16.2%	13.5%	6.0%
Age 40	16.2%	13.5%	2.0%
Age 50	17.8%	14.2%	2.0%
Female			
Age 30	16.2%	13.5%	7.6%
Age 40	16.2%	13.5%	2.3%
Age 50	17.8%	14.2%	1.6%

State

	1st Year Employment	2nd Year Employment	Ultimate
Male			
Age 30	23.0%	18.6%	10.5%
Age 40	18.6%	13.8%	2.8%
Age 50	14.8%	11.1%	2.4%
Female			
Age 30	23.0%	18.6%	11.4%
Age 40	18.6%	13.8%	3.8%
Age 50	14.8%	11.1%	2.6%

Political Subdivisions

	1st Year Employment	2nd Year Employment	Ultimate
Male			
Age 30	21.0%	16.1%	7.4%
Age 40	18.4%	14.3%	3.5%
Age 50	16.3%	11.7%	2.8%
Female			
Age 30	21.0%	16.1%	11.1%
Age 40	18.4%	14.3%	5.4%
Age 50	16.3%	11.7%	3.8%

(continued)



Retirement — The probabilities of retirement for members eligible to retire:

Male			
Age	Teachers	State	Political Subdivisions
Age 60	15.0%	8.5%	10.5%
Age 61	16.0%	11.0%	15.0%
Age 62	22.0%	16.0%	20.0%
Age 63	16.0%	12.0%	17.5%
Age 64	18.0%	14.0%	17.5%
Age 65	35.0%	22.0%	24.0%
Age 70	16.0%	15.5%	18.0%
Age 75	100.0%	100.0%	100.0%

In addition, for members younger than age 60, a loading factor of 12.5 percent for teachers, 9.0 percent for state employees, and 6.5 percent for political subdivision employees is added during the year the member is first eligible for unreduced retirement. After age 60, for those members with 15 or more years of service, a 7.0 percent load is added for teachers and 3.0 percent for state employees and political subdivision employees.

Female			
Age	Teachers	State	Political Subdivisions
Age 60	17.0%	9.0%	11.0%
Age 61	20.0%	12.0%	13.0%
Age 62	26.0%	18.0%	18.0%
Age 63	19.5%	12.0%	16.0%
Age 64	24.0%	14.0%	16.0%
Age 65	37.5%	22.0%	22.0%
Age 70	34.0%	17.0%	19.0%
Age 75	100.0%	100.0%	100.0%



SCHEDULE OF ACTIVE MEMBER VALUATION DATA

	Actuarial Valuation		Annual Payroll In		Average Annual Percentage Increase	
	July 1	Number	Thousands	Average Annual Pay	In Average Pay	
2011	SETHEEPP	135,588	\$ 6,058,348	\$ 44,682		0.24%
	PSPP	79,488	2,354,939	29,626		1.14%
2013	SETHEEPP	132,900	6,236,930	46,929		2.48%
	PSPP	77,064	2,374,948	30,818		1.99%
2015	TLPP	69,125	3,542,059	51,241		0.84%
	TRP	5,524	225,219	40,771		N/A
	PERP	134,426	4,987,326	37,101		1.70%
2016	TLPP	65,458	3,465,946	52,949		3.33%
	TRP	11,079	464,122	41,892		2.75%
	PERP	136,524	5,241,126	38,390		3.47%
2017	TLPP	62,320	3,414,741	54,794		3.48%
	TRP	15,607	674,906	43,244		3.23%
	PERP	139,397	5,566,390	39,932		4.02%
2018	TLPP	59,487	3,460,664	58,175		6.17%
	TRP	19,634	905,280	46,108		6.62%
	PERP	140,238	5,816,152	41,473		3.86%
2019	TLPP	56,294	3,248,210	57,701		-0.81%
	TRP	23,345	1,068,265	45,760		-0.75%
	PERP	142,259	6,045,602	42,497		2.47%
2020	TLPP	53,582	3,219,651	60,088		4.14%
	TRP	26,418	1,251,899	47,388		3.56%
	PERP	143,024	6,287,911	43,964		3.45%
2021	TLPP	50,944	3,171,704	62,259		3.61%
	TRP	29,203	1,431,754	49,028		3.46%
	PERP	142,448	6,360,677	44,653		1.57%
2022	TLPP	48,108	3,154,426	65,570		5.32%
	TRP	32,866	1,697,829	51,659		5.37%
	PERP	142,746	6,765,698	47,397		6.15%

SCHEDULE OF RETIRED MEMBER VALUATION DATA

	Actuarial Valuation		Annual Allowances In		Average Annual Percentage Increase	
	July 1	Number	Thousands	Average Annual Allowances	In Annual Allowances	
2011	SETHEEPP	83,041	\$ 1,457,974	\$ 17,557		2.92%
	PSPP	33,544	241,910	7,212		3.61%
2013	SETHEEPP	90,414	1,682,792	18,612		2.96%
	PSPP	37,157	286,338	7,706		3.37%
2015	TLPP	47,979	1,103,163	22,993		1.30%
	TRP	0	0	0		N/A
	PERP	94,704	1,143,883	12,079		1.60%
2016	TLPP	49,336	1,142,552	23,159		0.72%
	TRP	1	0	0		N/A
	PERP	100,011	1,218,115	12,180		0.84%
2017	TLPP	50,230	1,187,624	23,644		2.09%
	TRP	2	2	797		N/A
	PERP	103,277	1,286,131	12,453		2.24%
2018	TLPP	50,922	1,227,139	24,098		1.92%
	TRP	3	2	801		0.50%
	PERP	106,448	1,353,198	12,712		2.08%

(continued)



ACTUARIAL DATA (CONTINUED)



2019	TLPP	52,400	\$	1,285,073	\$	24,524	1.77%
	TRP	12		22		1,830	128.35%
	PERP	110,655		1,429,232		12,916	1.60%
2020	TLPP	52,913		1,324,475		25,031	2.07%
	TRP	25		53		2,109	15.26%
	PERP	113,475		1,494,962		13,174	2.00%
2021	TLPP	53,785		1,361,929		25,322	1.16%
	TRP	53		115		2,177	3.32%
	PERP	116,559		1,550,549		13,303	0.97%
2022	TLPP	54,730		1,424,399		26,026	2.78%
	TRP	120		319		2,655	21.98%
	PERP	120,438		1,647,136		13,676	2.81%

SCHEDULE OF RETIRED MEMBER ACTIVITY

Actuarial Valuation		Added to Rolls		Removed from Rolls		Rolls - End of Year		Percentage Increase in Annual Allowances	Average Annual Allowances
		No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances		
2011	SETHEEPP	10,090	\$ 233,149	4,359	\$ 56,689	83,041	\$ 1,457,974	13.77%	\$ 17,557
	PSPP	4,955	47,632	1,976	11,048	33,544	241,910	17.82%	7,212
2013	SETHEEPP	12,199	289,437	4,826	64,619	90,414	1,682,792	15.42%	18,612
	PSPP	5,858	56,987	2,245	12,559	37,157	286,338	18.37%	7,706
2015	TLPP	6,582	167,537	2,376	45,115	47,979	1,103,163	12.48%	22,993
	TRP	0	0	0	0	0	0	N/A	N/A
	PERP	15,885	203,829	4,979	48,335	94,704	1,143,883	15.73%	12,079
2016	TLPP	2,305	58,165	948	18,776	49,336	1,142,552	3.57%	23,159
	TRP	1	0	0	0	1	0	N/A	0
	PERP	7,884	100,366	2,577	26,134	100,011	1,218,115	6.49%	12,180
2017	TLPP	2,137	69,114	1,243	24,042	50,230	1,187,624	3.94%	23,644
	TRP	1	1	0	0	2	2	237.95%	797
	PERP	6,538	102,361	3,272	34,345	103,277	1,286,131	5.58%	12,453
2018	TLPP	1,805	62,874	1,113	23,359	50,922	1,227,139	3.33%	24,098
	TRP	1	0	0	0	3	2	50.75%	801
	PERP	6,127	99,291	2,956	32,224	106,448	1,353,198	5.21%	12,712
2019	TLPP	2,671	83,451	1,193	25,517	52,400	1,285,073	4.72%	24,524
	TRP	9	20	0	0	12	22	813.41%	1,830
	PERP	7,458	112,062	3,251	36,028	110,655	1,429,232	5.62%	12,916
2020	TLPP	1,765	66,768	1,252	27,366	52,913	1,324,475	3.07%	25,031
	TRP	13	31	0	0	25	53	140.12%	2,109
	PERP	6,122	103,165	3,302	37,435	113,475	1,494,962	4.60%	13,174
2021	TLPP	2,347	72,087	1,475	34,633	53,785	1,361,929	2.83%	25,322
	TRP	28	62	0	0	53	115	118.84%	2,177
	PERP	7,175	103,205	4,091	47,618	116,559	1,550,549	3.72%	13,303
2022	TLPP	2,394	97,093	1,449	34,623	54,730	1,424,399	4.59%	26,026
	TRP	71	212	4	8	120	319	176.18%	2,655
	PERP	8,121	145,705	4,242	49,118	120,438	1,647,136	6.23%	13,676

SETHEEPPP - State Employees, Teachers, Higher Education Employees Pension Plan
 PSPP - Political Subdivisions Pension Plan

TLPP - Teacher Legacy Pension Plan
 TRP - Teacher Retirement Plan
 PERP - Public Employee Retirement Plan

Legislative changes modified the plans presented beginning July 1, 2014. The July 1, 2015 Actuarial Valuation was the first performed after this change. Note: Timing differences exist between the data utilized for statistical information and that used for actuarial valuation purposes.



ACTUARIAL BALANCE SHEET



ACTUARIAL BALANCE SHEET as of July 1, 2022

	<u>Teacher Legacy Pension Plan</u>	<u>Teacher Retirement Plan</u>	<u>Public Employee Retirement Plan</u>	<u>Total</u>
ASSETS				
Present assets creditable to:				
Employer accumulation fund	\$ 24,569,331,124	\$ 218,834,970	\$ 29,349,626,498	\$ 54,137,792,592
Members' accumulation fund	3,882,928,675	409,264,924	2,076,171,440	6,368,365,039
Total present assets	<u>28,452,259,799</u>	<u>628,099,894</u>	<u>31,425,797,938</u>	<u>60,506,157,631</u>
Present value of prospective contributions payable to:				
Employer accumulation fund				
Normal	1,257,540,740	493,557,480	3,518,018,448	5,269,116,668
Accrued liability	0	38,026,876	1,864,482,908	1,902,509,784
Total employer accumulation	<u>1,257,540,740</u>	<u>531,584,356</u>	<u>5,382,501,356</u>	<u>7,171,626,452</u>
Members' accumulation fund	<u>1,485,554,290</u>	<u>1,220,250,819</u>	<u>1,798,872,477</u>	<u>4,504,677,586</u>
Total prospective contributions	<u>2,743,095,030</u>	<u>1,751,835,175</u>	<u>7,181,373,833</u>	<u>11,676,304,038</u>
TOTAL ASSETS	<u>\$ 31,195,354,829</u>	<u>\$ 2,379,935,069</u>	<u>\$ 38,607,171,771</u>	<u>\$ 72,182,461,669</u>
LIABILITIES				
Present value of prospective benefits payable on account of:				
Present retired members and beneficiaries	\$ 15,841,216,948	\$ 4,514,944	\$ 17,755,111,711	\$ 33,600,843,603
Present active members	14,598,044,492	2,295,399,406	18,176,391,632	35,069,835,530
Former members	756,093,389	80,020,719	2,675,668,428	3,511,782,536
TOTAL LIABILITIES	<u>\$ 31,195,354,829</u>	<u>\$ 2,379,935,069</u>	<u>\$ 38,607,171,771</u>	<u>\$ 72,182,461,669</u>



Short-Term Solvency Test

The financing objective of the Tennessee Consolidated Retirement System is to pay for the benefits provided by the plan through contributions that remain approximately level from year to year as a percentage of payroll, except that the strategy to fund the unfunded accrued liability is to make level-dollar payments over an established amortization period. A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets are compared with: (1) active member contributions on deposit; (2) the liabilities for

future benefits to present retired lives; and (3) the liabilities for service already rendered by active members. In a system that has been following the approach of level percent of payroll financing for some time, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) should be fully covered by present assets. In addition, the liabilities for service already rendered by active members (liability 3) should be partially covered by the remainder of present assets. Generally, if the system has been using level cost financing, the funded portion of liability 3 will increase over time.

Dollar Amounts Expressed in Millions

	Actuarial Valuation July 1	Actuarial Accrued Liabilities for:			Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets		
		(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed)		(1)	(2)	(3)
2013	SETHEEP	\$ 3,759.9	\$ 18,747.4	\$ 11,616.3	\$ 31,851.0	100%	100%	80%
	PSPP	<u>1,196.3</u>	<u>3,075.7</u>	<u>3,517.8</u>	<u>7,398.3</u>	100%	100%	89%
	Total	\$ 4,956.2	\$ 21,823.1	\$ 15,134.1	\$ 39,249.3	100%	100%	82%
2015	TLPP	\$ 3,340.9	\$ 12,534.5	\$ 5,433.7	\$ 21,040.2	100%	100%	95%
	TRP	10.4	0	4.3	15.7	100%	100%	100%
	PERP	<u>1,753.7</u>	<u>12,202.0</u>	<u>9,292.9</u>	<u>21,682.8</u>	100%	100%	83%
	Total	\$ 5,105.0	\$ 24,736.5	\$ 14,730.9	\$ 42,738.7	100%	100%	88%
2016	TLPP	\$ 3,229.3	\$ 12,858.9	\$ 5,728.3	\$ 21,681.8	100%	100%	98%
	TRP	32.6	0	15.0	49.9	100%	100%	100%
	PERP	<u>1,606.6</u>	<u>12,944.2</u>	<u>9,554.9</u>	<u>22,512.8</u>	100%	100%	83%
	Total	\$ 4,868.5	\$ 25,803.1	\$ 15,298.2	\$ 44,244.5	100%	100%	89%
2017	TLPP	\$ 3,351.8	\$ 13,485.7	\$ 6,003.4	\$ 22,330.7	100%	100%	92%
	TRP	66.0	0	32.4	96.1	100%	100%	93%
	PERP	<u>1,640.8</u>	<u>13,940.9</u>	<u>10,231.2</u>	<u>23,379.2</u>	100%	100%	76%
	Total	\$ 5,058.6	\$ 27,426.6	\$ 16,267.0	\$ 45,806.0	100%	100%	82%
2018	TLPP	\$ 3,509.6	\$ 13,754.9	\$ 6,412.1	\$ 23,172.7	100%	100%	92%
	TRP	111.5	0	56.7	159.9	100%	100%	85%
	PERP	<u>1,706.8</u>	<u>14,539.1</u>	<u>10,618.9</u>	<u>24,520.1</u>	100%	100%	78%
	Total	\$ 5,327.9	\$ 28,294.0	\$ 17,087.7	\$ 47,852.7	100%	100%	80%
2019	TLPP	\$ 3,565.1	\$ 14,317.1	\$ 6,123.4	\$ 24,426.8	100%	100%	100%
	TRP	167.6	0.3	76.8	243.6	100%	100%	99%
	PERP	<u>1,793.1</u>	<u>15,281.4</u>	<u>10,740.5</u>	<u>26,092.5</u>	100%	100%	84%
	Total	\$ 5,525.8	\$ 29,598.8	\$ 16,940.7	\$ 50,762.9	100%	100%	92%
2020	TLPP	\$ 3,717.4	\$ 14,552.7	\$ 6,423.8	\$ 25,611.7	100%	100%	100%
	TRP	235.4	0.7	108.0	346.9	100%	100%	100%
	PERP	<u>1,856.0</u>	<u>15,831.9</u>	<u>11,162.4</u>	<u>27,609.7</u>	100%	100%	89%
	Total	\$ 5,808.8	\$ 30,385.3	\$ 17,694.2	\$ 53,568.3	100%	100%	93%
2021	TLPP	\$ 3,805.0	\$ 15,248.4	\$ 7,683.1	\$ 27,063.7	100%	100%	100%
	TRP	315.1	1.6	186.3	476.8	100%	100%	86%
	PERP	<u>1,983.4</u>	<u>16,750.0</u>	<u>12,582.2</u>	<u>29,427.5</u>	100%	100%	85%
	Total	\$ 6,103.5	\$ 32,000.0	\$ 20,451.6	\$ 56,968.0	100%	100%	91%
2022	TLPP	\$ 3,882.9	\$ 15,841.2	\$ 8,035.4	\$ 28,452.3	100%	100%	100%
	TRP	409.3	4.5	252.3	628.1	100%	100%	85%
	PERP	<u>2,076.2</u>	<u>17,755.1</u>	<u>13,459.0</u>	<u>31,425.8</u>	100%	100%	86%
	Total	\$ 6,368.4	\$ 33,600.8	\$ 21,746.7	\$ 60,506.2	100%	100%	94%



