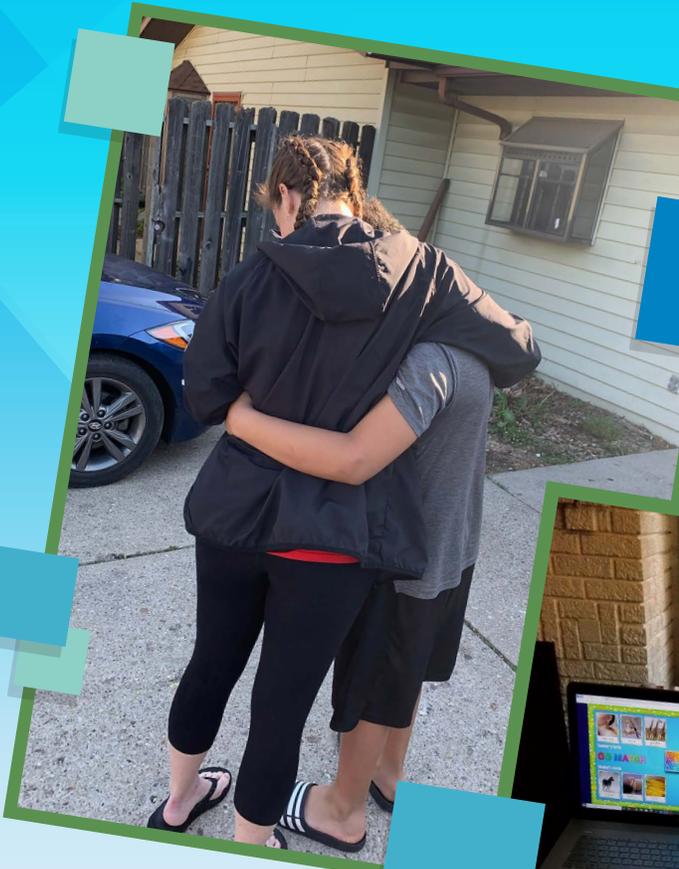


COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2020



**Teachers' Retirement System
of the State of Illinois**

a component unit of the State of Illinois

FISCAL YEAR 2020 HIGHLIGHTS

As of June 30, 2020

Active contributing members	163,115
Inactive noncontributing members	138,279
Benefit recipients*	125,927
Total membership	427,321

Investment return

Total fund investment return, net of fees	0.6%
---	------

Actuarial information

Actuarial accrued liability (AAL)	\$135,598,547,013
Less actuarial value of assets (AVA)	54,890,975,828
Unfunded actuarial accrued liability, AVA basis (UAAL)	\$80,707,571,185
Funded ratio (AVA/AAL)	40.5%
Less fair value of assets (FVA)	\$52,316,477,771
Unfunded actuarial accrued liability, FVA basis (UAAL)	\$83,282,069,242
Funded ratio (FVA/AAL)	38.6%

GASB Statement No. 67 disclosures

Total pension liability (TPL)	\$138,531,733,887
Less fiduciary net position (FNP)	52,316,477,771
Net pension liability (NPL)	\$86,215,256,116
FNP as a percentage of TPL	37.8%

Additions

Member contributions	\$994,400,416
Employer contributions	92,658,238
State of Illinois contributions	4,813,451,679
Total investment income	275,669,398
Total additions	\$6,176,179,731

Deductions

Benefits paid	\$7,035,307,499
Refunds paid	64,217,456
Administrative expenses	22,966,372
Total deductions	\$7,122,491,327

* Benefit recipients includes retiree, disability and survivor benefit recipients.

Cover photos: **Alison Anderson** works on language arts and math with a student in his driveway during the school shutdown this spring.

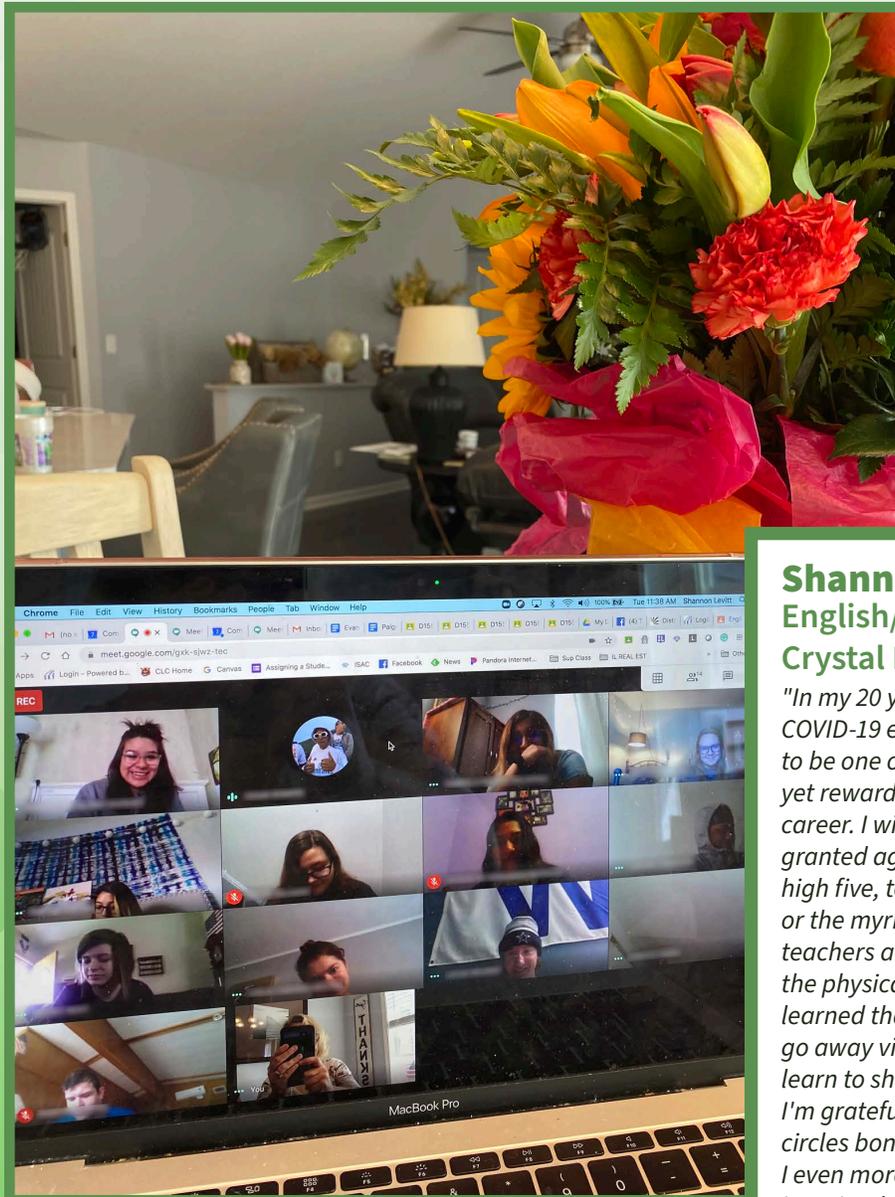
Katherinne Sardena teaches 3rd grade while her children participate in e-learning. **Angelic Berry** having fun with her "Berry Bunch."

Barbara Harte offered zoom speech sessions for students when her school shutdown.

PREFACE

COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2020

This report was prepared by the TRS Accounting, Investments, Research and Communications Departments.



Shannon Levitt
English/AVID Teacher
Crystal Lake High School

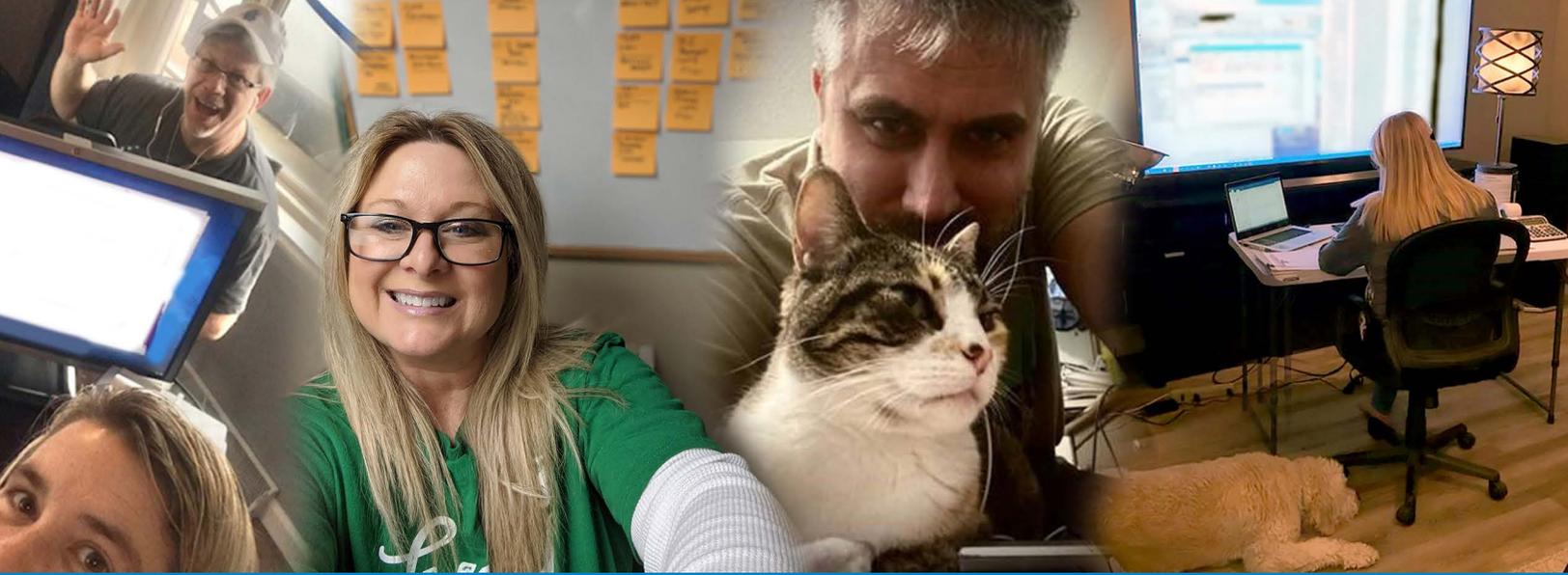
"In my 20 years in education, the COVID-19 experience stands out to be one of the most challenging, yet rewarding, experiences of my career. I will never ever take for granted again a single fist bump, high five, tear of joy or sadness, or the myriad of emotions that teachers and students share within the physical space of the school. I learned that those emotions don't go away virtually, we just had to learn to share them differently. I'm grateful COVID-19 and virtual circles bonded my AVID class and I even more than I ever could have imagined."

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS

a component unit of the State of Illinois

2815 West Washington | P.O. Box 19253 | Springfield, Illinois 62794-9253

<https://www.trsil.org>



TRS staffers working from home. On March 11, 2020, TRS closed its offices to visitors, implemented preplanned “work from home” procedures and successfully converted all member assistance efforts to online and telephone platforms to comply with recommendations for social distancing.

Unprecedented.

Rarely in the 81-year history of Teachers’ Retirement System has one event so dominated every aspect of life in Illinois and the United States.

Like an eclipse of the sun, the COVID-19 pandemic first cast its shadow in January of 2020. As the weeks progressed, it mysteriously grew darker and more encompassing as it swept the nation.

At first, no one knew where the coronavirus came from, how it was transmitted, how fast it could spread or how to overcome it. The only thing everyone could agree on was that it led to the death of many, many people.

COVID-19 shook society to its core. The entire population was urged to limit contact with others in order to slow the spread of the virus. Most stores, businesses, offices, restaurants, theaters and public services were shut down to keep people apart. Face masks were donned to help prevent infection through the air. Six feet became a universal standard of measurement to accomplish “social distancing.” Hand sanitizer, clear plastic shields and cleaning supplies appeared. In an unforeseen development, there was a nationwide run on toilet paper.

Students everywhere and their schools were particularly affected. In Illinois, districts halted in-person instruction;

replacing it with improvised remote learning. Laptops replaced classrooms. All sports stopped. Graduation ceremonies and other rights of spring were canceled.

Through it all, TRS members rose to the occasion, championing the interests of their students. They assisted uneasy children and nervous parents through the transition to internet instruction. Much of the school day was created on the fly as teachers and students worked together to solve unforeseen problems and reclaim the wonder and accomplishment of learning.

TRS members used creativity, psychology, patience and years of experience to make the 2019-2020 school year a success in spite of challenges that were... unprecedented.

In this *Comprehensive Annual Financial Report* for fiscal year 2020, Teachers’ Retirement System of the State of Illinois highlights the extraordinary experience that its members and staff successfully overcame during the COVID-19 pandemic. In the future, FY20 will become a shining example of the best aspects of teaching.

TABLE OF CONTENTS

PREFACE

INTRODUCTION

Certificate of Achievement	4
Recognition Award for Administration	5
Letter of Transmittal	6
TRS Board of Trustees	13
TRS Organization	14
Consulting and Professional Services	16

FINANCIAL

Independent Auditor's Report	18
Management's Discussion and Analysis	20
Financial Statements	26
Statement of Fiduciary Net Position June 30, 2020	26
Statement of Changes in Fiduciary Net Position for the Year Ended June 30, 2020	27
Notes to Financial Statements	28
Required Supplementary Information	53
Schedule of Changes in the Net Pension Liability for Fiscal Years	53
Schedule of the Net Pension Liability for Fiscal Years	54
Schedule of Investment Returns for Fiscal Years	54
Schedule of Contributions from Employers and Other Contributing Entities, Last 10 Fiscal Years	54
Notes to Required Supplementary Information	55
Other Supplementary Information	56
Schedule of Administrative Expenses for the Years Ended June 30	56
Schedule of Investment Expenses for the Years Ended June 30	57
Schedule of Professional Services for the Years Ended June 30	58

INVESTMENTS

Introduction	60
Asset Allocation	61
Portfolio Securities Summary	62
Securities Holdings (Historical)	63
Investment Results	63
Equity	65
Income	71
Real Assets	74
Diversifying Strategies	77

Securities Lending	78
Brokerage Activity	79
Investment Manager and Custodian Fees	80

ACTUARIAL

Actuary's Certification	86
Actuarial Assumptions and Methods	88
Annual Actuarial Valuation	91
Analysis of Financial Experience: Reconciliation of Unfunded Liability	91
Actuarial Standards and Illinois State Pension Funding	92
Tests of Financial Condition	94
Other Information	96
Funding Analysis by Tier	98
Average Annual Salary for Active Members (Excluding Substitutes) by Years of Service and Number of Employers	100
Average Annual Salary and Age for Active Members by Years of Service as of June 30, 2020	102
Plan Summary	104
Summary of Tier 1 and Tier 2 Benefit Provisions	106

STATISTICAL

Statistical Section	111
Changes in Net Position Restricted for Pensions, Last 10 Fiscal Years	112
Benefit and Refund Deductions from Net Position by Type, Last 10 Fiscal Years	112
Employee and Employer Contribution Rates, Last 10 Fiscal Years	114
Active Members by Tier	114
Retired Members by Years of Service and Years in Retirement as of June 30, 2020	115
Demographics of Benefit Recipients and Active Members as of June 30, 2020	116
Benefit Recipients by Type as of June 30, 2020	118
Average Benefit Payments for New Retirees, Last 10 Fiscal Years	119
Principal Participating Employers	120



Dupo Jr./Sr. High School

4 hrs · 🌐



While our seniors return books and equipment, teachers cheer them on ahead of commencement on Saturday! Stay safe and healthy!



Christine Wynne Dupo High School

"The seniors at Dupo High School had a 'drop off' day. A few teachers (including me), decided to sit in the circle drive with signs congratulating seniors as they entered and left the building. Support comes in all different ways."

INTRODUCTION





Public Pension Coordinating Council

**Recognition Award for Administration
2020**

Presented to

Teachers' Retirement System of the State of Illinois

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

Presented by the Public Pension Coordinating Council, a confederation of

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

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

Alan H. Winkle
Program Administrator



TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS

2815 W. Washington St. | P.O. Box 19253 | Springfield, IL 62794-9253
877-927-5877 (877-9-ASK-TRS) | TTD: 800-526-0844 (or 711) | FAX: 217-753-0964
members@trsil.org | <https://www.trsil.org>
R. Stanley Rupnik, Interim Executive Director

LETTER OF TRANSMITTAL

December 10, 2020

To the TRS Board of Trustees and TRS Members:

We are pleased to present the *Comprehensive Annual Financial Report* (CAFR) for the Teachers' Retirement System of the State of Illinois (TRS) for the fiscal year ended June 30, 2020. This report details the on-going work of the System's trustees and staff to fulfill the TRS mission and keep the retirement promises made by the State of Illinois to educators in its public schools.

Concluding its 81st year of operation in FY20, TRS successfully distributed \$7.0 billion in retirement and disability benefits to 125,927 members, despite ongoing fiscal challenges faced by the System.

TRS ended FY20 with a funded ratio of 40.5 percent. The System had an actuarial value of \$54.9 billion in assets and a long-term benefit obligation of \$135.6 billion, which creates an unfunded liability of \$80.7 billion.

COVID-19 PANDEMIC

FY20 was dominated by the appearance of the COVID-19 virus in January and an ensuing pandemic that engulfed the world and devastated the global economy. The coronavirus spread rapidly throughout Illinois between March and June. This challenge required an aggressive response from TRS from an operational standpoint.

On March 11, to comply with recommendations for social distancing, the System closed its offices to visitors, implemented preplanned "work from home" procedures, canceled business travel and successfully converted all member assistance efforts to online and telephone platforms.

The top TRS priority during this unprecedented situation was to continue paying all benefits as usual to retired members and beneficiaries. TRS was designated an "essential" state service by **Gov. JB Pritzker** because of the monthly economic impact of TRS benefits to its members and communities across Illinois.

Between March and the end of the fiscal year, TRS staff fulfilled the System's priority functions remotely. Approximately \$2.6 billion in member benefits were paid on time and in full. More than 2,600 retirement claims were processed. The System's Call Center averaged approximately 3,000 telephone requests for assistance and 700 emails weekly.

TRS was able to accomplish a swift transition to a work-from-home platform because over the last 10 years the System had prepared contingencies for any emergency that required the System's offices to be closed. TRS had:

- Invested in the technology that enabled staff to work remotely.
- Joined with TRS members to develop an external email system that allows us to contact close to 300,000 members quickly with up-to-date information.

- Created a detailed Business Continuity Plan which imagined the closure of TRS offices and moved information technology functions to “the cloud” enhancing remote work.
- Ran annual tests of TRS computer systems to confirm that all critical functions, especially the payment of benefits, could be accomplished in a “work from home” environment.
- Developed an internal “message tree” that enables TRS management to reach all staff with vital information in case the System’s offices are disabled.

The System also began enhancing its online member services to make it easier for users on both ends of the retirement process to conduct business. For instance, TRS members now can electronically upload all completed TRS forms and documents to TRS offices.

In the Investment Department, forethought and careful planning helped TRS successfully navigate the perils and uncertainties of the pandemic’s economic impact. The System’s strategic focus remained a prudent, long-term allocation of assets to keep investment risk as low as possible, protect assets during the economic downturn and be nimbly poised to take advantage of an economic rebound.

At the end of FY20, TRS held \$51.5 billion in investment assets, a 6.0 percent rebound in asset value compared to the low point during the early months of the pandemic – \$48.5 billion at the end of the March quarter of FY20. Prior to the spread of the pandemic, TRS began the calendar year with \$54.6 billion in assets.

All public pension systems and institutional investors around the world experienced sharp declines during the January-March quarter because of the COVID-19 virus. But compared to public pension systems similar to TRS, the System ranked among the nation’s leaders in its ability to preserve assets. At the end of December, the TRS investment return for the calendar year was 13.4 percent.

During the January-March quarter, the TRS investment return was (9.95) percent, net of fees. That rate of return, however, stood favorably compared to other economic measurements of the same period. The Northern Trust Corporation’s analysis of the 300 largest U.S. institutional investors indicated that the median return for public pension plans was (12.6) percent. TRS’s investment consultant, RVK, Inc., indicated that the System’s portfolio ranked in the top 25 percent of public pension plans during the quarter.

In general, the negative investment returns for various stock market measurements indicated that the TRS portfolio held up comparatively well. During the January-March quarter, the Standard & Poor’s 500 reported a (22.97) percent return. The Dow Jones Industrial Average reported a (26.23) percent return and the National Association of Securities Dealers Automated Quotations (NASDAQ) reported a (17.83) percent return.

TRS maintains a focus on steady, long-term investment returns. TRS recognizes that the majority of its members maintain relationships with the System that last for several decades. Even with the effects of the coronavirus pandemic, the TRS long-term investment returns continued to exceed the System’s long-term assumed investment return of 7 percent. The 40-year return for TRS at the end of FY20 was 9 percent.

Although no one saw the pandemic coming, the resulting economic downturn did not catch TRS off guard. For years, economists have predicted that a downturn eventually would occur. Bearing in mind that risk, TRS employs a highly diversified portfolio designed specifically to help lessen the effects of any economic downturn.

In addition, the System has routinely run “stress tests” on the portfolio to help determine how best to protect assets during adverse conditions. The results of these tests factored greatly into strategic investment decisions during FY20.

PROFILE OF TRS

TRS was established by the State of Illinois on July 1, 1939 to provide retirement, disability and death benefits to teachers employed by Illinois public elementary and secondary schools outside the city of Chicago. TRS is governed by a 15-member Board of Trustees. Trustees include the state superintendent of education, seven trustees appointed by the governor, five trustees elected by contributing TRS members, and two trustees elected by TRS annuitants. The president of the Board of Trustees, by law, is appointed by the governor from among the sitting trustees. The Board of Trustees elects its vice president from among its members. The Board of Trustees appoints an executive director who also serves as the secretary of the Board of Trustees. The executive director is responsible for daily operations at TRS.

The annual budget for TRS administrative expenses is prepared by staff and approved by the TRS Board of Trustees. The TRS annual operating budget request is prepared in conjunction with a review of the long-range strategic plan.

FINANCIAL INFORMATION

TRS staff issues a CAFR within six months of the close of each fiscal year. The report contains financial statements presented in conformity with generally accepted accounting principles (GAAP) applied within guidelines established by the Governmental Accounting Standards Board (GASB).

A system of internal controls helps TRS monitor and safeguard assets and promote efficient operations. Each year TRS's financial statements are audited by a professional accounting firm that serves as a special assistant auditor employed by the Illinois Auditor General. In addition, an annual compliance attestation examination is performed to review compliance with applicable statutes and codes. The Independent Auditor's Report on TRS's financial statements is included on pages 18 and 19 in the Financial Section of this report. TRS received an unmodified auditor opinion on the fair presentation of its financial statements.

TRS is required by law to publish a CAFR annually with information about the System's financial condition, investment methods, performance and actuarial conclusions that determine financial needs as well as statistical information about members, school districts, revenues and benefits. TRS management and staff are responsible for the accuracy of this report and for ensuring that all material disclosures have been made. TRS recognizes that the limitations of internal controls must be considered. These controls are designed to provide reasonable assurance regarding the safekeeping of assets, the reliability of financial records, the appropriate segregation of duties and the use of sound accounting and financial practices. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management. The objective of internal controls at TRS is a reasonable, not absolute, assurance that the System's financial statements are free of material misstatements. Three internal auditors are employed to continually review and determine that all laws, rules, policies and procedures are followed.

Generally accepted accounting principles require that management provide a narrative introduction, overview and analysis to accompany the financial statements in the form of a Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement and should be read in conjunction with the MD&A, which can be found immediately following the report of the independent auditors.

ADDITIONS AND DEDUCTIONS

The three sources of TRS funding are member contributions, investment income and employer contributions through state appropriations and payments by employers. TRS deductions include payments of benefits, refunds and administrative expenses. Negative amounts are shown in parentheses () throughout this report.

Additions (\$ millions)

Source	2020	2019	Increase/(Decrease)	
			Amount	% Change
Member contributions	\$994	\$964	\$30	3.2%
State of Illinois	4,813	4,466	347	7.8
Employer contributions	93	88	5	4.7
Total investment income	276	2,618	(2,342)	(89.5)
Total	<u>\$6,176</u>	<u>\$8,136</u>	<u>(\$1,960)</u>	(24.1%)

Deductions (\$ millions)

	2020	2019	Increase/(Decrease)	
			Amount	% Change
Benefits payments	\$7,035	\$6,746	\$289	4.3%
Refunds	64	73	(9)	(12.3)
Administrative/other	23	24	(1)	(5.6)
Total	<u>\$7,122</u>	<u>\$6,843</u>	<u>\$279</u>	4.1%

The TRS Board of Trustees and staff remain vigilant in their efforts to improve the retirement system's funded status for current and future members. TRS continues to invest prudently and in a disciplined manner for the benefit of TRS membership and for the long-term success of the retirement system. The TRS board and staff believe the overall investment strategy remains sound and appropriate for their circumstances.

INVESTMENTS

The TRS investment portfolio returned 0.6 percent, net of fees, for the fiscal year ended June 30, 2020. Total investment assets decreased approximately \$1.4 billion during the year.

The TRS trust fund is invested under the authority of the Illinois Pension Code and follows the "prudent person rule," which requires investments to be managed solely in the interest of fund participants and beneficiaries. The TRS Investment Policy guides TRS's investments which include preserving the long-term principal of the trust fund, maximizing total return within prudent risk parameters and acting in the exclusive interest of TRS members.

The Investment Section of this report contains a summary of the portfolio and investment activities. Pages 79 to 83 provide specific details regarding fees and commissions and a list of investment professionals who provided services to TRS.

FUNDING

During the year ended June 30, 2020, the funded ratio based on the actuarial value of assets of the Teachers' Retirement System decreased to 40.5 percent from its June 30, 2019 level of 40.6 percent. The actuarial value of assets at year end was \$54.9 billion and the actuarial accrued liability was \$135.6 billion. Under the smoothing methodology required by Public Act 96-0043, differences between actual and expected investment earnings are recognized prospectively over a five-year period.

The Actuarial Section of this report contains the actuary's letter and further information on funding.

MAJOR INITIATIVES AND ACCOMPLISHMENTS

CHANGES TO THE BOARD OF TRUSTEES

Public Act 101-0610, enacted late in 2019, significantly changed the structure of the TRS Board of Trustees.

The size of the Board was expanded from 13 members to 15 members. The increase in trustees required a special election in May 2019 to choose a new active teacher TRS trustee. The other new seat created by the law is filled by a gubernatorial appointment.

The law also contained a significant change for a statute governing a statewide election. As of July 2020, when there are five elected active TRS members on the Board, no more than four of those members may belong to a statewide teacher organization that has more than 10,000 members. The fifth elected active teacher trustee must belong to a different statewide teacher organization with more than 10,000 members.

The law also allows the governor to select the Board president from among the trustees. Previously, the president of the TRS Board automatically was the sitting state superintendent of schools. The current state superintendent and successors will continue to be an "ex officio" member of the Board.

ANNUAL BENCHMARKING

Since FY14, TRS has contracted with CEM Benchmarking of Toronto, Canada, to measure the productivity, effectiveness and cost of two major components of the System's mission: the administration of member benefits and services; and the investment of member assets. CEM measures 120 "performance metrics" and then compares them to 11 pension systems of similar size and mission to TRS. A brief recap of where TRS stands:

The cost to administer TRS benefits was \$76 for every active member and annuitant. The peer average was \$82. This speaks to the efficiency of TRS. The TRS score was 78, compared to the median score of 84 for peer systems. CEM noted that since 2014, the System's service score has risen by eight points.

TRS investments are generating above-average returns from a portfolio that is less risky than average. Based on the 2019 CEM benchmarking study, the total TRS five-year net return of 5.6 percent was higher than the U.S. public median of 5.4 percent. In terms of the portfolio's "risk," the last TRS score of 9.9 percent was lower than the median 10.4 percent score of U.S. public systems.

COMMITMENT TO DIVERSITY

The TRS Board of Trustees is committed to continually improving access to the investment program for qualified firms owned by minorities, women and those with disabilities.

During FY20, 22.8 percent of the overall TRS investment portfolio was overseen by 31 investment managers that were minority and women-owned business enterprises (MWBE). These commitments totaled \$11.7 billion.

The participation goal for the fiscal year was 20 percent and TRS exceeded its goal for assets under MWBE management by \$1.37 billion. In the last five years, the amount of TRS assets under the management of MWBE firms has increased by 42.2 percent.

Beyond the growing investment totals for MWBE firms, TRS has expanded its due diligence analysis of money managers offering opportunities in private equity, real assets and diversifying strategies to include diversity and inclusion practices.

CYBERSECURITY VIGILANCE

The COVID-19 pandemic further reinforced efforts already underway to combat cyberattacks and illustrated new concerns to be addressed in the expanded use of technology in the work-from-home environment.

Because pension systems provide tempting targets, it is imperative for the System to keep the private information of 427,321 men, women and their families, as well as 990 employers as safe and secure as possible by implementing practices and systems that guard against these changing threats.

As the work environment shifted to the home office, different methods to maliciously acquire the sensitive information of unsuspecting people have been identified. TRS strengthened the already multiple layers of technologies and monitoring activities to prevent unauthorized access through ransomware, trojans, viruses, malware and phishing.

The System trains all staff in annual security awareness training and teaches methods to keep member information secure.

ACCELERATED PENSION BENEFIT PAYMENT PROGRAMS

Under Public Act 101-0010, TRS administered two accelerated pension benefit programs for members during FY20. Interest in the two programs proved to be so strong that state officials had to increase the amount of money appropriated to meet all lump-sum payments.

At the end of FY20, 17.4 percent of newly retiring TRS members participating in the Accelerated Automatic Increase Program shared approximately \$90 million. In the Accelerated Pension Benefit Program, 10.4 percent of inactive members shared \$180 million.

DEFINED CONTRIBUTION PLAN

The System is moving forward in the development of a new voluntary defined contribution savings plan for active Tier 1 and Tier 2 members – the TRS Supplemental Savings Plan (SSP). The optional SSP will co-exist with the current TRS defined benefit pension plan and provide a supplementary retirement savings account for interested members.

A TRS survey during FY20 indicated there is considerable interest among active members in the SSP. Seventy-five percent of respondents are interested in more information. The SSP will be a 457(b)-style savings program administered by Voya Financial, of New York, New York.

NEW "SUSTAINABILITY" FACTORS FOR TRS INVESTMENTS

A new law that was signed during FY20 by **Gov. JB Pritzker** requires TRS and the state's other public pension systems to amend their investment policies to include "decision-useful sustainability factors... within the bounds of financial and fiduciary prudence, in evaluation investment decisions." The goal of the new law is to "maximize anticipated financial returns... and to contribute to a more just, accountable and sustainable State of Illinois." The factors to be considered by the TRS Board will include standards on corporate governance, business practices and innovation, the protection of the environment and the use of social and human capital in positive ways.

TRS HQ EARNS ENERGY STAR RATING

The System's Springfield office has earned an Energy Star certification from the U.S. Environmental Protection Agency for dialing back energy use over the course of the last year.

Energy Star-certified buildings and manufacturing plants are comprised of the top 25 percent of buildings nationwide that conserve energy. Energy Star-certified buildings use 35 percent less energy and cause 35 percent fewer greenhouse gas emissions.

DIGITAL RECORD CONVERSION

TRS completed Phase 1 of a multi-year initiative to convert the System's records from paper to a digital format in order to improve the security of the data. Member records – 384,000 individual file folders stuffed with paper – were converted first. All member records are now housed in a “cloud”-based system that contains approximately 12 million separate images.

AWARDS

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 TRS for its *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2019. This was the 31st consecutive year that the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government or government entity must publish an easily readable and efficiently organized *Comprehensive Annual Financial Report*. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe that the current *Comprehensive Annual Financial Report* continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

PUBLIC PENSION COORDINATING COUNCIL (PPCC), RECOGNITION AWARD FOR ADMINISTRATION

TRS received the Recognition Award for Administration in 2020 for meeting professional standards of plan administration as set forth in the Public Pension Standards of the PPCC. The award is presented by the PPCC, 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).

ACKNOWLEDGMENTS

Information for this report was gathered by TRS staff under the leadership of the TRS Board of Trustees and the executive director and it is the responsibility of TRS management. It is intended to provide complete and reliable information as a basis for making management decisions, to determine TRS compliance with legal provisions and as a means of determining responsible stewardship of the assets contributed by members, their employers and the State of Illinois.

This report is made available to members of the General Assembly, participating employers and to other interested persons by request. The participating TRS employers form a link between TRS and its members. Their cooperation contributes significantly to the System's success. We hope all recipients of this report find it informative and useful. This report is also available to the general public on <https://www.trsil.org>.

We would like to take this opportunity to express our gratitude to staff, professional consultants and others who have worked so diligently to ensure TRS's successful operation.



R. Stanley Rupnik
Acting Executive Director



Deron Bertolo
Chief Financial Officer

TRS BOARD OF TRUSTEES

AS OF DECEMBER 1, 2020



Devon Bruce
President
Appointed
Lake Forest



Mark Bailey
Vice President
Elected
Palos Park



Beth Anderson
Elected
Ashkum



Dr. Carmen I. Ayala
Ex Officio
Downers Grove



Norma Bellcoff
Appointed
Edwardsville



Marsha Byas
Elected
Marion



Andrew Hirshman
Elected
Oak Park



Matthew Hunt
Appointed
Frankfort



Maureen Mena
Appointed
Bolingbrook



David Miller
Appointed
Lynwood



Fred Peronto
Elected
Elmhurst



Larry Pfeiffer
Elected
Carlinville



Matthew Shattock
Appointed
Lake Forest



Doug Strand
Elected
East Moline

TRS ORGANIZATION
EXECUTIVE CABINET

AS OF DECEMBER 1, 2020



Stan Rupnik, CFA
Acting Executive
Director & Chief
Investment Officer



Jeff Bennett
Director of
Operations



Deron Bertolo
Chief Financial
Officer



Gina Larkin
Chief Human
Resources Officer



Carlton Lenoir, JD
Chief Benefits
Officer



Stacy Smith, CPA, CIDA
Director of Internal
Audit and Risk



Dave Urbanek
Director of
Communications

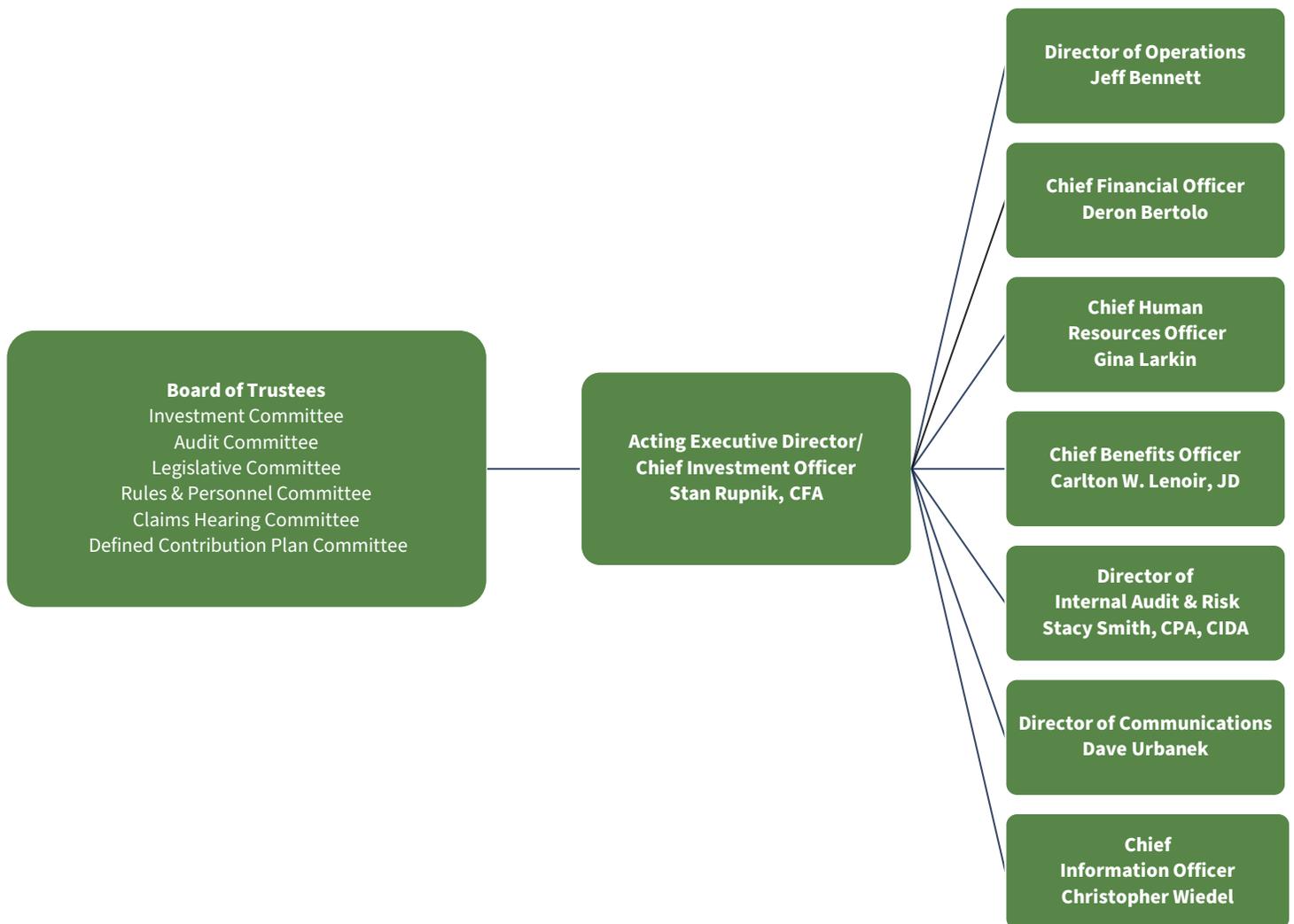


Christopher Wiedel
Director of Information
Technology

TRS MISSION STATEMENT

TRS will continually deliver the retirement security promised to our members by maintaining the highest and most efficient level of service and by living our values:

- Put the best interests of others first
- Diversity
- Teamwork
- Continuous improvement



CONSULTING AND PROFESSIONAL SERVICES

ACTUARY

The Segal Company Midwest, Inc.

EXTERNAL AUDITORS

(Special assistants to the Office of the Auditor General)

BKD, L.L.P.

LEGAL SERVICES

DLA Piper, L.L.P.

Elrod Friedman L.L.P.

Holland & Knight, L.L.P.

Howard & Howard Attorneys, P.L.L.C.

King & Spalding L.L.P.

Kopec White & Spooner

Reinhart Boerner Van Deuren

Whitt Law, L.L.C.

LEGISLATIVE CONSULTING

Leinenweber Baroni & Daffada Consulting, L.L.C.

INFORMATION TECHNOLOGY

Blu Age Corporation

Digital Check Corp

Excelon Development II L.L.C.

HSO North America, L.L.C.

ProCircular, Inc.

Promet Solutions Corporation

Sentinel Technologies, Inc.

INTERNAL AUDIT

Investment Training & Consulting Institute, Inc.

OPERATIONS

Cammack Retirement Group Inc.

CEM Benchmarking, Inc.

Darlington Partners Ltd.

Higher Logic, L.L.C.

Jasculca Terman Strategic Communications

Levi Ray & Shoup, Inc.

Management Association

SABA Software

MASTER TRUSTEE

State Street Bank and Trust Company

SECURITIES LENDING AGENT

Citibank, N.A.

INVESTMENT CONSULTANTS

Aksia, L.L.C. *(Diversifying strategies and private debt)*

RVK, Inc. *(General investment)*

Stepstone Group, L.P. *(Private equity)*

Stepstone Group Real Estate, L.P. *(Real estate)*

TorreyCove Capital Partners, L.L.C. *(Private equity through June 2020)*

CO-INVESTMENT ADVISORS

Stout Risius Ross, Inc. *(Private equity)*

SECONDARY MARKET ADVISORS

Evercore Group, L.L.C.



**April Whitney and Service Dog Petula
Champaign-Ford County School District**

"During this most unprecedented time, so many students have reached out to check on Petula. To know that 3.5 lb. Petula has made a difference in each student's life melts my heart. For them, to reach out with empathy and compassion DAILY to Petula and me, is better than any lesson I could have ever taught."

