Compliance Examination

For the Year Ended June 30, 2021 Performed as Special Assistant Auditors for the Auditor General, State of Illinois

State Compliance Examination For the Year Ended June 30, 2021

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Compliance Examination For the Year Ended June 30, 2021

System Officials

 $\begin{array}{ll} \text{Executive Director } (6/26/21 - \text{Present}) & \text{Stan Rupnik, CFA} \\ \text{Acting Executive Director } (8/4/20 - 6/25/21) & \text{Stan Rupnik, CFA} \\ \text{Executive Director } (7/1/20 - 8/3/20) & \text{Richard W. Ingram} \\ \end{array}$

Chief Investment Officer Stan Rupnik, CFA

 $\begin{array}{ll} \hbox{Chief Financial Officer (7/3/20-Present)} & \hbox{Deron Bertolo} \\ \hbox{Chief Financial Officer (7/1/20-7/2/20)} & \hbox{Jana Bergschneider, CPA} \end{array}$

Chief Legal Counsel (11/16/21 – Present)

Chief Legal Counsel (9/12/20 – 11/15/21)

Chief Legal Counsel (7/1/20 – 9/11/20)

Emily Peterson

Vacant

Marcy Dutton, JD

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

Governing Board Members

President (8/10/21 - Present) Mr. Matthew Hunt President (7/1/20 - 8/6/21) Mr. Devon Bruce

Vice President (7/15/21 – Present)

Vice President (7/1/20 – 7/14/21)

Mr. Andrew Hirshman

Mr. Mark Bailey

Board of Trustee Dr. Carmen I. Avala Board of Trustee Ms. Norma Bellcoff Board of Trustee Ms. Marsha Byas Board of Trustee Ms. Maureen Mena Board of Trustee Mr. David Miller Board of Trustee Mr. Fred Peronto Board of Trustee Mr. Larry Pfeiffer Mr. Doug Strand Board of Trustee Mr. Matthew Hunt Board of Trustee

Board of Trustee Mr. Matthew Hunt
Board of Trustee Mr. Andrew Hirshman
Board of Trustee (7/15/20 – Present) Ms. Beth Anderson
Board of Trustee (7/27/20 – 7/19/21) Mr. Matthew Shattock
Board of Trustee (3/26/21 – Present) Ms. Maria Jazo-Harris
Board of Trustee (7/15/21 – Present) Mr. Joseph Blomquist
Board of Trustee (9/14/21 – Present) Mr. Kevin Blackburn

Office Locations

<u>Springfield Office</u> 2815 West Washington Street Springfield, Illinois 62794

<u>Lisle Office</u> 4200 Commerce Court, Suite 100 Lisle, Illinois 60532-3611

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS



R. Stanley Rupnik, Executive Director 2815 West Washington Street Springfield, Illinois 62702

March 11, 2022

BKD, LLP Certified Public Accountants 225 North Water Street, Suite 400 Decatur, IL 62523

Ladies and Gentlemen:

We are responsible for the identification of, and compliance with, all aspects of laws, regulations, contracts, or grant agreements that could have a material effect on the operations of the Teachers' Retirement System. We are responsible for, and we have established and maintained an effective system of internal controls over compliance requirements. We have performed an evaluation of the Teachers' Retirement System's compliance with the following specified requirements during the year ended June 30, 2021. Based on this evaluation, we assert that during the year ended June 30, 2021, the Teachers' Retirement System has materially complied with the specified requirements listed below.

- A. The Teachers' Retirement System has obligated, expended, received, and used public funds of the State in accordance with the purpose for which such funds have been appropriated or otherwise authorized by law.
- B. The Teachers' Retirement System has obligated, expended, received, and used public funds of the State in accordance with any limitations, restrictions, conditions, or mandatory directions imposed by law upon such obligation, expenditure, receipt, or use.
- C. The Teachers' Retirement System has complied, in all material respects, with applicable laws and regulations, including the State uniform accounting system, in its financial and fiscal operations.
- D. State revenues and receipts collected by the Teachers' Retirement System are in accordance with applicable laws and regulations and the accounting and recordkeeping of such revenues and receipts is fair, accurate, and in accordance with law.
- E. Money or negotiable securities or similar assets handled by the Teachers' Retirement System on behalf of the State or held in trust by the Teachers' Retirement System have been properly and legally administered, and the accounting and recordkeeping relating thereto is proper, accurate, and in accordance with law.

Yours truly,

Teachers' Retirement System

SIGNED ORIGINAL ON FILE

Stan Rupnik, Executive Director

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Deron Bertolo, Chief Financial Officer

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Emily Peterson, Chief Legal Counsel



State Compliance Examination For the Year Ended June 30, 2021

State Compliance Report

Summary

The State compliance testing performed during this examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants; the standards applicable to attestation engagements contained in *Government Auditing Standards* issued by the Comptroller General of the United States; the Illinois State Auditing Act (Act); and the *Audit Guide for Financial Audits and Compliance Attestation Engagements of Illinois State Agencies* (*Audit Guide*.)

Accountant's Reports

The Independent Accountant's Report on State Compliance and on Internal Control over Compliance does not contain scope limitations, disclaimers, or other significant non-standard language.

Summary of Findings

	Current	Prior
Number of	Report	Report
Findings	2	1
Repeated findings	1	1
Prior recommendations implemented or not repeated	0	0

Schedule of Findings

Item No.	Page	Reported	Description	Finding Type
2021-001	8	2020/2016	Noncompliance with Certain Disclosures Required by the Illinois Pension Code	Noncompliance
2021-002	10	2021/2021	Weaknesses in Cybersecurity Programs and Practices	Significant Deficiency Noncompliance

State Compliance Examination For the Year Ended June 30, 2021

Exit Conference

The findings and recommendations appearing in this report were discussed with System personnel at an exit conference on March 4, 2022.

Attending were:

Teachers' Retirement System

Stan Rupnik, Executive Director and Chief Investment Officer Deron Bertolo, Chief Financial Officer Christopher Wiedel, Director of Information Technology Stacy Smith, Director of Internal Audit and Risk Susan Robinson, Accounting Manager Bob Jiroutek, Senior Risk Officer

Illinois Auditor General

Dennis Gibbons, Audit Manager Kathy Lovejoy, Principal of IS Audits

BKD, LLP

Heather Powell, Managing Director

The responses to the recommendations were provided by Deron Bertolo, Chief Financial Officer, in a correspondence dated March 8, 2022.



Independent Accountant's Report on State Compliance and on Internal Control over Compliance

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

Report on State Compliance

As Special Assistant Auditors for the Auditor General, we have examined compliance by the Teachers' Retirement System of the State of Illinois (System) with the specified requirements listed below, as more fully described in the *Audit Guide for Financial Audits and Compliance Attestation Engagements of Illinois State Agencies (Audit Guide)* as adopted by the Auditor General, during the year ended June 30, 2021. Management of the System is responsible for compliance with the specified requirements. Our responsibility is to express an opinion on the System's compliance with the specified requirements based on our examination.

The specified requirements are:

- A. The System has obligated, expended, received, and used public funds of the State in accordance with the purpose for which such funds have been appropriated or otherwise authorized by law.
- B. The System has obligated, expended, received, and used public funds of the State in accordance with any limitations, restrictions, conditions, or mandatory directions imposed by law upon such obligation, expenditure, receipt, or use.
- C. The System has complied, in all material respects, with applicable laws and regulations, including the State uniform accounting system, in its financial and fiscal operations.
- D. State revenues and receipts collected by the System are in accordance with applicable laws and regulations and the accounting and recordkeeping of such revenues and receipts is fair, accurate, and in accordance with law.
- E. Money or negotiable securities or similar assets handled by the System on behalf of the State or held in trust by the System have been properly and legally administered and the accounting and recordkeeping relating thereto is proper, accurate, and in accordance with law.



Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants, the standards applicable to attestation engagements contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the Illinois State Auditing Act (Act), and the *Audit Guide*. Those standards, the Act, and the *Audit Guide* require that we plan and perform the examination to obtain reasonable assurance about whether the System complied with the specified requirements in all material respects. An examination involves performing procedures to obtain evidence about whether the System complied with the specified requirements. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material noncompliance with the specified requirements, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination does not provide a legal determination on the System's compliance with the specified requirements.

In our opinion, the System complied with the specified requirements during the year ended June 30, 2021, in all material respects. However, the results of our procedures disclosed instances of noncompliance with the specified requirements, which are required to be reported in accordance with criteria established by the *Audit Guide* and are described in the accompanying Schedule of Findings as items 2021-001 and 2021-002.

The System's responses to the compliance findings identified in our examination are described in the accompanying Schedule of Findings. The System's responses were not subjected to the procedures applied in the examination and, accordingly, we express no opinion on the responses.

The purpose of this report is solely to describe the scope of our testing and the results of that testing in accordance with the requirements of the *Audit Guide*. Accordingly, this report is not suitable for any other purpose.

Report on Internal Control Over Compliance

Management of the System is responsible for establishing and maintaining effective internal control over compliance with the specified requirements (internal control). In planning and performing our examination of internal control, we considered the System's internal control to determine the examination procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the System's compliance with the specified requirements and to test and report on the System's internal control in accordance with the *Audit Guide*, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with the specified requirements on a timely basis. A material weakness in internal control is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that material noncompliance with the specified requirements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and, therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did not identify any deficiencies in internal control that we consider to be material weaknesses. However, we did identify certain deficiencies in internal control, described in the accompanying Schedule of Findings as item 2021-002 that we consider to be a significant deficiency.

There were no immaterial findings that have been excluded from this report.

The System's response to the internal control finding identified in our examination is described in the accompanying Schedule of Findings. The System's response was not subjected to the procedures applied in the examination and, accordingly, we express no opinion on the response.

The purpose of this report is solely to describe the scope of our testing of internal control and the results of that testing based on the requirements of the *Audit Guide*. Accordingly, this report is not suitable for any other purpose.

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Decatur, Illinois March 11, 2022

Schedule of Findings Current Findings – State Compliance For the Year Ended June 30, 2021

2021-001. Finding – Noncompliance with Certain Disclosures Required by the Illinois Pension Code

The Teachers' Retirement System of the State of Illinois (System) did not always obtain fully completed disclosures from investment managers as required by the Illinois Pension Code.

Before the System hires a new investment manager, they require the entity to complete the Firm Employment and Use of Professional Service Providers form. The form includes all of the disclosures required by the Pension Code for its investment and senior staff (Form A) and its contractors (Form B). In addition, the form requests additional comments and certifications from the prospective investment manager related to their diversity initiatives that the System takes into consideration when hiring new investment managers.

Illinois Pension Code 40 ILCS 5/1-113.21

During testing, the auditors noted 5 of 16 (31%) investment manager disclosures returned to the System where the investment manager did not properly disclose the number of contracts with businesses owned by minorities, women or persons with a disability and the number of contracts with other than those businesses owned by minority, women or persons with a disability. We noted that all five investment managers did not track the number of contracts for investment services, consulting services and professional services with minority-owned businesses, women-owned businesses or businesses owned by persons with a disability.