SUMMARY OF ACCRUED AND UNFUNDED ACCRUED LIABILITIES



The unfunded accrued liability represents the excess of the accrued actuarial liability over the actuarial value of assets. For funding purposes, the Board of Trustees of TCRS has adopted the entry age normal method.

Under this method, the unfunded accrued liability is being funded by level-dollar contributions. The actuarially-determined contributions are intended to provide funding for both the normal cost and the unfunded actuarial liability cost.

While concern is generally expressed regarding the dollar amount of the unfunded accrued liability, an analysis should also include the method being used to fund this liability as well as a review of this liability expressed as a percentage of active member payroll. The smaller the ratio of unfunded liabilities to the active member payroll, the stronger the system. A review of this ratio over a period of years will give an indication of whether the system is becoming financially stronger or weaker with respect to its unfunded liabilities.

SUMMARY OF ACCRUED AND UNFUNDED ACCRUED LIABILITIES

Dollar Amounts Expressed in Millions

	Actuarial Valuation Jun 30	Actuarial Accrued Liabilities (AAL)	Valuation Assets	Ratio Assets to AAL	Unfunded Actuarial Accrued Liabilities (UAAL)	Active Member Payroll	UAAL as a Percentage of Active Member Payroll			
2013										
SETHEEP	\$	34,123.6	\$	31,851.0	93.34%	\$	2,272.6	\$	6,236.9	36.44%
PSPP	\$	7,789.8	\$	7,398.3	94.97%	\$	391.5	\$	2,375.0	16.49%
2015										
TLPP	\$	21,309.0	\$	21,040.2	98.74%	\$	268.8	\$	3,542.1	7.59%
TRP	\$	14.7	\$	15.7	106.80%	\$	(1.0)	\$	225.2	-0.44%
PERP	\$	23,248.7	\$	21,682.8	93.26%	\$	1,565.9	\$	4,987.3	31.40%
2016										
TLPP	\$	21,816.5	\$	21,681.8	99.38%	\$	134.7	\$	3,465.9	3.89%
TRP	\$	47.6	\$	49.9	104.83%	\$	(2.3)	\$	464.1	-0.50%
PERP	\$	24,105.8	\$	22,512.8	93.39%	\$	1,593.0	\$	5,241.1	30.39%
2017										
TLPP	\$	22,840.9	\$	22,330.7	102.28%	\$	(510.2)	\$	3,414.7	-14.94%
TRP	\$	98.4	\$	96.1	97.66%	\$	2.3	\$	674.9	0.34%
PERP	\$	25,812.9	\$	23,379.2	90.57%	\$	2,433.7	\$	5,566.4	43.72%
2018										
TLPP	\$	23,676.6	\$	23,172.7	97.87%	\$	503.9	\$	3,460.7	14.56%
TRP	\$	168.2	\$	159.9	95.09%	\$	8.3	\$	905.3	0.91%
PERP	\$	26,864.8	\$	24,520.1	91.27%	\$	2,344.7	\$	5,816.2	40.31%
2019										
TLPP	\$	24,005.6	\$	24,426.8	101.75%	\$	(421.1)	\$	3,248.2	-12.97%
TRP	\$	244.7	\$	243.6	99.55%	\$	1.1	\$	1,068.3	0.10%
PERP	\$	27,815.0	\$	26,092.5	93.81%	\$	1,722.5	\$	6,045.6	28.49%
2020										
TLPP	\$	24,693.9	\$	25,611.7	103.72%	\$	(917.8)	\$	3,219.7	-28.51%
TRP	\$	344.2	\$	346.9	100.79%	\$	(2.7)	\$	1,251.9	-0.22%
PERP	\$	28,850.3	\$	27,609.7	95.70%	\$	1,240.6	\$	6,287.9	19.73%
2021										
TLPP	\$	26,736.5	\$	27,063.7	101.22%	\$	(327.2)	\$	3,171.7	-10.32%
TRP	\$	503.0	\$	476.8	94.79%	\$	26.2	\$	1,431.8	1.83%
PERP	\$	31,315.6	\$	29,427.5	93.97%	\$	1,888.0	\$	6,360.7	29.68%
2022										
TLPP	\$	27,759.5	\$	28,452.3	102.50%	\$	(692.7)	\$	3,154.4	-21.96%
TRP	\$	666.1	\$	628.1	94.29%	\$	38.0	\$	1,697.8	2.24%
PERP	\$	33,290.3	\$	31,425.8	94.40%	\$	1,864.5	\$	6,765.7	27.56%



SELECTED ACTUARIAL FUNDING INFORMATION

Actuarial Valuation Year	Earnings Assumptions	Salary Assumptions	Unfunded Liability (Asset)		State Amortization Period
			SETHEEP	PSPP	
2009	7.50%	4.75% (2)	\$ 2,719,767,478	\$ 839,320,076	20
2011	7.50%	4.75% (2)	2,589,446,292	799,102,966	9
2013	7.50%	4.25% (2)	2,272,526,399	391,589,555	13

Actuarial Valuation Year	Earnings Assumptions	Salary Assumptions	Unfunded Liability (Asset)			State Amortization Period
			TLPP	TRP	PERP	
2015	(3) 7.50%	4.25% (2)	\$ 268,857,872	\$ (1,092,784)	\$ 1,565,808,774	14.37 (1)
2016	7.50%	4.25% (2)	134,716,133	(2,323,148)	1,592,928,253	8.46 (1)
2017	7.25%	4.00% (2)	510,205,267	2,307,714	2,433,632,446	13.64 (1)
2018	7.25%	4.00% (2)	503,884,213	8,253,746	2,344,674,537	12.85 (1)
2019	7.25%	4.00% (2)	(421,138,310)	1,094,161	1,722,513,721	9.51 (1)
2020	7.25%	4.00% (2)	(917,817,386)	(2,732,885)	1,240,602,233	7.67 (1)
2021	7.25%	4.00% (2)	(327,206,312)	26,192,546	1,888,026,104	10.01 (1)
2022	6.75%	4.00% (2)	(692,713,941)	38,026,876	1,864,482,908	7.48 (1)

Notes:

(1) At each actuarial valuation, the new tier of unfunded liability is established over a period not to exceed 20 years per the TCRS funding policy. The tier for prior years is amortized over a period not to exceed the remaining period.

(2) Graded scale

(3) The information in this schedule is based upon legislative changes. The legislative changes changed the plans presented beginning July 1, 2014.

**GAIN AND LOSS ANALYSIS, JUNE 30, 2022 VALUATION**

	Consolidated State	Teacher
Contribution Rate	22.03%	8.69%
Effective Employer Contribution Rate Pursuant to 2021 Valuation		
Investment Results	-1.32%	-1.37%
Salary Increases	0.35%	0.31%
New Entrants: Since the Legacy Plan closed to new entrants effective June 30, 2014, there is no impact on the contribution rate for new entrants	0.00%	0.00%
Cost of Living Escalation	0.47%	0.39%
Contribution Rate Change Delay	0.14%	-0.15%
Effect of turnover on total payroll	0.73%	0.03%
Other	-0.19%	-0.18%
Subtotal	0.18%	-0.97%
Additional \$250 million contribution	-1.31%	0.00%
End of prior amortization	0.00%	-3.25%
Re-amortization of unfunded liability	1.20%	2.34%
Effective Employer Contribution Rate Pursuant to 2022 Valuation	22.10%	6.81%

ACTUARIAL VS. RECOMMENDED CONTRIBUTION RATES

The Board adopted the contribution rates as recommended by the actuary.



HISTORY AND ADMINISTRATION

The TCRS was established in 1972 by an Act of the Tennessee General Assembly. Seven existing retirement systems were consolidated to provide retirement, disability and death benefits to state employees, public school teachers, higher education employees and the employees of participating local governments. State laws governing the plan may be found in Chapters 34-37, 39 of Title 8, Tennessee Code Annotated. Amendments to the plan can only be made by legislation enacted by the General Assembly of the State of Tennessee.

A 20-member Board of Trustees has the responsibility to manage and oversee the operation of the consolidated system. The Board consists of nine ex-officio members from the executive, legislative and judicial branches of state government, nine representatives of the active TCRS membership and two representatives for retirees. Employee representation consists of three teachers, one from each grand division of the state; two state employees from departments other than those represented by ex-officio members; three representatives of local governments; one public safety officer; one retired state employee representative; and one retired teacher representative. Local government representatives are appointed for two-year terms by each of the following organizations: the Tennessee County Services Association, the Tennessee Municipal League and the Tennessee County Officials Association. All employee representatives must be vested members of TCRS.

TCRS is administered by the Treasury Department under the legislative branch of state government. By state law, the State Treasurer serves as chairman of the Board of Trustees and as custodian of the funds of the system. The Director of the retirement system is appointed by the Treasurer and serves as the chief administrative officer of the plan.

The state is responsible for the pension cost of state employees; pension costs for teachers are the responsibility of the local education agencies

in Tennessee; costs for the participation of local government employees are paid by political subdivisions. Administrative expenses are paid from employers' account balances. The operating budget is funded through fees charged to the employer.

MEMBERSHIP

Membership in the retirement system is a condition of employment for full-time state employees, K-12 teachers, higher education general employees and the employees of participating local governments. Membership is optional for part-time state employees and the part-time employees of political subdivisions which have authorized such coverage.

Interim teachers and part-time teachers have optional membership. The exempt faculty and staff of institutions of higher education may elect participation in either TCRS or an optional retirement program (ORP), a defined contribution plan for higher education faculty.

State employees, higher education employees and K-12 public school teachers hired after June 30, 2014, will participate in a Hybrid Pension Plan for State Employees and Teachers.

CONTRIBUTIONS

TCRS membership became noncontributory on July 1, 1981 for most state employees, teachers in state supported institutions of higher education and teachers employed in the Department of Education. At that time, the contributions, up to 5.0 percent of compensation payable to these employees, were assumed by the state, but this amount continued to be credited to the individual members' accounts from employer funds. State employees hired after July 1, 1981 join TCRS as noncontributory members with no funds credited to their individual accounts. Public school teachers contribute at a rate of 5.0 percent of gross salary. State employees, teachers in state supported institutions of higher education and teachers employed by the Department of Education hired after June 30, 2014, contribute at a rate of 5.0 percent of gross salary.

(continued)



Participating political subdivisions may either adopt noncontributory retirement provisions or require employee contributions, at 2.5 percent or 5.0 percent of salary. The contribution rate for local government employees is 5.0 percent up to the Social Security wage base and 5.5 percent above that base, unless the employing government has authorized a level 5.0 percent rate.

Individual accounts are maintained for all contributory members with interest credited annually at a rate of 5.0 percent. Since TCRS is a defined benefit plan, benefits are based upon the member's average final compensation and years of creditable service. The member's account balance including interest accrued has no bearing on the monthly benefit amount payable at retirement. Account balances plus interest are fully refundable upon termination of service or death.

Contributory members are covered by Section 414(h) of the Internal Revenue Code. Under this provision, retirement contributions are made on a tax-deferred basis, with income tax due only when contributions are returned to members as benefits or refunds. Political subdivisions may adopt the 414(h) provision for their employees.

The state also makes contributions on behalf of higher education faculty members who select membership in the ORP. These contributions are equal to 10 percent of salary up to Social Security wage base and 11 percent of any excess salary.

For ORP participants hired after June 30, 2014, the state contributes 9.0 percent of salary to the ORP. The employee contributes 5.0 percent of gross salary to the ORP.

BENEFITS

General

TCRS provides three valuable benefits to its members: disability, death and service retirement benefits. Disability benefits are available to qualified TCRS members who become totally and permanently disabled before meeting the requirements for service retirement. Two types of disability retirement are available: ordinary and accidental.

To qualify for ordinary disability, a member must have a minimum of five years of TCRS service credit. The ordinary disability benefit is equal to 90 percent of what the member would receive under service retirement. If a disabled retiree has less than 20 years of service credit, the service is projected to normal retirement age (age 60 for legacy plan members or age 65 for hybrid plan members) or 20 years, whichever comes first. When service is projected, the actual and projected service combined cannot exceed 20 years. If the member's actual service credit exceeds 20 years, the benefit is based on actual service only.

There is no minimum service requirement to qualify for an accidental disability benefit. However, the disability must be the result of a job-related accident that occurs without negligence on the part of the member during the performance of duty. For members joining TCRS on or after July 1, 1997, accidental disability benefits are determined in the same manner as ordinary disability using the projection of service method. Disability benefits are increased by 5.0 percent for state employees, teachers and employees of participating political subdivisions which have authorized the 5.0 percent benefit improvement. The accidental benefit is adjusted if the member's combined benefits from Social Security and/or workers' compensation exceed 75 percent of his AFC.

(continued)



One of several death benefits may be payable to the designated beneficiary of an active member who dies prior to retirement. The type of death benefit payable will be determined by whether or not death occurred while in service, who is named as beneficiary and the member's length of service.

