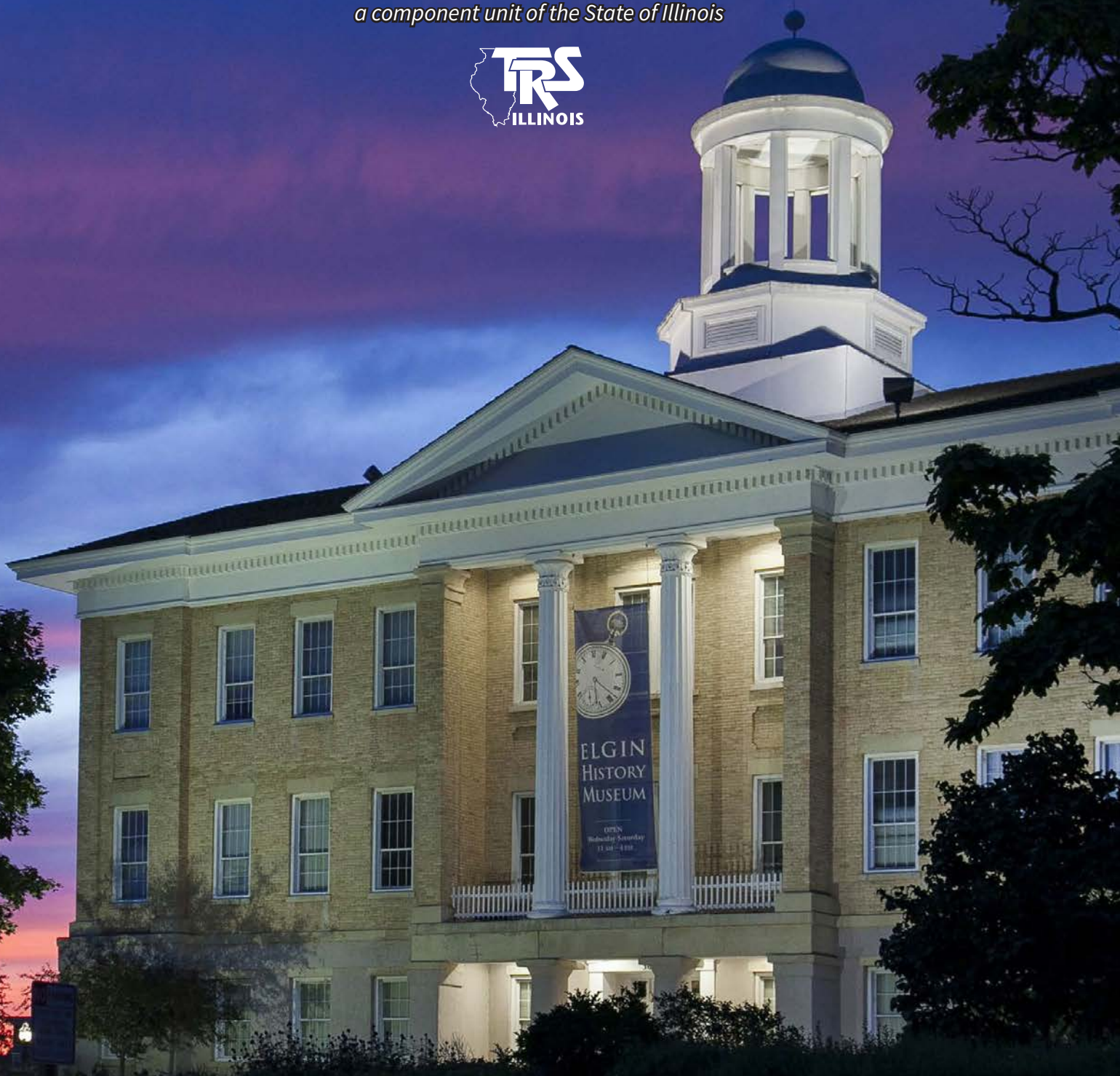


TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS

a component unit of the State of Illinois



COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Fiscal Year Ended June 30, 2017

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 interest of others first
- Diversity
- Teamwork
- Continuous improvement

FISCAL YEAR 2017 HIGHLIGHTS

	As of June 30, 2017
Active contributing members	160,488
Inactive noncontributing members	131,812
Benefit recipients*	120,151
Total membership	412,451
Investment return	
Total fund investment return, net of fees	12.6%
For funding purposes	
Actuarial accrued liability (AAL)	\$122,904,034,268
Less actuarial value of assets (smoothed assets)	49,467,525,209
Unfunded actuarial accrued liability	\$73,436,509,059
Funded ratio (% of AAL covered by assets, based on smoothed assets)	40.2%
For financial disclosure	
Total pension liability (TPL)	\$125,773,806,438
Less fiduciary net position (FNP)	49,375,664,518
Net pension liability (NPL)	\$76,398,141,920
FNP as a percentage of TPL	39.3%
Income	
Member contributions	\$929,130,165
Employer contributions	149,495,577
State of Illinois contributions	3,986,363,699
Total investment income	5,520,453,001
Total income	\$10,585,442,442
Expenses	
Benefits paid	\$6,152,867,751
Refunds paid	285,138,169
Administrative expenses	22,728,735
Total expenses	\$6,460,734,655

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

PREFACE

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 | <http://www.trsil.org>

COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2017

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



Peoria Riverfront Museum

Established in 2012, the Peoria Riverfront Museum brings together a wide-ranging collection of exhibits, many with connections to the greater Peoria area. The museum explores the ecology and importance of the Illinois River and contains one of the first mass-produced, gasoline-powered cars in the United States – the Peoria Duryea Motor Trap. The complex includes a planetarium, a sculpture garden, an interactive “Discovery Worlds” area for children as well as artifacts and displays outlining the history of Peoria.

222 SW Washington Street, Peoria | www.peoriariverfrontmuseum.org



Photo credit: David Siede/DefinedSpace.com

Illinois Holocaust Museum and Education Center

The guiding theme of the Illinois Holocaust Museum and Education Center, established in 2009, is “Remember the Past, Transform the Future.” With more than 65,000 square feet and 500 artifacts, documents and photos, the museum guides visitors through the horror of the Holocaust during World War II, as well as genocides that have plagued the world in more recent history. The museum honors the millions of victims that perished during the Holocaust, as well as the courage of survivors. 9603 Woods Drive, Skokie | www.ilholocaustmuseum.org

LEARNING BEYOND THE CLASSROOM FIELD TRIP!

For generations of school children, those words are magic.

Leaving their familiar classroom to visit a museum, nature center, historic site or place of business has always generated excitement.

For generations of Illinois teachers, field trips have always created challenges – shepherding their flocks safely in strange environments and bringing the lessons of the excursion back to the classroom.

But for everyone, there’s little doubt that exposing students to unique, in-person experiences stimulates learning and can trigger motivation for the future.

The State of Illinois is blessed with a multitude of educational opportunities that enrich students of all ages. From historic sites that have existed since prehistoric times to monuments and museums that bring to life local, national and international events, Illinois students can immerse themselves in the past, relive the wonder of discovery and even get a glimpse of what the future may hold for them.

Within this *Comprehensive Annual Financial Report* for fiscal year 2017, Teachers’ Retirement System is proud to highlight just a few of the places in Illinois that help teachers and students extend learning beyond the classroom.

Elgin History Museum (on the cover)

Housed in an 1856 building that used to serve as the “Old Main” of Elgin Academy campus, the museum traces the cultural, commercial and community history of Elgin since its settlement in 1832 on the stagecoach route between Chicago and Galena. Exhibits include an extensive collection of Native American artifacts and memorabilia from the nationally-famous Elgin National Watch Company. 360 Park Street, Elgin | <https://elginhistory.org>



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INTRODUCTION



William Fithian Home / Vermilion County Museum

In September of 1858, Abraham Lincoln brought his ill-fated campaign for the U.S. Senate to Danville and the home of Dr. William Fithian, who had been a friend since their days together in the Illinois General Assembly. Following a political rally, Lincoln climbed through a second-floor window and spoke from a balcony to a crowd gathered outside. Today, students can see the bed that Lincoln slept in during his visit and walk on the same floorboards that the future president trod 159 years ago. The Fithian Home is adjacent to the Vermilion County Museum, which is designed to resemble the old county courthouse built in 1833.

116 North Gilbert Street, Danville | www.vermilioncountymuseum.org







Public Pension Coordinating Council

***Recognition Award for Administration
2017***

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 cursive script that reads "Alan H. Winkle".

Alan H. Winkle
Program Administrator



TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS

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

Richard W. Ingram, Executive Director

<http://www.trsil.org>

877-927-5877 (877) 9-ASK-TRS

LETTER OF TRANSMITTAL

December 12, 2017

To the 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, 2017. This report highlights the on-going work of TRS trustees and staff to be widely recognized as a premier public retirement system in the United States with an absolute commitment to its members, a dedication to the highest standards of service, public accountability and the ability to overcome any challenge.

RESPONSIBILITIES OF TODAY

For 78 years, TRS has consistently fulfilled its statutory mission to deliver the retirement security promised by the State of Illinois to all of its members. During FY17:

- TRS distributed \$6.2 billion in retirement, disability and survivor benefits to more than 120,000 annuitants and beneficiaries.
- TRS benefit payments largely stayed in Illinois and created economic activity throughout the state that helped support more than 41,000 jobs. These jobs have an estimated payroll of \$1.6 billion. In all, economic models show that TRS benefits created a \$3.8 billion economic boost to the State of Illinois.
- TRS investments continued to perform well over the short-term and long-term. The TRS portfolio recorded a positive 12.6 percent rate of return, net of fees, during FY 2017, which exceeded the System's investment benchmark of 11.4 percent. The portfolio's 30-year annualized return rate was a positive 8.1 percent, net of fees. This exceeded the 7 percent long-term actuarial return assumption established by the Board.
- TRS successfully handled more than 1 million telephone calls, emails, other correspondence and counseling sessions with members and employers.

TRS maintained its focus on its members in FY17 despite the uncertainty that accompanied a prolonged partisan dispute between the executive and legislative branches of state government over the enactment of a state budget. In early July 2017, the General Assembly enacted a budget for FY18 after two fiscal years without a legal spending outline.

TRS fared better during the dispute than most state government entities because its operations are self-funded and the annual contribution from the state to fund benefits is automatically approved by a continuing appropriation. TRS received its full statutorily-required funding contribution for FY17 of \$4.0 billion.

However, despite the enactment of a new state budget for FY18, the dispute compounded existing revenue and spending problems that have plagued state government for the last decade. Bringing long-term fiscal

order to Illinois will require a reconfiguration of many programs and services and a potential reduction in funding for state operations. As part of the budget agreement, several substantial changes were made to the state's Pension Code that are intended to reduce the cost of public pensions to state government and, over time, to fundamentally change the state's retirement promise to future TRS members.

CHALLENGES FOR THE FUTURE

Provisions in the FY18 budget legislation affecting TRS create a Tier III hybrid retirement plan that would include a defined benefit pension supplemented by a defined contribution plan. The details of implementing Tier III are currently under review. After Tier III is implemented, all new hires will be covered by the new plan unless they elect to participate in Tier II. The earliest possible effective date for Tier III is July 1, 2019.

In addition, new laws were enacted that change the statutory calculation of the state's annual contribution to fund benefits.

- Beginning in FY18, TRS must smooth, over a five-year period, the fiscal effect of any changes made to the TRS actuarial assumptions made since 2012. This has the effect of reducing the FY18 state contribution by approximately \$500 million.
- School districts will assume a greater share of the cost of a member's pension by paying a contribution on the portion of a member's salary greater than the governor's statutory salary, which in FY17 was \$177,412.
- For teachers whose salaries are funded by federal grants, school districts will contribute to TRS an amount equal to the employer's normal cost, and not legacy costs attributable to the TRS unfunded liability, as had been the case.

It is worth noting that as TRS tackles these challenges, turnover on the TRS Board of Trustees has been significant. Two appointed seats on the 13-member Board are currently open, four new trustees were appointed in FY17 and several elected members have relatively short tenures.

The long-term funded status of TRS continues to be among the worst in the nation. At the end of FY17, the System's funded ratio was 40.2 percent, on an actuarial basis, with a long-term unfunded liability of \$73.4 billion. The unfunded obligations owed to members have increased by 544 percent since 2000.

For purposes of financial disclosure, the plan fiduciary net position as a percentage of the total pension liability was 39.3 percent with a net pension liability of \$76.4 billion. TRS ranks as the 82nd largest pension fund in the world when measured by assets under management with a net position of \$49.4 billion at the end of FY17. However, if TRS was fully funded, the System would rank within the top 20 pension systems worldwide and among the top 10 U.S. funds.

Since TRS was founded in 1939, the State of Illinois has never, in any year, funded the System at a level that standard actuarial practice would define as sufficient to pay its full share of the annual normal cost. This is troubling because the investment returns from the TRS portfolio are not enough to fill the funding gap. TRS is dependent on the state's annual contribution for its future solvency. The contribution in FY17 was \$4.0 billion, which is approximately 10 percent of the state's total General Funds appropriation. The size of the allocation to TRS is a self-inflicted problem. Approximately 80 percent of the state's \$4.0 billion annual contribution to TRS in FY17 was dedicated to paying off a portion of the System's unfunded liability. Had the state funded TRS on a sound, actuarial basis over the years, the state would have owed approximately \$800 million for TRS pension costs in FY17, leaving \$3.2 billion available for other spending priorities.

While TRS remains an influential institutional investor, over time its growing unfunded liability threatens the System's ability to continue to earn the investment returns that are vital to the security of TRS.

In FY17, all 199 TRS staff remained committed to the goal of unparalleled customer service for its 412,451 members and 989 employers. The System's Member Services Department processed approximately 9,000 benefit applications for members, held close to 6,800 individual member counseling sessions and calculated nearly 49,000 initial benefit estimates upon request. The TRS Employers Services Department processed annual reports from 989 employers covering approximately 160,500 active members and conducted audits of 90 school districts to ensure compliance with all laws, rules and standards. TRS staff initiated or received more than 790,000 letters, 211,000 telephone calls and 23,000 emails from employers and members or their families.

TRS remained dedicated to the prudent use of the System's assets to perform required duties and activities on behalf of its members. Administrative expenses for all of TRS decreased by 1 percent during FY17 to \$22.7 million, or 0.04 percent of all TRS assets. Total expenses to manage the investment portfolio increased by 3.8 percent to \$779.6 million, or 1.59 percent of all TRS investments.

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. A 13-member Board of Trustees governs TRS. The Board includes the state superintendent of education, six representatives of the public who are appointed by the governor, four members of TRS who are elected by active teachers, and two retired members who are elected by annuitants. The Board of Trustees appoints the executive director, who is responsible for the effective administration of TRS.

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

FINANCIAL INFORMATION

Our 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 us monitor and safeguard assets and promote efficient operations. Each year TRS's financial statements, records, and internal controls are examined 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.

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.

REVENUES AND EXPENSES

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

Revenues (\$ millions)

Source	2017	2016	Increase/(Decrease)	
			Amount	% Change
Member contributions	\$929	\$952	(\$23)	(2.4%)
State of Illinois	3,986	3,742	244	6.5
Employer contributions	149	148	1	1.0
Total investment income/(loss)	5,521	(44)	5,565	12,617.1
Total	<u>\$10,585</u>	<u>\$4,798</u>	<u>\$5,787</u>	120.6%

Expenses (\$ millions)

	2017	2016	Increase/(Decrease)	
			Amount	% Change
Benefits payments	\$6,153	\$5,848	\$305	5.2%
Refunds	285	83	202	243.4
Administrative/other	23	23	-	-
Total	<u>\$6,461</u>	<u>\$5,954</u>	<u>\$507</u>	8.5%

The TRS Board of Trustees and staff remain vigilant in our efforts to improve the retirement system's funded status for current and future members. We continue to invest prudently and in a disciplined manner for the benefit of our 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 our circumstances.

INVESTMENTS

The TRS investment portfolio returned 12.6 percent, net of fees, for the fiscal year ended June 30, 2017. Total investment assets increased approximately \$3,547 million 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. 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 Investment Section of this report contains a summary of the portfolio and investment activities. Pages 80 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, 2017, the funded ratio based on the actuarial value of assets of the Teachers' Retirement System increased to 40.2 percent from its June 30, 2016 level of 39.8 percent. The actuarial value of assets at year end was \$49.5 billion and the actuarial accrued liability was \$122.9 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

WEB-BASED MEMBER REFUNDS

TRS successfully implemented one of its most daunting information technology projects in recent memory – the conversion of systems and processes required by the sunset of the System's Early Retirement Option

(ERO) in July of 2016. More than 200,000 members were eligible for the refund, which presented a tremendous challenge for the System in receiving, processing, recording and authorizing payment.

TRS set up an online application system to process the requests for ERO Sunset Refunds, a task made more difficult because members have the option of receiving a cash payment or rolling over the refund into a separate retirement account. TRS processed 98,990 ERO Sunset Refunds totaling more than \$201 million during FY17. Of those requests, 71 percent were completed entirely through the online application system.

With this ERO legislative change, the member contribution rate decreased from 9.4 percent to 9.0 percent.

COMMITMENT TO DIVERSITY

TRS continues to strengthen its existing commitment to diversity within the management of its \$49.2 billion investment portfolio. The TRS Board of Trustees has made a commitment to improving access to the investment program for qualified firms owned by women, minorities and those with disabilities, called Women/Minority Business Enterprises (WMBE). The System hosts an annual Opportunity Forum that is the cornerstone of these efforts.

TRS assets managed by WMBE firms totaled \$8.9 billion or 18.2 percent of total plan assets, exceeding the participation goal of 17 percent. TRS continues to benefit from relationships started within the System's Emerging Manager Program, as well as continued growth in minority managers within the main portfolio.

The System's commitment to diversity is not limited to its investment practices. TRS also seeks to increase diversity among vendors providing administrative goods and services. As of June 30, 2017, 18.6 percent of expenditures subject to the goal were paid to business enterprise vendors, far exceeding the goal of 10 percent. The goal for FY18 remains at 10 percent with a long-term goal of 20 percent.

WEBSITE REDESIGN

TRS planned, designed and developed a website that is easy to navigate and more intuitive than previous versions. TRS received input from staff, members, stakeholders and colleagues in the public pension community. This information was used to build an inviting, efficient and uncomplicated website. The new design is geared toward helping members complete specific tasks and will grow over time to provide members with other services to simplify their business with TRS.

DOMAIN NAME CHANGE AND EMAIL ADDRESS CHANGE

In June, TRS changed its internet domain name from trs.illinois.gov to www.trsil.org. This was a significant and far-reaching initiative that essentially submitted a change of address to the worldwide web. The change will afford TRS greater flexibility as the System moves forward in modernizing its technology.

TELECOM AND DATA CONNECTION TRANSFER

TRS enhanced its data and telecom services through a new relationship with AT&T, which is administered independently of the state government system. As a result of this new relationship, TRS changed all internal and external phone numbers, along with all toll-free numbers. This change increases TRS's ability to continue operations in the event of a disaster, provides greater flexibility to network changes, increases capacity and reduces the overall costs associated with providing these services.

BENCHMARKING

TRS completed its fourth consecutive annual benchmarking study as a client of CEM Benchmarking, Inc. of Toronto, Canada, an international consulting firm that provides public pension systems with a variety of metrics to help leaders determine how well their systems are performing compared to peers. These metrics

analyze operations, member services, and information technology. TRS also completed its third year of participation in CEM's investment benchmarking study.

TRS operational costs remain below the peer average while service scores continue to achieve steady and significant improvement. Call wait times have declined and staff productivity remains higher than our peer average. For the investment portfolio, the CEM study showed that TRS returns exceed the U.S. peer median while the asset risk for the TRS portfolio was lower than that of our U.S. peers.

ON-GOING TECHNOLOGY PROJECTS

Custom benefit solution – During FY17, the State of Illinois outsourced the administration of the government's group health insurance plans to a third-party vendor. This was a decision beyond the control of TRS and affected the System's retired members, along with the members of other state pension systems and active government employees.

However, since the October 1, 2016 conversion date, there have been serious and recurring problems with the transition of the insurance administration. As this letter is written, TRS still is not able to process a complete monthly benefit payroll through the third-party administrator. Only an extraordinary effort by TRS staff mitigated the impact of the change on the System's members. This unplanned use of staff time, however, created a significant drain on TRS resources and delayed the planned start of the following projects.

Pension Administration System (PAS) – During FY17, TRS began a thorough study of the System's internal Pension Administration System, known as STAR. The system is used daily by TRS staff for a multitude of functions, including the recording of member information, calculating employer bills, refunds and benefit payments, as well as tracking member service and creditable earnings.

After completing the evaluation of STAR's current capabilities and the System's future needs, TRS staff will make a recommendation to the Board of Trustees in FY18 regarding the necessary investment in the next generation of this important system.

Expenditure Resource Planning (ERP) – TRS began initial planning and discussion about the eventual replacement of its aging expenditure management and employee record systems that process all of the System's day-to-day expenditures, financial accounting records and personnel reports. TRS has released a formal Request for Proposals and expects to complete the implementation of a new ERP in FY19.

Development methodology – In early 2017, TRS began the transition from typical waterfall-based software development methodology to an Agile/Scrum framework. The transition impacted the entire TRS organization because it was a complete departure from the manner in which development work was completed in the past. This change in methodology focuses on completing project deliverables incrementally and at a faster pace. Initial results show that productivity has increased by more than six times compared to previous projects.

Document imaging – The last department workflow for the System's Member Services Department began late in FY17. Virtually all member documents are now captured into the document imaging system and require minimal paper processing.

The Member Services repository is more than 11 terabytes in size and contains more than 9 million images. The accompanying back-file conversion project is 72 percent complete with more than 275,000 imaged records. The goal is to complete the back-file document imaging project in the summer of 2018.

The document imaging project covering records for other departments at TRS continues.

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, 2016. This was the 28th 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 our current *Comprehensive Annual Financial Report* continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

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

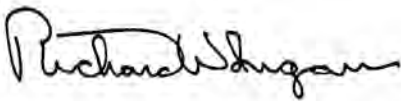
TRS received the Recognition Award for Administration in 2017 for meeting professional standards of plan administration as set forth in the Public Pension Standards of the PPCC. The award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), 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 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 our 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 employers of TRS form a link between TRS and its members. Their cooperation contributes significantly to our success. We hope all recipients of this report find it informative and useful. This report is also available to the general public on our website, <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.



Richard Ingram
Executive Director



Jana Bergschneider, CPA
Chief Financial Officer

BOARD OF TRUSTEES
AS OF DECEMBER 1, 2017



Tony Smith, Ph.D.
President
Superintendent of Education
River Forest



Cinda Klickna
Vice President
Elected
Rochester



Mark Bailey
Elected
Palos Park



Andrew Hirshman
Elected
Oak Park



Matthew Hower
Appointed
Barrington Hills



Marc Levine
Appointed
Wilmette



Laura P. Pearl
Appointed
Glenview



Fred Peronto
Elected
Elmhurst



Larry Pfeiffer
Elected
Carlinville



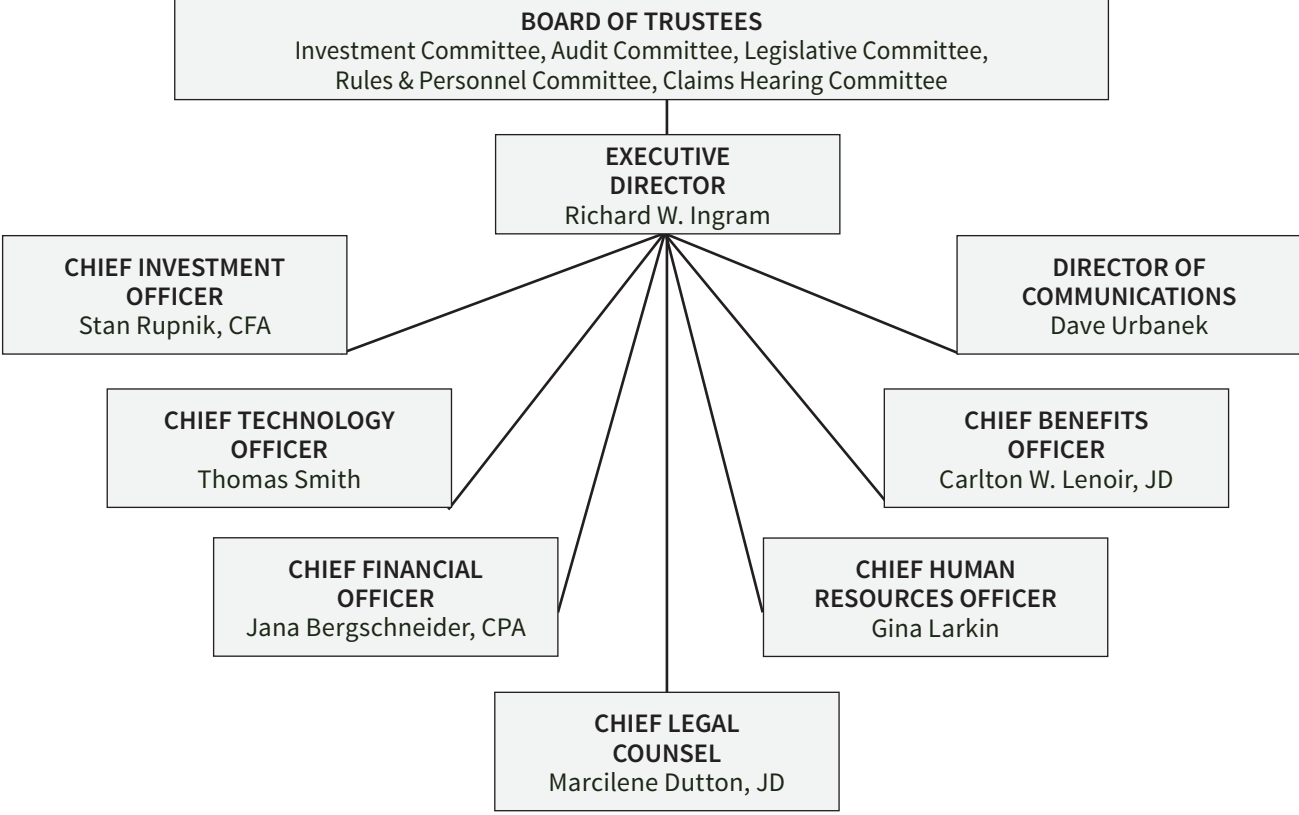
Daniel Winter
Elected
Decatur



Randall S. Winters
Appointed
Highland Park

TRS ORGANIZATION

EXECUTIVE CABINET AS OF DECEMBER 1, 2017



Sitting, left to right:
 Chief Human Resources Officer Gina Larkin, Chief Legal Counsel Marcilene Dutton and Chief Financial Officer Jana Bergschneider
Standing, left to right:
 Director of Communications Dave Urbanek, Chief Technology Officer Thomas Smith, Executive Director Dick Ingram,
 Chief Benefits Officer Carlton Lenoir and Chief Investment Officer Stan Rupnik

CONSULTING AND PROFESSIONAL SERVICES

ACTUARY

Segal Consulting
Chicago, Illinois

EXTERNAL AUDITORS

(Special assistants to the Office of the Auditor General)

BKD, L.L.P.
Decatur, Illinois

INFORMATION TECHNOLOGY

Agile Progress, L.L.C. **LRWL, Inc.**
Santa Monica, California Reston, Virginia

Capitol Strategies Consulting, Inc. **Promet Source**
Springfield, Illinois Chicago, Illinois

DLT Mergerco, L.L.C. **Towerwall, Inc.**
Atlanta, Georgia Framingham, Massachusetts

Heat Software USA, Inc.
Colorado Springs, Colorado

LEGISLATIVE

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

LEGAL SERVICES

Cavanagh & O'Hara **Kopec White & Spooner**
Springfield, Illinois Springfield, Illinois

Holland & Knight, L.L.P. **Loewenstein Hagen & Smith, P.C.**
Chicago, Illinois Springfield, Illinois

Howard & Howard Attorneys, P.L.L.C. **Robbins Geller Rudman & Dowd, L.L.P.**
Peoria, Illinois San Diego, California

Jackson Walker, L.L.P.
Austin, Texas

MASTER TRUSTEE

State Street Bank and Trust Company
Boston, Massachusetts

SECURITIES LENDING AGENT

Citibank, N.A.
New York, New York

INVESTMENT CONSULTANTS

Albourne America, L.L.C. **TAVE & Associates, L.L.C.**
(Absolute return) (Insurance brokerage services)
San Francisco, California Northbrook, Illinois

Courtland Partners, Ltd. **TorreyCove Capital Partners, L.L.C.**
(Real estate) (Private equity)
Cleveland, Ohio San Diego, California

RVK, Inc.
(General investment)
Portland, Oregon

CO-INVESTMENT ADVISORS

Caledon Capital Management, Inc. **Stout Risius Ross, Inc.**
(Private equity) (Private equity)
Toronto, Canada Los Angeles, California

ORG Portfolio Management, L.L.C. **TorreyCove Capital Partners, L.L.C.**
(Real estate) (Private equity)
Cleveland, Ohio San Diego, California

Real Asset Portfolio Management, L.L.C.
(Real estate)
Portland, Oregon

SECONDARY MARKET ADVISORS

Greenhill & Co., Inc.
New York, New York

Park Hill Group, L.L.C.
Chicago, Illinois

UBS Securities, L.L.C.
New York, New York

FINANCIAL

ABRAHAM LINCOLN PRESIDENTIAL MUSEUM

Abraham Lincoln Presidential Library and Museum

Located a few blocks from the only home the 16th president ever owned, the Presidential Library and Museum is a 21st century cornerstone of the Abraham Lincoln memorials, places and artifacts that are concentrated in Springfield and Central Illinois. Within the museum, the life of the man who led the United States through a crucial turning point in history is outlined and examined with modern story-telling methods. The neighboring library houses one of the world's largest collections of Lincoln-related artifacts and documents. Many of the library's treasures are routinely put on display in the museum.

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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, 2017, 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, 2017, 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 pension liability, calculated as required by GASB Statements No. 67, 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 contributions from employers and other contributing entities, the schedule of investment returns, and notes to required supplementary information as listed in the table of contents be presented to supplement the 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, 2017 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 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, 2017.