The Illinois Pension Code (40 ILCS 5/1-113.21 (a)) states, "No contract, oral or written, for investment services, consulting services, or commitment to a private market fund shall be awarded by a retirement system, pension fund, or investment board established under this Code unless the investment advisor, consultant, or private market fund first discloses:

- (1) the number of its investment and senior staff and the percentage of its investment and senior staff who are (i) a minority person, (ii) a woman, and (iii) a person with a disability; and
- (2) the number of contracts, oral or written, for investment services, consulting services, and professional and artistic services that the investment advisor, consultant, or private market fund has with (i) a minority-owned business, (ii) a women-owned business, or (iii) a business owned by a person with a disability; and

Schedule of Findings

Current Findings – State Compliance
For the Year Ended June 30, 2021

2021-001. Finding – Noncompliance with Certain Disclosures Required by the Illinois Pension Code (Continued)

(3) the number of contracts, oral or written, for investment services, consulting services, and professional and artistic services the investment advisor, consultant, or private market fund has with a business other than (i) a minority-owned business, (ii) a women-owned business or (iii) a business owned by a person with a disability, if more than 50% of services performed pursuant to the contract are performed by (i) a minority person, (ii) a woman, and (iii) a person with a disability."

The Illinois Pension Code (40 ILCS 5/1-113.21 (b)) states "The disclosures required by this Section shall be considered, within the bounds of financial and fiduciary prudence, prior to the awarding of a contract, oral or written, for investment services, consulting services, or commitment to a private market fund."

System officials stated the compliance department verifies that all required disclosures are received during the due diligence process; however, some investment managers do not currently track or cannot legally provide all of the required disclosures in accordance with the current language within the Illinois Pension Code.

Failure to obtain the necessary disclosures from the investment managers prior to awarding the contract results in noncompliance with the Illinois Pension Code. (Finding Code No. 2021-001, 2020-001, 2019-001, 2018-001, 2017-001, 2016-001)

Recommendation

We recommend the System work with its investment managers to comply with the disclosure requirements of the Illinois Pension Code or seek legislative remedy from the statutory requirement.

System Response

As with prior years, the System disagrees with this finding and believes the System is following statute compliance and is, in fact, requesting information beyond the requirements of the statute. Further, the System has engaged a third-party diversity, equity and inclusion (DEI) measurement service to assess diversity profiles and provide data well in excess of the disclosures required by statute. Implementation direction is based on discussions with legislation's Senate sponsor and the System's compliance department continues to oversee adherence to the intent of the law. Please also refer to prior year responses.

Schedule of Findings
Current Findings – State Compliance
For the Year Ended June 30, 2021

2021-002. Finding – Weaknesses in Cybersecurity Programs and Practices

The Teachers' Retirement System (System) had weak internal controls related to cybersecurity programs, practices and control of confidential information.

The Illinois State Auditing Act (30 ILCS 5/3-2.4) requires the Auditor General to review State agencies and their cybersecurity programs and practices. During our examination of the System's cybersecurity program, practices, and control of confidential information, we noted the System had not:

- Developed a risk management methodology, conducted a comprehensive risk assessment, or implemented risk reducing internal controls.
- Developed a data classification methodology and classified its data to identify and ensure adequate protection of information.

The Framework for Improving Critical Infrastructure Cybersecurity and the Security and Privacy Controls for Information Systems and Organizations (Special Publication 800-53, Fifth Revision) published by the National Institute of Standards and Technology requires entities to consider risk management practices, threat environments, legal and regulatory requirements, mission objectives and constraints in order to ensure the security of their applications, data, and continued business mission.

The Fiscal Control and Internal Auditing Act (30 ILCS 10/3001) requires all State agencies to establish and maintain a system, or systems, of internal fiscal and administrative controls to provide assurance funds, property, and other assets and resources are safeguarded against waste, loss, unauthorized use and misappropriation and maintain accountability over the State's resources.

System management indicated that a lack of resources and competing priorities resulted in the identified weaknesses.

The lack of written policies and procedures over the System's cybersecurity programs and practices could result in unidentified risk and vulnerabilities, which could ultimately lead to the System's confidential and personal information being susceptible to cyberattacks and unauthorized disclosure. (Finding Code No. 2021-002)

Recommendation

We recommend the System:

• Develop a risk management methodology, conduct a comprehensive risk assessment, and implement risk reducing internal controls.

Schedule of Findings
Current Findings – State Compliance
For the Year Ended June 30, 2021

2021-002. Finding – Weaknesses in Cybersecurity Programs and Practices (Continued)

• Develop a data classification methodology and classify its data to identify and ensure adequate protection of information.

System Response

The System agrees cybersecurity program needs to expand. The System's Enterprise Risk Committee has identified cybersecurity as a specific risk category that requires direct oversight. Risk levels are reviewed, mitigations and action items are implemented to further minimize impact and likelihood of security issues. Enhanced risk management methodology, comprehensive assessments and additional in-depth data classifications are frameworks the System is currently targeting. Penetration testing and security assessment are current activities that directly address vulnerabilities. The System is working on a sensitive data classification RFP and will continue to concentrate on any weaknesses within the cybersecurity program.

Disclosures Accompanying a State Compliance Examination Report

Disclosures Accompanying a State Compliance Examination Report For the Year Ended June 30, 2021

Disclosures Report

Summary

A reading of the accompanying report components of the Teachers' Retirement System of the State of Illinois (System) was performed by BKD, LLP.

Accountant's Reports

The accountants did not conclude an omission or uncorrected material misstatement of the other information exists in the Independent Accountant's Report on Disclosures Accompanying a State Compliance Examination Report.

Exit Conference

The findings and recommendations appearing in this report were discussed with System personnel at an exit conference on March 4, 2022.

Attending were:

Teachers' Retirement System

Stan Rupnik, Executive Director and Chief Investment Officer Deron Bertolo, Chief Financial Officer Christopher Wiedel, Director of Information Technology Stacy Smith, Director of Internal Audit and Risk Susan Robinson, Accounting Manager Bob Jiroutek, Senior Risk Officer

Illinois Auditor General

Dennis Gibbons, Audit Manager Kathy Lovejoy, Principal of IS Audits

BKD, LLP

Heather Powell, Managing Director



Independent Accountant's Report on Disclosures Accompanying a State Compliance Examination Report

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

Disclosures Accompanying a State Compliance Examination Report

Management of the Teachers' Retirement System of the State of Illinois (System) is responsible for the Disclosures Accompanying a State Compliance Examination Report (other information), which consists of the Fiscal Schedules and Analysis and Analysis of Operations report components as listed in the Table of Contents. The other information comprises disclosures which must be presented by management in accordance with Report Components memorandum published by the Auditor General of the State of Illinois, but does not include our Independent Accountant's Report on State Compliance and on Internal Control over Compliance found in the separate State Compliance Examination Report included within this document. Our opinion on the System's State compliance and internal control over compliance does not cover this other information, and we do not express an opinion or any form of assurance thereon.

In connection with our examination of the System, our responsibility is to read the other information and consider whether:

- 1. a material inconsistency exists between the other information and our knowledge and facts of the System we obtained as part of the System's State compliance examination;
- 2. the other information appears to have been omitted; or,
- 3. the other information appears to be materially misstated.

If, based on the work performed, we concluded an omission or uncorrected material misstatement of the other information exists, we are required to describe it in this report.

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Decatur, Illinois March 11, 2022





Schedule of Appropriations, Expenditures and Lapsed Balances Appropriations for Fiscal Year 2021 For the Fifteen Months Ended September 30, 2021

Public Act 101-0637 FISCAL YEAR 2021	Appropriations (Net After Transfers)	Expenditures Through June 30, 2021	Lapse Period Expenditures July 1 through September 30, 2021	Total Expenditures 15 Months Ended September 30, 2021	Balances Lapsed September 30, 2021			
Appropriated Funds <u>Common School Fund – 0412</u>								
Appropriation for State's contribution Employer contributions58% Total – Fund 0412	\$5,140,336,721 350,000 5,140,686,721	\$ 5,140,336,721 350,000 5,140,686,721	\$ <u> </u>	\$ 5,140,336,721 350,000 5,140,686,721	\$ <u> </u>			
Education Assistance Fund – 0007 Minimum retirement allowance Total – Fund 0007	400,000 400,000	311,635 311,635		311,635 311,635	88,365 88,365			
General Revenue Fund – 0001 Teachers' Health Insurance	_143,101,424	136,404,524		136,404,524	6,696,900			
Total – Fund 0001	143,101,424	136,404,524		136,404,524	6,696,900			
Total appropriated funds	\$ <u>5,284,188,145</u>	5,277,402,880		5,277,402,880	\$ <u>6,785,265</u>			
Nonappropriated Funds <u>Teachers' Retirement System Fund –</u> 0473	:							
Ordinary and contingent expenses Benefits paid to retirees Refunds, not elsewhere classified Total – Fund 0473		31,887,237 7,448,474,026 47,481,543 7,527,842,806	1,184,726 (24,568) (5,147) 1,155,011	33,071,963 7,448,449,458 47,476,396 7,528,997,817				
Teachers' Retirement System Excess Benefit Fund – 0789 Benefit payments Total – Fund 0789		57,933,623 57,933,623		57,933,623 57,933,623				
Teachers' Health Insurance Security Fund - 0203 Ordinary and contingent expenses Refunds, not elsewhere classified Total – Fund 0203		534,810 1,283,725 1,818,535	102,949 (37) 102,912	637,759 1,283,688 1,921,447				
Pension Obligation Acceleration Bond Fund - 0825 State pension obligation bond reimbursements Total – Fund 0825		159,470,506 159,470,506		159,470,506 159,470,506				
Total nonappropriated funds		7,747,065,470	1,257,923	7,748,323,393				
Grand Total – All Funds		\$ <u>13,024,468,350</u>	\$ <u>1,257,923</u>	\$ <u>13,025,726,273</u>				

Schedule of Appropriations, Expenditures and Lapsed Balances (Continued) Appropriations for Fiscal Year 2021 For the Fifteen Months Ended September 30, 2021

Note 1: Appropriations, expenditures, and lapsed balances were obtained from the State Comptroller records as of September 30, 2021 and have been reconciled to System records.

Note 2: Expenditure amounts are vouchers approved for payment by the System and submitted to the State Comptroller for payment to the vendor.

Note 3: TRS acts as the custodian of the Teachers' Health Insurance Security Fund (0203); however, the Fund is administered by the Department of Central Management Services (CMS).