A member may designate one or more persons, his estate, an institution or any combination of such as his beneficiary. However, estates and institutions are only eligible for a lump-sum refund of the member's accumulated contributions and interest unless one of the beneficiaries named is the surviving spouse. Other death benefits offered by TCRS include a 100 percent Joint and Surviving Spouse Annuity for certain vested members, a 100 percent Joint and Survivor Annuity for any beneficiary under certain conditions and a Line-of-Duty Benefit. Any beneficiary of a member who had ten years of service and who is eligible for a lump-sum death benefit may elect a benefit to be paid over ten years.

Legacy Plan for Members Before July 1, 2014

All members hired prior to July 1, 2014, with the exception of state judges, joining TCRS after 1976 entered the same membership group. The benefit formula for this group provides 1.5 percent of AFC computed over five years for each year of service credit. If a member's AFC exceeds the Social Security integration level (SSIL) applicable at retirement, the formula provides an additional .25 percent of the amount of the excess for each service year. These benefits are increased by 5.0 percent for state employees, teachers and employees of participating political subdivisions which have authorized the 5.0 percent benefit improvement. State judges joining TCRS after September 1, 1990 become Group IV members. The benefit formula for Group IV members is 2.5 percent of AFC computed over five years for each year of service credit.

Members become eligible for regular service retirement at age 60 if vested or at any age with 30 years of service. Vested members are eligible for reduced early retirement benefits when they have reached age 55 or have completed 25 years of service. Members joining TCRS after June 30, 1979 attain vesting rights after five years of service; the vesting period for members who joined prior to July 1, 1979 is four years. Five-year vesting and 25-year retirement are benefits that are optional to local governments. Otherwise, vesting for local governments is ten years of service.

Hybrid Plan for Members After June 30, 2014

State employees, higher education employees and K-12 teachers, with the exception of state judges, the State Attorney General, elected District Attorneys General, and elected Public Defenders, becoming members after June 30, 2014, enter the same membership group. The benefit formula for this group provides 1.0 percent of AFC computed over five years for each year of service credit. The benefit formula for State judges, the State Attorney General, elected District Attorneys General, and elected Public Defenders provides 1.6 percent of AFC computed over five years for each year of service credit. Local governments have the option to join the State and Teacher Hybrid Retirement Plan. The hybrid plan also has a defined contribution component.

Members become eligible for regular service retirement at age 65 if vested or the Rule of 90. The Rule of 90 refers to a combination of age and service that total 90. Vested members are eligible for reduced early retirement benefits at age 60 if vested or the Rule of 80. Members attain vesting rights after five years of service.



SERVICES FOR ACTIVE MEMBERS

TCRS provides a number of services for active members through its various sections. Member self-service is available at mytcrs.com. Detailed member information, salary and service history, and the ability to apply for retirement benefits is available on the secured portal.

Outreach

- TCRS contracts with Empower Retirement Services to conduct employee presentations on all aspects of the retirement system.
- Employer seminars are conducted annually to educate payroll officers on legislation affecting TCRS and inform them of the employer contribution rates effective for the next fiscal year.

Membership

- Comprehensive membership statements are provided to all members annually at mytcrs.com.
- Welcome packets are mailed to all new members.
- Membership guides are available to members on the TCRS website.
- Member self-service can be accessed at mytcrs.com in order to update contact and beneficiary information.

Prior Service

- An automated calculation and eligibility system generates billings for members who wish to establish prior service.
- An installment program is available to purchase certain types of prior service.
- Prior Service may be purchased with a rollover from a tax-deferred 401(a) plan, 401(k) plan, 403(b) plan, 457 plan or a traditional or Roth IRA.

Benefits

- RetireReady TN website - TCRS and Deferred Compensation Information
- Customer Service Call Center
- Counseling Services - Retirement Counselors available to meet in all regions of the state

SERVICES FOR RETIRED MEMBERS

A number of services are made available to TCRS retirees.

- Retiree identification cards
- Semiannual retiree newsletter: The Retiree Advisor
- Direct deposit or debit card payments
- Deduction of medical insurance
- Deduction of dental insurance
- Deduction of Medicare supplement coverage
- Income tax information
- Certification of monthly benefits
- Certification of student discounts
- Retiree self-service at mytcrs.com allows a member to update account information, view and change direct deposit and tax withholding information, and a number of other easy actions.

SERVICES FOR EMPLOYERS

- Accounting entries, notes, and required supplementary information regarding pensions to comply with GASB Standard 68 are available online at publicreports.treasury.tn.gov.
- Actuarial Report
- Employer education regarding reporting and participation in TCRS.



TCRS Legacy Plan and Social Security Benefits

for Calendar Year 2023

Five-Year AFC*	Projected Annual Retirement Income	15 Years Service	% of AFC	20 Years Service	% of AFC	25 Years Service	% of AFC	30 Years Service	% of AFC	35 Years Service	% of AFC
\$30,000	TCRS	\$ 7,088		\$ 9,450		\$ 11,813		\$ 14,175		\$ 16,538	
	Social Security	<u>16,044</u>		<u>16,044</u>		<u>16,044</u>		<u>16,044</u>		<u>16,044</u>	
	Total	\$ 23,132	77.1%	\$ 25,494	85.0%	\$ 27,857	92.9%	\$ 30,219	100.7%	\$ 32,582	108.6%
\$40,000	TCRS	\$ 9,450		\$ 12,600		\$ 15,750		\$ 18,900		\$ 22,050	
	Social Security	<u>19,092</u>		<u>19,092</u>		<u>19,092</u>		<u>19,092</u>		<u>19,092</u>	
	Total	\$ 28,542	71.4%	\$ 31,692	79.2%	\$ 34,842	87.1%	\$ 37,992	95.0%	\$ 41,142	102.9%
\$50,000	TCRS	\$ 11,813		\$ 15,750		\$ 19,688		\$ 23,625		\$ 27,563	
	Social Security	<u>22,128</u>		<u>22,128</u>		<u>22,128</u>		<u>22,128</u>		<u>22,128</u>	
	Total	\$ 33,941	67.9%	\$ 37,878	75.8%	\$ 41,816	83.6%	\$ 45,753	91.5%	\$ 49,691	99.4%
\$60,000	TCRS	\$ 14,175		\$ 18,900		\$ 23,625		\$ 28,350		\$ 33,075	
	Social Security	<u>25,176</u>		<u>25,176</u>		<u>25,176</u>		<u>25,176</u>		<u>25,176</u>	
	Total	\$ 39,351	65.6%	\$ 44,076	73.5%	\$ 48,801	81.3%	\$ 53,526	89.2%	\$ 58,251	97.1%
\$70,000	TCRS	\$ 16,538		\$ 22,050		\$ 27,563		\$ 33,075		\$ 38,588	
	Social Security	<u>28,224</u>		<u>28,224</u>		<u>28,224</u>		<u>28,224</u>		<u>28,224</u>	
	Total	\$ 44,762	63.9%	\$ 50,274	71.8%	\$ 55,787	79.7%	\$ 61,299	87.6%	\$ 66,812	95.4%

TCRS Hybrid Plan and Social Security Benefits

for Calendar Year 2023

Five-Year AFC*	Projected Annual Retirement Income	15 Years Service	% of AFC	20 Years Service	% of AFC	25 Years Service	% of AFC	30 Years Service	% of AFC	35 Years Service	% of AFC
\$30,000	TCRS	\$ 4,500		\$ 6,000		\$ 7,500		\$ 9,000		\$ 10,500	
	Social Security	<u>16,044</u>		<u>16,044</u>		<u>16,044</u>		<u>16,044</u>		<u>16,044</u>	
	Total	\$ 20,544	68.5%	\$ 22,044	73.5%	\$ 23,544	78.5%	\$ 25,044	83.5%	\$ 26,544	88.5%
\$40,000	TCRS	\$ 6,000		\$ 8,000		\$ 10,000		\$ 12,000		\$ 14,000	
	Social Security	<u>19,092</u>		<u>19,092</u>		<u>19,092</u>		<u>19,092</u>		<u>19,092</u>	
	Total	\$ 25,092	62.7%	\$ 27,092	67.7%	\$ 29,092	72.7%	\$ 31,092	77.7%	\$ 33,092	82.7%
\$50,000	TCRS	\$ 7,500		\$ 10,000		\$ 12,500		\$ 15,000		\$ 17,500	
	Social Security	<u>22,128</u>		<u>22,128</u>		<u>22,128</u>		<u>22,128</u>		<u>22,128</u>	
	Total	\$ 29,628	59.3%	\$ 32,128	64.3%	\$ 34,628	69.3%	\$ 37,128	74.3%	\$ 39,628	79.3%
\$60,000	TCRS	\$ 9,000		\$ 12,000		\$ 15,000		\$ 18,000		\$ 21,000	
	Social Security	<u>25,176</u>		<u>25,176</u>		<u>25,176</u>		<u>25,176</u>		<u>25,176</u>	
	Total	\$ 34,176	57.0%	\$ 37,176	62.0%	\$ 40,176	67.0%	\$ 43,176	72.0%	\$ 46,176	77.0%
\$70,000	TCRS	\$ 10,500		\$ 14,000		\$ 17,500		\$ 21,000		\$ 24,500	
	Social Security	<u>28,224</u>		<u>28,224</u>		<u>28,224</u>		<u>28,224</u>		<u>28,224</u>	
	Total	\$ 38,724	55.3%	\$ 42,224	60.3%	\$ 45,724	65.3%	\$ 49,224	70.3%	\$ 52,724	75.3%

* Average Final Compensation

A key component of the Hybrid Plan is a 401(k) plan, which allows the member to invest pre-tax or after-tax (Roth) dollars in investment options of his or her choice that are offered by the plan. A member is immediately vested in the 401(k) and can decide how the contributions should be invested given individual goals, risk tolerance, and timeline. The amount a member receives in retirement from his or her 401(k) account is based on the amount saved, plus any accumulated earnings from investments. The employer contributes 5% of the employee's earnable compensation directly to the 401(k) for the member to invest.

This chart is based on a date of retirement in 2023. Social security benefits have been calculated by USI, Inc., actuarial consultants for the TCRS, utilizing the following assumptions: (1) retirement is taking place at age 65 in 2023; (2) the retiree has worked a full career (TCRS plus other employers, if necessary) of 35 years or more; and (3) salary increases throughout the retiree's career have followed the same pattern as National Average Earnings.

**1972**

Benefit formula improved from 1.12 percent of salary up to the SSIL to 1.5 percent of salary up to the SSIL.

1974

Maximum annual cost-of-living increase raised to 3.0 percent.

Service credit authorized for unused accumulated sick leave.

1976

Service retirement eligibility requirements reduced from age 65 or 35 years of service to age 60 or 30 years of service.

Early retirement eligibility requirements reduced from age 60 or 30 years of service to age 55.

1978

A bonus cost-of-living increase granted to retirees at a lump-sum cost of \$15.3 million.

An optional retirement plan established for teachers in the Board of Regents system.

1980

Death benefits for members dying in-service with ten years of service improved by offering a 100 percent joint and survivor annuity of the member's accrued benefit for the spouse.

1981

Noncontributory retirement for state employees and higher education employees adopted. Employees' contributions, up to 5.0 percent, were assumed by the state.

1983

An actuarially-reduced retirement benefit at any age with 25 years of service authorized.

1984

Credit for out-of-state service for the purpose of determining retirement eligibility authorized.

Retirement credit for armed conflict approved.

Part-time employees permitted to participate in TCRS and members allowed to establish credit for previous part-time employment.

1985

\$22 million ad-hoc increase granted to retirees.

1987

Service credit for half of peacetime military service made available.

\$17 million ad-hoc increase granted to retirees.

Section 414(h) of the IRC adopted, allowing employee contributions to be made on a tax-deferred basis.

1991

3.6 percent indexing of salaries for noncontributory employees extended one year. Each succeeding year up to 1997, the 3.6 percent indexing was extended. In 1997, it was extended indefinitely.

1992

Minimum number of years required to qualify for retirement was reduced from ten years to five years.

1993

Salary portability for service in different classifications authorized effective January 1, 1994.

Benefit improvement up to 5.0 percent authorized.

1997

Compounded COLA for retirees approved.

1998

Group 2 and Group 3 service requirements amended to permit service retirement with 30 years of service, regardless of age.

Group 1 and Prior Class C benefit limitations increased to 80 percent.

Mandatory retirement established with supplemental bridge benefit for all state public safety officers.

1999

Group 1 benefit maximum increased to 90 percent.

2000

Group 2 benefit maximum increased to 80 percent.

2001

Line-of-Duty Death Benefits adopted to guarantee a minimum \$50,000 death benefit.

2005

Return-to-Work statutes were reformed, including a temporary employment increase to 120 days.

2006

Ad-hoc increase granted to members retired prior to 1989.

(continued)



2007

Public Safety Officer benefits were enhanced to qualify a public safety officer to retire on an unreduced retirement benefit at age 55 with 25 years of service.

2012

New pension plan design options offered to local governments.

2013

Hybrid retirement plan enacted for state employees and teachers hired after July 1, 2014.

2016

Qualified Domestic Relations Orders (QDROs) recognized by the retirement system.

2017

Allow members to designate multiple beneficiaries at retirement.

2019

Added 25-year early retirement option for all public safety officers.

Changed service requirement for some death benefits from 10 years to vesting.

2020

Added 25-year early retirement option for all correctional officers and emergency medical service employees.

2021

Expanded Public Safety Officer Benefits to cover Local Government Correctional Officers on an optional basis.

Retired Law Enforcement Officers allowed to return to work with added benefits.

2022

TCRS members can now purchase retirement credit in TCRS for all of the member's service previously rendered while a full-time employee and participating member of a Tennessee local government's defined benefit retirement plan.

Added 25-year early retirement option for all emergency communications personnel.

Added a Return-to-Work program for Bus Drivers, Teachers, and Emergency Medical Services employees which would allow them to return to work and still collect 70% of their TCRS benefit.

Amended current law to allow a retired member can cancel his or her beneficiary for any reason and allow election of a new beneficiary. The new beneficiary would only be entitled to the remaining accumulated contributions or the member's last payment.

Added a reserve account that will help fund state liabilities for any military service credit established.

Allow members to establish service under certain circumstances during any period of armed conflict. An active member may now establish retirement credit for military service rendered during the following periods of armed conflict which did not interrupt employment. This can be established by making a lump-sum payment equal to the member's current monthly salary multiplied by 9% multiplied by the number of months established. Service is established on a basis of day for day credit. Local government employers must authorize this provision for its employees.

Multinational Force in Lebanon
8/21/1982–2/26/1984

Invasion of Grenada/Operation Urgent Fury
10/25/1983–12/15/1983

Invasion of Panama/Operation Just Cause
12/20/1989–1/31/1990

Persian Gulf War
8/2/1990–4/6/1991

Operation Enduring Freedom
10/7/2001–12/28/2014

Operation Iraqi Freedom
3/19/2003–8/31/2010

2023

Amended current return to work programs for K-12 grade teachers, substitute teachers, and school bus drivers by eliminating the employer certification and reappointment requirements.