The System's basic financial statements for the year ended June 30, 2016 (not presented herein) were audited by other auditors whose report thereon dated December 14, 2016, expressed an unmodified opinion on the System's basic financial statements. The report of the other auditors dated December 14, 2016, stated that the other supplementary information in the financial section, as listed in the table contents, for the year ended June 30, 2016 was subjected to the auditing procedures applied in the audit of the June 30, 2016 basic financial statements and certain additional auditing procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare those basic financial statements or to those basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America and, in their opinion, was fairly stated in all material respects in relation to the basic financial statements as a whole for the year ended June 30, 2016.

The 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 12, 2017

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, 2017. 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, 2017 was \$49.4 billion.
- During FY17, the net position of TRS increased \$4.1 billion.
- Contributions from members, employers, and the State of Illinois were \$5.1 billion, an increase of \$222 million or 4.6 percent for FY17.
- Total net investment income was \$5.5 billion, compared to a \$44 million loss for FY16, an increase of \$5.6 billion.
- Benefits and refunds paid to members and annuitants were \$6.4 billion, an increase of \$507 million or 8.5 percent.
- The actuarial accrued liability was \$122.9 billion at June 30, 2017.
- The unfunded actuarial accrued liability was \$73.4 billion at June 30, 2017. The funded ratio was 40.2 percent at June 30, 2017. 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 \$125.8 billion at June 30, 2017.
- The net pension liability was \$76.4 billion at June 30, 2017. The plan fiduciary net position, as a percentage of total pension liability, was 39.3 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 other 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, 2017.

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 financial 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

	2017	Percentage Change	2016
Cash	\$38,331,642	(5.7%)	\$40,637,848
Receivables and prepaid expenses	10,059,591,696	90.5	5,279,564,166
Investments	49,180,275,900	7.8	45,632,926,356
Invested securities lending collateral	3,268,211,165	4.3	3,134,036,175
Capital assets	<u>2,913,530</u>	(19.2)	<u>3,605,993</u>
Total assets	62,549,323,933	15.6	54,090,770,538
Total liabilities	<u>13,173,659,415</u>	49.0	<u>8,839,813,807</u>
Net position restricted for pensions	<u>\$49,375,664,518</u>	9.1%	<u>\$45,250,956,731</u>

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

	2017	Percentage Change	2016
Contributions	\$5,064,989,441	4.6%	\$4,842,319,410
Net investment income /(loss)	<u>5,520,453,001</u>	12,617.1	<u>(44,103,178)</u>
Total additions	<u>10,585,442,442</u>	120.6	<u>4,798,216,232</u>
Benefits and refunds	6,438,005,920	8.5	5,931,207,177
Administrative expenses	<u>22,728,735</u>	(1.0)	<u>22,967,917</u>
Total deductions	<u>6,460,734,655</u>	8.5	<u>5,954,175,094</u>
Net increase /(decrease) in net position	4,124,707,787		(1,155,958,862)
Net position restricted for pensions - beginning of year	<u>45,250,956,731</u>	(2.5)	<u>46,406,915,593</u>
Net position restricted for pensions - end of year	<u>\$49,375,664,518</u>	9.1%	<u>\$45,250,956,731</u>

FINANCIAL ANALYSIS

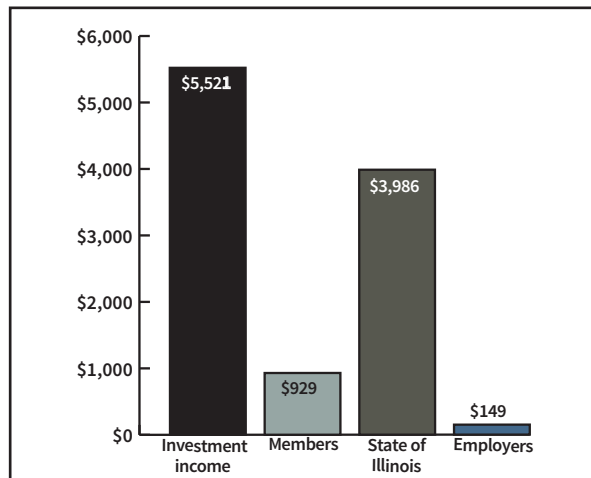
TRS was created to provide retirement, survivor, and disability benefits to qualified members. Increases or decreases in the plan's net position serve as useful indicators of TRS's financial position. The net position available to pay benefits was \$49.4 billion at June 30, 2017.

CONTRIBUTIONS

Contributions increased \$222 million during FY17. During FY17, contributions from the State of Illinois increased \$244 million and employer contributions from school districts increased \$1.5 million. Member contributions decreased by \$23 million due to a reduction in the member contribution rate from 9.4 percent to 9.0 percent. This reduction was due to the expiration of the Early Retirement Option.

The State of Illinois makes appropriations to TRS. Receipts from the State of Illinois increased \$244 million in FY17. The increase in FY17 was primarily due to changes in actuarial assumptions that were based on the 2015 experience analysis and adopted in the June 30, 2015 actuarial valuation. The 2015 assumption changes did not include a change in the assumed rate of return. 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, 2017 (\$ millions)

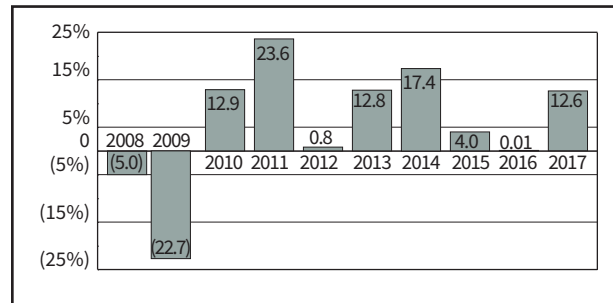


INVESTMENTS

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 12.6 percent, net of fees, for the fiscal year ended June 30, 2017. Total TRS investment assets increased approximately \$3.5 billion during the year.

Annual Rate of Return (net of investment expenses)

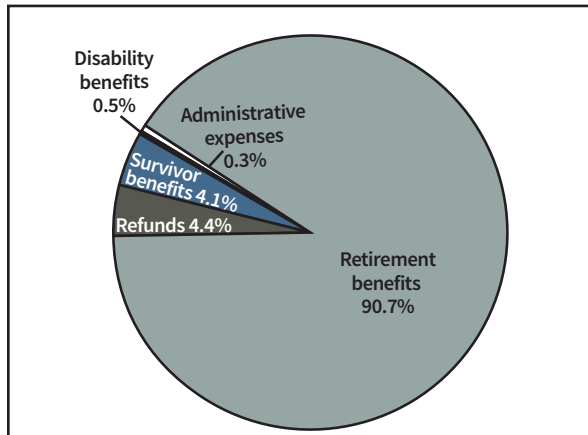


BENEFITS AND REFUNDS

Retirement, survivor, and disability benefit payments increased \$305 million during FY17. Benefit payments increased to \$6.2 billion with 120,151 recipients in FY17. 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 105,937 as of June 30, 2016 to 108,120 as of June 30, 2017.

Refunds of contributions increased \$202 million in FY17. The increase during FY17 was the result of members withdrawing refunds they were due following the expiration of the Early Retirement Option.

Deductions by Type for the Year Ended June 30, 2017



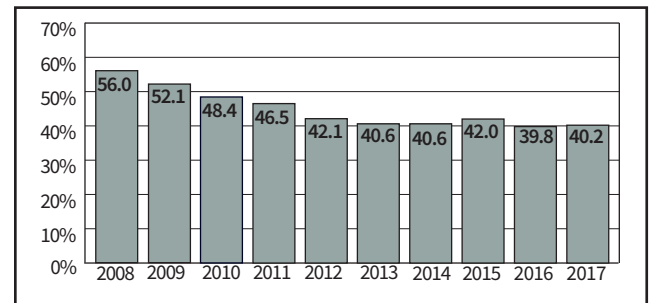
ACTUARIAL

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 \$4.3 billion in FY17 to \$122.9 billion at June 30, 2017. The actuarial unfunded liability is the present value of future benefits payable that are not covered by the actuarial value of assets as of the valuation date. The actuarial unfunded liability increased \$2.0 billion during FY17 to \$73.4 billion at June 30, 2017. The funded ratio reflects the percentage of the actuarial accrued liability covered by the actuarial value of assets. The funded ratio increased from 39.8 percent on June 30, 2016 to 40.2 percent on June 30, 2017.

The actuarial unfunded liability and funded ratio are based on a smoothed 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 smoothed 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. The actuarial value of assets was based on fair value in 2008 with five-year smoothing beginning in 2009.

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 \$125.8 billion at June 30, 2017, while the net pension liability is \$76.4 billion at June 30, 2017.

LEGISLATIVE

During FY17, Gov. Bruce Rauner and the General Assembly made a number of significant changes in the Illinois Pension Code that will have a significant effect on the on-going operations of Teachers' Retirement System.

CREATION OF THE TIER III BENEFIT STRUCTURE

A new law creates an optional Tier III hybrid retirement plan with two parts – a defined benefit (DB) pension and a defined contribution (DC) plan.

Members who choose the Tier III plan will make payroll contributions to the pension portion based on the cost of their benefit. This contribution will be reviewed and changed, if necessary, every year by the TRS Board. Tier III members will contribute a minimum of 4 percent to the DC portion of the plan. Local school districts, rather than the state, will be required to make employer contributions to both the DB and DC plans.

Based on preliminary planning, TRS anticipates the earliest date that Tier III may be implemented for members is July 1, 2019. The TRS Board will establish the final implementation date of the Tier III plan.

The process of creating Tier III is complicated because TRS has never administered a hybrid retirement plan. Successfully administering a hybrid plan will require substantial modifications within TRS that include enhanced information technology systems, conversion to employee monthly data reporting and enhanced member communications efforts. Planning, building, testing and implementing all of these changes will be an extensive process.

The new benefit structure does not affect active Tier I members or retired members in any way. There are no changes to Tier I benefits, active member contributions or health insurance coverage.

CHANGES TO THE STATE'S PUBLIC PENSION SYSTEM FUNDING FORMULA

Beginning in FY18, new laws enacted with the state budget will affect the amount of money TRS will receive in the future from state government's annual contribution to the System:

- TRS must retroactively smooth the fiscal effect of any changes made in actuarial assumptions (such as the assumed rate of investment return) over a period of five years. The smoothing applies to any TRS assumption changes from 2012 on. Up until now, the fiscal impact of such changes were absorbed at one time.
- Local school districts will pay a portion of the cost of a member's pension if that member's salary is greater than the governor's statutory salary. The district, not the state, will be responsible for paying the total employer's normal cost on the portion of the member's salary that exceeds the governor's statutory salary, which in FY17 was \$177,412.
- Beginning on July 1, 2017, employer contributions to TRS from special trust and federal funds will be paid at a rate equal to the total employer's normal cost, expressed as a percentage of payroll.



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FINANCIAL STATEMENTS
TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS
STATEMENT OF FIDUCIARY NET POSITION
JUNE 30, 2017

	June 30, 2017
Assets	
Cash	\$38,331,642
Receivables and prepaid expenses:	
Member contributions	54,778,150
Employer contributions	13,508,665
State of Illinois	492,161,607
Investment income	114,926,644
Pending investment sales	9,381,897,730
Prepaid expenses	2,318,900
Total receivables and prepaid expenses	10,059,591,696
Investments, at fair value:	
Fixed income	10,552,182,948
Public equities	17,480,643,235
Alternative investments	19,838,883,828
Derivatives	3,427,917
Short-term investments	1,223,393,259
Foreign currency	81,744,713
Total investments	49,180,275,900
Invested securities lending collateral:	
Securities lending collateral	3,222,479,165
Securities lending collateral with the State Treasurer	45,732,000
Total invested securities lending collateral	3,268,211,165
Capital assets, net of accumulated depreciation	2,913,530
Total assets	62,549,323,933
Liabilities	
Benefits and refunds payable	8,523,543
Administrative and investment expenses payable	42,699,505
Pending investment purchases	9,854,244,522
Securities lending collateral	3,268,191,845
Total liabilities	13,173,659,415
Net position restricted for pensions	\$49,375,664,518

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, 2017**

	June 30, 2017
Additions	
Contributions:	
Members	\$929,130,165
State of Illinois	3,986,363,699
Employers	
Early retirement	10,776,747
Federal funds	75,694,656
2.2 benefit formula	57,964,519
Excess salary/sick leave	5,059,655
Total contributions	<u>5,064,989,441</u>
Investment income:	
Net increase (decrease) in fair value of investments	4,676,047,504
Alternatives income	897,514,621
Interest and dividends	685,696,063
Other investment income	23,479,101
Securities lending income	17,308,948
Less investment expenses:	
Alternatives expense	(428,905,050)
Direct investment expense	(349,649,601)
Securities lending management fees	(1,038,585)
Net investment increase	<u>5,520,453,001</u>
Total additions	<u>10,585,442,442</u>
Deductions	
Retirement benefits	5,857,968,199
Survivor benefits	263,429,481
Disability benefits	31,470,071
Refunds	285,138,169
Administrative expenses	22,728,735
Total deductions	<u>6,460,734,655</u>
Net increase in net position	4,124,707,787
Net position restricted for pensions	
Beginning of year	<u>45,250,956,731</u>
End of year	<u><u>\$49,375,664,518</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-government entities. Each employer remits member contributions to TRS. Employers are responsible for employer contributions for teachers paid from federal funds and employer contributions for the 2.2 formula increase. As a result of Public Act 94-0004, which became law on June 1, 2005, employers are also required to pay the cost of pension benefits resulting from salary increases of more than 6 percent. Public Act 94-1057, which became law on July 31, 2006, provides additional exemptions from employer contributions for excess salary increases. Some of these exemptions are permanent while others were available for a limited time period. Employers also pay a contribution for sick leave days granted in excess of the member's normal annual allotment and used for service credit at retirement. The contributions do not apply to salary increases awarded or sick leave granted under contracts or collective bargaining agreements entered into, amended, or renewed prior to June 1, 2005. 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.

Number of Employers (as of June 30)

	2017
Local school districts	850
Special districts	125
State agencies	14
Total	989

3. MEMBERS

TRS Membership (as of June 30)

	2017
Retirees and beneficiaries	120,151
Inactive members	131,812
Active members	160,488
Total	412,451

4. BOARD OF TRUSTEES

TRS is governed by a 13-member Board of Trustees. Trustees include the state superintendent of education, six trustees appointed by the governor, four trustees elected by contributing TRS members, and two trustees elected by TRS annuitants.

The president of the Board of Trustees, by law, is the Illinois superintendent of education. 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 employed in Illinois outside the city of Chicago.

Public Act 96-0889, 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 January 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 II.

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

Another tier was created in July 2017, Tier III. It is a hybrid retirement plan with both a defined benefit and defined contribution plan. The earliest implementation date will be July 2019.

TIER I 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 I 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 I retirees receive an annual 3 percent increase in the current retirement benefit beginning January 1 following the attainment of age 61 or on January 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 I 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 II BENEFITS

Changes from Tier I 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 II law caps creditable earnings and contributions used for retirement purposes at a level that is lower than the Social Security Wage Base. Tier II annual increases will be the lesser of 3 percent of the original benefit or ½ percent of the rate of inflation beginning January 1 following attainment of age 67 or on January 1 following the member's first anniversary in retirement, whichever is later.

The 2.2 retirement formula also applies to Tier II 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 is also payable at age 65 to Tier II members with fewer than five years of service. The money purchase (actuarial) benefit is not available to Tier II members.

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

Effective July 1, 2017, Tier II 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 III BENEFITS

Created in July of 2017, the Tier III benefit is a hybrid retirement plan with two parts – a defined benefit (DB) pension and a defined contribution (DC) plan. TRS anticipates the earliest date that Tier III may be implemented for members is July 1, 2019. The TRS Board will establish the final Tier III plan implementation date.

All new TRS members on or after the date Tier III is implemented will be enrolled in Tier III and have the option to switch to Tier II. In addition, after the implementation date all existing Tier II members will have the choice to join Tier III permanently.

Tier III members will 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. The DB contribution rate for Tier III members will be re-evaluated annually. Tier III members will contribute a minimum of 4 percent of their pay to the DC portion of the plan.

The normal retirement age for Tier III is determined by Social Security rules, but it will be no earlier than age 67.

The Tier III calculation for an initial pension is service credit multiplied by final average salary multiplied by 1.25 percent. The final average salary used in the initial pension calculation is the member's average salary during the last 10 years of service.

The automatic annual increase for Tier III is similar to the Tier II automatic increase – one-half of the previous year's consumer price index, not compounded. However, unlike the Tier II automatic increase, the Tier III increase does not have a 3 percent cap.

Local school districts, rather than the state, will contribute the employer contributions to both the DB and DC plans in Tier III. Under the

current law, beginning in FY 2021, school districts will pay 2.58 percent annually of their TRS member salaries to the System for the DB portion and between 2 percent and 6 percent of each individual member's pay to the System for the DC portion.

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.

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.

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, 2017 actuarial valuation were used to calculate the June 30, 2017 total pension liability. The same assumptions were used to calculate the June 30, 2016 total pension liability. The investment return assumption for both years is based on a 2014 asset allocation study conducted by the TRS investment consultant and additional analyses conducted by the TRS actuary in 2015, 2016 and 2017. The results of the investment consultant's 2017 asset allocation study will be reflected in the June 30, 2018 valuation.

As of June 30, 2017, the assumption for future investment returns was 7.0 percent, a rate unchanged from June 30, 2016. GASB Statement No. 67 requires a different rate to be used to discount future benefit streams if assets are insufficient to cover payments to current participants. Since assets were sufficient for this purpose, the June 30, 2017 total pension liability discount rate was 7.0 percent. The June 30, 2016 total pension liability discount rate was 6.83 percent.

The TRS actuary used the following assumed rates of returns by asset class, excluding 2.50 percent for the assumed rate of inflation and excluding investment expenses.

Expected Arithmetic Real Returns Over 20 Years

Asset Class	Allocation	Return
U.S. equities large cap	14.4%	6.94%
U.S. equities small/mid cap	3.6	8.09
International equities developed	14.4	7.46
Emerging market equities	3.6	10.15
U.S. bonds core	10.7	2.44
International debt developed	5.3	1.70
Real estate	15.0	5.44
Real return	11.0	4.28
Absolute return	8.0	4.16
Private equity	14.0	10.63

If the plan's assets are not sufficient to cover all benefit payments to current plan members, GASB Statement No. 67 requires the discount rate to

be a blended rate, which includes the long-term expected rate of return and a municipal bond rate (the S & P Municipal Bond 20-Year High Grade Rate 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, 2017.

TRS, with the assistance of the System's actuary, projected that the Plan's fiduciary net position will be sufficient to provide for all benefit payments to current plan members. Projected contributions assume that all statutorily required contributions are made through FY2119 including projected contributions from members, employers, and the State of Illinois (nonemployer contributing entity). Projected state contributions reflect the funding changes enacted in Public Acts 100-0023 and 100-0340. However, the projections do not include any assumptions about the utilization of Tier III under PA 100-0023.

Estimated contributions from employers and the State of Illinois, of which the majority of the contributions (approximately 95 percent) are provided by the State of Illinois, are projected to be \$4.1 billion in 2018, \$4.5 billion in 2019 and grow to \$10.6 billion by 2045 based on current statutory requirements for current members. Tier I's liability is partially funded by Tier II because the Tier II contributions are higher than the cost of Tier II 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 fiscal year end based on a valuation date and member census one year prior. TPL is projected to the June 30, 2017 measurement date based on census data as of June 30, 2016. Assets, referred to as plan fiduciary net position, are measured at fair value.

Net Pension Liability

	June 30, 2017
Total pension liability	\$125,773,806,438
Plan fiduciary net position	49,375,664,518
Net pension liability	<u>\$76,398,141,920</u>
Plan fiduciary net position as a percentage of the total pension liability	39.3%

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

	1% Decrease	Current	1% Increase
Discount rate	6.00%	7.00%	8.00%
Net pension liability	\$93,865,095,009	\$76,398,141,920	\$62,091,251,142

The actuarial assumptions used in the June 30, 2017 and June 30, 2016 actuarial valuations were the same. In the June 30, 2016 actuarial valuation, the Board of Trustees lowered the assumed rate of return from 7.5 percent to 7.0 percent and reduced the assumed inflation rate from 3.0 percent to 2.5 percent. The reduction in the inflation assumption also reduced assumptions for salary increases and Tier II salary caps and post-retirement cost-of-living increases. Most of the other actuarial assumptions are based on the actuarial experience analysis dated August 2015 that covered the period July 1, 2011 through June 30, 2014. Its recommendations were adopted in the June 30, 2015 actuarial valuation.

Assumptions Used for Financial Reporting Disclosure and the Actuarial Valuation

Actuarial Valuation Date	June 30, 2017
Census Date:	June 30, 2016 with total pension liability projected to June 30, 2017
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% on earnings after June 30, 2016
Real rate of investment return	4.5%
Projected salary increases	9.25% with 1 year of service to 3.25% 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%
Real wage growth (productivity)	0.75%
Post-retirement increase	Tier I: 3%, compounded; Tier II: 1.25%, not compounded
Mortality table:	RP - 2014 with future mortality improvements on a fully generational basis using projection table MP-2014.

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 revenues when due pursuant to statutory or contractual requirements. Benefits and refunds are recognized as expenses 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 and 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.

4. NEW ACCOUNTING PRONOUNCEMENTS

GASB Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions," was established to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits of OPEB) and

improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. TRS is currently evaluating the financial statement impact of GASB Statement No. 75. If applicable, this statement will be implemented for the year ended June 30, 2018.

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 real return funds, 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 the majority 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, absolute return funds, non-publicly traded real return funds and partnership interests in real estate funds 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, 2017 was as follows:

	Beginning Balance	Additions/ Transfers In	Disposals/ Transfers Out	Ending Balance
Land	\$235,534	\$ -	\$ -	\$235,534
Mineral Lease Rights	2,643	-	-	2,643
Office building	8,003,961	87,762	-	8,091,723
Site improvement	1,088,635	-	-	1,088,635
Equipment and furniture	2,687,900	131,018	41,925	2,776,993
Software	1,991,996	154,742	-	2,146,738
	<u>14,010,669</u>	<u>373,522</u>	<u>41,925</u>	<u>14,342,266</u>
Less accumulated depreciation:				
Office building	6,281,236	431,261	-	6,712,497
Site improvement	682,588	67,082	-	749,670
Equipment and furniture	2,410,897	320,670	41,925	2,689,642
Software	1,029,955	246,972	-	1,276,927
	<u>10,404,676</u>	<u>1,065,985</u>	<u>41,925</u>	<u>11,428,736</u>
Total	<u>\$3,605,993</u>	<u>(\$692,463)</u>	<u>\$ -</u>	<u>\$2,913,530</u>
The estimated useful lives for depreciable capital assets are as follows:				
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 December 31, 1997. (Lump-sum payments for sick leave earned prior to January 1, 1984, are subject to a maximum of 60 days or 420 hours.) Sick time earned after December 31, 1997 is not compensable at termination.

At June 30, 2017, the System had a liability of \$1,962,887 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, 2017 was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Compensated absences payable	\$1,958,269	\$1,001,732	\$997,114	\$1,962,887
The estimated amount due within one year is:			\$75,556	

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, or 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 \$38,331,642 at June 30, 2017. Of the bank balance, \$38,331,517 was on deposit with the State Treasurer at June 30, 2017. 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 would be considered cash equivalents; these consist of bank-sponsored, short-term investment funds, commercial paper, and certificates of deposit. For financial statement presentation and investment purposes, TRS reports its cash equivalents 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 \$1,135,062,464 at June 30, 2017. The STIF fund has an average credit quality rating of A1P1 and a weighted average maturity of 24 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 \$81,744,713 at June 30, 2017.

D. INVESTMENTS

1. INVESTMENT POLICIES

Through the Board of Trustees, as authorized in the Illinois Pension Code, TRS serves as fiduciary for the members' trust funds and is responsible for investing those funds within the principles 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 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, 2017.

Long-term Asset Allocation Policy Mix	
Equity investments	54%
Real assets	14
Diversifying strategies	16
Income investments	16
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 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, 2017, 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	Foreign Debt Securities	U.S. Agency Obligations	U.S. Government Backed Mortgages	Municipals	Commingled Funds	Total
Aaa	\$376,609,399	\$137,085,654	\$184,665,707	\$424,274,294	\$558,826	\$ -	\$1,123,193,880
Aa1	47,777,557	128,816,276	-	-	8,064,384	-	184,658,217
Aa2	70,963,375	169,492,160	-	-	9,656,347	-	250,111,882
Aa3	41,035,174	15,751,718	-	-	6,485,574	64,098,564	127,371,030
A1	279,391,631	128,709,575	-	-	2,859,311	-	410,960,517
A2	222,086,749	1,789,076	-	-	9,333,771	215,527,713	448,737,309
A3	376,045,077	333,197,818	-	-	2,683,496	17,550,089	729,476,480
Baa1	259,664,500	49,311,526	-	-	3,027,515	-	312,003,541
Baa2	262,384,040	214,477,187	-	-	-	647,451,534	1,124,312,761
Baa3	343,102,276	382,021,264	-	-	2,458,504	-	727,582,044
Ba1	165,249,866	92,639,951	-	-	2,248,877	-	260,138,694
Ba2	71,135,652	266,138,448	-	-	-	32,127,132	369,401,232
Ba3	156,415,007	71,489,592	-	-	-	43,278,427	271,183,026
B1	96,367,676	65,826,806	-	-	-	178,584,367	340,778,849
B2	62,845,543	12,197,992	-	-	-	316,815,242	391,858,777
B3	78,688,730	185,342,629	-	-	-	-	264,031,359
Caa1	25,501,781	20,100,776	-	-	-	-	45,602,557
Caa2	7,399,596	4,441,018	-	-	-	-	11,840,614
Caa3	11,652,929	41,617,906	-	-	-	-	53,270,835
Ca	5,005,907	-	-	-	-	-	5,005,907
C	3,088,305	-	-	-	-	-	3,088,305
Not available	-	-	-	-	-	1,366,315,638	1,366,315,638
Not rated	29,984,866	49,113,130	-	-	-	-	79,097,996
Withdrawn	6,850,114	1,524,424	-	-	-	-	8,374,538
Total credit risk, bonds, corporate notes and government obligations	2,999,245,750	2,371,084,926	184,665,707	424,274,294	47,376,605	2,881,748,706	8,908,395,988
U.S. Treasuries							1,643,786,960
Total bonds, corporate notes & government obligations	\$2,999,245,750	\$2,371,084,926	\$184,665,707	\$424,274,294	\$47,376,605	\$2,881,748,706	\$10,552,182,948

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, 2017 is as follows:

Type	2017 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	\$903,894,618	\$5,454,449	\$412,932,938	\$230,126,282	\$12,960,780	\$242,420,169	\$ -
U.S. federal agencies	184,665,707	57,720,987	126,320,469	85,333	538,918	-	-
U.S. government index-linked bonds	739,892,342	17,570,585	358,275,829	290,843,390	49,367,751	23,834,787	-
U.S. government-backed mortgages	424,274,294	204,514,014	4,728,147	37,577,153	46,289,180	131,165,800	-
Municipals	47,376,605	668,843	1,430,266	709,790	19,904,250	24,663,456	-
Asset-backed securities	284,798,620	9,153	170,741,149	36,753,517	55,192,440	22,102,361	-
Commercial mortgage-backed securities	62,621,332	-	-	-	14,492,688	48,128,644	-
Collateralized mortgage obligations	179,559,392	734,487	12,601,220	27,711,207	69,025,251	69,487,227	-
Commingled funds (U.S. & international)**	2,881,748,706	-	1,394,904,071	259,282,818	-	-	1,227,561,817
Corporate convertible bonds	11,476,153	1,811,363	4,401,872	872,059	-	4,390,859	-
Domestic credit obligations	2,460,790,253	347,175,262	1,094,586,055	826,725,000	51,257,391	141,046,545	-
Foreign debt/corporate obligations	2,371,084,926	324,429,456	884,199,461	805,615,587	203,682,208	153,158,214	-
Total bonds, corporate notes and government obligations	10,552,182,948	960,088,599	4,465,121,477	2,516,302,136	522,710,857	860,398,062	1,227,561,817
Derivatives	3,427,917	1,537,214	(701,032)	3,659,535	(697,814)	(369,986)	-
Total bonds, corporate notes, government obligations, securities lending collateral and derivatives	\$10,555,610,865	\$961,625,813	\$4,464,420,445	\$2,519,961,671	\$522,013,043	\$860,028,076	\$1,227,561,817

* 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, 2017 is as follows:

Currency	Foreign Currency	Equities	Fixed Income	Derivatives	Total
Argentine Peso	\$1,088	\$ -	\$60,134,255	\$ -	\$60,135,343
Australian Dollar	3,937,555	397,095,816	36,453,616	-	437,486,987
Brazilian Real	573,330	110,365,577	204,574,770	(13,564)	315,500,113
British Pound	17,959,542	1,159,841,262	128,425,715	(1,353,078)	1,304,873,441
Canadian Dollar	6,223,439	479,658,477	19,890,501	687,577	506,459,994
Chilean Peso	49,640	9,257,142	-	-	9,306,782
Chinese Yuan Renminbi	(640)	-	-	-	(640)
Columbia Peso	517,252	245,227	55,686,008	-	56,448,487
Czech Koruna	145,779	1,714,374	-	-	1,860,153
Danish Krone	181,451	136,112,510	12,830,075	-	149,124,036
Egyptian Pound	763,932	2,329,450	2,253,971	-	5,347,353
Emirati Dirham	17,606	9,592,770	-	-	9,610,376
Euro	20,963,187	2,263,051,454	189,969,500	(174,915)	2,473,809,226
Ghana Cedi	4,983,062	-	49,373,342	-	54,356,404
Hong Kong Dollar	5,090,395	634,390,781	-	(415,527)	639,065,649
Hungarian Forint	358,693	10,223,103	-	-	10,581,796
Indian Rupee	1,774,940	142,615,589	51,542,991	-	195,933,520
Indonesian Rupiah	427,792	71,678,360	127,783,701	-	199,889,853
Israeli Shekel	440,265	35,379,612	-	(27)	35,819,850
Icelandic Krona	-	3,082,051	-	-	3,082,051
Japanese Yen	13,790,126	1,538,339,738	31,967,028	(86,864)	1,584,010,028
Malaysian Ringgit	631,460	41,772,852	10,929,636	-	53,333,948
Mexican Peso	(5,637,219)	53,350,386	287,956,777	296,280	335,966,224
Moroccan Dirham	512	-	-	-	512
New Taiwan Dollar	(293,620)	246,750,075	-	57,952	246,514,407
New Zealand Dollar	1,305,323	37,535,209	31,243,531	-	70,084,063
Norwegian Krone	1,043,796	67,989,294	5,317,075	-	74,350,165
Pakistani Rupee	-	62,627	-	-	62,627
Peruvian Sol	-	-	6,325,202	-	6,325,202
Philippine Peso	136,768	17,084,282	18,988,736	-	36,209,786
Polish Zloty	328,143	28,751,199	-	8,854	29,088,196
Qatari Rial	19,222	2,105,721	-	-	2,124,943
Russian Ruble	153,538	5,552,544	10,990,470	-	16,696,552
Serbian Dinar	-	-	25,199,889	-	25,199,889
Singapore Dollar	953,664	123,786,412	10,517,050	-	135,257,126
South African Rand	791,208	114,772,628	35,957,167	279,066	151,800,069
South Korean Won	2,461,267	366,227,968	96,886,980	202,453	465,778,668
Swedish Krona	657,419	192,731,755	1,374,856	-	194,764,030
Swiss Franc	193,936	503,847,347	-	-	504,041,283
Thailand Baht	115,631	69,505,003	-	-	69,620,634
Turkish Lira	774,717	55,596,581	14,552,001	(49,217)	70,874,082
Ukraine Hryvnia	(89,486)	-	-	-	(89,486)
Uruguayo Peso	-	-	1,116,776	-	1,116,776
Total subject to foreign currency risk	81,744,713	8,932,395,176	1,528,241,619	(561,010)	10,541,820,498
Investments in international securities payable in U.S. dollars	-	1,381,314,061	858,098,805	(757,970)	2,238,654,896
Total international investment securities (including domestic securities payable in foreign currency)	81,744,713	10,313,709,237	2,386,340,424	(1,318,980)	12,780,475,394
Domestic investments (excluding securities payable in foreign currency)	-	7,166,933,998	8,165,842,524	4,746,897	15,337,523,419
Total fair value	\$81,744,713	\$17,480,643,235	\$10,552,182,948	\$3,427,917	\$28,117,998,813

In addition to the previous table, the fair value of TRS's investments in foreign currency denominated real estate and private equity funds was \$33,425,746 and \$491,624,456 at June 30, 2017, respectively. Currencies included euro, British pound, Canadian dollar, Japanese yen and South Korean won.