Comparative Schedule of Net Appropriations, Expenditures and Lapsed Balances For the Fiscal Years Ended June 30,

	2021	2020	2019
Appropriated Funds			
Common School Fund – 0412			
Appropriations Expenditures	\$5,140,686,721	\$ <u>4,813,407,696</u>	\$ <u>4,465,908,109</u>
Appropriation for State's contribution	5,140,336,721	4,813,077,696	4,373,625,509
Continuing appropriation for State contribution Employer contributions58%	350,000	330,000	91,952,600 330,000
Total expenditures	5,140,686,721	4,813,407,696	4,465,908,109
Balances Lapsed– Fund 0412	\$	\$ <u> </u>	\$
Education Assistance Fund 0007			
Education Assistance Fund – 0007 Appropriations	\$ 400,000	\$ 500.000	\$ 600.000
Expenditures	φ <u>400,000</u>	\$ <u></u>	\$ <u>000,000</u>
Minimum retirement allowance	311,635	373,983	442,583
Total expenditures	311,635	373,983	442,583
Balances Lapsed – Fund 0007	\$ <u>88,365</u>	\$ <u>126,017</u>	\$ <u>157,417</u>
General Revenue Fund – 0001			
Appropriations	\$ <u>143,101,424</u>	\$ <u>132,158,560</u>	\$ <u>125,261,961</u>
Expenditures			
Teachers' Health Insurance	136,404,524	132,158,560	125,261,961
Total expenditures	136,404,524	132,158,560	125,261,961
Balances Lapsed – Fund 0001	\$ <u>6,696,900</u>	\$	\$ <u> </u>
Grand Total – Appropriated Funds			
Appropriations (net after transfers) Total expenditures	\$ 5,284,188,145 5,277,402,880	\$ 4,946,066,256 4,945,940,239	\$ 4,591,770,070 4,591,612,653
Balances Lapsed	\$6,785,265	\$ <u>126,017</u>	\$ <u>157,417</u>

Comparative Schedules of Net Appropriations, Expenditures and Lapsed Balances (Continued) For the Fiscal Years Ended June 30,

	2021	2019	
Nonappropriated Funds <u>Teachers' Retirement System Fund – 0473</u> Expenditures			
Ordinary and contingent expenses Benefits paid to retirees Refunds, not elsewhere classified	\$ 33,071,963 7,448,449,458 47,476,396	\$ 32,492,243 7,260,518,188 50,139,597	\$ 30,036,492 6,713,316,556 59,032,872
Total expenditures – Fund 0473	7,528,997,817	7,343,150,028	6,802,385,920
<u>Teachers' Retirement System Excess Benefit Fund – 0789</u> Expenditures Benefit payments	57,933,623	54,608,867	54,619,883
<u>Teachers' Health Insurance Security Fund – 0203</u> Expenditures			
Ordinary and contingent expenses Refunds, not elsewhere classified	637,759 1,283,688	534,046 1,264,968	270,454 1,058,635
Total expenditures – Fund 0203	1,921,447	1,799,014	1,329,089
Pension Obligation Acceleration Bond Fund - 0825 Expenditures			
State pension obligation bond reimbursements	159,470,506	264,956,862	1,591,256
Total nonappropriated expenditures	7,748,323,393	7,664,514,771	6,859,926,148
Grand Total Expenditures – All Funds	\$ <u>13,025,726,273</u>	\$ <u>12,610,455,010</u>	\$ <u>11,451,538,801</u>

Note 1: Expenditure authority, appropriations, expenditures, and lapsed balances were obtained from the State Comptroller records as of September 30, 2021 and 2020, and October 31, 2019 and have been recorded to System records.

Note 2: Expenditure amounts are vouchers approved for payment by the System and submitted to the State Comptroller for payment to the vendor.

Note 3: TRS acts as the custodian of the Teachers' Health Insurance Security Fund (0203); however, the Fund is administered by the Department of Central Management Services (CMS).

Note 4: The System received appropriations during Fiscal Year 2021 from Public Act 101-0637. In addition, the System received appropriations during Fiscal Year 2020 from Public Act 101-0007. Further, the System received appropriations during Fiscal Year 2019 from Public Act 100-0586.

Comparative Schedule of Revenues and Expenses For the Fiscal Years Ended June 30, 2021 and 2020

	2021	2020	Increase (De	ecrease) Percent		
·						
Revenues						
Contributions						
Members	\$ 1,023,531,951	\$ 994,400,416	\$ 29,131,535	2.9%		
State of Illinois ¹ :						
Common School Fund	5,140,336,721	4,813,077,696	327,259,025	6.8		
Education Assistance Fund	311,635	373,983	(62,348)	(16.7)		
Employers:						
Early retirement option	_	2,715	(2,715)	N/A		
2.2 benefit formula	61,558,261	61,448,091	110,170	0.2		
Federal funds	27,978,206	23,215,568	4,762,638	20.5		
Excess salary/sick leave	8,057,614	7,991,864	65,750	0.8		
Total contributions	6,261,774,388	5,900,510,333	361,264,055	6.1		
Investment Income						
From investment activities						
Net appreciation (depreciation) in fair value	12,183,214,170	(612,669,770)	12,795,883,940	2,088.5		
Alternative income	942,481,173	889,779,706	52,701,467	5.9		
Interest and dividends	812,920,640	851,670,919	(38,750,279)	(4.5)		
Other investment income	6,201,472	8,623,422	(2,421,950)	(28.1)		
Securities lending income	8,937,961	9,370,679	(432,718)	(4.6)		
Less investment expense:	-,,	-,-,-,-,-	(10-,, 10)	(110)		
Alternative expenses	(420,642,148)	(465,877,890)	45,235,742	(9.7)		
Direct investment expense	(486,423,308)	(404,665,431)	(81,757,877)	20.2		
Securities lending management fees	(536,275)	(562,237)	25,962	(4.6)		
Net investment income	13,046,153,685	275,669,398	12,770,484,287	4,632.5		
Total revenue	19,307,928,073	6,176,179,731	13,131,748,342	212.6		
Expenses						
Retirement benefits	6,935,054,294	6,672,266,721	262,787,573	3.9		
Survivor benefits	357,078,075	329,872,581	27,205,494	8.2		
Disability benefits	31,816,332	33,168,197	(1,351,865)	(4.1)		
Refunds	64,194,011	64,217,456	(23,445)	<u> </u>		
Administrative	23,758,112	22,966,372	791,740	3.4		
Total expenses	7,411,900,824	7,122,491,327	289,409,497	4.1		
Excess (Deficiency) of revenue						
over expenses	\$ <u>11,896,027,249</u>	\$ <u>(946,311,596)</u>	\$ <u>12,842,338,845</u>	1,357.1%		

¹⁾ The Common School Fund was certified and appropriated for \$5,140,336,721 under PA 101-0637, Article 112, Section 1. The Education Assistance Fund Minimum Retirement Allowance certified and appropriated for \$400,000 (PA 101-0637, Article 112, Section 2). The Common School Fund also includes employer contributions required by the State as an employer of teachers described under sections 40 ILCS 5/16-158(e) and (f).

Analysis of Significant Variations in Revenues and Expenses For the Fiscal Years Ended June 30, 2021 and 2020

The System is financed by employee member contributions, employer contributions, State appropriations, and investment earnings. Approximately 99 percent of total expenses (excluding investment expenses) for fiscal years 2021 and 2020 are related to benefits and refunds to members. Benefits include retirement, disability and survivor benefits. Details of benefit recipients, benefit expenses and summaries of new benefit payments and of average benefit payments can be found in the System's Annual Comprehensive Financial Report for the year ended June 30, 2021.

The System's revenues and expenses have been analyzed for fluctuations greater than \$1 million and 20 percent from the previous year as follows:

Federal Funds

Federal Funds for FY21 increased \$4,762,638 or 20.5 percent from FY20. Although the contribution rate was 10.41 percent in FY21 compared to 10.66 percent in FY20, Federal Funds income increased due to COVID grant funds issued to school districts, which was used to help pay salaries.

Net Appreciation (Depreciation) in Fair Value of Investments

The System's investment strategy has been to maintain the investment allocation as stated by the Board of Trustees. At June 30, 2021, the assets assigned to the respective asset classes consist of 51.6 percent equity, 15.0 percent real assets, 8.7 percent diversifying strategies and 24.7 percent income. A more detailed explanation of the System's investment portfolio can be obtained from the System's Annual Comprehensive Financial Report.

Total net investment income was \$13,046,153,685 and \$275,669,398 for fiscal years ended June 30, 2021 and 2020, respectively, an increase of \$12,770,484,287. The primary factor contributing to the overall year over year change was a significant increase in fair value of investments, which increased \$12,795,883,940. The fair value of investments is directly related to the financial markets and equity markets faced significant volatility during the fiscal year as the global pandemic and other factors disrupted investment fundamentals. Within the System's equity portfolio, private equity outperformed public assets; generating 57.2 percent, net of fee return, versus 41.0 percent loss in public equity. All asset classes experienced instability, but the System's diversification allowed an overall positive return of 25.5 percent, net of fees, for the fiscal year ended June 30, 2021 compared to return of 0.6 percent for the fiscal year ended June 30, 2020.

Other Investment Income

Security litigation proceeds normalized during the year, continuing to trend lower. In FY21, TRS received \$6.2 million in recovery proceeds, \$2.4 million less than in the prior fiscal year.

Direct Investment Expense

Higher fee payments based on manager performance and asset class shift from public to private markets.

Schedule of Administrative Expenses For the Years Ended June 30, 2021 and 2020

						Increase (Decrease)			
		2021		2020		Dollars	Percent		
D 10									
Personal Services	\$	10.024.264	¢	11 075 940	Φ	(151 576)	(1.4)0/		
Salaries	Э	10,924,264	\$	11,075,840	\$	(151,576)	(1.4)%		
Retirement contribution		1,867,608 4,238,772		2,068,795		(201,187) 622,510	(9.7) 17.2		
Insurance and payroll taxes		4,238,772		3,616,262		022,310	17.2		
Professional Services									
Actuarial services		239,646		196,868		42,778	21.7		
External auditors		225,356		270,919		(45,563)	(16.8)		
Legal services		611,753		560,578		51,175	9.1		
Legislative consulting		84,000		84,000		_	0.0		
Information systems consulting		613,471		255,364		358,107	140.2		
Operations consulting		231,158		437,805		(206,647)	(47.2)		
Other		12,229		3,295		8,934	271.1		
Communications									
Postage		84,780		223,277		(138,497)	(62.0)		
Printing and copying		44,671		65,959		(21,288)	(32.3)		
Telephone		127,544		180,991		(53,447)	(29.5)		
-									
Other Expenses						(=0 1=1)			
Administrative services		286,886		307,357		(20,471)	(6.7)		
Building operations and				4.54.000		40.45			
maintenance		469,960		451,833		18,127	4.0		
EDP supplies and equipment		160,767		132,104		28,663	21.7		
Equipment repairs, rental and		221 (22		225 001		(10.450)	(T. 5)		
maintenance		221,639		235,091		(13,452)	(5.7)		
Insurance		288,652		193,758		94,894	49.0		
Memberships and subscriptions		82,577		112,977		(30,400)	(26.9)		
Office equipment and furniture		56,891		130,409		(73,518)	(56.4)		
Office supplies		17,505		14,294		3,211	22.5		
Software licenses and		1 024 575		1.060.164		(22.500)	(2.1)		
maintenance		1,034,575		1,068,164		(33,589)	(3.1)		
Travel, conferences, education		39,286		175,819		(136,533)	(77.7)		
Depreciation Expense									
Depreciation	_	1,794,122	_	1,104,613	_	689,509	62.4		
Total Administrative Expenses	\$	23,758,112	\$	22,966,372	\$_	791,740	3.4%		

Analysis of Significant Variations in Administrative Expenses For the Years Ended June 30, 2021 and 2020

Administrative expenses reflect all costs incurred to manage the day-to-day operations of the System. Detail costs relating to benefits and refunds paid to recipients and administrative costs relating to investment expenses have been separated from the Schedule of Administrative Expenses. The total administrative expenses of \$23.8 million are approximately 0.3 percent of the total expenses of \$7.4 billion for fiscal year 2021. Fluctuations greater than \$50,000 and 20 percent were analyzed as follows:

Information systems consulting

Information systems consulting costs for FY21 increased \$358,107 or 140.2 percent due to consulting fees paid for STAR and assessment of the Gemini Project.