Amended current return to work program for law enforcement officers and emergency medical personnel to make it consistent with the other return to work programs. The new law includes the 60-day separation from service requirement and a 70% reduction of the member's retirement allowance.

Added a minimum allowance requirement for the General Assembly members who retire on or after November 5, 2024, with ten or more years of service.



Statistical Section

Statistical Introduction

Historical Fair Value

Analysis of Member, Employer, and Stabilization Reserves

Schedules of Changes in Net Position

Schedules of Benefit Expenses

Schedules of Active Members

Schedules of Retired Members

Retired Members by Geographical Distribution

Average Benefit Payments Schedule

Prior Service Established

Prior Service Installment Plan

Refund Activity and Political Subdivision Participation

Historical Employer Contribution Rates

Schedules of Principal Participating Employers

Introduction to Political Subdivision Participation

Optional Provisions for Political Subdivisions

Local Government Plan Options

Political Subdivision Participants





STATISTICAL SECTION OVERVIEW

The statistical section presents additional information to provide financial statement users with added historical perspective, context, and detail to assist in using the information in the financial statements, notes to the financial statements, and required supplementary information to understand and assess the system's financial condition.

FINANCIAL TRENDS

The schedules presented on pages 89-92 show financial trends information that assists users in understanding and assessing how the system's financial position has changed over time. The financial trend schedules presented are:

- Historical Fair Value
- Analysis of Member and Employer Reserves
- Schedules of Changes in Net Position
- Schedules of Benefit Expenses

OPERATING INFORMATION

The remaining schedules presented on pages 93-124 contain benefits, service, and employer data to help the reader understand how the System's financial report relates to the services of the system and the activities it performs. In addition, a description of political subdivision participation and a listing of participating entities have been included in this section.



HISTORICAL FAIR VALUE

FISCAL YEARS 2014-2023

Expressed in Thousands

As of June 30	Fair Value
2014	\$ 42,905,157
2015	43,243,941
2016	43,306,209
2017	47,014,252
2018	49,722,596
2019	52,134,631
2020	53,349,554
2021	65,480,790
2022	61,747,879
2023	64,661,986



ANALYSIS OF RESERVES
FOR THE YEAR ENDED JUNE 30, 2023



The legislation which created the TCRS established two funds, the Member Reserve Fund and the Employer Reserve Fund, to account for the financial transactions of the pension plans. The Member Reserve Fund represents the accumulation of employee contributions plus interest. The Employer Reserve Fund represents the accumulation of employer contributions, investment income and transfers from the Member Reserve Fund for retirees. Benefit payments and interest credited to members' accounts are reductions to the Employer Reserve Fund. The Stabilization Reserve was created effective July 1, 2014, as part of the benefit plan adopted under the Teacher Retirement Plan and for employers under the Public Employee Retirement Plan that have adopted the new benefit structure. Under these plans, contributions in excess of the actuarially determined contribution (ADC) rate are set aside in this reserve to help keep contribution rates stable. Effective July 1, 2018, future contributions to the stabilization reserve are held in a separate trust outside of TCRS and therefore are not reflected on this schedule. The Military Service Reserve was created effective July 1, 2022. The purpose of this fund is to cover the liability arising from State members purchasing the Expanded Armed Conflict Service. The fund represents the accumulation of an appropriation from the General Fund and investment income. An actuarial determined asset transfer is a reduction to the fund.

	Public Employee Retirement Plan	Teacher Legacy Pension Plan	Teacher Retirement Plan	Total
<i>June 30, 2022 Member Reserve Fund</i>	\$ 2,030,478,480	\$ 3,881,926,724	\$ 408,912,823	\$ 6,321,318,027
Member Contributions	211,512,999	163,017,032	99,883,171	474,413,202
Other Contributions	427,089	0	0	427,089
Employer Provided Contributions	3,915,106	7,280	0	3,922,386
Interest	92,552,707	183,715,705	20,234,299	296,502,711
Refunded Account Balances	(26,959,681)	(15,238,382)	(5,684,251)	(47,882,314)
Transfers to Employer Fund of Retiring Members' Accounts	(155,577,457)	(232,126,953)	(1,336,199)	(389,040,609)
<i>June 30, 2023 Member Reserve Fund</i>	<u>2,156,349,243</u>	<u>3,981,301,406</u>	<u>522,009,843</u>	<u>6,659,660,492</u>
<i>June 30, 2022 Employer Reserve Fund</i>	29,970,746,854	25,103,847,600	216,940,354	55,291,534,808
Employer Contributions	1,177,786,900	281,849,740	57,083,930	1,516,720,570
Other Contributions	478,702	0	0	478,702
Employer Provided Contributions	(3,915,106)	(7,280)	0	(3,922,386)
Retirement and Survivors Annuities	(1,687,035,493)	(1,432,684,454)	(456,549)	(3,120,176,496)
Lump-Sum Death Benefits	(2,000,102)	(1,706,296)	(77,583)	(3,783,981)
Interest Credited to Members' Account	(92,552,707)	(183,715,705)	(20,234,299)	(296,502,711)
Transfers from Retiring Members' Account	155,577,457	232,126,953	1,336,199	389,040,609
Investment Income	2,139,795,557	1,914,418,556	47,055,886	4,101,269,999
Administrative Expenses	(16,270,333)	(6,511,874)	(2,242,488)	(25,024,695)
<i>June 30, 2023 Employer Reserve Fund</i>	<u>31,642,611,729</u>	<u>25,907,617,240</u>	<u>299,405,450</u>	<u>57,849,634,419</u>
<i>June 30, 2022 Military Reserve Fund</i>	0	0	0	0
Actuary Asset Transfer	(369,504)	0	0	(369,504)
Employer Contributions	8,678,900	0	0	8,678,900
Investment Income	279,273	0	0	279,273
<i>June 30, 2023 Military Reserve Fund</i>	<u>8,588,669</u>	<u>0</u>	<u>0</u>	<u>8,588,669</u>
<i>June 30, 2022 Stabilization Reserve Fund</i>	64,672,612	0	70,353,497	135,026,109
Investment Income	4,347,208	0	4,729,069	9,076,277
<i>June 30, 2023 Stabilization Reserve Fund</i>	<u>69,019,820</u>	<u>0</u>	<u>75,082,566</u>	<u>144,102,386</u>
<i>June 30, 2023 Assets Held in Trust for Pension Benefits</i>	<u>\$ 33,876,569,461</u>	<u>\$ 29,888,918,646</u>	<u>\$ 896,497,859</u>	<u>\$ 64,661,985,966</u>



SCHEDULES OF CHANGES IN NET POSITION

Expressed in Thousands

Year Ending	Additions				Deductions			Total Change in Net Position
	Employer Contributions	Member Contributions	Other Contributions	Investment Income	Benefit Payments	Refunds	Administrative Expenses	
Public Employee Retirement Plan								
6/30/2023	\$ 1,186,096	\$ 211,513	\$ 906	\$ 2,144,421	\$ 1,689,035	\$ 26,960	\$ 16,270	\$ 1,810,671
6/30/2022	985,530	181,589	1,327	(1,284,958)	1,591,497	31,854	14,137	(1,754,000)
6/30/2021	723,255	162,281	1,076	7,005,301	1,527,471	24,240	12,679	6,327,523
6/30/2020	735,610	149,829	1,406	1,306,627	1,460,114	23,186	12,348	697,824
6/30/2019	730,655	138,197	2,479	1,877,223	1,393,511	24,055	12,654	1,318,334
6/30/2018	739,160	121,257	2,604	1,973,039	1,320,077	21,135	13,268	1,481,580
6/30/2017	662,559	106,509	2,458	2,473,302	1,255,600	21,030	11,748	1,956,450
6/30/2016	655,525	90,919	2,158	581,363	1,196,884	22,812	12,466	97,803
6/30/2015	664,834	77,020	384	664,440	1,121,540	25,790	9,148	250,200
6/30/2014	686,219	75,030	0	3,105,782	1,046,202	31,720	7,294	2,781,815
Teacher Legacy Pension Plan								
6/30/2023	\$ 281,850	\$ 163,017	\$ 0	\$ 1,914,418	\$ 1,434,390	\$ 15,238	\$ 6,512	\$ 903,145
6/30/2022	339,111	166,007	0	(1,170,762)	1,375,620	17,767	4,928	(2,063,959)
6/30/2021	337,066	164,847	0	6,455,725	1,343,668	15,881	4,589	5,593,500
6/30/2020	353,767	167,155	0	1,215,905	1,296,941	17,972	4,572	417,342
6/30/2019	350,734	168,919	0	1,759,946	1,251,885	16,521	5,202	1,005,991
6/30/2018	318,337	176,442	0	1,867,630	1,200,195	18,427	5,789	1,137,998
6/30/2017	319,576	177,940	0	2,365,587	1,154,994	17,899	5,347	1,684,863
6/30/2016	327,522	181,763	0	560,785	1,115,822	22,192	6,894	(74,838)
6/30/2015	338,301	187,122	0	646,527	1,074,274	22,136	5,636	69,904
6/30/2014	348,475	195,521	0	3,054,118	1,014,688	22,326	2,663	2,558,437
Teacher Retirement Plan								
6/30/2023	\$ 57,084	\$ 99,883	\$ 0	\$ 51,785	\$ 535	\$ 5,684	\$ 2,242	\$ 200,291
6/30/2022	34,326	85,526	0	(25,503)	375	5,728	3,198	85,048
6/30/2021	29,153	72,213	0	115,660	184	4,069	2,560	210,213
6/30/2020	25,617	63,183	0	16,947	100	3,595	2,295	99,757
6/30/2019	20,529	52,930	0	18,476	23	2,184	2,018	87,710
6/30/2018	34,957	43,731	0	13,554	31	1,598	1,847	88,766
6/30/2017	26,262	32,848	0	10,058	6	1,015	1,417	66,730
6/30/2016	17,539	21,856	0	1,012	0	284	820	39,303
6/30/2015	8,310	10,390	0	295	0	35	280	18,680
6/30/2014	0	0	0	0	0	0	0	0



SCHEDULES OF BENEFIT EXPENSES

Expressed in Thousands

Year Ending	Service Retirement	Disability Retirement	Survivor Benefits	Death Benefits	Total Benefits	Refunds	Total
Public Employee Retirement Plan							
6/30/2023	\$ 1,540,505	\$ 39,868	\$ 106,662	\$ 2,000	\$ 1,689,035	\$ 26,960	\$ 1,715,995
6/30/2022	1,449,660	37,517	100,372	3,948	1,591,497	31,854	1,623,351
6/30/2021	1,392,253	36,031	96,397	2,790	1,527,471	24,240	1,551,711
6/30/2020	1,330,665	34,437	92,133	2,879	1,460,114	23,186	1,483,300
6/30/2019	1,269,879	32,864	87,924	2,844	1,393,511	24,055	1,417,566
6/30/2018	1,203,055	31,135	83,297	2,590	1,320,077	21,135	1,341,212
6/30/2017	1,143,181	29,585	79,152	3,682	1,255,600	21,030	1,276,630
6/30/2016	1,089,920	28,207	75,464	3,293	1,196,884	22,812	1,219,696
6/30/2015	1,021,247	26,430	70,709	3,154	1,121,540	25,790	1,147,330
6/30/2014	953,255	24,670	66,002	2,275	1,046,202	31,720	1,077,922
Teacher Legacy Pension Plan							
6/30/2023	\$ 1,308,245	\$ 33,858	\$ 90,581	\$ 1,706	\$ 1,434,390	\$ 15,238	\$ 1,449,628
6/30/2022	1,253,514	32,441	86,792	2,873	1,375,620	17,767	1,393,387
6/30/2021	1,224,431	31,689	84,777	2,771	1,343,668	15,881	1,359,549
6/30/2020	1,182,674	30,608	81,886	1,773	1,296,941	17,972	1,314,913
6/30/2019	1,140,760	29,523	78,984	2,618	1,251,885	16,521	1,268,406
6/30/2018	1,093,439	28,299	75,708	2,749	1,200,195	18,427	1,218,622
6/30/2017	1,052,681	27,244	72,885	2,184	1,154,994	17,899	1,172,893
6/30/2016	1,016,794	26,315	70,401	2,312	1,115,822	22,192	1,138,014
6/30/2015	978,801	25,331	67,771	2,371	1,074,274	22,136	1,096,410
6/30/2014	925,061	23,940	64,050	1,637	1,014,688	22,326	1,037,014
Teacher Retirement Plan							
6/30/2023	\$ 417	\$ 11	\$ 29	\$ 78	\$ 535	\$ 5,684	\$ 6,219
6/30/2022	234	6	16	119	375	5,728	6,103
6/30/2021	95	2	7	80	184	4,069	4,253
6/30/2020	30	1	2	67	100	3,595	3,695
6/30/2019	6	0	1	16	23	2,184	2,207
6/30/2018	2	0	0	29	31	1,598	1,629
6/30/2017	1	0	0	5	6	1,015	1,021
6/30/2016	0	0	0	0	0	284	284
6/30/2015	0	0	0	0	0	35	35
6/30/2014	0	0	0	0	0	0	0



SCHEDULES OF ACTIVE MEMBERS

by Service Credit

Years of Service	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
0 - 4	104	170	34	29,076	29,384
5 - 9	3,612	1,924	961	15,038	21,535
10 - 14	11,784	4,216	2,520	9,756	28,276
15 - 19	11,651	4,957	1,871	9,130	27,609
20 - 24	9,497	3,668	1,294	6,685	21,144
25 - 29	6,102	2,235	801	4,304	13,442
30 - 34	2,013	1,007	456	1,756	5,232
35 - 39	751	773	251	803	2,578
40 - 44	179	254	121	276	830
Over 44	83	149	59	97	388
Total	45,776	19,353	8,368	76,921	150,418

Years of Service	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
0 - 4	21,859	14,123	7,488	6,685	50,155
5 - 9	12,790	6,989	3,253	1,273	24,305
10 - 14	1,218	438	172	214	2,042
15 - 19	476	259	77	103	915
20 - 24	173	111	35	53	372
25 - 29	62	49	15	17	143
30 - 34	10	14	8	9	41
35 - 39	5	2	1	1	9
40 - 44	2	2	0	0	4
Over 44	0	1	0	0	1
Total	36,595	21,988	11,049	8,355	77,987

(continued)



SCHEDULES OF ACTIVE MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF ACTIVE MEMBERS

By Enrollment Date

Date of Membership	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
1940's	0	0	1	0	1
1950's	0	0	0	0	0
1960's	12	14	5	1	32
1970's	122	182	95	135	534
1980's	1,618	1,614	642	1,513	5,387
1990's	11,940	4,563	1,684	7,919	26,106
2000's	21,647	8,403	3,346	16,313	49,709
2010's	10,306	4,435	2,557	27,881	45,179
2020's	131	142	38	23,159	23,470
Total	45,776	19,353	8,368	76,921	150,418