3. SECURITIES LENDING PROGRAM

The 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 for TRS to return the collateral in exchange for the original securities upon demand or when the security is no longer borrowed. 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, 2017, 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 contract with TRS's lending agent requires the agent to indemnify TRS if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay TRS for income distributions by the securities issuers while the securities are on loan. Securities on loan can be recalled on demand by TRS or the borrower can return the loaned securities at any time, although the weighted average term of the loans is 23 days. 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, which are evaluated on an individual basis. As of June 30, 2017, there were no term loans.

The cash collateral received is invested in a separate account managed by the lending agent, with a weighted average maturity of 64 days at June 30, 2017. 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, 2017, TRS had outstanding loaned investment securities with a fair value of \$3,156,392,785 against which it had received cash and non-cash collateral with a fair value of \$3,246,771,643. The securities on loan remain on TRS's Statement of Fiduciary Net Position in their respective investment categories. As of June 30, 2017, TRS cash collateral received and reported as securities lending obligation on the Statement of Fiduciary Net Position totaled \$3,222,459,845; whereas, the fair value of re-invested cash collateral reported as securities lending collateral was \$3,222,479,165. The change in fair value of the re-invested cash collateral is included as net appreciation/depreciation within investment income in the Statement of Changes in Fiduciary Net Position. 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.treasurer.il.gov.

Income earned and costs related to securities lending activities are reported on the Statement of Changes in Fiduciary Net Position. For fiscal year 2017, the System earned net income of \$16,270,363 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 are approved by the Board of Trustees and senior management, and the derivative positions of the investment managers are reviewed on a regular basis to monitor compliance.

As of June 30, 2017, 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, 2017, the TRS investment portfolio held the following derivatives.

Investment Derivatives	Fair Value at June 30, 2017	Change in Fair Value	Shares/Par	Notional
Rights	\$1,230,410	\$2,285,538	2,365,750	\$2,365,750
Warrants	44,743,438	14,282,402	8,176,308	8,176,308
Currency forwards	(19,781,382)	49,460,768	-	-
Equity futures long	-	22,875,321	127,759,465	104,684,595
Equity futures short	-	(1,537,714)	(21,942)	(49,320,927)
Fixed income futures long	-	(10,520,663)	355,901,237	446,330,039
Fixed income futures short	-	19,179,971	(588,081,922)	(705,123,143)
Commodity futures long	-	(492,185)	1,351,275	8,550,124
Commodity futures short	-	727,171	(5,765,580)	(13,598,260)
Equity options purchased	-	(1,642,384)	-	-
Currency forward options purchased	1,545,311	(8,314,871)	243,252,643	46,517,461
Currency forward options written	(93,942)	3,023,104	(21,600,953)	6,992,314
Options on futures purchased	71,094	(277,911)	2,187,500	43,905,313
Options on futures written	(288,656)	996,897	(2,861,500)	49,531,577
Swaptions purchased	7,108,988	420,163	303,716,560	12,331,473
Swaptions written	(5,868,256)	153,544	(460,100,000)	18,624,637
Inflation options	(125,213)	265,898	(52,615,190)	411,175
Credit default swaps buying protection	(3,602,946)	(1,088,543)	100,763,767	103,984,357
Credit default swaps selling protection	772,347	4,322,081	185,285,331	186,103,883
Index and variance swaps	(10,682)	9,374,299	(38,276,125)	55,094,232
Pay fixed interest rate swaps	6,770,374	58,997,261	1,298,725,896	1,299,712,910
Receive fixed interest rate swaps	(500,697)	(4,838,361)	171,201,572	170,807,874
Pay fixed inflation swaps	(2,200,924)	668,646	134,841,285	132,699,047
Receive fixed inflation swaps	(148,881)	(856,364)	104,611,142	104,462,261
Grand total	<u>\$29,620,383</u>	<u>\$157,464,068</u>		<u>\$2,033,243,000</u>

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, 2017, TRS had currency forward purchase or sale contracts for 35 different currencies with various settlement dates.

Fair Value: As of June 30, 2017, TRS's open currency forward contracts had a net fair value (unrealized loss) of \$19,781,382.

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, 2017, TRS had outstanding futures contracts with a notional value, or exposure, of (\$208,477,572). Notional values do not represent the actual values in the Statement of Fiduciary Net Position. The contracts have various expiration dates through December 2019.

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 \$20,980,786 during FY17.

Type	Number of Contracts	Notional Principal
Commodity Futures		
Commodity futures - long	542	\$8,550,124
Commodity futures - short	(277)	(13,598,260)
Equity Futures		
U.S. stock index futures - long	14	705,810
International equity index futures - long	1,765	103,978,785
International equity index futures - short	(1,964)	(49,320,927)
Fixed Income/Cash Equivalent Futures		
Fixed income index futures - long	3,199	402,947,095
Fixed income index futures - short	(4,101)	(592,890,924)
International fixed income index futures - long	136	23,497,444
International fixed income index futures - short	(375)	(80,396,844)
Cash equivalent (eurodollar) futures - long	81	19,885,500
Cash equivalent (eurodollar) futures - short	(130)	(31,835,375)
Total futures (net)	<u>(1,110)</u>	<u>(\$208,477,572)</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, 2017, the TRS investment portfolio held currency forward options with notional value of \$53,509,775, inflation options with

notional value of \$411,175, and options on futures with underlying notional value of \$93,436,890. Contractual principal/notional values do not represent the actual values in the Statement of Fiduciary Net Position. The contracts have various expiration dates through June 2035.

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, 2017, the fair value of all option contracts, gross of premiums received, was \$1,108,594. 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, 2017. 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	6	\$12,946,638
Currency forward call options - written	2	6,981,546
Currency forward put options - purchased	13	33,570,823
Currency forward put options - written	4	10,768
Inflation Options		
Inflation call options - written	4	85,280
Inflation put options - written	10	325,895
Options on Futures		
Fixed income call options on futures USD - written	(1,212)	39,420,858
Fixed income put options on futures USD - purchased	875	43,905,313
Fixed income put options on futures USD - written	(337)	10,110,719

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. An interest-rate swaption gives the buyer the right to pay or receive a specified fixed interest rate in a swap in exchange for a floating rate for a stated time period. TRS has both written and purchased interest rate swaptions in its portfolio. 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.

The TRS investment portfolio also holds credit default swaptions. A credit default swaption gives the holder the right, but not the obligation to buy (call) or sell (put) protection on a specified entity or index for a specified future time period.

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, 2017, TRS had outstanding written call swaption exposure of \$10,198,324, written put swaption exposure of \$8,426,313, purchased call swaption exposure of \$3,997,623, and purchased put swaption exposure of \$8,333,850. The contracts have various maturity dates through November 2019. 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 swap-tions are recognized in TRS's financial statements as incurred rather than at the time the swap-tions are exercised or when they expire. As of June 30, 2017, the fair value of swaption contracts was \$1,240,732.

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, 2017, TRS had credit default/index swaps in its portfolio with various maturity dates through May 2063. The notional values as of June 30, 2017 included purchased credit default swaps (buying protection) of \$103,984,357, written credit default swaps (selling protection) of \$186,103,883 and index swaps of \$55,094,232.

Fair Value: The fair value of credit default swaps, including index swaps, held by TRS was (\$2,841,281) as of June 30, 2017. This represents the amount due to or (from) TRS under the terms of the counterparty agreements.

INTEREST RATE 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.

Terms: As of June 30, 2017, TRS held interest rate swaps in various currencies with various expiration/maturity dates ranging from 2017 to 2048. 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, 2017.

As of June 30, 2017	
Receive floating/pay fixed	\$6,770,374
Receive fixed/pay floating	(500,697)

INFLATION-LINKED SWAPS

Objective: 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, 2017, TRS was a party to inflation-linked swaps denominated in

various currencies with expiration dates through October 2046. Inflation-linked swaps initially have no net value; the value of the swap's outstanding payments will change as interest and inflation rates change. The value may be either positive or negative.

Fair value: The fair value of the inflation-linked swaps held by TRS was (\$2,349,805) as of June 30, 2017.

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, 2017.

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/17
Pay Fixed Interest rate swaps:						
Interest Rate Swap USD	18,365,000	\$18,365,000	12 month LIBOR	1.09%	1/7/2018	\$4,440
Interest Rate Swap USD	147,110,000	147,110,000	12 month LIBOR	1.28	1/31/2018	1,330
Interest Rate Swap USD	36,555,000	36,623,040	12 month LIBOR	0.94	2/21/2018	68,040
Interest Rate Swap USD	6,075,000	6,075,000	12 month LIBOR	1.25	10/7/2018	3,401
Interest Rate Swap USD	92,600,000	92,648,242	3 month LIBOR	1.75	12/16/2018	(301,731)
Interest Rate Swap USD	62,560,000	62,560,000	12 month LIBOR	1.43	3/31/2019	(52,263)
Interest Rate Swap USD	48,600,000	48,617,283	3 month LIBOR	1.25	6/21/2019	336,575
Interest Rate Swap GBP	17,220,000	22,367,907	6 month LIBOR	0.75	9/20/2019	(3,014)
Interest Rate Swap GBP	700,000	910,509	6 month LIBOR	2.05	9/23/2019	(26,703)
Interest Rate Swap USD	18,300,000	18,309,534	3 month LIBOR	2.00	12/16/2019	(143,395)
Interest Rate Swap USD	1,700,000	1,700,605	3 month LIBOR	1.25	6/21/2020	24,177
Interest Rate Swap USD	500,000	500,260	3 month LIBOR	2.00	12/16/2020	(3,422)
Interest Rate Swap USD	58,295,000	58,459,595	3 month LIBOR	1.99	5/31/2021	(350,351)
Interest Rate Swap USD	800,000	800,285	3 month LIBOR	1.25	6/21/2021	18,543
Interest Rate Swap USD	14,100,000	14,107,805	3 month LIBOR	2.00	6/15/2023	20,266
Interest Rate Swap USD	14,300,000	14,334,872	3 month LIBOR	2.00	7/12/2023	34,872
Interest Rate Swap USD	12,693,000	12,730,742	3 month LIBOR	2.21	11/15/2023	(115,751)
Interest Rate Swap USD	41,000,000	41,014,580	3 month LIBOR	1.75	12/21/2023	793,109
Interest Rate Swap USD	825,000	825,030	3 month LIBOR	2.11	2/15/2024	(1,895)
Interest Rate Swap USD	2,595,000	2,595,134	3 month LIBOR	2.18	2/15/2024	(16,944)
Interest Rate Swap USD	8,548,000	8,548,552	3 month LIBOR	2.15	2/15/2024	(38,434)
Interest Rate Swap USD	39,970,000	40,087,694	3 month LIBOR	2.79	3/31/2024	(1,780,484)
Interest Rate Swap USD	15,955,000	15,955,000	3 month LIBOR	1.96	5/15/2024	167,377
Interest Rate Swap USD	32,860,000	32,946,478	3 month LIBOR	2.73	7/7/2024	(1,354,239)
Interest Rate Swap USD	13,890,000	13,920,255	3 month LIBOR	1.91	1/22/2025	221,921
Interest Rate Swap USD	17,360,000	17,397,814	3 month LIBOR	1.97	1/23/2025	209,790
Interest Rate Swap USD	10,240,000	10,261,639	3 month LIBOR	1.97	1/27/2025	121,894
Interest Rate Swap USD	2,560,000	2,565,073	3 month LIBOR	1.94	1/29/2025	36,973
Interest Rate Swap USD	2,170,000	2,174,300	3 month LIBOR	1.94	1/30/2025	30,744
Interest Rate Swap USD	3,420,000	3,426,571	3 month LIBOR	1.82	2/3/2025	79,105
Interest Rate Swap USD	7,050,000	7,051,013	3 month LIBOR	1.98	3/27/2025	88,206
Interest Rate Swap USD	7,050,000	7,051,013	3 month LIBOR	1.99	3/27/2025	84,492
Interest Rate Swap USD	7,760,000	7,782,016	3 month LIBOR	2.45	7/2/2025	(175,842)
Interest Rate Swap USD	6,800,000	6,809,452	3 month LIBOR	2.33	8/19/2025	(70,421)
Interest Rate Swap USD	2,200,000	2,201,942	3 month LIBOR	2.30	12/3/2025	(15,345)
Interest Rate Swap CAD	1,600,000	1,232,489	3 month CDOR	2.30	12/15/2025	(31,437)
Interest Rate Swap GBP	20,760,000	26,966,187	6 month LIBOR	2.34	1/13/2026	(1,031,122)
Interest Rate Swap USD	46,880,000	46,880,000	3 month LIBOR	2.40	3/16/2026	318,229
Interest Rate Swap JPY	1,490,000,000	13,261,977	6 month JPY LIBOR	0.30	3/18/2026	(86,864)
Interest Rate Swap USD	17,600,000	17,600,000	3 month LIBOR	2.30	4/21/2026	205,058
Interest Rate Swap USD	20,100,000	20,100,000	3 month LIBOR	2.30	4/27/2026	235,555
Interest Rate Swap USD	2,600,000	2,601,440	3 month LIBOR	2.25	6/15/2026	(6,807)
Interest Rate Swap USD	27,600,000	27,600,000	3 month LIBOR	1.85	7/20/2026	896,422
Interest Rate Swap USD	6,050,000	6,050,000	3 month LIBOR	1.85	7/27/2026	196,900
Interest Rate Swap USD	25,600,000	25,600,000	3 month LIBOR	2.00	7/27/2026	664,119
Interest Rate Swap USD	12,000,000	12,000,000	3 month LIBOR	2.05	8/31/2026	286,532

(continued)

(continued)

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/17
Interest Rate Swap USD	84,800,000	\$84,830,157	3 month LIBOR	1.75%	12/21/2026	\$3,703,631
Interest Rate Swap USD	3,156,000	3,156,000	12 month LIBOR	1.82	2/15/2027	44,337
Interest Rate Swap EUR	610,000	705,061	6 month EURIBOR	0.49	2/27/2027	9,326
Interest Rate Swap USD	1,790,000	1,793,169	3 month LIBOR	2.31	5/8/2027	(6,512)
Interest Rate Swap USD	32,000,000	32,011,380	3 month LIBOR	1.50	6/21/2027	2,299,997
Interest Rate Swap GBP	15,340,000	19,925,882	6 month LIBOR	1.50	9/20/2027	(247,015)
Interest Rate Swap GBP	1,800,000	2,338,109	6 month LIBOR	2.04	2/1/2037	(19,528)
Interest Rate Swap GBP	3,500,000	4,546,322	6 month LIBOR	2.05	2/1/2037	(41,706)
Interest Rate Swap USD	2,800,000	2,805,380	3 month LIBOR	2.51	5/3/2037	(10,198)
Interest Rate Swap USD	19,030,000	19,086,035	3 month LIBOR	3.49	3/31/2044	(3,696,270)
Interest Rate Swap USD	1,800,000	1,800,938	3 month LIBOR	2.75	12/16/2045	(71,427)
Interest Rate Swap USD	21,550,000	21,561,930	3 month LIBOR	2.50	6/15/2046	289,282
Interest Rate Swap USD	5,400,000	5,403,166	3 month LIBOR	2.25	9/14/2046	363,945
Interest Rate Swap USD	48,300,000	48,369,728	3 month LIBOR	2.38	11/18/2046	1,621,107
Interest Rate Swap CAD	6,200,000	4,775,789	3 month CDOR	1.75	12/16/2046	719,015
Interest Rate Swap USD	23,700,000	23,708,429	3 month LIBOR	2.25	12/21/2046	1,609,416
Interest Rate Swap USD	7,500,000	7,519,011	3 month LIBOR	2.54	4/13/2047	(5,815)
Interest Rate Swap USD	7,200,000	7,202,560	3 month LIBOR	1.75	6/21/2047	1,284,122
Interest Rate Swap EUR	6,300,000	7,185,465	6 month EURIBOR	1.50	3/21/2048	163,611
Interest Rate Swap GBP	15,160,000	19,692,071	6 month LIBOR	1.75	3/21/2048	(601,279)
Interest Rate Swap USD	1,000,000	1,000,000	3 month LIBOR	2.97	10/25/2048	(72,546)
Interest Rate Swap USD	570,000	570,000	3 month LIBOR	2.95	11/19/2048	(38,816)
Interest Rate Swap USD	1,000,000	1,000,000	3 month LIBOR	2.95	12/12/2048	(67,909)
Total Pay Fixed Interest Rate Swaps:		\$1,299,712,910				\$6,770,374
Receive Fixed Interest rate swaps:						
Interest Rate Swap USD	63,000,000	\$63,483,682	2.00%	3 month LIBOR	12/16/2020	\$431,182
Interest Rate Swap MXN	76,400,000	4,268,007	7.03	28 day Mexican TIIE	11/10/2021	44,482
Interest Rate Swap MXN	7,200,000	409,456	7.39	28 day Mexican TIIE	11/17/2021	9,701
Interest Rate Swap EUR	31,100,000	35,330,042	0.25	6 month EURIBOR	9/20/2022	(141,063)
Interest Rate Swap USD	6,000,000	6,126,475	2.68	3 month LIBOR	10/25/2023	126,475
Interest Rate Swap USD	3,700,000	3,774,556	2.67	3 month LIBOR	11/19/2023	74,556
Interest Rate Swap USD	7,000,000	7,140,950	2.68	3 month LIBOR	12/12/2023	140,950
Interest Rate Swap MXN	62,000,000	3,481,854	7.20	28 day Mexican TIIE	6/5/2024	44,745
Interest Rate Swap USD	9,400,000	9,126,299	1.95	3 month LIBOR	11/8/2026	(273,701)
Interest Rate Swap MXN	20,400,000	1,202,676	8.04	28 day Mexican TIIE	12/17/2026	71,564
Interest Rate Swap MXN	55,600,000	3,215,624	7.73	28 day Mexican TIIE	2/25/2027	127,262
Interest Rate Swap USD	5,200,000	4,828,417	1.50	3 month LIBOR	6/21/2027	(373,750)
Interest Rate Swap GBP	6,700,000	8,776,382	3.53	6 month LIBOR	10/15/2031	73,422
Interest Rate Swap USD	3,540,000	3,565,515	2.43	3 month LIBOR	5/3/2032	11,631
Interest Rate Swap USD	6,415,000	6,252,325	2.34	3 month LIBOR	2/15/2036	(162,675)
Interest Rate Swap EUR	5,900,000	6,701,498	2.05	6 month EURIBOR	2/3/2037	(27,747)
Interest Rate Swap USD	3,800,000	3,124,116	1.75	3 month LIBOR	6/21/2047	(677,731)
Total Receive Fixed Interest Rate Swaps:		\$170,807,874				(\$500,697)
Pay Fixed Inflation-Linked Swaps:						
Inflation Swap EUR	11,300,000	\$12,967,272	EMU HICP	0.29%	8/15/2017	\$79,057
Inflation Swap USD	3,800,000	3,665,286	U.S. CPI URNSA	2.09	10/11/2017	(134,714)

(continued)

(continued)

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/17
Inflation Swap EUR	1,200,000	\$1,371,781	EMU HICP	0.58%	10/15/2017	\$3,121
Inflation Swap USD	17,400,000	17,400,000	U.S. CPI URNSA	1.71	4/27/2018	(79,319)
Inflation Swap USD	6,600,000	6,600,000	U.S. CPI URNSA	1.68	4/28/2018	(28,245)
Inflation Swap USD	1,900,000	1,900,000	U.S. CPI URNSA	1.58	5/23/2018	(1,594)
Inflation Swap EUR	12,600,000	14,498,438	EMU HICP	0.47	8/15/2018	127,508
Inflation Swap EUR	1,700,000	1,947,402	EMU HICP	0.63	9/15/2018	8,467
Inflation Swap EUR	1,600,000	1,833,579	EMU HICP	0.65	10/15/2018	8,699
Inflation Swap EUR	1,100,000	1,262,919	EMU HICP	0.89	11/15/2018	8,314
Inflation Swap EUR	3,100,000	3,559,671	EMU HICP	0.88	11/15/2018	23,967
Inflation Swap USD	7,200,000	7,200,000	U.S. CPI URNSA	1.79	6/15/2019	(3,198)
Inflation Swap EUR	14,300,000	16,223,244	EMU HICP	0.99	3/30/2020	(86,621)
Inflation Swap USD	4,600,000	4,575,245	U.S. CPI URNSA	2.03	11/23/2020	(24,755)
Inflation Swap USD	4,400,000	4,376,977	U.S. CPI URNSA	2.02	11/25/2020	(23,023)
Inflation Swap EUR	3,400,000	3,954,835	EMU HICP	0.88	5/15/2021	76,965
Inflation Swap USD	1,700,000	1,700,000	U.S. CPI URNSA	1.55	7/26/2021	28,794
Inflation Swap USD	1,240,000	1,240,000	U.S. CPI URNSA	1.60	9/12/2021	15,671
Inflation Swap USD	18,200,000	16,360,468	U.S. CPI URNSA	2.50	7/15/2022	(1,839,532)
Inflation Swap USD	2,100,000	1,881,918	U.S. CPI URNSA	2.56	5/8/2023	(218,082)
Inflation Swap USD	2,000,000	1,954,816	U.S. CPI URNSA	1.80	7/20/2026	(45,184)
Inflation Swap EUR	3,900,000	4,448,145	EMU HICP	1.36	6/15/2027	9,206
Inflation Swap GBP	1,450,000	1,777,051	UK Retail Price Index	3.59	10/15/2046	(106,426)
Total Pay Fixed Inflation-Linked Swaps:		\$132,699,047				(\$2,200,924)
Receive Fixed Inflation-Linked Swaps:						
Inflation Swap EUR	4,500,000	\$5,073,751	0.83%	EMU HICP	5/15/2018	(\$58,724)
Inflation Swap USD	17,400,000	17,523,652	1.94	U.S. CPI URNSA	4/27/2019	123,652
Inflation Swap USD	6,600,000	6,647,495	1.94	U.S. CPI URNSA	4/28/2019	47,495
Inflation Swap USD	15,700,000	15,935,127	2.06	U.S. CPI URNSA	5/12/2025	235,127
Inflation Swap EUR	900,000	1,005,676	1.18	EMU HICP	5/15/2026	(20,819)
Inflation Swap USD	3,600,000	3,513,635	1.79	U.S. CPI URNSA	7/18/2026	(86,364)
Inflation Swap USD	2,900,000	2,837,083	1.81	U.S. CPI URNSA	7/19/2026	(62,917)
Inflation Swap USD	1,700,000	1,651,703	1.73	U.S. CPI URNSA	7/26/2026	(48,297)
Inflation Swap USD	1,240,000	1,214,862	1.80	U.S. CPI URNSA	9/12/2026	(25,138)
Inflation Swap USD	1,500,000	1,466,098	1.78	U.S. CPI URNSA	9/15/2026	(33,902)
Inflation Swap USD	500,000	489,084	1.81	U.S. CPI URNSA	9/20/2026	(10,916)
Inflation Swap EUR	3,900,000	4,441,449	1.44	EMU HICP	6/15/2027	(6,696)
Inflation Swap GBP	4,050,000	5,163,557	3.14	UK Retail Price Index	1/14/2030	(97,188)
Inflation Swap GBP	2,100,000	2,748,827	3.35	UK Retail Price Index	5/15/2030	21,034
Inflation Swap GBP	6,710,000	8,828,502	3.40	UK Retail Price Index	6/15/2030	112,552
Inflation Swap GBP	11,200,000	14,453,281	3.33	UK Retail Price Index	8/15/2030	(94,952)
Inflation Swap GBP	2,169,000	2,763,472	3.30	UK Retail Price Index	11/15/2030	(53,949)
Inflation Swap GBP	1,900,000	2,413,896	3.30	UK Retail Price Index	12/15/2030	(54,107)
Inflation Swap GBP	4,600,000	5,920,578	3.36	UK Retail Price Index	4/15/2035	(54,589)
Inflation Swap GBP	270,000	370,533	3.59	UK Retail Price Index	10/15/2046	19,817
Total Receive Fixed Inflation-Linked Swaps:		\$104,462,261				(\$148,881)

CDOR - Canadian Dollar Offered Rate

CPI - Consumer Price Index

EMU HICP - European Monetary Union Harmonized Index of Consumer Prices

EURIBOR - Euro Interbank Offered Rate

LIBOR - London Interbank Offered Rate

TIIE - Mexico Interbank Equilibrium Interest Rate

URNSA - Urban Consumers NSA Index 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 which guarantees delivery and accepts the risk of default by either party. Derivatives which 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, 2017, the aggregate fair value of non-exchange traded derivative instruments in asset positions was \$103,065,515. 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 that follows 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, 2017
Aa2	\$20,766,958
Aa3	4,127,848
A1	53,915,144
A3	7,798,337
Baa1	4,346,636
Baa2	12,109,893
Not rated	699
Total subject to credit risk	<u>\$103,065,515</u>

Although the derivative instruments held within the TRS investment portfolio are executed with various counterparties, approximately 92 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, 2017, TRS had remaining unfunded commitments of \$7,061,851,267 within the real estate, other real assets, private equity and global fixed income asset classes.

6. SCHEDULE OF INVESTMENT RETURNS

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of investment expense, was 12.5 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 actually 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, 2017.