Operations consulting

The \$206,647 or 47.2 percent decrease in operations consulting was mainly due to reclassifying expenses related to the Defined Contribution plan in FY21.

Postage

Postage costs decreased \$138,497 or 62.0 percent for FY21 due to only \$90,000 metered postage was purchased in FY21 versus \$230,000 in FY20 as more communications were sent electronically due to pandemic situation.

Telephone

Telephone expenses decreased \$53,447 or 29.5 percent due to a significant decrease in telephone usage and work from home options due to COVID. TRS also changed data communication services and negotiated lower rates.

Insurance

The \$94,894 or 49.0 percent increase in insurance expenses for FY 21 is primarily due to a \$26,460 increase in fiduciary insurance, and a difference of \$65,481 less of insurance costs reallocated to Investments Expense in FY21, increasing the total of insurance costs for FY21.

Office equipment and furniture

The \$73,518 or 56.4 percent decrease for office equipment and furniture in FY21 is due to less new furniture purchased for staff workspaces compared to FY20.

Travel, conferences and education

Costs for travel, conferences and education decreased 77.7 percent or \$136,533 from FY20, due to the strict limitations on TRS travel from the on-going pandemic.

Analysis of Significant Variations in Administrative Expenses For the Years Ended June 30, 2021 and 2020

Depreciation

Depreciation expense increased 62.4 percent or \$689,509 in FY21 compared to FY20 mainly due to the capitalization of Internally Generated Software (IGS) costs related to the Gemini project.

Analysis of Significant Variations in Assets, Liabilities, and Net Position June 30, 2021 and 2020

Selected Statement of Fiduciary Net Position accounts as of June 30, 2021 and 2020, are as follows:

	2021	2020	\$ Change	% Percent		
Assets						
Cash	\$ 16,263,026	\$ 24,329,683	\$ (8,066,657)	(33.2)%		
Receivables (Member,						
Employer, State)	113,943,826	723,668,285	(609,724,459)	(84.3)		
Receivables, Other	285,804	_	285,804	N/A		
Accrued investment income						
receivable	121,604,718	131,878,957	(10,274,239)	(7.8)		
Investments	63,851,832,280	51,454,158,912	12,397,673,368	24.1		
Pending investment sales	4,229,353,118	3,639,595,787	589,757,331	16.2		
Collateral from securities						
lending	2,425,695,348	2,023,876,139	401,819,209	19.9		
Prepaid expenses	3,607,845	1,649,596	1,958,249	118.7		
Property and equipment, net	8,453,925	6,130,809	2,323,116	37.9		
Total assets	70,771,039,890	58,005,288,168	12,765,751,722	22.0		
Liabilities	6,558,534,870	5,688,810,397	869,724,473	<u>15.3</u>		
Net position restricted for pensions	\$ <u>64,212,505,020</u>	\$ <u>52,316,477,771</u>	\$ <u>11,896,027,249</u>	22.7%		

The System's significant account balances have been analyzed for fluctuations greater than \$1 million and 20 percent from the previous year as follows:

Cash

Cash decreased by \$8.1 million or 33.2 percent from FY20 to FY21 due to the timing of receipts and payments made by the State Comptroller.

Investments

Investments increased \$12.4 billion or 24.1 percent due to a rebound in financial markets and the economy. All asset classes had positive performance returns and the portfolio generated net investment income of \$13.0 billion with a net return of 25.5 percent for the fiscal year ended June 30, 2021.

Receivables (Member/Employer/State)

Receivables (Member, Employer, State) decreased 84.3 percent or \$609.7 million from FY20 to FY21 due to the timing of receipts from the State Comptroller for Common School appropriations at the end of the fiscal year.

Analysis of Significant Variations in Assets, Liabilities, and Net Position June 30, 2021 and 2020

Prepaid Expenses

Prepaid investment manager expenses increased \$2.0 million or 118.7 percent in FY21 due to timing requests from investment managers for private markets that request prepaid fees.

Property and Equipment, Net of Depreciation

Property and Equipment, net of depreciation increased 37.9 percent or \$2.3 million due to the capitalization of Internally Generated Software (IGS) for staff and consulting costs attributed to the development of the Gemini project. TRS capitalized \$3.8 million in IGS Gemini costs for FY20. IGS costs for the Gemini project prior to FY20 were previously expensed.

Analysis of Accounts Receivable June 30, 2021 and 2020

	 2021		2020
Member receivables (1)	\$ 2,470,932	\$	2,082,206
Salary deductions (2)	96,627,302		69,471,781
Employer federal funds and .58% contributions (3)	6,242,823		6,783,004
Employer ERO, excess salary, and excess sick leave			
contributions (4)	3,578,651		4,083,915
State of Illinois (5)	 5,024,118	_	641,247,379
Total	\$ 113,943,826	\$	723,668,285

Note: The System considers all receivables to be fully collectible. The State offset system is utilized to collect receivables.

- (1) Member receivables consist of benefit overpayments.
- (2) Salary deductions consist of member contributions due from employers at the end of the fiscal year. The increase is due to the timing of employer payments at the end of the fiscal year.
- (3) The Federal Fund contribution rate was 10.66 percent for FY20 and 10.41 percent for FY21.
- (4) A new receivable for excess governors' statutory salary increases was created in fiscal year 2018 requiring employers to pay additional costs on all salaries above the statutory governors rate.
- (5) For FY21, the Comptroller issued remaining Common School appropriations to TRS on June 30, 2021 but was in transit to State Street until July 2.

Schedule of Changes in Property and Equipment For the Years Ended June 30, 2021 and 2020

	В	alance at				Balance at							В	alance at	
	Jui	ne 30, 2019	A	Additions	De	eletions	June 30, 2020		- 1	Additions		Deletions		June 30, 2021	
Capital Assets															
Land	\$	235,534	\$	_	\$	_	\$	235,534	\$	_	\$	_	\$	235,534	
Mineral lease rights		2,643		_				2,643		_				2,643	
Office building		8,684,457		397,498				9,081,955		225,110				9,307,065	
Site improvements		1,127,708		_				1,127,708		_				1,127,708	
Equipment and furniture		3,048,223		27,363		31,507		3,044,079		220,476		26,912		3,237,643	
Purchased software		310,045		_		_		310,045		_		15,000		295,045	
Internally generated															
software	_	2,482,407	_	3,953,767			_	6,436,174	_	3,671,652		<u> </u>	_	10,107,826	
Total		15,891,017		4,378,628		31,507		20,238,138		4,117,238		41,912		24,313,464	
Depreciation		13,034,223	_	1,104,613		31,507		14,107,329		1,794,122		41,912		15,859,539	
Net capital assets	\$	2,856,794	\$	3,274,015	\$		\$	6,130,809	\$	2,323,116	\$		\$	8,453,925	

Note 1: These balances were obtained from System records and have been reconciled to the System's quarterly *Agency Report of State Property* reports submitted to the Office of State Comptroller for the year ended June 30, 2021.

Note 2: This summary schedule was prepared using State property records required by the Illinois Administrative Code (Code) and the Statewide Accounting Management System (SAMS). The capitalization policy in the Code and SAMS is different than the capitalization policy established by the Office of the State Comptroller for financial reporting in accordance with generally accepted accounting principles (GAAP).

Schedule of Investment Portfolio June 30, 2021 and 2020

	2021		2020			
	Market Value	Percentage of Portfolio	Market Value	Percentage of Portfolio		
Bonds, Corporate Notes and						
Government Obligations						
U.S. treasuries and agencies	\$ 760,917,735	1.2%	\$ 515,366,878	1.0%		
U.S. government-backed						
mortgages	681,894,069	1.1	148,463,903	0.3		
Municipals	5,220,000	_	5,804,425	0.0		
Asset-backed securities	81,053,316	0.1	175,495,345	0.3		
Commercial and collateralized						
mortgages	289,996,014	0.4	116,987,263	0.2		
Commingled funds (U.S. and						
international)	2,920,618,212	4.6	3,274,885,797	6.4		
Domestic corporate obligations	2,049,105,777	3.2	2,433,892,252	4.7		
Foreign debt/corporate						
obligations	3,431,936,825	5.4	3,217,023,067	6.3		
m . 11 . 1						
Total bonds, corporate						
notes and government	10.000.741.040	160	0.007.010.020	10.2		
obligations	10,220,741,948	<u>16.0</u>	9,887,918,930	<u>19.2</u>		
Equities						
U.S. equities	11,201,200,370	17.5	7,768,675,705	15.1		
International equities	11,206,327,107	<u>17.6</u>	8,995,763,679	<u>17.5</u>		
•						
Total equities	22,407,527,477	<u>35.1</u>	16,764,439,384	32.6		
Diversifying strategies	5,541,737,095	8.7	5,542,576,267	10.8		
Private debt	4,069,872,023	6.4	2,916,257,777	5.7		
Private equity	10,178,044,705	15.9	6,519,058,596	12.6		
Real estate	8,853,790,213	13.9	7,716,975,327	15.0		
Other real assets	715,953,909	<u> </u>	368,868,176	0.7		
Total Alternative						
Investments	29,359,397,945	46.0	23,063,736,143	44.8		
Derivatives – Options, Futures						
and Swaps	(5,405,619)		6,184,038	0.0		
•	(3,403,019)		0,104,036	0.0		
Cash and Cash Equivalents	1,756,658,884	2.7	1,652,527,489	3.2		
Foreign Currency	112,911,645	0.2	79,352,928	0.2		
Total Investments						
Portfolio	\$ <u>63,851,832,280</u>	<u>100.0</u> %	\$ <u>51,454,158,912</u>	<u>100.0</u> %		

Note 1: A complete list of the portfolio holdings is available upon request.