FINANCIAL

Independent Auditor's Report

Honorable Frank J. Mautino
Auditor General
State of Illinois
and
The Board of Trustees
Teachers' Retirement System of Illinois

Report on the Financial Statements

As Special Assistant Auditors for the Auditor General, we have audited the accompanying Statement of Fiduciary Net Position of the Teachers' Retirement System of the State of Illinois (System), a component unit of the State of Illinois, as of June 30, 2020, and the Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

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

Emphasis of Matter

The actuarially determined net pension liability, calculated as required by GASB Statement No. 67, *Financial Reporting for Pension Plans*, is dependent on several assumptions including the assumption that future required contributions from all sources are made based on statutory requirements in existence as of the date of this report. These assumptions are discussed in Note A.6 of the financial statements. 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 management's discussion and analysis, the schedule of changes in the net pension liability, the schedule of net pension liability, the schedule of investment returns, the schedule of contributions from employers and other contributing entities, and notes to required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit for the year ended June 30, 2020 was conducted for the purpose of forming an opinion on the System's basic financial statements.

The other supplementary information in the financial section and the accompanying preface, introduction, investments, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The other supplementary information in the financial section, as listed in the table of contents, has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information in the financial section, as listed in the table of contents, is fairly stated, in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2020.

We have also previously audited, in accordance with auditing standards generally accepted in the United States of America, the System's basic financial statements as of and for the year ended June 30, 2019 (not presented herein) and have issued our report thereon dated December 13, 2019 which contained an unmodified opinion on those financial statements. The other supplementary information in the financial section, as listed in the table of contents, for the year ended June 30, 2019 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the June 30, 2019 financial statements. The other supplementary information in the financial section, as listed in the table of contents, has been subjected to the auditing procedures applied in the audit of the June 30, 2019 basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those 2019 basic financial statements or to those 2019 basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 2019 other supplementary information in the financial section, as listed in the table of contents, is fairly stated in all material respects in relation to the basic financial statements as a whole for the year ended June 30, 2019.

The preface, introduction, investments, actuarial, and statistical sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

BKD, LLP

Decatur, Illinois
December 10, 2020

MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of the Teachers' Retirement System of the State of Illinois provides an overview of financial activities for the fiscal year ended June 30, 2020. Please read it in conjunction with the Letter of Transmittal in the Introduction Section on page 6 and the Financial Statements and related notes that follow this discussion.

FINANCIAL HIGHLIGHTS

- The net position of TRS at June 30, 2020 was \$52.3 billion.
- During FY20, the net position of TRS decreased \$946.3 million.
- Contributions from members, employers and the State of Illinois were \$5.9 billion, an increase of \$382.0 million or 6.9 percent for FY20.
- Total net investment income was \$275.7 million, compared to \$2.6 billion in FY19, a decrease of \$2.3 billion.
- Benefits and refunds paid to members and annuitants were \$7.1 billion, an increase of \$280.8 million or 4.1 percent.
- The actuarial accrued liability was \$135.6 billion at June 30, 2020.
- The unfunded actuarial accrued liability was \$80.7 billion at June 30, 2020. The funded ratio was 40.5 percent at June 30, 2020. The unfunded liability and funded ratio are calculated using a smoothed value of assets, as required under Public Act 96-0043.
- The total pension liability was \$138.5 billion at June 30, 2020.
- The net pension liability was \$86.2 billion at June 30, 2020. The plan fiduciary net position, as a percentage of total pension liability, was 37.8 percent.

The Financial Statements contained in this section of the *Comprehensive Annual Financial Report* consist of:

Statement of Fiduciary Net Position. This statement reports the pension trust fund's net position which represents the difference between the financial statement elements comprised of assets and liabilities. It is the balance sheet for the pension system and reflects the financial position of the Teachers' Retirement System as of June 30, 2020.

Statement of Changes in Fiduciary Net Position. This statement details transactions that occurred during the fiscal year. It is the income statement of TRS and reflects the additions and deductions to net position recorded throughout the fiscal year. This statement supports the change in the value of net position reported on the Statement of Fiduciary Net Position.

Notes to the Financial Statements. The notes are an integral part of the financial statements and include additional information not readily evident in the statements themselves.

Required Supplementary Information and Other Supplementary Information. The required supplementary information and other supplementary information following the notes to the financial statements provide historical and additional detailed information considered useful in evaluating the pension system's financial condition.

The following are condensed comparative financial statements of the TRS pension trust fund.

CONDENSED COMPARATIVE STATEMENTS OF FIDUCIARY NET POSITION AS OF JUNE 30

	2020	Percentage Change	2019
Cash	\$24,329,683	(11.1%)	\$27,358,430
Receivables and prepaid expenses	4,496,792,625	(37.2)	7,164,874,414
Investments	51,454,158,912	(2.6)	52,825,807,531
Invested securities lending collateral	2,023,876,139	(20.3)	2,540,713,046
Capital assets	<u>6,130,809</u>	114.6	<u>2,856,794</u>
Total assets	58,005,288,168	(7.3)	62,561,610,215
Total liabilities	<u>5,688,810,397</u>	(38.8)	<u>9,298,820,848</u>
Net position restricted for pensions	<u>\$52,316,477,771</u>	(1.8%)	<u>\$53,262,789,367</u>

CONDENSED COMPARATIVE STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEARS ENDED JUNE 30

	2020	Percentage Change	2019
Contributions	\$5,900,510,333	6.9%	\$5,518,507,593
Net investment income	<u>275,669,398</u>	(89.5)	<u>2,617,831,332</u>
Total additions	<u>6,176,179,731</u>	(24.1)	<u>8,136,338,925</u>
Benefits and refunds	7,099,524,955	4.1	6,818,760,572
Administrative expenses	<u>22,966,372</u>	(5.6)	<u>24,335,680</u>
Total deductions	<u>7,122,491,327</u>	4.1	<u>6,843,096,252</u>
Net decrease in net position	(946,311,596)	(173.2)	1,293,242,673
Net position restricted for pensions - beginning of year	<u>53,262,789,367</u>	2.5	<u>51,969,546,694</u>
Net position restricted for pensions - end of year	<u>\$52,316,477,771</u>	(1.8%)	<u>\$53,262,789,367</u>

FINANCIAL ANALYSIS

TRS was created to provide retirement, survivor and disability benefits to qualified members. Increases or decreases in the plan's net position serve as useful indicators of TRS's financial position. The net position available to pay benefits was \$52.3 billion at June 30, 2020.

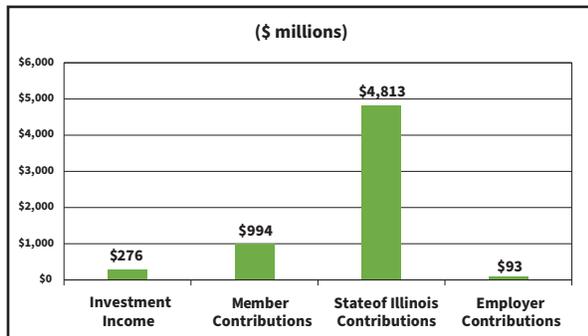
CONTRIBUTIONS

Contributions increased \$382.0 million during FY20. Contributions from the State of Illinois increased \$347.4 million, member contributions increased \$30.4 million and employer contributions from school districts increased \$4.2 million.

Public Act 100-0023 requires that the impact on state contributions due to changes in actuarial assumptions be phased in over five years on a retroactive basis. The effect has lowered the FY19 and FY20 state contributions that would have otherwise occurred.

State funding law provides for a 50-year funding plan that includes a 15-year phase-in period and a goal of 90 percent funding in the year 2045.

Revenues by Type for the Year Ended June 30, 2020

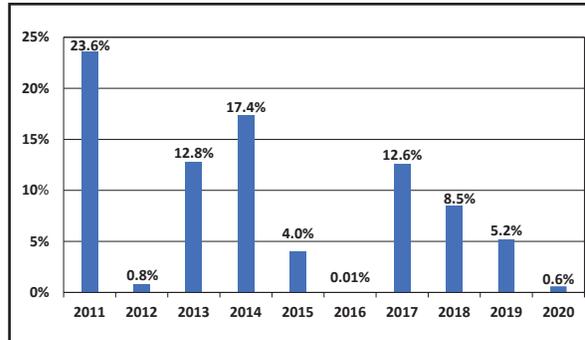


INVESTMENTS

The TRS trust fund is invested according to law under the "prudent person rule" requiring investments to be managed solely in the interest of fund participants and beneficiaries. Principles guiding the investment of funds include preserving the long-term principal of the trust fund and maximizing total return within prudent risk parameters.

The TRS investment portfolio returned 0.6 percent, net of fees, for the fiscal year ended June 30, 2020. Total TRS investment assets decreased approximately \$1.4 billion during the year.

Annual Rate of Return (net of investment expenses)

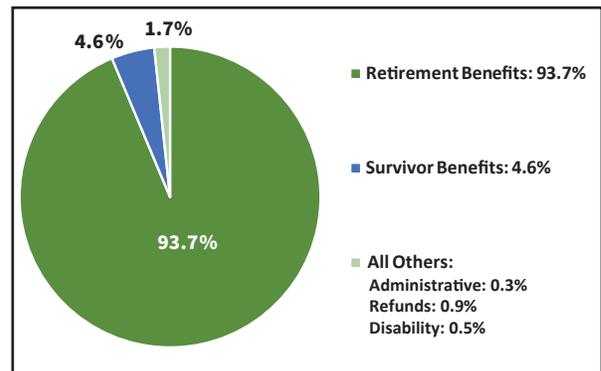


BENEFITS AND REFUNDS

Retirement, survivor and disability benefit payments increased \$289.8 million during FY20. Benefit payments increased to \$7.0 billion with 125,927 recipients in FY20. The overall increase in benefit payments is due to an increase in retirement and survivor benefits as well as the number of retirees. Retirement benefits were higher as a result of annual increases in retirement benefits and an increase in the number of retirees from 111,598 as of June 30, 2019 to 112,977 as of June 30, 2020.

Refunds of contributions decreased \$9.0 million in FY20. The decrease during FY20 is the result of lower member and retirement refunds.

Deductions by Type for the Year Ended June 30, 2020



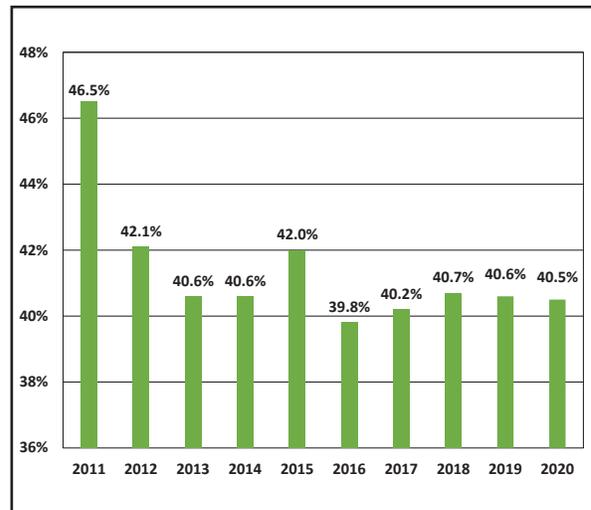
ACTUARIAL

For statutory funding and financial reporting, an actuarial valuation is performed annually and measures the total liability for all benefits earned to date. The actuarial accrued liability is a present value estimate of all benefits earned to date but not yet paid. The actuarial accrued liability based on statutory funding requirements increased \$4.1 billion in FY20 to \$135.6 billion at June 30, 2020. The actuarial unfunded liability is the present value of accrued benefits payable that are not covered by the actuarial value of assets as of the valuation date. The actuarial unfunded liability based on the actuarial value of assets increased \$2.6 billion during FY20 to \$80.7 billion at June 30, 2020. The funded ratio reflects the percentage of the actuarial accrued liability covered by the actuarial value of assets. The funded ratio decreased from 40.6 percent on June 30, 2019 to 40.5 percent on June 30, 2020.

The actuarial unfunded liability and funded ratio are based on the actuarial value of assets. Public Act 96-0043 requires the five state retirement systems to smooth actuarial gains and losses on investments over a five-year period.

When the funded ratio was based on the fair value of assets, the reported funded ratio was impacted immediately by changes in market conditions. State funding requirements based on fair value assets also were impacted immediately and therefore were more volatile. Using the actuarial value of assets results in more stable reported funded ratios and state funding requirements over time.

Funded Ratio Based on Actuarial Value of Assets



The funded ratio in this chart is the ratio of actuarial assets to the actuarial liability. An increase in this ratio indicates an improvement in TRS's ability to meet future benefit obligations.

During FY14, TRS implemented GASB Statement No. 67, "Financial Reporting for Pension Plans." As a result of implementing the new statement, TRS is required to disclose the net pension liability and total pension liability in the Financial Statement Notes and Required Supplementary Information in accordance with criteria which differs from criteria used to disclose the actuarial accrued liability and actuarial unfunded liability. The total pension liability is \$138.5 billion at June 30, 2020, while the net pension liability is \$86.2 billion at June 30, 2020.

LEGISLATIVE ACCELERATED PENSION BENEFIT PAYMENT PROGRAMS

Under Public Act 101-0010, TRS administered two accelerated pension benefit programs for members during FY20. Interest in the two programs proved to be so strong that state officials had to increase the amount of money appropriated to meet all lump-sum payments.

In all, participating TRS members requested \$269 million in buyout funds, which was \$56 million more than the original TRS allocation for the programs. In late FY20, the Governor's Office of Management and Budget sold additional bonds to pay benefits through the end of the fiscal year.

WORK LIMITS FOR RETIRED MEMBERS EXTENDED

During FY20, state officials recognized the contribution retired TRS members made in easing the teacher shortage in Illinois. Public Act 101-0645 extended a state law until June 30, 2021 that allows retirees to teach for 120 days or 600 hours during a school year without negatively affecting their

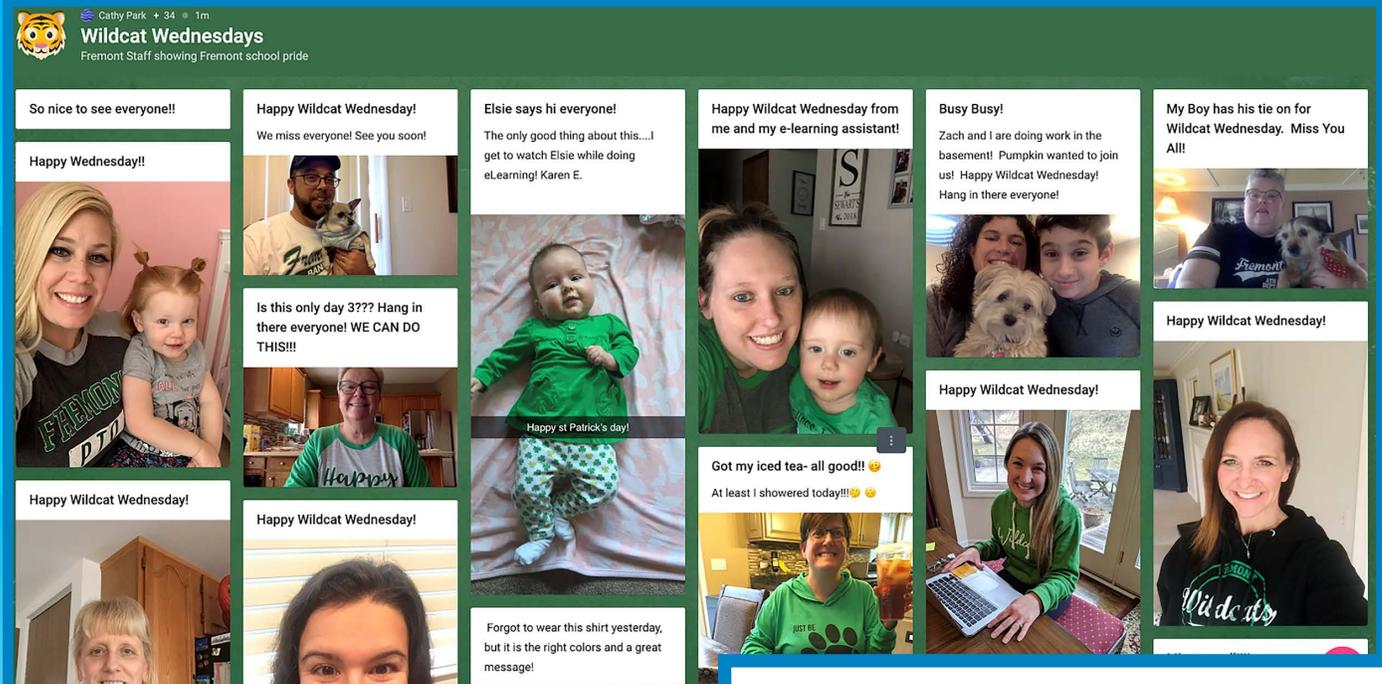
retirement benefits. Retired members who teach beyond the legal limit lose their pension benefits.

CHANGES TO THE BOARD OF TRUSTEES

Public Act 101-0610, enacted late in 2019, and the State of Illinois' response to the COVID-19 pandemic significantly altered the operation and structure of the TRS Board of Trustees.

The new law expanded the size of the Board from 13 members to 15 members. The law also requires that no more than four of the five elected "active" trustees can belong to the same statewide teacher organization. The law also ended more than 80 years of tradition by allowing the governor to select the Board president from among the trustees. Previously, the president of the TRS Board automatically was the sitting state superintendent of schools.

The statewide public health emergency caused by the outbreak of COVID-19 resulted in Public Act 101-0640 that allows virtual Board meetings instead of physical presence.



Staff showing their Fremont spirit on a Wildcat Wednesday.

**Superintendent of Schools
Dr. Bill Robertson
Fremont School District 79**

"As we have been partaking in e-learning, student engagement and learning has been on display across Fremont School District 79 during the closure of our physical schools. Our administrators, teachers and staff have been remarkable in their ability to demonstrate positivity, flexibility, creativity and a focus on students during these unprecedented times."

FINANCIAL STATEMENTS
TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS
STATEMENT OF FIDUCIARY NET POSITION
JUNE 30, 2020

	June 30, 2020
Assets	
Cash	\$24,329,683
Receivables and prepaid expenses:	
Member contributions	71,553,987
Employer contributions	10,866,919
State of Illinois	641,247,379
Investment income	131,878,957
Pending investment sales	3,639,595,787
Prepaid expenses	1,649,596
Total receivables and prepaid expenses	4,496,792,625
Investments, at fair value:	
Fixed income	9,887,918,930
Public equities	16,764,439,384
Alternative investments	23,063,736,143
Derivatives	6,184,038
Short-term investments	1,652,527,489
Foreign currency	79,352,928
Total Investments	51,454,158,912
Invested securities lending collateral:	
Securities lending collateral	1,968,682,139
Securities lending collateral with the State Treasurer	55,194,000
Total invested securities lending collateral	2,023,876,139
Capital assets, net of accumulated depreciation	6,130,809
Total assets	58,005,288,168
Liabilities	
Benefits and refunds payable	9,908,110
Administrative expenses payable	3,091,183
Investment expenses payable	46,677,568
Pending investment purchases	3,605,267,896
Securities lending collateral	2,023,865,640
Total liabilities	5,688,810,397
Net position restricted for pensions	\$52,316,477,771

See accompanying Notes to Financial Statements.

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2020

	June 30, 2020
Additions	
Contributions:	
Members	\$994,400,416
State of Illinois	4,813,451,679
Employers	
Early retirement	2,715
Federal funds	23,215,568
2.2 benefit formula	61,448,091
Excess employer costs	<u>7,991,864</u>
Total contributions	<u>5,900,510,333</u>
Investment income:	
Net decrease in fair value of investments	(612,669,770)
Alternatives income	889,779,706
Interest and dividends	851,670,919
Other investment income	8,623,422
Securities lending income	9,370,679
Less investment expenses:	
Alternatives expense	(465,877,890)
Direct investment expense	(404,665,431)
Securities lending management fees	<u>(562,237)</u>
Net investment increase	<u>275,669,398</u>
Total additions	<u>6,176,179,731</u>
Deductions	
Retirement benefits	6,672,266,721
Survivor benefits	329,872,581
Disability benefits	33,168,197
Refunds	64,217,456
Administrative expenses	<u>22,966,372</u>
Total deductions	<u>7,122,491,327</u>
Net decrease in net position	(946,311,596)
Net position restricted for pensions	
Beginning of year	<u>53,262,789,367</u>
End of year	<u><u>\$52,316,477,771</u></u>

See accompanying Notes to Financial Statements.

NOTES TO FINANCIAL STATEMENTS

A. PLAN DESCRIPTION

1. REPORTING ENTITY

The Teachers' Retirement System of the State of Illinois (TRS) is the administrator of a cost-sharing, multiple-employer defined benefit public employee retirement system (PERS). Membership is mandatory for all full-time, part-time and substitute public school personnel employed outside of Chicago in positions requiring licensure. Persons employed at certain state agencies and certain non-government entities also are members. Established by the State of Illinois, TRS is governed by the Illinois Pension Code (40 ILCS 5/16). TRS is a component unit of the State of Illinois and is included in the State's financial statements as a pension trust fund.

TRS uses criteria established by the Governmental Accounting Standards Board (GASB) to determine whether other entities should be included within its financial reporting entity. Based on the criteria, TRS includes no other entities in these financial statements.

2. EMPLOYERS

Members of TRS are employed by school districts, special districts, certain state agencies and certain non-governmental entities. Each employer remits member contributions to TRS.

Employers are responsible for employer contributions for:

- Teachers paid from federal funds.
- The 2.2 formula increase.
- Salary increases in excess of 6 percent. When a member retires, the employer is required to pay TRS contributions equal to the actuarial value of a pension benefit that results from any salary increase over 6 percent that is used in a retiring member's final average salary calculation. Several permanent exemptions are in effect for excess salary increases.
- Sick leave days received in excess of the normal annual allotment and applied to service credit

for members in their final four years prior to retirement.

- Any portion of a member's salary that is greater than the governor's statutory salary.

In addition, the State of Illinois is a nonemployer contributing entity that provides employer contributions on behalf of the System's employers. For information about employer contributions made by the State of Illinois, see "Schedule of Contributions from Employers and Other Contributing Entities" within the Required Supplementary Information (RSI) section of this report.

The state's statutory contribution requirements are described in the Actuarial Section under "Actuarial Standards and Illinois State Pension Funding."

Number of Employers (as of June 30)

	2020
Local school districts	851
Special districts	129
State agencies	10
Total	<u><u>990</u></u>

3. MEMBERS

TRS Membership (as of June 30)

	2020
Retirees and beneficiaries	125,927
Inactive members	138,279
Active members	163,115
Total	<u><u>427,321</u></u>

4. BOARD OF TRUSTEES

TRS is governed by a 15-member Board of Trustees. Trustees include the state superintendent of education, seven trustees appointed by the governor, five trustees elected by contributing TRS members, and two trustees elected by TRS annuitants. The president of the Board of Trustees, by law, is appointed by the governor from among the sitting trustees. The Board of Trustees elects its vice president from among its members. The Board of Trustees appoints

an executive director who also serves as the secretary of the Board of Trustees. The executive director is responsible for daily operations at TRS.

5. BENEFIT PROVISIONS

Governed by the Illinois Pension Code (40 ILCS 5/16), which is subject to amendment by the Illinois General Assembly and approval by the governor, TRS provides retirement, death and disability benefits. Membership is mandatory for all full-time, part-time and substitute public school personnel who are licensed and employed in Illinois outside the city of Chicago.

Public Act 96-0889 (Act), which was signed into law in the spring of 2010, added a new section to the Pension Code that applies different benefits to anyone who first contributes to TRS on or after Jan. 1, 2011 and does not have any previous service credit with one of the reciprocal retirement systems in Illinois. Members who first participate on or after that date are members of Tier 2.

The Act does not apply to anyone who made contributions to TRS prior to Jan. 1, 2011. They remain participants of Tier 1.

Tier 3 was created in July 2017. It is a hybrid retirement plan with both defined benefit and defined contribution plan components.

TIER 1 BENEFITS

A member qualifies for an age retirement annuity after meeting one of the following requirements: age 62 with five years of service credit; age 60 with 10 years; or age 55 with 20 years. If a member retires between the ages of 55 and 60 with fewer than 35 years of service, the annuity will be reduced at the rate of 0.50 percent for each month the member is under age 60. A member with fewer than five years of creditable service and service on or after July 1, 1947, is entitled to a single-sum benefit payable at age 65.

A retirement benefit is determined by the average of the four highest consecutive years of creditable earnings within the last 10 years of creditable

service and the percentage of average salary to which the member is entitled. Most members retire under a formula that provides 2.2 percent of final average salary up to a maximum of 75 percent with 34 years of service. The 2.2 percent formula became effective July 1, 1998 but service earned before that date can be upgraded to the 2.2 formula with a member contribution. The cost of the upgrade can be reduced if members upgrade and continue teaching after 1998. A graduated formula applies to service earned before 1998 and provides a maximum benefit of 75 percent of average salary with 38 years of service.

Tier 1 members who contributed to TRS before July 1, 2005 receive a money purchase (actuarial) benefit if it provides a higher benefit than the 2.2 or graduated formulas. The 75 percent cap does not apply to the money purchase benefit.

All Tier 1 retirees receive an annual 3 percent increase in the current retirement benefit beginning Jan. 1 following the attainment of age 61 or on Jan. 1 following the member's first anniversary in retirement, whichever is later.

Disability and death benefits are provided.

If a member leaves covered employment, TRS will refund a member's retirement contributions upon request. The refund consists of actual contributions, excluding the 1 percent death benefit contribution.

Effective July 1, 2017, Tier 1 members contribute 9.0 percent of their creditable earnings to TRS and an additional contribution to a retiree health insurance program that is not administered by TRS.

TIER 2 BENEFITS

Differences with Tier 1 include raising the minimum eligibility to draw a retirement benefit to age 67 with 10 years of service. A discounted annuity can be paid at age 62 with 10 years of service. The Tier 2 law caps creditable earnings and contributions used for retirement purposes at a level that is lower than the Social Security wage base. Tier 2 annual increases will be the lesser of 3 percent or ½ percent of the rate

of inflation of the original benefit beginning Jan. 1 following attainment of age 67 or on Jan. 1 following the member's first anniversary in retirement, whichever is later.

The 2.2 retirement formula also applies to Tier 2 but the final average salary is based on the highest consecutive eight years of creditable service rather than the highest consecutive four years of salary. The single-sum benefit also is payable at age 65 to Tier 2 members with fewer than five years of service. The money purchase (actuarial) benefit is not available to Tier 2 members.

Disability and refund provisions for Tier 2 are identical to those that apply to Tier 1. Death benefits are payable under a formula that is different from Tier 1.

Effective July 1, 2017, Tier 2 members contribute 9.0 percent of their creditable earnings to TRS and an additional contribution to a retiree health insurance program that is not administered by TRS.

TIER 3 BENEFITS

Enacted in July of 2017, the Tier 3 benefit is designed to be a hybrid retirement plan with two parts – a defined benefit (DB) pension and a defined contribution (DC) savings plan.

Under the law, Tier 3 members would make payroll contributions to their DB pensions that are based on the full cost of this part of the benefit, but no more than 6.2 percent of salary. In addition, Tier 3 members would contribute a minimum of 4 percent of their pay to the DC portion of the plan.

At retirement, TRS members would receive a pension and be able to access funds from their DC savings account as they see fit.

However, an implementation date for Tier 3 has not been set. As written, the current language of the Tier 3 statute inadvertently conflicts with other provisions of the Illinois Pension Code. Until these differences are corrected by the legislative and executive branches, Tier 3 cannot be implemented.

6. ACTUARIAL MEASUREMENTS

The Schedule of Changes in the Net Pension Liability, Schedule of the Net Pension Liability and the Schedule of Contributions from Employers and Other Contributing Entities may be found in the Required Supplementary Information. Other schedules pertaining to the System's funded status are in the Actuarial section.

Member, employer and state contributions are statutorily defined by the Illinois Pension Code (40 ILCS 5/16), which is subject to amendment by the Illinois General Assembly with approval by the governor. Since July 1, 1995, state appropriations have been made through a continuing appropriation.

Member contributions are allocated as follows: 7.5 percent for retirement; 0.5 percent for post-retirement increases; and 1 percent for death benefits.

Employer contributions are made by or on behalf of employers from several sources. The State of Illinois provides the largest source of contributions through state appropriations from the Common School Fund. Employers also make contributions for the 2.2 benefit formula and for teachers who are paid from federal funds. Additionally, employers contribute their portion of any excess salary increase or sick leave costs due and the total employer normal cost on salaries exceeding the governor's salary.

State funding law provides for a 50-year funding plan that includes a 15-year phase-in period.

Public Act 96-0043, which was effective July 15, 2009, requires TRS to use a five-year smoothing method for asset valuation beginning on June 30, 2009. State contribution requirements were first affected by this change in FY11.

Public Act 100-0023, which was effective July 6, 2017, requires the impact on state contributions due to changes in actuarial assumptions to be phased in over five years. State contribution requirements were first affected by this change in FY18. The FY18 requirement was recertified in January 2018 due to the new law.

Administrative expenses are budgeted and approved by the TRS Board of Trustees. Funding for these expenses is included in the employer contribution, as determined by the annual actuarial valuation.

PENSION LIABILITY

The actuarial assumptions included in the June 30, 2020 actuarial valuation were used to calculate the June 30, 2020 total pension liability. The investment return assumption of 7.0 percent is unchanged in the 2020 actuarial valuation.

The investment return assumption for the 2020 actuarial valuation is based on the 2017 asset allocation study conducted by the TRS investment consultant and additional analysis conducted by the actuary in 2019 and 2020.

Assumptions used to calculate the June 30, 2020 total pension liability were the same as those used in the June 30, 2019 calculation, as discussed later in this section.

As of June 30, 2020, the assumption for future investment returns was 7.0 percent, a rate unchanged from June 30, 2019. The TRS actuary used the following assumed rates of returns by asset class, excluding 2.50 percent for the assumed rate of inflation as well as investment expenses.

Expected Arithmetic Real Returns Over 20 Years

Asset Class	Allocation	Return
U.S. equities large cap	16.5%	6.1%
U.S. equities small/mid cap	2.3	7.2
International equities developed	12.2	7.0
Emerging market equities	3.0	9.4
U.S. bonds core	7.0	2.2
U.S. bonds high yield	2.5	4.1
International debt developed	3.1	1.5
Emerging international debt	3.2	4.5
Real estate	16.0	5.7
Private debt	5.2	6.3
Hedge Funds	10.0	4.3
Private equity	15.0	10.5
Infrastructure	4.0	6.2

If the plan's fiduciary net position is not sufficient to cover all benefit payments to current plan members, GASB Statement No. 67 requires the discount rate to be different from the assumed rate of return. Instead, the discount rate would be a blended rate, which includes the long-term expected rate of return and a municipal bond rate (the Bond Buyer's 20-Bond GO Index) as of the end of the current fiscal year. Based on the following projections, the System can use the long-term expected rate of return as the discount rate for the year ended June 30, 2020, as it did for the prior year.

TRS, with the assistance of the System's actuary, projected that the plan's fiduciary net position will provide for all benefit payments to current plan members. Projected contributions assume that all statutorily required contributions are made through FY22 including projected contributions from members, employers and the State of Illinois (nonemployer contributing entity). Projected state contributions reflect the changes enacted in Public Acts 100-0023, 100-0340, 100-0587 and 101-0010. However, the projections do not include any assumptions about the utilization of Tier 3 under PA 100-0023.

Estimated contributions from employers and the State of Illinois, of which the majority of the contributions (approximately 98 percent) are provided by the State of Illinois, are projected to be \$5.1 billion in FY21 and grow to \$11.5 billion by FY45 based on present statutory requirements for current members. Tier 1's liability is partially funded by Tier 2 because the Tier 2 contributions are higher than the cost of Tier 2 benefits. Due to this subsidy, contributions from future members in excess of the service cost are also included in the determination of the discount rate.

The actuarial cost method required for financial reporting purposes is the entry age normal method. For TRS, total pension liability (TPL) is developed and rolled forward to the valuation date based on member census data one year prior. TPL is projected to the June 30, 2020 measurement date based on census data as of June 30, 2019. Assets, included in plan fiduciary net position, are measured at fair value.

Net Pension Liability

June 30, 2020	
Total pension liability	\$138,531,733,887
Plan fiduciary net position	52,316,477,771
Net pension liability	<u>\$86,215,256,116</u>
Plan fiduciary net position as a percentage of the total pension liability	37.8%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease	Current	1% Increase
Discount rate	6.0%	7.0%	8.0%
Net pension liability	\$104,649,618,237	\$86,215,256,116	\$71,038,443,785

Most of the actuarial assumptions used in the June 30, 2020 actuarial valuation are based on the actuarial experience analysis dated September 2018 that covered the period July 1, 2014 through June 30, 2017. The 2020 actuarial valuation utilization assumption remained the same as the 2019 actuarial valuation for the automatic annual increase buyout provision as did the expectation that the funds available for buyouts are limited to \$650 million.

Actuarial Assumptions Used for Financial Reporting Disclosure

Actuarial Valuation Date	June 30, 2020
Census Date:	June 30, 2019 with total pension liability projected to June 30, 2020
Actuarial Cost Method:	For financial reporting purposes Entry age normal
Asset Valuation Method:	For financial reporting purposes Fair value as of valuation date
Actuarial Assumptions:	
Investment rate of return	7.0% adopted effective June 30, 2016
Real rate of investment return	4.5%
Projected salary increases	9.50% with 1 year of service to 4.0% with 20 or more years of service. Includes inflation and real wage growth (productivity) assumptions.
Group size growth rate	0%
Assumed inflation rate	2.5%
Post-retirement increase	Tier 1: 3%, compounded; Tier 2: 1.25%, not compounded
Mortality table:	RP - 2014 with future mortality improvements on a fully generational basis using projection table MP-2017.



The Abe Lincoln Rail Splitter statue, located inside the Illinois State Fairgrounds in Springfield, wears a mask to remind visitors that face coverings are required on the fairgrounds during the pandemic.

Photo credit: Michael Kane

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1. BASIS OF ACCOUNTING

The financial transactions of TRS are recorded using the economic resources measurement focus and the accrual basis of accounting. Member and employer contributions are recognized as additions when due pursuant to statutory or contractual requirements. Benefits and refunds are recognized as deductions when they are due and payable in accordance with the terms of the plan.

2. USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of additions to and deductions from net position during the reporting period. Actual results could differ from these estimates. TRS uses an actuary to determine the total pension liability for the defined benefit plan and to determine the actuarially-required contribution.

3. RISKS AND UNCERTAINTIES

TRS investments are diversified and include various investment securities. Investment securities are exposed to a variety of risk including credit, market and interest rate risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that value changes will occur in the near-term and such changes could materially affect the amounts reported in the Statement of Fiduciary Net Position.

As a result of the spread of the SARS-CoV-2 virus and the incidence of COVID-19, economic uncertainties have arisen which may negatively affect the fiduciary net position of the System. The duration of these uncertainties and the ultimate financial effects cannot be reasonably estimated at this time.

4. NEW ACCOUNTING PRONOUNCEMENTS

TRS was not required to implement any new accounting pronouncements in FY20.

5. METHOD USED TO VALUE INVESTMENTS

TRS reports investments at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value for publicly traded equities, foreign currency and exchange traded derivatives is determined by using the closing price listed on national securities exchanges as of June 30. Fair value for most of fixed income securities and over-the-counter derivatives is determined primarily by using quoted market prices provided by independent pricing services. Short-term investments are generally reported at amortized cost, which approximates fair value. Appraisals are used to determine fair value on directly owned real estate investments. Fair value for private equity investments, diversifying funds and partnership interests in real estate and real assets is determined by TRS staff and the general partners or investment managers in accordance with the provisions in the individual agreements. These agreements also require that an independent audit be performed on an annual basis.

6. CAPITAL ASSETS

Equipment is stated on the basis of historical cost. Depreciation is computed using the straight-line method based upon the estimated useful lives of the assets. Capital assets activity for the year ended June 30, 2020 was as follows:

	Beginning Balance	Additions/ Transfers In	Disposals/ Transfers Out	Ending Balance
Capital Assets, not depreciated:				
Land	\$235,534	\$ -	\$ -	\$235,534
Mineral Lease Rights	2,643	-	-	2,643
	<u>238,177</u>	<u>-</u>	<u>-</u>	<u>238,177</u>
Capital Assets, depreciated:				
Office building	8,684,457	397,498	-	9,081,955
Site improvements	1,127,708	-	-	1,127,708
Equipment and furniture	3,048,223	27,363	31,507	3,044,079
Purchased Software	310,045	-	-	310,045
Internally Generated Software (IGS)	2,482,407	3,953,767	-	6,436,174
	<u>15,652,840</u>	<u>4,378,628</u>	<u>31,507</u>	<u>19,999,961</u>
Less accumulated depreciation:				
Office building	7,497,458	257,700	-	7,755,158
Site improvements	889,694	70,989	-	960,683
Equipment and furniture	2,567,196	181,346	31,507	2,717,035
Purchased Software	310,045	-	-	310,045
Internally Generated Software (IGS)	1,769,830	594,578	-	2,364,408
	<u>13,034,223</u>	<u>1,104,613</u>	<u>31,507</u>	<u>14,107,329</u>
Total Net Capital Assets	<u>\$2,856,794</u>	<u>\$3,274,015</u>	<u>\$ -</u>	<u>\$6,130,809</u>
Office building and site improvements (\$25,000 or greater capitalized)			10 - 40 years	
Equipment and furniture (\$5,000 or greater capitalized)			3 - 10 years	
Software (\$25,000 or greater capitalized)			3 - 5 years	

7. COMPENSATED ABSENCES

When employment is terminated, TRS employees are entitled to receive compensation for all accrued unused vacation time and one-half of all unused sick leave earned through Dec. 31, 1997. (Lump-sum payments for sick leave earned prior to Jan. 1, 1984, are subject to a maximum of 60 days or 420 hours.) Sick time earned after Dec. 31, 1997 is not compensable at termination.

At June 30, 2020, the System had a liability of \$2,202,238 for compensated absences. The liability is included in administrative and investment expenses payable on the Statement

of Fiduciary Net Position. For non-investment staff, the increase or decrease in liability is reflected in the financial statements as administrative expense. For investment staff, the increase or decrease is reflected as investment expense. Compensated absences payable for the year ended June 30, 2020 was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Compensated absences payable	\$1,977,395	\$1,013,884	\$789,041	\$2,202,238
The estimated amount due within one year is: \$102,306				

8. RECEIVABLES

Receivables consist primarily of 1) member and employer contributions owed and yet to be remitted by the employing districts, 2) interest, dividends, real estate and private equity income owed to TRS, 3) appropriations not yet received from the State of Illinois as of June 30 and 4) pending investment sales.

TRS assesses penalties for late payment of contributions and may collect any unpaid amounts from the employing districts by filing a claim with the appropriate regional superintendent of education or the Office of the Comptroller against future state aid payments to the employer. TRS considers these amounts to be fully collectible.

9. RISK MANAGEMENT

TRS, as a component unit of the State of Illinois, provides for risks of loss associated with workers' compensation and general liability through the State's self-insurance program. TRS obtains commercial insurance for fidelity, surety and property. No material commercial insurance claims have been filed in the last three fiscal years.

C. CASH

Custodial credit risk for deposits is the risk that, in the event of a bank failure, TRS's deposits may not be returned. TRS has a formal policy to address custodial credit risk. The policy is designed to minimize custodial credit risk through proper due diligence of custody financial institutions and investment advisors; segregate safekeeping of TRS assets;

establish investment guidelines and work to have all investments held in custodial accounts through an agent, in the name of custodian’s nominee, in a corporate depository or federal book entry account system. For those investment assets held outside of the custodian, TRS will follow the applicable regulatory rules.

The non-investment bank balance and carrying amount of TRS’s deposits was \$24,329,683 at June 30, 2020. Of the bank balance, \$24,329,558 was on deposit with the State Treasurer at June 30, 2020. State Treasurer deposits are in an internal investment pool collateralized at a third-party custodial bank and are not subject to custodial credit risk.

Certain investments of TRS with maturities of 90 days or less consisting of bank-sponsored, short-term investment funds, commercial paper and certificates of deposit are reported as short-term investments in the Statement of Fiduciary Net Position. Included in the reported balances is the State Street Global Advisors Short-Term Investment Fund (STIF) with a value of \$1,550,995,637 at June 30, 2020. The STIF fund has an average credit quality rating of A1P1 and a weighted average maturity of 35.0 days.

For purposes of this disclosure, foreign currency held by investment managers is considered a deposit. However, for financial statement presentation and investment purposes, TRS considers foreign currency an investment asset. Uncollateralized foreign currency subject to custodial credit risk was \$79,352,928 at June 30, 2020.