Date of Membership	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Public Subdivision Employees	
1940's	0	0	0	0	0
1950's	0	0	0	0	0
1960's	0	0	0	0	0
1970's	1	2	0	0	3
1980's	7	8	4	7	26
1990's	56	95	33	65	249
2000's	443	412	119	201	1,175
2010's	20,416	10,982	5,175	2,669	39,242
2020's	15,672	10,489	5,718	5,413	37,292
Total	36,595	21,988	11,049	8,355	77,987

(continued)



SCHEDULES OF ACTIVE MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF ACTIVE MEMBERS

By Current Age

Current Age	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than 20	0	1	0	149	150
20-24	0	15	1	3,054	3,070
25-29	8	44	7	5,490	5,549
30-34	1,709	531	168	6,991	9,399
35-39	5,972	1,506	536	7,220	15,234
40-44	8,053	2,320	952	7,932	19,257
45-49	9,322	3,004	1,145	8,990	22,461
50-54	9,743	3,574	1,408	10,858	25,583
55-59	6,217	3,337	1,520	10,639	21,713
60-64	3,380	2,932	1,442	9,011	16,765
65-69	1,056	1,375	812	4,084	7,327
70 and above	316	714	377	2,503	3,910
Total	45,776	19,353	8,368	76,921	150,418

Current Age	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than 20	0	45	3	34	82
20-24	1,966	1,169	370	705	4,210
25-29	8,976	3,589	1,528	1,203	15,296
30-34	8,382	4,050	1,724	1,132	15,288
35-39	4,708	3,036	1,578	1,077	10,399
40-44	4,054	2,584	1,460	1,045	9,143
45-49	3,178	2,104	1,211	892	7,385
50-54	2,609	2,030	1,198	842	6,679
55-59	1,580	1,626	926	703	4,835
60-64	816	1,175	683	474	3,148
65-69	253	430	270	162	1,115
70 and above	73	150	98	86	407
Total	36,595	21,988	11,049	8,355	77,987

(continued)



SCHEDULES OF ACTIVE MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF ACTIVE MEMBERS

By Age at Enrollment

Age at Enrollment	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than 20	87	460	122	1,439	2,108
20 - 24	16,917	4,213	1,450	11,945	34,525
25 - 29	13,793	5,121	1,769	12,557	33,240
30 - 34	6,335	3,082	1,368	11,260	22,045
35 - 39	4,374	2,486	1,188	10,582	18,630
40 - 44	2,493	1,772	968	9,159	14,392
45 - 49	1,083	1,093	715	7,117	10,008
50 - 54	405	623	470	5,433	6,931
55 - 59	165	326	202	3,907	4,600
60 - 64	82	119	81	2,099	2,381
65 - 69	35	43	32	937	1,047
70 and above	7	15	3	486	511
Total	45,776	19,353	8,368	76,921	150,418

Age at Enrollment	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than 20	28	241	31	169	469
20 - 24	11,123	3,687	1,220	1,299	17,329
25 - 29	8,422	4,584	1,977	1,286	16,269
30 - 34	4,546	3,227	1,729	1,090	10,592
35 - 39	4,003	2,600	1,488	1,081	9,172
40 - 44	3,219	2,150	1,317	950	7,636
45 - 49	2,405	1,845	1,125	850	6,225
50 - 54	1,591	1,688	1,020	694	4,993
55 - 59	848	1,233	699	540	3,320
60 - 64	285	523	328	257	1,393
65 - 69	91	157	80	97	425
70 and above	34	53	35	42	164
Total	36,595	21,988	11,049	8,355	77,987

(continued)



SCHEDULES OF ACTIVE MEMBERS

By Salary

Annual Salary	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than \$10,000	52	87	33	4,707	4,879
\$10,000-\$19,999	145	109	76	15,600	15,930
\$20,000-\$29,999	296	524	638	14,984	16,442
\$30,000-\$39,999	4,521	3,282	1,802	14,695	24,300
\$40,000-\$49,999	13,692	3,815	1,590	11,844	30,941
\$50,000+	27,070	11,536	4,229	15,091	57,926
Total	45,776	19,353	8,368	76,921	150,418

Annual Salary	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Less than \$10,000	370	1,492	507	1,137	3,506
\$10,000-\$19,999	983	1,552	714	2,537	5,786
\$20,000-\$29,999	2,231	2,560	1,813	1,599	8,203
\$30,000-\$39,999	12,253	5,528	2,751	1,295	21,827
\$40,000-\$49,999	12,978	4,750	2,105	996	20,829
\$50,000+	7,780	6,106	3,159	791	17,836
Total	36,595	21,988	11,049	8,355	77,987

(continued)



SCHEDULES OF ACTIVE MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



ACTIVE MEMBERS
Fiscal Years 2014-2023

Year	Teacher Legacy Pension Plan	Teacher Retirement Plan	Public Employee Retirement Plan						Total
	Teachers	Teachers (Hybrid)	State Employees	State Employees (Hybrid)	Higher Education Employees	Higher Education Employees (Hybrid)	Political Subdivision Employees	Political Subdivision Employees (Hybrid)	
2014	78,506	0	40,581	0	16,829	0	78,144	0	214,060
2015	69,230	11,516	38,322	6,304	16,244	2,310	87,800	52	231,778
2016	65,614	11,159	33,070	8,208	14,439	2,966	77,546	712	213,714
2017	61,844	15,329	30,036	11,014	13,206	4,293	77,086	1,692	214,500
2018	59,026	19,417	27,844	13,192	12,228	5,625	77,162	2,940	217,434
2019	55,884	23,032	25,812	15,139	11,356	6,781	77,239	4,320	219,563
2020	53,486	26,402	24,162	17,170	10,589	7,876	77,499	5,498	222,682
2021	50,602	28,952	22,589	17,645	9,721	8,396	76,381	6,486	220,772
2022	47,431	32,629	20,449	19,587	8,770	9,821	76,635	6,391	221,713
2023	45,776	36,595	19,353	21,988	8,368	11,049	76,921	8,355	228,405



SCHEDULES OF RETIRED MEMBERS

By Type of Benefit Plan

Benefit Plan	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Regular	34,353	22,529	10,783	37,683	105,348
Option I	5,207	7,071	3,494	9,344	25,116
Option II	1,620	1,695	930	2,025	6,270
Option III	6,122	5,825	2,200	6,838	20,985
Option IV	4,145	2,981	1,325	2,715	11,166
S.S. Leveling	4,021	2,423	648	2,072	9,164
Others	45	73	7	52	177
Total	55,513	42,597	19,387	60,729	178,226

Benefit Plan	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Regular	158	174	82	43	457
Option I	24	39	5	5	73
Option II	3	5	0	1	9
Option III	7	20	11	7	45
Option IV	3	3	4	4	14
S.S. Leveling	1	0	0	0	1
Others	0	0	0	0	0
Total	196	241	102	60	599

As a consolidated plan, members of TCRS can retire with service in more than one pension plan. In fiscal year 2023, TCRS paid 178,825 total benefit payments to 156,738 retired members.

(continued)



SCHEDULES OF RETIRED MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF RETIRED MEMBERS

By Type of Retirement

Type of Retirement	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Early Retirement	6,865	5,808	2,885	8,400	23,958
Service Retirement	46,854	33,891	15,449	48,438	144,632
Disability	1,323	1,872	650	2,717	6,562
Total Retirees	55,042	41,571	18,984	59,555	175,152
Survivors	471	1,026	403	1,174	3,074
Total	55,513	42,597	19,387	60,729	178,226

Type of Retirement	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Early Retirement	101	87	39	28	255
Service Retirement	82	138	60	26	306
Disability	7	11	3	5	26
Total Retirees	190	236	102	59	587
Survivors	6	5	0	1	12
Total	196	241	102	60	599

As a consolidated plan, members of TCRS can retire with service in more than one pension plan. In fiscal year 2023, TCRS paid 178,825 total benefit payments to 156,738 retired members.

(continued)



SCHEDULES OF RETIRED MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF RETIRED MEMBERS

By Average Monthly Benefits

STATE EMPLOYEES LEGACY RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	11,394	8,292	2,301	447	354	6,466	1,962	398	1,470	606	492	0
\$501-\$1,000	8,651	5,692	1,834	880	245	4,795	1,565	334	1,103	529	322	3
\$1,001-\$1,500	5,973	4,498	941	394	140	3,087	938	226	815	404	501	2
\$1,501-\$2,000	5,198	4,561	428	110	99	2,554	744	191	773	411	523	2
\$2,001-\$2,500	3,869	3,608	159	28	74	1,971	533	142	573	326	324	0
\$2,501-\$3,000	2,560	2,439	73	10	38	1,316	377	109	384	244	130	0
\$3,001-\$3,500	1,708	1,654	30	2	22	858	277	74	271	155	65	8
\$3,501-\$4,000	1,080	1,040	21	0	19	512	212	69	134	118	32	3
Over \$4,000	2,164	2,107	21	1	35	978	463	152	296	186	34	55
Totals	42,597	33,891	5,808	1,872	1,026	22,537	7,071	1,695	5,819	2,979	2,423	73

TEACHER LEGACY PENSION PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	4,485	3,544	766	92	83	2,776	612	141	535	238	181	2
\$501-\$1,000	5,944	3,849	1,735	253	107	3,527	791	190	727	405	293	11
\$1,001-\$1,500	7,053	4,583	1,853	537	80	4,188	833	225	850	574	372	11
\$1,501-\$2,000	8,103	6,370	1,365	305	63	4,413	746	217	1,006	614	1,098	9
\$2,001-\$2,500	9,493	8,643	705	97	48	5,500	766	250	1,255	765	953	4
\$2,501-\$3,000	8,591	8,241	285	32	33	5,642	570	202	873	712	590	2
\$3,001-\$3,500	5,263	5,131	97	6	29	3,677	352	146	424	365	295	4
\$3,501-\$4,000	2,738	2,697	33	1	7	1,913	212	95	202	180	136	0
Over \$4,000	3,843	3,796	26	0	21	2,721	327	154	247	289	103	2
Totals	55,513	46,854	6,865	1,323	471	34,357	5,209	1,620	6,119	4,142	4,021	45

HIGHER EDUCATION LEGACY RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	5,613	4,128	1,170	168	147	3,484	877	203	616	236	195	2
\$501-\$1,000	3,888	2,615	883	305	85	2,370	642	147	398	225	105	1
\$1,001-\$1,500	2,706	2,108	432	121	45	1,529	477	125	299	178	98	0
\$1,501-\$2,000	1,977	1,702	203	40	32	1,038	328	107	249	163	92	0
\$2,001-\$2,500	1,408	1,274	104	11	19	654	261	86	194	146	67	0
\$2,501-\$3,000	1,011	939	51	5	16	455	189	66	137	128	35	1
\$3,001-\$3,500	711	683	16	0	12	340	148	43	80	66	34	0
\$3,501-\$4,000	477	449	15	0	13	203	125	29	56	54	10	0
Over \$4,000	1,596	1,551	11	0	34	711	447	124	171	128	12	3
Totals	19,387	15,449	2,885	650	403	10,784	3,494	930	2,200	1,324	648	7

As a consolidated plan, members of TCRS can retire with service in more than one pension plan. In fiscal year 2023, TCRS paid 178,825 total benefit payments to 156,738 retired members.

(continued)



SCHEDULES OF RETIRED MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF RETIRED MEMBERS

By Average Monthly Benefits

POLITICAL SUBDIVISION LEGACY RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	30,134	23,001	5,147	1,310	676	19,514	4,548	854	3,118	1,162	921	17
\$501-\$1,000	14,603	11,303	2,085	959	256	9,612	2,082	423	1,531	569	366	20
\$1,001-\$1,500	6,953	5,770	733	352	98	4,125	1,095	271	827	335	294	6
\$1,501-\$2,000	3,692	3,299	263	72	58	1,963	583	153	567	232	192	2
\$2,001-\$2,500	2,228	2,081	92	15	40	1,079	399	127	338	162	119	4
\$2,501-\$3,000	1,292	1,220	46	4	22	567	242	75	229	95	83	1
\$3,001-\$3,500	746	716	15	4	11	324	150	47	104	64	56	1
\$3,501-\$4,000	429	414	10	1	4	194	94	30	50	34	26	1
Over \$4,000	652	634	9	0	9	303	151	46	70	63	19	0
Totals	60,729	48,438	8,400	2,717	1,174	37,681	9,344	2,026	6,834	2,716	2,076	52

STATE HYBRID RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	221	121	86	10	4	162	35	3	18	3	0	0
\$501-\$1,000	14	12	1	1	0	9	3	1	1	0	0	0
\$1,001-\$1,500	2	2	0	0	0	2	0	0	0	0	0	0
\$1,501-\$2,000	3	2	0	0	1	1	0	1	1	0	0	0
\$2,501-\$3,000	1	1	0	0	0	0	1	0	0	0	0	0
Totals	241	138	87	11	5	174	39	5	20	3	0	0

HIGHER EDUCATION HYBRID RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	97	56	38	3	0	80	5	0	9	3	0	0
\$501-\$1,000	5	4	1	0	0	2	0	0	2	1	0	0
Totals	102	60	39	3	0	82	5	0	11	4	0	0

TEACHER HYBRID RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	188	82	98	2	6	154	22	3	6	2	1	0
\$501-\$1,000	8	0	3	5	0	4	2	0	1	1	0	0
Totals	196	82	101	7	6	158	24	3	7	3	1	0

POLITICAL SUBDIVISION HYBRID RETIREMENT PLAN												
Average Monthly Benefit	Number of Retirees	Type of Retirement				Option Selected						
		Service	Early Disability	Survivors	Regular	I	II	III	IV	SS Leveling	Other	
\$0-\$500	59	26	28	4	1	43	5	1	7	3	0	0
\$501-\$1,000	1	0	0	1	0	0	0	0	0	1	0	0
Totals	60	26	28	5	1	43	5	1	7	4	0	0

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(continued)



SCHEDULES OF RETIRED MEMBERS

By Current Age

Current Age	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Under 40	120	161	57	247	585
40-44	67	122	37	188	414
45-49	116	190	54	239	599
50-54	614	446	176	771	2,007
55-59	2,338	2,072	689	3,383	8,482
60-64	6,070	5,833	2,364	8,896	23,163
65-69	10,926	9,117	3,880	13,897	37,820
70-74	13,791	9,661	4,098	12,988	40,538
75-79	10,936	7,453	3,461	9,815	31,665
80-84	5,747	4,189	2,405	5,896	18,237
85-89	2,963	2,233	1,442	3,057	9,695
90-94	1,424	854	576	1,088	3,942
95-99	359	243	133	231	966
Over 99	42	23	15	33	113
Total	55,513	42,597	19,387	60,729	178,226

Current Age	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Under 40	2	3	0	0	5
40-44	3	2	0	0	5
45-49	1	0	0	1	2
50-54	6	5	1	4	16
55-59	3	10	2	2	17
60-64	72	66	28	21	187
65-69	86	117	55	24	282
70-74	21	30	15	7	73
75-79	2	7	0	1	10
80-84	0	1	1	0	2
85-89	0	0	0	0	0
90-94	0	0	0	0	0
95-99	0	0	0	0	0
Over 99	0	0	0	0	0
Total	196	241	102	60	599

As a consolidated plan, members of TCRS can retire with service in more than one pension plan. In fiscal year 2023, TCRS paid 178,825 total benefit payments to 156,738 retired members.