Schedule of Investment Manager and Custodian Fees For the Years Ended June 30, 2021 and 2020

	 2021		2020
A & M Capital Partners II, L.P.	\$ 582,268	\$	2,317,906
Acadian Asset Management, L.L.C.	4,582,432	·	3,319,250
Advent International GPE VI Limited Partnership	97,863		121,259
Advent International GPE VII-C Limited Partnership	600,805		679,253
Advent International GPE VIII-B-2 Limited Partnership	1,412,641		1,291,271
AllianceBernstein, L.P.	2,703,818		2,320,240
Alphadyne Global Rates Fund II, Ltd.	44,873,740		38,426,723
Altaris Health Partners IV, L.P.	270,994		442,981
Altaris Health Partners V, L.P.	298,757		_
Apollo Investment Fund IX, L.P.	3,047,887		2,339,826
Apollo Investment Fund VI, L.P.			(5,660)
Apollo Investment Fund VII, L.P.	21,136		266,680
Apollo Investment Fund VIII, L.P.	708,602		1,032,051
Apollo Lincoln Fixed Income Fund, L.P.	1,930,392		1,918,140
Apollo Lincoln Private Credit Fund, L.P.	68,495		184,880
AQR Capital Management, L.L.C.	3,867,011		4,622,504
AQR Real Return Offshore Fund, L.P.	10.500		1,088,642
AQR U.S. Relaxed Constraint Equity Fund II, L.P.	10,508		239,891
Arrayustraat Capital L. P.	1,500,000 5,642,840		1,541,667
Arrowstreet Capital, L.P. Aspect Systematic Global Macro US Fund L.L.C.	4,536,879		3,498,366 681,995
Astorg VI, SLP	777,653		866,752
Astorg VII, SLP	1,064,521		812,972
Aurora Equity Partners VI, L.P.	1,251,370		012,772
Avance Investment Partners, L.P.	158,333		
Axiom International Investors, L.L.C.	4,334,052		3,502,730
Barings, L.L.C.	2,291,623		2,681,410
Battery Ventures XI-A Side Fund, L.P.	96,614		90,024
Battery Ventures XI-A, L.P.	199,832		199,832
Beach Point Sangamon, L.P.	7,955,396		2,271,749
Bertram Growth Capital IV, L.P.	809,725		_
BIF IV Renewable Sidecar-B, L.P.	1,811,839		_
BIG Real Estate Fund I, L.P.	421,829		305,374
BIG Real Estate Fund II, L.P.	69,350		_
Black River Agriculture Fund 2, L.P.	965,489		990,750
Blackstone Infrastructure Partners, L.P.	1,200,953		680,072
Blackstone Real Estate Partners Asia II, L.P.	1,500,000		1,500,000
Blackstone Real Estate Partners Asia, L.P.	680,391		762,026
Blackstone Real Estate Partners IX, L.P.	3,750,000		2,781,250
Blackstone Real Estate Partners VII, L.P.	999,016		1,028,488
Blackstone Real Estate Partners VIII.TE.2, L.P.	2,646,502		2,766,624
Blantyre Special Situations Fund II, L.P.	269,253		1 502 066
Bregal Vistamahmarkanital III. A. S.C.S.	1,497,934		1,502,066
Bregal Unternehmerkapital III-A SCSp	599,160		122 671
Brevan Howard Alpha Strategies Fund, L.P.	6,389,298		122,671

Schedule of Investment Manager and Custodian Fees (Continued) For the Years Ended June 30, 2021 and 2020

	 2021	2020
Brevan Howard Systematic Trading Fund, L.P.	\$ 2,310,076	\$ 2,017,513
Bridgewater Optimal Portfolio, L.L.C.	_	4,515,710
Brookfield Infrastructure Fund IV, L.P.	1,523,636	2,171,805
Brown Capital Management, L.L.C.		222,311
CapitalSpring Investment Partners VI, L.P.	408,854	_
Capstone Vol (US), L.P.	14,799,057	882,476
Carlson Capital, L.P.	258,578	2,996,220
Carlyle Europe Real Estate Partners III, L.P.	51,362	38,969
Carlyle Global Infrastructure Opportunity Fund, L.P.	_	6,506,865
Carlyle Realty Partners VII, L.P.	375,337	458,934
Carlyle Realty Partners VIII, L.P.	1,728,765	1,703,265
Carlyle Realty Qualified Partners IV, L.P.	_	11,944
Carlyle/Riverstone Global Energy and Power Fund III, L.P.	_	49,860
CCP Core Macro Fund, L.P.	2 522 275	4,042,759
Cerberus 2112 Loan Opportunities Fund, L.L.C.	2,532,275	10.440
Cerberus Real Estate Debt Fund, L.P.	92,260	12,442
Clearlake Capital Partners II, L.P.	142 424	(64,668)
Clearlake Capital Partners III, L.P. Clearlake Capital Partners IV, L.P.	143,424 413,171	264,523 965,665
Clearlake Capital Partners V, L.P.	531,617	399,415
Clearlake Capital Partners VI, L.P.	798,953	177,796
Clearlake Flagship Plus Partners, L.P.	17,739	-
Clearlake Opportunities Partners (P), L.P.	557,488	469,757
Crabel Fund, L.P.	548,608	492,064
DCP China Credit Fund II, L.P.	1,095,345	1,075,178
Dimensional Fund Advisors, L.P.	1,064,686	1,836,430
Dolan McEniry Capital Management, L.L.C.	1,162,311	2,055,849
DoubleLine Mortgage Opportunities, L.P.	888,942	844,417
Edgewater Growth Capital Partners II, L.P.	55,238	95,932
EIF United States Power Fund IV, L.P.	868,022	897,881
EISAF II, L.P.	354,781	483,769
Emerald Advisers, Inc.	896,331	1,014,397
Energy Capital Partners II Annex A		42,307
EQT IX (No. 2) USD SCSp	2,715,847	
EQT Midmarket Europe, L.P.	1,502,008	1,443,721
EQT VI, L.P.	284,999	325,618
EQT VII, L.P.	1,059,251	1,123,086
EQT VIII, L.P.	532,117	1,608,636
European Property Investors Special Opportunities 5 SCSp-SIF	1,416,829	1,279,879
Exeter Europe Industrial Core Fund S.C.Sp. Exeter Industrial Core Fund III, L.P.	607,123 142,937	27,449
Exeter Industrial Value Fund V, L.P.	1,200,000	600,000
Exeter Value Fund IV, L.P.	423,453	424,182
FinTech Collective Fund III, L.P.	.23,733	
Fortress Japan Opportunity Fund III (Dollar A), L.P.	(256,144)	94,599
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Schedule of Investment Manager and Custodian Fees (Continued) For the Years Ended June 30, 2021 and 2020

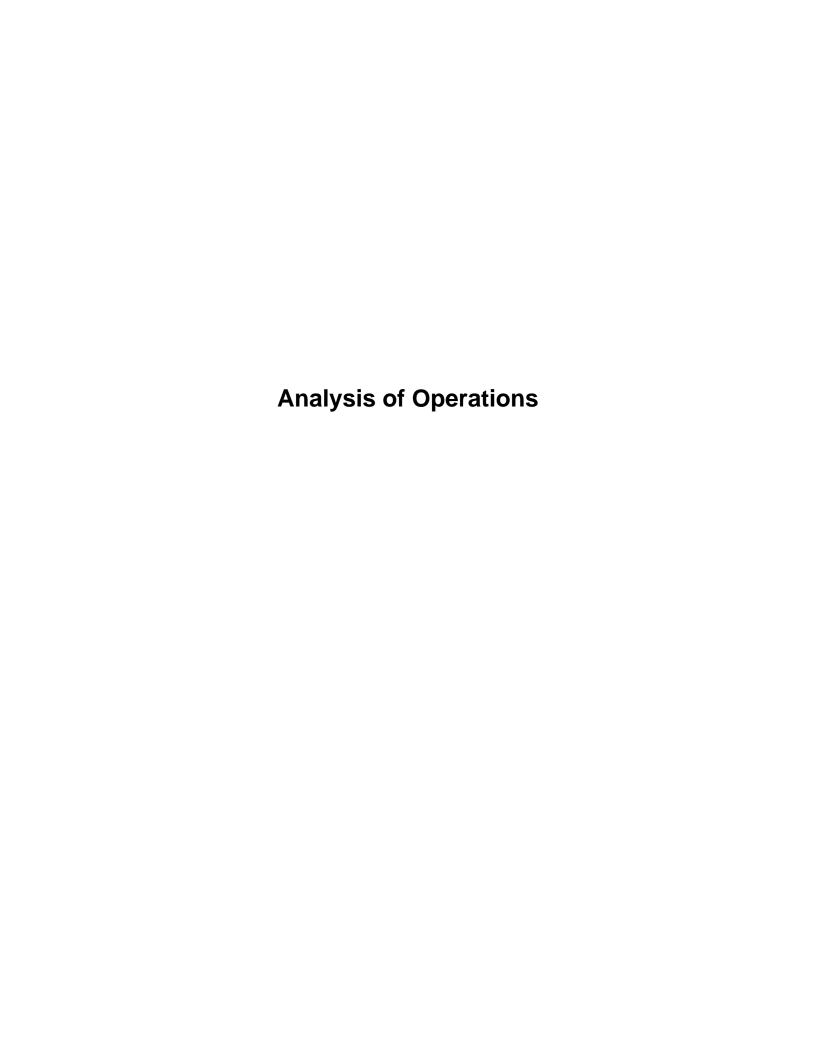
		2021		2020
Fortress Japan Opportunity Fund IV (Dollar A), L.P.	\$	171,547	\$	624,441
Franklin Advisers, Inc.	7	2,314,002	7	2,370,232
Franklin Templeton Emerging Market Debt Opportunities (Cayman) Fund, Ltd.		80,929		676,206
Garcia Hamilton & Associates, L.P.		1,066,498		951,187
Gateway Real Estate Fund IV, L.P.		179,189		311,038
Global Transport Income Fund Master Partnership SCSp		628,394		577,512
Graham Global Investment Fund I SPC Ltd.		4,170,055		3,723,939
Grain Communications Opportunity Fund II, L.P.		1,000,000		626,827
Grain Communications Opportunity Fund III, L.P.		507,172		_
Grain Communications Opportunity Fund, L.P.		665,095		663,858
Grandeur Peak Global Advisors		2,307,384		1,646,975
Granite Ventures II, L.P.		74,160		74,160
Greenspring IL Master 2.0, L.P.		343,278		_
Greenspring IL Master, L.P.		2,046,889		1,085,014
Greenspring IL Special II, L.P.		_		_
Grosvenor Monarch Fund, L.L.C.		2,203,216		2,394,709
Harvest Partners Structured Capital Fund II, L.P.		415,020		(154,675)
Hayfin Chief, L.P.		2,167,574		296,079
Heitman Capital Management, L.L.C.		4,400,387		4,951,708
IC Hospitality Fund II, L.P.		100,383		133,844
ICG Santo SCSp		3,627,262		175,712
ICV Partners III, L.P. ICV Partners IV, L.P.		101,133 799,088		76,319 717,427
IL Asia Investors, L.P.		891,220		922,435
Inflexion Buyout Partnership V, L.P.		739,007		782,271
Inflexion Enterprise Fund V (No. 1), L.P.		193,566		229,782
Inflexion Partnership Capital II, L.P.		724,747		751,430
Inflexion Supplemental Fund V (No. 1), L.P.		51,122		45,548
Insight Opportunities Fund I Annex A		´ —		´ —
Insight Partners Opportunities Fund I, L.P.		254,076		_
Institutional Venture Partners XV, L.P.		974,773		874,329
Institutional Venture Partners XVI, L.P.		1,273,695		1,202,432
Invesco Institutional (N.A.), Inc.		4,379,361		3,946,328
IPM Systematic Macro Fund, L.P.		821,569		2,306,433
JMI Equity Fund VII, L.P.		171,927		299,431
JMI Equity Fund VIII-A, L.P.		461,700		472,500
JP Morgan Investment Management, Inc.		4,206,349		3,894,946
Kepos Exotic Beta Fund, L.P.				1,020,666
Key Trends 15 Fund, L.L.C.		22 241 019		58,425
Kirkoswald Global Macro Fund, L.P.		22,341,918		11,391,958
LaSalle Asia Opportunity Fund IV, L.P. LCM Partners CO IIIa, L.P.		38,670 716,310		46,110 797,108
LCM Partners COPS 4, L.P.		144,542		20,878
LCM Partners SOLO III, L.P.		600,361		408,657
DOM I didicio DODO III, D.I .		000,501		T00,037