D. INVESTMENTS

1. INVESTMENT POLICIES

Through the TRS Board of Trustees, as authorized in the Illinois Pension Code, TRS serves as fiduciary for the members’ trust funds and is responsible for investment of those funds by authority of the “prudent person rule.” This rule establishes a standard for all fiduciaries by specifying fiduciary responsibility with regard to the members’ trust funds.

LONG-TERM ASSET ALLOCATION

The TRS Board of Trustees has the responsibility of establishing and maintaining broad policies and objectives for all aspects of the System’s operations, including the allocation of invested assets. Plan 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 through the pension plan. The following table summarizes the board-adopted, long-term allocation targets in effect as of June 30, 2020.

Long-term Asset Allocation Policy Mix	
Equity investments	49%
Real assets	20
Diversifying strategies	10
Income investments	21
Total	<u>100%</u>

2. INVESTMENT RISK

CUSTODIAL CREDIT RISK

Custodial credit risk for investments is the risk that, in the event of a financial institution failure, TRS would not be able to recover the value of the investments in the possession of an outside party. The TRS investment policy adopted by the TRS Board of Trustees includes a formal process to address custodial credit risk. This policy requires the custodian to provide safekeeping of the System’s assets in segregated accounts and to have the assets registered in TRS’s name, custodian’s nominee name or in a corporate depository or federal book entry system.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in any one issuer. Investment parameters established in the Investment Management Agreements with external managers restrict holdings to no more than 5 percent of a single issuer within an account. The TRS portfolio has no investments in any one issuer that comprise 5 percent or more of the System’s total investments or fiduciary net position.

CREDIT RISK

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to TRS. Credit risk exposure is dictated by each investment manager's agreement. Each portfolio is managed in accordance with investment guidelines that are specific as to permissible credit quality ranges, exposure levels within individual security quality rating tiers and/or the average credit quality of the overall portfolio. Most guidelines allow managers to hold bonds rated Caa2 or better. However, in circumstances where position downgrades occur, investment managers have been given permission to hold securities below this rating due to circumstances such as a higher peer group rating from another nationally-recognized statistical rating organization, the investment manager's internal ratings or other mitigating factors.

As of June 30, 2020, TRS held the following fixed income investments with respective Moody's quality ratings or equivalent rating. Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk.

Quality Rating	Corporate Debt Securities	Asset-Backed Securities	Foreign Debt Securities	U.S. Agency Obligations	U.S. Government Backed Mortgages	Municipals	Commingled Funds	Total
Aaa	\$96,491,325	\$157,764,980	\$31,686,879	\$132,023,648	\$148,463,903	\$ -	\$781,096,679	\$1,347,527,414
Aa1	10,075,896	-	1,568,853	-	-	-	257,486,997	269,131,746
Aa2	31,513,057	3,933,289	172,189,891	-	-	-	4,635,664	212,271,901
Aa3	24,075,306	-	91,677,293	-	-	2,612,379	11,368,759	129,733,737
A1	58,964,715	-	353,086,791	-	-	547,556	1,410,916,276	1,823,515,338
A2	435,492,632	4,662,116	94,198,559	-	-	-	-	534,353,307
A3	562,435,563	-	137,499,183	-	-	-	546,283,880	1,246,218,626
Baa1	215,875,635	3,492,778	296,395,396	-	-	-	40,647,285	556,411,094
Baa2	316,674,107	3,280,201	377,379,596	-	-	-	-	697,333,904
Baa3	475,164,113	-	325,701,195	-	-	-	24,951,467	825,816,775
Ba1	79,862,841	410,488	181,705,171	-	-	2,644,490	-	264,622,990
Ba2	86,089,143	-	301,756,653	-	-	-	-	387,845,796
Ba3	75,164,060	-	162,879,863	-	-	-	-	238,043,923
B1	16,103,652	215,003	131,942,734	-	-	-	81,385,263	229,646,652
B2	33,244,628	-	213,034,914	-	-	-	101,807,180	348,086,722
B3	13,611,726	-	176,024,971	-	-	-	-	189,636,697
Caa1	13,830,961	-	21,509,117	-	-	-	-	35,340,078
Caa2	647,303	169,578	7,171,461	-	-	-	-	7,988,342
Caa3	2,846,323	-	20,173,782	-	-	-	-	23,020,105
Ca	758,793	1,506,746	88,606,066	-	-	-	-	90,871,605
C	1,957,736	60,166	3,674,512	-	-	-	-	5,692,414
Not rated	-	-	24,436,012	-	-	-	14,306,347	38,742,359
Withdrawn	-	-	2,724,175	-	-	-	-	2,724,175
Total credit risk, bonds, corporate notes and government obligations	2,550,879,515	175,495,345	3,217,023,067	132,023,648	148,463,903	5,804,425	3,274,885,797	9,504,575,700
U.S. Treasuries								383,343,230
Total bonds, corporate notes & government obligations	\$2,550,879,515	\$175,495,345	\$3,217,023,067	\$132,023,648	\$148,463,903	\$5,804,425	\$3,274,885,797	\$9,887,918,930

INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. TRS's fixed income investments are managed in accordance with operational guidelines that are specific as to the degree of interest rate risk that can be taken. TRS manages the interest rate risk within the portfolio using various methods including effective duration, option adjusted duration, average maturity and segmented time distribution, which reflect the total fair value of investments maturing during a given time period.

The segmented time distribution of the various investment types of TRS debt securities as of June 30, 2020 is as follows:

Type	2020 Fair Value	Maturity in Years					Other*
		Less Than 1 year	1 to 5 years	5 to 10 years	10 to 20 years	More Than 20 years	
U.S. treasuries/agencies	\$515,366,878	\$107,084,334	\$307,063,263	\$59,061,213	\$24,920,155	\$17,237,913	\$ -
U.S. government-backed mortgages	148,463,903	219,850	5,418,857	1,244,765	75,803,047	65,777,384	-
Municipals	5,804,425	-	308,126	1,220,769	1,663,151	2,612,379	-
Asset-backed securities	175,495,345	-	126,722,855	25,110,439	19,972,038	3,690,013	-
Commingled funds (U.S. & international)**	3,274,885,797	119,678,344	678,817,400	1,539,108,078	375,899,488	-	561,382,487
Corporate debt securities	2,550,879,515	285,309,668	1,305,652,874	687,130,217	133,402,680	139,384,076	-
Foreign debt/corporate obligations	<u>3,217,023,067</u>	<u>375,343,292</u>	<u>911,273,519</u>	<u>1,007,048,031</u>	<u>379,264,418</u>	<u>544,093,807</u>	-
Total bonds, corporate notes and government obligations	9,887,918,930	887,635,488	3,335,256,894	3,319,923,512	1,010,924,977	772,795,572	561,382,487
Derivatives	<u>6,184,038</u>	<u>67,316</u>	<u>5,001,688</u>	<u>1,115,034</u>	-	-	-
Total bonds, corporate notes, government obligations, securities lending collateral and derivatives	<u>\$9,894,102,968</u>	<u>\$887,702,804</u>	<u>\$3,340,258,582</u>	<u>\$3,321,038,546</u>	<u>\$1,010,924,977</u>	<u>\$772,795,572</u>	<u>\$561,382,487</u>

* Maturity date is not available or applicable.

** Weighted average maturity figures were used if available to plot the commingled funds within the schedule.

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. TRS's currency risk exposure, or exchange rate risk, is primarily derived from its holdings in foreign currency-denominated equity, fixed income and derivative investments as well as foreign currency. According to TRS's Investment Policy and investment manager agreements, international equity and global fixed income managers, at their discretion, may or may not hedge the portfolio's foreign currency exposures with currency forward contracts or options, depending upon their views on a specific country or foreign currency relative to the U.S. dollar.

TRS's exposure to foreign currency risk in U.S. dollars as of June 30, 2020 is as follows:

Currency	Foreign Currency	Equities	Fixed Income	Derivatives	Total
Argentine Peso	\$4,026,152	\$ -	\$40,772,065	\$ -	\$44,798,217
Australian Dollar	1,924,965	376,309,148	-	-	378,234,113
Brazilian Real	1,097,510	154,427,663	125,310,783	142,016	280,977,972
British Pound	6,149,107	685,346,937	2,640,556	-	694,136,600
Canadian Dollar	9,325,882	440,876,202	-	-	450,202,084
Chilean Peso	321,227	11,209,241	11,756,893	133,454	23,420,815
Chinese Yuan	4,968,592	-	-	-	4,968,592
Chinese Yuan Renminbi	(2,990,049)	210,798,310	16,592,672	363,492	224,764,425
Colombia Peso	375,584	517,610	60,011,184	89,029	60,993,407
Czech Koruna	58,787	616,747	11,195,349	593,002	12,463,885
Danish Krone	86,429	131,035,347	-	-	131,121,776
Dominican Peso	-	-	7,059,899	-	7,059,899
Egyptian Pound	2,759	4,101,161	11,635,681	-	15,739,601
Emirati Dirham	128,879	3,769,018	-	-	3,897,897
Euro	5,703,157	1,517,220,485	52,691,529	-	1,575,615,171
Ghana Cedi	793,282	-	23,698,642	-	24,491,924
Hong Kong Dollar	4,360,238	672,916,959	-	(10,509)	677,266,688
Hungarian Forint	66,076	18,851,052	11,310,198	16,299	30,243,625
Indian Rupee	10,172,663	184,443,187	11,066,799	(447,441)	205,235,208
Indonesian Rupiah	376,259	40,075,437	130,725,668	-	171,177,364
Israeli Shekel	123,651	39,625,306	-	-	39,748,957
Japanese Yen	14,758,432	1,340,560,492	201,942,554	222,534	1,557,484,012
Malaysian Ringgit	862,932	15,369,406	32,514,977	-	48,747,315
Mexican Peso	1,856,700	40,813,434	160,619,164	2,336,311	205,625,609
Moroccan Dirham	510	-	-	-	510
New Taiwan Dollar	1,361,774	360,566,616	-	192,545	362,120,935
New Zealand Dollar	321,269	6,958,937	-	-	7,280,206
Nigerian Naira	1,369,806	-	-	-	1,369,806
Norwegian Krone	1,028,372	29,624,705	15,054,792	197,254	45,905,123
Peruvian Sol	112,954	-	42,763,143	-	42,876,097
Philippine Peso	179,596	11,544,799	2,099,253	-	13,823,648
Polish Zloty	864,352	23,892,350	30,368,606	283,960	55,409,268
Qatari Riyal	55,960	1,477,149	-	-	1,533,109
Romanian Leu	-	-	9,715,198	-	9,715,198
Russian Ruble	6,296	72,331,670	79,637,603	1,426,918	153,402,487
Serbian Dinar	-	-	2,491,169	-	2,491,169
Singapore Dollar	971,954	59,201,589	-	81,355	60,254,898
South African Rand	1,170,345	58,878,442	73,747,425	(411,140)	133,385,072
South Korean Won	4,373,090	315,883,695	111,179,896	(680,974)	430,755,707
Swedish Krona	1,165,146	175,916,754	-	-	177,081,900
Swiss Franc	317,747	502,842,963	-	-	503,160,710
Thailand Baht	480,335	44,457,979	35,893,514	-	80,831,828
Turkish Lira	1,014,281	45,706,239	9,778,566	4,282	56,503,368
Ukraine Hryvnia	801	-	19,438,482	-	19,439,283
Uruguayan Peso	9,126	-	183,725	-	192,851
Vietnam Dong	-	5,323,496	-	-	5,323,496
Total subject to foreign currency risk	79,352,928	7,603,490,525	1,343,895,985	4,532,387	9,031,271,825
Investments in international securities payable in U.S. dollars	-	1,392,273,154	1,873,127,082	(36,358)	3,265,363,878
Total international investment securities (including domestic securities payable in foreign currency)	79,352,928	8,995,763,679	3,217,023,067	4,496,029	12,296,635,703
Domestic investments (excluding securities payable in foreign currency)	-	7,768,675,705	6,670,895,863	1,688,009	14,441,259,577
Total fair value	\$79,352,928	\$16,764,439,384	\$9,887,918,930	\$6,184,038	\$26,737,895,280

In addition to the previous table, the fair value of TRS's investments in foreign currency denominated real asset and private equity funds was \$89,031,165 and \$511,171,473 at June 30, 2020, respectively. Currencies included Euro, British pound, Canadian dollar, Japanese yen and South Korean won.

3. SECURITIES LENDING PROGRAM

The TRS Board of Trustees' policies permit TRS to use investments to enter into securities lending transactions, which are loans of securities to broker-dealers or other approved entities. The borrower of a security must post collateral in excess of the fair value of the security. TRS receives both cash and non-cash (i.e., securities) collateral.

Eligible forms of collateral include cash consisting of U.S. dollar, euro, sterling and yen, U.S. treasuries, government agency securities, certificates of deposit, letters of credit issued by approved banks and specific types of corporate debt obligations and common stock. Initial collateral received from the borrower must be at least 102 percent of the fair value of all loaned securities except non-U.S. securities, which require 105 percent. Securities on loan are marked to market daily and collateral for the loan is required not to fall below minimum levels established by TRS and its lending agent. Agreements are in place allowing TRS, upon demand, to return the collateral in exchange for the original securities. TRS does not have the authority to pledge or sell collateral securities without borrower default; as such, the collateral security or non-cash collateral is not reported in TRS's financial statements in accordance with GASB Statement No. 28, "Accounting and Financial Reporting for Securities Lending Transactions."

As of June 30, 2020, Citibank, N.A. served as the third-party securities lending agent for the fixed income, domestic equity and international equity lending programs. In this capacity, TRS reduces credit risk by allowing Citibank to lend securities to a diverse group of dealers on behalf of TRS. At fiscal-year end, TRS has no credit risk exposure to borrowers because the amount TRS owes the borrowers exceeds the amount the borrowers owe TRS. The weighted average term of the loans is nine days

as securities on loan can be recalled on demand by TRS or the borrower can return the loaned securities at any time. Since loans are terminable at will, the maturity of loans generally does not match the maturity of collateral investments. TRS may enter into term loan agreements, evaluated on an individual basis. As of June 30, 2020, there were no term loans outstanding.

Cash collateral received is invested in a separate account managed by the lending agent, with a weighted average maturity of 56 days at June 30, 2020. There were no significant violations of legal or contractual provisions and there were no borrower or lending agent default losses known to the securities lending agent.

As of June 30, 2020, TRS had outstanding loaned investment securities with a fair value of \$2,010,708,281 against which it had received cash and non-cash collateral with a fair value of \$2,064,667,367. The securities on loan remain on TRS's Statement of Fiduciary Net Position in their respective investment categories. As of June 30, 2020, TRS cash collateral received and reported as securities lending obligation on the Statement of Fiduciary Net Position totaled \$1,968,671,640; whereas, the fair value of reinvested cash collateral reported as securities lending collateral was \$1,968,682,139. The net increase (decrease) in fair value of investments within the Statement of Changes in Fiduciary Net Position reflects the change in fair value of the reinvested cash collateral. TRS also reports securities lending collateral with the Office of the Illinois State Treasurer on the Statement of Fiduciary Net Position. Further detail on this amount can be obtained by calling the Office of the Illinois State Treasurer at (217) 558-1250 or by visiting www.illinoistreasurer.gov.

Income earned and costs related to securities lending activities are reported on the Statement of Changes in Fiduciary Net Position. For FY20, the System earned net income of \$8,808,442 from securities lending. Additional detail regarding securities lending activity is included within the Investments section.

4. DERIVATIVES

TRS, through its investment managers, invests in derivative securities as a fundamental part of the overall investment process. All TRS derivatives are considered investments and the fair value is reported in the Statement of Fiduciary Net Position. TRS does not directly invest in derivatives but allows certain external managers to utilize these instruments within the investment portfolio for a variety of purposes. TRS managers may hold derivatives to hedge investment transactions accounted for at fair value. The term “hedge” in this context denotes the broad economic activity of entering into contracts intended to offset risks associated with certain transactions, such as the changes in interest rates on investments in debt securities, commodities or instruments denominated in a foreign currency. Assets and liabilities that are measured at fair value, such as investments, do not qualify as hedgeable items and do not meet the requirements for hedge accounting.

A derivative security is an investment whose return depends upon the value of another financial instrument or security such as stocks, bonds, commodities or a market index. The derivative investments in TRS’s portfolio are used primarily to enhance performance and reduce volatility. TRS’s investments in derivatives are not leveraged through borrowing. In the case of an obligation to purchase (long a financial future or call option), the full value of the obligation is primarily held in cash or cash equivalents. For obligations to sell (short a financial future or put option), the reference security is held in the portfolio.

To varying degrees, derivative transactions involve credit risk, sometimes known as default or counterparty risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to the established contract terms. To eliminate credit risk, derivative securities can be acquired through a

clearinghouse that guarantees delivery and accepts the risk of default by either party. The Commodity Futures Trading Commission (CFTC) mandates that any entity that trades or is counterparty to OTC (over-the-counter) derivatives must have a Global Market Entity Identifier (GMEI). TRS is registered and maintains a legal entity identifier.

Market risk is the possibility that a change in interest, currency or other pertinent market rates will cause the value of a financial instrument to decrease or become more costly to settle. Imposing limits on the types, amounts and degree of risk that investment managers may undertake restricts the market risk associated with the constantly fluctuating prices of derivatives. These limits and derivative positions of the investment managers are reviewed on a regular basis to monitor compliance.

As of June 30, 2020, derivative investments in the TRS investment portfolio included currency forward contracts, rights, warrants, futures, options, swaps and swaptions. Within the financial statements, currency forward contracts are reflected as investment payables/receivables, rights and warrants are reflected as equities and all futures, options, swaps and swaptions are classified as derivatives. The change in fair value of derivative investments is included in investment income on the Statement of Changes in Fiduciary Net Position.

The following tables summarize the derivatives held within the TRS investment portfolio and the change in fair value of derivative investments, realized and unrealized, during the fiscal year. The notional amounts shown represent TRS’s financial exposure to these instruments in U.S. dollars. Investments in limited partnerships and commingled funds may include derivatives that are not covered in the following disclosure.

As of June 30, 2020, the TRS investment portfolio held the following derivatives.

Investment Derivatives	Fair Value at June 30, 2020	Change in Fair Value	Shares/Par	Notional
Commodity futures long	\$ -	(\$441,806)	-	\$ -
Commodity futures short	-	(377,107)	-	-
Credit default swaps buying protection	1,664,051	1,016,352	53,661,000	52,126,356
Credit default swaps selling protection	(267,207)	(4,549,197)	10,998,000	10,734,110
Currency forward options purchased	963,323	5,664,050	106,500,235	102,635,317
Currency forward options written	(480,562)	(2,726,190)	(17,348,797)	16,910,380
Equity futures long	-	4,705,896	54,315,255	86,751,155
Equity futures short	-	10,346,947	(145,308)	(44,092,716)
Fixed income futures long	-	38,959,136	77,000,000	108,937,594
Fixed income futures short	-	(19,052,803)	(146,362,596)	(206,071,921)
Index and variance swaps	(530,125)	(4,069,244)	(49,237,733)	32,133,726
Options on futures written	-	383,975	-	-
Pay fixed interest rate/inflation swaps	(1,045,946)	(83,086,845)	53,998,177	53,749,969
Receive fixed interest rate/inflation swaps	5,765,823	16,555,791	191,805,615	198,128,300
Swaptions purchased	183,618	8,179,439	142,500,000	99,955,565
Swaptions written	(68,937)	159,355	(142,500,000)	76,767,517
FX forwards	(7,218,186)	43,533,567	-	-
Rights	649,678	(172,725)	1,646,905	1,646,905
Warrants	10,356,578	4,199,417	3,242,182	3,242,182
Grand total	\$9,972,108	\$19,228,008		\$593,554,439

CURRENCY FORWARD CONTRACTS

Objective: Currency forward contracts are agreements to exchange one currency for another at an agreed upon price and settlement date. TRS's investment managers use these contracts primarily to hedge the currency exposure of its investments.

Terms: Currency forward contracts are two-sided contracts in the form of either forward purchases or forward sales. Forward purchases obligate TRS to purchase specific currency at an agreed upon price. Forward sales obligate TRS to sell specific currency at an agreed upon price. As of June 30, 2020, TRS had currency forward purchase or sale contracts for 34 different currencies with various settlement dates.

Fair Value: As of June 30, 2020, TRS's open currency forward contracts had a net fair value (unrealized loss) of \$7,218,186.

FINANCIAL FUTURES

Objective: Financial futures are agreements to purchase or sell a specific amount of an asset at a specified delivery or maturity date for an agreed upon price. These derivative securities are used to improve yield, adjust the duration of the fixed income portfolio, protect against changes in interest rates or replicate an index.

Terms: Futures contracts are standardized and traded on organized exchanges, thereby minimizing TRS's credit risk. As the daily market value of the futures contract varies from the original contract price, a gain or loss is recognized and paid to, or received from, the clearinghouse. As of June 30, 2020, TRS had outstanding futures contracts with a notional value, or exposure, of (\$54,475,888). Notional values do not represent the actual values in the Statement of Fiduciary Net

Position. The contracts have various expiration dates through September 2020.

Fair Value: Gains and losses on futures contracts are settled daily based on the change of the index or commodity price for the underlying notional value. Because of daily settlement, the futures contracts have no fair value. TRS's realized gain on futures contracts was \$34,140,263 during FY20.

Type	Number of Contracts	Notional Principal
Equity Futures		
International equity index futures - long	1,702	\$86,751,155
International equity index futures - short	(2,039)	(44,092,716)
Fixed Income/Cash Equivalent Futures		
Fixed income index futures - long	496	108,937,594
Fixed income index futures - short	(1,241)	(194,486,508)
International fixed income index futures - short	(60)	(11,585,413)
Total futures (net)	<u>(1,142)</u>	<u>(\$54,475,888)</u>

FINANCIAL OPTIONS

Objective: Financial options are agreements that give one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price, called the strike price, on or before a specified expiration date. The owner (buyer) of an option has all the rights, while the seller (writer) of an option has the obligations of the agreement. As a writer of financial options, TRS receives a premium at the outset of the agreement and bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Premiums received are recorded as a liability when the financial option is written. The Options Clearing Corporation (OCC) performs much the same function for options markets as the clearinghouse does for futures markets.

Terms: As of June 30, 2020, the TRS investment portfolio held currency forward options with notional value of \$119,545,697. Contractual principal/notional values do not represent the actual values in the Statement of Fiduciary Net Position. The contracts have various expiration dates through February 2021.

Fair Value: Fluctuations in the fair value of financial options are recognized in TRS's financial statements as incurred rather than at the time the options are exercised or expire. As of June 30, 2020, the fair value of all option contracts, gross of premiums received, was \$482,761. The fair value represents the amount needed to close all positions as of that date. The following table presents the aggregate contractual principal (notional value) of outstanding contracts as of June 30, 2020. Notional principal amounts are often used to express the volume of these transactions but do not reflect the extent to which positions may offset one another. Options on futures represent the corresponding futures exposure.

Type	Number of Contracts	Notional Principal
Currency Forward Options		
Currency forward call options - purchased	3	\$64,230,739
Currency forward call options - written	1	16,910,380
Currency forward put options - purchased	2	38,404,578

SWAPTIONS

Objective: Swaptions are options on swaps that give the purchaser the right, but not the obligation, to enter into a swap at a specific date in the future. In a written call swaption, the seller (writer) is obligated to pay a fixed rate in exchange for a floating rate for a stated period of time and in a written put swaption, the seller is obligated to receive a fixed rate in exchange for a floating rate if the swaption is exercised. A purchased (long) call swaption gives the buyer the right to receive a fixed rate in exchange for a floating rate for a stated period of time while a purchased (long) put swaption gives the buyer the right to pay a fixed rate in exchange for a floating rate if the swaption is exercised.

As the writer of a swaption, TRS receives a premium at the outset of the agreement. Premiums are recorded as a liability when the swaption is written. As the purchaser of a swaption, TRS pays an upfront premium.

Terms: As of June 30, 2020, TRS had outstanding written put swaption exposure of \$76,767,517 and purchased put swaption exposure of \$99,955,565. The contracts have various maturity dates through December 2020. Exposure amounts for swaptions do not represent the actual values in the Statement of Fiduciary Net Position.

Fair Value: Fluctuations in the fair value of swaptions are recognized in TRS's financial statements as incurred rather than at the time the swaptions are exercised or when they expire. As of June 30, 2020, the fair value of swaption contracts was \$114,681.

CREDIT DEFAULT SWAPS/INDEX SWAPS

Objective: Credit default swaps are financial instruments used to replicate the effect of investing in debt obligations of corporate bond issuers as a means to manage bond exposure, effectively buying or selling insurance protection in case of default. Credit default swaps may be specific to an individual security or to a specific market sector (index swaps). The risk of the credit default/index swap is comparable to the credit risk of the underlying debt obligations of issuers that comprise the credit default/index swap, with the primary risk being counterparty risk. The owner/buyer of protection (long the swap) pays an agreed upon premium to the seller of protection (short the swap) for the right to sell the debt at a previously agreed upon value in the event of a default by the bond issuer. The premium is paid periodically over the term of the swap or until a credit event of the bond issuer occurs. In the event of a default, the swap is called, and the seller of protection makes a payment to the buyer, which is usually based on a fixed percentage of total par.

Purchased credit default swaps decrease credit exposure (buying protection), providing the right to sell debt to the counterparty in the event of a default. A buyer of credit protection against a basket of securities pays an upfront or periodic payment until either maturity or default. In the event of a default, the buyer receives a lump-sum payment. If no default occurs, the buyer loses only the premium paid.

Written credit default swaps increase credit exposure (selling protection), obligating the portfolio to buy debt from counterparties in the event of a default. A seller of credit protection against a basket of securities receives an upfront or periodic payment to compensate against potential default events. If a default event occurs, the seller must pay the buyer the full notional value of the obligation in exchange for the obligation. If no default occurs, the seller will have earned the premium paid.

Terms: As of June 30, 2020, TRS had credit default/index swaps in its portfolio with various maturity dates through June 2025. The notional values as of June 30, 2020, included purchased credit default swaps (buying protection) of \$52,126,356, written credit default swaps (selling protection) of \$10,734,110 and index swaps of \$32,133,726.

Fair Value: The fair value of credit default swaps, including index swaps, held by TRS was \$866,719 as of June 30, 2020. This represents the amount due to or (from) TRS under the terms of the counterparty agreements.

INTEREST RATE/INFLATION SWAPS

Objective: Interest rate swaps are agreements between parties to exchange a set of cash flow streams over a period of time. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some reference rate. Long positions (receive fixed) increase exposure to long-term interest rates; short positions (pay fixed) decrease interest rate/risk exposure. Inflation-linked swaps are agreements where a fixed payment is exchanged for a variable payment linked to an inflation index. These swaps can protect against unfavorable changes in inflation expectations and are used to transfer inflation risk from one counterparty to another.

Terms: As of June 30, 2020, TRS held interest rate swaps in various currencies with various expiration/maturity dates ranging from 2022 to 2030. Swap

agreements typically are settled on a net basis, with a party receiving or paying only the net amount of the fixed/floating payments. Payments may be made at the conclusion of a swap agreement or periodically during its term.

Fair Value: The table below presents the fair value of TRS's interest rate swap exposure as of June 30, 2020.

As of June 30, 2020	
Receive floating/pay fixed	(\$1,045,946)
Receive fixed/pay floating	5,765,823

DERIVATIVE INTEREST RATE RISK

Interest rate risk for derivative securities is disclosed in the Financial Note D. 2. Both interest rate and inflation rate swaps have fair values that are sensitive to interest rate changes. TRS had the following interest rate and inflation swaps at June 30, 2020.

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/20
Pay Fixed Interest Rate/Inflation Swaps:						
Interest Rate Swap INR	610,000,000	\$7,838,653	6 month LIBOR	5.17%	2/24/2025	(\$396,007)
Interest Rate Swap CNY	128,030,000	18,008,449	7 day CNRR	2.45	3/18/2025	(104,099)
Interest Rate Swap MXN	407,110,000	17,668,516	28 day Mexican TIIE	5.09	5/9/2025	(219,367)
Interest Rate Swap PLN	12,240,000	3,094,662	6 month WIBOR	0.71	6/9/2025	(28,844)
Interest Rate Swap ZAR	48,900,000	2,821,379	3 month JIBAR	7.54	3/6/2030	(142,664)
Interest Rate Swap ZAR	74,600,000	4,318,310	3 month JIBAR	7.38	5/14/2030	(154,965)
Total Pay Fixed Interest Rate/Inflation Swaps:		<u>\$53,749,969</u>				<u>(\$1,045,946)</u>
Receive Fixed Interest Rate/Inflation Swaps:						
Interest Rate Swap MXN	64,175,000	\$2,799,382	4.69%	28 day Mexican TIIE	5/6/2022	\$12,678
Interest Rate Swap BRL	15,987,537	3,075,849	5.69	3 month Brazilian CDI	1/2/2023	164,154
Interest Rate Swap BRL	16,481,445	3,019,702	5.07	3 month Brazilian CDI	1/2/2024	18,055
Interest Rate Swap CNY	27,750,000	4,068,136	3.10	7 day CNRR	4/10/2024	117,980
Interest Rate Swap CNY	7,335,000	1,077,272	3.17	7 day CNRR	4/22/2024	34,070
Interest Rate Swap CNY	33,230,000	4,820,904	2.93	7 day CNRR	6/5/2024	113,779
Interest Rate Swap CNY	37,395,000	5,409,906	2.88	7 day CNRR	6/19/2024	118,765
Interest Rate Swap PLN	15,800,000	4,313,464	1.80	6 month WIBOR	7/24/2024	251,892
Interest Rate Swap CNY	30,200,000	4,369,430	2.75	3 month SHIBOR	8/6/2024	82,503
Interest Rate Swap CNY	33,000,000	4,767,452	2.78	7 day CNRR	8/23/2024	88,829
Interest Rate Swap CNY	43,295,000	6,240,466	2.75	7 day CNRR	9/10/2024	110,657
Interest Rate Swap BRL	31,074,098	5,745,894	5.76	3 month Brazilian CDI	1/2/2025	86,592
Interest Rate Swap BRL	10,956,860	2,026,286	5.82	3 month Brazilian CDI	1/2/2025	30,791
Interest Rate Swap MXN	109,920,000	5,088,750	6.41	28 day Mexican TIIE	2/3/2025	330,057
Interest Rate Swap MXN	140,000,000	6,496,899	6.39	28 day Mexican TIIE	2/14/2025	417,711
Interest Rate Swap MXN	33,000,000	1,513,406	6.15	28 day Mexican TIIE	2/26/2025	83,561
Interest Rate Swap MXN	67,600,000	3,092,262	6.09	28 day Mexican TIIE	2/28/2025	164,267
Interest Rate Swap MXN	31,488,095	1,439,965	6.09	28 day Mexican TIIE	3/3/2025	76,796

(continued)

(continued)

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/20
Interest Rate Swap MXN	31,488,095	\$1,442,894	6.14%	28 day Mexican TIE	3/3/2025	\$79,721
Interest Rate Swap RUB	325,000,000	4,944,285	6.31	3 month RUB	3/4/2025	289,405
Interest Rate Swap CNY	6,000,000	848,028	2.20	3 month SHIBOR	4/2/2025	(4,750)
Interest Rate Swap MXN	91,100,000	4,206,282	6.24	28 day Mexican TIE	4/9/2025	249,415
Interest Rate Swap CNY	23,800,000	3,296,624	1.80	3 month SHIBOR	4/17/2025	(80,239)
Interest Rate Swap INR	289,000,000	3,824,853	4.11	6 month MIBOR	4/22/2025	(2,771)
Interest Rate Swap CLP	1,812,000,000	2,271,231	1.66	6 month Chile Interbank Rate	4/23/2025	56,065
Interest Rate Swap MXN	199,030,000	8,826,711	5.29	28 day Mexican TIE	5/2/2025	180,427
Interest Rate Swap COP	13,845,650,000	3,791,787	3.67	3 Month IBRCO	5/7/2025	89,029
Interest Rate Swap MXN	407,110,000	17,885,167	5.09	28 day Mexican TIE	5/9/2025	219,367
Interest Rate Swap INR	153,000,000	2,007,125	3.92	6 month MIBOR	5/15/2025	(19,264)
Interest Rate Swap INR	217,000,000	2,844,631	3.91	6 month MIBOR	5/18/2025	(29,398)
Interest Rate Swap CNY	46,700,000	6,521,545	2.03	7 day CNRR	5/29/2025	(92,019)
Interest Rate Swap CNY	123,770,000	17,521,397	2.30	7 day CNRR	6/8/2025	-
Interest Rate Swap MXN	20,680,000	908,836	5.13	28 day Mexican TIE	6/11/2025	12,083
Interest Rate Swap CNY	21,300,000	2,991,846	2.18	7 day CNRR	6/15/2025	(21,985)
Interest Rate Swap RUB	229,000,000	3,355,390	6.15	3 month RUB	6/17/2025	133,972
Interest Rate Swap RUB	459,295,000	6,760,861	6.26	3 month RUB	6/17/2025	299,544
Interest Rate Swap RUB	446,000,000	6,981,825	7.73	3 month MOSPR	6/17/2025	703,997
Interest Rate Swap ZAR	41,800,000	2,395,145	5.01	3 month JIBAR	6/25/2025	(12,576)
Interest Rate Swap BRL	6,617,719	1,204,069	6.33	3 month Brazilian CDI	1/4/2027	(1,168)
Interest Rate Swap BRL	9,106,785	1,679,503	6.53	3 month Brazilian CDI	1/4/2027	20,950
Interest Rate Swap MXN	96,035,000	4,249,900	5.54	28 day Mexican TIE	5/3/2027	79,098
Interest Rate Swap MXN	32,000,000	1,646,269	8.09	28 day Mexican TIE	3/21/2029	259,229
Interest Rate Swap CLP	600,800,000	810,500	3.16	6 month Chile Interbank Rate	12/16/2029	77,388
Interest Rate Swap CZK	72,475,000	3,354,605	1.61	6 month PRIBOR	1/27/2030	278,188
Interest Rate Swap MXN	107,050,000	5,002,370	6.64	28 day Mexican TIE	1/28/2030	367,865
Interest Rate Swap CZK	71,960,000	3,301,137	1.52	6 month PRIBOR	1/29/2030	247,845
Interest Rate Swap CZK	19,585,000	897,777	1.52	6 month PRIBOR	2/3/2030	66,969
Interest Rate Swap HUF	938,520,000	2,990,282	1.96	6 month BUBOR	5/5/2030	16,299
Total Receive Fixed Interest Rate/ Inflation Swaps:		<u>\$198,128,300</u>				<u>\$5,765,823</u>

BUBOR - Budapest Interbank Offered Rate
CDI - Cetip Interbank Deposit (interbank lending rate)
CNRR - China Fixing Repo Rates
IBRCO - Columbia Interbank Rate
JIBAR - Johannesburg Interbank Agreed Rate
LIBOR - London Interbank Offered Rate
MIBOR - Mumbai Interbank Offered Rate

MOSPR - MosPrime Rate
PRIBOR - Czech Interbank Offered Rate
RUB - Russia Interbank Rate
SHIBOR - Shanghai Interbank Offered Rate
TIE - Mexico Interbank Equilibrium Interest Rate
WIBOR - Warsaw Interbank Offered Rate

DERIVATIVE CREDIT RISK

Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to the established terms. In order to eliminate credit risk, derivative securities are traded through a clearing house that guarantees delivery and accepts the risk of default by either party. Derivatives that are exchange traded are not subject to credit risk and are evaluated within the investment risk disclosure.

Non-exchange traded derivative instruments may expose TRS to credit/counterparty risk. TRS investment managers reduce credit risk by evaluating the credit quality and operational capabilities of the counterparties. Because the counterparty risk of a security will fluctuate with market movements, all TRS managers using non-exchange traded derivatives operate a collateral call process ensuring full collateralization of these derivatives. TRS does not have a policy regarding master netting arrangements.

As of June 30, 2020, the aggregate fair value of non-exchange traded derivative instruments in asset positions was \$46,034,896. All applicable futures, options and swaps are in compliance with Dodd-Frank requirements and cleared through the appropriate futures and swaps exchanges. The counterparty risk exposure below is primarily unsettled currency forward contracts. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted.

Counterparty Ratings for Non-Exchange Traded Derivatives

Quality Rating	Fair Value at June 30, 2020
Aa2	\$9,501,572
Aa3	15,067,381
A1	5,683,025
A2	7,008,841
A3	8,774,077
Total subject to credit risk	<u>\$46,034,896</u>

Although the derivative instruments held within the TRS investment portfolio are executed with various counterparties, approximately 94 percent of the net market value exposure to credit risk is for non-exchange traded derivative contracts held with 10 counterparties.

5. INVESTMENT COMMITMENTS

Investments in certain limited partnerships commit TRS to possible future capital contributions. As of June 30, 2020, TRS had remaining unfunded commitments of \$10,395,529,839 within the real estate, other real assets, private equity, diversifying strategies and global fixed income asset classes.

6. SCHEDULE OF INVESTMENT RETURNS

For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of investment expense, was 0.6 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts invested.

7. FAIR VALUE MEASUREMENT

TRS categorizes investments measured at fair value within the fair value hierarchy established by generally accepted accounting principles. The hierarchy prioritizes valuation inputs used to measure the fair value of the asset or liability into three broad categories. The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. Levels 1, 2 and 3 (lowest priority level) of the fair value hierarchy are defined as follows:

- Level 1** Inputs using unadjusted quoted prices in active markets or exchanges for identical assets and liabilities.
- Level 2** Significant other observable inputs, which may include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets

or liabilities in non-active markets; and inputs other than quoted prices that are observable for the assets or liabilities, either directly or indirectly.

Level 3 Valuations for which one or more significant inputs are unobservable and may include situations where there is minimal, if any, market activity for the investment.

If the fair value is measured using inputs from different levels in the fair value hierarchy, the measurement should be categorized based on the lowest priority level input that is significant to the valuation. The System's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment. Investments measured at fair value using net asset value (NAV) per share (or equivalent) as a practical expedient to fair value are not classified in the fair value hierarchy; however, separate disclosures for these investments are required.

Debt and equity investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets, to the extent these securities are actively traded.

Short-term investments consisting of money market funds, certificates of deposit and highly liquid cash equivalents are generally reported at amortized cost which approximates fair market

value. These investments are not categorized in the fair value hierarchy.

Debt and investment derivatives classified in Level 2 of the fair value hierarchy are normally valued based on price data obtained from observed transactions and market price quotations from broker dealers and/or pricing vendors. Valuation estimates from service providers' internal models use observable inputs such as interest rates, yield curves, credit/risk spreads and default rates. Matrix pricing techniques value securities based on their relationship to benchmark quoted prices. Exchange traded and over-the-counter investment derivatives valued by independent pricing service providers, where the value is derived from underlying asset prices, reference rates, indices or other observable inputs are also included in Level 2.

Debt securities classified as Level 3 include valuations using significant unobservable inputs, valuations using proprietary information, inputs that cannot be corroborated by observable market data and securities valued with last trade date due to limited trading volume. Real assets classified as Level 3 include direct investments in real estate. Valuations for real estate investments are performed quarterly by investment managers. An appraisal by an independent third-party member of the Appraisal Institute is obtained once every three years for each property and is used to establish fair market value.

The following table summarizes the valuation of TRS investments by the fair value hierarchy levels as of June 30, 2020.