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

	June 30, 2017	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
Investments by fair value level				
Debt securities				
Asset-backed securities	\$284,799	\$ -	\$279,100	\$5,699
Commercial and collateralized mortgages	242,181	-	242,181	-
Domestic corporate obligations	2,472,266	-	2,471,851	415
Fixed income mutual funds	297,176	297,176	-	-
Foreign debt/corporate obligations	2,371,085	-	2,358,532	12,553
Municipals	47,377	-	47,377	-
U.S. agencies obligations	184,666	-	184,666	-
U.S. government-backed mortgages	424,274	-	424,274	-
U.S. treasuries	1,643,787	-	1,643,787	-
Total debt securities	7,967,611	297,176	7,651,768	18,667
Equity investments				
International common and preferred stock	10,024,050	10,019,831	4,219	-
U.S. common and preferred stock	7,166,934	7,161,459	5,475	-
Total equity investments	17,190,984	17,181,290	9,694	-
Real assets				
Real estate	5,098,995	-	-	5,098,995
Total real assets	5,098,995	-	-	5,098,995
Total investments by fair value level	\$30,257,590	\$17,478,466	\$7,661,462	\$5,117,662
Investments measured at the Net Asset Value (NAV)				
Commingled fixed income funds	\$2,584,573			
Diversifying strategies	5,871,043			
International equity commingled fund	289,659			
Private equity partnerships	6,439,749			
Private real estate partnerships	1,991,556			
Other real assets	437,540			
Total investments measured at the NAV	17,614,120			
Total investments measured at fair value	\$47,871,710			
Investment derivative instruments				
Credit default swaps	(\$2,831)	\$ -	(\$2,831)	\$ -
Index and variance swaps	(11)	-	(11)	-
Inflation swaps	(2,350)	-	(2,350)	-
Interest rate swaps	6,270	-	6,270	-
Options	1,109	-	1,109	-
Swaptions	1,241	-	1,241	-
Total investment derivative instruments	\$3,428	\$ -	\$3,428	\$ -
Invested securities lending collateral				
Total invested securities lending collateral*	\$3,222,479	\$462,521	\$2,759,958	\$ -

* 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)
(\$ in thousands)

	Fair Value June 30, 2017	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Convergent strategies ¹	\$1,457,637	\$ -	Monthly, quarterly	20-90 days
Convex strategies ¹	1,463,283	-	Daily, monthly, quarterly	1-60 days
Global macro/risk parity funds ²	2,804,785		Monthly	5-90 Days
Long-duration fixed income partnership ³	145,338	-	Not eligible	N/A
Total diversifying strategies	5,871,043	-		
Commingled fixed income funds ⁴	1,819,879	-	Weekly, monthly, quarterly	7-65 days
Fixed income special situation funds ⁵	764,694	817,992	Not eligible	N/A
Total commingled fixed income funds	2,584,573	817,992		
International equity commingled fund ⁶	289,659	-	Daily	1 day
Private equity partnerships ⁷	6,439,749	4,202,579	Not eligible	N/A
Private real estate partnerships ⁷	1,991,556	1,843,209	Not eligible	N/A
Real return fund ⁸	318,652	-	Monthly	30 days
Targeted real return partnerships ⁹	118,888	198,071	Not eligible	N/A
Total other real assets	437,540	198,071		
Total investments measured at the NAV	\$17,614,120	\$7,061,851		

- Diversifying funds (convergent and convex strategies):** The diversifying strategies asset class applies various convergent and convex strategies that provide diversification to the total investment portfolio. Investments exhibit low correlation to traditional public equity and fixed income investments while striving to reduce overall total fund volatility. Convergent strategies consist of six direct investments and two diversified fund of funds, focusing on long/short equity, event driven, volatility selling and risk arbitrage investments. The convex funds include direct investments in five commodity trading advisers (CTAs) investing in trend (long or short) and five managers using global macro, tail risk, market making and volatility buying strategies. 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 has submitted full redemption for one fund, valued at \$15.4 million, and due to maximum withdrawal gates, anticipates complete exit by March 31, 2018.
- Global macro/risk parity funds:** Investments consist of five funds using strategies such as global macro, concentrating on macroeconomic developments of the world, and risk parity focusing on risk levels across the investment portfolio. Monthly redemptions require advanced notice and the fair value of the investments has been determined using the NAV per share of the investments. TRS has no plans to liquidate as of June 30, 2017.
- Long-duration fixed income partnership:** The diversifying strategies asset class also includes a long-duration fixed income fund 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. The fund does not 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, 2017, as the fund has an approximate life of 10 years with six years remaining.

- 4) **Commingled fixed income funds:** The investment strategies for the seven fixed income funds include high yield, defensive bond arbitrage, emerging market debt, relative value, and TRS customized accounts investing in opportunistic investments. The fair value of the investments has been determined using the NAV per share (or its equivalent) of the investments. Liquidity ranges from weekly to quarterly upon notice of redemption and TRS has no plans to liquidate as of June 30, 2017.
- 5) **Fixed income special situation funds:** Special situation funds consist of 22 funds investing across strategies such as stressed debt/credit, direct loans, real estate debt and bank loans. These funds provide additional exposure to niche and/or specific non-traditional 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 10 years and distributions are received throughout the life of the fund. TRS has no plans to liquidate as of June 30, 2017, however; three of the funds, with fair value of \$4.2 million, are approaching the end of the partnership term, winding down and distributing cash as the funds sell underlying investments.
- 6) **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.
- 7) **Private equity and real estate partnerships:** TRS has 191 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 43 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 12 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. Two private equity funds were sold on the secondary market during the fiscal year. As of June 30, 2017, 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.
- 8) **Real return fund:** TRS holds one multi-strategy real return fund that targets assets that hedge inflation while mitigating extraneous risks (such as equities and real rates). The fund allows monthly redemptions with notice and 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 securities which are valued on a monthly basis by the general partner. TRS has no plans to liquidate this fund as of June 30, 2017.
- 9) **Targeted real return partnerships:** Real return strategies include three 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 10 to 15 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, 2017, 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 income at fair value, as opposed to book value, to the Benefit Trust Reserve.

1. BENEFIT TRUST

2017	
Balances at June 30	\$49,367,029,048

This reserve serves as a clearing account for TRS income and expenses. 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 \$73.4 billion in FY17, based on the actuarial value of assets.

2. MINIMUM RETIREMENT ANNUITY

2017	
Balances at June 30	\$8,635,470

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 the amount based on factors such as date of retirement, years of credited service with the State, 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 January 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 January 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 the 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 state finances the costs on a pay-as-you-go basis. The total costs incurred for health, dental, vision and life insurance benefits are not separated by department or component unit for annuitants and their dependents, nor for active employees and their dependents.

A summary of post-employment benefit provisions, changes in benefit provisions, 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 writing to their office, Department of Central Management Services, 704 Stratton Office Building, Springfield, IL 62706.

REQUIRED SUPPLEMENTARY INFORMATION

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

	2017	2016	2015	2014
Total pension liability				
Service cost	\$1,877,570,053	\$1,681,242,232	\$1,948,079,771	\$1,894,351,211
Interest	8,390,352,464	8,264,257,311	7,864,916,421	7,561,104,814
Changes of benefit terms	-	-	-	-
Difference between expected and actual experience	482,486,212	701,827,169	(90,079,446)	39,950,212
Change of assumptions	(2,725,599,755)	7,553,894,504	1,136,454,886	-
Benefit payments, including refund of member contributions	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
Net change in total pension liability	1,586,803,054	12,270,014,039	5,234,334,459	4,174,743,258
Total pension liability - beginning	124,187,003,384	111,916,989,345	106,682,654,886	102,507,911,628
Total pension liability - ending (a)	125,773,806,438	124,187,003,384	111,916,989,345	106,682,654,886
Plan fiduciary net position				
Contributions - employer	149,495,577	148,040,767	145,591,585	158,334,598
Contributions - nonemployer contributing entity	3,986,363,699	3,742,469,245	3,377,664,945	3,438,382,892
Contributions - member	929,130,165	951,809,398	935,451,049	928,745,853
Net investment income (loss)	5,520,453,001	(44,103,178)	1,770,549,533	6,782,031,720
Benefit payments, including refund of member contributions	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
Administrative expense	(22,728,735)	(22,967,917)	(21,686,860)	(21,218,069)
Net change in plan fiduciary net position	4,124,707,787	(1,155,958,862)	582,533,079	5,965,614,015
Plan fiduciary net position - beginning	45,250,956,731	46,406,915,593	45,824,382,514	39,858,768,499
Plan fiduciary net position - ending (b)	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
Employers' net pension liability - ending (a) - (b)	<u>\$76,398,141,920</u>	<u>\$78,936,046,653</u>	<u>\$65,510,073,752</u>	<u>\$60,858,272,372</u>

Schedule of the Net Pension Liability for Fiscal Years:

	2017	2016	2015	2014
Total pension liability	\$125,773,806,438	\$124,187,003,384	\$111,916,989,345	\$106,682,654,886
Plan fiduciary net position	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
Net pension liability	<u>\$76,398,141,920</u>	<u>\$78,936,046,653</u>	<u>\$65,510,073,752</u>	<u>\$60,858,272,372</u>
Plan fiduciary net position as a percentage of the total pension liability	39.3%	36.4%	41.5%	43.0%
Covered payroll	\$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	766.6%	804.5%	679.5%	639.8%

Schedule of Investment Returns for Fiscal Years:

	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	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)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarially-determined contribution (ADC)	\$6,248,879	\$4,582,530	\$4,119,526	\$4,091,978	\$3,582,033	\$3,429,945	\$2,743,221	\$2,481,914	\$2,109,480	\$1,949,463
Contributions in relation to the actuarially-determined contribution:*										
State	3,985,783	3,741,802	3,376,878	3,437,478	2,702,278	2,405,172	2,169,518	2,079,129	1,449,889	1,039,195
Federal & Employer Contributions	148,749	147,408	144,780	157,228	155,787	153,409	154,150	170,653	151,716	130,578
Total contributions	4,134,532	3,889,210	3,521,658	3,594,706	2,858,065	2,558,581	2,323,668	2,249,782	1,601,605	1,169,773
Contribution deficiency	\$2,114,347	\$693,320	\$597,868	\$497,272	\$723,968	\$871,364	\$419,553	\$232,132	\$507,875	\$779,690
Covered payroll	\$9,965,570	\$9,811,614	\$9,641,171	\$9,512,810	\$9,394,741	\$9,321,098	\$9,205,603	\$9,251,139	\$8,945,021	\$8,521,717
Contributions as a percentage of covered payroll	41.5%	39.6%	36.5%	37.8%	30.4%	27.4%	25.2%	24.3%	17.9%	13.7%

* Contributions for minimum benefits from the state and for excess sick from employers do not count towards actuarial funding requirements. Beginning in FY08, employer ERO contributions are included because the costs of the ERO program were included in the actuarial accrued liability. 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 table below.

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 FY17, they increased the total pension liability by \$1.6 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 FY17:

	For Funding per State Statute	For Determining the Actuarially-determined Contribution
Valuation Used to Determine Funding Amount:	June 30, 2015	June 30, 2015
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:	28 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	Actuarial value of assets

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

	2017	2016
Personnel services		
Salaries	\$10,404,585	\$11,044,974
Retirement contributions	2,252,254	2,521,446
Insurance and payroll taxes	3,895,930	4,018,866
	<u>16,552,769</u>	<u>17,585,286</u>
Professional services		
Actuarial services	335,184	205,441
External auditors	271,721	248,171
Legal services	92,046	184,641
Legislative consulting	84,000	84,000
Information systems consulting	581,348	114,125
Operations consulting	327,378	215,063
Other	6,408	9,653
	<u>1,698,085</u>	<u>1,061,094</u>
Communications		
Postage	224,811	187,630
Printing and copying	202,691	211,940
Telephone	153,501	163,318
	<u>581,003</u>	<u>562,888</u>
Other services		
Administrative services	559,658	244,403
Building operations and maintenance	522,454	558,848
EDP supplies and equipment	174,547	144,869
Equipment repairs, rental and maintenance	260,714	271,196
Insurance	301,037	370,635
Memberships and subscriptions	69,845	40,287
Office equipment and furniture	29,797	43,679
Office supplies	22,270	24,947
Software licenses and maintenance	682,065	770,930
Travel, conferences, education	208,506	188,379
	<u>2,830,893</u>	<u>2,658,173</u>
Depreciation expense	<u>1,065,985</u>	<u>1,100,476</u>
Total administrative expenses	<u>\$22,728,735</u>	<u>\$22,967,917</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

	2017	2016
Investment manager fees	\$317,305,576	\$300,230,315
Master custodian fees		
State Street Bank and Trust Company	2,100,000	1,900,000
Consulting services		
Albourne America, L.L.C.	400,000	452,000
Courtland Partners, Ltd.	271,817	263,900
LP Capital Advisors, L.L.C.	-	135,000
RVK, Inc.	444,316	431,375
Stout Risius Ross, Inc.	90,000	396,781
Tave and Associates, L.L.C.	15,000	15,000
TorreyCove Capital Partners, L.L.C.	1,025,792	911,583
	2,246,925	2,605,639
Legal services		
Jackson Walker, L.L.P.	439,222	518,027
Tax advisory services		
Ernst & Young Private, Ltd.	72,859	52,081
Other investment expense		
Auditing costs	103,850	96,750
Communication Services	42,997	44,465
Dividend expense	2,438,405	3,401,745
Education, meetings and travel	79,239	73,631
Foreign tax expense	15,504,509	13,250,094
Investment activity expenses	3,135,585	3,753,797
Investment analytical systems	1,153,856	991,122
Personnel costs	4,850,992	4,223,203
Research, subscriptions and memberships	81,744	83,729
Other costs	93,842	76,360
	27,485,019	25,994,896
Total investment expenses	\$349,649,601	\$331,300,958

Note: Investment manager fee detail is shown on pages 81 to 83.

SCHEDULE OF PROFESSIONAL SERVICES FOR THE YEARS ENDED JUNE 30

	2017	2016
Actuarial services		
Buck Consultants, L.L.C.	\$ -	\$139,197
Segal Consulting	335,184	66,244
	<u>335,184</u>	<u>205,441</u>
External auditors		
Office of the Auditor General	271,721	248,171
Legal services		
Cavanagh & O'Hara	21,466	18,996
Holland & Knight, L.L.P.	26,586	134,025
Howard & Howard Attorneys, P.L.L.C.	13,645	10,574
Kopec White & Spooner	17,597	10,883
Loewenstein Hagen & Smith, P.C.	12,752	7,678
McDonald Hopkins, L.L.C.	-	2,485
	<u>92,046</u>	<u>184,641</u>
Legislative consulting		
Leinenweber Baroni & Daffada Consulting, L.L.C.	84,000	84,000
Information systems consulting		
Agile Progress, L.L.C.	346,996	-
AT&T Corp.	3,360	-
AT&T Mobility II L.L.C.	1,500	-
Brent Ozar PLF, L.L.C.	-	11,000
Capitol Strategies Consulting, Inc.	4,156	-
Cloud2Spec, Inc.	-	9,200
Corporate Software Svcs., Inc.	8,400	-
DLT Mergerco, L.L.C.	22,469	-
Guidepoint Security, L.L.C.	-	16,626
Heat Software USA, Inc.	-	30,000
Icon Integration & Design, Inc.	2,500	37,500
LRWL, Inc.	15,000	-
NetSight, Inc.	2,417	-
Promet Source	94,288	-
Real Magnet, L.L.C.	5,535	-
Sentinel Technologies, Inc.	9,500	9,574
Swartz Consulting, L.L.C.	-	225
Towerwall, Inc.	65,227	-
	<u>581,348</u>	<u>114,125</u>
Operations consulting		
CEM Benchmarking, Inc.	45,000	45,000
Darlington Partners, Ltd.	35,700	78,313
Foley & Lardner, L.L.P.	19,950	-
Jasculca Terman Strategic Communications	130,000	65,000
Levi Ray & Shoup, Inc.	28,823	5,250
Management Association	26,155	1,500
Segal Waters Public Sector	20,000	20,000
Sikich Gardner & Co., L.L.P.	21,750	-
	<u>327,378</u>	<u>215,063</u>
Other	6,408	9,653
Total professional services	<u>\$1,698,085</u>	<u>\$1,061,094</u>

INVESTMENTS



Burpee Museum of Natural History

Created in 1942 as a project of the federal Works Progress Administration, the Burpee Museum of Natural History takes students back in time to discover what prehistoric Rockford was like. Along with a re-creation of the sea which covered the area during the Ordovician period and a carboniferous coal forest from 300 million years ago, the Burpee is also home to Jane - the world's most complete and best preserved skeleton of a juvenile T. Rex. Located on the Rock River, the Burpee's water lab allows students to take samples from the river and conduct chemical tests to determine the composition and quality of the water.

737 North Main Street, Rockford | www.burpee.org



INTRODUCTION

The 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 increased \$3.5 billion over the past 12 months, ending with a value of \$49.2 billion on June 30, 2017. The TRS portfolio remains fully diversified across different asset classes. This broad diversification serves as the best defense against the uncertainty of volatile global markets. Within each asset class, TRS uses 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.

Global financial markets experienced steady growth for the fiscal year ended June 30, 2017. Strong corporate earnings and continued accommodative monetary policy, combined with unprecedented low volatility, provided the backdrop for very robust equity returns during the year, with the System’s U.S. and international equities portfolios returning 20.0 percent and 22.0 percent net of fees, respectively. All asset classes produced positive returns, contributing to the overall TRS portfolio posting a return of 12.6 percent, net of fees, for the fiscal year ended June 30, 2017.

State Street Bank and Trust, as master trustee and custodian, has provided TRS a statement of detailed assets, along with their fair value as of

June 30, 2017. 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 FY17. 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 custodian, prepared the Investments Section.

A complete listing of investment holdings is available on request.

Summary Data as of June 30, 2017

Total fund fair value	\$49.2 billion
1-year return (net of fees)	12.6%
3-year return (net of fees)	5.4%
5-year return (net of fees)	9.2%
10-year return (net of fees)	4.8%
20-year return (net of fees)	6.9%
30-year return (net of fees)	8.1%
Percent externally managed	100.0%
Number of external managers	163
Master Trustee and Custodian	State Street Bank and Trust Company
General consultant	RVK, Inc.

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 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 FY17, TRS continued implementation of the asset allocation structure adopted in June 2014. That study focused primarily on controlling the overall volatility of the investment portfolio and established new targets for the continued diversification of the fund into the absolute return and private equity asset classes, accompanied with a gradual reduction in exposure to publicly traded equity securities. The Board has also elected over time to shift the more traditional eight-asset class approach to a structure focused on investment risk profile, grouping assets by risk exposure: equity, income, real assets and diversifying strategies.

TRS periodically compares the asset mix to the 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, 2017.

Strategic Investment Listing Allocation Targets vs. Total Assets

Asset Class	As of June 30, 2017				As of June 30, 2016	
	Total Fund \$ (Million)	Actual Percent	Interim Target	Long-term Target	Actual Percent	Long-term Target
Domestic equity	\$7,623.4	15.6%	18.0%	18.0%	17.7%	18.0%
International equity	10,172.4	20.9	18.0	18.0	18.8	18.0
Private equity	6,439.7	13.2	12.0	14.0	12.3	14.0
Real estate (opportunistic)	1,518.7	3.1	3.0	4.0	3.3	4.0
Total Equity	25,754.2	52.8	51.0	54.0	52.1	54.0
Real estate (core - value add)	5,572.4	11.4	12.0	11.0	12.2	11.0
Other real assets	1,109.1	2.3	3.0	3.0	2.1	3.0
Total Real Assets	6,681.5	13.7	15.0	14.0	14.3	14.0
Absolute Return	3,069.3	6.3	8.0	8.0	7.3	8.0
Risk Premia/Global Macro	2,804.8	5.7	6.5	8.0	5.7	8.0
Total Diversifying Strategies	5,874.1	12.0	14.5	16.0	13.0	16.0
Global fixed income	9,501.2	19.5	18.5	16.0	18.8	16.0
Short-term	1,008.4	2.0	1.0	-	1.8	0.0
Total Income	10,509.6	21.5	19.5	16.0	20.6	16.0
Pending settlements/expenses *	360.9	N/A	N/A	N/A	N/A	N/A
Total TRS Fund	<u>\$49,180.3</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 liability section in the Statement of Fiduciary Net Position

At the June 2017 Board meeting, the TRS Board of Trustees amended and approved (effective July 1, 2017) the latest asset allocation structure. Long-term policy target changes included one percent increases to private equity, opportunistic real estate, income and real assets. These moves are offset by decreases of one percent in domestic equity and international equity, along with a two percent reduction in diversifying

strategies. Additionally, changes to interim targets consisted of an increase of 1.5 percent to income offset by a 1.5 percent decrease in diversifying strategies. The amended structure seeks to continue the focus on a balance between private and public capital, improve diversification, and enhance the overall portfolio's risk/return profile.

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 explains 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

	2017		2016	
	Fair Value	% of Total	Fair Value	% of Total
U.S. treasuries & agencies	\$1,828,452,667	3.7%	\$1,745,944,602	3.8%
U.S. government-backed mortgages	424,274,294	0.9	811,200,590	1.8
Municipals	47,376,605	0.1	56,526,249	0.1
Asset-backed securities	284,798,620	0.6	223,987,181	0.5
Commercial & collateralized mortgages	242,180,724	0.5	232,622,701	0.5
Commingled funds (U.S. & international)	2,881,748,706	5.9	2,261,484,652	5.0
Domestic corporate obligations	2,472,266,406	5.0	1,979,512,228	4.3
Foreign debt/corporate obligations	2,371,084,926	4.8	2,575,875,233	5.7
Total bonds, corporate notes and government obligations	10,552,182,948	21.5	9,887,153,436	21.7
U.S. equities	7,166,934,005	14.5	7,468,799,664	16.3
International equities	10,313,709,230	21.0	8,614,726,202	18.9
Total public equities	17,480,643,235	35.5	16,083,525,866	35.2
Diversifying Strategies	5,871,043,153	11.9	5,755,273,811	12.6
Private equity	6,439,749,203	13.1	5,465,171,512	12.0
Real estate	7,090,551,234	14.4	6,943,206,220	15.2
Other real assets	437,540,238	0.9	330,652,257	0.7
Total alternative investments	19,838,883,828	40.3	18,494,303,800	40.5
Derivatives - options, futures and swaps	3,427,917	0.0	(62,716,360)	(0.1)
Cash and cash equivalents	1,223,393,259	2.5	1,127,440,142	2.5
Foreign currency	81,744,713	0.2	103,219,472	0.2
TRS total portfolio	\$ 49,180,275,900	100.0%	\$45,632,926,356	100.0%

Sources: State Street Bank and Trust and TRS

SECURITIES HOLDINGS (HISTORICAL)

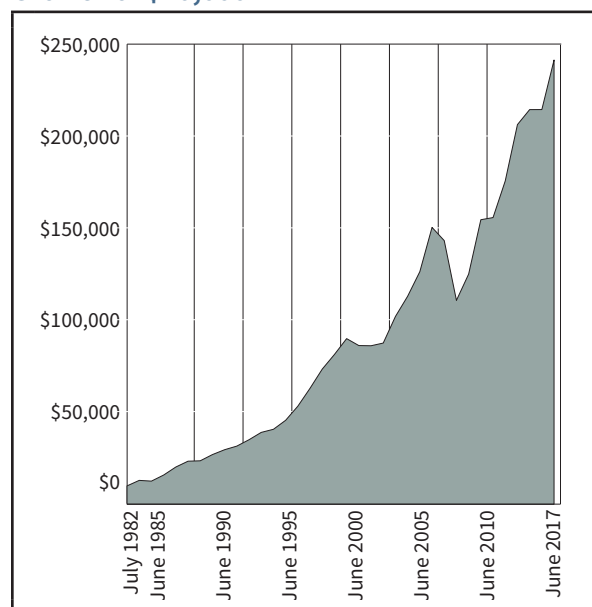
Historically, TRS has adopted various asset allocation strategies. The Securities Holdings table shows the actual asset allocation based on asset types for the last five-year period.

Securities Holdings for the Years Ended June 30

Asset Type	2017	2016	2015	2014	2013
Bonds, corporate notes and government obligations	21.5%	21.7%	18.8%	18.5%	17.3%
Equities - U.S.	14.5	16.3	18.8	19.9	22.0
Equities - international	21.0	18.9	21.3	22.2	21.1
Diversifying strategies	11.9	12.6	13.4	11.7	11.1
Private equity	13.1	12.0	11.5	11.1	11.8
Real estate	14.4	15.2	13.6	12.4	11.8
Other real assets	0.9	0.7	0.6	0.8	0.9
Short-term/currency/derivatives	2.7	2.6	2.0	3.4	4.0
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



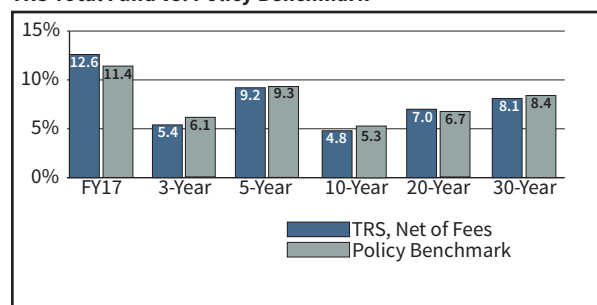
INVESTMENT RESULTS

As of June 30, 2017, the fair value of TRS's investments as reported on the Statement of Fiduciary Net Position was \$49.2 billion, an increase of \$3.5 billion from the prior year. TRS had a total fund annualized return of 13.3 percent, gross of fees, and 12.6 percent, net of fees, for the one-year period ended June 30, 2017.

The Performance Summary chart and tables, showing the traditional asset classes and investment-risk exposure structure, summarize total fund and asset class performance versus comparative benchmarks. Longer time periods are shown for the traditional asset class structure as TRS continues to transition to a risk-based structure. As illustrated, TRS total fund performance outperformed the policy index by 120 basis points for the year ended June 30, 2017. 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 outperformed 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

Performance by Traditional Asset Class (net of fees)

Asset Class/Index	Years ended June 30					Annualized at 6/30/17		
	2017	2016	2015	2014	2013	3 Years	5 Years	10 Years
TRS total fund	12.6%	0.01%	4.0%	17.4%	12.8%	5.4%	9.2%	4.8%
TRS weighted policy index	11.4	2.4	4.6	16.4	12.5	6.1	9.3	5.3
CPI (inflation)	1.6	1.0	0.1	2.1	1.8	0.9	1.3	1.6
Equity - U.S.	20.0	(1.5)	8.8	25.5	23.3	8.7	14.7	6.8
Russell 3000 Index	18.5	2.1	7.3	25.2	21.5	9.1	14.6	7.3
Equity - international	22.0	(9.5)	(4.7)	21.6	13.2	1.7	7.7	1.5
Non-U.S. Equity Index	20.4	(9.6)	(5.0)	22.3	13.9	1.1	7.6	1.5
Global fixed income	6.3	3.0	3.2	8.2	6.5	4.2	5.4	6.8
Bloomberg Barclays Capital Aggregate Index	(0.3)	6.0	1.9	4.4	(0.7)	2.5	2.2	4.5
Real return	4.0	(1.4)	(2.6)	10.9	0.1	0.0	2.1	3.5
CPI (inflation) + 5.0%*	6.7	6.1	5.1	7.2	6.8	6.0	6.4	6.7
Real estate	7.6	13.2	14.5	13.7	12.6	11.7	12.3	4.8
NCREIF Property Index	7.0	10.6	13.0	11.2	10.7	10.2	10.5	6.4
Private equity	17.4	1.0	8.0	23.7	15.2	8.6	12.8	8.6
Russell 3000 Index + 3.0%*	22.0	5.2	10.5	28.9	25.1	12.4	18.0	10.5
Absolute return	1.7	(2.6)	3.9	9.1	10.5	1.0	4.4	3.1
BofA Merrill Lynch 91-day Treasury Bill Index + 4.0%*	4.5	4.2	4.0	4.1	4.1	4.2	4.2	4.6

* Index compounded monthly.

Sources: State Street Bank and Trust and TRS

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

Asset Class/Index	Years ended June 30					Annualized at 6/30/17		
	2017	2016	2015	2014	2013	3 Years	5 Years	7 Years
TRS total fund	12.6%	0.01%	4.0%	17.4%	12.8%	5.4%	9.2%	9.9%
TRS weighted policy index	11.4	2.4	4.6	16.4	12.5	6.1	9.3	10.0
Equity	19.8	(3.3)	3.5	23.3	17.5	6.3	11.7	11.9
TRS equity composite benchmark ¹	19.4	(1.4)	3.7	24.3	19.0	6.9	12.5	12.9
Real Assets	5.2	11.4	8.5	12.0	8.3	8.3	9.1	10.1
TRS real asset composite benchmark ²	6.9	9.5	11.0	10.2	9.8	9.1	9.5	10.2
Diversifying Strategies	3.5	(2.4)	2.4	10.8	5.9	1.1	3.9	6.1
TRS diversifying composite benchmark ³	5.5	5.1	4.6	5.7	5.5	5.0	5.3	5.6
Income	5.8	2.9	3.2	7.6	6.5	4.0	5.2	5.7
TRS income composite benchmark ⁴	(0.3)	5.7	1.8	4.1	(0.6)	2.4	2.1	3.0

Sources: State Street Bank and Trust and TRS

Note: Performance calculations provided by State Street Bank and Trust use net-of-fee time-weighted rates of return. Policy index and benchmarks represent weighted average of asset class benchmarks and interim target allocations.

1. Equity composite includes the following asset classes and corresponding benchmarks:

Asset Class	Benchmark
Domestic equity	Russell 3000 Index
International equity	MSCI All Country ex U.S. Investable Market Index
Private equity	Russell 3000 index + 3.0%
Real estate opportunistic	NCREIF Property Index

2. Real Assets composite includes the following asset classes and corresponding benchmarks:

Asset Class	Benchmark
Real estate core & value add	NCREIF Property Index
Other real assets	CPI (inflation) + 5.0%

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

Asset Class	Benchmark
Absolute return	BofA Merrill Lynch 91-day Treasury Bill Index + 4.0%
Risk premia/global macro	CPI (inflation) + 5.0%

4. Income composite includes the following asset classes and corresponding benchmarks:

Asset Class	Benchmark
Global fixed income	Bloomberg Barclays Aggregate Bond Index
Short-term investments	BofA Merrill Lynch 91-day Treasury Bill Index

The following sections provide a brief and informative overview of the assets held by TRS for the period ended June 30, 2017.

GLOBAL PUBLIC EQUITIES

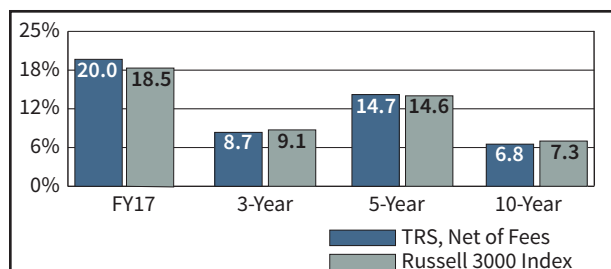
TRS invests in U.S. and international equities, or common stock, representing shares or units of ownership in specific corporations offering the opportunity to participate in the success of the U.S. and global economies. Stockholders share in the growth of a company through an increase in stock price, 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.

The global equity market has continued to rally since the Global Financial Crisis ended in early 2009. Positive economic growth across markets, generally accommodative monetary policy and good corporate fundamentals have contributed to continued solid performance. Market volatility has remained very low, benefiting investor sentiment. International equities outperformed domestic equities in fiscal year 2017 as investors took advantage of relatively inexpensive international market valuations created by prior domestic market leadership. Other positive factors include improving economic growth in emerging markets and very low interest rates in international developed markets.

As of June 30, 2017, the domestic and international equity portfolio value represented \$17.8 billion, or 36.5 percent of the total fund. The long-term policy target for public equities, as set by the Board, is 36.0 percent of the total fund. For the year ended June 30, 2017, the U.S. equity asset class earned 20.0 percent on a net of fee basis compared to the Russell 3000 Index gain of 18.5 percent. International equity also posted strong returns of 22.0 percent, outperforming the Morgan Stanley Capital International (MSCI) All Country Excluding U.S. Investable Market Index by 160 basis points.