(continued)



SCHEDULES OF RETIRED MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF RETIRED MEMBERS

By Date of Retirement

Date of Retirement	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
1950's	1	0	0	0	1
1960's	11	4	0	0	15
1970's	139	66	12	31	248
1980's	1,022	612	290	503	2,427
1990's	5,926	3,937	2,174	3,784	15,821
2000's	16,822	10,909	5,426	13,040	46,197
2010's	24,187	20,338	8,352	29,401	82,278
2020's	7,405	6,731	3,133	13,970	31,239
Total	55,513	42,597	19,387	60,729	178,226

Date of Retirement	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
2010's	17	18	8	9	52
2020's	179	223	94	51	547
Total	196	241	102	60	599

As a consolidated plan, members of TCRS can retire with service in more than one pension plan. In fiscal year 2023, TCRS paid 178,825 total benefit payments to 156,738 retired members.

(continued)



SCHEDULES OF RETIRED MEMBERS
FOR THE YEAR ENDED JUNE 30, 2023 (CONTINUED)



SCHEDULES OF RETIRED MEMBERS

Based on Service Credit at Retirement

Years of Service	Teacher Legacy Pension Plan	Public Employee Legacy Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Under 10	5,256	10,013	4,511	21,404	41,184
10-14	4,827	6,422	3,085	10,384	24,718
15-19	5,466	4,881	2,249	8,510	21,106
20-24	6,657	4,565	2,084	7,142	20,448
25-29	7,478	4,021	1,886	5,506	18,891
30-34	15,741	7,303	3,086	5,148	31,278
35-39	6,770	3,212	1,455	1,746	13,183
40-44	2,627	1,459	651	625	5,362
Over 44	691	721	380	264	2,056
Total	55,513	42,597	19,387	60,729	178,226

Years of Service	Teacher Hybrid Retirement Plan	Public Employee Hybrid Retirement Plan			Total
	Teachers	State Employees	Higher Education Employees	Political Subdivision Employees	
Under 10	195	234	102	60	591
10-14	0	2	0	0	2
15-19	1	1	0	0	2
20-24	0	0	0	0	0
25-29	0	1	0	0	1
30-34	0	3	0	0	3
Total	196	241	102	60	599

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RETIRED MEMBERS BY GEOGRAPHICAL DISTRIBUTION
FOR THE YEAR ENDED JUNE 30, 2023



UNITED STATES

Alabama	1,421	Ohio	304
Alaska	23	Oklahoma	136
Arizona	221	Oregon	94
Arkansas	645	Pennsylvania	161
California	270	Rhode Island	7
Colorado	227	South Carolina	726
Connecticut	31	South Dakota	16
Delaware	16	Tennessee	161,749
District of Columbia	19	Texas	859
Florida	2,573	Utah	59
Georgia	1,865	Vermont	18
Hawaii	15	Virginia	824
Idaho	33	Washington	121
Illinois	237	West Virginia	62
Indiana	264	Wisconsin	91
Iowa	55	Wyoming	18
Kansas	74		
Kentucky	1,190	Total U.S.	178,756
Louisiana	148		
Maine	55		
Maryland	169	Puerto Rico	4
Massachusetts	50	U.S. Minor Outlying	4
Michigan	225	Armed Forces in Europe	3
Minnesota	70	Armed Forces Pacific	2
Mississippi	1,877		
Missouri	262	Total U.S. & Territories	178,769
Montana	35		
Nebraska	29		
Nevada	86		
New Hampshire	25		
New Jersey	54		
New Mexico	96		
New York	109		
North Carolina	1,041		
North Dakota	1		

INTERNATIONAL COUNTRIES

Australia	3
Bermuda	1
Brazil	3
Canada-Alberta	1
Canada-British Columbia	2
Canada-Manitoba	1
Canada-New Brunswick	3
Canada-Newfoundland	1
Canada-Ontario	6
Canada-Prince Edward Island	1
Canada-Quebec	1
Canada-Saskatchewan	1
Chile	3
Egypt	2
France	1
Germany	2
Ghana	1
Greece	3
Ireland	2
Italy	3
Jordan	1
Kenya	1
Netherlands	1
Poland	1
Portugal	2
Saint Helena	1
Spain	2
Thailand	3
United Arab Emirates	2
United Kingdom	1

Total Foreign 56

Grand Total 178,825

(continued)



TENNESSEE COUNTIES

Anderson	2,368	Hancock	168	Overton	738
Bedford	977	Hardeman	1,261	Perry	338
Benton	525	Hardin	991	Pickett	193
Bledsoe	632	Hawkins	3,167	Polk	367
Blount	3,889	Haywood	775	Putnam	3,419
Bradley	2,320	Henderson	692	Rhea	926
Campbell	1,191	Henry	1,209	Roane	1,917
Cannon	461	Hickman	863	Robertson	1,742
Carroll	1,027	Houston	156	Rutherford	5,603
Carter	3,992	Humphreys	554	Scott	708
Cheatham	1,012	Jackson	362	Sequatchie	451
Chester	610	Jefferson	1,778	Sevier	2,334
Claiborne	1,142	Johnson	750	Shelby	16,394
Clay	194	Knox	9,713	Smith	578
Cocke	952	Lake	310	Stewart	487
Coffee	1,354	Lauderdale	1,013	Sullivan	2,909
Crockett	445	Lawrence	1,346	Sumner	3,913
Cumberland	1,529	Lewis	429	Tipton	1,300
Davidson	10,492	Lincoln	1,037	Trousdale	240
Decatur	380	Loudon	1,291	Unicoi	618
DeKalb	568	Macon	479	Union	381
Dickson	1,502	Madison	3,706	Van Buren	292
Dyer	743	Marion	747	Warren	1,221
Fayette	1,150	Marshall	800	Washington	2,873
Fentress	596	Mauzy	2,009	Wayne	477
Franklin	1,146	McMinn	1,276	Weakley	1,489
Gibson	1,704	McNairy	798	White	977
Giles	745	Meigs	205	Williamson	4,071
Grainger	659	Monroe	1,013	Wilson	3,012
Greene	2,880	Montgomery	4,202		
Grundy	447	Moore	120	Total	<u>161,749</u>
Hamblen	1,610	Morgan	755		
Hamilton	7,472	Obion	1,092		



AVERAGE BENEFIT PAYMENTS SCHEDULE

Fiscal Year of Retirement

Teacher Legacy Pension Plan

	Years of Service Credit				
	Less than 15	15-19	20-24	25-29	30 or more
2023 Average Monthly Benefit	\$ 583	\$ 1,202	\$ 1,717	\$ 2,262	\$ 2,995
Number of Retirees	336	202	261	266	644
Average Final Salary	\$ 55,552	\$ 60,508	\$ 63,747	\$ 69,940	\$ 71,491
2022 Average Monthly Benefit	\$ 607	\$ 1,271	\$ 1,731	\$ 2,171	\$ 2,939
Number of Retirees	294	211	264	283	728
Average Final Salary	\$ 56,198	\$ 61,346	\$ 65,425	\$ 67,381	\$ 68,524
2021 Average Monthly Benefit	\$ 605	\$ 1,206	\$ 1,623	\$ 2,159	\$ 2,987
Number of Retirees	295	194	272	254	543
Average Final Salary	\$ 56,241	\$ 59,146	\$ 62,112	\$ 66,468	\$ 69,591
2020 Average Monthly Benefit	\$ 581	\$ 1,307	\$ 1,796	\$ 2,307	\$ 3,025
Number of Retirees	163	69	103	75	241
Average Final Salary	\$ 56,820	\$ 58,559	\$ 60,461	\$ 65,972	\$ 66,201
2019 Average Monthly Benefit	\$ 770	\$ 1,204	\$ 1,613	\$ 2,082	\$ 2,803
Number of Retirees	412	199	230	250	665
Average Final Salary	\$ 58,184	\$ 58,049	\$ 60,886	\$ 64,682	\$ 67,925
2018 Average Monthly Benefit	\$ 804	\$ 1,253	\$ 1,744	\$ 2,147	\$ 3,112
Number of Retirees	582	272	309	290	909
Average Final Salary	\$ 54,485	\$ 57,104	\$ 62,145	\$ 61,706	\$ 67,188
2017 Average Monthly Benefit	\$ 754	\$ 1,225	\$ 1,683	\$ 2,251	\$ 3,119
Number of Retirees	584	283	289	280	825
Average Final Salary	\$ 53,410	\$ 54,956	\$ 58,639	\$ 63,731	\$ 65,230
2016 Average Monthly Benefit	\$ 804	\$ 1,294	\$ 1,730	\$ 2,214	\$ 3,075
Number of Retirees	600	326	336	281	884
Average Final Salary	\$ 51,385	\$ 56,287	\$ 59,140	\$ 61,520	\$ 63,283
2015 Average Monthly Benefit	\$ 736	\$ 1,248	\$ 1,728	\$ 2,271	\$ 3,114
Number of Retirees	684	321	307	283	945
Average Final Salary	\$ 49,697	\$ 55,525	\$ 58,747	\$ 62,084	\$ 63,234
2014 Average Monthly Benefit	\$ 671	\$ 1,240	\$ 1,704	\$ 2,117	\$ 2,987
Number of Retirees	638	357	385	358	1,246
Average Final Salary	\$ 50,982	\$ 54,328	\$ 57,409	\$ 57,910	\$ 60,325

Note: This schedule represents the average monthly benefits under the maximum plan of members retiring with an unreduced service retirement benefit. It excludes members retiring with a reduced early retirement benefit or under disability.

(continued)



AVERAGE BENEFIT PAYMENTS SCHEDULE
(CONTINUED)



AVERAGE BENEFIT PAYMENTS SCHEDULE

Fiscal Year of Retirement (continued)

Public Employee Retirement Plan

	Years of Service Credit				
	Less than 15	15-19	20-24	25-29	30 or more
2023 Average Monthly Benefit	\$ 381	\$ 1,059	\$ 1,419	\$ 1,821	\$ 2,909
Number of Retirees	3,445	829	732	530	1,093
Average Final Salary	\$ 45,998	\$ 49,982	\$ 53,396	\$ 56,615	\$ 66,845
2022 Average Monthly Benefit	\$ 397	\$ 945	\$ 1,227	\$ 1,711	\$ 2,644
Number of Retirees	2,745	895	795	583	1,259
Average Final Salary	\$ 47,023	\$ 46,450	\$ 46,507	\$ 53,764	\$ 61,809
2021 Average Monthly Benefit	\$ 381	\$ 898	\$ 1,242	\$ 1,509	\$ 2,575
Number of Retirees	2,454	789	692	494	1,083
Average Final Salary	\$ 45,575	\$ 44,121	\$ 47,389	\$ 48,283	\$ 60,380
2020 Average Monthly Benefit	\$ 400	\$ 905	\$ 1,262	\$ 1,649	\$ 2,455
Number of Retirees	1,057	315	266	163	430
Average Final Salary	\$ 42,430	\$ 40,801	\$ 42,707	\$ 48,037	\$ 52,747
2019 Average Monthly Benefit	\$ 756	\$ 856	\$ 1,178	\$ 1,445	\$ 2,378
Number of Retirees	2,129	595	480	389	1,015
Average Final Salary	\$ 45,695	\$ 40,016	\$ 43,580	\$ 44,277	\$ 56,156
2018 Average Monthly Benefit	\$ 705	\$ 817	\$ 1,090	\$ 1,590	\$ 2,499
Number of Retirees	2,640	698	508	442	1,140
Average Final Salary	\$ 42,188	\$ 36,865	\$ 33,836	\$ 46,125	\$ 53,537
2017 Average Monthly Benefit	\$ 676	\$ 844	\$ 1,115	\$ 1,415	\$ 2,463
Number of Retirees	2,636	676	562	436	1,048
Average Final Salary	\$ 40,424	\$ 36,554	\$ 39,353	\$ 39,924	\$ 52,417
2016 Average Monthly Benefit	\$ 619	\$ 829	\$ 1,092	\$ 1,443	\$ 2,506
Number of Retirees	2,894	730	621	531	1,500
Average Final Salary	\$ 38,187	\$ 35,969	\$ 37,853	\$ 40,131	\$ 52,675
2015 Average Monthly Benefit	\$ 626	\$ 822	\$ 1,175	\$ 1,503	\$ 2,451
Number of Retirees	3,307	771	570	533	1,186
Average Final Salary	\$ 37,107	\$ 38,008	\$ 40,286	\$ 42,099	\$ 51,559
2014 Average Monthly Benefit	\$ 577	\$ 766	\$ 1,085	\$ 1,418	\$ 2,415
Number of Retirees	2,514	673	539	514	1,085
Average Final Salary	\$ 36,323	\$ 34,283	\$ 37,646	\$ 39,676	\$ 50,969

Note: This schedule represents the average monthly benefits under the maximum plan of members retiring with an unreduced service retirement benefit. It excludes members retiring with a reduced early retirement benefit or under disability.

(continued)



AVERAGE BENEFIT PAYMENTS SCHEDULE
(CONTINUED)



AVERAGE BENEFIT PAYMENTS SCHEDULE

Fiscal Year of Retirement (continued)

Teacher Hybrid Retirement Plan*

	<u>Years of Service Credit</u>	
	<u>Less than 15</u>	
2023 Average Monthly Benefit	\$	249
Number of Retirees		55
Average Final Salary	\$	55,471
2022 Average Monthly Benefit	\$	231
Number of Retirees		51
Average Final Salary	\$	53,410
2021 Average Monthly Benefit	\$	161
Number of Retirees		19
Average Final Salary	\$	47,846
2020 Average Monthly Benefit	\$	244
Number of Retirees		5
Average Final Salary	\$	63,113
2019 Average Monthly Benefit	\$	202
Number of Retirees		7
Average Final Salary	\$	52,115
2018 Average Monthly Benefit	\$	92
Number of Retirees		3
Average Final Salary	\$	56,185
2017 Average Monthly Benefit	\$	95
Number of Retirees		1
Average Final Salary	\$	37,094
2016 Average Monthly Benefit	\$	41
Number of Retirees		1
Average Final Salary	\$	39,323

Public Employee Hybrid Retirement Plan

	<u>Years of Service Credit</u>	
	<u>Less than 15</u>	
2023 Average Monthly Benefit	\$	220
Number of Retirees		146
Average Final Salary	\$	50,339
2022 Average Monthly Benefit	\$	217
Number of Retirees		109
Average Final Salary	\$	49,111
2021 Average Monthly Benefit	\$	203
Number of Retirees		58
Average Final Salary	\$	54,042
2020 Average Monthly Benefit	\$	188
Number of Retirees		8
Average Final Salary	\$	49,419
2019 Average Monthly Benefit	\$	212
Number of Retirees		6
Average Final Salary	\$	57,776
2018 Average Monthly Benefit	\$	52
Number of Retirees		11
Average Final Salary	\$	36,684
2016 Average Monthly Benefit	\$	52
Number of Retirees		2
Average Final Salary	\$	72,747
2015 Average Monthly Benefit	\$	13
Number of Retirees		1
Average Final Salary	\$	43,305

*Because the Hybrid Retirement Plan was effective July 1, 2014, there are no retirees with greater than 15 years of service.