Investments and Derivative Instruments Measured at Fair Value (\$ thousands)

Investments by fair value level	June 30, 2020	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Debt securities				
Asset-backed securities	\$175,495	\$ -	\$175,495	\$ -
Commercial/collateralized mortgages & loans	116,987	-	116,987	-
Domestic corporate obligations	2,433,893	-	2,433,893	-
Fixed income mutual funds	2,516,005	-	355,397	2,160,608
Foreign debt/corporate obligations	3,217,023	-	3,217,023	-
Municipals	5,804	-	5,804	-
U.S. agencies obligations	132,024	-	132,024	-
U.S. government-backed mortgages	148,464	-	148,464	-
U.S. treasuries	383,343	-	383,343	-
Total debt securities	9,129,038	-	6,968,430	2,160,608
Equity investments				
International common and preferred stock	8,699,263	8,683,822	15,441	-
U.S. common and preferred stock	7,768,676	7,768,673	3	-
Total equity investments	16,467,939	16,452,495	15,444	-
Real assets				
Real estate	4,779,929	-	-	4,779,929
Total real assets	4,779,929	-	-	4,779,929
Total investments by fair value level	\$30,376,906	\$16,452,495	\$6,983,874	\$6,940,537
Investments measured at the net asset value (NAV)				
Commingled fixed income funds	\$758,881			
Diversifying strategies	5,542,576			
International equity commingled fund	296,500			
Private debt partnerships	2,916,258			
Private equity partnerships	6,519,059			
Private real estate partnerships	2,937,046			
Real asset partnerships	368,868			
Total investments measured at the NAV	19,339,188			
Total investments measured at fair value	\$49,716,094			
Investment derivative instruments				
Credit default swaps	\$1,397	\$ -	\$1,397	\$ -
Index and variance swaps	(530)	-	(530)	-
Interest rate and inflation swaps	4,720	-	4,720	-
Options	483	-	483	-
Swaptions	114	-	114	-
Total investment derivative instruments	\$6,184	\$ -	\$6,184	\$ -
Invested securities lending collateral				
Total invested securities lending collateral*	\$1,968,682	\$280,832	\$1,687,850	\$ -

* Does not include lending collateral with the State Treasurer.

Investments measured at NAV for fair value are not subject to level classification. The valuation method for investments measured at the NAV per share (or its equivalent) is presented on the following table.

Investments Measured at the Net Asset Value (NAV) (\$ thousands)

	Fair Value June 30, 2020	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Commingled fixed income funds ¹	\$758,881	\$ -	Monthly, quarterly	30-60 days
Diversifying funds - liquid ²	5,196,632	-	Daily, weekly, monthly, quarterly	1-90 days
Diversifying funds - illiquid ³	345,944	42,364	Not eligible	N/A
Total diversifying strategies	5,542,576	42,364		
International equity commingled fund ⁴	296,500	-	Daily	1 day
Custom private debt partnerships	1,095,845	449,890	Quarterly	60-90 days
Private debt partnerships	1,820,413	1,802,406	Not eligible	N/A
Total private debt partnerships⁵	2,916,258	2,252,296		
Private equity partnerships ⁶	6,519,059	4,251,751	Not eligible	N/A
Private real estate partnerships ⁶	2,937,046	2,715,725	Not eligible	N/A
Real assets partnerships ⁷	368,868	1,133,394	Not eligible	N/A
Total investments measured at the NAV	<u>\$19,339,188</u>	<u>\$10,395,530</u>		

- 1) **Commingled fixed income funds:** The investment strategies for the four fixed income funds include high yield, defensive bond arbitrage, emerging market debt and relative value. The fair value of the investments has been determined using the NAV per share (or its equivalent) of the investments. Liquidity ranges from monthly to quarterly upon notice of redemption. As of June 30, TRS plans to liquidate one fund valued at \$101.8 million.
- 2) **Diversifying funds (liquid strategies):** The diversifying strategies asset class applies various strategies that provide diversification to the total investment portfolio. Investments focus on reducing equity-like risk characteristics encompassed in the overall TRS portfolio by enhancing exposures to strategies that show little to no correlation to growth factors while adding positive skew and active risk management characteristics. Risk parity consists of one direct investment focusing on market neutral and long only expressions of cross-asset risk. Four factor portfolio direct investments include trend/momentum exposures and alternative risk premia. The systematic and discretionary macro strategies include direct investments in seven funds diversifying through regional and product expertise, speed of algorithms and style of trading. Opportunistic funds, including seven direct investments and one diversified fund of funds, use idiosyncratic alpha capture through liquidity and security selection. The fair value of these investments has been determined using the NAV per share of the investments. The strategies maintain a liquidity profile of less than one year, ranging from daily to quarterly and require advance notice prior to redemption. TRS submitted redemption request for one direct investment, valued at \$168.6 million, with final exit date of September 30, 2020.
- 3) **Diversifying funds (illiquid strategies):** The diversifying strategies asset class includes three opportunistic alpha funds in which redemptions are restricted over the life of the partnership. The partnership's interest is valued using the NAV per share (or its equivalent). The most significant element of NAV is the fair value of the underlying investment holdings which are valued on a monthly basis by the general partner

and are audited annually. The average life of these funds spans five to 10 years and the funds will distribute any free cash from the Master fund in excess of the amount needed to maintain prudent liquidity. TRS has no plans to liquidate as of June 30, 2020.

- 4) **International equity commingled fund:** Includes one fund investing in emerging market small cap equities diversified across multiple sectors. The fair value of the investment has been determined using the NAV per share of the investments. Daily liquidity is available.
- 5) **Private debt partnerships:** Private debt funds consist of 44 funds investing across strategies such as stressed debt/credit, direct and specialty lending, real estate credit and bank loans. Five of these funds are custom partnerships investing in opportunistic investments. The private debt funds provide additional exposure to niche and/or specific nontraditional point-in-time opportunities that are not normally targeted by traditional fixed income managers. Funds are valued using the NAV per share (or its equivalent) and are audited annually. Redemption restrictions are in place over the life of the partnership. The average life of these funds span three to 12 years and distributions are received throughout the life of the fund. The custom partnerships allow TRS to liquidate upon giving advanced notice. TRS has no plans to liquidate as of June 30, 2020, however; during the fiscal year, TRS did sell one fund on the secondary market.
- 6) **Private equity and real estate partnerships:** TRS has 176 private equity partnerships which include investments in privately held equity, such as buyouts, co-investments, venture capital and growth equity, as well privately held debt. The 53 real estate limited partnerships invest in various property types across multiple geographic regions. Investments in limited partnerships are normally long-term with an approximate life of 10 to 15 years and considered illiquid. Investors are subject to redemption restrictions which limit and restrict the ability of limited partners to exit prior to dissolution. Partnership interests are valued using their respective NAV calculated by the general partner's fair valuation policy and are generally audited annually. The most significant element of NAV is the fair value of the investment holdings which are typically valued on a quarterly basis by the general partners. Distributions are received as the funds sell underlying portfolio company investments. TRS has no plans on liquidating the portfolio; however, will opportunistically sell funds in the secondary market to reposition the portfolio and optimize returns. During the fiscal year, TRS did not sell any private equity funds on the secondary market. As of June 30, 2020, it is probable that all investments in this type will be sold at an amount different from the current NAV of the Plan's ownership interest.
- 7) **Real assets partnerships:** Real assets strategies include seven limited partnerships investing in global infrastructure, direct energy and non-U.S. agriculture. These partnerships are not eligible for redemption, considered illiquid and have an approximate life of six to 20 years. Distributions are received during the life of the fund as underlying investments are liquidated. Partnership interests are valued by the general partner using their respective NAV per share (or equivalent), with the most significant element of NAV being the fair value of the investment holdings. TRS has no plans to liquidate these funds. As of June 30, 2020, it is probable that all investments in this type will be sold at an amount different from the current NAV of the Plan's ownership interest.

E. RESERVES

TRS maintains statutory reserve accounts in accordance with the provisions of 40 ILCS 5/16-101 et seq. In 1997, the Illinois General Assembly passed legislation that allowed the crediting of additions at fair value, as opposed to book value, to the Benefit Trust Reserve.

1. BENEFIT TRUST

2020	
Balances at June 30	\$52,306,192,181

This reserve serves as a clearing account for TRS additions and deductions. The reserve is credited with contributions from the State of Illinois that are not specifically allocated to the Minimum Retirement Annuity Reserve, member and employer contributions, income from TRS invested assets and contributions from annuitants who qualify for automatic annual increases in annuity.

The reserve accumulates, with 6 percent interest, the contributions by members prior to retirement. Contributions have been 7.5 percent of salary since July 1, 1998. Contributions are fully refundable upon withdrawal from TRS, excluding interest credited thereon. The interest accrued is refundable only in the event of death. Interest is credited as of the date of retirement or death of those retiring or dying during the year and as of the end of the fiscal year for all other members. Interest is computed annually based upon the individual member's balance in the reserve at the beginning of the fiscal year.

This reserve is charged for transfers to the Minimum Retirement Annuity Reserve and all

- refunds to withdrawing members,
- retirement annuity payments (except as provided by the Minimum Retirement Annuity Reserve),
- benefits that are paid to disabled members,
- death benefits paid and

- refunds to annuitants for survivor benefit contributions.

The expected benefit payments do not equal the present value of the reserve. The additional amount needed (the unfunded actuarial accrued liability) as calculated by the actuary was \$80.7 billion in FY20 based on the actuarial value of assets.

2. MINIMUM RETIREMENT ANNUITY

2020	
Balances at June 30	\$10,285,590

The minimum annuity is set by law at \$25 per month for each year of creditable service to a maximum of \$750 per month after 30 or more years of creditable service. To qualify, annuitants are required to make a one-time contribution that is credited to the reserve. Interest at 6 percent is credited to the reserve annually based upon the average reserve balance. The State of Illinois also appropriated funds necessary to pay the minimum benefits. All benefits paid under this program are charged to the reserve. This reserve is fully funded.

F. OTHER POST-EMPLOYMENT BENEFITS FOR TRS EMPLOYEES

The state provides health, dental, vision and life insurance benefits for retirees and their dependents in a program administered by the Department of Central Management Services (CMS). Substantially all state employees become eligible for post-employment benefits if they eventually become annuitants of one of the state-sponsored pension plans.

Health, dental and vision benefits include basic benefits for annuitants and dependents under the state's self-insurance plan and insurance contracts currently in force. Annuitants may be required to contribute towards health, dental and vision benefits with an amount based on factors such as date of retirement, years of credited service with the State of Illinois, whether the annuitant is covered by Medicare and whether the annuitant has chosen a managed health care plan. Employees of the System

who retired before Jan. 1, 1998 and are vested in either SERS or TRS do not contribute towards health and vision benefits. A premium is required for dental. For annuitants who retired on or after Jan. 1, 1998, the annuitant's contribution amount is reduced 5 percent for each year of credited service with the state allowing those annuitants with 20 or more years of credited service to not have to contribute towards health and vision benefits. A premium is required for dental. Annuitants also receive life insurance coverage equal to the annual salary of their last day of employment until age 60, at which time the benefit becomes \$5,000.

The State of Illinois pays the TRS portion of employer costs for the benefits provided. The total cost of the state's portion of health, dental, vision and life insurance benefits of all members, including post-employment health, dental, vision and life

insurance benefits, is recognized as an expenditure by the state in the Illinois *Comprehensive Annual Financial Report*. The System adopted GASB 75, but has chosen not to record the other post-employment liability because it is deemed insignificant to the financial statements. The footnote and required supplementary information also required by GASB 75 have been excluded, as well, due to the insignificance of the liability.

A summary of post-employment benefit provisions, changes in benefit provisions and employee eligibility requirements, including eligibility for vesting and the authority under which benefit provisions are established, are included as an integral part of the financial statements for CMS. A copy of the financial statements may be obtained by contacting their office, Department of Central Management Services, 704 Stratton Office Building, Springfield, IL 62706.



Photo credit: Mackenzie Smith

In Edwardsville, the SIUE cougar statue wears a mask in unity with the students and university staff.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability for Fiscal Years:

	2020	2019	2018	2017	2016	2015	2014
Total pension liability							
Service cost	\$1,991,622,987	\$1,947,627,286	\$1,838,002,948	\$1,877,570,053	\$1,681,242,232	\$1,948,079,771	\$1,894,351,211
Interest	9,296,897,060	8,991,684,121	8,703,519,454	8,390,352,464	8,264,257,311	7,864,916,421	7,561,104,814
Changes of benefit terms	-	-	(374,603,419)	-	-	-	-
Difference between expected and actual experience	(28,215,833)	258,778,925	1,191,346,970	482,486,212	701,827,169	(90,079,446)	39,950,212
Change of assumptions	-	77,241,572	(666,054,719)	(2,725,599,755)	7,553,894,504	1,136,454,886	-
Benefit payments, including refund of member contributions	(7,099,524,955)	(6,818,760,572)	(6,551,634,376)	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
Net change in total pension liability	4,160,779,259	4,456,571,332	4,140,576,858	1,586,803,054	12,270,014,039	5,234,334,459	4,174,743,258
Total pension liability - beginning	134,370,954,628	129,914,383,296	125,773,806,438	124,187,003,384	111,916,989,345	106,682,654,886	102,507,911,628
Total pension liability - ending (a)	138,531,733,887	134,370,954,628	129,914,383,296	125,773,806,438	124,187,003,384	111,916,989,345	106,682,654,886
Plan fiduciary net position							
Contributions - employer	92,658,238	88,514,781	84,633,117	149,495,577	148,040,767	145,591,585	158,334,598
Contributions - nonemployer contributing entity	4,813,451,679	4,466,020,692	4,095,125,358	3,986,363,699	3,742,469,245	3,377,664,945	3,438,382,892
Contributions - member	994,400,416	963,972,120	938,037,245	929,130,165	951,809,398	935,451,049	928,745,853
Net investment income (loss)	275,669,398	2,617,831,332	4,049,271,728	5,520,453,001	(44,103,178)	1,770,549,533	6,782,031,720
Benefit payments, including refund of member contributions	(7,099,524,955)	(6,818,760,572)	(6,551,634,376)	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
Administrative expense	(22,966,372)	(24,335,680)	(21,550,896)	(22,728,735)	(22,967,917)	(21,686,860)	(21,218,069)
Net change in plan fiduciary net position	(946,311,596)	1,293,242,673	2,593,882,176	4,124,707,787	(1,155,958,862)	582,533,079	5,965,614,015
Plan fiduciary net position - beginning	53,262,789,367	51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514	39,858,768,499
Plan fiduciary net position - ending (b)	52,316,477,771	53,262,789,367	51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
Employers' net pension liability - ending (a) - (b)	\$86,215,256,116	\$81,108,165,261	\$77,944,836,602	\$76,398,141,920	\$78,936,046,653	\$65,510,073,752	\$60,858,272,372

Note: Information is not available prior to 2014. Additional years will be added to future reports as schedules are intended to show 10 years of historical data.

Schedule of the Net Pension Liability for Fiscal Years:

	2020	2019	2018	2017	2016	2015	2014
Total pension liability	\$138,531,733,887	\$134,370,954,628	\$129,914,383,296	\$125,773,806,438	\$124,187,003,384	\$111,916,989,345	\$106,682,654,886
Plan fiduciary net position	52,316,477,771	53,262,789,367	51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
Net pension liability	\$86,215,256,116	\$81,108,165,261	\$77,944,836,602	\$76,398,141,920	\$78,936,046,653	\$65,510,073,752	\$60,858,272,372
Plan fiduciary net position as a percentage of the total pension liability	37.8%	39.6%	40.0%	39.3%	36.4%	41.5%	43.0%
Covered payroll	\$10,827,438,800	\$10,450,452,444	\$10,163,980,000	\$9,965,569,893	\$9,811,614,284	\$9,641,170,627	\$9,512,809,680
Net pension liability as a percentage of covered payroll	796.3%	776.1%	766.9%	766.6%	804.5%	679.5%	639.8%

Schedule of Investment Returns for Fiscal Years:

	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	0.6%	5.1%	8.5%	12.5%	(0.1%)	4.0%	17.4%

Note: Information is not available prior to 2014. Additional years will be added to future reports as schedules are intended to show 10 years of historical data.

Schedule of Contributions from Employers and Other Contributing Entities, Last 10 Fiscal Years (\$ thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially-determined contribution (ADC)	\$7,988,612	\$7,429,037	\$7,080,756	\$6,248,879	\$4,582,530	\$4,119,526	\$4,091,978	\$3,582,033	\$3,429,945	\$2,743,221
Contributions in relation to the actuarially-determined contribution:*										
State	4,813,078	4,465,578	4,094,616	3,985,783	3,741,802	3,376,878	3,437,478	2,702,278	2,405,172	2,169,518
Federal & Employer Contributions	92,038	87,707	84,034	148,749	147,408	144,780	157,228	155,787	153,409	154,150
Total contributions	4,905,116	4,553,285	4,178,650	4,134,532	3,889,210	3,521,658	3,594,706	2,858,065	2,558,581	2,323,668
Contribution deficiency	\$3,083,496	\$2,875,752	\$2,902,106	\$2,114,347	\$693,320	\$597,868	\$497,272	\$723,968	\$871,364	\$419,553
Covered payroll	\$10,827,439	\$10,450,452	\$10,163,980	\$9,965,570	\$9,811,614	\$9,641,171	\$9,512,810	\$9,394,741	\$9,321,098	\$9,205,603
Contributions as a percentage of covered payroll	45.3%	43.6%	41.1%	41.5%	39.6%	36.5%	37.8%	30.4%	27.4%	25.2%

* Contributions for minimum benefits from the state and for excess sick from employers do not count towards actuarial funding requirements. Beginning in FY18, employer contributions on salaries exceeding the statutory salary of the governor are included and the projected excess salary contribution is included in the ADC. In all years, employer contributions for excess salary increases are included. However, employer contributions for excess sick leave are not included because there is no assumption for excess sick leave and it is not included in the funding requirements. Before FY17, the actuarially determined contribution was based on GASB Statement No. 25. Beginning in FY17, a different basis for determining the actuarially-determined contribution is used, as described in the following table.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The Schedule of Changes in Net Pension Liability and the Schedule of Net Pension Liability are affected by various factors. In FY20, they increased the total pension liability by \$4.2 billion.

The Schedule of Contributions from Employers and Other Contributing Entities compares actual and actuarially-determined contributions. There is a difference between these amounts because actual contributions are based on state statute under a methodology that does not conform to that used to determine the actuarially-determined contribution.

The following assumptions were used to determine the statutory and actuarially-determined contributions for FY20.

	For Funding per State Statute	For Determining the Actuarially-determined Contribution
Valuation Used to Determine Funding Amount:	June 30, 2018	June 30, 2018
Actuarial Cost Method:	Projected unit credit	Entry age normal
Amortization Method:	15-year phase-in to a level percent of payroll reached in FY10; then level percent of payroll until a 90 percent funding level is achieved in FY45	Level percent of payroll
Remaining Amortization:	25 years, closed	20 years, closed beginning with 2015 actuarial valuation; subsequent increases in the UL amortized over subsequent 20-year periods.
Asset Valuation Method:	Actuarial value of assets with five-year smoothing of investment gains and losses	Actuarial value of assets with five-year smoothing of investment gains and losses

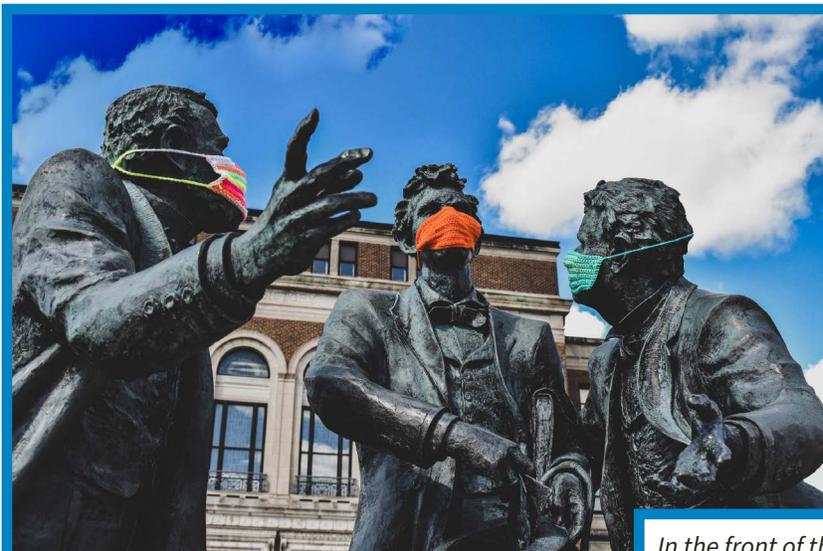


Photo credit: Ashley Binkowski / WGLT

In the front of the Bloomington Center for the Performing Arts, Abraham Lincoln wears a mask to "safely converse" with David Davis and Jesse Fell.

OTHER SUPPLEMENTARY INFORMATION
SCHEDULE OF ADMINISTRATIVE EXPENSES
FOR THE YEARS ENDED JUNE 30

	2020	2019
Personnel services		
Salaries	\$11,075,840	\$11,031,954
Retirement contributions	2,068,795	2,259,264
Insurance and payroll taxes	3,616,262	3,724,737
	<u>16,760,897</u>	<u>17,015,955</u>
Professional services		
Actuarial services	196,868	259,272
External auditors	270,919	261,014
Legal services	560,578	213,249
Legislative consulting	84,000	84,000
Information systems consulting	255,364	1,734,617
Operations consulting	437,805	318,242
Other	3,295	4,565
	<u>1,808,829</u>	<u>2,874,959</u>
Communications		
Postage	223,277	191,128
Printing and copying	65,959	205,490
Telephone	180,991	161,340
	<u>470,227</u>	<u>557,958</u>
Other services		
Administrative services	307,357	549,072
Building operations and maintenance	451,833	441,844
EDP supplies and equipment	132,104	242,881
Equipment repairs, rental and maintenance	235,091	196,268
Insurance	193,758	181,883
Memberships and subscriptions	112,977	144,838
Office equipment and furniture	130,409	68,861
Office supplies	14,294	16,625
Software licenses and maintenance	1,068,164	965,505
Travel, conferences, education	175,819	203,312
	<u>2,821,806</u>	<u>3,011,089</u>
Depreciation expense	<u>1,104,613</u>	<u>875,719</u>
Total administrative expenses	<u>\$22,966,372</u>	<u>\$24,335,680</u>

Note: Above amounts do not include investment administrative expenses, which are deducted from investment income and shown in a separate schedule on the following page.

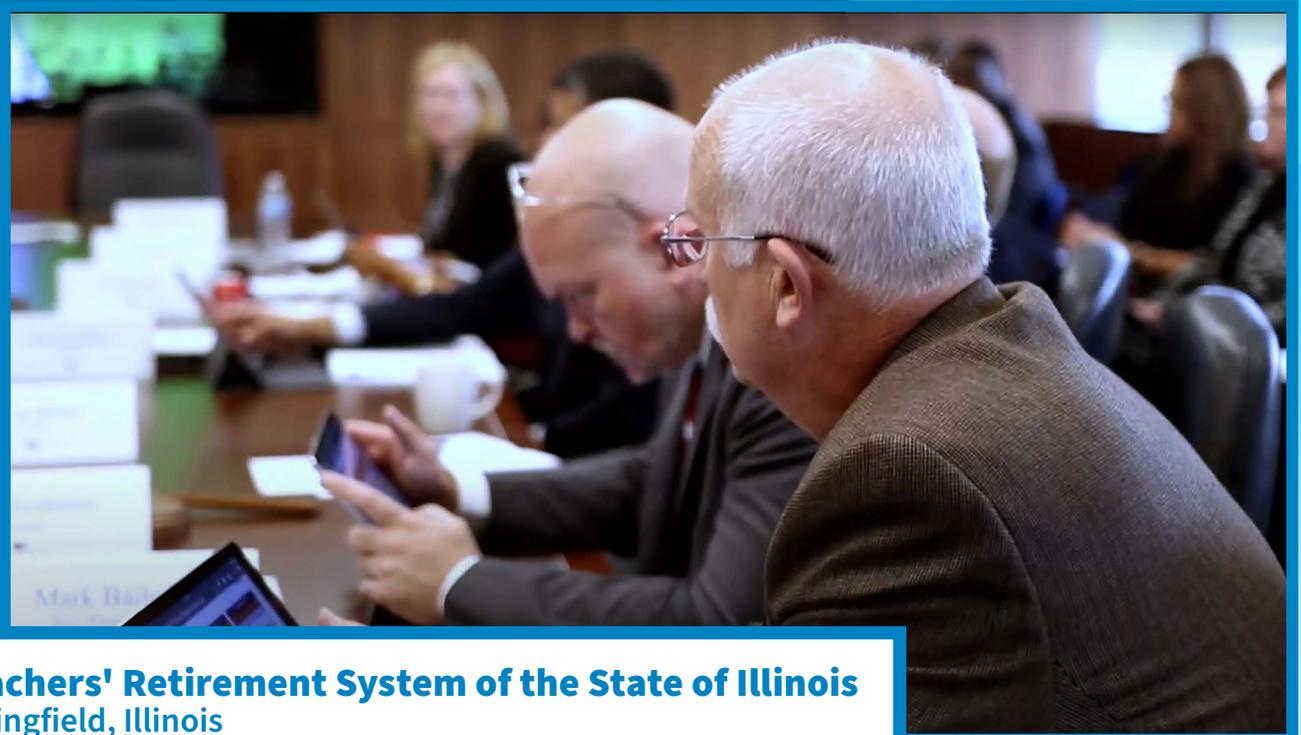
SCHEDULE OF INVESTMENT EXPENSES FOR THE YEARS ENDED JUNE 30

	2020	2019
Investment manager fees	<u>\$375,519,105</u>	<u>\$316,622,153</u>
Master custodian fees		
State Street Bank and Trust Company	<u>3,534,575</u>	<u>2,604,167</u>
Consulting services		
Albourne America, L.L.C.	-	166,667
Aksia, L.L.C.	705,770	525,153
RVK, Inc.	465,000	525,000
Stepstone Group, L.P.	423,924	-
Stepstone Group Real Estate, L.P.	303,816	288,370
Stout Risius Ross, Inc.	137,500	85,000
TorreyCove Capital Partners, L.L.C.	<u>1,024,750</u>	<u>1,101,250</u>
	<u>3,060,760</u>	<u>2,691,440</u>
Legal services		
DLA Piper, L.L.P.	<u>715,269</u>	<u>737,886</u>
Tax advisory services		
Ernst & Young Private, Ltd.	<u>93,918</u>	<u>84,681</u>
Other investment expense		
Auditing costs	178,800	70,200
Communication services	22,905	24,367
Dividend expense	57,564	974,876
Education, meetings and travel	86,953	155,261
Foreign tax expense	14,642,338	17,457,561
Investment activity expenses	494,592	1,124,017
Investment analytical systems	903,027	1,103,484
Personnel costs	5,145,178	4,896,596
Research, subscriptions and memberships	99,796	84,205
Other costs	<u>110,651</u>	<u>122,966</u>
	<u>21,741,804</u>	<u>26,013,533</u>
Total investment expenses	<u>\$404,665,431</u>	<u>\$348,753,860</u>

Note: Investment manager fee detail is shown on pages 80 to 83.

SCHEDULE OF PROFESSIONAL SERVICES FOR THE YEARS ENDED JUNE 30

	2020	2019
Actuarial services		
The Segal Company Midwest, Inc.	\$196,868	\$259,272
External auditors		
Office of the Auditor General (BKD, L.L.P)	270,919	261,014
Legal services		
DLA Piper, L.L.P.	-	4,915
Elrod Friedman L.L.P.	106,519	-
Holland & Knight, L.L.P.	78,632	142,120
Howard & Howard Attorneys, P.L.L.C.	3,597	3,093
King & Spalding L.L.P.	285,887	-
Kopec White & Spooner	1,000	2,784
Loewenstein & Smith, P.C.	-	832
Reinhart Boerner Van Deuren	83,193	51,562
Whitt Law, L.L.C.	1,750	7,943
	<u>560,578</u>	<u>213,249</u>
Legislative consulting		
Leinenweber Baroni & Daffada Consulting, L.L.C.	84,000	84,000
Information systems consulting		
Advanced Design Management Group, L.L.C.	-	21,420
Agile Progress, L.L.C.	-	206,554
Apex Systems	-	97,533
Blu Age Corporation	12,938	562
Catapult Systems, L.L.C.	-	15,530
Converge One, Inc.	-	2,695
Decker Innovations, Inc.	-	272,547
Digital Check Corp	4,350	-
Excelon Development II L.L.C.	14,155	-
HSO North America, L.L.C.	130,117	265,764
Illuminative Strategies, Inc.	-	53,331
Levi Ray & Shoup, Inc.	-	343,779
Linea Solutions, Inc.	-	13,750
ProCircular, Inc.	17,100	24,100
Promet Solutions Corporation	36,563	30,229
Provaliant Retirement, L.L.C.	378	351,063
Sentinel Technologies, Inc.	39,763	35,760
	<u>255,364</u>	<u>1,734,617</u>
Operations consulting		
CDW L.L.C.	-	6,299
Cammack Retirement Group Inc.	220,000	-
CEM Benchmarking, Inc.	50,000	45,000
Darlington & Company, Inc.	-	76,428
Darlington Partners Ltd.	36,653	31,544
Higher Logic, L.L.C.	10,396	10,396
Jasculca Terman Strategic Communications	96,000	86,000
Levi Ray & Shoup, Inc.	17,500	11,914
Management Association	5,606	15,596
SABA Software	1,650	2,900
Segal Waters Public Sector	-	32,165
	<u>437,805</u>	<u>318,242</u>
Other	3,295	4,565
Total professional services	<u><u>\$1,808,829</u></u>	<u><u>\$2,874,959</u></u>



Teachers' Retirement System of the State of Illinois Springfield, Illinois

*The top TRS priority during this unprecedented situation was to continue paying all benefits as usual to retired members and beneficiaries. TRS was designated an “essential” state service by **Gov. JB Pritzker** because of the monthly economic impact of TRS benefits in communities across Illinois.*

INVESTMENTS

INTRODUCTION

The Teachers' Retirement System of the State of Illinois (TRS) trust fund is invested by authority of the Illinois Pension Code under the “prudent person rule,” requiring investments to be managed solely in the interest of fund participants and beneficiaries. The TRS Investment Policy guides TRS’s investments. Investment principles include preserving the long-term principal of the trust fund, maximizing total return within prudent risk parameters and acting in the exclusive interest of TRS members.

The TRS investment portfolio decreased \$1.3 billion over the past 12 months, ending with a value of \$51.5 billion on June 30, 2020. The TRS portfolio remains fully diversified across different asset classes. Within each asset class, TRS utilizes a number of investment managers with various investment styles to ensure appropriate diversification, allowing the portfolio to achieve broad exposure to the market while minimizing overall risk. This broad diversification serves as the best defense against the uncertainty of volatile global markets.

Equity markets faced significant volatility during the fiscal year given the global pandemic as well as other factors that disrupted investment fundamentals. The March 2020 quarter experienced a sharp public market downturn as COVID-19 concerns heightened, however equity markets stabilized and subsequently rallied during the last quarter of the fiscal year. Within the equity asset class, private equity outperformed public assets during the year; generating 2.4 percent, net of fee return, versus 1.2 percent loss in public equity. All asset classes experienced instability, but the System’s diversification allowed a positive return of 0.6 percent, net of fees, for the fiscal year ended June 30, 2020.

State Street Bank and Trust, as master trustee, has provided TRS a statement of detailed assets, along with their fair value as of June 30, 2020. State Street Bank and Trust has also provided detailed financial reports of all investments, receipts, disbursements, purchases and sales of securities, and other

transactions pertinent to the fund for FY20. TRS investment consultants have also contributed key investment portfolio data and analysis during the fiscal year and throughout the investment process.

Investment performance calculations use time-weighted rate of return. State Street Bank and Trust calculates returns using industry best practices. Additionally, State Street Bank and Trust calculates performance rates of return by portfolio, composite, and for all respective indices used throughout this section. The TRS investment staff, in collaboration with the staff of its custodian, prepared the Investments section.

A complete listing of investment holdings is available upon request.

Summary Data as of June 30, 2020

Total fund fair value	\$51.5 billion
1-year return (net of fees)	0.6%
3-year return (net of fees)	4.7%
5-year return (net of fees)	5.2%
10-year return (net of fees)	8.3%
20-year return (net of fees)	5.8%
30-year return (net of fees)	7.7%
Percent externally managed	100.0%
Number of external managers	158
Master Trustee and Custodian	State Street Bank and Trust Company
General consultant	RVK, Inc.

TRS is the 42nd largest pension system in the United States according to *Pensions & Investments*. Rankings are based on the fair value of total assets as of Sept. 30, 2019.

ASSET ALLOCATION

A pension fund's most important investment policy decision is the selection of its asset allocation. Similar to other large institutional funds, TRS maintains a well-diversified portfolio to manage risk effectively. The TRS Board of Trustees adopts long-term strategic allocation targets to be implemented over several years. Recognizing the prudence of making measured movement toward long-term targets, the board also sets interim targets for shorter periods.

During FY20, TRS continued implementation of the asset allocation structure adopted by the Board in June 2017 (effective July 1, 2017). This implementation solidified the previously adopted asset class structure and seeks to continue minor shifts, focused on balancing private and public capital, improving diversification, managing liquidity and enhancing the overall portfolio risk/return profile. The System, as approved by the Board in June 2019, modified long-term targets for the continued diversification of the fund by modestly reducing the long-term allocation to diversifying strategies, accompanied by increases to the income class in order to balance the portfolio and its defensive characteristics. Minor changes to interim targets were made to align with current market conditions and opportunities.

TRS periodically compares the asset mix to policy targets to determine when rebalancing of the fund or changes to the interim policy targets are necessary. The following Strategic Investment Listing table shows the asset allocation targets, as adopted by the Board of Trustees, compared to the total assets assigned to each particular asset class at June 30, 2020.

Strategic Investment Listing Allocation Targets vs. Total Assets

Asset Class	As of June 30, 2020				As of June 30, 2019	
	Total Fund \$ (Million)	Actual Percent	Interim Target	Long-term Target	Actual Percent	Long-term Target
Public equity	\$16,999.8	32.9%	34.0%	34.0%	34.4%	34.0%
Private equity	6,520.1	12.6	12.0	15.0	13.7	15.0
Total Equity	23,519.9	45.5	46.0	49.0	48.1	49.0
Real estate	7,717.4	15.0	14.0	16.0	14.0	16.0
Other real assets	391.7	0.7	4.0	4.0	1.0	4.0
Total Real Assets	8,109.1	15.7	18.0	20.0	15.0	20.0
Total Diversifying Strategies	5,550.9	10.8	10.0	10.0	10.4	14.0
Global income	12,986.1	25.2	24.0	21.0	24.8	17.0
Short-term	1,450.3	2.8	2.0	-	1.7	-
Total Income	14,436.4	28.0	26.0	21.0	26.5	17.0
Pending settlements/expenses*	(162.1)	NA	NA	NA	NA	NA
Total TRS Fund	<u>\$51,454.2</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Sources: State Street Bank and Trust and TRS

* This amount is included within the receivable and liability sections of the Statement of Fiduciary Net Position.

PORTFOLIO SECURITIES SUMMARY

The Portfolio Securities Summary table contains a detailed list of security types. The amounts in this table differ from the allocation percentages shown in the previous Strategic Investment Listing table. The Strategic Investment Listing represents assets assigned to managers within each asset class, whereas the Portfolio Securities Summary represents specific types of financial instruments; thus, the types of investments a manager holds explain the principal difference. For example, cash and currency held within a manager's portfolio are categorized according to the manager's primary assignment on the Strategic Investment Listing. However, in the Portfolio Securities Summary, these investments are categorized as cash and/or foreign currency.

Portfolio Securities Summary for the Years Ended June 30

	2020		2019	
	Fair Value	% of Total	Fair Value	% of Total
U.S. treasuries & agencies	\$515,366,878	1.0%	\$1,555,504,658	2.9%
U.S. government-backed mortgages	148,463,903	0.3	599,118,460	1.1
Municipals	5,804,425	-	93,021,714	0.2
Asset-backed securities	175,495,345	0.3	325,690,344	0.6
Commercial/collateralized mortgages & loans	116,987,263	0.2	645,878,988	1.2
Commingled funds (U.S. & international)	3,274,885,797	6.4	1,716,196,678	3.2
Domestic corporate obligations	2,433,892,252	4.7	3,058,307,686	5.8
Foreign debt/corporate obligations	3,217,023,067	6.3	3,483,275,889	6.6
Total fixed income	9,887,918,930	19.2	11,476,994,417	21.6
U.S. equities	7,768,675,705	15.1	7,918,736,361	15.0
International equities	8,995,763,679	17.5	9,904,945,062	18.8
Total public equities	16,764,439,384	32.6	17,823,681,423	33.8
Diversifying strategies	5,542,576,267	10.8	5,374,252,320	10.2
Private debt	2,916,257,777	5.7	2,248,766,994	4.3
Private equity	6,519,058,596	12.6	6,378,902,197	12.1
Real estate	7,716,975,327	15.0	7,354,809,101	13.9
Other real assets	368,868,176	0.7	527,431,201	1.0
Total alternative investments	23,063,736,143	44.8	21,884,161,813	41.5
Derivatives	6,184,038	-	(55,888,377)	(0.1)
Short-term investments	1,652,527,489	3.2	1,601,845,805	3.0
Foreign currency	79,352,928	0.2	95,012,450	0.2
TRS total portfolio	<u>\$51,454,158,912</u>	<u>100.0%</u>	<u>\$52,825,807,531</u>	<u>100.0%</u>

Sources: State Street Bank and Trust and TRS

SECURITIES HOLDINGS (HISTORICAL)

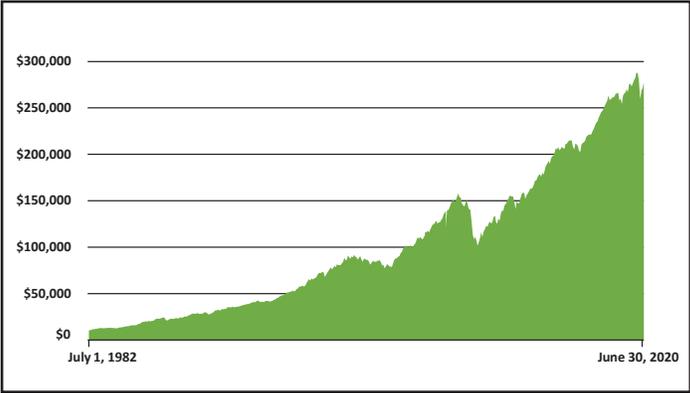
Historically, TRS has adopted various asset allocation strategies. The Securities Holdings table shows the actual asset allocation based on asset types for the last five-year period.

Securities Holdings for the Years Ended June 30

Asset Type	2020	2019	2018	2017	2016
Fixed income	19.2%	21.6%	19.7%	18.9%	19.3%
Public equities	32.6	33.8	35.0	35.5	35.2
Diversifying strategies	10.8	10.2	11.2	11.9	12.6
Private debt	5.7	4.3	3.6	2.6	2.4
Private equity	12.6	12.1	13.0	13.1	12.0
Real estate	15.0	13.9	13.9	14.4	15.2
Other real assets	0.7	1.0	0.9	0.9	0.7
Short-term/ currency/ derivatives	3.4	3.1	2.7	2.7	2.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%

TRS’s asset allocation has provided consistent overall returns throughout the years, as represented by the following chart showing the growth of \$10,000 since July 1, 1982.

Growth of \$10,000



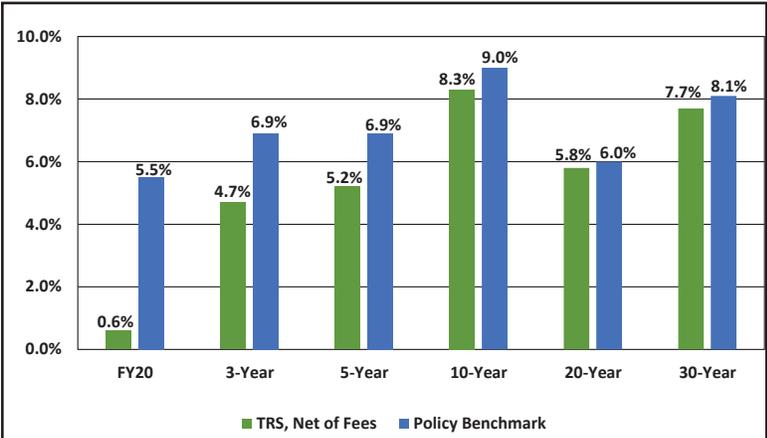
INVESTMENT RESULTS

As of June 30, 2020, the fair value of TRS’s investments as reported on the Statement of Fiduciary Net Position was \$51.5 billion, a decrease of \$1.3 billion from the prior year. TRS had a total fund annualized return of 1.3 percent, gross of fees, and 0.6 percent, net of fees, for the one-year period ended June 30, 2020.

The Performance Summary chart and table summarize total fund and asset class performance versus comparative benchmarks. As illustrated, the TRS total fund underperformed the policy index by 490 basis points for the year ended June 30, 2020. The TRS policy index represents a weighted average of each asset class benchmark, based on the total fund’s interim target asset allocation. The fund’s total return also underperformed the 7.0 percent actuarial return assumption and the real rate of return expectation, which is to exceed the rate of inflation, as measured by the Consumer Price Index, by 4.5 percentage points.