		2021		2020
Light Sky Macro Fund, L.P.	\$	6,294,570	\$	6,166,370
Lightspeed Venture Partners IX, L.P.	·	541,860	·	587,055
Lightspeed Venture Partners Select II, L.P.		376,000		373,807
Lightspeed Venture Partners Select, L.P.		384,038		406,666
Lightspeed Venture Partners X, L.P.		317,088		331,668
Lightspeed Venture Partners XI, L.P.		272,196		272,176
Lion Industrial Trust		6,195,843		6,272,883
Littlejohn Fund IV, L.P.		30,723		158,748
LiveOak Venture Partners I, L.P.		292,500		337,500
Locust Point Senior Housing Debt II, L.P.		928,125		38,757
Lone Star Real Estate Fund III (U.S.), L.P.		405		13,253
Lone Star Real Estate Fund IV (U.S.), L.P.		248,289		282,374
Lone Star Real Estate Fund V (U.S.), L.P. Lone Star Real Estate Fund VI, L.P.		173,492 657,166		112,235 3,054,706
Longitude Venture Partners II, L.P.		59,822		343,514
Longitude Venture Partners III, L.P.		795,766		869,040
LPC Realty Advisors I, Ltd.		3,021,473		2,674,310
LSV Asset Management		7,458,957		8,280,795
MacKay Shields, L.L.C.		2,104,110		2,073,204
Macquarie European Infrastructure Fund 6 SCSp		(348,494)		2,886,773
Macquarie Infrastructure Partners V, L.P.		(704,108)		, , , <u> </u>
Madison Dearborn Capital Partners VII, L.P.		535,832		1,184,460
Madison International Real Estate Liquidity Fund VI (TE), L.P.		1,104,006		990,719
Magnetar Constellation Fund IV, L.L.C.		441,070		596,674
Magnetar Constellation Fund V, L.L.C.		1,851,698		4,394,572
Man Alternative Risk Premia SP		552,090		2,466,849
Maniyar Macro Fund, L.P.		431,926		
Maranon Senior Credit Fund II-B, L.P.		103,132		186,755
Marlin Equity V, L.P.		1,001,745		1,204,091
Matarin Capital Management, L.L.C.		52,265		113,697
MBK Partners Fund III, L.P. MBK Partners Fund IV, L.P.		1,125,822		604,215
MBK Partners Fund V, L.P.		640,983 1,131,507		571,909
MBK Special Situations II, L.P.		441,095		
Mill Point Capital Partners II, L.P.		349,053		
Mondrian Investment Partners Limited				1,012,266
Monroe Capital Private Credit Fund II, L.P.		579,290		764,144
Morgan Creek Partners Asia, L.P.		610,326		699,836
New Enterprise Associates 15, L.P.		408,662		411,065
New Enterprise Associates 16, L.P.		553,639		514,868
New Mountain Partners IV, L.P.		515,858		441,827
New Mountain Partners V, L.P.		584,466		1,180,952
New Mountain Partners VI, L.P.		1,933,288		_
NGP Natural Resources X, L.P.		561,439		615,116
NGP Natural Resources XI, L.P.		946,306		1,207,001

	2021	2020
NGP Natural Resources XII, L.P.	\$ 1,497,752	\$ 1,430,501
Niam Nordic V, L.P.	1,562,935	65,676
Northern Shipping Fund III, L.P.	233,698	479,290
Northern Shipping Fund IV, L.P.	1,110,973	1,425,609
Northern Trust Investments, Inc.	1,271,600	750,902
NXT Capital Senior Loan Fund II, L.P.	51,309	101,471
NXT Capital Senior Loan Fund IV, L.P.	1,467,682	1,984,202
NXT Capital Senior Loan Fund V, L.P.	1,505,211	1,679,860
Oak Street Real Estate Capital Fund III, L.P.	91,237	128,193
Oak Street Real Estate Capital Fund IV, L.P.	1,122,108	733,171
Oak Street Real Estate Capital Fund V, L.P.	282,711	249 471
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	1,476,102	348,471
Oaktree Enhanced Income Fund II, L.P.	1 651 244	93,093
Oaktree Enhanced Income Fund III, L.P.	1,651,344	1,952,316
Oaktree European Principal Fund III, L.P.	888,781 1,099,290	768,501
Oaktree Opportunities Fund IX, L.P.		1,151,858
Oaktree Opportunities Fund VIII, L.P.	7,858	106,062
Oaktree Opportunities Fund Xb, L.P. Oaktree Real Estate Debt Fund II, L.P.	1,581,932 514,561	908,416 352,596
Oaktree Real Estate Debt Fund III, L.P.	240,365	332,390
Oaktree Real Estate Debt Fund, L.P.	18,490	109,817
OceanSound Partners Fund, L.P.	164,709	410,266
OCM Opportunities Fund VIIb, L.P.	104,709	(27)
Pacific Investment Management Company, L.L.C.	25,030,660	10,783,354
Palladium Equity Partners IV, L.P.	91,695	128,362
Pamlico Capital V, L.P.	314,684	120,302
Parthenon Investors IV, L.P.	(4,437)	
Parthenon Investors V, L.P.	(3)	727,195
Parthenon Investors VI, L.P.	1,519,056	568,417
PDT Partners, L.L.C.	9,632,566	6,670,889
Pemberton Debt Fund Delaware I, L.P.	612,234	627,529
Pemberton Debt Fund Delaware II, L.P.	1,092,126	1,142,342
PGIM Fixed Income Alternatives Fund II, L.P.	103,278	
PGIM Fixed Income Emerging Markets Long Short Fund I, L.P.		612,061
PGIM Fixed Income Global Liquidity Relative Value Fund I (Cayman), Ltd.	7,317,584	4,459,796
PGIM, Inc.	4,307,665	3,564,292
PIMCO BRAVO Fund III Onshore Feeder, L.P.	1,258,155	1,122,964
PIMCO BRAVO Fund Onshore Feeder II, L.P.	758,272	925,484
PIMCO Commercial Real Estate Debt Fund, L.P.	519,319	266,437
PIMCO Corporate Opportunities Fund III, L.P.	247,104	29,752
Principal Real Estate Investors, L.L.C.	1,136,175	1,121,562
Proterra Credit Fund, L.P.	500,331	425,346
Providence Equity Partners VII, L.P.	365,213	848,223
Ramirez Asset Management, Inc.	_	253,698
RCP SBO Fund II, L.P.	_	_

		2021		2020
RCP SBO Fund, L.P.	\$	965,625	\$	843,750
RCP SBO Opportunities Fund, L.P.	*	_	_	_
Rhone Capital V Annex A		_		_
Rhone Partners IV, L.P.		195,413		150,123
Rhone Partners V, L.P.		1,077,541		1,055,716
RhumbLine Advisers, L.P.		653,130		556,249
Ridgemont Annex A		_		_
Ridgemont Equity Partners III, L.P.		462,594		754,226
Riverstone Credit Partners II, L.P.		921,129		968,382
Riverstone Credit Partners, L.P.		249,316		374,004
Riverstone Global Energy and Power Fund V, L.P.		1,485,368		1,455,647
Riverstone Global Energy and Power Fund VI, L.P.		1,773,190		2,130,276
Riverstone/Carlyle Global Energy and Power Fund IV, L.P.		58,871		94,006
Robeco Boston Partners Asset Management, L.P.		_		500,978
Rockpoint Real Estate Fund V, L.P.		943,502		982,477
Rockpoint Real Estate Fund VI, L.P.		2,438,315		2,071,002
RRJ Capital Master Fund III, L.P.		262,931		431,036
Scale Venture Partners V, L.P.		721,456		588,582
Scale Venture Partners VII, L.P.		332,400		
SCP Private Corporate Lending Fund, L.P.		702,817		414,449
Sheridan Production Partners III-B, L.P.		231,497		687,410
Silver Lake Alpine, L.P.		470,029		284,455
Silver Lake Partners III, L.P.		58,284		89,625
Silver Lake Partners IV, L.P.		1,013,364		983,772
Silver Lake Partners V, L.P.		1,105,788		2,381,383
Silver Lake Partners VI, L.P.		2,259,714		460.520
Siris Partners II, L.P.		460,661		469,528
Siris Partners III, L.P.		1,150,911		1,144,768
Siris Partners IV, L.P.		819,601		701,850
SK Capital Catalyst Fund I, L.P.		538,168		644,794
SK Capital Partners V-A, L.P.		212,374		160,684
Sofinnova Venture Partners IX, L.P. Sofinnova Venture Partners VIII, L.P.		995,154		981,189 510,244
Sofinnova Venture Partners VIII, L.F. Sofinnova Venture Partners X, L.P.		587,135 1,368,036		510,344 1,361,007
Southwest Multifamily Partners, L.P.		1,308,030		1,301,007
StarVest Partners II, L.P.		72,843		69,130
Starwood Distressed Opportunity Fund IX Global, L.P.		818,113		878,217
Starwood IX Annex A		010,113		312,346
Starwood Opportunity Fund X Global, L.P.		2,276,083		2,550,362
Starwood Opportunity Fund XI Global, L.P.		3,504,797		3,253,081
Starwood Value Add Fund, L.P.		1,190,455		1,171,313
Starwood X Annex A		1,056		(2,072)
Starwood X Annex B		6,205		7,769
State Street Bank and Trust Company (Custody)		3,847,375		3,534,575
State Street Global Advisors Trust Company		1,372		200,295
		1,0.2		

	2021	2020
Stellex Capital Partners II, L.P.	\$ 432,783	\$ —
Stonepeak Infrastructure Fund IV, L.P.	1,848,611	_
Strategic Global Advisors, L.L.C.	3,329,993	3,622,429
Strategic Partners Infrastructure III, L.P.	1,915,000	, , <u> </u>
Sunstone Partners I, L.P.	366,401	373,368
Sunstone Partners II, L.P.	622,831	´ _
T. Rowe Price Associates, Inc.	1,978,802	1,817,536
TA XII-A, L.P.	1,044,356	1,063,240
TA XIII, L.P.	1,243,168	874,696
Taconic European Credit Dislocation Fund III, L.P.	13,260	_
Taplin, Canida & Habacht, L.L.C.	1,009,077	1,103,548
Taurus Mining Finance Annex Fund L.L.C.	187,225	267,238
Taurus Mining Finance Fund II L.L.C.	1,938,530	1,504,121
Taurus Mining Finance Fund L.L.C.	324,889	568,713
TCW Asset Management Company	3,349,904	3,368,620
TDR Capital IV 'A', L.P.	1,157,523	990,075
TerraCotta Credit Fund, L.P.	599,975	_
The Baring Asia Private Equity Fund V, L.P.	1,230,280	1,220,149
The Baring Asia Private Equity Fund VI, L.P.1	1,118,093	1,104,694
The Varde Private Debt Opportunities Fund (Onshore), L.P.	429,906	407,525
Tilden Park Investment Fund, L.P.	3,885,658	5,259,863
Transition - Private Equity	8,601	_
Trend Macro Onshore, L.P.	11,501,396	5,865,845
Trident V, L.P.	429,617	454,853
Trident VI, L.P.	734,368	986,911
Trident VII, L.P.	1,223,832	1,261,812
Trident VIII, L.P.	1,488,173	375,000
Trustbridge Partners IV, L.P.	394,470	421,366
TSG8, L.P.	1,806,847	1,833,894
Varadero International, Ltd.	4,022,561	6,009,660
Varadero Special Opportunities International, L.P.	1,861,885	1,852,154
Veritas Capital Fund VI, L.P.	_	582,386
Vista Credit Opportunities Fund I-B, L.P.	45,701	282,844
Vista Equity Partners Fund V, L.P.	1,838,793	2,389,532
Vista Equity Partners Fund VI, L.P.	2,242,381	2,170,784
Vista Foundation Fund III, L.P.	939,956	845,714
Vista Foundation Fund IV, L.P.	987,966	359,890
Walton Street Real Estate Fund VI, L.P.	309,274	370,955
Walton Street Real Estate Fund VII, L.P.	635,030	759,784
Wasatch Advisors, Inc.	2,425,277	1,713,872
West Street Global Infrastructure Partners III, L.P.	1,113,838	1,649,515
Westbrook Real Estate Fund X, L.P.	728,313	882,404
Westbrook Real Estate Fund XI, L.P.	1,963,150	_
ZMC III, L.P.	549,432	350,597
Total Fees Paid by TRS	\$ <u>449,838,070</u>	\$ <u>379,053,680</u>



Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Analysis of Operations (Functions and Planning)

Functions

The Teachers' Retirement System of the State of Illinois (the System) was established on July 1, 1939, for the purpose of providing retirement allowances and other benefits for teachers, annuitants and beneficiaries. The System is governed by 40 ILCS 5/16-101 et.seq. As of June 30, 2021, the System had 304,796 current active members and inactive members entitled to but not yet receiving benefits and 114,252 retirees and beneficiaries currently receiving benefits.

The System is funded through contributions from members, State of Illinois appropriations from the Common School, Education Assistance and General Revenue Funds, investment income and, to a limited extent, through contributions from school districts.

Members' contributions are refundable, without interest, after a four-month waiting period from the date members officially resign from qualified employment. The refund consists of all retirement contributions made by the member, except for the 1 percent survivor benefit contributions, which are refundable only upon retirement of a member with no dependent beneficiaries.

Management Organization and Planning

Management of the System is vested in a Board of Trustees consisting of 15 persons, as follows: The State Superintendent of Education; seven persons, not members, appointed by the Governor; five members from the contributing membership of the System elected by the contributing members and two annuitants elected by the annuitant members. Program planning activities of the System are under the direct supervision of the Executive Director and involve coordination between the governing board and other administrative staff of the System.

The System has adopted the following 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."

The following are goals and objectives outlined in the System's Strategic Plan that covers fiscal years 2018 through 2022. This strategic plan was approved by the Board of Trustees in August 2017.

Goal 1

Investment in serving TRS membership

- Enhance communications with all members.
- Prepare for successful implementation of Tier 3.
- Ensure long-term viability of TRS' pension administration system.
- Upgrading systems and processes for engaging our members' employers.

Analysis of Operations (Unaudited) For the Years Ended June 30, 2021 and 2020

Goal 2 Ensure Future Sustainability

- Enhance communication with stakeholders.
- Deliver investment performance that sustains the actuarial model.
- Continue expansion of successful diversity initiatives.
- Maintain a leading voice on policy and administration.

Goal 3

Provide fiduciary and policy leadership.

• Champion sound funding policy.

Goal 4

Strengthen organizational capacity

- Prepare for successful implementation of Tier 3.
- Maintain technology infrastructure at current standards and platforms.
- Enhance communication with staff and Board of Trustees.
- Migrate to new expenditure management system.
- Fully implement Agile methodology.
- Implement monthly employer reporting.
- Fully implement digital records and processes.
- Continue annual benchmarking with CEM.
- Facilitate annual board self-evaluations.
- Implement Laserfiche workflows as identified and needed.
- Develop and implement capital plan for building.
- Improve disaster recovery posture.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Goal 5 Investment in Developing Staff

- Invest in staff team building and leadership development.
- Develop required training for implementation of Tier 3.
- Expand training opportunities for staff and improve processes for staff evaluation and feedback.
- Improve onboarding, mentoring and succession planning.
- Implement best practices in talent acquisition, development and retention.

Major Initiatives

During our review of the overall planning functions, the auditors noted the System is monitoring progress in achieving the stated goals and is implementing programs pursuant to the plan. The Executive Director provides the Board of Trustees a periodic status report on progress being made toward accomplishing established goals and objectives from various individuals who are the project's team leaders to determine progress being made toward accomplishing established goals and objectives.

In fiscal year 2021, the System initiated and continued several programs and projects designed to benefit its members, enhance system operation and increase effectiveness and efficiency.

Investment Returns Soar

Despite the economic upheaval caused by the COVID-19 pandemic, TRS investments closed out FY21 with a strong rate of return and record assets under management. The TRS investment return in FY21 was a positive 25.5 percent, net of fees.

Through FY21, the TRS Investment Department successfully navigated the perils of the pandemic's attack on the economy and was able to rebuild the value of the System's portfolio to prepandemic levels – and beyond. As of June 30, TRS managed assets totaling \$63.9 billion – a record for the System and a 24.1 percent increase in assets from the prior year. TRS closed FY20 with \$51.5 billion.

The low point during the early months of the pandemic saw TRS assets at \$48.5 billion. By the end of the second quarter of FY21, TRS had worked back to \$56.9 billion in investment assets, a 17.3 percent rebound in value. Prior to the pandemic, TRS began calendar year 2020 with \$54.6 billion in assets.

TRS maintains a focus on steady, long-term investment returns because a majority of its members maintain relationships with TRS for decades. The TRS long-term investment returns continue to exceed the System's long-term assumed investment return of 7 percent. The 40-year return for TRS at the end of FY21 was 9.5 percent.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Commitment to Diversity

TRS continues to strengthen its existing commitment to diversity within the management of its \$63.9 billion investment portfolio. The TRS Board of Trustees is committed to continually improving access to the investment program for qualified firms owned by minorities, women and those with disabilities.

In the last five years, the total assets in the TRS portfolio managed by Minority and Women Business Enterprises (MWBE) has increased from \$8.2 billion to \$15.5 billion. In each of the last four years, TRS has exceeded the state's annual aspirational goal to have 20 percent of total assets managed by MWBE firms. At the end of FY21, TRS commitments to MWBE firms totaled \$15.5 billion, or 24.3 percent of the System's total portfolio of \$63.9 billion.

In addition, TRS is developing a standardized metric scoring tool for diversity, equity and inclusion to help staff when analyzing potential investment opportunities and monitoring existing relationships. This is part of a broader "re-imagining" of the System's successful diversity efforts to understand our partners' commitment to diversity.

Optional Defined Contribution Benefit Plan

TRS made significant progress in the development of its Supplemental Savings Plan (SSP), a new optional 457(b) defined contribution retirement savings plan for active members of the System. TRS expects to implement the SSP in FY22.

Specifically, TRS made substantial alterations in its IT capabilities to prepare for the SSP, including significant changes to its data reporting system for employers.

The SSP does not replace the Defined Benefit (DB) Plan for participating members. Members participating in the SSP will still make payroll contributions to their DB pensions. All fees to private companies managing the investments of the plan, as well as the cost of administration, will be paid by participating members. Since fiscal year 2014, TRS has contracted with CEM Benchmarking of Toronto, Canada, to measure the productivity, effectiveness and cost of two major components of the System's mission: the administration of member benefits and services; and the investment of member assets. CEM measures 120 "performance metrics" and then compares them to 11 pension systems of similar size and mission to TRS. A brief recap of where TRS stands:

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

Analysis of Operations (Unaudited) For the Years Ended June 30, 2021 and 2020

Accelerated Benefit Payment Programs

Adhering to legislation approved in 2018, in FY21 TRS continued to administer two accelerated pension benefit programs for members. TRS has expended 66 percent of the original \$650 million allocation to members who have elected participation.

State government bond sales used to support these payments have reached approximately \$750 million. Of the original \$1 billion authorization, approximately \$250 million remains. The programs have been extended to run through FY24.

Through FY21, 1,900 newly retiring TRS members participating in the "Accelerated Automatic Increase" program shared \$217 million.

More than 1,700 inactive members in the "Accelerated Pension Benefit" program shared \$212 million.

Cybersecurity

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

Because pension systems provide tempting targets, the TRS Board of Trustees understands that it is imperative for the System to keep the private information of 432,314 men, women and their families, as well as 991 employers as safe and secure as possible. TRS implements practices and systems that guard against these changing threats.

Because TRS receives thousands of emails daily, tested "screening" technology is used to filter out as much of the unwanted spam and potential malware before it ever reaches TRS employees. Additionally, TRS trains all staff on how to identify potential cyberattacks, methods to report this information to IT and updates about current real-world threats.

Annual "Benchmarking"

How does TRS stack up against other large public retirement systems in the way we administer our members' benefits and invest their money? TRS performed very well in a number of areas, however, there is always room for improvement.

With the help of an internationally recognized consultant, CEM Benchmarking, of Toronto, Canada, the System finds out exactly where it ranks. CEM measures 120 "performance metrics" and then compares them to 11 pension systems of a similar size and mission to TRS.

The TRS total service score was 80, equal to the peer systems median score. TRS's service score increased 13 points between 2014 and 2020. Since 2014, the System's service score has risen by eight points, with the biggest service improvements seen in the Call Center, counseling and member responses to our satisfaction surveys.

The cost to administer TRS benefits was \$79 for every active member and annuitant. The peer average was \$84. This speaks to the efficiency of TRS.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Management Changes at TRS

TRS's senior leadership team experienced multiple changes during FY21.

In June, Chief Investment Officer R. Stanley Rupnik was named by the Board of Trustees as the new TRS executive director. He will retain his other responsibilities as CIO.

Director Rupnik is an 18-year veteran of TRS. He had served as acting executive director since August of 2020. He was named CIO in November of 2004 and previously served TRS as acting executive director between 2009 and 2011.

Also during the fiscal year, the TRS executive staff saw the departures of the chief financial officer, chief legal counsel, chief technology officer and chief human resources officer. Following the end of FY21, Chief Benefits Officer Carlton Lenoir left the agency after accepting an appointment as executive director of the Chicago Teachers' Pension and Retirement Fund. All executive management positions have been filled on a temporary or permanent basis.

Progress in Funding the System

The actuarial accrued liability of the System at June 30, 2021 amounted to approximately \$138.9 billion. The actuarial value of plan assets (at smoothed value) at June 30, 2021 amounted to approximately \$59.0 billion. The difference between the actuarial accrued liability and the actuarial value of plan assets reflects the \$79.9 billion unfunded actuarial accrued liability of the System at June 30, 2021. The System had a funded ratio (at smoothed value) of 42.5 percent at June 30, 2021.