Note: This schedule represents the average monthly benefits under the maximum plan of members retiring with an unreduced service retirement benefit. It excludes members retiring with a reduced early retirement benefit or under disability.



PRIOR SERVICE ESTABLISHED

July 1, 2022 through June 30, 2023

	<u>Type of Service</u>	<u>No. of Members</u>	<u>Years of Service</u>	<u>Amount</u>
Teacher Legacy Pension Plan	Backpayment	33	25	\$ 189,254
	Military	6	10	9,766
	Redeposit	15	75	549,995
	Totals	54	110	\$ 749,015
Public Employee Legacy Retirement Plan	Backpayment	635	499	\$ 616,977
	Military	34	50	148,411
	Redeposit	38	197	938,719
	Totals	707	746	\$ 1,704,107
Teacher Hybrid Retirement Plan	Backpayment	18	50	\$ 1,842
	Military	0	0	1,842
	Redeposit	9	60	310,313
	Totals	27	110	\$ 313,997
Public Employee Hybrid Retirement Plan	Backpayment	37	108	\$ 1,002,819
	Military	4	7	24,611
	Redeposit	5	17	93,582
	Totals	46	132	\$ 1,121,012
Grand Totals	Backpayment	723	682	\$ 1,810,892
	Military	44	67	184,630
	Redeposit	67	349	1,892,609
	Totals	834	1,098	\$ 3,888,131



Treasury allows members to establish their prior service by making monthly installment payments in the form of Automated Clearing House (ACH) withdrawals from a designated bank account. Service is credited to the member’s account once the balance has been paid off. Examples of service types which are eligible to be purchased through installment payments are previously withdrawn service, peacetime military service, educational leave, and enrollment service for new participating employers. When a member is billed for prior service, a statement is generated showing a lump sum payment. In addition, installment information is given with regard to financing over six (6) to sixty (60) months. The member may elect to finance the entire amount or elect to make a down payment and finance the balance. The member may choose, at any time, to pay off the remaining balance.

INSTALLMENT PAYMENT CONTRACTS

July 1, 2022 through June 30, 2023

	<u>Type of Service</u>	<u>No. of Members</u>	<u>Years of Service</u>	<u>Amount</u>
Teacher Legacy Pension Plan	Backpayment	3	5	\$ 12,977
	Military	0	0	0
	Redeposit	8	43	\$163,480
	Totals	11	48	\$ 176,457
Public Employee Legacy Retirement Plan	Backpayment	3	6	\$ 3,545
	Military	3	8	9,940
	Redeposit	12	71	55,866
	Totals	18	85	\$ 69,351
Teacher Hybrid Retirement Plan	Backpayment	0	0	\$ 0
	Military	0	0	0
	Redeposit	5	29	36,341
	Totals	5	29	\$ 36,341
Public Employee Hybrid Retirement Plan	Backpayment	4	12	\$ 7,978
	Military	2	3	1,685
	Redeposit	0	0	0
	Totals	6	15	\$ 9,663
Grand Totals:	Backpayment	10	23	\$ 24,501
	Military	5	11	11,624
	Redeposit	25	143	255,687
	Totals	40	177	\$ 291,812



REFUND ACTIVITY

For the Year Ended June 30	Number of Refunds Processed	Amount Refunded
2014	5,683	\$ 54,045,937
2015	4,934	47,961,414
2016	4,621	54,392,689
2017	4,583	39,943,710
2018	4,426	41,159,513
2019	4,872	42,759,556
2020	4,844	44,753,651
2021	5,334	44,189,614
2022	5,837	55,349,050
2023	5,365	47,882,314

POLITICAL SUBDIVISION PARTICIPATION

Schedule by Category

Year Ended June 30	Number of Cities	Number of Counties	Political Subdivisions	Total
2014	177	88	224	489
2015	178	87	232	497
2016	179	87	235	501
2017	181	87	257	525
2018	206	97	285	588
2019	209	90	273	572
2020	199	89	287	575
2021	203	89	296	588
2022	205	89	296	590
2023	212	90	298	600



HISTORICAL EMPLOYER CONTRIBUTION RATES

Expressed as a Percentage of Salary

Year Ended June 30	State Employees		Teachers	
	Legacy	Hybrid	Legacy	Hybrid
2014	15.03%	N/A	8.88%	N/A
2015	15.03%	4.00%	9.04%	4.00%
2016	15.03%	4.00%	9.04%	4.00%
2017	15.02%	4.00%	9.04%	4.00%
2018	18.87%	4.00%	9.08%	4.00%
2019*	19.23%	1.66%	10.46%	1.94%
2020*	19.66%	1.73%	10.63%	2.03%
2021*	20.23%	1.80%	10.27%	2.02%
2022*	20.50%	1.86%	10.30%	2.01%
2023*	21.88%	2.48%	8.69%	2.87%

The employer contribution rates for political subdivisions are individually determined based on the biennial actuarial valuation of each political subdivision.

**The contribution rates shown for 2019-2023 for the State Employee and Teacher Hybrid Retirement Plans are the actuarially determined contribution rates (ADC). Employers participating in the Hybrid Retirement Plans are required to contribute the greater of 4.00% of the ADC. Contributions in excess of the ADC are held in a separate Stabilization Reserve Trust on behalf of the employer.*



PRINCIPAL PARTICIPATING EMPLOYERS

Current Year and Nine Years Ago

Teacher Legacy Pension Plan

	2023			Participating Government	2014		
	Covered Employees	Rank	Percentage of Total System		Covered Employees	Rank	Percentage of Total System
Participating Government							
Shelby County Board of Ed Teachers	3,571	1	7.80%	Shelby County Board of Ed Teachers	11,721	1	14.93%
Davidson County Schools	3,170	2	6.93%	Davidson County Schools	7,363	2	9.38%
Knox County Schools	2,804	3	6.13%	Knox County Schools	5,297	3	6.75%
Hamilton County Schools	1,737	4	3.79%	Hamilton County Schools	3,221	4	4.10%
Rutherford County Schools	1,644	5	3.59%	Rutherford County Schools	3,128	5	3.98%
Williamson County Schools	1,560	6	3.41%	Williamson County Schools	2,635	6	3.36%
Sumner County Schools	1,274	7	2.78%	Montgomery County Schools	2,563	7	3.26%
Montgomery County Schools	1,264	8	2.76%	Sumner County Schools	2,200	8	2.80%
Sevier County Schools	747	9	1.63%	Wilson County Schools	1,099	9	1.40%
Wilson County Schools	634	10	1.39%	Jackson-Madison County	1,086	10	1.38%
Others	27,371		59.79%	Others	38,193		48.65%
Total	45,776		100.00%	Total	78,506		100.00%

Public Employee Legacy Retirement Plan

	2023			Participating Government	2014		
	Covered Employees	Rank	Percentage of Total System		Covered Employees	Rank	Percentage of Total System
Participating Government							
State	27,119	1	25.92%	State	57,410	1	42.35%
Shelby County Board of Ed	5,055	2	4.83%	Shelby County Unified School District	4,334	2	3.20%
Rutherford County	3,043	3	2.91%	Hamilton County	2,791	3	2.06%
Williamson County	2,732	4	2.61%	Rutherford County	2,508	4	1.85%
Sumner County	2,191	5	2.09%	Montgomery County	2,446	5	1.80%
Wilson County	1,478	6	1.41%				0.00%
Hamilton County	1,425	7	1.36%				0.00%
Sevier County	1,362	8	1.30%				0.00%
Clarksville	1,326	9	1.27%				0.00%
Montgomery County	1,242	10	1.19%				0.00%
Others	57,669		55.11%	Others	66,065		48.74%
Total	104,642		100.00%	Total	135,554		100.00%

(continued)



PRINCIPAL PARTICIPATING EMPLOYERS

Current Year and Nine Years Ago

(continued)

	Teacher Hybrid Pension Plan		
	2023		
Participating Government	Covered Employees	Rank	Percentage of Total System
Shelby County Board of Ed Teachers	3,339	1	9.12%
Davidson County Schools	2,696	2	7.37%
Knox County Schools	1,926	3	5.26%
Williamson County Schools	1,834	4	5.01%
Hamilton County Schools	1,828	5	5.00%
Rutherford County Schools	1,451	6	3.97%
Montgomery County Schools	1,312	7	3.59%
Sumner County Schools	947	8	2.59%
Wilson County Schools	798	9	2.18%
Jackson Madison Co Board of Ed	468	10	1.28%
Others	19,996		54.64%
Total	<u>36,595</u>		<u>100.00%</u>

	Public Employee Hybrid Retirement Plan		
	2023		
Participating Government	Covered Employees	Rank	Percentage of Total System
State Employee Hybrid	31,513	1	76.13%
Montgomery County Hybrid	1,876	2	4.53%
Hamilton County Hybrid	1,738	3	4.20%
Jefferson County Hybrid	528	4	1.28%
Knox County Board of Ed	528	5	1.28%
Others	5,209		12.58%
Total	<u>41,392</u>		<u>100.00%</u>

The Teacher Retirement Plan and Public Employee Retirement Plan - Hybrid became effective July 1, 2014; therefore, information for nine years ago is not available.



Participants

TCRS has established pension plans for four groups of public employees: state employees, higher education employees, teachers and the employees of governmental entities (political subdivisions). Employees of political subdivisions may participate in TCRS if the entity’s governing body authorizes participation and accepts all liability associated with coverage for their employees.

Participation is subject to the approval of the Board of Trustees. At June 30, 2023, there were 600 political subdivisions participating in TCRS.

Participation as of June 30, 2023:

Cities	212
Counties	90
Utility Districts	86
Special Schools/LEAs*	36
Joint Ventures	17
Housing Authorities	15
911 Districts/ECDs	63
Miscellaneous Agencies	81
Total	600

*Local Education Agencies participate through Local Governing bodies. Only Boards of Education participating separately from Counties or Cities are indicated in participation of political subdivisions.

Administration

TCRS administers the pension plan for political subdivisions in accordance with state statute. Each employer is responsible for the pension cost for its employees. The cost is not shared with other political subdivisions nor with the state. A separate fund balance is maintained by the retirement system for each participating political subdivision and employer contribution rates are determined individually.

Application

To apply for TCRS participation, the chief governing body of the political subdivision must first pass a resolution authorizing an actuarial study to estimate the potential cost of participation. Once the governing body has had an opportunity to review the estimated pension cost and liability, a second resolution must then be passed in order to authorize TCRS participation. Political subdivisions electing TCRS coverage accept the liability for pension benefits to be accrued by their employees.

Coverage

A political subdivision is required to offer coverage under the same terms and conditions to all the employees of each of its departments and agencies.

Political subdivisions have the option of purchasing or allowing their employees to purchase retirement credit for service rendered prior to the employer’s date of participation. The amount of prior service allowed may be limited.

Political subdivisions opting to join TCRS do so under the plan provisions that exist at the time of their participation. Subsequent legislative changes, however, are optional if they result in increased cost to the political subdivision. These optional improvements may be adopted by resolutions approved by the chief governing body.

TCRS PROVIDES
THE ADMINISTRATION
OF A RETIREMENT
PROGRAM FOR 600
LOCAL GOVERNMENTS.



Membership

- Optional membership for part-time employees
- Reduce vesting requirement to qualify for retirement benefits from 10 years to five years
- Increase vesting requirement to qualify for retirement benefits from five years to 10 years (only applicable if in Legacy plan)

Contributions

- Employee contributions at a level five percent both below and above the Social Security wage base
- Exclusion of employee contributions from taxable income under 414(h) provisions of the Internal Revenue Code
- Noncontributory retirement plan
- Discontinue noncontributory retirement plan and implement contributory retirement plan for new employees
- Extension of 3.6 percent indexing feature for noncontributory members' salaries used in calculating the average final compensation

Creditable Service

- Service credit for unused sick leave
- Service credit for military service during periods of armed conflict at no cost to the employee
- Service credit for periods of temporary disability during which the employee was receiving workers' compensation payments based on covered employment
- Service credit purchase for peacetime military service between October 15, 1940 and May 7, 1975
- Purchase of service credit for probation period
- Purchase of service credit for a member's service previously rendered while a full-time employee and participating member of a Tennessee local government's defined benefit retirement plan.
- An active member may now establish retirement credit for military service rendered during the following periods of armed conflict which did not interrupt employment by making a lump-sum payment equal to the member's current monthly salary multiplied by 9% multiplied by the number of months established. Service is established on a basis of day for day credit. Local government employers must authorize this provision for its employees.

Multinational Force in Lebanon
8/21/1982–2/26/1984

Invasion of Grenada/Operation Urgent Fury
10/25/1983–12/15/1983

Invasion of Panama/Operation Just Cause
12/20/1989–1/31/1990

Persian Gulf War
8/2/1990–4/6/1991

Operation Enduring Freedom
10/7/2001–12/28/2014

Operation Iraqi Freedom
3/19/2003–8/31/2010

Survivor Benefits

- 100 percent joint and survivor spouse death benefit for members with 10 years of service. May be reduced from 10 years to vested status.
- Provide inactive members with certain death and disability benefits
- 50 percent of five year average salary benefits for surviving spouse for members killed in the line of duty

Retirement Benefits

- Provide current retirees and members a five percent increase in base retirement benefit
- Discontinue five percent increase in base retirement benefit for new employees
- The actuarial equivalent of an age 65 benefit for employees retiring after age 65. Only applicable for the legacy plan design and does not apply for those becoming members of the legacy plan after July 1, 2011.
- 25-year retirement with actuarially reduced benefits
- Minimum benefit level increase to \$8, \$14, \$20 per year of service
- Mandatory retirement with supplemental bridge benefit for public safety officers
- Service retirement at age 55 with 25 years of service for public safety officers
- Discontinue enhanced public safety officer benefits for new public safety officers
- 25-year retirement with actuarially reduced benefits for emergency communications personnel

Retired Members

- Exclusion of cost-of-living adjustments at the date of participation for all employees or at a later date for new employees
- Compounded cost-of-living adjustment (COLA) to current and future retirees



**Tennessee Consolidated Retirement System
Local Government Plan Options
Effective July 1, 2012**

Original Defined Benefit Plan

- Calculation includes a 1.50% multiplier
- Benefit Formula: Years of Service x AFC x 1.50% + 5% Benefit Improvement
- Retirement Requirements:
 - ◆ Service Retirement: An unreduced benefit if the member is age 60 and vested or has thirty (30) years of service regardless of age
 - ◆ Early Retirement: A reduced benefit if the member is age 55 and vested
 - ◆ 25-Year Early: A reduced benefit if the member is under the age of 55 and has at least 25 years of service

Alternate Defined Benefit Plan

- Calculation includes a 1.40% multiplier
- Benefit Formula: Years of Service x AFC x 1.40%
- Retirement Requirements:
 - ◆ Service Retirement: An unreduced benefit if the member is age 65 and vested, or meets the “Rule of 90” (years of service plus age at retirement equal 90 or above)
 - ◆ Early Retirement: A reduced benefit if the member is age 60 and vested, or meets the “Rule of 80” (years of service plus age at retirement equal 80 or above, but equal less than 90)

Local Government Hybrid Plan

- Calculation includes a 1.00% multiplier
- Benefit Formula: Years of Service x AFC x 1.00%
- Retirement Requirements:
 - ◆ Service Retirement: An unreduced benefit if the member is age 65 and vested, or meets the “Rule of 90” (years of service plus age at retirement equal 90 or above)
 - ◆ Early Retirement: A reduced benefit if the member is age 60 and vested, or meets the “Rule of 80” (years of service plus age at retirement equal 80 or above, but equal less than 90)

Employee Contribution Funding Options

(Applicable to all plans listed above.)