Total Fund Performance Summary (net of fees)

TRS Total Fund vs. Policy Benchmark



Sources: State Street Bank and Trust and TRS

Asset Class/Index	Years ended June 30					Annualized at 6/30/20		
	2020	2019	2018	2017	2016	3 Years	5 Years	10 Years
TRS total fund	0.6%	5.2%	8.5%	12.6%	0.01%	4.7%	5.2%	8.3%
TRS weighted policy index*	5.5	7.2	8.2	11.4	2.4	6.9	6.9	9.0
Equity	(0.1)	5.5	12.8	20.3	(4.0)	5.9	6.6	10.0
TRS equity composite benchmark ¹	3.4	6.5	13.0	20.2	(2.0)	7.5	7.9	11.2
Real assets	(0.2)	2.7	7.4	6.5	11.5	3.2	5.5	8.4
TRS real asset composite benchmark ²	3.4	6.6	7.4	6.9	9.7	5.8	6.8	9.1
Diversifying strategies	1.2	2.1	4.5	3.5	(2.4)	2.6	1.8	5.0
TRS diversifying composite benchmark ³	5.7	6.4	5.4	5.5	5.1	5.8	5.6	5.7
Income	1.7	7.0	2.0	5.8	2.9	3.6	3.9	5.1
TRS income composite benchmark ⁴	8.2	7.4	(0.3)	(0.3)	5.7	5.0	4.1	3.6

* Policy index and TRS benchmarks represent weighted average of asset class benchmarks and interim target allocations.

Note: Performance calculations provided by State Street Bank and Trust use net-of-fee time-weighted rates of return.

Sources: State Street Bank and Trust and TRS

- Equity composite includes the following asset classes and corresponding benchmarks:

Sub Asset Class	Benchmark
Public equity	MSCI ACWI Investable Market Index
Private equity	Russell 3000 Index + 3.0%

- Real assets composite includes the following asset classes and corresponding benchmarks:

Sub Asset Class	Benchmark
Real estate	NCREIF Property Index
Other real assets	CPI (inflation) + 5.0%

- Diversifying strategies composite includes the following asset classes and corresponding benchmarks:

Sub Asset Class	Benchmark
Diversifying strategies	ICE BofAML 3 Month U.S. Treasury Bill Index + 4.0%

- Income composite includes the following asset classes and corresponding benchmarks:

Sub Asset Class	Benchmark
Global income	Bloomberg Barclays Aggregate Index (Hedged)

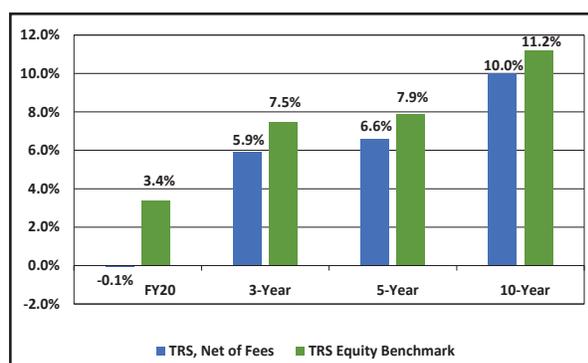
The following sections provide a brief and informative overview of the assets held by TRS for the period ended June 30, 2020.

EQUITY

TRS's equity asset class broadly includes investments in global public equity securities and private equity investments. As of June 30, 2020, the asset class represented 45.5 percent of total fund with a value of \$23.5 billion.

One-, three-, five- and 10-year comparisons to the composite benchmark are shown in the following chart.

Equity vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

GLOBAL PUBLIC EQUITY

TRS invests in public equities, or common stock, representing shares or units of ownership in specific corporations offering the opportunity to participate in the success of the global economy. Stockholders share in the growth of a company through an increase in stock price, as well as through the distribution of corporate profits in the form of dividends. TRS's public equity managers are able to participate in the strength of individual markets by seeking out superior companies that are particularly strong in their own markets or industries, as not all economies move in tandem.

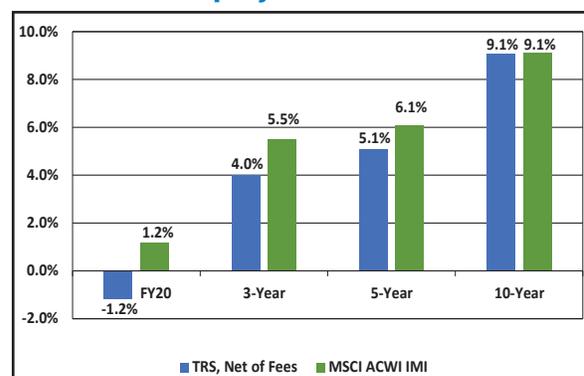
The global public equity market has continued to rally since the Global Financial Crisis ended in early 2009. Volatility increased during the past year as the global pandemic created higher uncertainty for market participants. U.S. equities outperformed most international equity markets for the year ended June 30, 2020, extending a long period of U.S. equity market leadership globally.

As of June 30, 2020, the global public equity portfolio value represented \$17.0 billion, or 32.9 percent

of the total fund. The long-term policy target for public equities is 34.0 percent of total fund. For the year ended June 30, 2020, the global public equity portfolio declined 1.2 percent on a net of fee basis, underperforming the MSCI All Country World Investable Market Index by 2.4 percent.

One-, three-, five- and 10-year comparisons to these benchmarks are shown in the following charts.

Global Public Equity vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

The top 10 holdings in global public equities, categorized by U.S. and international, as of June 30, 2020 follow. These 20 securities combine to represent 14.7 percent of the total public equity holdings shown on the portfolio summary. These stocks illustrate the sector and geographic diversification present in the portfolio.

Top 10 U.S. Equity Holdings at June 30, 2020

Firm	Sector	Fair Value (USD)
Microsoft Corp.	Technology	\$289,107,934
Apple, Inc.	Technology	275,821,632
Amazon.com, Inc.	Consumer	254,090,081
Facebook, Inc.	Technology	130,130,411
Alphabet, Inc. - class C	Communication	103,750,492
Intel Corp.	Technology	96,607,202
Johnson & Johnson	Health Care	90,195,722
Berkshire Hathaway, Inc.	Financials	86,575,922
Verizon Communications, Inc.	Communication	83,962,604
Alphabet, Inc. - class A	Communication	76,464,092
Total		<u>\$1,486,706,092</u>

Sources: State Street Bank and Trust and TRS

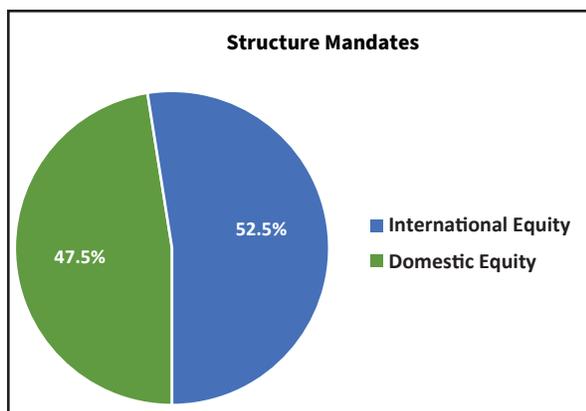
Top 10 International Equity Holdings at June 30, 2020

Firm	Country	Fair Value (USD)
ADR Alibaba Group Holdings Ltd	China	\$174,059,115
Roche Holding AG	Switzerland	150,176,073
Tencent Holdings LTD	China	147,457,889
Novartis AG	Switzerland	105,138,016
Samsung Electronics LTD	Korea	97,800,296
Nestle SA	Switzerland	92,216,520
Taiwan Semiconductor Manufacturing Co Ltd	Taiwan	64,540,564
Allianz SE	Germany	53,836,381
Novo Nordisk A/S	Denmark	50,371,730
Koninklijke Ahold Delhaize NV	Netherlands	48,558,828
Total		\$984,155,412

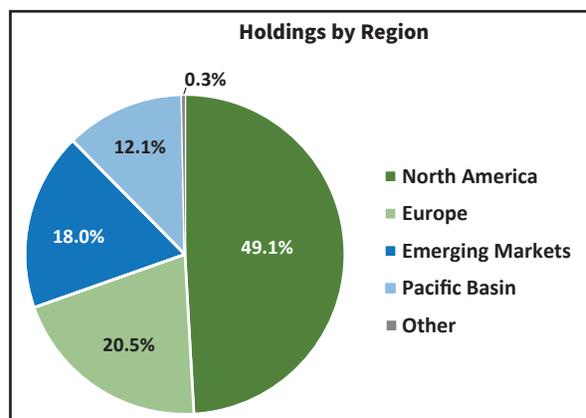
Sources: State Street Bank and Trust and TRS

Investment managers are chosen to diversify the portfolio based on capitalization, geography and style basis. This diversification is important for controlling the risk of the portfolio, as well as balancing the portfolio. As of June 30, 2020, the following charts convey the sector and regional exposure, asset allocation mix and fundamental characteristics for the global public equity portfolio.

Global Public Equity Characteristics and Exposures

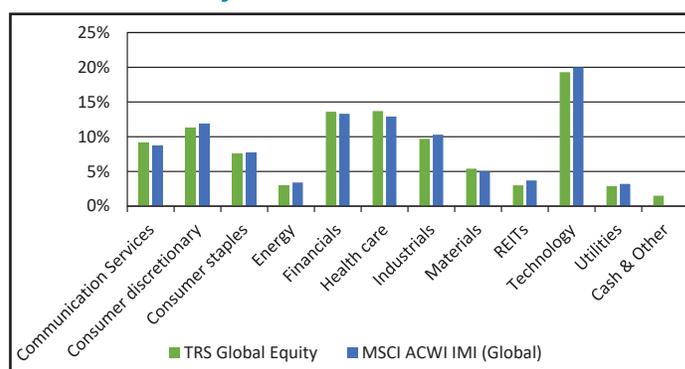


Source: State Street Bank and Trust and TRS



Sources: BlackRock Aladdin and TRS

Diversification by Sector



Sources: BlackRock Aladdin and TRS

Fundamental Characteristics	TRS Global Public Equity	MSCI ACWI IMI (Global)
Average market cap (\$ billions)	\$168.9	\$219.8
Price/earnings ratio	18.8x	20.9x
Dividend yield	2.55%	2.29%
Price/book ratio	2.5x	2.6x

Sources: BlackRock Aladdin and TRS

TRS employed the following public equity managers as of June 30, 2020.

Global Public Equity Managers and Assets Under Management (inception date of account)

	Assets
Large Cap	
Acadian Asset Management, L.L.C. (07/16)	\$976,227,645
AQR Capital Management, L.L.C. (8/18)	480,734,686
Arrowstreet Capital, L.P. (11/17)	1,026,040,218
LSV Asset Management (9/14)	1,786,075,945
Northern Trust Investments, Inc. (8/10)	2,435,382,300
RhumbLine Advisors, L.P. (5/06)	5,261,829,210
Strategic Global Advisors (3/11)	504,609,432
T. Rowe Price Associates, Inc. (11/06)	722,131,638
Small /Mid Cap	
Emerald Advisors, Inc. (11/04)	216,538,477
Grandeur Peak Global Advisors, L.L.C. (12/18)	285,674,597
LSV Asset Management (12/02)	467,095,512
Matarin Capital Management (7/17)	26,001,977
RhumbLine Advisors, L.P. (12/19)	367,664,870
Strategic Global Advisors (12/13)	275,647,177
Emerging Markets	
AQR Capital Management, L.L.C. (7/13)	589,909,007
Axiom International Investors (5/15)	457,830,312
Dimensional Fund Advisors (6/11)	296,499,658
J.P. Morgan Investment Management, Inc. (8/15)	548,394,191
Wasatch Advisors (11/14)	268,124,551

Note: The list does not include managers terminated prior to June 30, 2020 with residual assets in the account.

PRIVATE EQUITY

Private equity includes investments that are placed and traded outside of the stock exchanges and other public markets. Over the long term, they are an attractive investment for pension funds, endowments, insurance companies and other sophisticated investors. The investment class benefits the economy by providing needed capital to start-up companies and for continued growth in privately held companies and firms that are restructuring to better compete. Investing in private equity carries

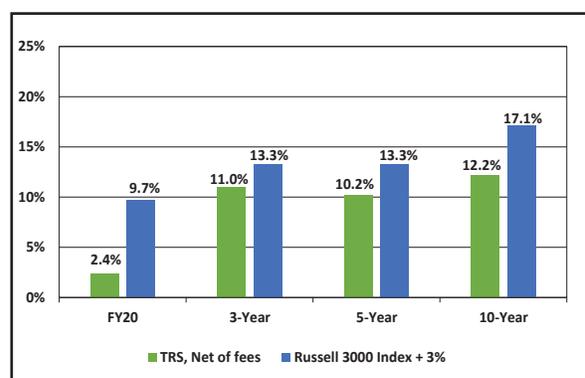
additional risk, but with skillful selection of managers, returns can be significantly higher than public equity investments.

The asset class is commonly referred to as private equity, even though it includes privately placed debt instruments as well. Often, the debt includes a control position that is similar to equity as it allows the debt holder to influence the operations and management of the company. TRS is widely diversified across all subsectors within private equity, including buyout, growth equity, venture capital and distressed debt.

TRS measures private equity performance against the Russell 3000 Index plus 300 basis points (3 percentage points). This benchmark does not specifically compare performance to the private equity industry, but rather to the TRS long-term expectation that private equity produce returns superior to the public markets. For the one-year period ended June 30, 2020, private equity earned 2.4 percent on a net of fee basis, compared to the benchmark gain of 9.7 percent. TRS's investments in private equity maintain strong long-term returns. The long-term performance strength of the private equity program and the asset class's diversification both benefit the overall portfolio.

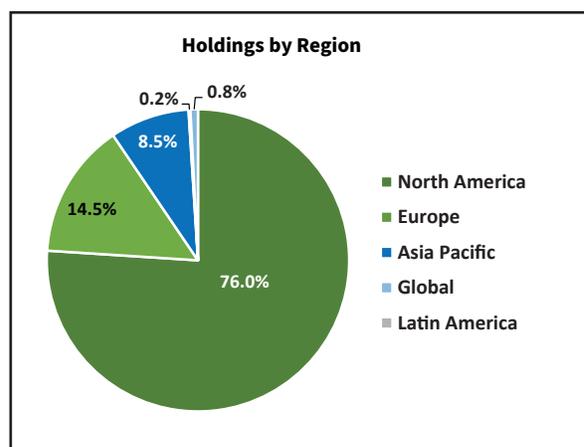
One-, three-, five- and 10-year comparisons relative to the benchmark follow.

Private Equity vs. Benchmark Return



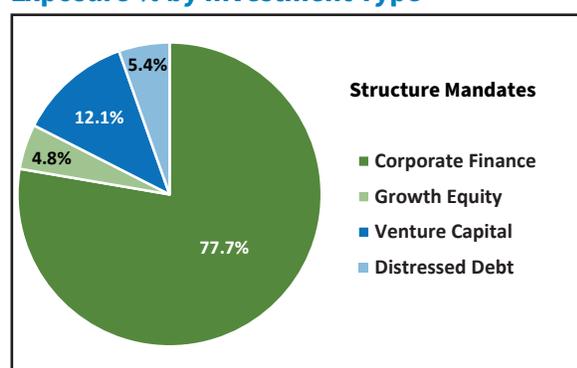
Sources: State Street Bank and Trust and TRS

In June 2019, the Board of Trustees approved asset allocation targets keeping the private equity long-term allocation at 15 percent, effective July 1, 2019. Successful implementation of this target is subject to many factors, including public market performance and sufficient availability of high quality private equity opportunities in the market. As of June 30, 2020, \$6.5 billion or 12.6 percent of the TRS investment portfolio was assigned to the private equity asset class. The following charts provide exposure percentage by type and geography at June 30, 2020.



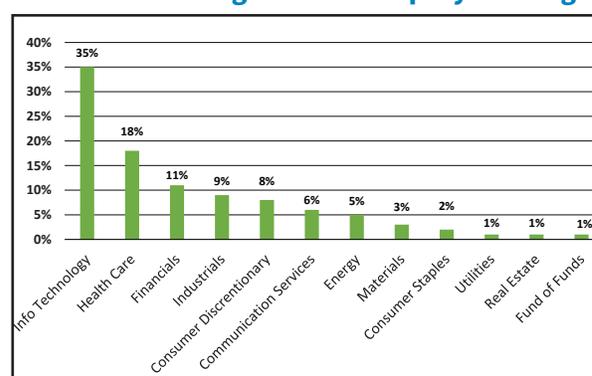
Source: StepStone Group Private Equity, L.P.

Exposure % by Investment Type



Source: StepStone Group Private Equity, L.P.

Sector Positioning of Private Equity Holdings



Source: StepStone Group Private Equity, L.P.

The following table lists the private equity partnerships/funds and the respective assets under management that TRS has investments with as of June 30, 2020.

Private Equity Partnerships and Assets Under Management (inception date of account)

	Assets
Corporate Finance	
Advent International GPE VI Limited Partnership (7/08)	\$8,605,762
Advent International GPE VII-C Limited Partnership (12/12)	64,872,155
Advent International GPE VIII-B-2 Limited Partnership (9/16)	138,673,446
Altaris Constellation Partners IV, L.P. (6/18)	8,974,667
Altaris Health Partners IV, L.P. (6/18)	40,809,362
Apollo Investment Fund VI, L.P. (5/06)	2,854,456
Apollo Investment Fund VII Annex A (5/12)	26,633
Apollo Investment Fund VII, L.P. (1/08)	28,675,145
Apollo Investment Fund VIII Annex A (4/16)	33,568,970
	(continued)

	Assets
<i>(continued)</i>	
Apollo Investment Fund VIII, L.P. (12/13)	\$184,865,778
Apollo Investment Fund IX, L.P. (3/19)	57,582,087
Arlington Capital Partners V, L.P. (8/19)	9,955,072
Astorg VI, SLP (7/16)	54,164,718
Astorg VII, SLP (6/19)	6,880,813
Bain Relish Investor, L.P. (9/19)	25,000,000
Blackstone Capital Partners VI Annex A (10/11)	15,889,199
Carlyle Japan International Partners III Annex A (10/14)	69,419
Carlyle/Riverstone Global Energy and Power Fund II, L.P. (1/03)	331,399
	(continued)

<i>(continued)</i>	
	Assets
Carlyle/Riverstone Global Energy and Power Fund III, L.P. (4/06)	\$3,637,887
Clearlake Capital Partners IV Annex A (1/17)	29,146,733
Clearlake Capital Partners IV, L.P. (9/15)	92,372,308
Clearlake Capital Partners V, L.P. (2/18)	67,182,709
Clearlake Capital Partners VI, L.P. (5/20)	9,437,009
Clearlake Opportunities Partners (P), L.P. (9/15)	37,254,550
Edgewater Growth Capital Partners II, L.P. (2/06)	1,401,711
Edgewater Growth Capital Partners III, L.P. (9/11)	25,930,456
Edgewater Growth Capital Partners, L.P. (11/03)	1,251,703
EIF United States Power Fund IV, L.P. (11/11)	56,638,456
Energy Capital Partners II Annex A (10/11)	1,660,346
EQT VI, L.P. (9/11)	24,845,881
EQT VII, L.P. (1/16)	110,283,267
EQT VIII, L.P. (8/18)	70,116,304
EQT Mid Market Europe, L.P. (8/17)	54,544,829
Grain Communications Opportunity Fund, L.P. (7/16)	44,297,200
Grain Communications Opportunity Fund II, L.P. (12/18)	26,056,444
GTCR Fund VIII, L.P. (7/03)	625,718
ICV Partners II, L.P. (1/06)	299,737
ICV Partners III, L.P. (10/13)	22,272,437
ICV Partners IV, L.P. (5/18)	15,376,657
IL Asia Investors, L.P. (12/14)	182,210,180
Inflexion Buyout Fund V (No. 1), L.P. (6/18)	14,236,983
Inflexion Supplemental Fund V (No. 1), L.P. (5/19)	7,106,541
Madison Dearborn Capital Partners VII, L.P. (1/16)	72,737,606
MBK Partners Fund II, L.P. (5/09)	834,390
MBK Partners Fund III Annex B (10/15)	9,986,553
MBK Partners Fund III, L.P. (4/13)	124,018,829
MBK Partners Fund IV, L.P. (3/17)	80,009,855
Morgan Creek Partners Asia, L.P. (1/11)	86,695,842
New Mountain Partners III, L.P. (8/07)	76,249,111
New Mountain Partners IV, L.P. (7/14)	81,652,882
New Mountain Partners V, L.P. (11/17)	79,410,303
NGP Natural Resources IX Annex A (11/12)	231,833
	<i>(continued)</i>

<i>(continued)</i>	
	Assets
NGP Natural Resources X, L.P. (5/12)	\$16,166,958
NGP Natural Resources XI, L.P. (11/14)	66,464,382
NGP Natural Resources XII, L.P. (11/17)	42,690,721
OceanSound Partners Fund, L.P. (2/20)	4,261,740
Palladium Equity Partners IV, L.P. (3/14)	10,519,782
Parthenon Investors IV Annex A (6/15)	99,003,639
Parthenon Investors IV, L.P. (4/12)	40,138,162
Parthenon Investors V, L.P. (1/17)	114,375,531
Parthenon Investors VI, L.P. (4/20)	144,773
Providence Equity Partners VI Annex A (8/12)	29,458,370
Providence Equity Partners VI, L.P. (3/07)	29,889,579
Providence Equity Partners VII, L.P. (6/12)	179,746,231
RCP SBO Fund, L.P. (10/16)	77,230,033
RCP Multi-Fund Feeder SBO 1.0, L.P. (11/19)	586,913
Rhone Partners IV L.P. (1/12)	21,310,405
Rhone Partners V, L.P. (7/15)	66,343,697
Ridgemont Equity Partners III, L.P. (10/19)	10,992,002
Riverstone Global Energy and Power Fund V Annex A (11/13)	86
Riverstone Global Energy and Power Fund V, L.P. (6/12)	61,201,361
Riverstone Global Energy and Power Fund VI, L.P. (9/16)	45,087,563
Riverstone/Carlyle Global Energy and Power Fund IV, L.P. (3/08)	7,893,395
Silver Lake Partners III, L.P. (8/07)	25,212,001
Silver Lake Partners IV, L.P. (10/13)	192,938,279
Silver Lake Partners V, L.P. (6/18)	137,836,881
Siris Partners II, L.P. (1/12)	40,637,504
Siris Partners III Annex A (12/15)	5,886,606
Siris Partners III, L.P. (5/15)	82,394,492
Siris Partners IV, L.P. (3/19)	22,130,565
SK Capital Partners V-A, L.P. (10/18)	13,682,072
SK Capital Catalyst Fund I, L.P. (1/20)	5,419,568
TA XII-A, L.P. (2/16)	83,745,396
TA Select Opportunities Fund-A, L.P. (4/20)	5,409,122
TA XIII, L.P. (12/19)	14,040,209
TDR Capital IV 'A', L.P. (11/18)	19,520,321
The Baring Asia Private Equity Fund V, L.P. (4/11)	73,815,261
	<i>(continued)</i>

(continued)

	Assets
The Baring Asia Private Equity Fund VI, L.P.1 (9/15)	\$102,261,046
Trident V Annex A (10/11)	1,359,708
Trident V, L.P. (12/10)	42,223,718
Trident VI, L.P. (9/14)	81,667,537
Trident VII, L.P. (12/17)	85,678,462
Trident VIII, L.P. (4/20)	7,112,377
TSG8, L.P. (1/19)	7,448,909
Veritas Capital Fund IV, L.P. (11/10)	12,761,814
Veritas Capital Fund V, L.P. (6/15)	204,730,681
Veritas Capital Fund VI, L.P. (6/17)	166,124,532
Vista Equity Partners Fund V, L.P. (5/14)	216,031,349
Vista Equity Partners Fund VI, L.P. (6/16)	221,799,095
Vista Foundation Fund III, L.P. (7/16)	53,164,123
ZMC III, L.P. (1/20)	7,390,009
Growth Equity	
Bregal Sagemount III-B, L.P. (1/20)	2,183,564
Greenspring IL Special, L.P. (6/18)	139,499,702
Inflexion Partnership Capital Fund II (No. 1), L.P. (6/18)	3,015,718
JMI Equity Fund VII, L.P. (2/11)	20,472,288
JMI Equity Fund VIII-A, L.P. (10/15)	30,291,928
RRJ Capital Master Fund III, L.P. (12/15)	20,734,634
Sunstone Partners I, L.P. (2/16)	14,939,095
Trustbridge Partners IV, L.P. (12/11)	81,866,276
Venture Capital	
Battery Ventures XI-A Side Fund, L.P. (6/16)	8,405,173
Battery Ventures XI-A, L.P. (6/16)	12,447,016
Granite Ventures II, L.P. (5/05)	25,625,730
Greenspring IL Master, L.P. (1/18)	149,816,676
Greenspring IL Master II, L.P. (4/20)	8,000,000
Institutional Venture Partners XV, L.P. (6/15)	56,692,204
Institutional Venture Partners XVI, L.P. (2/18)	61,504,433
Lightspeed Venture Partners IX, L.P. (3/12)	38,560,367
(continued)	

(continued)

	Assets
Lightspeed Venture Partners Select II, L.P. (6/16)	\$19,815,856
Lightspeed Venture Partners Select, L.P. (3/14)	15,349,267
Lightspeed Venture Partners X, L.P. (7/14)	19,594,672
Lightspeed Venture Partners XI, L.P. (3/16)	11,937,071
LiveOak Venture Partners I, L.P. (2/13)	31,433,351
Longitude Venture Partners II, L.P. (4/13)	37,356,281
Longitude Venture Partners III, L.P. (12/16)	43,692,203
New Enterprise Associates 15, L.P. (3/15)	45,938,702
New Enterprise Associates 16, L.P. (5/17)	42,620,576
Scale Venture Partners V, L.P. (1/16)	53,249,575
Shasta Ventures, L.P. (1/05)	1,524,635
Sofinnova Venture Partners VIII, L.P. (8/11)	15,492,226
Sofinnova Venture Partners IX, L.P. (12/14)	52,624,744
Sofinnova Venture Partners X, L.P. (11/17)	45,747,398
StarVest Partners II, L.P. (1/09)	7,423,471
Distressed Debt	
A&M Capital Partners II, L.P. (8/19)	23,984,130
Apollo Lincoln Private Credit Fund, L.P. (10/14)	9,747,445
Clearlake Capital Partners II, L.P. (7/09)	3,510,033
Clearlake Capital Partners III, L.P. (10/12)	29,372,616
Harvest Partners Structured Capital Fund II, L.P. (6/18)	43,507,766
Littlejohn Fund IV, L.P. (7/10)	17,637,963
Marlin Equity V, L.P. (2/18)	41,820,085
Oaktree European Principal Fund III, L.P. (11/11)	39,347,716
Oaktree Opportunities Fund IX, L.P. (3/13)	63,416,065
Oaktree Opportunities Fund VIII, L.P. (3/10)	2,286,024
OCM European Principal Opportunities Fund II, L.P. (8/08)	560,711
OCM Opportunities Fund V, L.P. (6/04)	9,983
OCM Opportunities Fund VIIIb, L.P. (6/08)	180,194
OCM Opportunities Fd Xb, L.P. (6/18)	39,263,839
Silver Lake Alpine, L.P. (9/18)	38,819,902

Note: The list does not include managers terminated prior to June 30, 2020 with residual assets in the account.

INCOME

The income asset class is comprised of investments in the financial obligations of entities, including, but not limited to, U.S. and foreign corporations, governments, agencies or municipalities and short-term investments. These investments may be publicly-traded instruments or private debt or credit investments. The majority of income assets promise to pay a specified sum of money at a future date, while paying specified interest during the term of the issue. Income generative assets and other debt-related investments can reduce volatility, offer low or negative correlation to other asset classes and provide income streams, or coupons.

COVID-19 impacted markets, primarily in March 2020, distressing the portfolio. TRS's global income portfolio positioning, having lower U.S. Treasury exposure and lower duration, combined with higher credit and emerging market debt negatively impacted performance. However, TRS's bias to more senior debt going into the pandemic showed resiliency.

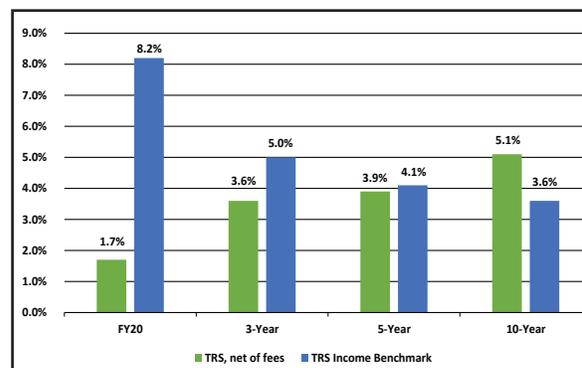
The asset class blended benchmark consists of global fixed income measured against the Bloomberg Barclays Aggregate Hedged Index, along with short-term investments against the ICE BofAML 3-month U.S. Treasury Bill Index.

For the fiscal year ending June 30, 2020, the \$14.4 billion income portfolio represented 28 percent of the total fund. Traditional fixed income investments and private debt strategies comprise the majority of investments, representing 90 percent of the asset class, while TRS's cash portfolio completes the remainder of the asset class. The long-term policy target for income is 21 percent of total fund; however, current levels remain closer to the interim target of 26 percent.

TRS's income portfolio underperformed the asset class blended index during the fiscal year. For the year ended June 30, 2020, the income asset class earned 1.7 percent on a net of fee basis compared to asset class blended benchmark of 8.2 percent. One-,

three-, five- and 10-year comparisons to this benchmark are shown in the following chart, showing strong outperformance over the long term.

Income vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

The following table lists the top 10 global income investments or funds held by TRS as of June 30, 2020, exclusive of the TRS cash portfolio.

Top 10 Global Income Holdings at June 30, 2020

Security/Position	Fair Value (USD)
Prudential Trust Company Collective Trust	\$1,313,594,011
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd.	561,382,488
PIMCO PAPS Investment Grade Corporate Portfolio	346,444,919
PIMCO PAPS U.S. Government and Short-term Investments Portfolio	219,714,191
PIMCO Income Fund Institutional Class	199,838,961
PIMCO PAPS Mortgage and Short-Term Investments Portfolio	185,388,467
PGIM Fixed Income Emerging Markets Long Short Fund I, L.P.	101,807,180
PIMCO PAPS Asset-Backed Securities Portfolio	97,322,265
MacKay Shields Defensive Bond Arbitrage Fund, Ltd.	81,385,263
Korea Treasury Bond	72,106,141
Total	<u>\$3,178,983,886</u>

Sources: State Street Bank and Trust and TRS

The following table lists the top 10 largest debt securities holdings, excluding commingled funds, held within the TRS plan portfolio as of June 30, 2020. A complete listing of investment holdings is available as a separate report.

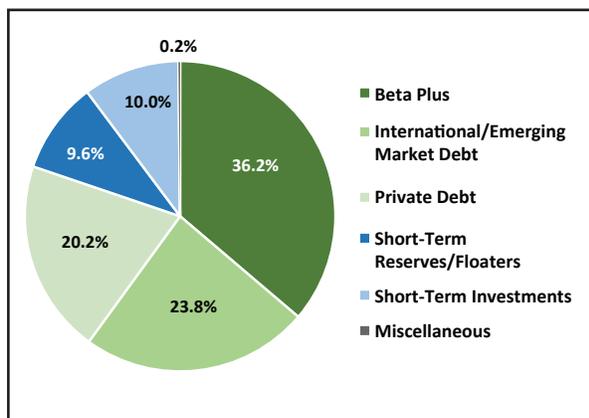
Top 10 Global Income Debt Holdings at June 30, 2020

Security/Position	Fair Value (USD)
Korea Treasury Bond	\$72,106,141
United States Treasury N/B	49,960,938
Japan Treasury Disc Bill	46,778,019
Federal Home Loan Bank	40,837,451
United States Treasury N/B	38,677,734
Japan Treasury Disc Bill	37,796,763
Korea Treasury Bond	37,631,748
Federal Home Loan Bank	37,588,538
Japan Treasury Disc Bill	34,024,576
United States Treasury N/B	32,468,450
Total	\$427,870,358

Sources: State Street Bank and Trust and TRS

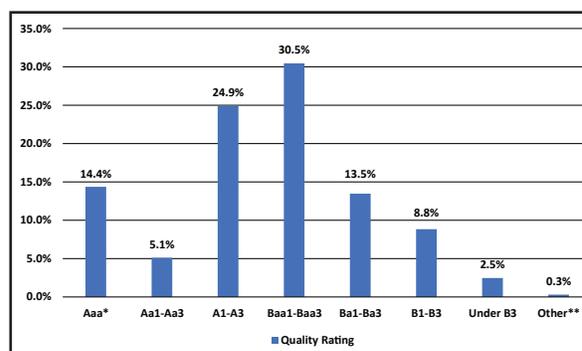
The following charts provide the asset allocation mix and statistical information on TRS's income portfolio as of June 30, 2020.

Income Allocation



Sources: State Street Bank and Trust and TRS

Diversification by Quality Rating for Individual Bonds



Sources: State Street Bank and Trust and TRS

Note: Public debt instruments only.

* U.S. treasury securities are included.

** Other includes unrated securities.

Income Fundamental Characteristics

	TRS Income Portfolio	Bloomberg Barclays Aggregate Hedged Index
Average maturity	7.3 years	8.2 years
Effective duration	4.6 years	6.1 years
Average quality rating	Baa2	Aa2

Sources: State Street Bank and Trust and TRS

Note: Public debt instruments only.

TRS employed the following global fixed income managers as of June 30, 2020.

Global Fixed Income Managers and Assets Under Management (inception date of account)

	Assets
AllianceBernstein, L.P. (8/18)	\$827,770,385
Apollo Lincoln Fixed Income Fund, L.P. (3/14)	247,225,831
Apollo Revolver Fund, L.P. (1/20)	277,892
BIG Real Estate Fund I, L.P. (11/17)	30,351,509
Beach Point Sangamon, L.P. (9/18)	265,155,916
Cerberus Real Estate Debt Fund, L.P. (4/20)	6,780,109
DCP China Credit Fund II, L.P. (7/19)	27,830,719
Dolan McEniry Capital Management, L.L.C. (5/06)	696,904,582
DoubleLine Mortgage Opportunities L.P. (9/17)	104,704,384
EISAF II, L.P. (10/18)	41,170,216
Franklin Advisers, Inc. (2/08)	884,287,979
Garcia Hamilton & Associates, L.P. (6/10)	575,729,753
Global Transport Income Fund Master Partnership SCSp (11/17)	121,957,533
Hayfin Chief GP Limited (3/20)	113,127,686
ICG Private Markets Fund SCSp SICAV-RAIF (4/20)	129,219,905
LCM Partners CO IIIa, L.P. (9/16)	59,911,073
LCM Partners SOLO III, L.P. (9/18)	49,321,969
LCM Partners COPS 4 SLP (2/20)	7,681,537
Locust Point Seniors Housing Debt II, L.P. (6/20)	378,558
MacKay Shields L.L.C. (8/11)	867,157,075
Maranon Senior Credit Fund II-B, L.P. (6/13)	25,829,340
Monroe Capital Private Credit Fund II, L.P. (4/16)	39,844,566
Northern Shipping Fund III, L.P. (1/16)	57,839,301
Northern Shipping Fund IV, L.P. (7/19)	29,480,512
NXT Capital Senior Loan Fund II, L.P. (8/13)	11,307,017
NXT Capital Senior Loan Fund IV, L.P. (1/16)	131,607,762
NXT Capital Senior Loan Fund V, L.P. (10/17)	126,690,837
Oaktree Enhanced Income Fund II, L.P. (5/14)	2,344,478
Oaktree Enhanced Income Fund III, L.P. (4/16)	68,953,055
Oaktree Real Estate Debt Fund, L.P. (10/13)	7,798,568
Oaktree Real Estate Debt Fund II, L.P. (3/17)	58,108,550
	<i>(continued)</i>

	Assets
<i>(continued)</i>	
Pacific Investment Management Company, L.L.C. (7/82)	\$1,202,668,778
PIMCO BRAVO Fund III Onshore Feeder, L.P. (12/16)	105,130,971
PIMCO BRAVO Fund Onshore Feeder I, L.P. (11/10)	491,278
PIMCO BRAVO Fund Onshore Feeder II, L.P. (3/13)	44,444,181
PIMCO Corporate Opportunities Fund II, L.P. (1/16)	97,025,441
PIMCO Corporate Opportunities Fund III Onshore Feeder, L.P. (4/20)	13,716,858
PIMCO Commercial Real Estate Debt Fund, L.P. (2/19)	51,069,998
PIMCO Horseshoe Fund, L.P. (12/14)	454,242,843
Pemberton Debt Fund Delaware I, L.P. (11/16)	42,086,748
Pemberton Debt Fund Delaware II, L.P. (1/19)	69,552,378
PGIM, Inc. (12/08)	2,055,642,504
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd. (12/15)	561,382,488
PGIM Fixed Income Emerging Markets Long Short Fund I, L.P. (9/18)	101,807,180
Proterra Credit Fund, L.P. (6/19)	5,566,806
Riverstone Credit Partners, L.P. (12/15)	23,589,973
Riverstone Credit Partners II, L.P. (5/18)	52,618,766
SCP Private Corporate Lending Fund, L.P. (5/19)	24,902,092
Taplin, Canida & Habacht (4/13)	1,382,379,789
Taurus Mining Finance Annex Fund L.L.C. (1/17)	21,645,955
Taurus Mining Finance Fund L.L.C. (4/15)	42,557,540
Taurus Mining Finance Fund No. 2, L.P. (7/19)	39,945,203
TCW Asset Management Company (8/13)	875,814,849
The Varde Private Debt Opportunities Fund (Onshore), L.P. (8/18)	53,388,513
Vista Credit Opportunities Fund I-B, L.P. (10/14)	9,383,412

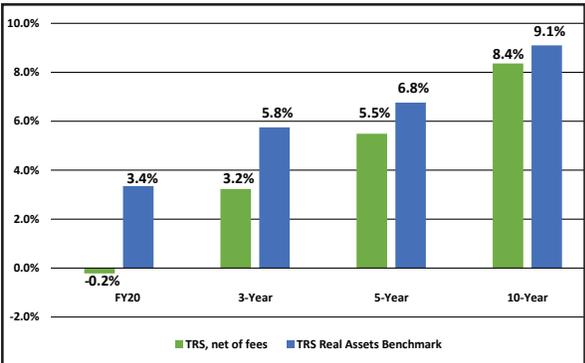
Note: The list does not include managers terminated prior to June 30, 2020 with residual assets in the account.

REAL ASSETS

For the fiscal year ended June 30, 2020, the \$8.1 billion real assets portfolio represented 15.7 percent of the total fund. Real estate core, opportunistic and value-add strategies comprise the majority of investments, representing 95.1 percent of the asset class, while other real assets including infrastructure, agriculture and special situations complete the remainder of the asset class.

The asset class blended benchmark consists of real estate strategies measured against the NCREIF Property Index, while other real assets are benchmarked against the Consumer Price Index (CPI) + 5.0 percent. The long-term policy target for real assets is 20.0 percent of total fund, comprised of 16.0 percent allocated to core, opportunistic and value-add real estate and 4.0 percent allocated to other real assets. For the fiscal year, TRS's real assets portfolio declined (0.22 percent), net of fees, compared to the 3.35 percent return of the benchmark. Real assets performance and benchmark comparisons are noted in the following chart.

Real Assets vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

The real asset class offers competitive returns, provides diversification benefits to portfolios of stocks and bonds, and serves as a hedge against inflation. Investments in real assets are intended to increase the TRS total portfolio long-term rate of return and reduce year-to-year volatility. Additionally, real assets provide a strong income component to pay TRS benefits.

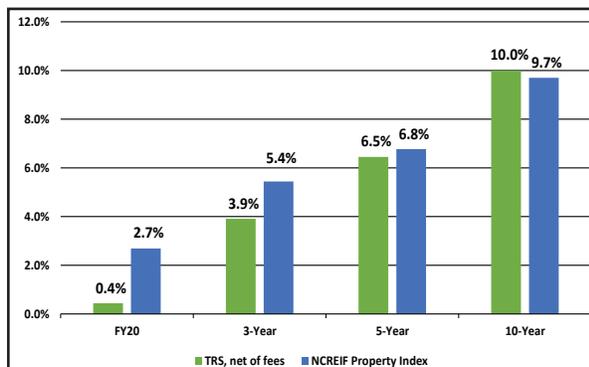
Real estate investments currently represent a significant portion of the asset class and are defined as direct investments or ownership in land and buildings including apartments, offices, warehouses, shopping centers, and hotels. Further, TRS holds partnership interests in entities that purchase and manage property and pass rent and sale income back to TRS, including co-investments.