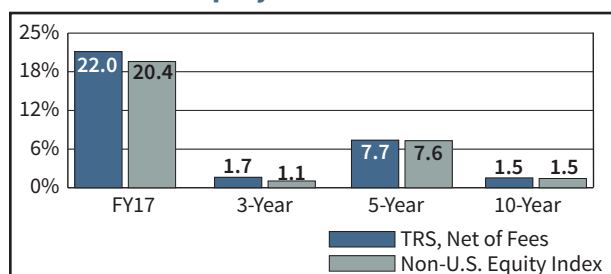
One-, three-, five- and 10-year comparisons to these benchmarks are shown in the following charts.

U.S. Equity vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

International Equity vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

The top 10 holdings in both U.S. and international equities as of June 30, 2017, represent 10.6 percent of the total public equity holdings. These investments represent sector and geographic diversification and include companies that are dominant within their industry.

Top 10 U.S. Equity Holdings at June 30, 2017

Firm	Sector	Fair Value (USD)
Apple, Inc.	Technology	\$191,598,591
Microsoft Corp.	Technology	126,997,873
Amazon.com, Inc.	Consumer	103,343,680
JP Morgan Chase & Co.	Financials	99,310,213
Berkshire Hathaway, Inc.	Financials	97,523,415
Pfizer, Inc.	Health Care	93,922,712
Facebook, Inc.	Technology	88,915,595
Johnson & Johnson	Health Care	86,802,613
Citigroup, Inc.	Financials	86,380,670
Alphabet, Inc.	Technology	80,151,803
Total		<u>\$1,054,947,165</u>

Sources: State Street Bank and Trust and TRS

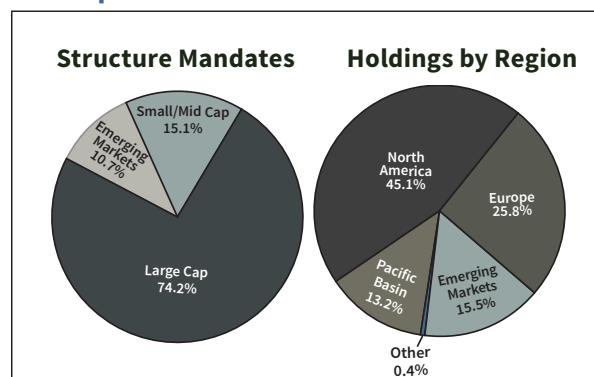
Top 10 International Equity Holdings at June 30, 2017

Firm	Country	Fair Value (USD)
Alibaba Group Holding LTD	China	\$114,007,544
Samsung Electronics LTD	Korea	112,988,264
Tencent Holdings LTD	China	102,614,642
Nestle SA	Switzerland	95,760,062
GlaxoSmithKline PLC	United Kingdom	80,386,110
Roche Holding AG	Switzerland	66,158,782
Sanofi	France	61,803,964
Royal Dutch Shell PLC	United Kingdom	57,033,303
Siemens	Germany	55,206,824
Enel SpA	Italy	53,632,798
Total		<u>\$799,592,293</u>

Sources: State Street Bank and Trust and TRS

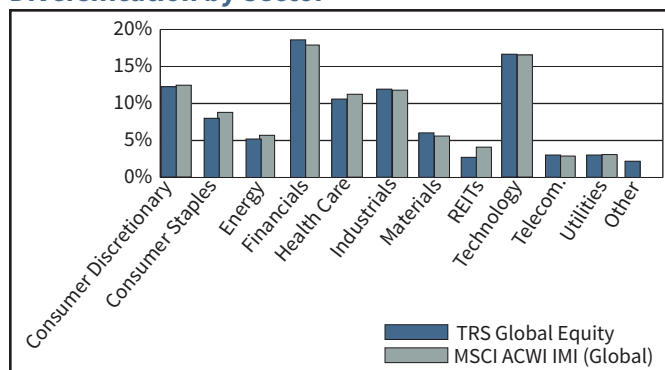
Investment managers are chosen to diversify the portfolio based on capitalization, geography and style basis. This diversification is important for controlling the risk of the portfolio, as well as balancing the portfolio. As of June 30, 2017, the following charts convey the sector and regional exposure, asset allocation mix and fundamental characteristics for the global public equity portfolio (U.S. and international equity combined).

Global Public Equity Characteristics and Exposures



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)	\$86.4	\$99.1
Price/earnings ratio	16.0x	17.1x
Dividend yield	2.31%	2.26%
Price/book ratio	2.3x	2.4x

Sources: BlackRock Aladdin and TRS

TRS employed the following public equity managers as of June 30, 2017.

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

	Assets
Developed Markets Large Cap	
Acadian Asset Management, L.L.C. (07/15)	\$1,570,785,694
Ativo Capital Management (3/13)	54,112,954
Brown Capital Management, L.L.C. (10/16)	55,867,239
J.P. Morgan Investment Management, Inc. (12/07)	1,394,634,196
Levin Capital Strategies, L.P. (10/10)	585,537,637
LSV Asset Management (9/14)	1,862,135,317
McKinley Capital Management, Inc. (8/05)	611,734,350
Mondrian Investment Partners Limited (4/93)	798,417,212
Northern Trust Investments, Inc. (8/10)	2,088,743,745
Robeco Boston Partners Asset Management, L.P. (3/10)	519,785,429
RhumbLine Advisors, L.P. (5/06)	2,425,810,903
Strategic Global Advisors (3/11)	617,897,201
T. Rowe Price Associates, Inc. (11/06)	618,301,218
Developed Markets Small Cap	
AQR Capital Management, L.L.C. (5/17)	253,522,480

(continued)

(continued)

Channing Capital Management, L.L.C. (12/11)	\$190,638,368
DFA Investment Dimensions Group, Inc. (6/11)	289,658,705
Dimensional Fund Advisors, L.P. (6/08)	416,290,203
Emerald Advisors, Inc. (11/04)	252,112,362
LSV Asset Management (12/02)	373,062,128
Mondrian Investment Partners Limited (11/12)	399,888,714
RhumbLine Advisors, L.P. (5/07)	61,648,263
Wasatch Advisors (11/14)	458,126,930
Emerging Markets	
AQR Capital Management, L.L.C. (7/13)	737,141,242
Axiom International Investors (5/15)	640,277,578
J.P. Morgan Investment Management, Inc. (8/15)	465,618,587
Northern Trust Investments, Inc. (4/13)	56,443,671
Currency Overlay *	
BNP Paribas Asset Management USA, Inc. (7/16)	(15,258,755)
Lee Overlay Partners Limited (7/16)	11,042,233

*Market value consists of unrealized gains and/or losses to be realized next settlement period.

Note: The list does not include managers terminated prior to June 30, 2017 with residual assets in the account.

PRIVATE EQUITY

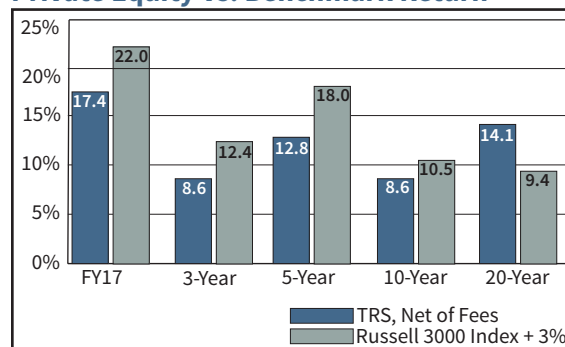
Private equity includes investments that are placed and traded outside of the stock exchanges and other public markets. Over the long term, they are an attractive investment for pension funds, endowments, insurance companies and other institutional investors. The investment class enhances the economy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

While the asset class is commonly referred to as private equity, it also 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, 2017, private equity earned 17.4 percent on a net of fee basis, compared to the benchmark gain of 22.0 percent. TRS's investments in private equity maintain a very strong long-term return. The long-term performance strength of the private equity program and the asset class's diversification both benefit the overall portfolio. One-, three-, five-, ten- and 20-year comparisons relative to the benchmark follow.

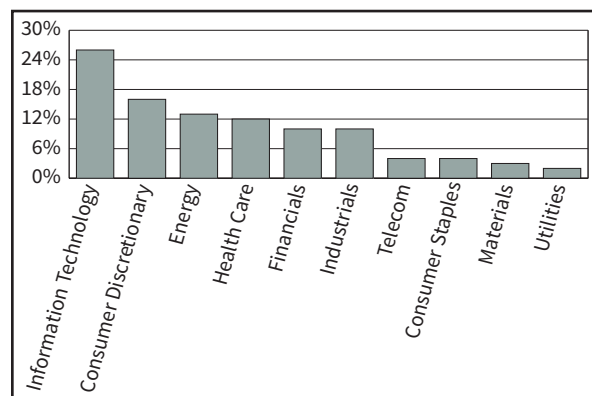
Private Equity vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

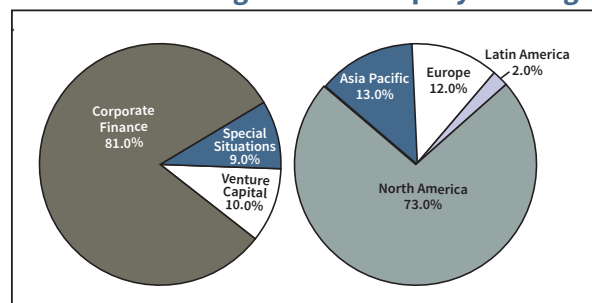
In June 2014, the Board of Trustees adopted a new asset allocation study that increased the private equity long-term allocation target to 14 percent. Successful implementation of this target is subject to many factors, including public market performance and sufficient availability of high quality private equity opportunities in the market. TRS continues to prudently increase its exposure to private equity and as of June 30, 2017, \$6.4 billion or 13.2 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, 2017.

Exposure % by Investment Type



Source: TorreyCove Capital Partners, L.L.C.

Sector Positioning of Private Equity Holdings



Source: TorreyCove Capital Partners, L.L.C.

The following table lists the private equity partnerships/funds and the respective assets under management that TRS has investments with as of June 30, 2017.

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

	Assets
Corporate Finance	
Advent International GPE VI Limited Partnership (7/08)	\$37,939,851
Advent International GPE VII-C Limited Partnership (12/12)	97,242,390
Advent International GPE VIII-B-2 Limited Partnership (9/16)	27,448,987
Apollo Investment Fund V, L.P. (5/01)	2,799,775
Apollo Investment Fund VI, L.P. (5/06)	48,431,354
Apollo Investment Fund VII Annex A (5/12)	6,777,205
Apollo Investment Fund VII, L.P. (1/08)	75,870,238
Apollo Investment Fund VIII Annex A (4/16)	32,602,789
Apollo Investment Fund VIII, L.P. (12/13)	173,451,738
Astorg VI, SLP (7/16)	16,918,386
Black River Capital Partners Fund (Food), L.P. (8/11)	82,807,170
Black River Food Fund 2, L.P. (6/14)	47,233,026
<i>(continued)</i>	

(continued)

	Assets
Blackstone Capital Partners VI Annex A (10/11)	\$25,689,037
Blackstone Capital Partners VI, L.P. (1/11)	139,507,427
Blackstone Capital Partners VII, L.P. (10/16)	17,826,616
Carlyle Japan International Partners III Annex A (10/14)	35,615,836
Carlyle Japan International Partners III, L.P. (3/15)	20,793,082
Carlyle Partners IV, L.P. (4/05)	2,673,413
Carlyle Partners V, L.P. (7/07)	67,911,855
Carlyle Partners VI Annex A (12/15)	22,164,550
Carlyle Partners VI, L.P. (7/13)	176,624,959
Carlyle/Riverstone Global Energy and Power Fund II, L.P. (1/03)	5,598,429
Carlyle/Riverstone Global Energy and Power Fund III, L.P. (4/06)	14,490,443
Clearlake Capital Partners IV Annex A (1/17)	21,501,118
Edgewater Growth Capital Partners II, L.P. (2/06)	6,555,626
Edgewater Growth Capital Partners III, L.P. (9/11)	52,923,498
Edgewater Growth Capital Partners, L.P. (11/03)	2,070,994
EIF United States Power Fund IV, L.P. (11/11)	77,207,698
Energy Capital Partners I, L.P. (4/06)	6,780,624
Energy Capital Partners II Annex A (10/11)	26,880,412
Energy Capital Partners II-A, L.P. (9/09)	25,201,813
EQT VI, L.P. (9/11)	107,785,680
EQT VII, L.P. (1/16)	47,930,325
Evercore Capital Partners II, L.P. (distributed securities) (4/03)	374,155
Gamma, L.P. (9/00)	1,584,005
GI Partners Fund III, L.P. (1/09)	23,672,379
GI Partners Fund IV, L.P. (1/14)	66,723,305
Grain Communications Opportunity Fund, L.P. (7/16)	39,977,425
Great Point Partners II, L.P. (11/13)	20,575,851
Green Equity Investors V, L.P. (8/07)	55,919,330
Green Equity Investors VI, Annex A (6/14)	33,434,044
Green Equity Investors VI, L.P. (11/12)	196,799,926
Green Equity Investors VII, L.P. (5/17)	20,391,101
GTCR Fund VIII, L.P. (7/03)	3,625,097
ICV Partners II, L.P. (1/06)	\$3,360,998
ICV Partners III, L.P. (10/13)	20,118,652
IL Asia Investors, L.P. (12/14)	68,941,780
J.C. Flowers II, L.P. (2/07)	10,906,598
Littlejohn Fund IV, L.P. (7/10)	54,161,013
Madison Dearborn Capital Partners V, L.P. (7/06)	20,361,036
<i>(continued)</i>	

(continued)

	Assets
Madison Dearborn Capital Partners VII, L.P. (1/16)	\$18,473,190
MBK Partners Fund II, L.P. (5/09)	6,307,639
MBK Partners Fund III Annex A (12/13)	58,091,119
MBK Partners Fund III Annex B (10/15)	41,072,988
MBK Partners Fund III, L.P. (4/13)	140,747,067
MBK Partners Fund IV, L.P. (3/17)	13,108,169
Morgan Creek Partners Asia, L.P. (1/11)	100,646,920
New Mountain Partners III, L.P. (8/07)	82,069,587
New Mountain Partners IV, L.P. (12/14)	89,202,632
NGP Natural Resources X, L.P. (5/12)	46,403,477
NGP Natural Resources XI, L.P. (11/14)	62,337,562
Palladium Equity Partners IV, L.P. (3/14)	11,080,499
Parthenon Investors IV Annex A (6/15)	71,988,302
Parthenon Investors IV, L.P. (4/12)	38,990,488
Parthenon Investors V, L.P. (1/17)	4,331,468
Pine Brook Capital Partners, L.P. (1/08)	30,201,846
Providence Equity Partners VI Annex A (8/12)	51,520,600
Providence Equity Partners VI, L.P. (3/07)	61,322,003
Providence Equity Partners VII Annex A (7/16)	36,211,613
Providence Equity Partners VII, L.P. (6/12)	183,229,998
RCP SBO Fund, L.P. (10/16)	4,122,267
Rhone Partners IV L.P. (1/12)	34,357,145
Rhone Partners V, L.P. (7/15)	19,124,004
Riverstone Global Energy and Power Fund V Annex A (11/13)	11,222,401
Riverstone Global Energy and Power Fund V, L.P. (6/12)	147,681,025
Riverstone Global Energy and Power Fund VI, L.P. (9/16)	57,500,141
Riverstone/Carlyle Global Energy and Power Fund IV, L.P. (3/08)	55,896,730
RRJ Capital Master Fund III, L.P. (12/15)	24,990,293
Silver Lake Partners III, L.P. (8/07)	60,334,205
Silver Lake Partners IV, L.P. (10/13)	123,004,746
Siris Partners II, L.P. (1/12)	31,583,432
Siris Partners III Annex A (12/15)	15,017,620
Siris Partners III, L.P. (5/15)	47,803,950
TA XII-A, L.P. (2/16)	22,818,599
The Baring Asia Private Equity Fund V, L.P. (4/11)	84,989,925
The Baring Asia Private Equity Fund VI, L.P.1 (9/15)	47,824,370
Trident V Annex A (10/11)	43,564,040
Trident V, L.P. (12/10)	83,633,265

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	Assets
Trident VI Annex A (8/15)	\$25,247,395
Trident VI, L.P. (9/14)	79,634,664
Trustbridge Partners IV, L.P. (12/11)	60,708,386
Veritas Capital Fund IV Annex A (2/11)	11,013,212
Veritas Capital Fund IV, L.P. (11/10)	101,662,623
Veritas Capital Fund V, L.P. (6/15)	109,149,526
Veritas Capital Fund VI, L.P. (6/17)	4,065,858
Vicente Capital Partners Growth Equity Fund, L.P. (4/08)	12,271,848
Vista Equity Partners Fund III, L.P. (11/07)	22,508,518
Vista Equity Partners Fund IV, L.P. (10/11)	97,972,399
Vista Equity Partners Fund V, L.P. (5/14)	203,693,232
Vista Equity Partners Fund VI, L.P. (6/16)	70,400,039
Vista Foundation Fund III, L.P. (7/16)	7,482,019
VSS Communications Partners IV, L.P. (3/05)	356,651
Warburg Pincus Private Equity X, L.P. (10/07)	133,844,930
Special Situations	
Apollo Lincoln Private Credit Fund, L.P. (10/14)	30,090,211
Blackstone/GSO Capital Solutions Fund, L.P. (9/09)	32,746,320
Clearlake Capital Partners II, L.P. (7/09)	18,875,694
Clearlake Capital Partners III, L.P. (10/12)	78,941,409
Clearlake Capital Partners IV, L.P. (9/15)	84,124,145
Clearlake Opportunities Partners (P), L.P. (9/15)	20,741,818
Maranon Mezzanine Fund, L.P. (8/09)	3,305,507
Oaktree European Principal Fund III, L.P. (11/11)	61,942,322
Oaktree Opportunities Fund IX, L.P. (3/13)	91,408,702
Oaktree Opportunities Fund VIII, L.P. (3/10)	26,009,456
Oaktree Opportunities Fund VIIIb, L.P. (8/11)	32,409,309
Oaktree Real Estate Opportunities Fund VI, L.P. (6/13)	64,853,327
OCM European Principal Opportunities Fund II, L.P. (8/08)	10,053,716
OCM Opportunities Fund V, L.P. (6/04)	581,734
OCM Opportunities Fund VIIb, L.P. (6/08)	7,507,014
Prism Mezzanine Fund, L.P. (12/04)	4,751,061
William Blair Mezzanine Capital Fund III, L.P. (1/00)	626,671
Venture Capital	
Battery Ventures XI-A Side Fund, L.P. (6/16)	1,440,783
Battery Ventures XI-A, L.P. (6/16)	2,435,350
Carlyle U.S. Growth Fund III, L.P. (6/07)	7,099,562
Carlyle Venture Partners II, L.P. (10/02)	30,869,153
Granite Ventures II, L.P. (5/05)	23,253,314
HealthpointCapital Partners, L.P. (6/04)	8,447,665
Hopewell Ventures, L.P. (6/04)	3,399,176

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	Assets
Illinois Emerging Technologies Fund, L.P. (6/04)	\$449,184
Institutional Venture Partners XV, L.P. (6/15)	19,238,279
JMI Equity Fund VII, L.P. (2/11)	22,415,083
JMI Equity Fund VIII-A, L.P. (10/15)	12,697,136
Lightspeed Venture Partners IX, L.P. (3/12)	77,991,890
Lightspeed Venture Partners Select II, L.P. (6/16)	7,390,400
Lightspeed Venture Partners Select, L.P. (3/14)	16,105,518
Lightspeed Venture Partners X, L.P. (7/14)	10,184,994
Lightspeed Venture Partners XI, L.P. (3/16)	3,335,234
LiveOak Venture Partners I, L.P. (2/13)	12,919,525
Longitude Venture Partners II, L.P. (4/13)	33,719,099
Longitude Venture Partners III, L.P. (12/16)	781,156
Longitude Venture Partners, L.P. (3/08)	11,435,357
Morgan Creek Partners Venture Access Fund, L.P. (1/12)	111,680,757
New Enterprise Associates 15, L.P. (3/15)	29,096,779
New Enterprise Associates 16, L.P. (5/17)	1,383,338
Scale Venture Partners V, L.P. (1/16)	11,290,590
SCP Private Equity Partners II, L.P. (6/00)	14,872,527
SCP Private Equity Partners, L.P. (5/97)	36,631
Shasta Ventures IV, L.P. (10/14)	6,041,031
Shasta Ventures V, L.P. (2/17)	3,499,701
Shasta Ventures, L.P. (1/05)	15,845,485
Sofinnova Venture Partners IX, L.P. (12/14)	29,686,493
Sofinnova Venture Partners VIII, L.P. (8/11)	20,057,064
StarVest Partners II, L.P. (1/09)	10,812,711
Sunstone Partners I, L.P. (2/16)	982,564
Union Grove Partners Direct Venture Fund, L.P. (4/14)	11,510,080
Union Grove Partners Venture Access Fund II, L.P. (3/16)	4,148,012
Union Grove Partners Venture Access Fund II-B, L.P. (12/15)	18,236,299
Union Grove Partners Venture Access Fund, L.P. (3/14)	44,902,195
VantagePoint Venture Partners 2006 (Q), L.P. (12/06)	27,102,494
VantagePoint Venture Partners IV, L.P. (6/00)	6,988,513

GLOBAL FIXED INCOME

Global fixed income is a financial obligation of an entity including, but not limited to, U.S. and foreign corporations, governments, agencies, indices or municipalities. These entities promise to pay a specified sum of money at a future date, while paying specified interest during the term of the issue. A fixed or floating income security represents a contractual obligation of a debt or a loan, with the issuer of debt as the borrower of capital, and the purchaser, or holder of bonds, as the creditor or lender.

Global fixed income is an important asset class in a well-diversified portfolio. Fixed income investments can reduce volatility, offer low or negative correlation to other asset classes and provide income streams, or coupons, essential to the growth of the overall portfolio.

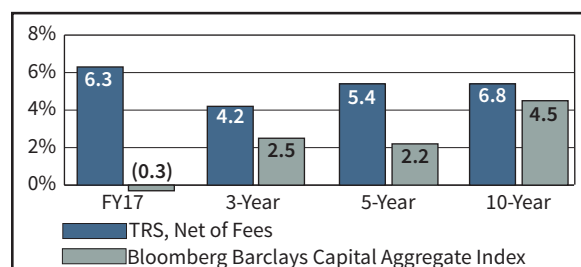
The U.S. Federal Reserve raised interest rates during FY17 and unveiled plans to gradually unwind its balance sheet, contributing to a flattening yield curve. A shift in tone from other major global central banks spurred most developed market yields to rise even as longer-term rates actually fell. Geopolitics, including elections and political controversy in several countries, dominated headlines and contributed to brief periods of market volatility. However, the fundamental economic backdrop remained largely in place leading to the continued corporate bond credit spreads tightening and strengthening of emerging market debt assets.

TRS's global fixed income portfolio outperformed the Bloomberg Barclays Capital Aggregate Index during the fiscal year. TRS continues to move away from U.S. and global fixed income indices as benchmark investments tend to reward governments and corporations with the highest debt levels. TRS continued to increase to floating rate instruments and maintained below market weight duration in anticipation of higher interest rates and U.S. central bank balance sheet unwinding. Further, the System has worked to create structural flexibility within the

portfolio by opportunistically addressing areas of potential market dislocations.

As of June 30, 2017, the global fixed income portfolio value represented \$9.5 billion, or 19.5 percent of the total fund, versus the long-term policy target of 16.0 percent. For the year ended June 30, 2017, the global fixed income asset class earned 6.3 percent on a net of fee basis compared to the Bloomberg Barclays Capital Aggregate Index loss of 0.3 percent. One-, three-, five- and 10-year comparisons to this benchmark are shown in the following chart.

Global Fixed Income vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

The following table lists the top 10 global fixed income investments or funds held by TRS as of June 30, 2017.

Top 10 Global Fixed Income Holdings at June 30, 2017

Security/Position	Fair Value (USD)
Franklin Templeton Emerging Market Debt Opportunities (Cayman) Fund, Ltd.	\$583,938,136
PIMCO Horseshoe Fund, L.P.	341,412,825
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd.	308,729,520
PGIM Fixed Income U.S. Liquidity Relative Value Fund I (Cayman), Ltd.	307,959,716
PIMCO PRIV ABS Sector Fund	215,527,712
Apollo Lincoln Fixed Income Fund, L.P.	171,046,900
PIMCO BRAVO Fund Onshore Feeder II, L.P.	142,142,022
U.S. Treasury Inflation Linked Note	111,193,674
Oaktree Enhanced Income Fund II, L.P.	95,017,510
U.S. Treasury Inflation Linked Note	89,024,575
Total	\$2,365,992,590

Sources: State Street Bank and Trust and TRS

The following table lists the top 10 largest debt securities holdings, excluding commingled funds, as of June 30, 2017. A complete listing of investment holdings is available as a separate report.

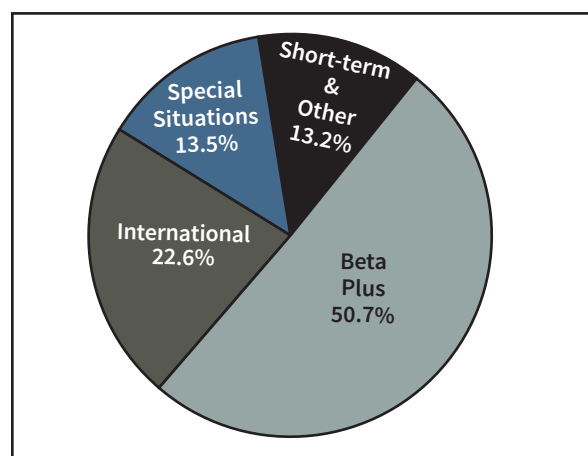
Largest Debt Securities Holdings at June 30, 2017

Security/Position	Maturity Date	Interest Rate	Fair Value (USD)
U.S. Treasury Inflation Linked Note	4/15/19	.13%	\$111,193,674
U.S. Treasury Inflation Linked Note	4/15/20	.13	89,024,575
U.S. Treasury Inflation Linked Note	4/15/21	.13	75,632,204
U.S. Treasury Bond	8/15/45	2.88	67,208,340
U.S. Treasury Note	2/15/24	2.75	63,304,215
Federal National Mortgage Assoc.	9/13/47	3.50	61,325,601
U.S. Treasury Inflation Linked Note	1/15/25	.25	61,304,147
Mexico Bonos de Sarrollo	12/11/19	5.00	54,084,967
Buoni Poliennali del Tesoro	9/15/24	2.35	51,666,914
Mexico Bonos de Sarrollo	6/14/18	4.75	49,834,630
Total			\$684,579,267

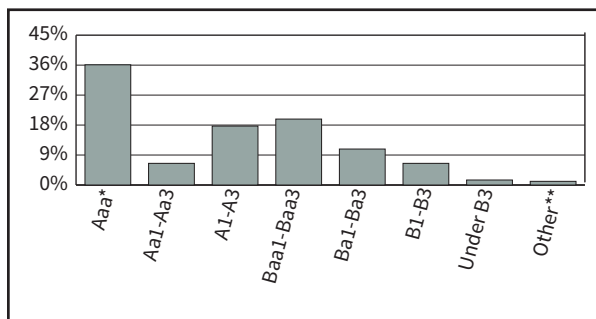
Sources: State Street Bank and Trust and TRS

The following charts provide the asset allocation mix and statistical information on TRS's global fixed income portfolio as of June 30, 2017.

Global Fixed Income Allocation



Diversification by Quality Rating for Individual Bonds



Sources: State Street Bank and Trust and TRS

* U.S. Treasury securities are included

** Other includes unrated securities

Note: Fixed income commingled funds not included.

Global Fixed Income Fundamental Characteristics

	TRS Global Fixed Income Portfolio	Bloomberg Barclays Capital Aggregate Index
Average maturity	3.5 years	8.3 years
Effective duration	3.2 years	6.1 years
Average quality rating	Baa1	Aa1

TRS employed the following fixed income managers as of June 30, 2017. This excludes fixed income-type assets overseen by managers in other asset classes containing fixed income securities as a small part of their overall strategies.

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

	Assets
AG Direct Lending Fund II, L.P. (12/16)	\$28,182,900
Apollo Lincoln Fixed Income Fund, L.P. (3/14)	171,046,900
AQR Risk Balanced Reinsurance Fund Ltd. (12/12) *	857,910
Dolan McEniry Capital Management, L.L.C. (5/06)	505,489,502
Franklin Advisers, Inc. (2/08)	981,885,230
Franklin Templeton Emerging Market Debt Opportunities (Cayman) Fund, Ltd. (12/10)	583,938,136
Garcia Hamilton & Associates, L.P. (6/10)	532,518,910
LCM Partners CO IIIa, L.P. (9/16)	15,895,333
MacKay Shields L.L.C. (8/11)	873,591,154
Manulife Asset Management, L.L.C. (8/11)	476,689,292
Maranon Senior Credit Fund II-B, L.P. (6/13)	32,127,132
Monroe Capital Private Credit Fund II, L.P. (4/16)	38,673,952
New Century Advisors, L.L.C. (2/08)	382,710,614
Northern Shipping Fund III, L.P. (1/16)	27,987,007
NXT Capital Senior Loan Fund II, L.P. (8/13)	30,751,825
NXT Capital Senior Loan Fund IV, L.P. (1/16)	77,596,494
Oaktree Enhanced Income Fund, L.P. (9/12) *	299,436
Oaktree Enhanced Income Fund II, L.P. (5/14)	95,017,510
Oaktree Enhanced Income Fund III, L.P. (4/16)	83,267,445
Oaktree Real Estate Debt Fund, L.P. (10/13)	26,364,952
Oaktree Real Estate Debt Fund II, L.P. (3/17)	4,760,750

(continued)

(continued)

	Assets
Pacific Investment Management Company, L.L.C. (7/82)	\$1,058,714,225
PIMCO BRAVO Fund III Onshore Feeder, L.P. (12/16)	10,482,544
PIMCO BRAVO Fund Onshore Feeder I, L.P. *	3,837,764
PIMCO BRAVO Fund Onshore Feeder II, L.P. (3/13)	142,142,022
PIMCO Corporate Opportunities Fund II, L.P. (1/16)	22,084,663
PIMCO Horseshoe Fund, L.P. (12/14)	341,412,825
Pemberton Debt Fund Delaware I, L.P. (11/16)	37,420,023
PGIM, Inc. (12/08)	502,655,212
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd. (12/15)	308,729,520
PGIM Fixed Income U.S. Liquidity Relative Value Fund I (Cayman), Ltd. (6/14)	307,959,716
Ramirez Asset Management, Inc. (3/17)	50,948,398
Riverstone Credit Partners, L.P. (12/15)	31,863,544
Taplin, Canida & Habacht (4/13)	1,077,287,442
Taurus Mining Finance Annex Fund L.L.C. (1/17)	2,235,421
Taurus Mining Finance Fund L.L.C. (4/15)	21,971,515
TCW Asset Management Company (8/13)	579,672,045
Vista Credit Opportunities Fund I-B, L.P. (10/14)	31,686,342

* Accounts currently in liquidation or being discontinued
 Note: The list does not include managers terminated prior to June 30, 2017 with residual assets in the account.