- Employer may elect to pay 0.0%, 2.5% or 5.0% of employee contributions



**Tennessee Consolidated Retirement System
State and Teacher Hybrid Plan (Optional for Local Governments)
Effective July 1, 2014**

- Calculation includes a 1.00% multiplier
- Benefit Formula: Years of Service x AFC x 1.00%
- Retirement Requirements:
 - ◆ Service Retirement: An unreduced benefit if the member is age 65 and vested, or meets the “Rule of 90” (years of service plus age at retirement equal 90 or above)
 - ◆ Early Retirement: A reduced benefit if the member is age 60 and vested, or meets the “Rule of 80” (years of service plus age at retirement equal 80 or above, but equal less than 90)
- Contribution Rates:
 - ◆ Employee Contribution Rate: 5.00%
 - ◆ Employer Contribution Rate: 4.00%
- Unfunded Liability Controls:
 - ◆ If Defined Benefit component employer cost exceeds 4% of payroll or if the target unfunded liabilities are exceeded for the Defined Benefit component plan, the following adjustments will automatically occur in the following sequence:
 - ◇ Utilize funds in the actuarial stabilization account
 - ◇ Reduce or suspend the maximum 3% annual COLA
 - ◇ Shift some or all of the Defined Contribution employer contribution to the Defined Benefit plan
 - ◇ Increase employee contribution to Defined Benefit plan by 1% of payroll
 - ◇ Reduce future service accrual below 1%
 - ◇ Freeze plan, no future accruals

When employer cost is restored to 4% of payroll and unfunded liabilities do not exceed target maximum unfunded liabilities, then adjustments previously made are restored on a prospective basis.



CITIES

Adams	Church Hill	Estill Springs	Jamestown	McEwen	Pikeville	Surgoinsville
Alamo	Clarksville	Etowah	Jasper	McKenzie	Pittman Center	Sweetwater
Alcoa***	Cleveland	Fairview	Jefferson City	McMinnville	Plainview	Tazewell
Algood	Clifton	Fayetteville	Johnson City**	Medina	Pleasant Hill	Tellico Plains
Ashland City	Clinton	Forest Hills**	Jonesborough	Middleton	Pleasant View	Tiptonville
Atoka	Collegedale	Franklin	Kenton	Milan	Portland	Townsend
Atwood	Collierville**	Friendship	Kimball	Millersville	Puryear	Tracy City**
Baileyton	Collinwood	Friendsville	Kingsport***	Millington	Red Bank	Trenton
Baxter	Cookeville***	Gainesboro	Kingston	Monterey	Red Boiling Springs	Tullahoma
Bean Station	Coopertown***	Gallatin	Kingston Springs	Morrison	Ripley	Tusculum
Belle Meade**	Cornersville	Galloway	Lafayette	Morristown	Rockwood	Unicoi
Bells	Covington***	Gatlinburg***	Lafollette	Moscow**	Rocky Top	Union City
Benton	Cowan	Gleason	Lakeland**	Mosheim	Rutherford	Vanleer
Big Sandy	Crossville**	Goodlettsville	Lakesite	Mountain City	Rutledge	Vonore
Bluff City	Cumberland	Gordonsville	Lakewood**	Mt. Carmel	Savannah**	Wartburg
Bolivar	Dandridge	Grand Junction	Lawrenceburg	Mt. Juliet	Scotts Hill	Watauga
Bradford	Dayton	Greenbrier	Lebanon***	Munford	Selmer	Walden
Brentwood***	Decatur	Greeneville	Lenoir City*	New Johnsonville	Sevierville	Waverly
Brighton	Decaturville	Greenfield***	Linden	New Tazewell	Sharon	Waynesboro
Bristol***	Decherd	Halls	Livingston	Newport	Signal Mountain	Westmoreland***
Brownsville	Dickson	Harriman***	Lobelville	Niota	Soddy Daisy	White Bluff
Bruceton	Dover	Harrogate	Lookout Mountain	Nolensville	Somerville	White House
Byrdstown	Ducktown	Henderson	Loretto	Norris***	South Carthage	White Pine
Camden	Dunlap	Hendersonville	Loudon	Oak Hill	South Fulton***	Whiteville
Carthage	Dyer	Hohenwald	Luttrell	Oak Ridge	South Pittsburg	Whitwell
Caryville	Eagleville	Humboldt	Madisonville	Oakland	Sparta	Woodbury
Celina***	East Ridge	Huntington	Manchester	Obion	Spencer	
Centerville	Elizabethton	Huntland	Martin	Oliver Springs	Spring City	
Charleston	Elkton**	Huntsville	Maryville	Paris***	Spring Hill	
Charlotte	Erin	Jacksboro	Maury City	Parsons	Springfield	
Chapel Hill	Erwin	Jackson	Maynardville	Pegram	St. Joseph	

COUNTIES

Anderson	Coffee**	Hamilton***	Lauderdale	Moore*	Smith
Bedford	Crockett	Hardeman	Lawrence	Morgan	Stewart
Benton	Cumberland	Hardin	Lewis	Obion	Sullivan
Bledsoe	Decatur	Hartsville/Trousdale	Lincoln	Overton	Sumner
Blount	DeKalb	Hawkins	Loudon	Perry	Tipton
Bradley***	Dickson	Haywood	Macon	Pickett	Unicoi
Campbell	Fayette	Henderson	Madison**	Polk	Union
Cannon	Fentress	Henry	Marion	Putnam	Van Buren
Carroll	Franklin	Hickman	Marshall	Rhea*	Warren
Carter	Gibson	Houston	Maury	Roane***	Washington
Cheatham	Giles	Humphreys	McMinn	Robertson	Wayne
Chester	Grainger	Jackson	McNairy	Rutherford	Weakley***
Claiborne	Greene	Jefferson***	Meigs***	Scott	White
Clay	Grundy	Johnson***	Monroe	Sequatchie	Williamson
Cocke	Hamblen	Lake	Montgomery***	Sevier	Wilson

*All departments not covered by TCRS.
**Plan closed to new hires.

***Employer has more than one plan design.

(continued)



911 EMERGENCY COMMUNICATIONS DISTRICTS

Anderson Co.	Cleveland Bradley Co.	Hamblen Co.	Lauderdale Co.	Obion Co.	Union Co.
Bedford Co.	Cocke Co.	Hamilton Co.	Lawrence Co.	Overton Co.	Van Buren Co.
Benton Co.	Crockett Co.	Hardeman Co.	Loudon Co.	Roane Co.	Warren Co.
Blount Co.	Cumberland Co.	Hardin Co.	Macon Co.	Robertson Co.	Washington Co.
Brentwood***	DeKalb Co.	Hawkins Co.	Madison Co.	Rutherford Co.	Wayne Co.
Campbell Co.	Dickson Co.	Henderson Co.	Marshall Co.	Scott Co.	Weakley Co.
Cannon Co.	Fayette Co.	Humphreys Co.	Maury Co.	Sequatchie Co.	White Co.
Carroll Co.	Fentress Co.	Jackson Co.	McMinn Co.	Sevier Co.	Wilson Co.
Carter Co.	Gibson Co.	Jefferson Co.	McNairy Co.	Shelby Co.	
Chester Co.	Grainger Co.	Johnson Co.	Monroe Co.	Sullivan Co.	
Claiborne Co.	Greene Co.	Knox Co.	Montgomery Co.	Tipton Co.	

HOUSING AUTHORITIES

Bristol	Hartsville	Maryville	Rogersville**
Clinton	Hohenwald	Memphis	South Pittsburg
Cookeville	Lawrenceburg	Morristown	Sweetwater
Dickson	Lenoir City	Rockwood	

JOINT VENTURES

Bi County Solid Waste Management	Fayetteville/Lincoln County Public Library	Tazewell - New Tazewell Fire Department
Bolivar-Hardeman County Library	Jackson/Madison County Library**	TriCities Airport Authority***
Brownsville-Haywood County Library	Maryville, Alcoa, Blount Co. Parks & Rec.	Washington County/Johnson City Animal Control Center
Clarksville/Montgomery County Public Library	Morristown/Hamblen County Landfill	Washington County/Johnson City EMS
Clarksville/Montgomery County Regional Planning	Shelbyville-Bedford County Library	Wilson County Emergency Management Agency
Fayetteville-Lincoln County Industrial Development Board	Smyrna/Rutherford County Airport Authority	

MISCELLANEOUS AGENCIES

Anderson County Economic Development Association	County Officials Association of TN	Hardin County General Hospital
Association of County Mayors	Davidson County Officials	Henderson County Judges Officials Executives
Blount County Fire Protection District	Delta Human Resource Agency	Humphreys County Nursing Home
Blount County Library	Douglas Cherokee Economic Authority	Industrial Development Board of Millington Tennessee
Bradley Cleveland Community Services Agency	Dyer County Judges Executives Officials	Joint Economic and Development Board of Wilson County
Carroll County Commissioners	Edward Gauche Fisher Public Library	Kinser Park
Carter County Tomorrow	First Tennessee Development District	Knox County Executive and Officials
Clarksville Memorial Hospital**	First Tennessee Human Resource Agency	Knoxville City Judges and Attorneys
Cocke County Partnership, Inc.	Governors Books From Birth Foundation	Lawrence County Public Library
Community Health Agencies	Greater Nashville Regional Council	Lewis County Highway Department
Cookeville Regional Medical Center	Hancock County Officials	Lewis County Officials

*All departments not covered by TCRS.
**Plan closed to new hires.

***Employer has more than one plan design.

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MISCELLANEOUS AGENCIES *(continued)*

Loudon County Economic Development Agency	South Central Tennessee Workforce Board	Tennessee Historical Society
Marion County Library	Southeast Tennessee Development District***	Tennessee Municipal Bond Fund
McMinn County Economic Development District	Southeast Tennessee Human Resource Agency	Tennessee Municipal League
Mid-Cumberland Human Resource Agency	Southwest Tennessee Development District	Tennessee Organization of School Superintendents**
Millington Airport Authority	Southwest Tennessee Human Resource Agency	Tennessee School Board Association
Networks Sullivan Partnership	Stokes Brown Public Library	Tennessee Secondary School Athletic Association
Obion County Library	Tellico Area Services System	Tennessee Sheriffs Association
Public Entity Partners	Tellico Reservoir Development Agency	Tennessee State Employees Association
Putnam County Library	Tennessee Association of Assessing Officers	Tennessee Veterans Home Board
Rutherford County Library System	Tennessee Central Economic Authority	Unicoi County Emergency Medical Services
Sequatchie Valley Planning and Development District	Tennessee County Commissioners Association	Upper Cumberland Human Resource Agency
Sevier County Economic Development Council	Tennessee County Highway Officials Association	Upper Cumberland Regional Airport
Sevier Solid Waste	Tennessee County Services Association	Upper Cumberland Workforce Development Board
Shelby County Officials	Tennessee Community Services Agency	Upper East Tennessee Human Development Agency
South Central Human Resource Agency**	Tennessee Duck River Development Agency	W.G. Public Library
South Central Tennessee Development District	Tennessee Education Association	Workforce Solutions**

SPECIAL SCHOOL DISTRICTS/BOARDS OF EDUCATION

Arlington Community Schools***	Hawkins County	Murfreesboro
Athens City Schools	Hollow Rock-Bruceston	Oak Ridge***
Bartlett City***	Huntingdon	Oneida
Bradford	Knox County	Paris
Clinch Powell Education Coop.	Lebanon	Rogersville City Schools
Coffee County	Lenoir City Schools	Shelby County
Collierville Schools***	Lewis County	South Carroll
Elizabethton	Little Tennessee Valley Education Coop.	Trenton
Fentress County	McKenzie	Tullahoma
Franklin	Milan	Union City
Germantown***	Millington City Schools	Union County
Gibson County	Moore County	West Carroll County

UTILITY DISTRICTS

Alpha-Talbott	County Wide	Glen Hills
Anderson County Water Authority	Crab Orchard	Greater Dickson Gas Authority
Arthur Shawnee	Cross Anchor	Greeneville Light and Power
Beech River Watershed***	Cumberland	Hampton South
Big Creek	DeWhite	Hardeman-Fayette County
Bloomingdale	Double Springs	Hendersonville
Blountville	Dyersburg Suburban	Hixson***
Bondecroft	East Fork	Jackson County
Bristol Electric System	East Montgomery	Johnson City Energy Authority***
Cagle Fredonia	East Side	LaGuardo
Castalian Springs/Bethpage	Fall Creek Falls	Lake County
Chuckey	First Carter County	Lakeview
Citizen's Gas	First Hawkins County	Lincoln County Board of Public Utilities
Consolidated Utility District/Rutherford County	First Tipton County	Loudon
Cookeville Boat Dock Road	Gladeville	Madison Suburban

*All departments not covered by TCRS.
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UTILITY DISTRICTS *(continued)*

Middle Tennessee	Poplar Grove	South Blount
New Market	Quebec-Walling	South Cumberland
North Utility District of Decatur and Benton Counties	Reelfoot Lake Regional	South Elizabethton
North West	Riceville	South Giles
Northeast Henry County	River Road	Surgoinsville
Oak Ridge	Roane Mountain	Sylvia-Tennessee City Pond Water
O'Connor	Russellville Whitesburg	Walden's Ridge
Old Gainesboro Road	Savannah Valley	Watauga River Regional Water Authority
Old Hickory	Second South Cheatham	Water Authority of Dickson County
Old Knoxville Highway	Sevier County	Weakley County Municipal Electric***
Paris-Henry	Shady Grove	Webb Creek
Persia	Siam	West Knox**
Plateau	Smith	West Overton
Pleasant View	Sneedville	

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