Real estate returns were relatively flat for FY20 as the impact of the COVID-19 global pandemic continued to introduce downward pressure on investment markets. TRS's real estate portfolio has, to date, weathered the pandemic-driven pullback relatively well with rent collections remaining strong in numerous sectors including: triple net lease, industrial, multifamily, medical office, office and self-storage.

However, the retail and hotel asset classes were not immune to the lost revenues resulting from the pandemic mitigation efforts enacted across the globe. The sector shifts that have been made within the real estate and real asset portfolio over the past several years such as reducing the retail sector allocation, increasing industrial exposure, introducing new property sector investments in medical office, triple net lease and self-storage have contributed to additional portfolio strength and downside protection during the global pandemic.

The TRS portfolio maintains a long-term target allocation of 16.0 percent to core, opportunistic and value-add real estate. As of June 30, 2020, TRS held \$7.7 billion in such assets, or 15.0 percent of the total fund portfolio. For the fiscal year, TRS's real estate portfolio earned 0.44 percent, net of fees, compared to the benchmark of 2.69 percent. Real estate performance and benchmark comparisons are noted in the following chart.

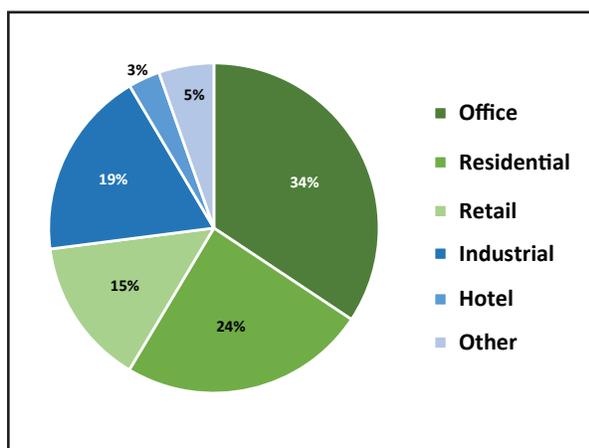
Total Real Estate vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

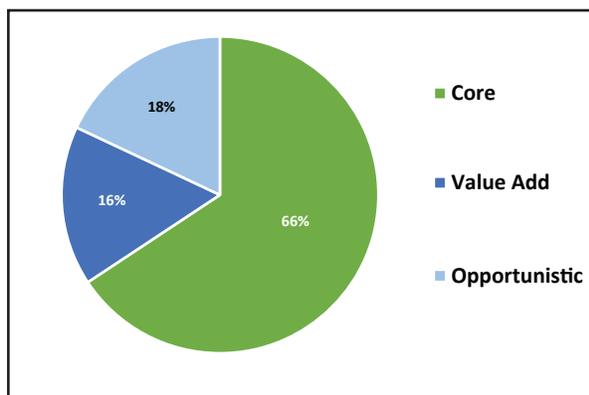
To enhance returns and reduce risk, TRS acquires high quality properties diversified geographically and by property type. TRS acquires high quality properties diversified geographically and by property type. The data sets below exhibit TRS’s real estate holdings by type, geography and risk return profiles as of June 30, 2020.

Real Estate Holdings by Property Type



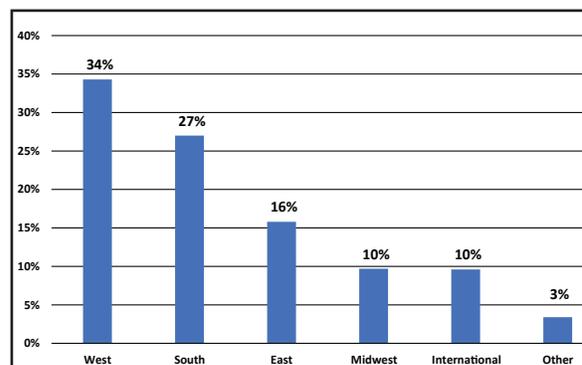
Source: StepStone Group Real Estate L.P.

Real Estate Holdings by Risk/Return



Source: StepStone Group Real Estate L.P.

Geographic Diversification of Real Estate Holdings



Source: StepStone Group Real Estate L.P.

Professional real estate advisors manage real estate owned by TRS. Separate account managers administer TRS’s direct investments in real estate assets; commingled accounts represent partnership interests in funds.

As of June 30, 2020, TRS employed the following managers and/or funds investing in real estate and other real assets including their respective assets under management.

Real Asset Managers & Assets Under Management (inception date of account)

Assets	
Real Estate	
Separate Accounts	
Barings, L.L.C. (7/08)	\$799,279,404
Heitman Capital Management, L.L.C. (7/09)	1,566,232,290
Invesco Institutional (N.A.), Inc. (7/08)	1,222,151,064
LPC Realty Advisors I, Ltd. (7/92)	909,245,034
Principal Real Estate Investors, L.L.C. (10/13)	408,697,013
Commingled Accounts	
Blackstone Real Estate Partners Asia II, L.P. (6/18)	39,139,294
Blackstone Real Estate Partners Asia, L.P. (12/13)	61,239,290
Blackstone Real Estate Partners IX, L.P. (9/19)	84,287,961
Blackstone Real Estate Partners VI, L.P.	2,503,878
<i>(continued)</i>	

<i>(continued)</i>	
	Assets
Blackstone Real Estate Partners VII, L.P. (1/12)	\$79,228,179
Blackstone Real Estate Partners VIII, L.P. (8/15)	297,956,067
Carlyle Realty Partners Europe III, L.P. (3/08)	2,824,401
Carlyle Realty Partners IV, L.P. (6/05)	7,094,566
Carlyle Realty Partners VII, L.P. (7/14)	39,369,774
Carlyle Realty Partners VIII, L.P. (8/17)	56,896,871
CB Richard Ellis Strategic Partners Europe Fund III US TE, L.P. (5/07)	510,604
Dyal Zeus Co-Investment Partners VIII, L.P. (5/17)	51,610,558
Exeter Industrial Core Fund III, L.P. (2/20)	6,720,378
Exeter Industrial Value Fund IV, L.P. (9/17)	43,390,518
Fortress Japan Opportunity Fund III, L.P. (8/15)	66,846,363
Fortress Japan Opportunity Fund IV, L.P. (7/18)	8,789,310
Gateway Real Estate Fund IV, L.P. (7/13)	17,471,583
IC Hospitality Fund II, L.P. (4/15)	5,975,961
LaSalle Asia Opportunity Fund III, L.P. (12/07)	917,459
LaSalle Asia Opportunity Fund IV, L.P. (7/13)	5,348,386
Lion Industrial Trust Fund, L.P. (4/05)	706,695,792
Lone Star Real Estate Fund III, L.P. (1/14)	4,801,501
Lone Star Real Estate Fund IV, L.P. (10/15)	69,740,785
Lone Star Real Estate Fund V, L.P. (9/17)	31,679,804
Madison International Real Estate Liquidity Fund VI (TE), L.P. (3/16)	97,693,610
Niam Nordic V, L.P. (4/12)	6,783,762
Oak Street Real Estate Capital Fund III, L.P. (5/16)	8,152,725
Oak Street Real Estate Capital Fund IV, L.P. (11/17)	91,107,799
Oak Street Real Estate Capital Net Lease Property Fund, L.P. (10/19)	98,119,292
	<i>(continued)</i>

<i>(continued)</i>	
	Assets
Retail Co-Invest Holdings, L.P. (11/13)	\$9,219,033
Rockpoint Real Estate Fund V, L.P. (8/15)	74,630,991
Rockpoint Real Estate Fund VI, L.P. (5/20)	32,655,918
SCG TMI Co-Invest, L.P. (1/15)	1,773,029
SCG Whale Co-Invest, L.P. (7/15)	1,423,031
Southwest Multifamily Partners, L.P. (8/12)	21,815,038
Starwood Distressed Opportunity Fund IX Global, L.P. (3/13)	44,418,066
Starwood Opportunity Fund X Global, L.P. (10/15)	105,925,834
Starwood Opportunity Fund XI Global, L.P. (7/18)	93,614,244
Starwood Value-Add Fund, L.P. (6/17)	314,105,642
Tristan European Property Investors Special Opportunities V, L.P. (3/19)	7,181,192
Walton Street Real Estate Fund IV, L.P. (7/03)	714,563
Walton Street Real Estate Fund VII-Q, L.P. (6/13)	23,407,669
Walton Street Real Estate Fund VI-Q, L.P. (4/09)	31,340,069
Westbrook Real Estate Fund X, L.P. (7/16)	56,249,734
Other Real Assets	
Black River Agriculture Fund 2, L.P. (6/13)	68,440,152
Blackstone Infrastructure Partners, L.P. (3/19)	32,056,840
Blackstone Infrastructure Partners (Supplemental Account), L.P. (3/19)	21,950,192
Brookfield Infrastructure Fund IV, LP (3/20)	56,363,396
Carlyle Infrastructure Opportunity Fund, LP (7/19)	7,179,427
Macquarie Infrastructure Fund VI, LP (9/19)	71,731,205
Sheridan Production Partners III-B, L.P. (11/14)	17,449,000
West Street Global Infrastructure Partners III, L.P. (1/16)	93,697,963

Note: The list does not include managers terminated prior to June 30, 2020 with residual assets in the account.

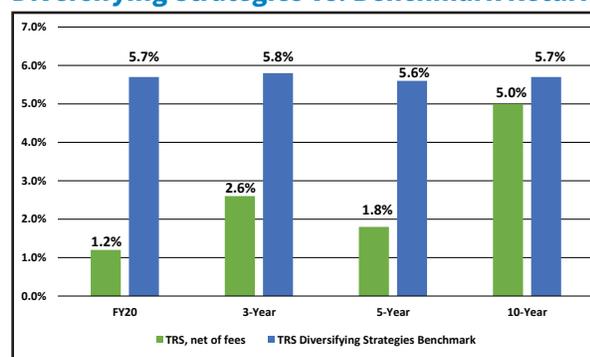
DIVERSIFYING STRATEGIES

Diversifying strategies includes mandates designed to provide attractive return and risk attributes while exhibiting low correlation to traditional public equity and fixed income investments. This segment of the portfolio continues to evolve and currently includes systematic macro, discretionary macro, opportunistic, risk parity and factor strategies. TRS has been investing in such profiles since FY07, though the composition of the program has gone through a number of evolutions as strategic adjustments are made in response to changes throughout the plan and global financial markets. Investments in diversifying strategies are administered via both direct investment manager relationships and diversified fund of funds.

The current benchmark consists of the relatively risk-free index of 90-Day Treasury Bills + 4.0 percent. While this is not an investible index, the benchmark represents the intended risk reduction characteristic of the asset class. Structurally, TRS continues to migrate away from fund of funds investments in order to lower the program's total expense ratio while increasing return expectations. Consistent with objectives, the asset class provides beneficial diversification for the total plan, while producing relatively stable, low volatility returns.

The long-term policy target for diversifying strategies is 10.0 percent of total fund. As of June 30, 2020, the TRS diversifying strategies asset class value was \$5.6 billion, or 10.8 percent of total fund. For the fiscal year, TRS's diversifying strategies portfolio generated 1.2 percent, net of fees, compared to the 5.7 percent return of the benchmark. Diversifying strategies performance and benchmark comparisons are noted in the following chart.

Diversifying Strategies vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

As of June 30, 2020, TRS employed the following managers and/or funds including their respective assets under management.

Diversifying Strategies Managers and Assets Under Management (inception date of account)

	Assets
Diversified Fund of Funds	
Grosvenor Monarch Fund, L.L.C. (6/07)	\$333,634,185
Direct Investment Funds	
1818 I, L.P. (03/16)	77,523,959
Alphadyne Global Rates Fund II, Ltd. (06/14)	523,155,281
AQR Multi-Strategy Fund XIV, L.P. (07/07)	273,636,222
Aspect Systematic Global Macro US Fund, LLC (02/20)	253,965,043
Brevan Howard Alpha Strategies, L.P. (05/20)	146,902,114
Brevan Howard Systematic Trading Fund, L.P. (06/15)	215,550,097
Bridgewater Optimal Portfolio, L.L.C. (04/16)	240,232,015
Capstone Vol (US), L.P. (03/20)	259,067,527
Crabel Fund, L.P. (12/15)	99,633,687
Graham Global Investment Fund I SPC, Ltd. (02/19)	398,225,986
Grosvenor Monarch Fund Series B (03/11)	409,634,065
IPM Systematic Macro Fund, L.P. (01/19)	221,459,631
Kirkoswald Global Macro Fund, L.P. (06/19)	460,043,076
Light Sky Macro Fund, L.P. (07/18)	265,511,697
Man Alternative Risk Premia, S.P. (12/17)	185,828,900
PDT Mosaic Offshore Holdings, L.L.C. (06/15)	190,470,506
Tilden Park Investment Fund, L.P. (08/18)	270,527,637
Trend Macro Onshore, L.P. (12/18)	348,759,421
Varadero International, Ltd. (06/14)	263,945,082
Varadero Special Opportunities International, L.P. (06/18)	104,870,135

Note: The list does not include managers terminated prior to June 30, 2020 with residual assets in the account.

SECURITIES LENDING

Citibank, N.A. served as the third-party securities lending agent for the fixed income, domestic equity and international equity lending programs. The lending agent is responsible for making loans, acquiring collateral, marking loans and collateral to market on a daily basis and investing cash collateral based on lending agreement terms. The TRS Board of Trustees' policies permit TRS to use investments to enter into securities lending transactions, which are loans of securities to broker-dealers or other entities. Additional information regarding securities lending activity is included in the Notes to Financial Statements under "Note D. Investments."

The borrower of a security must post collateral in excess of the fair value of the security. TRS receives both cash and non-cash (i.e., securities) collateral. The following table represents the fair values of the securities lending activity based on type of collateral as of June 30, 2020.

Collateral Type	Collateral Received	Securities on Loan	Collateral %
Cash collateral	\$1,968,671,640	\$1,921,494,099	102.5%
Non-cash collateral	95,995,727	89,214,182	107.6
Total	\$2,064,667,367	\$2,010,708,281	102.7%
Reinvested cash collateral	\$1,968,682,139		

Source: Citibank, N.A.

Note: Does not include lending collateral with the State Treasurer.

TRS earns income from fees paid by the borrowers and interest earned from investing the cash collateral. For the year ended June 30, 2020, TRS earned net income of \$8.8 million through its securities lending program. The following table summarizes fiscal year net income from securities lending activity and the fiscal year averages regarding securities available to loan.

Lending Income for FY20	
Securities lending income	\$36,973,329
Borrower rebates	(27,602,650)
Lending agent fees	(562,237)
Securities lending net income	\$8,808,442
Loan Averages During FY20	
Available to loan	\$21,381,302,066
Securities on loan	2,066,093,026
Percentage on loan	9.7%

Sources: State Street Bank and Trust and Citibank, N.A.

BROKERAGE ACTIVITY

The following table shows the top 50 listed brokers used by TRS external equity managers for the year ended June 30, 2020. TRS also manages a commission recapture program as part of its trading strategies. For the year ended June 30, 2020, TRS recaptured \$0.01 million in cash that was reinvested in the fund. In addition, TRS uses commission recapture refunds to pay for Investment Department expenses. During FY20, TRS used \$0.3 million of recaptured funds to offset expenses.

Top 50 Brokers Used by TRS Managers

Broker	Shares Traded	FY20 Commission
Citigroup, Inc. and all Subsidiaries (Worldwide)	414,772,527	\$621,799
Instinet, L.L.C. (Worldwide)	269,838,953	432,747
Merrill Lynch & Co., Inc. and all Subsidiaries (Worldwide)	197,638,580	425,726
Loop Capital Markets, L.L.C.	39,976,741	395,667
Goldman Sachs & Co. (Worldwide)	144,423,966	334,307
Credit Suisse (Worldwide)	247,041,650	309,356
J.P. Morgan Securities, Inc. (Worldwide)	1,614,024,014	252,902
Morgan Stanley & Co., Inc. and Subsidiaries (Worldwide)	82,985,474	234,171
Cowen, Inc.	235,708,620	230,630
HSBC Bank PLC	94,314,240	223,373
UBS AG	98,584,726	219,940
BNP Paribas Securities Services S.C.A.	69,865,537	201,341
Societe Generale S.A. and all Subsidiaries	157,770,729	181,072
Barclays (Worldwide)	1,825,810	144,742
Cabrera Capital Markets, Inc.	17,780,109	130,719
Jefferies & Company, Inc.	110,139,440	124,529
Macquarie Bank & Securities, Ltd. (Worldwide)	67,317,266	111,170
Williams Capital Group, L.P.	15,010,694	92,974
Brasil Plural S.A.	9,748,798	72,322
Sanford Bernstein (Worldwide)	1,491,154,719	71,529
Liquidnet, Inc.	7,809,260	53,757
Credit Lyonnais Securities	95,462,996	53,115
CLSA Securities	31,732,737	41,217
Mischler Financial Group	2,515,985	36,984
Investment Technology Group, Inc. (Worldwide)	23,232,513	35,794

(continued)

(continued)

Broker	Shares Traded	FY20 Commission
Exane, Inc.	13,636,918	\$32,607
Pershing, L.L.C.	4,651,594	29,785
RBC Dain Rauscher (Worldwide)	2,031,865	25,642
KB Financial Group	523,881	23,728
Sturdivant & Co., Inc.	761,470	22,400
Penserra Securities, L.L.C.	3,773,843	21,042
Piper Jaffray Companies	2,885,981	19,859
Samsung Group	122,787	17,762
Kim Eng Securities, Ltd.	1,441,756	11,682
Banco Bradesco, S.A.	4,539,844	11,185
KCG Americas L.L.C	64,325,862	10,852
Joh. Berenberg, Gossler & Co.	331,074	10,176
Ambit Holdings Pvt., Ltd.	344,939	9,086
Stifel Nicolaus & Company, Inc.	329,285	8,941
Canadian Imperial Bank of Commerce	1,766,221	8,078
Ho Chi Minh City Securities Corporation	1,411,870	8,057
UOB Kay Hian Pte, Ltd.	2,977,600	8,048
Daiwa Securities Group, Inc.	618,566	7,791
EFG Hermes Holding S.A.E	6,614,083	7,582
Guzman & Company	1,096,818	7,089
Ichiyoshi Securities Co., Ltd.	179,300	6,962
Korea Investment Holdings	26,653	6,949
Banco BTG Pactual S.A	1,060,069	6,929
ICICI Brokerage Services, Ltd.	1,934,089	6,550
Motilal Oswal Financial Services, Ltd	289,118	5,630
(All Others - 107 Brokers)	109,276,278	179,314
Total	<u>5,767,627,848</u>	<u>\$5,545,609</u>

Sources: State Street Bank and Trust and TRS

INVESTMENT MANAGER AND CUSTODIAN FEES

For the year ended June 30, 2020, fee payments to external investment managers and the master custodian totaled \$379.1 million.

Schedule of Fees

Investment Manager/Account	FY20
A & M Capital Partners II, L.P.	\$2,317,906
Acadian Asset Management, L.L.C.	3,319,250
Advent International GPE VI Limited Partnership	121,259
Advent International GPE VII-C Limited Partnership	679,253
Advent International GPE VIII-B-2 Limited Partnership	1,291,271
AllianceBernstein, L.P.	2,320,240
Alphadyne Global Rates Fund II, Ltd.	38,426,723
Altaris Health Partners IV, L.P.	442,981
Apollo Investment Fund IX, L.P.	2,339,826
Apollo Investment Fund VI, L.P.	(5,660)
Apollo Investment Fund VII, L.P.	266,680
Apollo Investment Fund VIII, L.P.	1,032,051
Apollo Lincoln Fixed Income Fund, L.P.	1,918,140
Apollo Lincoln Private Credit Fund, L.P.	184,880
AQR Capital Management, L.L.C.	4,622,504
AQR Real Return Offshore Fund, L.P.	1,088,642
AQR U.S. Relaxed Constraint Equity Fund II, L.P.	239,891
Arlington V, L.P.	1,541,667
Arrowstreet Capital, L.P.	3,498,366
Aspect Systematic Global Macro US Fund L.L.C.	681,995
Astorg VI, SLP	866,752
Astorg VII, SLP	812,972
Axiom International Investors, L.L.C.	3,502,730
Barings, L.L.C.	2,681,410
Battery Ventures XI-A Side Fund, L.P.	90,024
Battery Ventures XI-A, L.P.	199,832
Beach Point Sangamon, L.P.	2,271,749
BIG Real Estate Fund I, L.P.	305,374
Black River Agriculture Fund 2, L.P.	990,750
Blackstone Infrastructure Partners, L.P.	680,072
Blackstone Real Estate Partners Asia II, L.P.	1,500,000
Blackstone Real Estate Partners Asia, L.P.	762,026
Blackstone Real Estate Partners VII, L.P.	1,028,488
Blackstone Real Estate Partners VIII.TE.2, L.P.	2,766,624
Blackstone Real Estate Partners IX, L.P.	2,781,250
Bregal Sagemount III-B, L.P.	1,502,066
Brevan Howard Alpha Strategies Fund, L.P.	122,671
	(continued)

(continued)	
Investment Manager/Account	FY20
Brevan Howard Systematic Trading Fund, L.P.	\$2,017,513
Bridgewater Optimal Portfolio, L.L.C.	4,515,710
Brookfield Infrastructure Fund IV, L.P.	2,171,805
Brown Capital Management, L.L.C.	222,311
Capstone Vol (US), L.P.	882,476
Carlson Capital, L.P.	2,996,220
Carlyle Europe Real Estate Partners III, L.P.	38,969
Carlyle Global Infrastructure Opportunity Fund, L.P.	6,506,865
Carlyle Realty Partners VII, L.P.	458,934
Carlyle Realty Partners VIII, L.P.	1,703,265
Carlyle Realty Qualified Partners IV, L.P.	11,944
Carlyle/Riverstone Global Energy and Power Fund III, L.P.	49,860
CCP Core Macro Fund, L.P.	4,042,759
Cerberus Real Estate Debt Fund, L.P.	12,442
Clearlake Capital Partners II, L.P.	(64,668)
Clearlake Capital Partners III, L.P.	264,523
Clearlake Capital Partners IV, L.P.	965,665
Clearlake Capital Partners V, L.P.	399,415
Clearlake Capital Partners VI, L.P.	177,796
Clearlake Opportunities Partners (P), L.P.	469,757
Crabel Fund, L.P.	492,064
DCP China Credit Fund II, L.P.	1,075,178
Dimensional Fund Advisors, L.P.	1,836,430
Dolan McEniry Capital Management, L.L.C.	2,055,849
DoubleLine Mortgage Opportunities, L.P.	844,417
Edgewater Growth Capital Partners II, L.P.	95,932
EIF United States Power Fund IV, L.P.	897,881
EISAF II, L.P.	483,769
Emerald Advisers, Inc.	1,014,397
Energy Capital Partners II Annex A	42,307
EQT Midmarket Europe, L.P.	1,443,721
EQT VI, L.P.	325,618
EQT VII, L.P.	1,123,086
EQT VIII, L.P.	1,608,636
European Property Investors Special Opportunities 5 SCSp-SIF	1,279,879
Exeter Industrial Core Fund III, L.P.	27,449
	(continued)

<i>(continued)</i>	
Investment Manager/Account	FY20
Exeter Industrial Value Fund V, L.P.	\$600,000
Exeter Value Fund IV, L.P.	424,182
Fortress Japan Opportunity Fund III (Dollar A), L.P.	94,599
Fortress Japan Opportunity Fund IV (Dollar A), L.P.	624,441
Franklin Advisers, Inc.	2,370,232
Franklin Templeton Emerging Market Debt Opportunities (Cayman) Fund, Ltd.	676,206
Garcia Hamilton & Associates, L.P.	951,187
Gateway Real Estate Fund IV, L.P.	311,038
Global Transport Income Fund Master Partnership SCSp	577,512
Graham Global Investment Fund I SPC Ltd.	3,723,939
Grain Communications Opportunity Fund II, L.P.	626,827
Grain Communications Opportunity Fund, L.P.	663,858
Grandeur Peak Global Advisors	1,646,975
Granite Ventures II, L.P.	74,160
Greenspring IL Master, L.P.	1,085,014
Grosvenor Monarch Fund, L.L.C.	2,394,709
Harvest Partners Structured Capital Fund II, L.P.	(154,675)
Hayfin Chief, L.P.	296,079
Heitman Capital Management, L.L.C.	4,951,708
IC Hospitality Fund II, L.P.	133,844
ICG Santo SCSp	175,712
ICV Partners III, L.P.	76,319
ICV Partners IV, L.P.	717,427
IL Asia Investors, L.P.	922,435
Inflexion Enterprise Fund V (No. 1), L.P.	229,782
Inflexion Partnership Capital II, L.P.	751,430
Inflexion Buyout Partnership V, L.P.	782,271
Inflexion Supplemental Fund V (No. 1), L.P.	45,548
Institutional Venture Partners XV, L.P.	874,329
Institutional Venture Partners XVI, L.P.	1,202,432
Invesco Institutional (N.A.), Inc.	3,946,328
IPM Systematic Macro Fund, L.P.	2,306,433
JMI Equity Fund VII, L.P.	299,431
JMI Equity Fund VIII-A, L.P.	472,500
JP Morgan Investment Management, Inc.	3,894,946
Kepos Exotic Beta Fund, L.P.	1,020,666
Key Trends 15 Fund, L.L.C.	58,425
Kirkoswald Global Macro Fund, L.P.	11,391,958
LaSalle Asia Opportunity Fund IV, L.P.	46,110
LCM Partners CO IIIa, L.P.	797,108
LCM Partners COPS 4, L.P.	20,878

(continued)

<i>(continued)</i>	
Investment Manager/Account	FY20
LCM Partners SOLO III, L.P.	\$408,657
Light Sky Macro Fund, L.P.	6,166,370
Lightspeed Venture Partners IX, L.P.	587,055
Lightspeed Venture Partners Select II, L.P.	373,807
Lightspeed Venture Partners Select, L.P.	406,666
Lightspeed Venture Partners X, L.P.	331,668
Lightspeed Venture Partners XI, L.P.	272,176
Lion Industrial Trust	6,272,883
Littlejohn Fund IV, L.P.	158,748
LiveOak Venture Partners I, L.P.	337,500
Locust Point Senior Housing Debt II, L.P.	38,757
Lone Star Real Estate Fund III (U.S.), L.P.	13,253
Lone Star Real Estate Fund IV (U.S.), L.P.	282,374
Lone Star Real Estate Fund V (U.S.), L.P.	112,235
Lone Star Real Estate Fund VI, L.P.	3,054,706
Longitude Venture Partners II, L.P.	343,514
Longitude Venture Partners III, L.P.	869,040
LPC Realty Advisors I, Ltd.	2,674,310
LSV Asset Management	8,280,795
MacKay Shields, L.L.C.	2,073,204
Macquarie European Infrastructure Fund 6 SCSp	2,886,773
Madison Dearborn Capital Partners VII, L.P.	1,184,460
Madison International Real Estate Liquidity Fund VI (TE), L.P.	990,719
Magnetar Constellation Fund IV, L.L.C.	596,674
Magnetar Constellation Fund V, L.L.C.	4,394,572
Man Alternative Risk Premia SP	2,466,849
Maranon Senior Credit Fund II-B, L.P.	186,755
Marlin Equity V, L.P.	1,204,091
Matarin Capital Management, L.L.C.	113,697
MBK Partners Fund III, L.P.	604,215
MBK Partners Fund IV, L.P.	571,909
Mondrian Investment Partners Limited	1,012,266
Monroe Capital Private Credit Fund II, L.P.	764,144
Morgan Creek Partners Asia, L.P.	699,836
New Enterprise Associates 15, L.P.	411,065
New Enterprise Associates 16, L.P.	514,868
New Mountain Partners IV, L.P.	441,827
New Mountain Partners V, L.P.	1,180,952
NGP Natural Resources X, L.P.	615,116
NGP Natural Resources XI, L.P.	1,207,001
NGP Natural Resources XII, L.P.	1,430,501

(continued)

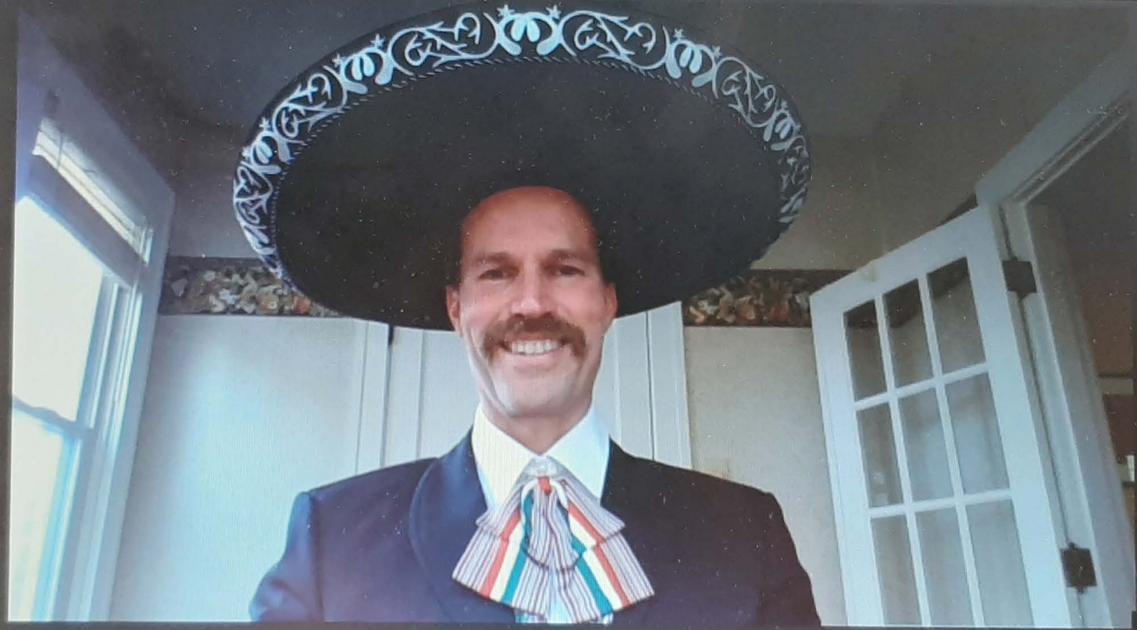
<i>(continued)</i>	
Investment Manager/Account	FY20
Niam Nordic V, L.P.	\$65,676
Northern Shipping Fund III, L.P.	479,290
Northern Shipping Fund IV, L.P.	1,425,609
Northern Trust Investments, Inc.	750,902
NXT Capital Senior Loan Fund II, L.P.	101,471
NXT Capital Senior Loan Fund IV, L.P.	1,984,202
NXT Capital Senior Loan Fund V, L.P.	1,679,860
Oak Street Real Estate Capital Fund III, L.P.	128,193
Oak Street Real Estate Capital Fund IV, L.P.	733,171
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	348,471
Oaktree Enhanced Income Fund II, L.P.	93,093
Oaktree Enhanced Income Fund III, L.P.	1,952,316
Oaktree European Principal Fund III, L.P.	768,501
Oaktree Opportunities Fund IX, L.P.	1,151,858
Oaktree Opportunities Fund VIII, L.P.	106,062
Oaktree Opportunities Fund Xb, L.P.	908,416
Oaktree Real Estate Debt Fund II, L.P.	352,596
Oaktree Real Estate Debt Fund, L.P.	109,817
OCM Opportunities Fund VIIb, L.P.	(27)
OceanSound Partners Fund, L.P.	410,266
Pacific Investment Management Company, L.L.C.	10,783,354
Palladium Equity Partners IV, L.P.	128,362
Parthenon Investors V, L.P.	727,195
Parthenon Investors VI, L.P.	568,417
PDT Partners, L.L.C.	6,670,889
Pemberton Debt Fund Delaware I, L.P.	627,529
Pemberton Debt Fund Delaware II, L.P.	1,142,342
PGIM Fixed Income Emerging Markets Long Short Fund I, L.P.	612,061
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd.	4,459,796
PGIM, Inc.	3,564,292
PIMCO BRAVO Fund III Onshore Feeder, L.P.	1,122,964
PIMCO BRAVO Fund Onshore Feeder II, L.P.	925,484
PIMCO Commercial Real Estate Debt Fund, L.P.	266,437
PIMCO Corporate Opportunities Fund III, L.P.	29,752
Principal Real Estate Investors, L.L.C.	1,121,562
Proterra Credit Fund, L.P.	425,346
Providence Equity Partners VII, L.P.	848,223
Ramirez Asset Management, Inc.	253,698
RCP SBO Fund, L.P.	843,750
Rhone Partners IV, L.P.	150,123
<i>(continued)</i>	

<i>(continued)</i>	
Investment Manager/Account	FY20
Rhone Partners V, L.P.	\$1,055,716
RhumbLine Advisers, L.P.	556,249
Ridgemont Equity Partners III, L.P.	754,226
Riverstone Credit Partners II, L.P.	968,382
Riverstone Credit Partners, L.P.	374,004
Riverstone Global Energy and Power Fund V, L.P.	1,455,647
Riverstone Global Energy and Power Fund VI, L.P.	2,130,276
Riverstone/Carlyle Global Energy and Power Fund IV, L.P.	94,006
Robeco Boston Partners Asset Management, L.P.	500,978
Rockpoint Real Estate Fund V, L.P.	982,477
Rockpoint Real Estate Fund VI, L.P.	2,071,002
RRJ Capital Master Fund III, L.P.	431,036
Scale Venture Partners V, L.P.	588,582
SCP Private Corporate Lending Fund, L.P.	414,449
Sheridan Production Partners III-B, L.P.	687,410
Silver Lake Alpine, L.P.	284,455
Silver Lake Partners III, L.P.	89,625
Silver Lake Partners IV, L.P.	983,772
Silver Lake Partners V, L.P.	2,381,383
Siris Partners II, L.P.	469,528
Siris Partners III, L.P.	1,144,768
Siris Partners IV, L.P.	701,850
SK Capital Catalyst Fund I, L.P.	644,794
SK Capital Partners V-A, L.P.	160,684
Sofinnova Venture Partners IX, L.P.	981,189
Sofinnova Venture Partners VIII, L.P.	510,344
Sofinnova Venture Partners X, L.P.	1,361,007
Southwest Multifamily Partners, L.P.	190,779
StarVest Partners II, L.P.	69,130
Starwood Distressed Opportunity Fund IX Global, L.P.	878,217
Starwood IX Annex A	312,346
Starwood Opportunity Fund X Global, L.P.	2,550,362
Starwood Opportunity Fund XI Global, L.P.	3,253,081
Starwood Value Add Fund, L.P.	1,171,313
Starwood X Annex A	(2,072)
Starwood X Annex B	7,769
State Street Bank and Trust Company (Custody)	3,534,575
State Street Global Advisors Trust Company	200,295
Strategic Global Advisors, L.L.C.	3,622,429
Sunstone Partners I, L.P.	373,368
T. Rowe Price Associates, Inc.	1,817,536
<i>(continued)</i>	

(continued)

Investment Manager/Account	FY20
TA XII-A, L.P.	\$1,063,240
TA XIII, L.P.	874,696
Taplin, Canida & Habacht, L.L.C.	1,103,548
Taurus Mining Finance Annex Fund L.L.C.	267,238
Taurus Mining Finance Fund L.L.C.	568,713
Taurus Mining Finance Fund II L.L.C.	1,504,121
TCW Asset Management Company	3,368,620
TDR Capital IV 'A', L.P.	990,075
The Baring Asia Private Equity Fund V, L.P.	1,220,149
The Baring Asia Private Equity Fund VI, L.P.1	1,104,694
The Varde Private Debt Opportunities Fund (Onshore), L.P.	407,525
Tilden Park Investment Fund, L.P.	5,259,863
Trend Macro Onshore, L.P.	5,865,845
Trident V, L.P.	454,853
Trident VI, L.P.	986,911
Trident VII, L.P.	1,261,812
Trident VIII, L.P.	375,000
Trustbridge Partners IV, L.P.	421,366
TSG8, L.P.	1,833,894
Varadero International, Ltd.	6,009,660
Varadero Special Opportunities International, L.P.	1,852,154
Veritas Capital Fund VI, L.P.	582,386
Vista Credit Opportunities Fund I-B, L.P.	282,844
Vista Equity Partners Fund V, L.P.	2,389,532
Vista Equity Partners Fund VI, L.P.	2,170,784
Vista Foundation Fund III, L.P.	845,714
Vista Foundation Fund IV, L.P.	359,890
Walton Street Real Estate Fund VI, L.P.	370,955
Walton Street Real Estate Fund VII, L.P.	759,784
Wasatch Advisors, Inc.	1,713,872
West Street Global Infrastructure Partners III, L.P.	1,649,515
Westbrook Real Estate Fund X, L.P.	882,404
ZMC III, L.P.	350,597
Total fees paid by TRS	<u>\$379,053,680</u>

Browser tabs: Bb Ofallon High School / | x Blackboard Collaborate x BA Vocab Practice (x Ch. 8A - Vocab A Flashc x Ch. 8A - Vocab B Flashc x Ch. 8A - Vocab C & D F x +
Address bar: us.bbcollab.com/collab/ui/session/join/1eab39b5e6b74da1877ab795d3a9fb3a



Windows taskbar area containing a search bar with the text "Type here to search" and several application icons including the Start menu, Edge browser, File Explorer, Mail, and Chrome.

lenovo





Alan Elfrink
O'Fallon Township High School

"This is an image of me teaching my Spanish 1 students on Cinco de Mayo from my home in Belleville. I am wearing a traditional charro suit commonly worn by mariachis. I bought it in Cuernavaca, Mexico when studying abroad with SIUE.

When remote learning began, I taught the first week and a half using my phone and laptop. That was quite challenging! Then, I was able to borrow a laptop from school and preparing and presenting materials instantly became much easier!"

ACTUARIAL

November 13, 2020

Board of Trustees
Teachers' Retirement System of the State of Illinois
2815 West Washington Street
Springfield, Illinois 62702

ACTUARIAL CERTIFICATION

Ladies and Gentlemen:

This report presents the results of the annual valuation of the assets and liabilities of the Teachers' Retirement System of the State of Illinois (TRS or System) as of June 30, 2020, prepared in accordance with the funding policy specified under the Illinois Pension Code (40 ILCS 5/16). This valuation takes into account all of the pension benefits to which members are entitled.

Actuarial Assumptions and Methods

The valuation was based on the actuarial assumptions adopted by the Board of Trustees, reflecting the three-year demographic and economic experience review covering the period July 1, 2014, through June 30, 2017, presented at the August 2018 Board meeting, and the economic experience review presented at the August 2016 Board meeting. The economic assumptions were last reviewed in June 2020, but no changes were adopted. In our opinion, the actuarial assumptions as approved by the Board are reasonably related to the experience of and the expectations for the System. The actuarial assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice. The methods mandated by the Illinois Pension Code as described in the Funding Adequacy section are inadequate to appropriately fund TRS.

Assets and Membership Data

TRS reported to the actuary the individual data for members of the System as of the prior valuation date. Valuation results are projected, based upon the actuarial assumptions, to account for the one-year difference between the date of the census data and the valuation date. The impact on the valuation due to the census data that lags one year behind the valuation date has been studied and deemed immaterial. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. The amount of assets in the trust fund as of the valuation date was based on statements prepared by TRS.

Funding Adequacy

The member and employer contribution rates are determined in accordance with the funding policy specified under the Illinois Pension Code (40 ILCS 5/16). The member contribution rate is 9.0%, which is comprised of 7.5% toward the cost of the retirement annuity, 0.5% toward the cost of the automatic annual increase in the retirement annuity and 1.0% for survivor benefits. The employer contributions are determined such that, together with the member contributions, the plan is projected to achieve 90% funding by 2045. The 2045 funding objective of 90% was set in 1994 as a 50-year objective. TRS members have always contributed their share. **The State funding has been inadequate, resulting in TRS being among the worst funded public employee retirement systems in the United States. We strongly recommend an actuarial funding method that targets 100% funding. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability, and the principal balance.** The funding policy adopted by the Board, referred to as the Board Funding Policy, meets this standard.