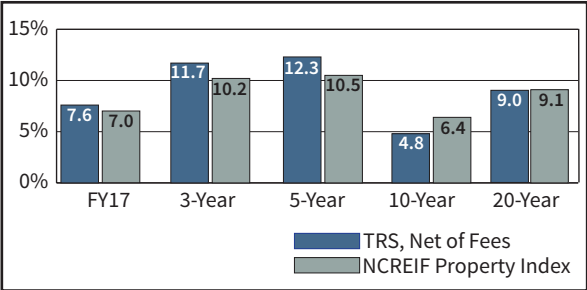
REAL ESTATE

Real estate investments are direct investments or ownership in land and buildings including apartments, offices, warehouses, shopping centers and hotels. TRS also holds partnership interests in entities that purchase and manage property and pass rent and sale income back to TRS. The real estate asset class offers competitive returns, provides diversification benefits to portfolios of stocks and bonds and serves as a hedge against inflation. Investment in real estate is intended to increase the TRS total portfolio long-term rate of return and reduce year-to-year volatility. Additionally, real estate offers a strong income component to pay TRS benefits.

Real estate returns moderated to normalized, sustainable levels in FY17. Overall, real estate market fundamentals remain strong, which supports continued favorable income returns; however, appreciation returns have diminished to more typical historical levels. TRS’s real estate managers have been active in the market through the year, upgrading the portfolios by identifying investments that provide downside protection in the event of a market correction. The TRS portfolio maintains a long-term target allocation of 15.0 percent to real estate, 11.0 percent to core and value-add assets, and 4.0 percent to opportunistic strategies. Under the new risk-based asset class structure, opportunistic real estate is grouped within equity exposure; whereas, core and value-add real estate are classified as real assets.

As of June 30, 2017, TRS held \$7.1 billion in real estate assets, or 14.5 percent of the total fund. For the fiscal year, TRS’s real estate portfolio earned 7.6 percent, net of fees, outpacing the National Council of Real Estate Investment Fiduciaries (“NCREIF”) Index by 60 basis points. Real estate performance and benchmark comparisons are noted in the following chart.

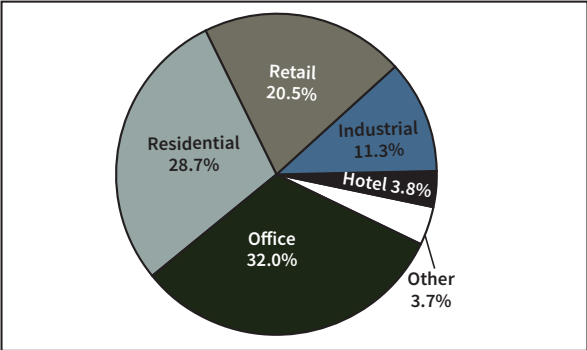
Real Estate vs. Benchmark Return



Sources: State Street Bank and Trust and TRS

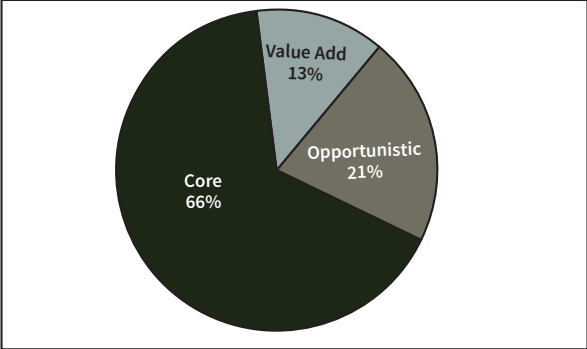
To enhance returns and reduce risk, TRS acquires high quality properties diversified geographically and by property type. The following charts exhibit TRS’s real estate holdings by type, geography and risk return profiles as of June 30, 2017.

Real Estate Holdings by Type



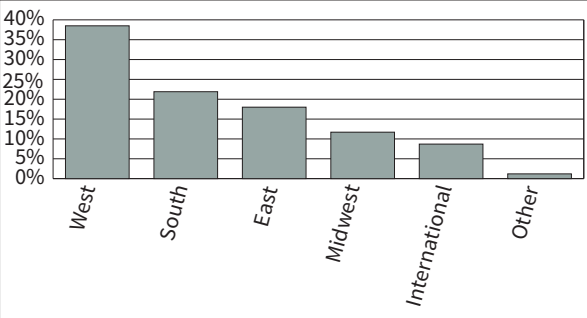
Source: Courtland Partners, Ltd.

Real Estate Holdings by Risk/Return



Source: Courtland Partners, Ltd.

Geographic Diversification of Real Estate Holdings



Source: Courtland Partners, Ltd.

Professional real estate advisors manage real estate owned by TRS. Separate account managers administer TRS's direct investments in real estate assets. Closed-end and open-end accounts represent partnership interests in real estate funds including TRS's international real estate accounts. The following table lists managers employed with TRS along with the respective assets under management as of June 30, 2017.

Real Estate Managers and Assets Under Management (inception date of account)

	Assets
Separate Accounts	
Barings, L.L.C. (7/08)	\$488,368,372
Barings, II (7/09)	9,954,142
Barings, III (8/09)	337,073
Capri/Capital Advisors, L.L.C. (12/91)	1,048,049,432
Heitman Capital Management, L.L.C. (7/09)	1,681,360,809
Invesco Institutional (N.A.), Inc. (7/08)	600,064,204
LPC Realty Advisors I, Ltd. (7/92)	1,084,449,171
Principal Real Estate Investors, L.L.C. (10/13)	186,411,368
Closed-End Accounts	
Beacon Capital Strategic Partners V, L.P. (8/07)	761,839
Blackstone Real Estate Partners VI, L.P. (9/07)	10,296,075
Blackstone Real Estate Partners VII, L.P. (1/12)	176,431,511
Blackstone Real Estate Partners VIII.TE.2, L.P. (8/15)	141,925,937
Capri Select Income Fund II, L.L.C. (12/05)	45,208
Carlyle Realty Partners IV, L.P. (6/05)	53,044,945
Carlyle Realty Partners VII, L.P. (7/14)	69,893,586
Cornerstone Hotel Income & Equity Fund II, L.P. (7/08)	348,958
Dyal Capital III Annex A (5/17)	41,249,910
IC Hospitality Fund II, L.P. (4/15)	7,101,029
Lone Star Real Estate Fund III (U.S.), L.P. (5/14)	33,439,258
Lone Star Real Estate Fund IV (U.S.), L.P. (10/15)	173,675,982
Rockpoint Real Estate Fund V, L.P. (8/15)	33,924,791
Southwest Multifamily Partners, L.P. (8/12)	26,434,504
Starwood Distressed Opportunity Fund IX Global, L.P. (3/13)	101,118,706
Starwood IX Annex A (11/13)	23,000,993
	<i>(continued)</i>

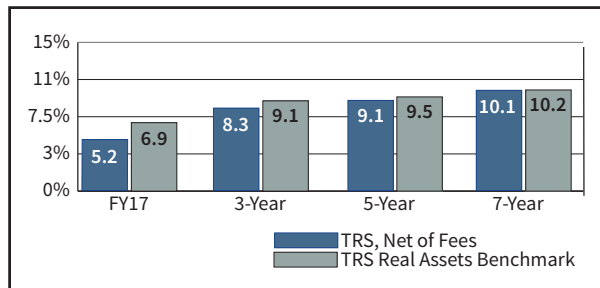
	Assets
<i>(continued)</i>	
Starwood Opportunity Fund X Global, L.P. (10/15)	\$212,998,692
Starwood Value Add Fund, L.P. (6/17)	14,464,000
Starwood X Annex A (1/15)	4,267,581
Starwood X Annex B (7/15)	16,056,113
Walton Street Real Estate Fund IV, L.P. (7/03)	3,323,060
Walton Street Real Estate Fund VI, L.P. (4/09)	45,099,313
Walton Street Real Estate Fund VII, L.P. (6/13)	77,615,475
Westbrook Real Estate Fund X, L.P. (7/16)	16,179,529
Open-End Accounts	
Hines U.S. Core Office Fund, L.P. (12/05)	1,387,998
Lion Industrial Trust (4/05)	352,818,365
International Real Estate Accounts	
BlackRock Asia Property Fund III, L.P. (12/07)	20,657,906
Blackstone Real Estate Partners Asia, L.P. (12/13)	57,432,113
Carlyle Europe Real Estate Partners III, L.P. (9/07)	11,852,041
CB Richard Ellis Strategic Partners Europe Fund III, L.P. (4/07)	997,318
CB Richard Ellis Strategic Partners UK Fund III, L.P. (5/07)	369,797
Fortress Japan Opportunity Fund III (Dollar A), L.P. (8/15)	57,987,211
Gateway Real Estate Fund IV, L.P. (7/13)	46,816,589
LaSalle Asia Opportunity Fund III, L.P. (11/07)	2,682,516
LaSalle Asia Opportunity Fund IV, L.P. (7/13)	\$47,626,726
Madison International Real Estate Liquidity Fund VI (TE), L.P. (3/16)	40,473,914
Niam Nordic V, L.P. (4/12)	20,206,590
Oak Street Real Estate Capital Fund III, L.P. (5/16)	47,550,584

REAL ASSETS

For the fiscal year ending June 30, 2017, the \$6.7 billion real assets portfolio represented 13.7 percent of the total fund. Real estate core and value add strategies are the most significant investments, representing 83 percent of the asset class. Details of these investments are outlined in the separate real estate discussion. Global inflation-linked securities and other real assets including infrastructure, agriculture and direct energy comprise the remainder of the asset class.

The asset class blended benchmark consists of real estate strategies measured against the NCREIF Property Index, along with global inflation-linked securities and other real assets benchmarked against the Consumer Price Index (CPI) + 5.0 percent. The long-term policy target for real assets is 14.0 percent of the total fund. For the fiscal year, TRS's real assets portfolio generated 5.2 percent, net of fees, compared to the 6.9 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

Real estate managers investing in core and value add strategies have been included in the previous real estate discussion. Managers and/or funds investing in global inflation-linked strategies and other real assets, as of June 30, 2017, are listed below along with their respective assets under management.

Real Assets Managers and Assets Under Management (inception date of account)

	Assets
Real Estate (Core and Value Add)	
Individual managers listed within Real Estate section	\$5,572,446,725
Global Inflation-linked Bonds	
Pacific Investment Management Company, L.L.C. (5/07)	671,518,217
Other Real Assets	
AQR Real Return Offshore Fund, L.P. (6/12)	318,652,463
Black River Agriculture Fund 2, L.P. (6/13)	59,838,775
Sheridan Production Partners III-B, L.P. (11/14)	37,299,000
West Street Global Infrastructure Partners III, L.P. (1/16)	21,750,000

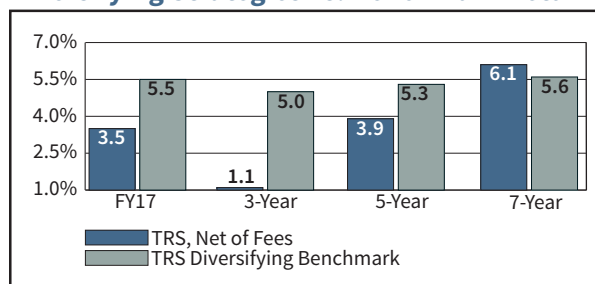
DIVERSIFYING STRATEGIES

The mandates withing diversifying strategies are 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 absolute return strategies (hedge funds), risk parity and risk premia strategies. TRS has been investing in diversifying strategies profiles since FY07, making strategic adjustments over time to enhance the overall risk-return characteristics of the portfolio. Investments in diversifying strategies are administered via both direct investment manager relationships and a diversified fund of funds.

The asset class blended benchmark consists of absolute return strategies measured against a relative risk-free index of 90-Day Treasury Bills + 4.0 percent, along with real return/risk premia strategies benchmarked against the Consumer Price Index (CPI) + 5.0 percent. While these are not investible indices, the blended 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 returns.

The long-term policy target for diversifying strategies is 16.0 percent of total fund. As of June 30, 2017, the TRS diversifying strategies asset class value was \$5.9 billion, or 12.0 percent of the total fund. For the fiscal year, the TRS diversifying strategies portfolio generated 3.5 percent, net of fees, compared to the 5.5 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

The following table lists managers and/or funds employed with TRS along with the respective assets under management as of June 30, 2017.

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

	Assets
Diversified Fund of Funds	
Bluegill Liquidating Fund, L.L.C. (6/07)	\$35,086,654
Grosvenor Monarch Fund, L.L.C. (6/07)	309,051,868
Direct Investment Funds	
1818 I, L.P. (3/16)	80,227,174
Alphadyne Global Rates Fund II, Ltd. (6/14)	329,573,265
Bluegill Liquidating Fund, L.L.C. (Series B) (1/14)	15,405,282
Brevan Howard Systematic Trading Fund, L.P. (6/15)	144,522,823
Bridgewater Pure Alpha Fund I (1/09)	336,218,969
AlphaTerra Fund, L.P. (12/15)	86,636,738
Grosvenor Monarch Fund, L.L.C. (Series B) (3/11)	578,444,398
ISAM Systematic Trend, L.L.C. (6/15)	132,627,789
Key Trends 15 Fund, L.L.C. (11/16)	96,103,786
PDT Mosaic Offshore Holdings, L.L.C. (6/15)	170,278,418
Penso Fund Platform SPC (11/15)	87,299,212
Quadratic Capital Management, L.L.C. (4/15)	89,194,635
Robeco Transtrend Diversified Fund, L.L.C. (5/15)	145,676,067
Tourbillon Global Equities, L.L.C. (12/14)	194,921,156
Varadero International, Ltd. (6/14)	238,053,948
Risk Parity/Global Macro Strategies	
All Weather Portfolio Limited (7/07)	486,754,945
AQR Multi-Strategy Fund XIV, L.P. (7/07)	945,972,683
Bridgewater Optimal Portfolio, L.L.C. (4/16)	434,063,240
PIMCO Multi-Asset Volatility Onshore Fund, L.L.C. (5/13)	145,855,618
Standard Life Investments Global Absolute Return Strategies Master Fund Ltd. (6/12)	792,138,972

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 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, 2017.

Collateral Type	Collateral Received	Securities on Loan	Collateral %
Cash collateral	\$3,222,459,845	\$3,134,013,718	102.8%
Non-cash collateral	24,311,798	22,379,067	108.6
Total	\$3,246,771,643	\$3,156,392,785	102.9%
Reinvested cash collateral	\$3,222,479,165		

Sources: State Street Bank and Trust and 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, 2017, TRS earned net income of \$16.3 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 FY17	
Securities lending income	\$30,972,635
Borrower rebates	(13,663,687)
Lending agent fees	(1,038,585)
Securities lending net income	\$16,270,363
Loan Averages during FY17	
Available to loan	\$17,881,155,687
Securities on loan	3,163,871,789
Percentage on loan	17.7%

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

BROKERAGE ACTIVITY

The following table shows the top 50 listed brokers utilized by TRS external equity managers for the year ended June 30, 2017. TRS also manages a commission recapture program as part of its trading strategies. For the year ended June 30, 2017, TRS recaptured \$0.1 million in cash that was reinvested in the fund. In addition, TRS paid for Investment Department expenses with \$0.2 million in commission recapture refunds.

Top 50 Brokers Used by TRS Managers

Broker	Shares Traded	FY17 Commission
Merrill Lynch & Co., Inc. and all Subsidiaries (Worldwide)	166,875,980	\$1,070,873
Citigroup, Inc. and all Subsidiaries (Worldwide)	433,275,800	1,007,913
Instinet, L.L.C. (Worldwide)	453,978,796	576,671
Morgan Stanley & Co., Inc. and Subsidiaries (Worldwide)	106,797,298	512,247
ConvergEx Group, L.L.C.	73,390,325	451,770
UBS AG	64,000,196	428,060
J.P. Morgan Securities, Inc. (Worldwide)	63,028,773	414,158
Credit Suisse (Worldwide)	77,053,316	396,350
Goldman Sachs & Co. (Worldwide)	63,065,811	350,854
Macquarie Bank & Securities, Ltd. (Worldwide)	158,349,467	327,325
Loop Capital Markets, L.L.C.	15,976,580	266,842
Barclays (Worldwide)	3,907,137	217,694
Pershing, L.L.C.	25,732,393	186,166
HSBC Bank PLC	18,745,417	179,874
Deutsche Bank & Securities (Worldwide)	57,510,988	171,311
Williams Capital Group, L.P.	9,871,608	159,966
Penserra Securities, L.L.C.	14,033,411	153,684
Jefferies & Company, Inc.	275,650,896	149,358
BNP Paribas Securities Services S.C.A.	20,873,149	146,101
Societe Generale S.A. and all Subsidiaries	215,162,799	145,093
Investment Technology Group, Inc. (Worldwide)	174,112,593	138,068
RBC Dain Rauscher (Worldwide)	5,156,077	117,246
Sanford Bernstein (Worldwide)	16,464,950	107,793
CL King & Associates, Inc.	4,186,617	105,568

(continued)

(continued)		
Broker	Shares Traded	FY17 Commission
Stifel Nicolaus & Company, Inc.	2,933,657	\$95,284
Bloomberg Tradebook, L.L.C.	3,046,684	82,520
CLSA Securities	23,810,088	81,113
Baird, Robert W., & Company, Incorporated	2,259,523	74,689
Credit Lyonnais Securities	25,789,862	68,465
SJ Levinson & Sons, L.L.C.	4,396,442	66,165
Telsey Advisory Group	2,297,637	61,877
Cabrera Capital Markets, Inc.	5,054,712	61,870
Mischler Financial Group	2,283,137	61,221
Academy Securities, Inc.	2,724,674	54,055
Cheevers & Co., Inc.	3,313,037	52,601
Daiwa Securities Group, Inc.	7,237,326	47,892
Mizuho Corporate Bank, Ltd. and all subsidiaries	2,288,120	45,841
Northern Trust Securities, Inc.	8,249,351	45,339
KCG Americas L.L.C	3,421,819	44,054
M. Ramsey King Securities, Inc.	1,846,024	43,104
Exane, Inc.	1,557,221	42,433
Guzman & Company	4,005,623	42,160
Drexel Hamilton, L.L.C.	1,329,287	40,926
Trade Informatics, L.L.C.	1,990,195	29,853
Mirae Asset Daewoo Co., Ltd.	139,961	29,507
Liquidnet, Inc.	4,700,994	29,463
Itaú Unibanco Holding S.A.	2,368,910	28,618
Raymond James and Associates, Inc. (Worldwide)	1,991,124	28,162
Jonestrading Institutional Services, L.L.C.	995,002	27,153
Joh. Berenberg, Gossler & Co.	228,323	25,562
(All others - 178 brokers)	175,502,637	1,040,380
Total	2,812,961,747	\$10,131,292

Sources: State Street Bank and Trust and TRS

INVESTMENT MANAGER AND CUSTODIAN FEES

For the year ended June 30, 2017, fee payments to external investment managers and the master custodian totaled \$318.2 million.

Schedule of Fees

Investment Manager/Account	FY17
Aberdeen Asset Management, Inc.	\$19,527
Acadian Asset Management, L.L.C.	2,893,627
Advent International GPE VI Limited Partnership	292,366
Advent International GPE VII-C Limited Partnership	753,581
Advent International GPE VIII-B-2 Limited Partnership	1,879,748
Affinity Investment Advisors, L.L.C.	132,486
All Weather Portfolio Limited	1,594,652
Alphadyne Global Rates Fund II, Ltd.	7,523,442
AlphaTerra Fund, L.P.	474,369
AG Direct Lending Fund II, L.P.	99,039
Apex Capital Management, Inc.	580,266
Apollo Investment Fund VI, L.P.	62,453
Apollo Investment Fund VII, L.P.	427,181
Apollo Investment Fund VIII, L.P.	1,176,179
Apollo Lincoln Fixed Income Fund, L.P.	896,776
Apollo Lincoln Private Credit Fund, L.P.	320,641
AQR Capital Management, L.L.C.	7,851,226
AQR Real Return Offshore Fund, L.P.	1,907,156
Astorg VI, SLP	1,478,919
Ativo Capital Management, L.L.C.	203,801
Axiom International Investors, L.L.C.	3,381,097
The Baring Asia Private Equity Fund V, L.P.	1,365,283
The Baring Asia Private Equity Fund VI, L.P.1	1,345,449
Barings, L.L.C.	2,650,429
Battery Ventures XI-A Side Fund, L.P.	17,269
Battery Ventures XI-A, L.P.	160,000
Beacon Capital Strategic Partners V, L.P.	34,636
Black River Agriculture Fund 2, L.P.	1,237,500
Black River Capital Partners Fund (Food), L.P.	765,941
Black River Food Fund 2, L.P.	1,312,500
BlackRock Asia Property Fund III, L.P.	66,177
Blackstone Capital Partners VI, L.P.	499,640
Blackstone Capital Partners VII, L.P.	1,338,750
Blackstone Real Estate Partners Asia, L.P.	1,500,000
Blackstone Real Estate Partners VI, L.P.	158,249
Blackstone Real Estate Partners VII, L.P.	1,984,616
Blackstone Real Estate Partners VIII.TE.2, L.P.	3,750,000
Blackstone/GSO Capital Solutions Fund, L.P.	412,349
BlueMountain Capital Management, L.L.C.	835,136
Brevan Howard Systematic Trading Fund, L.P.	1,497,808
	(continued)

(continued)	
Investment Manager/Account	FY17
Bridgewater Optimal Portfolio, L.L.C.	\$8,685,976
Bridgewater Pure Alpha Fund I	9,622,528
Brown Capital Management, L.L.C.	\$246,471
Capri/Capital Advisors, L.L.C.	2,491,037
Carlson Capital, L.P.	17,335,872
Carlyle Europe Real Estate Partners III, L.P.	136,407
Carlyle Japan International Partners III, L.P.	506,915
Carlyle Partners V, L.P.	285,016
Carlyle Partners VI, L.P.	2,529,789
Carlyle Realty Partners IV, L.P.	275,843
Carlyle Realty Partners VII, L.P.	997,260
Carlyle U.S. Growth Fund III, L.P.	186,323
Carlyle/Riverstone Global Energy and Power Fund III, L.P.	233,262
Channing Capital Management, L.L.C.	985,376
Clearlake Capital Partners II, L.P.	220,833
Clearlake Capital Partners III, L.P.	275,588
Clearlake Capital Partners IV, L.P.	1,322,425
Clearlake Opportunities Partners (P), L.P.	580,626
Cornerstone Hotel Income & Equity Fund II, L.P.	17,853
Dimensional Fund Advisors, L.P.	4,352,933
Dolan McEniry Capital Management, L.L.C.	669,682
Edgewater Growth Capital Partners II, L.P.	171,758
Edgewater Growth Capital Partners III, L.P.	160,306
EIF United States Power Fund IV, L.P.	985,118
Emerald Advisers, Inc.	1,740,921
Energy Capital Partners II-A, L.P.	197,748
Energy Capital Partners I, L.P.	136,818
Energy Capital Partners II Annex A	41,592
EQT VI, L.P.	992,613
EQT VII, L.P.	1,444,081
Fischer, Francis Trees & Watts, Inc.	145,516
Fortress Japan Opportunity Fund III (Dollar A), L.P.	629,355
Franklin Advisers, Inc.	2,783,898
Franklin Templeton Emerging Market Debt Opportunites (Cayman) Fund, Ltd.	2,065,259
Garcia Hamilton & Associates, L.P.	895,143
Gateway Real Estate Fund IV, L.P.	679,033
GI Partners Fund III, L.P.	360,448
GI Partners Fund IV, L.P.	1,306,911
Grain Communications Opportunity Fund, L.P.	716,546
	(continued)

<i>(continued)</i>	
Investment Manager/Account	FY17
Granite Ventures II, L.P.	\$158,732
Great Point Partners II, L.P.	372,796
Green Equity Investors VI, L.P.	157,533
Grosvenor Monarch Fund, L.L.C.	2,229,674
GTCR Fund VIII, L.P.	1,622
Heitman Capital Management, L.L.C.	7,047,815
Hines U.S. Core Office Fund, L.P.	173,768
Hopewell Ventures, L.P.	94,520
IC Hospitality Fund II, L.P.	136,750
ICV Partners III, L.P.	110,341
IL Asia Investors, L.P.	713,069
Invesco Institutional (N.A.), Inc.	2,265,762
ISAM Systematic Trend, L.L.C.	1,805,903
Jarislowky, Fraser Limited	16,139
JMI Equity Fund VII, L.P.	394,734
JMI Equity Fund VIII-A, L.P.	438,000
JP Morgan Investment Management, Inc.	4,122,787
JP Morgan Management Associates, L.L.C.	3,454,862
Key Trends 15 Fund, L.L.C.	801,417
LaSalle Asia Opportunity Fund III, L.P.	94,075
LaSalle Asia Opportunity Fund IV, L.P.	665,441
LCM Partners CO IIIa, L.P.	82,399
Lee Overlay Partners Limited	67,908
Levin Capital Strategies, L.P.	1,035,912
Lightspeed Venture Partners IX, L.P.	743,293
Lightspeed Venture Partners X, L.P.	280,977
Lightspeed Venture Partners XI, L.P.	184,506
Lightspeed Venture Partners Select, L.P.	293,304
Lightspeed Venture Partners Select II, L.P.	68,512
Lion Industrial Trust	3,280,153
Littlejohn Fund IV, L.P.	621,359
LiveOak Venture Partners I, L.P.	450,000
Lombardia Capital Partners, L.L.C.	533,225
Lone Star Real Estate Fund III (U.S.), L.P.	160,643
Lone Star Real Estate Fund IV (U.S.), L.P.	736,948
Longitude Venture Partners, L.P.	219,311
Longitude Venture Partners II, L.P.	474,972
Longitude Venture Partners III, L.P.	467,714
LPC Realty Advisors I, Ltd.	3,665,632
LSV Asset Management	6,596,431
MacKay Shields, L.L.C.	1,950,616
Madison Dearborn Capital Partners VII, L.P.	967,240
Madison International Real Estate Liquidity Fund VI (TE), L.P.	1,366,819
Magnetar Constellation Fund IV, L.L.C.	1,561,335
Manulife Asset Management, L.L.C.	1,309,436
Maranon Senior Credit Fund II-B, L.P.	368,792

(continued)

<i>(continued)</i>	
Investment Manager/Account	FY17
Maranon Mezzanine Fund, L.P.	\$24,829
MBK Partners Fund III Annex B	1,290
MBK Partners Fund III, L.P.	1,382,816
MBK Partners Fund IV, L.P.	769,829
McKinley Capital Management, Inc.	1,916,219
Mesirov Financial Investment Management, Inc.	675,412
MFS Institutional Advisors, Inc.	1,062,435
Mondrian Investment Partners Limited	5,144,937
Morgan Creek Partners Asia, L.P.	887,372
Morgan Creek Partners Venture Access Fund, L.P.	593,163
New Century Advisors, L.L.C.	627,207
New Enterprise Associates 15, L.P.	324,686
New Enterprise Associates 16, L.P.	51,798
New Mountain Partners III, L.P.	221,879
New Mountain Partners IV, L.P.	1,181,347
NGP Natural Resources X, L.P.	1,006,294
NGP Natural Resources XI, L.P.	1,320,150
Niam Nordic V, L.P.	238,963
Northern Shipping Fund III, L.P.	938,957
Northern Trust Investments, Inc.	564,068
NXT Capital Senior Loan Fund II, L.P.	632,200
NXT Capital Senior Loan Fund IV, L.P.	1,128,842
Oak Street Real Estate Capital Fund III, L.P.	423,040
OakBrook Investments, L.L.C.	129,275
Oaktree Enhanced Income Fund II, L.P.	1,996,551
Oaktree Enhanced Income Fund III, L.P.	949,529
Oaktree Enhanced Income Fund, L.P.	145,869
Oaktree European Principal Fund III, L.P.	761,462
Oaktree Opportunities Fund IX, L.P.	1,572,515
Oaktree Opportunities Fund VIII, L.P.	539,184
Oaktree Opportunities Fund VIIIb, L.P.	553,513
Oaktree Real Estate Debt Fund, L.P.	364,274
Oaktree Real Estate Debt Fund II, L.P.	10,562
Oaktree Real Estate Opportunities Fund VI, L.P.	928,667
OCM European Principal Opportunities Fund II, L.P.	366,343
OCM Opportunities Fund VIIb, L.P.	168,193
Onex Partners III, L.P.	54,524
Pacific Investment Management Company, L.L.C.	15,371,676
PAI Europe V, L.P.	54,866
Palladium Equity Partners IV, L.P.	249,990
Parthenon Investors IV, L.P.	97,297
Parthenon Investors V, L.P.	1,462,500
PDT Partners, L.L.C.	5,553,221
Pemberton Debt Fund Delaware I, L.P.	1,448,327
Penso Fund Platform SPC	907,173
PGIM, Inc.	666,860