The valuation indicates that for the fiscal year ended June 30, 2020, the actuarial experience of TRS was unfavorable, generating a net actuarial loss of \$1.0 billion (0.8% of the actuarial accrued liability). This loss is the net result of a \$970 million loss due to unfavorable investment return experience and a \$50 million net loss due to demographic experience in fiscal 2020.

It is important to note that this actuarial valuation is based on plan assets as of June 30, 2020. Due to the COVID-19 pandemic, market conditions have changed significantly since the valuation date. TRS' actuarial funded status does not reflect short term fluctuations of the market, but rather is based on the fair values on the last day of the plan year. While it is impossible to determine how the market will perform over the next several months, and how that will affect the results of next year's valuation, Segal is available to prepare projections of potential outcomes upon request.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative, and client requirements. Deterministic cost projections are based on our proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility, and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuaries.

Actuarial Certification

In preparing the results presented in this report, we have relied upon information TRS provided to us regarding the benefit provisions, System members, benefit payments and unaudited plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

There is a schedule of Required Supplementary Information in the Financial Section of the System's Annual Financial Report. Segal has provided the Schedule of Changes in the Net Pension Liability, the Schedule of the Net Pension Liability, and the Schedule of Contributions from Employers and Other Contributing Entities. Segal reviewed this information in the Required Supplementary Information and the Notes to Required Supplementary Information to verify its consistency with the valuation report.

The Actuarial Section of the System's Annual Financial Report contains the following schedules, which were not prepared by Segal, but were reviewed by Segal for consistency with the valuation report: Actuarial Valuation, Reconciliation of Unfunded Liability, State Funding Amounts, Unfunded Liability as a Percentage of Payroll Test, and Schedule of Contributions from Employers and Other Contributing Entities. The Actuarial Section also contains the following schedules, which were prepared by Segal: Funded Ratio Test, Solvency Test, Employer Normal Cost by Tier, and Funded Ratio by Tier. Segal neither reviewed nor prepared any items beyond those specifically listed in this paragraph and the preceding paragraph.

In our opinion, the results presented comply with the Illinois Pension Code and, where applicable, the Internal Revenue Code, and the Statements of the Governmental Accounting Standards Board. While all calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board, this does not endorse the funding methodology required by the Illinois Pension Code. The undersigned are independent actuaries. They are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and are experienced in performing valuations for large public retirement systems. They meet the Qualification Standards of the American Academy of Actuaries.

Respectfully submitted,

Segal

By:



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



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



Tanya Dybal, FSA, MAAA, EA
Consulting Actuary

The Actuarial Section of this report discusses the System’s funded status and measures changes in its financial condition over time. The actuarial accrued liability, actuarial value of assets and unfunded liability presented in this section are used to determine state funding requirements. The total pension liability, plan fiduciary net position and net pension liability are used for financial disclosure only and are required by GASB Statement No. 67. For the GASB disclosure, please see the Financial Section of this report: “Notes to Financial Statements, A. Plan Description, 6. Actuarial Measurements.”

Pursuant to Public Act 97-0674, the Office of the Auditor General employs a state actuary, Cheiron, to review the five state systems’ actuarial valuation reports. The reports are considered preliminary until the state actuary has reviewed them. In its review of the previous report prepared by Segal, Cheiron recommended that federal funds contributions be treated in the same manner as other school district contributions resulting in the calculation of state contributions to be the level percent of payroll required to attain 90 percent by fiscal year 2045. The change was implemented for the June 30, 2019 actuarial valuation, effective for contributions in fiscal years 2021 and thereafter.

Cheiron recommended additional disclosure on stress testing, but it has not been included in the 2020 preliminary actuarial valuation. TRS and Segal believe this type of analysis is better suited for discussion with input from the TRS Board of Trustees, staff, the actuary and the TRS general investment consultant, RVK, Inc. However, additional disclosure on the types of risk faced by the plan has been added to the actuarial report.

The preliminary June 30, 2020 actuarial valuation prepared by Segal has been submitted to the state actuary.

ACTUARIAL ASSUMPTIONS AND METHODS

Each year the actuary reconciles the differences between actuarial assumptions and experience to explain the change in TRS’s unfunded liability. The unfunded liability is the difference between the accrued liability (the present value of benefits including the cost of annual increases) and the assets that are available to cover the liability.

Most assumptions were adopted in the FY18 valuation and are based on the 2018 experience analysis unless otherwise noted.

INVESTMENT RETURN

The investment return rate is 7.0 percent per annum, compounded annually and net of investment expenses, including inflation at 2.5 percent and real return at 4.5 percent. This is the expected rate of return on investments adopted effective June 30, 2016 and is also used to discount benefit payments. These rates were adopted in the FY16 valuation.

SALARY INCREASES

Components of the salary increase assumption include:

- inflation of: 2.5 percent and
- real wage growth (productivity) of: 0.75 percent.

The sample annual percentage salary increases (including merit and components of increase listed previously) follow.

Salary Increase Assumptions

Service	Male and Female
1 year	9.50%
2 years	7.50
3 years	7.00
4 years	6.75
5 years	6.50
10 years	5.50
15 years	4.75
20 years and above	4.00

For a member who works 34 years, the assumed average salary increase over the member's career is 4.94 percent per year. The actual average salary increase for teachers who were in full-time or regular part-time status at both June 30, 2018 and June 30, 2019 is 5.67 percent.

INFLATION

Inflation is assumed to be 2.5 percent per annum and is implicit in investment and earnings progression assumptions. This rate was adopted in the FY16 valuation.

RETIREMENT AGE

Graduated rates are based on age and service of active members at retirement.

Sample annual retirement rates follow. The Tier 1 rates were revised in 2018 and the Tier 2 rates were revised in 2012.

Tier 1 is composed of members who entered into service before Jan. 1, 2011:

Tier 1 Retirement Assumptions

Age	Years of Service				
	5-18	19-29	30-31	32-33	34+
54	-%	7%	8%	40%	45%
55	-	7	8	40	45
60	20	30	40	60	40
65	25	40	45	50	40
70	100	100	100	50	30
75	100	100	100	100	100

Tier 2 is composed of those entering into service on or after Jan. 1, 2011:

Tier 2 Retirement Assumptions

Age	Years of Service				
	9-18	19-30	31	32-33	34+
62	13%	15%	20%	25%	25%
65	8	10	15	20	20
67	20	40	70	70	70
70	100	100	100	100	100

MORTALITY

The assumed mortality rates are based on the Society of Actuaries RP-2014 mortality tables with adjustments as appropriate for TRS experience. The rates are used on a fully generational basis using projection table MP-2017.

For retirees, the RP-2014 White Collar Annuitant table:

- female rates are multiplied by 70 percent for ages under 78 and 110 percent for ages 78 to 114 and
- male rates are multiplied by 94 percent for ages under 81 and 110 percent for ages 81-114.

For disabled members, the RP-2014 Disabled Retiree table is used with male and female rates multiplied by 117 percent for ages 45-99.

For beneficiaries, the RP-2014 Annuitant table is used with male and female rates multiplied by 116 percent and 96 percent, respectively, for ages 50-114.

For active and inactive members, the RP-2014 White Collar Employee table is used with male and female rates multiplied by 104 percent for all ages.

DISABILITY

Here are the sample annual disability rates:

Disability Assumptions

Age	Male	Female
25	0.01%	0.03%
30	0.01	0.04
40	0.03	0.07
50	0.10	0.18
55	0.14	0.20
60	0.18	0.27
65	0.25	0.30

TERMINATION FROM ACTIVE SERVICE

Here are the sample annual termination rates (for reasons other than death, disability or retirement):

Termination Assumptions

Age	Under 5 Yrs of Service		5 or More Yrs of Service	
	Male	Female	Male	Female
25	7.0%	6.5%	3.0%	5.0%
30	6.5	7.0	3.0	4.8
40	10.0	8.0	1.8	1.5
50	12.0	8.0	1.3	1.5
55	11.5	11.8	2.0	2.0
60	15.0	14.0	3.0	2.5
65	30.0	30.0	3.0	3.0

SEVERANCE PAY

The percent of retirees from active service assumed to receive severance pay and the amount of such severance payments are assumed to be as follows and are not applicable to Tier 2.

Severance Pay Assumptions

Percent Retiring with Severance Pay	Severance Pay as a Percent of Other Pensionable Earnings in Last Year of Service
20%	10.0%

OPTIONAL SERVICE AT RETIREMENT

The accrued liability for retirement benefits for active members who have not previously purchased optional service is increased to cover the employer cost of optional service purchased in the last two years of service. The sample purchases at retirement follow.

Optional Service Assumptions

Years of Regular Service at Retirement	Maximum Service Purchased
10	0.107 years
20	0.445 years
25	0.752 years
30	0.841 years
34 or more	None

UNUSED AND UNCOMPENSATED SICK LEAVE

Unused and uncompensated sick leave varies by the amount of regular service at retirement.

The sample amounts of sick leave at retirement are:

Sick Leave Assumptions

Years of Service at Retirement	Sick Leave Service Credit
20	0.953 years
25	1.137 years
30	1.376 years
34	1.387 years
35 or more	None

POST-RETIREMENT INCREASES

Tier 1: 3%, compounded (statutory).

Tier 2: 1.25%, not compounded (adopted in 2016 valuation).

ACTUARIAL COST METHOD

The actuarial cost method required by the Illinois Pension Code is projected unit credit, which was adopted in the FY1989 valuation as required by Public Act 86-0273. The entry age normal cost method has been the basis of the TRS board's funding policy since FY15 and is used for financial reporting under GASB Statement No. 67.

ASSET VALUATION METHOD

The practice of five-year prospective asset smoothing was adopted in the FY09 valuation as required by Public Act 96-0043.

ACCELERATED BENEFIT PROGRAMS (BUYOUTS)

Under the programs established by Public Act 100-0587 and extended to June 30, 2024 by Public Act 101-0010:

- 22 percent of eligible Tier 1 and Tier 2 inactive members are assumed to participate in the Accelerated Pension Benefit Program.

- 15 percent of new Tier 1 retirees are assumed to participate in the Accelerated Annual Increase Program.

The Accelerated Pension Benefit Program and Accelerated Annual Increase Program participation assumptions are based on the recent experience of TRS in 2019-2020. These assumptions were unchanged in the 2020 actuarial valuation.

Of the original \$1 billion bond authorization, TRS was allotted \$650 million. Buyouts will continue until June 30, 2024 or until the bond authorization is exhausted.

ANNUAL ACTUARIAL VALUATION

The annual actuarial valuation measures the total liability for all benefits earned to date. The accrued liability is a present value estimate of all the benefits that have been earned to date but not yet paid. The unfunded liability is the present value of future benefits payable that are not covered by the assets on the valuation date.

All actuarial assumptions used to prepare the actuarial valuation are reviewed every three years. The last review, called an actuarial experience analysis, was conducted in 2018. The major economic assumptions are reviewed every year. This more frequent review was recommended by the state actuary.

The funded ratio shows the percentage of the accrued liability covered by assets. The following table shows the funded ratio based on the actuarial value of assets and the fair value of assets.

Actuarial Valuation (\$ thousands)

	Year Ended June 30, 2020
Based on actuarial value of assets	
Total actuarial accrued liability	\$135,598,547
Less actuarial value of assets*	54,890,976
Unfunded liability	<u>\$80,707,571</u>
Funded ratio*	40.5%
Based on fair value of assets	
Total actuarial accrued liability	\$135,598,547
Less assets at fair value	52,316,478
Unfunded liability	<u>\$83,282,069</u>
Funded ratio	38.6%

* Five-year prospective smoothing began in FY09.

ANALYSIS OF FINANCIAL EXPERIENCE: RECONCILIATION OF UNFUNDED LIABILITY

The \$2.6 billion net increase in the 2020 unfunded liability was caused by a combination of factors.

The first factor shown in the table is the difference between actual employer/state contributions and the amount that would cover the employer/state's cost of benefits earned during the year and prevent the prior year's unfunded liability from growing. That shortfall was \$1.6 billion.

Actuarial gains and losses occurred under the other assumptions. The most significant loss was on investments, which includes 20 percent of the difference between expected and actual returns in FY20 and increased the unfunded liability by \$973 million during the year. Other actuarial losses occurred under the assumptions for retirement, terminations, mortality and rehires (members coming back into teaching service).

Actuarial gains occurred under the assumptions for salary increases, disabilities and new members, meaning that experience was more favorable (less costly) than assumed. The gain of \$166 million in the "other" category is a balancing item.

The net effect of the actuarial gains and losses was an increase in the unfunded liability of \$1.0 billion.

In summary, the \$2.6 billion increase in the unfunded liability is due to the \$1.6 billion employer cost in excess of contributions and the \$1.0 billion increase due to experience.

Reconciliation of Unfunded Liability

Reconciliation of Unfunded Actuarial Accrued Liability	Year Ended June 30, 2020
Unfunded liability at beginning of year	\$78,065,776,020
Additions	
Employer cost in excess of contributions	1,622,083,905
Experience (gain)/loss from:	
Investment (gain)/loss on actuarial value of assets*	972,850,068
Salary increases for continuing active members	(41,780,212)
Retirements other than expected	178,155,930
Disabilities other than expected	(17,701,086)
Terminations other than expected	49,417,489
Mortality other than expected	14,135,952
Rehires	41,266,774
New entrants	(10,456,950)
Other	(166,176,905)
Net experience (gain)/loss	1,019,711,060
Changes in actuarial assumptions on buyout utilization	-
Net increase in unfunded liability	2,641,794,965
Unfunded liability at end of year	<u>\$80,707,571,185</u>

* Assets were expected to earn 7.0 percent during the year ended June 30, 2020. This item is the difference between the expected and the actual return on an actuarial basis.

ACTUARIAL STANDARDS AND ILLINOIS STATE PENSION FUNDING

In 2012, the TRS Board of Trustees resolved to begin certifying state funding amounts that were in accordance with generally accepted actuarial principles and standards. These amounts have been submitted to the legislative and executive branches in addition to the amounts calculated under Illinois law. The board's purpose is to illustrate the gap between sound funding policy and current practice.

Additional amounts certified by the board from 2012 through 2014 would have begun amortizing the unfunded liability over an open 30-year period or would have stabilized it by paying the accruing interest. Over time, however, actuarial standards have evolved and become more stringent.

In 2015, the board adopted the actuary's recommendation to shorten the amortization period under its alternative certification to 20 years. In this scenario, the amortization payments would increase by 2 percent per year, which is the actuary's estimate of the annual increase in Illinois revenue. Future increases in the unfunded liability would be amortized over subsequent 20-year periods (layered amortization). Additionally, the actuarial accrued liability and the employer's normal cost would be calculated under the entry age normal actuarial cost method, which is the most commonly used method in the public sector. Entry age would assign costs more evenly over an employee's career. It would replace the projected unit credit actuarial cost method that is required under Illinois law. The projected unit credit method has the effect of delaying the cost of a member's service and deferring contributions, thereby leading to higher costs in the long run.

STATE FUNDING

Public Act 88-0593 was enacted in 1994 and first affected state contributions in FY1996. The law established a 50-year funding plan that includes a 15-year phase-in period. By the end of the funding period in FY45, TRS will have a 90 percent funded ratio. A key feature of this act is the “continuing appropriation” language that requires state contributions to be made automatically to TRS, provided state funds are available.

Public Act 93-0002, the pension obligation bond legislation, was enacted in 2003 and first affected state contributions in FY05. The law requires a multi-step process that ensures that state contributions through FY33 do not exceed certain maximums. After FY33 when debt service on the bonds is repaid, contributions are higher than they would have been without the maximums.

Public Act 100-0023, enacted in 2017, made two changes that affected TRS funding and required TRS to recertify the FY18 state contribution. First, changes in actuarial assumptions made since the FY12 actuarial valuation are to be phased in over five-year periods to reduce volatility in the state contribution. Second, the act requires employers to contribute to TRS an amount that covers the employer normal cost on earnings that exceed the governor’s statutory salary.

STATE FUNDING AMOUNTS

The FY20 certified state contributions are based on the June 30, 2018 actuarial valuation and the FY21 certifications are based on the June 30, 2019 actuarial valuation. The state actuary will review the proposed certifications for FY22 as well as the preliminary June 30, 2020 valuation. Final certifications for FY22 are due Jan. 15, 2021 pursuant to Public Act 97-0674.

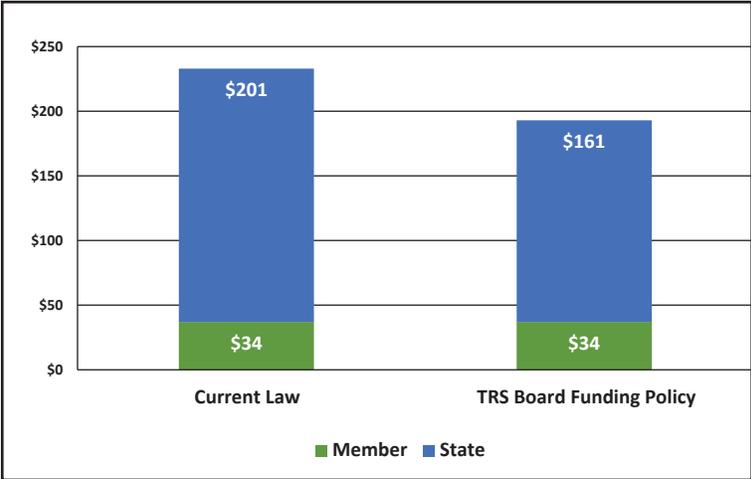
The following table shows funding requirements under the statutory funding plan and the TRS Board of Trustee's funding plan that was adopted in 2015.

FY21 & FY22 State Contribution Requirements

	FY21 Requirements	FY22 Requirements
Based on Statutory Funding Plan		
Benefit Trust Reserve	\$5,140,336,721	\$5,693,706,973
Minimum Annuity Reserve	400,000	400,000
Total State Contribution	\$5,140,736,721	\$5,694,106,973
Based on TRS Board Funding Policy		
Benefit Trust Reserve	\$8,343,796,301	\$8,850,055,308
Minimum Annuity Reserve	400,000	400,000
Total State Contribution	\$8,344,196,301	\$8,850,455,308
Employer Normal Cost Rate		
Tier 1	13.85%	13.99%
Tier 2	(1.43%)	(1.29%)
Combined	10.41%	10.31%

Under the TRS Board of Trustee’s funding policy, the state funding requirement is initially higher than under the statutory plan because it begins reducing the unfunded liability immediately. Over time, however, funding based on this actuarial standard greatly reduces state contributions because it reduces the finance charges that occur under the statutory plan. Under the board's funding policy, total state contributions through FY45 would be \$40 billion lower than under current law.

State and Member Required Contributions FY22-FY45 (\$ Billions)



TESTS OF FINANCIAL CONDITION

The funded ratio shows the percentage of the accrued liability covered by actuarial value of assets and the fair value of assets.

Funded Ratio Test (\$ thousands)

As of June 30	Actuarial Accrued Liability	Assets		Unfunded Liability Using Assets Based on		Funded Ratio Using Assets Based on	
		Actuarial Value	Fair Value	Actuarial Value	Fair Value	Actuarial Value	Fair Value
2011	\$81,299,745	\$37,769,753	\$37,471,267	\$43,529,992	\$43,828,478	46.5%	46.1%
2012	90,024,945	37,945,397	36,516,825	52,079,548	53,508,120	42.1	40.6
2013	93,886,988	38,155,191	39,858,768	55,731,797	54,028,220	40.6	42.5
2014	103,740,377	42,150,765	45,824,383	61,589,612	57,915,994	40.6	44.2
2015	108,121,825	45,435,193	46,406,916	62,686,632	61,714,909	42.0	42.9
2016	118,629,890	47,222,098	45,250,957	71,407,792	73,378,933	39.8	38.1
2017	122,904,034	49,467,525	49,375,665	73,436,509	73,528,369	40.2	40.2
2018	127,019,330	51,730,890	51,969,547	75,288,440	75,049,783	40.7	40.9
2019	131,456,969	53,391,193	53,262,789	78,065,776	78,194,180	40.6	40.5
2020	135,598,547	54,890,976	52,316,478	80,707,571	83,282,069	40.5	38.6

The unfunded liability as a percentage of payroll is a standard measure of the relative size of the unfunded liability. Increases in this percentage indicate deterioration in a system’s financial position.

Unfunded Liability as a Percentage of Payroll Test Based on Actuarial Value of Assets (\$ thousands)

Year Ended June 30	Approximate Member Payroll*	Unfunded Liability	Percentage of Payroll
2011	\$9,205,603	\$43,529,992	472.9%
2012	9,321,098	52,079,548	558.7
2013	9,394,741	55,731,797	593.2
2014	9,512,810	61,589,612	647.4
2015	9,641,171	62,686,632	650.2
2016	9,811,614	71,407,792	727.8
2017	9,965,570	73,436,509	736.9
2018	10,163,980	75,288,440	740.7
2019	10,450,452	78,065,776	747.0
2020	10,827,439	80,707,571	745.4

* Payroll supplied by TRS

The solvency test measures TRS's ability to cover different types of obligations if the plan was terminated and is hypothetical. The columns are in the order that assets would be used to cover certain types of obligations. Employee contributions would be refunded first, amounts due for participants currently receiving benefits would be covered next and the employer's obligation for active members would be covered last. Columns (1) and (2) should be fully covered by assets. The portion of column (3) that is covered by assets should increase over time.

Solvency Test (\$ thousands)

Year Ended June 30	Aggregate Accrued Liabilities for			Actuarial Value of Assets	Percentage of Benefits Covered by Net Assets		
	Active Member Contributions (1)	Participants Currently Receiving Benefits) (2)	Active Members Employer Portion (3)		(1)	(2)	(3)
2011	\$8,048,689	\$50,567,881	\$22,683,175	\$37,769,753	100%	59%	-
2012	8,270,073	58,734,636	23,020,236	37,945,397	100	51	-
2013	8,569,939	61,254,334	24,062,715	38,155,191	100	48	-
2014	8,890,558	65,614,627	29,235,192	42,150,765	100	51	-
2015	9,281,893	70,545,782	28,294,150	45,435,193	100	51	-
2016	9,629,934	77,688,075	31,311,881	47,222,098	100	48	-
2017	9,683,095	80,882,353	32,338,586	49,467,525	100	49	-
2018	10,057,427	82,968,465	33,993,438	51,730,890	100	50	-
2019	10,474,097	85,788,806	35,194,066	53,391,193	100	50	-
2020	10,902,747	88,185,983	36,509,817	54,890,976	100	50	-

OTHER INFORMATION

Schedule of Contributions from Employers and Other Contributing Entities (\$ thousands)

Year Ended June 30	State Contributions ¹	Federal and Employer Contributions ²	Total	Actuarially Determined Contribution ³	Percentage Contributed	Annual Required Contribution per State Statute	Percentage Contributed ⁴
2011	\$2,169,518	\$154,150	\$2,323,668	\$2,743,221	84.7%	\$2,293,321	101.3%
2012	2,405,172	153,409	2,558,581	3,429,945	74.6	2,547,803	100.4
2013	2,702,278	155,787	2,858,065	3,582,033	79.8	2,843,463	100.5
2014	3,437,478	157,228	3,594,706	4,091,978	87.8	3,592,578	100.1
2015	3,376,878	144,780	3,521,658	4,119,526	85.5	3,497,366	100.7
2016	3,741,802	147,408	3,889,210	4,582,530	84.9	3,883,544	100.1
2017	3,985,783	148,749	4,134,532	6,248,879	66.2	4,124,119	100.3
2018	4,094,616	84,034	4,178,650	7,080,756	59.0	4,183,040	99.9
2019	4,465,578	87,707	4,553,285	7,429,037	61.3	4,554,862	100.0
2020	4,813,078	92,038	4,905,116	7,988,612	61.4	4,905,192	100.0

1. Actual state contribution amounts paid, reflecting recertifications which may not agree with original certifications in actuarial reports. Minimum benefit reimbursements are excluded.
2. Excess sick leave and penalty employer contributions are excluded. Beginning in FY18, the federal contribution rate for salaries paid from federal funds is the same as the total employer normal cost rate. Previously, it was the same as the state contribution rate.
3. Actuarially determined contribution (ADC) through FY16 was based on GASB Statement No. 25. Beginning in FY17, the ADC is based on the TRS Board of Trustees funding policy.
4. Actual contributions varied slightly from contributions that are required by statute mainly because of differences between estimated and actual federal contributions.

The previous Schedule of Contributions from Employers and Other Contributing Entities is similar to the Schedule of the Employers' Contributions shown in the Required Supplementary Information in the Financial Section. Through FY16, both tables are based on an Actuarially Determined Contribution (ADC). Until FY17, the ADC includes the employer's normal cost and amortizes the System's unfunded liability over a 30-year open period, with the amortization component based on a level percent of pay pursuant to GASB Statement No. 25. Beginning in FY17, a different comparison is used due to the board's adoption of a more stringent actuarial funding calculation for its alternative certification. The board's funding policy was described earlier in this section under "Actuarial Standards and Illinois State Pension Funding."

The schedule of Retirees and Beneficiaries Added and Removed from the Rolls shows the overall trends in the number of benefit recipients and the amounts they receive.

Retirees and Beneficiaries Added to and Removed from Rolls

Year Ended June 30	Number at Beginning of Year	Number Added to Rolls	Number Removed from Rolls	Number at End of Year	End-of-Year Annual Allowances		Average Annual Allowance	
					Amount	Increase	Amount	Increase
2011	97,754	6,377	2,843	101,288	\$4,418,500,521	7.5%	\$43,623	3.8%
2012	101,288	6,943	2,784	105,447	4,781,692,373	8.2	45,347	4.0
2013	105,447	6,404	3,068	108,783	5,100,219,925	6.7	46,884	3.4
2014	108,783	6,433	2,883	112,333	5,430,104,782	6.5	48,339	3.1
2015	112,333	5,789	3,200	114,922	5,718,110,055	5.3	49,756	2.9
2016	114,922	5,723	2,995	117,650	6,024,825,507	5.4	51,210	2.9
2017	117,650	5,627	3,126	120,151	6,328,506,420	5.0	52,671	2.9
2018	120,151	5,672	3,400	122,423	6,629,605,138	4.8	54,153	2.8
2019	122,423	5,238	3,362	124,299	6,915,297,528	4.3	55,634	2.7
2020	124,299	5,151	3,523	125,927	7,183,690,664	3.9	57,046	2.5

Source: TRS

Year Ended June 30	Amount Added to Rolls		
	Annual Benefit Increases	New Benefit Recipients	Amount Removed from Rolls
2011	\$125,124,423	\$263,213,399	\$78,856,272
2012	135,604,876	311,161,467	83,574,491
2013	145,282,975	268,124,075	94,879,498
2014	153,329,242	273,690,582	97,134,967
2015	162,158,193	237,388,307	111,541,227
2016	168,459,973	250,009,083	111,753,604
2017	180,258,847	242,035,397	118,613,331
2018	187,737,960	249,984,285	136,623,527
2019	194,545,787	233,753,123	142,606,520
2020	203,914,182	217,817,526	153,338,572

Source: TRS

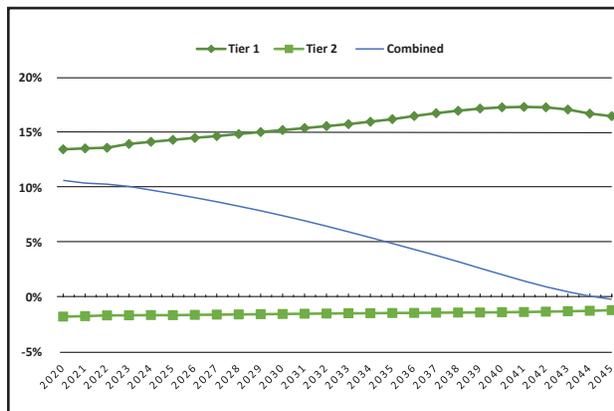
FUNDING ANALYSIS BY TIER

Public Act 96-0889 established a new tier of benefits for teachers who first contributed to TRS or another reciprocal pension system on or after Jan. 1, 2011. Tier 2 teachers have later retirement dates, longer vesting requirements, salary caps for pensions lower than the Social Security wage base and lower cost of living increases after retirement that are not compounded. On July 1, 2016, the member contribution rate for both tiers decreased from 9.4 percent to 9.0 percent.

The employer normal cost rate measures the employer's cost of the benefits being earned by active teachers during the year. It does not include any contributions towards the unfunded liability. The chart below shows that while the combined employer normal cost of both tiers in 2020 is over 10 percent of pay, the cost of Tier 2 is negative and stays negative through 2045.

As more Tier 2 members enter TRS, the combined employer normal cost continues to fall. By 2044, the combined employer normal cost is negative. In the meantime, the cost of Tier 1, which is a closed group, continues to increase as Tier 1 members age and accrue more service. The increases in employer normal cost for both tiers is a function of the projected unit credit actuarial cost method required by the Illinois Pension Code.

Employer Normal Cost by Tier

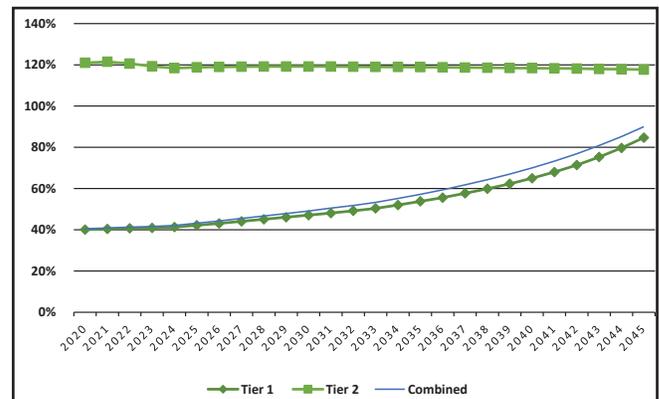


Note: Combined rate includes administrative expenses.
Source: 2018 valuation for 2020 data, 2019 valuation for 2021 data, 2020 valuation for subsequent years.

Under the 50-year funding plan, TRS will attain a funded ratio of 90 percent by 2045. The following chart illustrates what the funded ratios would be if they were operated as separate retirement plans. Tier 2 would be overfunded because member contributions are higher than the cost of Tier 2 benefits. The surplus Tier 2 assets lower the employer/state contributions required for Tier 1. Tier 2 active members are projected to outnumber Tier 1 active members by 2026.

By 2045, Tier 1 would be 85 percent funded and Tier 2 would be 118 percent funded, with the combined plan attaining the 90 percent target funded ratio. In practice, the two tiers are combined for administrative and funding purposes and their assets are commingled.

Funded Ratio by Tier



Source: 2018 valuation for 2020 data, 2019 valuation for 2021 data, 2020 valuation for subsequent years.



In May, the 15-foot-tall Superman Statue in Metropolis, Illinois, was fitted with a mask to honor all essential workers during the coronavirus pandemic.

Photo credit: Dave Urbaneck



The lions outside the Art Institute of Chicago wear custom masks as a sign of solidarity with the city to slow the spread of the virus.

Photo credit: Matt Suhl

Average Annual Salary for Active Members (Excluding Substitutes) by Years of Service and Number of Employers

Years of Service		2020	2019	2018	2017
Under 5	Members	26,499	26,111	25,959	26,486
	Salary	\$51,260	\$51,835	\$50,568	\$49,935
5-9	Members	27,309	26,264	25,831	26,436
	Salary	\$61,110	\$60,626	\$59,615	\$59,150
10-14	Members	25,861	28,322	29,465	29,617
	Salary	\$73,590	\$73,266	\$72,008	\$71,412
15-19	Members	25,186	24,459	24,304	23,936
	Salary	\$85,800	\$85,131	\$84,065	\$82,745
20-24	Members	17,618	16,209	15,590	14,728
	Salary	\$95,974	\$94,599	\$93,379	\$92,035
25-29	Members	10,520	10,038	8,786	8,254
	Salary	\$103,541	\$101,340	\$99,102	\$97,624
30-34	Members	4,193	3,950	3,976	3,979
	Salary	\$109,478	\$106,097	\$105,266	\$104,652
35 +	Members	356	353	379	453
	Salary	\$116,714	\$112,963	\$111,104	\$110,576
Total Members		137,542	135,706	134,290	133,889
Salary		\$76,027	\$74,518	\$73,028	\$71,773
% Change salary		2.00%	2.0%	1.7%	1.3%
Total payroll full & part-time		\$10,456,942,174	\$10,112,568,797	\$9,806,930,120	\$9,609,615,197
Number of Employers		990	990	990	989

Source: TRS

Annual salaries are computed using full- and part-time salary rates only; substitute and hourly employee salaries are omitted. Total payroll shown will be lower than payroll figures used elsewhere in this report.

2016	2015	2014	2013	2012	2011
26,767	26,698	25,191	24,812	25,733	27,960
\$49,464	\$47,796	\$46,845	\$46,058	\$46,222	\$47,292
27,845	29,798	33,028	34,682	35,071	34,626
\$59,276	\$58,935	\$58,540	\$58,027	\$57,741	\$57,416
29,395	29,214	28,747	28,503	28,105	26,865
\$71,140	\$70,589	\$70,233	\$69,686	\$68,751	\$67,691
22,894	21,421	19,917	19,406	18,610	17,935
\$81,868	\$80,737	\$79,921	\$79,295	\$78,328	\$77,268
14,120	13,877	13,562	12,280	11,834	11,682
\$90,942	\$89,591	\$88,037	\$86,235	\$84,904	\$83,563
8,087	7,908	7,827	7,913	7,940	7,834
\$96,157	\$94,510	\$93,016	\$91,735	\$89,986	\$88,416
3,936	3,970	3,941	4,247	4,826	5,839
\$102,896	\$100,785	\$98,807	\$96,966	\$94,665	\$93,299
592	731	809	889	994	1,179
\$107,826	\$105,372	\$103,533	\$101,293	\$98,140	\$98,678
133,636	133,617	133,022	132,732	133,113	133,920
\$70,868	\$69,538	\$68,556	\$67,558	\$66,696	\$66,044
1.9%	1.4%	1.5%	1.3%	1.0%	2.6%
\$9,470,516,048	\$9,291,458,946	\$9,119,456,232	\$8,967,108,456	\$8,878,104,648	\$8,844,612,480
992	1,006	1,013	1,019	1,024	1,029

Average Annual Salary and Age for Active Members by Years of Service as of June 30, 2020

Age		Subs	Years of Service			
			Under 5	5-9	10-14	15-19
20-24	Members	1,850	3,419	-	-	-
	Salary	\$4,844	\$43,701	-	-	-
25-29	Members	2,344	9,178	4,070	-	-
	Salary	\$6,721	\$49,720	\$56,818	-	-
30-34	Members	1,915	4,590	10,850	3,468	-
	Salary	\$6,661	\$52,447	\$60,349	\$69,914	-
35-39	Members	2,474	3,013	4,863	10,971	4,522
	Salary	\$5,493	\$54,528	\$63,391	\$73,753	\$83,629
40-44	Members	3,030	2,522	2,817	4,635	10,149
	Salary	\$6,262	\$53,952	\$62,712	\$75,528	\$86,703
45-49	Members	3,300	1,616	2,096	2,760	4,442
	Salary	\$5,869	\$54,981	\$63,710	\$74,254	\$87,095
50-54	Members	2,974	1,087	1,410	1,995	2,867
	Salary	\$5,610	\$56,368	\$63,148	\$73,306	\$85,763
55-59	Members	2,715	653	788	1,360	2,049
	Salary	\$5,546	\$57,232	\$61,774	\$73,368	\$83,395
60-64	Members	2,271	312	323	544	922
	Salary	\$5,157	\$56,321	\$63,929	\$74,952	\$84,896
65-69	Members	1,625	85	79	105	214
	Salary	\$4,879	\$58,181	\$65,592	\$73,484	\$87,608
70-74	Members	776	19	13	21	20
	Salary	\$5,080	\$60,171	\$57,866	\$87,745	\$104,617
Over 74	Members	299	5	-	2	1
	Salary	\$4,934	\$71,652	-	\$64,943	\$82,243
Total Members		25,573	26,499	27,309	25,861	25,186
Salary		\$5,179	\$51,260	\$61,110	\$73,590	\$85,800

Source: TRS

	Average Age	Average Years of Service	Members
Full and part-time members	42	13	137,542
Substitutes	47	4	25,573
All	43	11	163,115

Years of Service							Full & Part-time Member Totals
20-24	25-29	30-34	35-39	40-44	45-49	50+	
-	-	-	-	-	-	-	3,419
-	-	-	-	-	-	-	\$43,719
-	-	-	-	-	-	-	13,248
-	-	-	-	-	-	-	\$51,900
-	-	-	-	-	-	-	18,908
-	-	-	-	-	-	-	\$60,185
-	-	-	-	-	-	-	23,369
-	-	-	-	-	-	-	\$71,029
3,559	-	-	-	-	-	-	23,682
\$95,485	-	-	-	-	-	-	\$79,494
7,736	2,440	-	-	-	-	-	21,090
\$97,222	\$102,210	-	-	-	-	-	\$86,093
3,511	5,450	1,608	-	-	-	-	17,928
\$95,798	\$103,762	\$107,979	-	-	-	-	\$90,245
1,905	2,034	2,234	136	-	-	-	11,159
\$93,350	\$105,075	\$110,885	\$115,359	-	-	-	\$90,659
706	484	279	106	31	-	-	3,707
\$92,660	\$102,442	\$107,876	\$121,252	\$113,419	-	-	\$85,982
171	91	60	22	26	17	-	870
\$94,776	\$99,240	\$105,474	\$110,366	\$122,173	\$113,089	-	\$86,993
29	17	11	4	2	8	1	145
\$104,216	\$98,955	\$102,731	\$96,794	\$117,019	\$117,325	\$135,041	\$92,137
1	4	1	-	1	-	2	17
\$107,145	\$85,349	\$137,425	-	\$68,849	-	\$100,947	\$83,947
17,618	10,520	4,193	268	60	25	3	137,542
\$95,974	\$103,541	\$109,478	\$117,003	\$116,590	\$114,444	\$112,312	\$76,027

PLAN SUMMARY

ADMINISTRATION

TRS was created and is governed by Article 16 of the Illinois Pension Code, contained in the Illinois Compiled Statutes (ILCS). A 15-member board of trustees is authorized to carry out duties granted to it under the article.

MEMBERSHIP

Membership in TRS is mandatory for all full-time, part-time and substitute school personnel employed in Illinois outside the city of Chicago in positions requiring licensure. Persons employed at certain state agencies are also members.

BENEFITS

Public Act 96-0889 established a second, lower tier of benefits for teachers who first contributed to TRS or one of the Illinois reciprocal retirement systems on or after Jan. 1, 2011. Tier 1 benefits were not affected by PA 96-0889. See the table on pages 106-107 for a summary of Tier 1 and Tier 2 benefits.

See the Financial Section for a discussion of benefit programs recently enacted by the legislature. The accelerated benefit programs are discussed on pages 90-91. Tier 3 is discussed in the Notes to the Financial Section under "A. Plan Description, 5. Benefits Provisions."