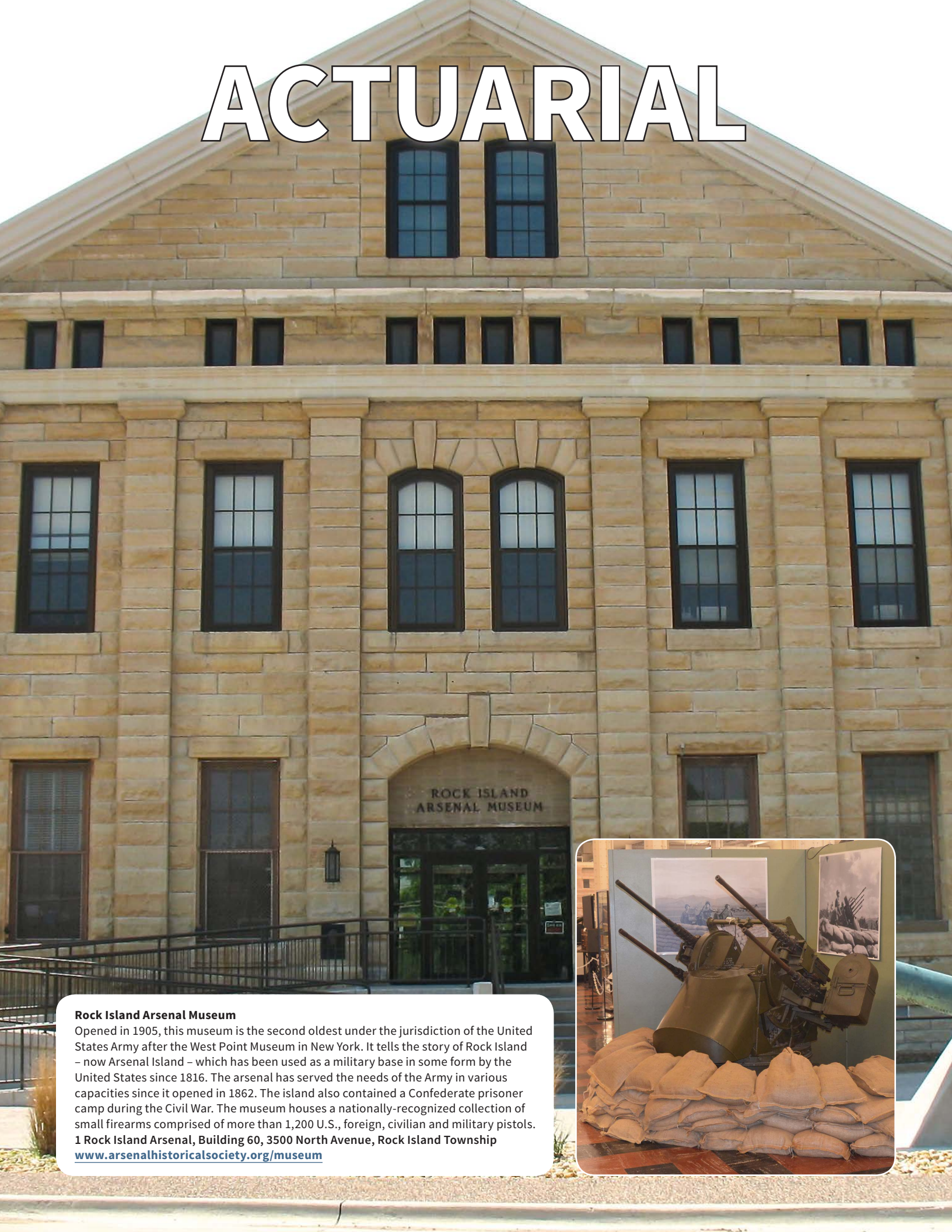
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Investment Manager/Account	FY17
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd.	\$2,695,021
PGIM Fixed Income U.S. Liquidity Relative Value Fund I (Cayman), Ltd.	3,384,435
PIMCO BRAVO Fund Onshore Feeder I, L.P.	137,180
PIMCO BRAVO Fund Onshore Feeder II, L.P.	1,873,340
PIMCO BRAVO Fund III Onshore Feeder, L.P.	69,082
Pine Brook Capital Partners, L.P.	402,843
Pine River Fund, Ltd.	124,593
Principal Real Estate Investors, L.L.C.	713,622
Prism Mezzanine Fund, L.P.	129,602
Providence Equity Partners VI, L.P.	283,141
Providence Equity Partners VII, L.P.	1,659,083
Quadratic Capital Management L.L.C.	699,406
Ramirez Asset Management, Inc.	33,739
RCP SBO Fund, L.P.	137,500
Rhone Partners V, L.P.	1,166,489
RhumbLine Advisers, L.P.	177,246
Riverstone Credit Partners, L.P.	399,314
Riverstone/Carlyle Global Energy and Power Fund IV, L.P.	342,640
Riverstone Global Energy and Power Fund V, L.P.	1,643,059
Riverstone Global Energy and Power Fund VI, L.P.	4,506,052
Robeco Boston Partners Asset Management, L.P.	1,106,881
Robeco Transtrend Diversified Fund, L.L.C.	5,081,634
Rockpoint Real Estate Fund V, L.P.	1,354,399
RRJ Capital Master Fund III, L.P.	2,290,243
Scale Venture Partners V, L.P.	750,000
SCP Private Equity Partners II, L.P.	319,516
Shasta Ventures IV, L.P.	158,450
Sheridan Production Partners III-B, L.P.	1,125,000
Silver Lake Partners III, L.P.	270,394
Silver Lake Partners IV, L.P.	1,575,730
Siris Partners II, L.P.	31,377
Siris Partners III, L.P.	611,689
Sofinnova Venture Partners VIII, L.P.	768,435
Sofinnova Venture Partners IX, L.P.	1,034,627
Southwest Multifamily Partners, L.P.	269,271
Standard Life Investments Global Absolute Return Strategies Master Fund Ltd.	5,543,054
StarVest Partners II, L.P.	111,880
Starwood Distressed Opportunity Fund IX Global, L.P.	1,433,850
Starwood IX Annex A	292,043
	<i>(continued)</i>

<i>(continued)</i>	
Investment Manager/Account	FY17
Starwood Opportunity Fund X Global, L.P.	\$2,696,282
Starwood X Annex A	26,550
Starwood X Annex B	74,081
State Street Bank and Trust Company (Custody)	2,100,000
Strategic Global Advisors, L.L.C.	1,757,312
Sunstone Partners I, L.P.	321,714
T. Rowe Price Associates, Inc.	1,824,570
Taplin, Canida & Habacht, L.L.C.	560,072
Taurus Mining Finance Annex Fund L.L.C.	284,817
Taurus Mining Finance Fund L.L.C.	906,250
TCW Asset Management Company	2,389,466
Tourbillon Global Equities, L.L.C.	3,480,870
Trident V, L.P.	886,956
Trident VI, L.P.	1,436,931
Trustbridge Partners IV, L.P.	480,537
Union Grove Partners Direct Venture Fund, L.P.	119,835
Union Grove Partners Venture Access Fund, L.P.	607,163
Union Grove Partners Venture Access Fund II, L.P.	400,000
Varadero International, Ltd.	5,886,639
Veritas Capital Fund V, L.P.	1,127,394
Veritas Capital Fund VI, L.P.	57,135
Vicente Capital Partners Growth Equity Fund, L.P.	96,765
Vista Credit Opportunities Fund I-B, L.P.	725,414
Vista Equity Partners Fund III, L.P.	99,720
Vista Equity Partners Fund IV, L.P.	1,437,367
Vista Equity Partners Fund V, L.P.	2,420,602
Vista Equity Partners Fund VI, L.P.	1,283,856
Vista Foundation Fund III, L.P.	953,832
Walton Street Real Estate Fund IV, L.P.	38,982
Walton Street Real Estate Fund VI, L.P.	585,838
Walton Street Real Estate Fund VII, L.P.	1,321,056
Warburg Pincus Private Equity X, L.P.	581,579
Wasatch Advisors, Inc.	2,650,658
Westbrook Real Estate Fund X, L.P.	1,442,911
West Street Global Infrastructure Partners III, L.P.	1,687,500
Westwood Management Corp.	209,609
Total fees paid by TRS	<u>\$318,170,747</u>

Note: This schedule captures investment manager fees applicable to the fiscal year reported and differs from investment fees reported within the Financial Section.

ACTUARIAL



Rock Island Arsenal Museum

Opened in 1905, this museum is the second oldest under the jurisdiction of the United States Army after the West Point Museum in New York. It tells the story of Rock Island – now Arsenal Island – which has been used as a military base in some form by the United States since 1816. The arsenal has served the needs of the Army in various capacities since it opened in 1862. The island also contained a Confederate prisoner camp during the Civil War. The museum houses a nationally-recognized collection of small firearms comprised of more than 1,200 U.S., foreign, civilian and military pistols. 1 Rock Island Arsenal, Building 60, 3500 North Avenue, Rock Island Township
www.arsenalhistoricalsociety.org/museum





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November 27, 2017

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, 2017, 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 experience review covering the period July 1, 2011, through June 30, 2014, and the economic experience review presented at the August 2016 Board meeting. The economic assumptions were reviewed again in June 2017, but no changes were adopted. In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the System and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience of 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 census data and the valuation date. The amount of assets in the trust fund as of the valuation date taken into account in the valuation 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 where payments at least cover interest on the unfunded actuarial accrued liability and a portion of the principal balance.** The funding policy adopted by the Board, referred to as Actuarial Math 2.0, meets this standard.

The valuation indicates that for the fiscal year ending June 30, 2017, the actuarial experience of TRS was unfavorable, generating a net actuarial loss of \$220 million (0.2% of the actuarial accrued liability). This loss is the net result of a \$384 million gain due to favorable investment return experience and a \$604 million loss due to net unfavorable demographic experience in fiscal 2017.

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 they 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. Both are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and both are experienced in performing valuations for large public retirement systems. They both meet the Qualification Standards of the American Academy of Actuaries.

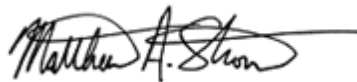
Respectfully submitted,

Segal Consulting, a Member of the Segal Group

By:



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



Matthew A. Strom, FSA, MAAA, EA
Vice President and 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 June 30, 2016 preliminary report prepared by Segal Consulting, Cheiron did not recommend any changes in actuarial assumptions or calculations, but minor clarifications and additional disclosures were proposed and changes were made in the preliminary 2017 actuarial valuation. However, additional disclosure on stress testing was not included in either the 2016 final or 2017 preliminary actuarial valuations. TRS and Segal believe this type of analysis is better suited to discussion with input from the TRS Board of Trustees, the actuary, and the TRS general investment consultant, RVK, Inc.

The preliminary June 30, 2017 actuarial valuation prepared by Segal Consulting 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 FY15 valuation

and are based on the 2015 experience analysis unless otherwise noted.

INVESTMENT RETURN

The investment return rate is 7.0 percent per annum, compounded annually, including inflation at 2.5 percent and real return at 4.5 percent. This is the expected rate of return on investments after 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) are below and were adopted in the FY16 valuation.

Salary Increase Assumptions

Service	Male and Female
1 year	9.25%
2 years	7.25
3 years	6.75
4 years	6.45
5 years	6.25
10 years	5.25
15 years	4.25
20 years and above	3.25

For a member who works 34 years, the assumed average salary increase over the member's career is 4.44 percent per year.

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:

Tier I is composed of members who entered service before January 1, 2011:

Tier I Retirement Assumptions

Age	Years of Service				
	5-18	19-30	31	32-33	34+
54	-%	6%	8%	38%	60%
55	-	10	8	38	60
60	14	30	48	60	40
65	26	37	50	50	40
70	100	100	100	100	100

Tier II is composed of those entering service on or after January 1, 2011:

Tier II 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-2014.

For retirees and inactive members, the RP-2014 White Collar Annuitant table with female rates is multiplied by 76 percent for ages 50-77 and 106 percent for ages 78 to 114 and is multiplied by 115 percent for males ages 78 to 114.

For beneficiaries, the RP-2014 White Collar Annuitant table is used with male and female rates multiplied by 112 percent for ages 50-114.

For disabled members, the RP-2014 Disabled Retiree table is used.

For active members, the RP-2014 White Collar Employee table is used.

DISABILITY

Here are the sample annual disability rates:

Disability Assumptions

Age	Male	Female
25	0.029%	0.030%
30	0.023	0.061
40	0.051	0.112
50	0.117	0.192
55	0.138	0.240
60	0.179	0.227
65	0.536	0.410

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	9.5%	8.4%	6.0%	6.5%
30	8.8	11.3	2.8	5.0
40	12.3	10.8	1.7	2.2
50	16.7	11.8	1.9	1.7
55	20.7	17.0	5.0	3.8
60	16.4	16.9	4.6	4.0
65	30.2	35.0	4.6	4.0

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 II.

Severance Pay Assumptions

Percent Retiring with Severance Pay	Severance Pay as a Percent of Other Pensionable Earnings in Last Year of Service
20%	2.5%

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	0.204 years
20	0.537 years
25	1.029 years
30	1.424 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	0.938 years
25	1.115 years
30	1.276 years
34	1.450 years
35 or more	None

POST-RETIREMENT INCREASES

Tier I: 3%, compounded.

Tier II: 1.25%, not compounded.

ACTUARIAL COST METHOD

The actuarial cost method required by the Illinois Pension Code is projected unit credit. Gains and losses are reflected in the unfunded liability, which was adopted in the FY89 valuation as required by Public Act 86-0273.

ASSET VALUATION METHOD

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

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.

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

Actuarial Valuation (\$ thousands)

	Year ended June 30, 2017
Based on actuarial value of assets	
Total actuarial accrued liability	\$122,904,034
Less actuarial value of assets*	49,467,525
Unfunded liability	<u>\$73,436,509</u>
Funded ratio*	40.2%
Based on fair value of assets	
Total actuarial accrued liability	\$122,904,034
Less assets at fair value	49,375,665
Unfunded liability	<u>\$73,528,369</u>
Funded ratio	40.2%

* Five-year prospective smoothing began in FY09.

ANALYSIS OF FINANCIAL EXPERIENCE: RECONCILIATION OF UNFUNDED LIABILITY

The \$2.0 billion net increase in the 2017 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 cost of benefits earned during the year and prevent the prior year's unfunded liability from growing. That shortfall was \$1.8 billion.

Actuarial gains and losses occurred under the other assumptions. The most significant gain was on investments, which includes 20 percent of the difference between expected and actual returns in FY17 and decreased the unfunded liability by \$384 million during the year. Other actuarial gains occurred under the assumptions for disabilities and new members, meaning that experience was more favorable (less costly) than assumed.

Actuarial losses occurred under the assumptions for salary increases, retirement, terminations, mortality and rehires (members coming back into teaching service). Salary increases were higher than expected for the first time since FY07.

The net effect of all actuarial gains and losses was to increase the unfunded liability by \$0.2 billion.

This amount added to the \$1.8 billion employer cost in excess of contributions caused the \$2.0 billion increase in the unfunded liability in FY17.

Reconciliation of Unfunded Liability

Reconciliation of Unfunded Actuarial Accrued Liability	Year Ended June 30, 2017
Unfunded liability at beginning of year	\$71,407,792,496
Additions	
Employer cost in excess of contributions	1,808,876,910
Actuarial losses (gains) compared to assumptions	
Asset gain on actuarial value of assets*	(384,476,850)
Salary increases for continuing active members	29,518,579
Retirements other than expected	365,965,251
Disabilities other than expected	(23,361,862)
Terminations other than expected	25,597,354
Mortality other than expected	24,539,086
Rehires	32,789,033
New entrant loss	(16,627,360)
Other	165,896,422
Net actuarial losses (gain)	219,839,653
Unfunded liability at end of year	<u>\$73,436,509,059</u>

* Assets were expected to earn 7.0 percent during the year ended June 30, 2017. This item is the difference between the expected and the actual return on an actuarial basis. For example, in FY17, the expected actuarial returns of \$3.257 billion was less than the \$3.641 billion actual return on assets, resulting in an actuarial gain which decreased the unfunded pension benefit obligation by \$0.384 billion.

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 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 increase in Illinois revenue. Subsequent 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 widely used 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 current 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 FY96. 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 do not exceed certain maximums.

Public Act 100-0023, enacted in 2017, makes two changes affecting TRS funding and requires 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.

Another 2017 law, Public Act 100-0340, lowers the contribution rate that employers pay for teachers paid from federal funds. The net effect of the two laws was to lower the FY18 state contribution by \$470 million, as shown in the table on state contribution requirements.

STATE FUNDING AMOUNTS

The FY18 recertified state contributions are based on the June 30, 2016 actuarial valuation and the FY19 certifications are based on the June 30, 2017 actuarial valuation. The state actuary will review the proposed certifications for FY18 and FY 19 as well as the June 30, 2017 valuation. Final certifications are due January 15, 2018 pursuant to Public Act 97-0674.

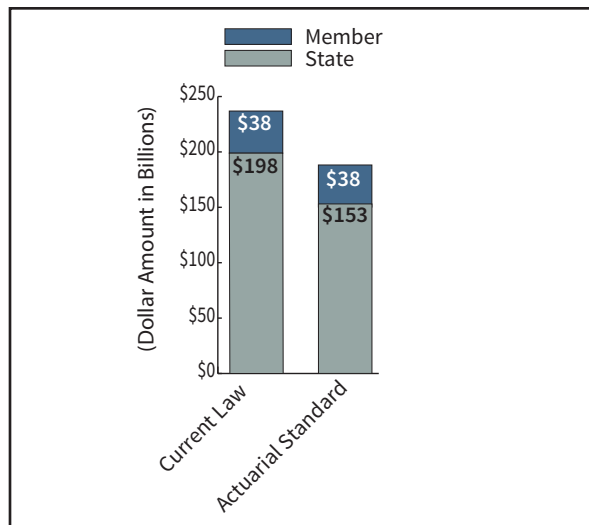
The following table shows funding requirements under the statutory funding plan and the TRS board's funding plan that was adopted in 2015.

FY18 & FY19 State Contribution Requirements

	FY18 Original Certification	FY18 Recertification (PA 100-0023 & PA100-0340)	FY 19 Certification
Based on Statutory Funding Plan			
Benefit Trust Reserve	\$4,564,252,674	\$4,094,616,146	\$4,465,578,109
Minimum Annuity Reserve	700,000	700,000	600,000
Total State Contribution	\$4,564,952,674	4,095,316,146	\$4,466,178,109
Based on TRS Board Funding Policy			
Benefit Trust Reserve	\$6,875,583,032	\$6,992,332,528	\$7,370,330,484
Minimum Annuity Reserve	700,000	700,000	600,000
Total State Contribution	\$6,876,283,032	\$6,993,032,528	\$7,370,930,484
Employer Normal Cost Rate	10.10%	10.10%	9.85%

Under the TRS board's funding policy, the state funding requirement is initially much 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.

State and Member Required Contributions FY19-FY45



TESTS OF FINANCIAL CONDITION

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

Funded Ratio Test (\$ thousands)

As of June 30	Assets			Unfunded Liability using Assets based on		Funded Ratio using Assets based on	
	Actuarial Accrued Liability	Actuarial Value (Smoothed) ¹	Fair Value ²	Actuarial Value (Smoothed) ¹	Fair Value ²	Actuarial Value (Smoothed) ¹	Fair Value ²
2008	\$68,632,367	\$38,430,723	\$38,430,723	\$30,201,644	\$30,201,644	56.0%	56.0%
2009	73,027,198	38,026,044	28,497,729 ³	35,001,154	44,529,469	52.1	39.0
2010	77,293,198	37,439,092	31,323,784	39,854,106	45,969,414	48.4	40.5
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

1. The actuarial value of assets was the same as the fair value of assets in FY08. Five-year prospective smoothing began in FY09.
2. The fair value of assets was used as the actuarial value of assets in FY08. Beginning in FY09, the fair value of assets is no longer used for determining state funding requirements but is shown here for comparative purposes.
3. The 2009 fair value of assets is the final, actual figure. The actuary's report shows a slightly higher funded ratio of 39.1 percent for 2009 because the fair value of assets was lowered after the actuarial results were certified.

The unfunded liability as a percentage of payroll is a standard measure of the relative size of the unfunded liability. Decreases in this percentage indicate improvements 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
2008	\$8,521,717	\$30,201,644	354.4%
2009	8,945,021	35,001,154	391.3
2010	9,251,139	39,854,106	430.8
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

* Payroll supplied by TRS

** Unfunded liability is based on the fair value of assets through FY08 and five-year smoothing beginning in FY09.

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		
	Members' Accumulated Contributions (1)	Participants Currently Receiving Benefits (2)	Active Members Employer Portion (3)		(1)	(2)	(3)
2008	\$6,931,518	\$41,849,964	\$19,850,885	\$38,430,723	100%	75%	-
2009	7,320,600	44,495,917	21,210,681	38,026,044	100	69	-
2010	7,715,984	47,475,906	22,101,308	37,439,092	100	63	-
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	-

* Fair value in FY08. Five-year prospective smoothing began in FY09.

OTHER INFORMATION

Schedule of Contributions from Employers and Other Contributing Entities¹

(\$ in thousands)

Year Ended June 30	State Contributions ²	Federal and Employer Contributions ²	Total	Actuarially Determined Contribution ³	Percentage Contributed	Annual Required Contribution per State Statute	Percentage Contributed
2008	\$1,039,195	\$130,578	\$1,169,773	\$1,949,463	60.0%	\$1,135,127	103.1%
2009	1,449,889	151,716	1,601,605	2,109,480	75.9	1,556,737	102.9
2010	2,079,129	170,653	2,249,782	2,481,914	90.6	2,217,053	101.5
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

1. Actual contributions varied slightly from contributions that are required by statute mainly because of differences between estimated and actual federal contributions.
2. Excludes minimum retirement contributions. Employer ERO contributions were included through FY16 because the costs of the ERO program were included in the actuarial accrued liability. 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. The FY15 state contribution reflects a \$35 million reduction in the originally-certified state contribution under Public Act 98-0674, which increased federal contributions and reduced state contributions.
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's funding policy.

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) that includes the employer's normal cost and amortize the System's unfunded liability over a 30-year open period, with the amortization component based on a level percent of pay. This amount was determined under GASB Statement No. 25. A different comparison is used beginning in FY17 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
2008	89,236	4,912	2,686	91,462	\$3,551,117,836	6.2%	\$38,826	3.6%
2009	91,462	5,520	2,558	94,424	3,815,292,869	7.4	40,406	4.1
2010	94,424	5,711	2,381	97,754	4,109,018,971	7.7	42,034	4.0
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

Source: TRS

Year Ended June 30	Amount Added to Rolls		
	Annual Benefit Increases	New Benefit Recipients	Amount Removed from Rolls
2008	\$93,731,561	\$174,119,867	\$61,448,244
2009	108,144,294	219,175,023	63,144,284
2010	114,879,927	247,234,501	68,388,326
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

Source: TRS

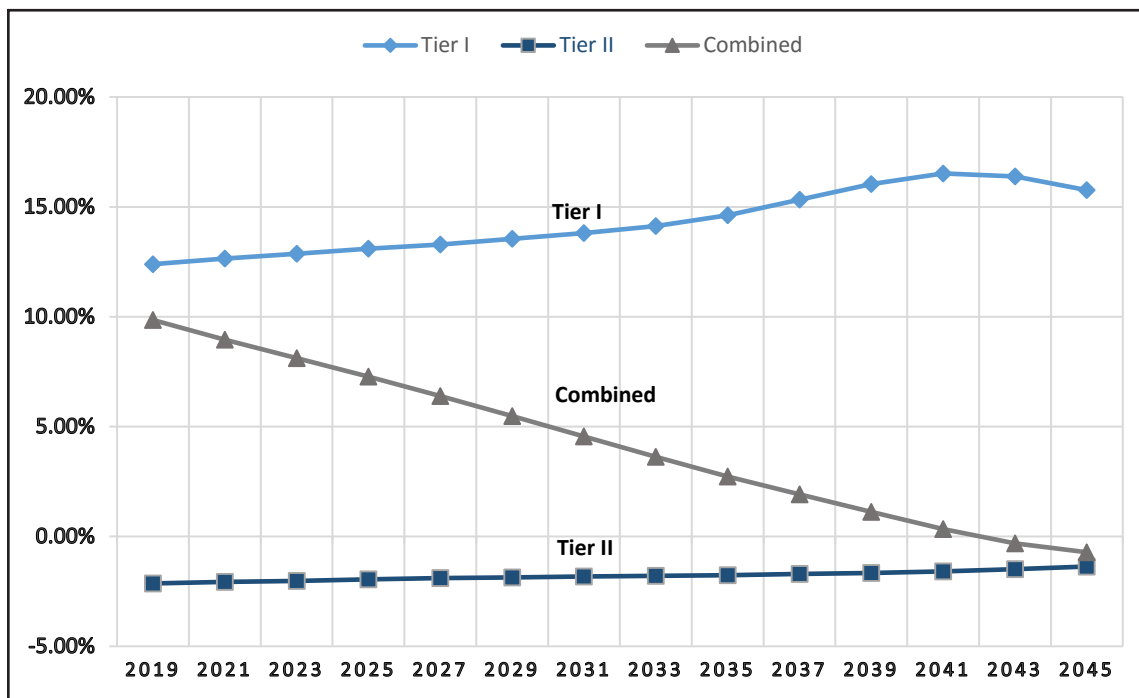
FUNDING ANALYSIS BY TIER

Public Act 96-0889 established a new tier of benefits for teachers who first contribute to TRS or another reciprocal pension system on or after January 1, 2011. Tier II 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 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 and is net of the teacher's contribution. 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 2019 is just under 10 percent of pay, the cost of Tier II is negative and stays negative through 2045.

As more Tier II members enter TRS, the combined employer normal cost continues to fall. By 2042, the combined employer normal cost is negative. In the meantime, the cost of Tier I, which is a closed group, continues to increase as Tier I 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. The increases in employer normal cost also reflect increased life expectancy as mortality improvements are phased in.

Employer Normal Cost by Tier

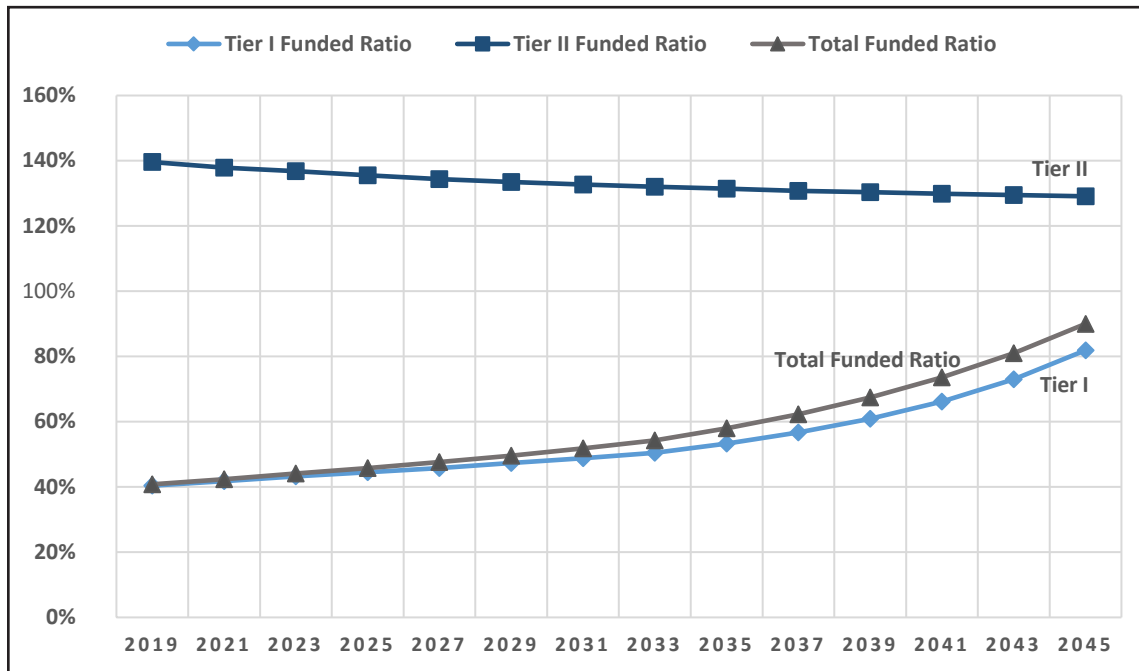


Note: Combined rate includes administrative expenses.

Under the 50-year funding plan, TRS will attain a funded ratio of 90 percent by 2045. The following chart illustrates how the tiers would be funded if they were operated as separate retirement plans. Tier II would be overfunded because member contributions are higher than the cost of Tier II benefits. The surplus Tier II assets lower the employer/state contributions required for Tier I. Tier II active members are projected to outnumber Tier I active members by 2024.

By 2045, Tier I would be 82 percent funded and Tier II would be 129 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



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

Years of Service*	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Under 5										
Members	26,486	26,767	26,698	25,191	24,812	25,733	27,960	33,487	37,293	42,725
Salary	\$49,935	\$49,464	\$47,796	\$46,845	\$46,058	\$46,222	\$47,292	\$46,324	\$45,464	\$44,916
5-9										
Members	26,436	27,845	29,798	33,028	34,682	35,071	34,626	34,529	33,494	31,959
Salary	\$59,150	\$59,276	\$58,935	\$58,540	\$58,027	\$57,741	\$57,416	\$57,105	\$55,945	\$55,436
10-14										
Members	29,617	29,395	29,214	28,747	28,503	28,105	26,865	25,051	23,133	21,395
Salary	\$71,412	\$71,140	\$70,589	\$70,233	\$69,686	\$68,751	\$67,691	\$66,788	\$65,168	\$64,705
15-19										
Members	23,936	22,894	21,421	19,917	19,406	18,610	17,935	17,790	17,417	14,753
Salary	\$82,745	\$81,868	\$80,737	\$79,921	\$79,295	\$78,328	\$77,268	\$76,001	\$73,770	\$71,802
20-24										
Members	14,728	14,120	13,877	13,562	12,280	11,834	11,682	11,391	11,084	10,447
Salary	\$92,035	\$90,942	\$89,591	\$88,037	\$86,235	\$84,904	\$83,563	\$82,184	\$79,805	\$78,080
25-29										
Members	8,254	8,087	7,908	7,827	7,913	7,940	7,834	7,786	7,790	8,654
Salary	\$97,624	\$96,157	\$94,510	\$93,016	\$91,735	\$89,986	\$88,416	\$86,566	\$84,282	\$82,013
30-34										
Members	3,979	3,936	3,970	3,941	4,247	4,826	5,839	6,554	6,858	5,763
Salary	\$104,652	\$102,896	\$100,785	\$98,807	\$96,966	\$94,665	\$93,299	\$91,077	\$87,973	\$85,738
35 +										
Members	453	592	731	809	889	994	1,179	1,251	1,265	790
Salary	\$110,576	\$107,826	\$105,372	\$103,533	\$101,293	\$98,140	\$98,678	\$95,486	\$90,698	\$88,478
Total Members	133,889	133,636	133,617	133,022	132,732	133,113	133,920	137,839	138,334	136,486
Salary	\$71,773	\$70,868	\$69,538	\$68,556	\$67,558	\$66,696	\$66,044	\$64,385	\$62,319	\$60,254
% Change salary	1.3%	1.9%	1.4%	1.5%	1.3%	1.0%	2.6%	3.3%	3.4%	3.7%
Total payroll full & part-time	\$9,609,615,197	\$9,470,516,048	\$9,291,458,946	\$9,119,456,232	\$8,967,108,456	\$8,878,104,648	\$8,844,612,480	\$8,874,727,268	\$8,620,836,546	\$8,223,827,444
Number of Employers	989	992	1,006	1,013	1,019	1,024	1,029	1,030	1,030	1,028

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.

* In FY08, years of service increments were as follows: 0-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, and 35+. However, figures for that year are not restated.

Average Annual Salary and Age for Active Members by Years of Service as of June 30, 2017

Age	Subs	Years of Service											Full and Part-time Member Totals			
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+				
20-24	Members Salary 2,000 \$5,391	2,944 \$42,594	1 \$56,137	-	-	-	-	-	-	-	-	-	-	-	-	2,945 \$42,598
25-29	Members Salary 2,994 \$5,349	10,867 \$47,818	4,259 \$53,900	-	-	-	-	-	-	-	-	-	-	-	-	15,126 \$49,530
30-34	Members Salary 2,246 \$5,572	4,847 \$51,181	10,997 \$59,100	5,095 \$67,644	-	-	-	-	-	-	-	-	-	-	-	20,939 \$59,346
35-39	Members Salary 2,681 \$5,088	2,740 \$53,595	4,401 \$61,192	11,732 \$71,878	4,174 \$80,476	-	-	-	-	-	-	-	-	-	-	23,047 \$69,221
40-44	Members Salary 3,042 \$5,503	2,020 \$53,413	2,512 \$61,087	4,700 \$73,190	9,383 \$83,919	2,364 \$91,657	-	-	-	-	-	-	-	-	-	20,979 \$76,716
45-49	Members Salary 3,726 \$5,402	1,412 \$54,304	1,935 \$60,312	3,191 \$72,455	4,356 \$84,229	6,717 \$92,864	1,814 \$96,592	-	-	-	-	-	-	-	-	19,425 \$81,878
50-54	Members Salary 2,983 \$5,439	843 \$54,225	1,247 \$60,703	2,312 \$70,937	2,487 \$81,872	2,749 \$92,088	3,965 \$98,277	1,491 \$104,028	-	-	-	-	-	-	-	15,094 \$85,263
55-59	Members Salary 2,734 \$5,505	504 \$62,900	724 \$62,636	1,698 \$70,850	2,242 \$79,872	1,875 \$89,731	1,785 \$97,200	2,099 \$105,324	154 \$111,337	-	-	-	-	-	-	11,081 \$86,309
60-64	Members Salary 2,190 \$5,709	236 \$67,105	296 \$65,714	718 \$75,069	1,044 \$82,082	824 \$91,006	546 \$97,241	306 \$103,501	162 \$108,445	42 \$115,983	-	-	-	-	-	4,174 \$85,547
65-69	Members Salary 1,320 \$5,223	63 \$64,826	59 \$65,575	154 \$80,813	224 \$87,824	177 \$94,423	127 \$98,657	73 \$103,731	23 \$108,887	43 \$116,719	14 \$100,571	-	-	-	-	957 \$89,673
70-74	Members Salary 515 \$5,224	8 \$62,376	2 \$67,232	16 \$75,141	24 \$89,207	22 \$88,351	15 \$107,635	10 \$98,674	7 \$105,106	-	5 \$112,962	-	-	-	-	109 \$90,112
Over 74	Members Salary 168 \$4,881	2 \$103,310	3 \$65,139	1 \$41,985	2 \$78,669	-	2 \$79,664	-	1 \$63,779	-	2 \$104,819	-	-	-	-	13 \$79,547
Total	Members Salary 26,599 \$5,417	26,486 \$49,935	26,436 \$59,150	29,617 \$71,412	23,936 \$82,745	14,728 \$92,035	8,254 \$97,624	3,979 \$104,652	347 \$109,562	85 \$116,356	19 \$103,832	2 \$104,819	2 \$104,819	19 \$103,832	133,889 \$71,773	

Source: TRS

	Average Age	Average Years of Service	Members
Full and part-time members	42	13	133,889
Substitutes	45	4	26,599
All	42	11	160,488

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 13-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 contribute to TRS or one of the Illinois reciprocal retirement systems on or after January 1, 2011. Tier I benefits were not affected by PA 96-0889.

See the table on the following pages for a summary of Tier I and Tier II benefits. No description of Tier III benefits is included in the plan summary because the plan is not yet operational, but Tier III is described under "Legislative" in the Financial section.

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.

SUMMARY OF TIER I AND TIER II BENEFIT PROVISIONS

	Tier I
Tier I Defined	Members who first contributed to TRS or one of the other Illinois reciprocal retirement systems before January 1, 2011 are covered by Tier I. Tier I membership is retained even if a member takes a refund and does not repay it.
Retirement Eligibility (Vesting)	<p>Tier I 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 I 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 I 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 I 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	<p>Annual increases are 3% of the current retiree benefit.</p> <p>The first increase is the later of the January 1 following attainment of age 61 or the first anniversary of retirement.</p>
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 or a higher amount based on service credit and age.</p> <p>On the January 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 I 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	Tier I retirees can teach up to 100 days or 500 hours per year without having their retirement benefits suspended.
Contributions to TRS	<p>During FY17, Tier I members contributed 9.0% of pay. Of this rate, 7.5% is for retirement benefits, 1.0% is for survivor benefits, 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 FY17, members contributed 1.12% 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 but the 1% survivor benefit contribution. Credit can be re-established if the member returns to 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.

Tier II	
Tier II Defined	Members who first contributed to TRS on or after January 1, 2011 and do not have any previous service with one of the other Illinois reciprocal retirement systems are covered by Tier II.
Retirement Eligibility (vesting)	<p>Tier II 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 II 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 II creditable earnings for pension purposes are limited by an amount that is tied to the 2010 Social Security Wage Base (SSWB). The Tier II limit increases by 3% or half the increase in the Consumer Price Index, whichever is less. The FY17 Tier II limit was \$112,408.32.</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 II 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 January 1 following attainment of age 67 or the first anniversary of retirement.</p>
Disability Benefits	Same as Tier I, including increases.
Survivor Benefits	<p>In most cases, survivor benefits for Tier II 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 II 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 FY17, Tier II members also contributed 9.0% of pay, with components designated for the same purposes.</p> <p>Tier II 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 I.
Refunds	Same as Tier I.
Service Credit	Same as Tier I. The purchase of optional service earned before January 1, 2011 does not change a Tier II member's status to Tier I.

STATISTICAL



Lewis & Clark State Historic Site and Interpretive Center

On December 12, 1803, William Clark and a contingent of men that would eventually travel with him and Meriwether Lewis on their historic voyage of discovery landed at the mouth of River Dubois, which feeds into the Mississippi River near what is now Hartford. There they built a winter camp. At 3:00 pm on May 14, 1804, Lewis declared in his journal that Camp River Dubois was the official "point of departure" for the famous exploration of the Louisiana Purchase. The successful expedition returned to the camp in September of 1806. In 2000, the State of Illinois constructed a 14,000 square foot interpretive center to help visitors understand the mission and significance of the Lewis & Clark voyage. The site also includes a modern reconstruction of Camp River Dubois.

1 Lewis & Clark Trail, Hartford | www.campdubois.com



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 107-108

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 109

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 109

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

RETIRED MEMBERS BY YEARS OF SERVICE AND YEARS IN RETIREMENT – PAGE 110

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 111

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

AVERAGE BENEFIT PAYMENTS TO CURRENT RECIPIENTS – PAGE 112

This schedule shows the average retirement, disability, and survivor benefits by benefit range. It also breaks down the retirement and disability benefits by type.

AVERAGE BENEFIT PAYMENTS TO NEW RETIREES – PAGE 113

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.

PARTICIPATING EMPLOYERS – PAGE 114

This schedule allows the reader to view the 10 largest participating employers of the 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)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions										
Member contributions*	\$929,130	\$951,809	\$935,451	\$928,746	\$921,423	\$917,661	\$909,577	\$899,401	\$876,182	\$865,400
State of Illinois	3,986,364	3,742,469	3,377,665	3,438,383	2,703,312	2,406,364	2,170,918	2,080,729	1,451,592	1,041,115
Employer contributions**	149,495	148,041	145,591	158,335	157,179	154,895	155,111	171,421	152,329	130,673
Investment income (loss) net of expenses	5,520,453	(44,103)	1,770,550	6,782,031	4,561,768	224,107	7,234,539	3,679,643	(8,688,286)	(2,014,902)
Total additions to/reductions from plan net position	10,585,442	4,798,216	6,229,257	11,307,495	8,343,682	3,703,027	10,470,145	6,831,194	(6,208,183)	22,286
Deductions										
Benefit payments	6,152,868	5,848,180	5,536,399	5,225,207	4,893,084	4,553,822	4,228,283	3,927,838	3,653,714	3,423,982
Refunds	285,138	83,027	88,638	95,456	88,398	84,635	76,587	60,350	53,709	60,286
Administrative expenses	22,729	22,968	21,687	21,218	20,257	19,012	17,792	16,951	17,388	16,613
Total deductions from plan net position	6,460,735	5,954,175	5,646,724	5,341,881	5,001,739	4,657,469	4,322,662	4,005,139	3,724,811	3,500,881
Changes in net position restricted for pensions										
Beginning of year	45,250,957	46,406,916	45,824,382	39,858,768	36,516,825	37,471,267	31,323,784	28,497,729	38,430,723	41,909,318
Net increase (decrease)	4,124,708	(1,155,959)	582,534	5,965,614	3,341,943	(954,442)	6,147,483	2,826,055	(9,932,994)	(3,478,595)
End of year	\$49,375,665	\$45,250,957	\$46,406,916	\$45,824,382	\$39,858,768	\$36,516,825	\$37,471,267	\$31,323,784	\$28,497,729	\$38,430,723

* 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.

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

	Fiscal Year									
	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Type of benefit										
Retirement	\$5,857,968	\$5,575,130	\$5,281,221	\$4,986,156	\$4,670,385	\$4,347,173	\$4,036,147	\$3,749,666	\$3,486,697	\$3,268,108
Survivor	263,430	242,578	224,779	208,424	192,390	177,422	163,910	151,074	140,695	130,369
Disability	31,470	30,472	30,399	30,627	30,309	29,227	28,226	27,098	26,322	25,505
Total benefits	\$6,152,868	\$5,848,180	\$5,536,399	\$5,225,207	\$4,893,084	\$4,553,822	\$4,228,283	\$3,927,838	\$3,653,714	\$3,423,982
Type of refund										
Withdrawals	30,487	26,797	29,789	33,128	30,194	25,563	22,528	17,149	17,357	17,280
Death benefits and excess contribution refunds paid to survivors	19,135	17,094	17,881	20,633	16,764	18,415	16,404	15,161	15,076	17,182
2.2 and optional service	14,185	15,074	17,855	19,331	20,053	20,988	19,861	15,050	11,013	14,082
Survivor contributions refunded to retirees	9,410	10,458	10,197	10,990	10,780	10,358	10,252	7,967	6,916	8,522
ERO and other	211,921	13,604	12,916	11,374	10,607	9,311	7,542	5,023	3,347	3,220
Total refunds	\$285,138	\$83,027	\$88,638	\$95,456	\$88,398	\$84,635	\$76,587	\$60,350	\$53,709	\$60,286

Employee and Employer Contribution Rates, Last 10 Fiscal Years

Fiscal Year	Employee Rate (%) ²	Employer Rate (%) ¹			Total ⁵
		State ³	School Districts for 2.2 Formula	School Districts from Federal Sources ⁴	
2008	9.40%	12.53%	0.58%	0.58%	13.69%
2009	9.40	16.44	0.58	0.63	17.66
2010	9.40	22.56	0.58	0.82	23.96
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

1. Employer contributions exclude lump-sum contributions for the Early Retirement Option.
2. Employee rate decreased to 9.00 percent in FY17 because the ERO program was discontinued.
3. FY08 through FY10 rates are based on statutory ramp schedule. FY11 rate is based on recertification requirements of Pubic Act 96-1511. FY12 – FY16 were based on the statutory formula. The FY15 total employer rate is the same as originally certified by the TRS Board of Trustees but the state component is lower and the federal component is higher than originally certified due to PA 98-0674.
4. Federal contributions above are expressed as percentages of total active member payroll. Through FY17, the employer contribution rate paid on behalf of members paid from federal sources is the same as the employer contribution rate paid by the State of Illinois on behalf of members not paid from federal sources: 13.11 percent in FY08, 17.08 percent in FY09, 23.38 percent in FY10, 23.10 percent in FY11, 24.91 percent in FY12, 28.05 percent in FY13, 35.41 percent in FY14, 33.00 percent in FY15, 36.06 percent in FY16 and 38.54 percent in FY17.
5. 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 I		Tier II		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

Note: The first Tier II members were hired January 1, 2011.

Retired Members by Years of Service and Years in Retirement as of June 30, 2017*

Years Retired	Years of Service													Weighted Average Age
	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Average	Age	
Under 1	184	255	350	423	615	587	665	816	85	14	3	3,997	61	
Average current benefit	\$272	\$787	\$1,483	\$2,502	\$3,463	\$4,594	\$5,776	\$6,582	\$7,324	\$9,526	\$10,939	\$4,167		
Average original benefit	\$272	\$787	\$1,481	\$2,499	\$3,457	\$4,589	\$5,771	\$6,581	\$7,324	\$9,526	\$10,939	\$4,164		
1 - 4	876	1,495	1,590	1,858	2,856	2,611	3,059	3,933	400	69	10	18,757	64	
Average current benefit	\$295	\$788	\$1,552	\$2,438	\$3,465	\$4,611	\$5,890	\$6,421	\$7,435	\$8,803	\$13,340	\$4,124		
Average original benefit	\$277	\$734	\$1,451	\$2,295	\$3,286	\$4,370	\$5,601	\$6,221	\$6,985	\$8,234	\$12,332	\$3,934		
5 - 9	1,025	2,039	1,886	1,791	2,753	2,776	4,324	6,358	460	72	10	23,494	67	
Average current benefit	\$324	\$819	\$1,520	\$2,558	\$3,549	\$4,806	\$6,213	\$6,759	\$7,552	\$8,481	\$12,706	\$4,538		
Average original benefit	\$268	\$674	\$1,252	\$2,112	\$2,995	\$3,995	\$5,165	\$5,668	\$6,319	\$7,067	\$10,583	\$3,784		
10 - 14	937	1,250	1,242	1,195	2,432	2,724	10,799	4,746	338	54	3	25,720	70	
Average current benefit	\$320	\$771	\$1,524	\$2,533	\$3,518	\$4,908	\$6,660	\$7,328	\$7,531	\$7,963	\$9,149	\$5,358		
Average original benefit	\$227	\$546	\$1,080	\$1,806	\$2,512	\$3,497	\$4,749	\$5,252	\$5,383	\$5,676	\$6,489	\$3,825		
15 - 19	702	684	643	588	1,503	1,797	6,096	3,005	193	23	3	15,237	75	
Average current benefit	\$338	\$796	\$1,369	\$2,303	\$3,265	\$4,716	\$6,609	\$7,144	\$6,876	\$7,070	\$7,283	\$5,228		
Average original benefit	\$206	\$485	\$841	\$1,422	\$2,025	\$2,928	\$4,175	\$4,439	\$4,252	\$4,349	\$4,737	\$3,274		
20 - 24	316	409	324	300	511	946	1,497	3,131	4,649	6	1	12,090	80	
Average current benefit	\$302	\$765	\$1,166	\$1,584	\$2,265	\$2,948	\$3,860	\$5,317	\$5,982	\$5,681	\$5,434	\$4,589		
Average original benefit	\$158	\$400	\$602	\$825	\$1,199	\$1,539	\$1,993	\$2,745	\$3,061	\$2,968	\$2,792	\$2,362		
25 - 29	116	250	361	326	983	954	1,193	1,078	81	6	2	5,350	86	
Average current benefit	\$254	\$651	\$1,114	\$1,710	\$2,499	\$3,336	\$4,706	\$5,785	\$6,097	\$5,834	\$4,415	\$3,585		
Average original benefit	\$116	\$287	\$502	\$776	\$1,145	\$1,537	\$2,164	\$2,680	\$2,837	\$2,753	\$2,074	\$1,651		
30 - 34	65	68	171	199	595	513	579	419	15	1	-	2,625	90	
Average current benefit	\$254	\$556	\$958	\$1,509	\$2,057	\$2,876	\$4,124	\$5,346	\$4,186	\$4,904	-	\$3,015		
Average original benefit	\$101	\$208	\$364	\$591	\$815	\$1,148	\$1,652	\$2,138	\$1,658	\$2,051	-	\$1,201		
35 - 39	9	14	38	59	195	166	143	83	10	1	-	718	95	
Average current benefit	\$225	\$382	\$723	\$1,184	\$1,607	\$2,164	\$3,030	\$3,307	\$3,219	\$2,503	-	\$2,117		
Average original benefit	\$77	\$91	\$226	\$399	\$549	\$755	\$1,072	\$1,163	\$1,125	\$849	-	\$736		
40 - 44	1	1	7	10	38	24	14	26	1	-	-	122	99	
Average current benefit	\$211	\$427	\$737	\$1,124	\$1,288	\$1,612	\$2,035	\$2,943	\$4,614	-	-	\$1,756		
Average original benefit	\$64	\$101	\$213	\$315	\$357	\$472	\$613	\$896	\$1,406	-	-	\$516		
45 - 49	-	-	-	3	2	2	2	2	-	-	-	9	103	
Average current benefit	-	-	-	\$1,068	\$803	\$1,437	\$2,056	\$2,056	-	-	-	\$1,311		
Average original benefit	-	-	-	\$203	\$117	\$286	\$568	\$568	-	-	-	\$283		
50+	-	-	-	1	-	-	-	-	-	-	-	1	105	
Average current benefit	-	-	-	\$1,150	-	-	-	-	-	-	-	\$1,150		
Average original benefit	-	-	-	\$237	-	-	-	-	-	-	-	\$237		
Total retirees	4,231	6,465	6,612	6,749	12,485	13,100	28,371	23,597	6,232	246	32	108,120		
Average current benefit	\$313	\$785	\$1,452	\$2,365	\$3,241	\$4,410	\$6,175	\$6,582	\$6,313	\$8,213	\$11,151	\$4,647		
Average original benefit	\$235	\$609	\$1,137	\$1,888	\$2,493	\$3,330	\$4,467	\$4,943	\$3,764	\$6,724	\$9,456	\$3,410		

* Represents monthly benefit

Demographics of Benefit Recipients and Active Members as of June 30, 2017 (excludes inactive members)

Age	Retirees		Disability Benefit Recipients		Survivors		Actives		Total Retirees, Disabled, Survivors, and Active Members		Percent Distribution of Retirees, Disabled, Survivors, and Active Members					
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female				
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total				
Under 20	-	-	-	-	35	11	46	2	4	6	37	15	52	71%	29%	100%
20-24	-	-	-	-	4	11	15	1,028	3,911	4,939	1,032	3,922	4,954	21	79	100
25-30	-	-	-	1	-	5	5	4,080	14,040	18,120	4,080	14,046	18,126	23	77	100
30-34	-	-	1	11	8	-	8	5,551	17,634	23,185	5,560	17,645	23,205	24	76	100
35-39	-	-	-	31	4	14	18	6,231	19,497	25,728	6,235	19,542	25,777	24	76	100
40-44	-	-	7	46	16	27	43	5,919	18,102	24,021	5,942	18,175	24,117	25	75	100
45-49	-	-	15	86	22	27	49	5,426	17,725	23,151	5,463	17,838	23,301	23	77	100
50-54	7	14	23	119	31	71	102	4,130	13,947	18,077	4,191	14,151	18,342	23	77	100
55-59	1,025	3,074	43	175	218	91	260	2,731	11,084	13,815	3,890	14,502	18,392	21	79	100
60-64	3,881	14,162	22	145	167	176	491	1,370	4,994	6,364	5,449	19,616	25,065	22	78	100
65-69	7,698	23,051	25	115	140	405	1,211	708	1,569	2,277	8,836	25,541	34,377	26	74	100
70-74	8,196	16,277	22	71	93	558	1,696	262	362	624	9,038	17,848	26,886	34	66	100
75-79	4,805	8,943	7	35	42	477	1,903	71	67	138	5,360	10,471	15,831	34	66	100
80-84	3,168	5,283	7	26	33	501	1,940	23	15	38	3,699	6,763	10,462	35	65	100
85-89	1,852	3,422	4	14	18	434	1,789	2	-	2	2,292	4,791	7,083	32	68	100
90+	796	2,466	-	7	7	337	1,397	1	2	3	1,134	3,535	4,669	24	76	100
Total:	31,428	76,692	176	882	1,058	3,099	7,874	10,973	37,535	122,953	160,488	72,238	208,401	26%	74%	100%

Benefit Recipients by Type as of June 30, 2017

Monthly Benefit Range	Number of Recipients (all)	Type of Monthly Benefit					Subtypes of Age Retirement Benefit							Retirement Total
		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		
Under \$500	6,537	5,559	4	4	-	970	1,248	1,451	2,856	2	1	1	5,559	
\$500 - \$999	7,257	5,452	41	1	-	1,763	934	1,270	3,189	13	32	14	5,452	
\$1,000 - \$1,499	6,620	4,992	112	5	-	1,511	1,016	1,366	2,384	83	125	18	4,992	
\$1,500 - \$1,999	6,933	5,011	270	53	-	1,599	1,323	1,113	1,894	421	236	24	5,011	
\$2,000 - \$2,499	7,183	5,487	138	72	1	1,485	1,720	977	1,500	851	417	22	5,487	
\$2,500 - \$2,999	7,271	5,781	87	51	1	1,351	2,067	813	1,119	1,148	606	28	5,781	
\$3,000 - \$3,499	7,062	6,112	46	36	1	867	2,391	636	825	1,469	764	27	6,112	
\$3,500 - \$3,999	7,417	6,788	26	19	-	584	2,867	567	633	1,734	948	39	6,788	
\$4,000 - \$4,499	8,116	7,697	17	11	-	391	3,414	618	564	2,082	952	67	7,697	
\$4,500 - \$4,999	8,125	7,899	13	4	-	209	3,585	646	441	2,285	875	67	7,899	
\$5,000 - \$5,499	8,207	8,102	11	1	-	93	3,639	716	406	2,320	910	111	8,102	
\$5,500 - \$5,999	7,473	7,402	11	-	-	60	3,315	645	327	2,305	708	102	7,402	
\$6,000 - \$6,499	6,430	6,386	6	-	-	38	2,843	684	224	2,042	501	92	6,386	
\$6,500 - \$6,999	5,063	5,037	5	1	-	20	2,322	568	186	1,451	416	94	5,037	
\$7,000 - \$7,499	4,468	4,452	5	-	-	11	2,018	543	130	1,312	375	74	4,452	
\$7,500 - \$7,999	3,632	3,622	2	-	1	7	1,635	441	112	1,044	329	61	3,622	
\$8,000 - \$8,499	3,153	3,147	1	-	-	5	1,376	382	67	1,046	218	58	3,147	
\$8,500 - \$8,999	2,475	2,473	-	-	-	2	1,062	340	55	823	158	35	2,473	
\$9,000 - \$9,499	1,993	1,993	-	-	-	0	857	254	54	676	106	46	1,993	
\$9,500 - \$9,999	1,404	1,401	-	-	-	3	591	163	35	503	77	32	1,401	
\$10,000 or more	3,332	3,327	1	-	-	4	1,394	591	89	994	167	92	3,327	
Total benefit recipients:	120,151	108,120	796	258	4	10,973	41,617	14,784	17,090	24,604	8,921	1,104	108,120	

Summary Statistics, all Benefit Recipients, as of June 30, 2017

	Age Retirement	Disability Benefits (3 types)	Survivor Benefits
Average Monthly Benefit	\$4,647	\$2,378	\$2,044
Average Age	71	60	78
Average Service Credit	27	16	NA
Average Years Receiving Benefits	12	10	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
38%	14%	16%	23%	8%	1%	100%

Average Benefit Payments for New Retirees, Last 10 Fiscal Years

Retirement Effective Dates		Years of Service									All Fiscal Year Retirees	Average Age for all Fiscal Year Retirees	Average Service for all Fiscal Year Retirees
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+			
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	age 61	25 years
	Average final average salary	\$59,017	\$44,909	\$56,887	\$74,590	\$85,524	\$93,583	\$99,597	\$104,930	\$111,419	\$86,183		
	Number of retired members	184	255	351	426	615	587	666	816	102	4,002		
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	age 61	25 years
	Average final average salary	\$63,114	\$37,543	\$55,895	\$70,973	\$84,277	\$91,799	\$97,075	\$103,177	\$110,395	\$84,256		
	Number of retired members	193	289	330	429	660	630	728	832	107	4,198		
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 61	25 years
	Average final average salary	\$55,476	\$39,421	\$56,937	\$69,664	\$81,069	\$87,776	\$95,675	\$99,309	\$100,159	\$81,522		
	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 61	26 years
	Average final average salary	\$54,810	\$46,277	\$52,702	\$67,862	\$78,513	\$88,108	\$94,508	\$97,649	\$102,670	\$81,542		
	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 61	26 years
	Average final average salary	\$59,313	\$42,291	\$49,881	\$66,108	\$76,095	\$83,918	\$90,517	\$96,245	\$101,109	\$79,689		
	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 60	27 years
	Average final average salary	\$63,513	\$49,970	\$53,199	\$68,176	\$76,104	\$85,929	\$92,839	\$98,975	\$103,131	\$83,346		
	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 60	27 years
	Average final average salary	\$59,267	\$40,317	\$48,191	\$62,212	\$71,841	\$81,416	\$86,636	\$91,033	\$92,605	\$76,805		
	Number of retired members	160	328	349	357	599	562	905	1,359	134	4,753		
Period July 1, 2009 through June 30, 2010	Average monthly benefit	\$280	\$670	\$1,228	\$2,121	\$2,947	\$3,891	\$5,063	\$5,621	\$5,819	\$3,960	age 60	27 years
	Average final average salary	\$61,557	\$38,116	\$44,679	\$62,156	\$71,152	\$77,352	\$84,466	\$89,648	\$82,289	\$75,507		
	Number of retired members	144	312	304	335	495	536	887	1,410	118	4,541		
Period July 1, 2008 through June 30, 2009	Average monthly benefit	\$247	\$642	\$1,181	\$2,012	\$2,920	\$3,941	\$4,940	\$5,411	\$6,457	\$3,840	age 59	27 years
	Average final average salary	\$55,946	\$39,118	\$42,853	\$57,824	\$70,216	\$78,684	\$82,544	\$86,467	\$92,170	\$73,725		
	Number of retired members	155	295	240	297	472	425	779	1,301	65	4,029		
Period July 1, 2007 through June 30, 2008	Average monthly benefit	\$228	\$623	\$1,077	\$1,836	\$2,713	\$3,505	\$4,737	\$5,098	\$5,413	\$3,536	age 59	26 years
	Average final average salary	\$54,905	\$41,044	\$40,557	\$52,692	\$66,593	\$71,223	\$80,631	\$81,570	\$79,227	\$69,412		
	Number of retired members	112	197	256	251	400	398	695	884	67	3,260		

Principal Participating Employers

Participating Employer	City	Year ended June 30, 2017			Year ended June 30, 2008		
		Rank	Covered Employees	Percentage of Total TRS Membership	Rank	Covered Employees	Percentage of Total TRS Membership
School District U46	Elgin	1	3,052	1.9%	1	3,142	1.9%
Indian Prairie CUSD 204	Naperville	2	2,537	1.6	2	2,758	1.7
Rockford School District 205	Rockford	3	2,348	1.5	4	2,408	1.5
Plainfield SD 202	Plainfield	4	2,322	1.4	3	2,578	1.6
Oswego CUSD 308	Oswego	5	1,878	1.2	-	-	-
Community USD 300	Algonquin	6	1,829	1.1	6	1,568	0.9
Naperville CUSD 203	Naperville	7	1,788	1.1	5	1,761	1.1
Valley View CUSD 365	Romeoville	8	1,720	1.1	7	1,564	0.9
Schaumburg CCSD 54	Schaumburg	9	1,653	1.0	10	1,428	0.9
Waukegan CUSD 60	Waukegan	10	1,470	0.9	-	-	-
Springfield SD 186	Springfield	-	-	-	8	1,547	0.9
Peoria SD 150	Peoria	-	-	-	9	1,511	12.2
Total, largest 10 employers			20,597	12.8%		20,265	12.2%
All other* (979 employers in 2017, 1,018 employers in 2008)			139,891	87.2		145,307	87.8
Grand total			160,488	100.0%		165,572	100.0%

*Other Employers by Type as of June 30, 2017	Number of Other Employers	Other Covered Employees
Local school districts	840	133,303
Special districts	125	5,975
State agencies	14	613
Total, all employers other than largest 10	979	139,891

Total Employers by Type as of June 30, 2017	Total Number of Employers	Total Covered Employees
Local school districts	850	153,900
Special districts	125	5,975
State agencies	14	613
Total, all employers	989	160,488