OTHER PROVISIONS

EMPLOYMENT-RELATED FELONY CONVICTION

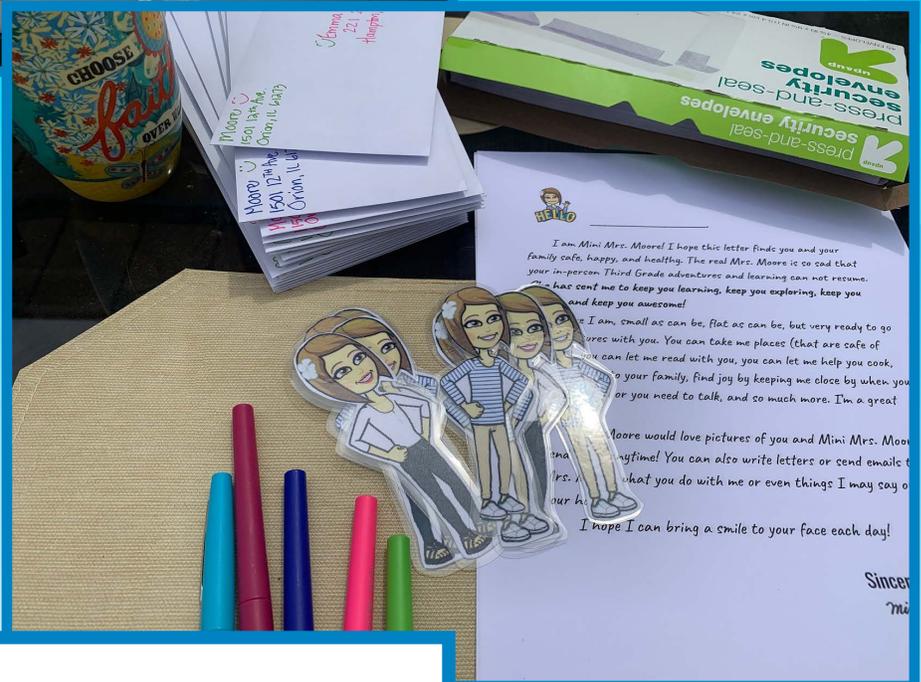
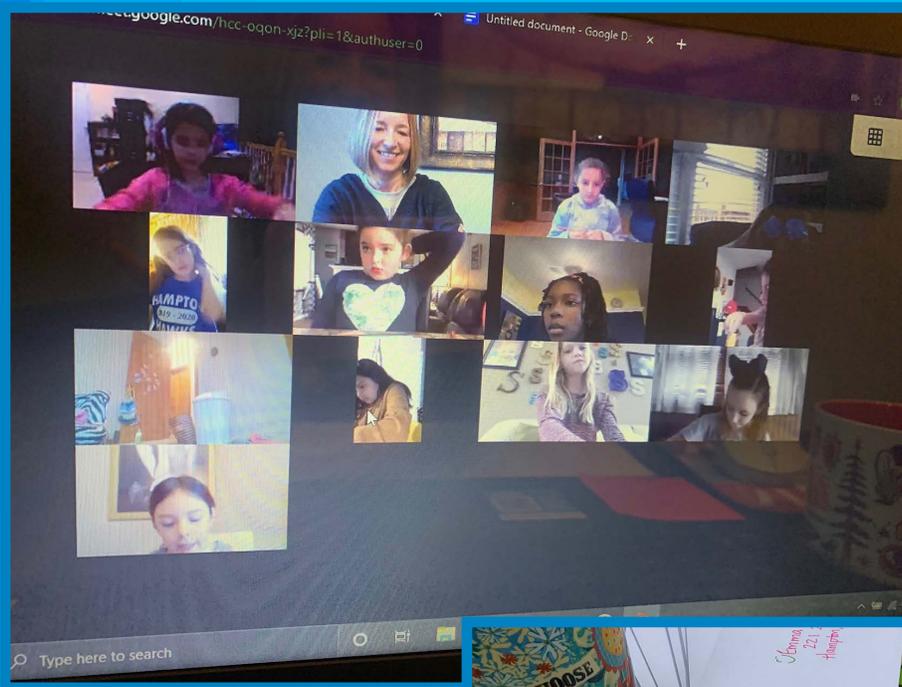
Any member convicted of a felony related to or in connection with teaching is not eligible for TRS benefits. However, the member may receive a refund of contributions.

CONTINUITY OF CREDIT WITHIN ILLINOIS

TRS is one of 13 public retirement systems that are included in the provisions of the Illinois Reciprocal Act. This act ensures continuous pension credit for public employment in Illinois.

CONFLICTS

Conditions involving a claim for benefits may require further clarification. If conflicts arise between the material in this summary and that of the law, the law takes precedence.



Jyll Moore
Hampton School District

"Overall, I have a new appreciation and love of teaching, technology, medical advice and our Illinois governor (we watch him with great respect daily). I think we will all come out of this with joy for all things simple and loving. I will continue to do all I can to help my students!

I sent 'Mini Mrs. Moore' to my students, and I've received a lot of pictures of their adventures and admiration."

SUMMARY OF TIER 1 AND TIER 2 BENEFIT PROVISIONS

Tier 1	
Tier 1 Defined	Members who first contributed to TRS or one of the other Illinois reciprocal retirement systems before Jan. 1, 2011 are covered by Tier 1. Tier 1 membership is retained even if a member takes a refund and does not repay it.
Retirement Eligibility (Vesting)	<p>Tier 1 members who meet the following age and service requirements are eligible to retire:</p> <ul style="list-style-type: none"> • Age 55 with 20 years of service (reduced 6% for every year that the member's age at retirement is under 60) • Age 55 with 35 years of service (no reduction) • Age 60 and 10 years of service (no reduction) • Age 62 with 5 years of service (no reduction) <p>A member with fewer than five years of service can receive a single sum retirement benefit at age 65.</p>
Retirement Formula	<p>Retirement benefits for most Tier 1 members are based on a formula of 2.2% times years of creditable service times final average salary. The maximum benefit is 75% of final average salary.</p> <p>Some Tier 1 members with service before July 1, 1998 will have benefits based on the graduated formula that was in effect before that date. The maximum benefit is also 75% under the graduated formula.</p> <p>Public Act 90-0582 changed the benefit accrual rate beginning July 1, 1998. Members could upgrade their service under the graduated formula by making a contribution to TRS. The law provides that each three full years worked after the effective date reduces the number of years to be upgraded by one. Subsequently, Public Act 91-0017 reduced the 2.2 formula upgrade cost for members with more than 34 years of service.</p> <p>The final average salary is based on the member's highest four consecutive years of service out of the last 10.</p> <p>Tier 1 members hired before July 1, 2005 may receive a money-purchase style "actuarial" benefit. By law, the higher of the formula benefit or the actuarial benefit is paid.</p>
Post-Retirement Increases	Annual increases are 3% of the current retiree benefit. The first increase is the later of the Jan. 1 following attainment of age 61 or the first anniversary of retirement.
Disability Benefits	<p>Nonoccupational disability benefits are payable as disability benefits or disability retirement benefits to members who have a minimum of three years of creditable service.</p> <p>No minimum service requirement applies to occupational benefits for duty-related accidents or illnesses. Members continue to accrue service credit while they are receiving disability benefits but not while receiving disability retirement benefits.</p> <p>Generally, nonoccupational disability benefits are 40% of pay; occupational disability benefits are 60% of pay, reduced by payments received under workers' compensation and disability retirement benefits are 35% of pay annually or a higher amount based on service credit and age.</p> <p>On the Jan. 1 following the fourth anniversary of the granting of the disability benefit, the monthly benefit is increased by 7%. Thereafter, the benefit increases by 3% of the current benefit.</p> <p>Public Act 94-0539 allows individuals who have received disability benefits for at least one year to return to teaching on a limited basis if their conditions improve. Disability benefits can continue so long as the combined earnings from teaching and disability benefits do not exceed 100% of the salary rate upon which the disability is based.</p>
Survivor Benefits	<p>In most cases, survivor benefits for Tier 1 members' dependent beneficiaries are 50% of the retired member's benefit. The annual increase is 3% of the current survivor benefit.</p> <p>A dependent beneficiary can elect a lump sum payment instead of a monthly annuity. Nondependent beneficiaries are only eligible for lump sum payments. Refunds of member contributions not already received in retirement benefits are also payable as death benefits.</p>
Post-Retirement Employment	Until June 30, 2021, Tier 1 retirees can teach up to 120 days or 600 hours per year without having their retirement benefits suspended. After that date, the limits return to 100 days or 500 hours.
Contributions to TRS	<p>During FY20, Tier 1 members contributed 9.0% of pay. Of this rate, 7.5% is for retirement benefits, 1.0% is for survivor benefits and 0.5% is for the annual increase.</p> <p>TRS members do not contribute to Social Security or Medicare for TRS-covered employment. However, members who were hired or changed employers after March 31, 1986 and who elected to participate in Medicare during a 2004 referendum do contribute to Medicare.</p>
Contributions for Retiree Health Insurance	During FY20, members contributed 1.24% of pay to the Teachers' Health Insurance Security Fund.
Refunds	After a four-month waiting period from the date last taught, a member ceasing TRS-covered employment may withdraw all contributions except for the 1% survivor benefit contribution. Credit can be re-established if the member returns to a TRS-covered position for one year or to a reciprocal system for two years and repays the refund with interest. A member receiving disability benefits is not eligible for a refund.
Service Credit	A member is granted a maximum of one year of service credit for 170 paid days per school year, defined by statute as July 1 through June 30. Optional service credit is available for periods of public school teaching in other states or under the authority of the United States government; substitute or part-time teaching prior to July 1, 1990; leaves of absence or involuntary layoff; military service; and gaps in teaching due to pregnancy or adoption prior to July 1, 1983. Up to two years of unused, uncompensated sick leave that has been certified by former employers may also be added to service credit at retirement.
Accelerated Benefit Programs (temporary)	<p>Until June 30, 2024, inactive members with five years of TRS service can take a lump-sum payment of 60 percent of the present value of their future benefit payments. Buyout payments are contingent upon sufficient bond proceeds being available.</p> <p>Until June 30, 2024, retiring members can elect to receive 70 percent of the present value of the difference between the current 3 percent compounded annual increase that starts no earlier than age 61 and a 1.5 percent noncompounded annual increase that starts no earlier than age 67. Buyout payments are contingent upon sufficient bond proceeds being available.</p>

Tier 2	
Tier 2 Defined	Members who first contributed to TRS on or after Jan. 1, 2011 and do not have any previous service with one of the other Illinois reciprocal retirement systems are covered by Tier 2.
Retirement Eligibility (vesting)	<p>Tier 2 members who meet the following age and service requirements are eligible to retire:</p> <ul style="list-style-type: none"> • Age 67 with 10 years of service (no reduction) • Age 62 with 10 years of service (reduced 6% for every year the member's age at retirement is under age 67) <p>A member with fewer than five years of service can receive a single sum retirement benefit at age 65.</p>
Retirement Formula	<p>Retirement benefits for Tier 2 members are based on a formula of 2.2% times years of creditable service times final average salary. The maximum benefit is 75% of final average salary.</p> <p>Tier 2 creditable earnings for pension purposes are limited by an amount that is tied to the 2010 Social Security Wage Base (SSWB). The Tier 2 limit increases by 3% or half the increase in the Consumer Price Index, whichever is less. The FY20 Tier 2 limit was \$115,928.92.</p> <p>The final average salary is based on the member's highest eight consecutive years of service out of the last 10.</p> <p>Tier 2 does not provide a money-purchase style "actuarial" benefit.</p>
Post-Retirement Increases	<p>Annual increases will be the lesser of 3% or one-half of the increase in the Consumer Price Index times the original retiree benefit.</p> <p>The first increase is the later of the Jan. 1 following attainment of age 67 or the first anniversary of retirement.</p>
Disability Benefits	Same as Tier 1, including increases.
Survivor Benefits	<p>In most cases, survivor benefits for Tier 2 members' dependent beneficiaries will be 66 2/3% of the retired member's benefit. The annual increase is the lesser of 3% or one-half of the increase in the Consumer Price Index times the original survivor benefit.</p> <p>A dependent beneficiary can elect a lump sum payment instead of a monthly annuity. Nondependent beneficiaries are only eligible for lump sum payments. Refunds of member contributions not already received in retirement benefits are also payable as death benefits.</p>
Post-Retirement Employment	The law suspends a Tier 2 member's retirement benefits if the member accepts full-time employment in a position covered by one of the Illinois reciprocal retirement systems.
Contributions to TRS	<p>During FY20, Tier 2 members also contributed 9.0% of pay, with components designated for the same purposes.</p> <p>Tier 2 members do not contribute to Social Security for their TRS-covered employment but do contribute to Medicare.</p>
Contributions for Retiree Health Insurance	Same as Tier 1.
Refunds	Same as Tier 1.
Service Credit	Same as Tier 1. The purchase of optional service earned before Jan. 1, 2011 does not change a Tier 2 member's status to Tier 1.
Accelerated Benefit Program (temporary)	Until June 30, 2024, inactive members with 10 years of TRS service can take a lump-sum payment of 60 percent of the present value of their future benefit payments. Buyout payments are contingent upon sufficient bond proceeds being available.



Ronna Pflanz

**Family & Consumer Science Educator, Fashion & Textiles Educator
Buffalo Grove High School**

"Twenty-eight students are sewing and assembling face masks from their homes! I deliver materials to them and later pick up and distribute the completed masks. Students who have sewing machines at home are making the masks, while others are cutting fabric and doing prep work. My students are excited to be helping and putting their learned skills to good use when the country needs it. The mask makers started out by answering a request for general-use masks from their local Northwest Community Hospital. They have since expanded their work and are producing surgical masks with special materials provided by the hospital. To date, the mask makers have donated just over 1,000 masks... and they are NOT stopping!"



STATISTICAL

STATISTICAL SECTION

The tables in this section present detailed information on benefit payments and recipients, member and employer contributions, employer contribution rates and the largest TRS employers.

SECTION CONTENTS

10-YEAR FINANCIAL TRENDS – PAGES 112-113

These two schedules contain information that allows the reader to view the change in net position and benefit and refund deductions from net position over a 10-year period. Both schedules help the reader understand the financial changes that have occurred over time.

EMPLOYEE AND EMPLOYER CONTRIBUTION RATES – PAGE 114

This schedule offers information on the contribution rates for employees, the state and employers to the System over a 10-year period.

ACTIVE MEMBERS BY TIER – PAGE 114

This schedule shows the number of members by tier since Tier 2 began in FY11.

RETIRED MEMBERS BY YEARS OF SERVICE AND YEARS IN RETIREMENT – PAGE 115

This schedule shows the number of retirees by their years of service and years in retirement in five-year increments. It also shows their average current monthly benefits and average benefits when they first retired. A column on the right shows the average age of retirees in each “years retired” increment.

DEMOGRAPHICS OF BENEFIT RECIPIENTS AND ACTIVE MEMBERS – PAGE 116-117

These schedules help the reader understand characteristics of the specific groups of benefit recipients and active members of TRS.

BENEFIT RECIPIENTS BY TYPE AND SUMMARY STATISTICS, ALL BENEFIT RECIPIENTS – PAGE 118

This schedule shows counts by benefit type and range. Additional tables show averages by benefit type and retirements by subtype.

AVERAGE BENEFIT PAYMENTS TO NEW RETIREES – PAGE 119

This schedule contains information regarding the average benefits paid to new retirees over a 10-year period. The schedule also allows the reader to view those payments by increments of years of service.

MEDIANS FOR RETIREES – PAGE 119

This schedule shows the median age, median monthly amount, median service credit and retiree count for all and new retirees.

PARTICIPATING EMPLOYERS – PAGE 120

This schedule allows the reader to view the 10 largest participating employers of TRS. The reader can also view the percentages of total membership covered by the largest employers in the current year and nine years ago.

Changes in Net Position Restricted for Pensions, Last 10 Fiscal Years (\$ thousands)

	2020	2019	2018	2017
Additions				
Member contributions*	\$994,400	\$963,972	\$938,037	\$929,130
State of Illinois	4,813,452	4,466,021	4,095,125	3,986,364
Employer contributions**	92,658	88,514	84,633	149,495
Investment income (loss) net of expenses	275,669	2,617,831	4,049,272	5,520,453
Total additions to/reductions from plan net position	6,176,179	8,136,338	9,167,067	10,585,442
Deductions				
Benefit payments	7,035,307	6,745,544	6,458,710	6,152,868
Refunds	64,217	73,216	92,925	285,138
Administrative expenses	22,966	24,336	21,550	22,729
Total deductions from plan net position	7,122,490	6,843,096	6,573,185	6,460,735
Changes in net position restricted for pensions				
Beginning of year	53,262,789	51,969,547	49,375,665	45,250,957
Net increase (decrease)	(946,311)	1,293,242	2,593,882	4,124,708
End of year	\$52,316,478	\$53,262,789	\$51,969,547	\$49,375,665

* Member contributions include contributions for purchases of optional service, early retirement and upgrades to the 2.2 formula.

** Employer contributions include contributions from federal funds and for early retirement, the 2.2 formula, salary increases in excess of 6 percent used in final average salary calculations and excess sick leave used for service credit. Beginning in 2018, contributions on earnings exceeding the governor's statutory salary are also included.

Benefit and Refund Deductions from Net Position by Type, Last 10 Fiscal Years (\$ thousands)

	2020	2019	2018	2017
Type of benefit				
Retirement	\$6,672,267	\$6,405,908	\$6,140,877	\$5,857,968
Survivor	329,872	306,503	285,068	263,430
Disability	33,168	33,133	32,765	31,470
Total benefits	\$7,035,307	\$6,745,544	\$6,458,710	\$6,152,868
Type of refund				
Withdrawals	19,150	23,358	27,356	30,487
Death benefits and excess contribution refunds paid to survivors	18,372	21,172	20,263	19,135
2.2 and optional service	11,082	11,132	13,247	14,185
Survivor contributions refunded to retirees	8,791	8,225	8,839	9,410
Early Retirement Option and other	6,822	9,329	23,220	211,921
Total refunds	\$64,217	\$73,216	\$92,925	\$285,138

2016	2015	2014	2013	2012	2011
\$951,809	\$935,451	\$928,746	\$921,423	\$917,661	\$909,577
3,742,469	3,377,665	3,438,383	2,703,312	2,406,364	2,170,918
148,041	145,591	158,335	157,179	154,895	155,111
(44,103)	1,770,550	6,782,031	4,561,768	224,107	7,234,539
<u>4,798,216</u>	<u>6,229,257</u>	<u>11,307,495</u>	<u>8,343,682</u>	<u>3,703,027</u>	<u>10,470,145</u>
5,848,180	5,536,399	5,225,207	4,893,084	4,553,822	4,228,283
83,027	88,638	95,456	88,398	84,635	76,587
22,968	21,687	21,218	20,257	19,012	17,792
<u>5,954,175</u>	<u>5,646,724</u>	<u>5,341,881</u>	<u>5,001,739</u>	<u>4,657,469</u>	<u>4,322,662</u>
46,406,916	45,824,382	39,858,768	36,516,825	37,471,267	31,323,784
(1,155,959)	582,534	5,965,614	3,341,943	(954,442)	6,147,483
<u>\$45,250,957</u>	<u>\$46,406,916</u>	<u>\$45,824,382</u>	<u>\$39,858,768</u>	<u>\$36,516,825</u>	<u>\$37,471,267</u>

2016	2015	2014	2013	2012	2011
\$5,575,130	\$5,281,221	\$4,986,156	\$4,670,385	\$4,347,173	\$4,036,147
242,578	224,779	208,424	192,390	177,422	163,910
30,472	30,399	30,627	30,309	29,227	28,226
<u>\$5,848,180</u>	<u>\$5,536,399</u>	<u>\$5,225,207</u>	<u>\$4,893,084</u>	<u>\$4,553,822</u>	<u>\$4,228,283</u>
26,797	29,789	33,128	30,194	25,563	22,528
17,094	17,881	20,633	16,764	18,415	16,404
15,074	17,855	19,331	20,053	20,988	19,861
10,458	10,197	10,990	10,780	10,358	10,252
13,604	12,916	11,374	10,607	9,311	7,542
<u>\$83,027</u>	<u>\$88,638</u>	<u>\$95,456</u>	<u>\$88,398</u>	<u>\$84,635</u>	<u>\$76,587</u>

Employee and Employer Contribution Rates, Last 10 Fiscal Years

Fiscal Year	Employee Rate (%) ¹	Employer Rate (%)			Total ⁴
		State ²	School Districts for 2.2 Formula	School Districts from Federal Sources ³	
2011	9.40%	22.38%	0.58%	0.72%	23.68%
2012	9.40	24.06	0.58	0.85	25.49
2013	9.40	27.21	0.58	0.84	28.63
2014	9.40	34.44	0.58	0.97	35.99
2015	9.40	32.42	0.58	0.58	33.58
2016	9.40	35.30	0.58	0.76	36.64
2017	9.00	37.81	0.58	0.73	39.12
2018	9.00	39.22	0.58	0.20	40.02
2019	9.00	41.93	0.58	0.20	42.71
2020	9.00	43.94	0.58	0.21	44.73

1. Employee rate decreased to 9.00 percent in FY17 because the ERO program was discontinued.
2. State contributions rates reflect recertifications and may not agree with original certifications in actuarial reports.
3. Beginning in FY18, the federal contribution rate for salaries paid from federal funds is the same as the total employer normal cost rate. Previously, it was the same as the state contribution rate.
4. Totals shown are rates certified by the TRS Board of Trustees based on estimated payrolls and may not total due to rounding. Actual amounts collected do not equal amounts estimated by actuaries due to differences between estimated and actual payroll.

Active Members by Tier

Fiscal Year	Tier 1		Tier 2		Total - Both Tiers	
	Number	% of Total	Number	% of Total	Number	% of Total
2011	164,030	98.8%	1,983	1.2%	166,013	100.0%
2012	150,996	93.1	11,221	6.9	162,217	100.0
2013	144,297	89.8	16,395	10.2	160,692	100.0
2014	138,260	86.5	21,578	13.5	159,838	100.0
2015	133,147	83.4	26,560	16.6	159,707	100.0
2016	128,107	80.2	31,628	19.8	159,735	100.0
2017	123,630	77.0	36,858	23.0	160,488	100.0
2018	119,333	74.2	41,526	25.8	160,859	100.0
2019	115,839	71.1	47,188	28.9	163,027	100.0
2020	112,004	68.7	51,111	31.3	163,115	100.0

Note: Tier 2 membership began Jan. 1, 2011.

Retired Members by Years of Service and Years in Retirement as of June 30, 2020*

Years Retired		Years of Service											Weighted Average	Avg. Age
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+		
Under 1	Retirees	132	289	252	330	562	504	576	690	37	8	2	3,382	61
	Avg. current benefit	\$299	\$800	\$1,444	\$2,431	\$3,434	\$4,522	\$5,777	\$6,645	\$7,094	\$9,818	\$10,957	\$4,116	
	Avg. orig. benefit	\$299	\$798	\$1,441	\$2,425	\$3,424	\$4,510	\$5,775	\$6,645	\$7,094	\$9,818	\$10,957	\$4,112	
1 - 4	Retirees	822	1,377	1,506	1,820	2,507	2,378	2,682	3,320	300	47	7	16,766	64
	Avg. current benefit	\$287	\$799	\$1,569	\$2,632	\$3,629	\$4,871	\$6,161	\$6,963	\$8,124	\$10,201	\$11,812	\$4,283	
	Avg. orig. benefit	\$267	\$744	\$1,467	\$2,474	\$3,431	\$4,609	\$5,858	\$6,752	\$7,580	\$9,570	\$11,174	\$4,083	
5 - 9	Retirees	1,141	2,166	2,137	2,185	3,428	3,219	4,139	5,896	554	89	14	24,968	68
	Avg. current benefit	\$337	\$899	\$1,720	\$2,736	\$3,836	\$5,187	\$6,695	\$7,375	\$8,377	\$9,447	\$14,821	\$4,755	
	Avg. orig. benefit	\$274	\$731	\$1,404	\$2,250	\$3,167	\$4,270	\$5,499	\$6,066	\$6,839	\$7,785	\$12,105	\$3,909	
10 - 14	Retirees	888	1,657	1,498	1,485	2,370	2,376	5,682	5,409	339	54	5	21,763	71
	Avg. current benefit	\$360	\$857	\$1,634	\$2,766	\$3,908	\$5,294	\$7,116	\$7,604	\$8,183	\$8,850	\$12,475	\$5,285	
	Avg. orig. benefit	\$254	\$608	\$1,157	\$1,967	\$2,780	\$3,763	\$5,012	\$5,449	\$5,794	\$6,366	\$8,974	\$3,755	
15 - 19	Retirees	764	948	970	874	2,088	2,526	10,862	4,016	250	37	4	23,339	75
	Avg. current benefit	\$331	\$837	\$1,619	\$2,684	\$3,769	\$5,312	\$7,303	\$7,985	\$7,857	\$8,536	\$8,611	\$5,997	
	Avg. orig. benefit	\$202	\$512	\$993	\$1,653	\$2,334	\$3,293	\$4,540	\$4,935	\$4,839	\$5,310	\$5,266	\$3,719	
20 - 24	Retirees	480	479	384	360	917	1,005	2,250	1,688	197	10	-	7,770	80
	Avg. current benefit	\$387	\$846	\$1,339	\$2,303	\$3,338	\$4,907	\$6,848	\$7,661	\$7,877	\$7,683	-	\$5,135	
	Avg. orig. benefit	\$207	\$446	\$710	\$1,233	\$1,808	\$2,664	\$3,777	\$4,141	\$4,065	\$4,164	-	\$2,792	
25 - 29	Retirees	194	257	307	259	584	1,014	1,582	2,856	4,012	6	2	11,073	83
	Avg. current benefit	\$308	\$837	\$1,286	\$1,752	\$2,540	\$3,245	\$4,298	\$5,674	\$6,497	\$5,975	\$4,824	\$4,968	
	Avg. orig. benefit	\$141	\$380	\$575	\$788	\$1,137	\$1,477	\$1,967	\$2,621	\$3,035	\$2,751	\$2,074	\$2,299	
30 - 34	Retirees	59	103	179	198	633	519	688	454	20	1	-	2,854	90
	Avg. current benefit	\$283	\$633	\$1,198	\$1,825	\$2,560	\$3,498	\$5,078	\$6,123	\$7,298	\$7,462	-	\$3,686	
	Avg. orig. benefit	\$109	\$238	\$467	\$715	\$1,023	\$1,396	\$2,034	\$2,450	\$2,985	\$3,025	-	\$1,473	
35 - 39	Retirees	11	14	57	62	224	188	205	138	3	-	-	902	94
	Avg. current benefit	\$261	\$490	\$970	\$1,448	\$2,091	\$2,996	\$4,060	\$5,615	\$4,828	-	-	\$3,113	
	Avg. orig. benefit	\$89	\$152	\$322	\$488	\$718	\$1,046	\$1,419	\$1,985	\$1,688	-	-	\$1,085	
40 - 44	Retirees	5	1	4	7	49	32	25	23	3	-	-	149	98
	Avg. current benefit	\$200	\$406	\$839	\$1,325	\$1,427	\$2,188	\$2,877	\$3,429	\$3,805	-	-	\$2,122	
	Avg. orig. benefit	\$60	\$14	\$244	\$389	\$414	\$672	\$896	\$1,065	\$1,189	-	-	\$646	
45 - 49	Retirees	-	-	-	2	3	1	2	3	-	-	-	11	103
	Avg. current benefit	-	-	-	\$1,510	\$1,356	\$1,389	\$1,570	\$2,658	-	-	-	\$1,781	
	Avg. orig. benefit	-	-	-	\$327	\$355	\$334	\$383	\$702	-	-	-	\$448	
Total retirees		4,496	7,291	7,294	7,582	13,365	13,762	28,693	24,493	5,715	252	34	112,977	
Avg. current benefit		\$333	\$848	\$1,591	\$2,608	\$3,593	\$4,885	\$6,759	\$7,233	\$6,976	\$9,177	\$12,311	\$5,027	
Avg. orig. benefit		\$242	\$640	\$1,209	\$2,032	\$2,693	\$3,586	\$4,633	\$5,224	\$3,945	\$7,233	\$9,991	\$3,549	

* Represents monthly benefit

**Demographics of Benefit Recipients and Active Members as of June 30, 2020
(excludes inactive members)**

Age	Retirees			Disability Benefit Recipients			Survivors		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 20	-	-	-	-	-	-	39	13	52
20-24	-	-	-	-	-	-	6	4	10
25-30	-	-	-	-	1	1	-	-	-
30-34	-	-	-	-	6	6	3	7	10
35-39	-	-	-	2	22	24	10	9	19
40-44	-	-	-	2	45	47	8	35	43
45-49	-	-	-	17	76	93	23	34	57
50-54	8	10	18	23	140	163	38	68	106
55-59	996	2,867	3,863	34	144	178	84	137	221
60-64	3,043	11,534	14,577	29	121	150	171	295	466
65-69	5,666	21,123	26,789	19	110	129	325	701	1,026
70-74	8,615	21,356	29,971	21	89	110	636	1,253	1,889
75-79	6,232	12,259	18,491	13	44	57	659	1,626	2,285
80-84	3,509	6,518	10,027	6	26	32	510	1,658	2,168
85-89	2,039	3,628	5,667	4	21	25	505	1,450	1,955
90+	973	2,601	3,574	1	7	8	372	1,248	1,620
Total:	31,081	81,896	112,977	171	852	1,023	3,389	8,538	11,927

Actives			Total Retirees, Disabled, Survivors and Active Members			Percent Distribution of Retirees, Disabled, Survivors and Active Members		
Male	Female	Total	Male	Female	Total	Male	Female	Total
-	7	7	39	20	59	66%	34%	100%
1,021	4,241	5,262	1,027	4,245	5,272	19	81	100
3,246	12,345	15,591	3,246	12,346	15,592	21	79	100
4,768	16,055	20,823	4,771	16,068	20,839	23	77	100
6,140	19,703	25,843	6,152	19,734	25,886	24	76	100
6,278	20,435	26,713	6,288	20,515	26,803	23	77	100
5,752	18,638	24,390	5,792	18,748	24,540	24	76	100
4,867	16,035	20,902	4,936	16,253	21,189	23	77	100
3,050	10,824	13,874	4,164	13,972	18,136	23	77	100
1,234	4,744	5,978	4,477	16,694	21,171	21	79	100
767	1,728	2,495	6,777	23,662	30,439	22	78	100
394	527	921	9,666	23,225	32,891	29	71	100
131	131	262	7,035	14,060	21,095	33	67	100
25	20	45	4,050	8,222	12,272	33	67	100
3	2	5	2,551	5,101	7,652	33	67	100
2	2	4	1,348	3,858	5,206	26	74	100
37,678	125,437	163,115	72,319	216,723	289,042	25	75	100

Benefit Recipients by Type as of June 30, 2020

Monthly Benefit Range	Number of Recipients (all)	Type of Monthly Benefit				Subtypes of Age Retirement Benefit							
		Retirement	Disability Retirement	Non-occupational Disability	Occupational Disability	Survivor Monthly Benefits	Regular 2.2 Flat Formula	Graduated Formula	Actuarial Benefit Style	ERO (2.2 & Grad. Form.)	ERI (State or TRS)	Other	Retirement Total
Under \$500	6,500	5,599	3	1	-	897	1,280	1,403	2,915	-	-	1	5,599
\$500 - \$999	6,968	5,400	32	1	-	1,535	921	1,135	3,301	8	24	11	5,400
\$1,000 - \$1,499	6,438	4,944	70	2	-	1,422	958	1,250	2,597	51	72	16	4,944
\$1,500 - \$1,999	6,512	4,790	251	37	-	1,434	1,207	1,151	2,044	182	186	20	4,790
\$2,000 - \$2,499	6,890	5,127	183	45	1	1,534	1,596	1,074	1,687	482	269	19	5,127
\$2,500 - \$2,999	7,225	5,576	95	41	1	1,512	2,121	872	1,309	843	416	15	5,576
\$3,000 - \$3,499	6,958	5,645	62	37	1	1,213	2,357	655	995	1,053	562	23	5,645
\$3,500 - \$3,999	7,009	6,120	36	17	1	835	2,825	513	783	1,282	686	31	6,120
\$4,000 - \$4,499	7,417	6,781	20	9	-	607	3,334	447	635	1,566	752	47	6,781
\$4,500 - \$4,999	7,815	7,402	16	5	-	392	3,688	511	558	1,818	762	65	7,402
\$5,000 - \$5,499	7,813	7,559	11	4	-	239	3,797	543	443	1,990	717	69	7,559
\$5,500 - \$5,999	7,706	7,575	10	-	-	121	3,732	588	413	2,008	724	110	7,575
\$6,000 - \$6,499	7,060	6,973	8	-	1	78	3,440	539	319	2,007	574	94	6,973
\$6,500 - \$6,999	6,347	6,300	7	-	-	40	3,077	580	253	1,880	416	94	6,300
\$7,000 - \$7,499	5,035	5,002	6	-	-	27	2,506	499	194	1,383	349	71	5,002
\$7,500 - \$7,999	4,324	4,304	3	-	-	17	2,081	517	126	1,204	301	75	4,304
\$8,000 - \$8,499	3,784	3,774	2	-	-	8	1,890	399	119	1,016	290	60	3,774
\$8,500 - \$8,999	3,120	3,117	1	-	-	2	1,496	342	101	905	216	57	3,117
\$9,000 - \$9,499	2,591	2,583	1	-	-	7	1,202	314	46	813	164	44	2,583
\$9,500 - \$9,999	2,202	2,200	1	-	-	1	985	294	56	723	108	34	2,200
\$10,000 or more	6,213	6,206	1	-	-	6	2,790	887	176	1,917	284	152	6,206
Total benefit recipients:	125,927	112,977	819	199	5	11,927	47,283	14,513	19,070	23,131	7,872	1,108	112,977

Summary Statistics, all Benefit Recipients, as of June 30, 2020

	Age Retirement	Disability Benefits (3 types)	Survivor Benefits
Average Monthly Benefit	\$5,027	\$2,572	\$2,350
Average Age	72	60	78
Average Service Credit	27	16	-
Average Years Receiving Benefits	13	11	10

Percentage of Retirement Benefits by Subtype						
Regular 2.2 Flat Form.	Graduated Formula	Actuarial Benefit Style	ERO (2.2 & Grad. Form.)	ERI (State or TRS)	Other	Retirement Total
42%	13%	17%	20%	7%	1%	100%

Average Benefit Payments for New Retirees, Last 10 Fiscal Years

Retirement Effective Dates		Years of Service									All FY Retirees	Avg. Age all FY Retirees	Avg. Service all FY Retirees
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+			
Period July 1, 2019 through June 30, 2020	Average monthly benefit	\$299	\$798	\$1,438	\$2,422	\$3,423	\$4,510	\$5,775	\$6,645	\$7,722	\$4,107		
	Average final average salary	\$60,000	\$37,357	\$53,528	\$72,714	\$85,210	\$92,968	\$99,237	\$105,866	\$103,561	\$84,533	age	25
	Number of retired members	132	290	254	332	564	504	576	690	47	3,389	61	years
Period July 1, 2018 through June 30, 2019	Average monthly benefit	\$222	\$806	\$1,480	\$2,528	\$3,484	\$4,708	\$5,976	\$6,941	\$8,106	\$4,366		
	Average final average salary	\$50,646	\$40,502	\$54,277	\$76,259	\$86,859	\$95,751	\$103,192	\$110,647	\$114,482	\$88,551	age	25
	Number of retired members	131	210	289	417	524	493	599	768	65	3,496	61	years
Period July 1, 2017 through June 30, 2018	Average monthly benefit	\$257	\$735	\$1,529	\$2,558	\$3,405	\$4,633	\$6,048	\$6,954	\$8,000	\$4,316		
	Average final average salary	\$52,883	\$41,137	\$58,671	\$77,377	\$84,015	\$95,035	\$104,219	\$111,051	\$118,480	\$88,392	age	25
	Number of retired members	154	269	337	423	585	576	633	855	73	3,905	61	years
Period July 1, 2016 through June 30, 2017	Average monthly benefit	\$272	\$787	\$1,482	\$2,497	\$3,457	\$4,589	\$5,770	\$6,581	\$7,733	\$4,162		
	Average final average salary	\$59,017	\$44,909	\$56,887	\$74,590	\$85,524	\$93,583	\$99,597	\$104,930	\$111,419	\$86,183	age	25
	Number of retired members	184	255	351	426	615	587	666	816	102	4,002	61	years
Period July 1, 2015 through June 30, 2016	Average monthly benefit	\$287	\$715	\$1,461	\$2,407	\$3,453	\$4,595	\$5,710	\$6,496	\$7,728	\$4,130		
	Average final average salary	\$63,114	\$37,543	\$55,895	\$70,973	\$84,277	\$91,799	\$97,075	\$103,177	\$110,395	\$84,256	age	25
	Number of retired members	193	289	330	429	660	630	728	832	107	4,198	61	years
Period July 1, 2014 through June 30, 2015	Average monthly benefit	\$262	\$744	\$1,499	\$2,338	\$3,342	\$4,331	\$5,641	\$6,237	\$7,003	\$3,977	age	25
	Average final average salary	\$55,476	\$39,421	\$56,937	\$69,664	\$81,069	\$87,776	\$95,675	\$99,309	\$100,159	\$81,522	61	years
	Number of retired members	185	277	325	466	651	591	647	882	94	4,118		
Period July 1, 2013 through June 30, 2014	Average monthly benefit	\$273	\$775	\$1,461	\$2,267	\$3,214	\$4,349	\$5,602	\$6,118	\$7,027	\$4,058	age	26
	Average final average salary	\$54,810	\$46,277	\$52,702	\$67,862	\$78,513	\$88,108	\$94,508	\$97,649	\$102,670	\$81,542	61	years
	Number of retired members	173	313	348	403	695	574	774	1,037	133	4,450		
Period July 1, 2012 through June 30, 2013	Average monthly benefit	\$279	\$771	\$1,424	\$2,237	\$3,179	\$4,232	\$5,396	\$6,066	\$7,369	\$4,070	age	26
	Average final average salary	\$59,313	\$42,291	\$49,881	\$66,108	\$76,095	\$83,918	\$90,517	\$96,245	\$101,109	\$79,689	61	years
	Number of retired members	149	298	353	391	673	664	750	1,115	142	4,535		
Period July 1, 2011 through June 30, 2012	Average monthly benefit	\$271	\$787	\$1,426	\$2,354	\$3,159	\$4,310	\$5,568	\$6,214	\$7,273	\$4,292	age	27
	Average final average salary	\$63,513	\$49,970	\$53,199	\$68,176	\$76,104	\$85,929	\$92,839	\$98,975	\$103,131	\$83,346	60	years
	Number of retired members	215	358	375	380	620	702	923	1,516	177	5,266		
Period July 1, 2010 through June 30, 2011	Average monthly benefit	\$281	\$712	\$1,317	\$2,171	\$2,989	\$4,097	\$5,190	\$5,708	\$6,527	\$3,984	age	27
	Average final average salary	\$59,267	\$40,317	\$48,191	\$62,212	\$71,841	\$81,416	\$86,636	\$91,033	\$92,605	\$76,805	60	years
	Number of retired members	160	328	349	357	599	562	905	1,359	134	4,753		

Medians for Retirees as of June 30, 2020

	Median Age	Median Monthly Benefit	Median Service Credit	Retiree Count
All retirees	72	\$4,940	31	112,977
New retirees	61	\$4,002	26	3,389

Principal Participating Employers

Participating Employer	City	Year ended June 30, 2020			Year ended June 30, 2011		
		Rank	Covered Employees (including subs)	Percentage of Total TRS Membership	Rank	Covered Employees	Percentage of Total TRS Membership
School District U46	Elgin	1	3,195	2.0%	1	2,838	1.7%
Indian Prairie CUSD 204	Naperville	2	2,543	1.6	2	2,635	1.6
Plainfield SD 202	Plainfield	3	2,386	1.5	3	2,431	1.5
Rockford School District 205	Rockford	4	2,131	1.3	4	2,302	1.4
Community USD 300	Algonquin	5	1,878	1.2	7	1,619	1.0
Naperville CUSD 203	Naperville	6	1,865	1.1	5	1,769	1.1
Oswego CUSD 308	Oswego	7	1,843	1.1	-	-	-
Schaumburg CCSD 54	Schaumburg	8	1,735	1.1	9	1,500	0.9
Valley View CUSD 365	Romeoville	9	1,725	1.1	8	1,563	0.9
Springfield SD 186	Springfield	10	1,427	0.9	6	1,641	1.0
Waukegan CUSD 60	Waukegan	-	-	-	10	1,416	0.9
Total, largest 10 employers			20,728	12.7%		19,714	11.9%
All Other (980 employers in 2020*; 1,019 employers in 2011)			142,387	87.3%		146,299	88.1%
Grand total			163,115	100.0%		166,013	100.0%

*Other Employers by Type as of June 30, 2020	Number of Other Employers	Other Covered Employees
Local school districts	841	135,606
Special districts	129	6,077
State agencies	10	704
Total, all employers other than largest 10	980	142,387

Total Employers by Type as of June 30, 2020	Total Number of Employers	Total Covered Employees
Local school districts	851	156,334
Special districts	129	6,077
State agencies	10	704
Total, all employers	990	163,115



The High Cost of the Pandemic

Beyond the closing of Illinois schools in March and the cancellation of celebrations marking the traditional end of the school year, the coronavirus has inflicted significant tragedy on education and the TRS membership.

At press time, 177 TRS members have died because of COVID-19 or complications related to the virus. So far, the youngest died in August at age 35. The oldest died at age 101 on Nov. 3, 2020.

The vast majority of these deceased members were retired. But each of them represents the loss of a bright and shining light to their families, friends and communities, as well as their profession.

As we do with all TRS members who pass on, we honor their lives and careers knowing that their talent and dedication helped mold a bright future for Illinois.