On June 30, 2021, the market/fair value of plan assets was \$64.2 billion. The difference between the System's 2021 actuarial accrued liability and the market/fair value of plan assets was \$74.7 billion and the funded ratio using market/fair value of plan assets was 46.2 percent. On June 30, 2020, the market/fair value of plan assets used by the actuaries in the 2020 valuation was \$52.3 billion. The difference between the System's 2020 actuarial accrued liability of \$135.6 billion, and the market/fair value of plan assets was \$83.3 billion, the funded ratio using market/fair value of plan assets was 38.6 percent.

The market/fair value of the assets of the fund that was for benefits increased from \$52.3 billion as of June 30, 2020 to \$64.2 billion as of June 30, 2021. The actuarial value of the plan assets of \$59.0 billion at June 30, 2021, is \$5.2 billion less than the market/fair value of the plan assets.

Prior to the valuation as of June 30, 2009, it was agreed that market/fair value, without adjustment, would be used for all actuarial purposes. Under Public Act 96-0043, effective in the June 30, 2009 valuation, the contribution projections would be set based on the actuarial value of assets. Funding status determinations and the certified state contribution under Illinois Pension Code were calculated based on the actuarial value of assets.

The estimated State required contributions to the System (including reimbursements for minimum benefits) for the next five fiscal years are noted in the table below.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Year Ending June 30	Required State Contribution (in millions)
2022	\$ 5,693.7
2023	5,893.7
2024	5,979.5
2025	6,084.0
2026	6,184.1

The Schedule of Funding Progress (in millions) for fiscal years ended June 30, 2021 and 2020 are noted in the table below.

Actuarial Valuation Date	٧	ctuarial alue of Assets	Lia	Accrued bility (AAL- pjected Unit Credit)	Funded Ratio	Unfunded Actuarial Accrued Liability (UAAL)		_	overed Payroll	Unfunded Actuarial Accrued Liability as a percentage of Covered Payroll
6/30/20	\$	54,891	\$	135,599	40.5%	\$	80,708	\$	10,827	745.4%
6/30/21	\$	58,980	\$	138,914	42.5%	\$	79,934	\$	11,121	718.8%

The Contributions from Employers and Other Contributing Entities (in millions) for the fiscal years ended June 30, 2021 and 2020 are noted in the table below.

							Α	Actuarially			Annual	
Year			Fed	leral and			\mathbf{D}	etermined			Required	
Ended	,	State	Eı	nployer			\mathbf{C}	ontribution	Percentage	C	ontribution	Percentage
June 30	Cont	ributions ¹	Cont	tributions ¹	,	Γotal		(ADC)	Contributed	per	State Statute	Contributed
2020	\$	4,813	\$	92	\$	4,905	\$	7,989	61.4%	\$	4,905	100.0%
2021	\$	5,140	\$	97	\$	5,237	\$	8,441	62.0%	\$	5,140	100.0%

¹ Excludes minimum retirement contributions from the State and excess sick pay from employers because they do not count toward the actuarial funding requirements. Employer ERO contributions are included because the costs of the ERO are now included in the actuarial accrued liability.

Actual contributions varied slightly from contributions that are required by statute mainly because of differences between estimated and actual federal contributions. Lump-sum payments for ERO are included as employer contributions, further increasing the difference.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

ADC is a target or recommended contribution determined in conformity with Actuarial Standards of Practice, based on the System's actuarial assumptions for the period reported. Amounts shown as the ADCs for each year are different from the contributions required by State statute.

Locally Held Fund

The System uses a locally held fund "TRS Master Trustee Account" (pension trust fund No. 1307) held at State Street Bank and Trust Company in Boston, Massachusetts to invest contributions received by the System and to transfer funds to the State Treasurer as needed to cover System expenditures. The Illinois State Treasurer is the ex-officio custodian of the funds of the System.

Rates of Return

The System operates under a long-range investment plan to maintain a diversified portfolio to manage risk. The objectives of the System's investment portfolio are as follows:

- At least equal to the assumed actuarial interest rate currently 7.0 percent per year.
- At least equal to the return of the weighted policy index which represents a weighted average of each asset class benchmark, based on the total fund's target asset allocation. The weighted policy index at June 30, 2021 was 20.3 percent.
- Achieve a total return of at least 4.5 percent per annum in excess of the actuarial assumed inflation rate; the current actuarial assumed rate of inflation is 2.5 percent per annum.

The investment return for fiscal year 2021 and fiscal year 2020, net of fees, was 25.5 percent and 0.6 percent, respectively. The investment return lagged the policy index by 5.2 percent, for the year ended June 30, 2021 and outperformed the 7.0 percent actuarial return assumption that was in effect during the year. Total fund performance also outperformed the assumed real rate of return (4.5 percent) plus actual inflation as measured by the Consumer Price Index (5.6 percent). All System returns are net of fees.

Analysis of Operations (Unaudited) For the Years Ended June 30, 2021 and 2020

The following summarizes the performance (market basis) of the total investment portfolio for fiscal years 2021 and 2020:

	2021	2020
Total time weighted return (net of fees):		_
TRS Total Fund	25.5%	0.6%
TRS Weighted Policy Index	20.3%	5.5%
Equity:		
TRS	45.8%	(0.1)%
TRS equity composite benchmark	42.8%	3.4%
Real Assets:		
TRS	13.5%	(0.2)%
TRS real asset composite benchmark	8.1%	3.4%
Diversifying Strategies:		
TRS	8.6%	1.2%
TRS diversifying composite benchmark	4.1%	5.7%
Income		
TRS	6.6%	1.7%
TRS income composite benchmark	(0.3)%	8.2%

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.

Schedule of Investment Commissions

	2021		2020
Top 50 Investment Brokerage Firms Based on Commissions Paid:			
Citigroup, Inc. and all Subsidiaries (Worldwide)	\$ 636,194	\$	621,799
Instinet, L.L.C. (Worldwide)	547,962		432,747
Merrill Lynch & Co., Inc. and all Subsidiaries (Worldwide)	519,135		425,726
Loop Capital Markets, L.L.C.	348,165		395,667
Goldman Sachs & Co. (Worldwide)	315,074		334,307
Credit Suisse (Worldwide)	311,825		309,356
J.P. Morgan Securities, Inc. (Worldwide)	310,111		252,902
Morgan Stanley & Co., Inc. and Subsidiaries (Worldwide)	271,422		234,171
Cowen, Inc.	250,405		230,630
HSBC Bank PLC	243,138		223,373
UBS AG	204,617		219,940
BNP Paribas Securities Services S.C.A.	195,589		201,341
Societe Generale S.A. and all Subsidiaries	187,981		181,072
Barclays (Worldwide)	152,894		144,742

Analysis of Operations (Unaudited) For the Years Ended June 30, 2021 and 2020

	2021	2020
Cabrera Capital Markets, Inc.	\$ 136,590	\$ 130,719
Jefferies & Company, Inc.	122,589	124,529
Macquarie Bank & Securities, Ltd. (Worldwide)	120,992	111,170
Williams Capital Group, L.P.	113,123	92,974
Brasil Plural S.A.	94,586	72,322
Sanford Bernstein (Worldwide)	91,488	71,529
Liquidnet, Inc.	69,361	53,757
Credit Lyonnais Securities	59,352	53,115
CLSA Securities	58,935	41,217
Mischler Financial Group	54,581	36,984
Investment Technology Group, Inc. (Worldwide)	45,358	35,794
Exane, Inc.	44,654	32,607
Pershing, L.L.C.	42,329	29,785
RBC Dain Rauscher (Worldwide)	28,271	25,642
KB Financial Group	28,238	23,728
Sturdivant & Co., Inc.	25,001	22,400
Penserra Securities, L.L.C.	23,078	21,042
Piper Jaffray Companies	22,618	19,859
Samsung Group	21,346	17,762
Kim Eng Securities, Ltd.	19,628	11,682
Banco Bradesco, S.A.	15,578	11,185
KCG Americas L.L.C.	15,443	10,852
Joh. Berenberg, Gossler & Co.	15,286	10,176
Ambit Holdings Pvt., Ltd.	14,753	9,086
Stifel Nicolaus & Company, Inc.	14,671	8,941
Canadian Imperial Bank of Commerce	14,295	8,078
Ho Chi Minh City Securities Corporation	13,312	8,057
UOB Kay Hian Pte, Ltd.	10,252	8,048
Daiwa Securities Group, Inc.	9,643	7,791
EFG Hermes Holding S.A.E	9,589	7,582
Guzman & Company	8,926	7,089
Ichiyoshi Securities Co., Ltd.	8,856	6,962
Korea Investment Holdings	8,695	6,949
Banco BTG Pactual S.A.	8,537	6,929
ICICI Brokerage Services, Ltd.	8,106	6,550
Motilal Oswal Financial Services, Ltd.	8,060	5,630
(All Others - 96 Brokers in FY21, 107 Brokers in FY20)	179,396	179,314
Total	\$ <u>6,080,028</u>	\$5,545,609

Analysis of Operations (Unaudited) For the Years Ended June 30, 2021 and 2020

Commissions relate to amounts paid to investment brokerage firms for the purchase and sale of investments.

Due to name changes and/or mergers of brokerage houses, some firms listed in the fiscal year 2020 report are not applicable to the fiscal year 2021 top 50 brokers/dealers.

Schedule of Contributions/Deductions and Effect on Investments

Below is a schedule of contributions received by the System and expenditures of the System for benefits and operations and the effect of these transactions on the System's investments.

	2021	2020
Contributions		
Members/Participants	\$ 1,023,531,951	\$ 994,400,416
Employers	97,594,081	92,658,238
State of Illinois	5,140,648,356	4,813,451,679
Total contributions	6,261,774,388	5,900,510,333
Deductions		
Retirement Benefits	6,935,054,294	6,672,266,721
Survivor Benefits	357,078,075	329,872,581
Disability Benefits	31,816,332	33,168,197
Refunds	64,194,011	64,217,456
Administrative Expenses	23,758,112	22,966,372
Total deductions	7,411,900,824	7,122,491,327
Investments Used to Pay Benefits and Expenses	\$ <u>(1,150,126,436)</u>	\$ <u>(1,221,980,994)</u>

Reconciliation Schedule of Cash Receipts to Deposits Remitted to the State Comptroller

	2021	2020
Cash transfers to Excess Benefit Fund Cash transfers from State Street Interest received from the State Treasurer	\$ 55,000,000 7,528,682,900 547,498	7,340,626,000
Total	\$ <u>7,584,230,398</u>	\$ <u>7,394,011,268</u>

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

The majority of receipts are deposited directly with the System's master trustee. On a daily basis, the System anticipates its cash needs and directs the master trustee to transfer sufficient funds to the State Treasurer.

Note: The above information was taken from the System's records which have been reconciled to State Comptroller Reports SB05 and SB04 (Cash Report and Monthly Revenue Status).

Benefit Payments

The System's costs for benefits paid to recipients include retirement, disability, survivor, and death benefits. The following is the weighted average benefit cost per recipient for the years ended June 30, 2021 and 2020.

Weighted Average Monthly Benefit Cost per Recipient

Weighted Average Monthly Benefit Cost per Recipient					
	Number	Average Monthly Benefit	Annual Amount Paid (in Millions)		
Retirement 2020 2021	112,977 114,252	\$ 5,027 5,155	\$ 6,672 6,935		
<u>Survivors</u> 2020 2021	11,927 12,330	2,350 2,465	330 357		
<u>Disabilities</u> 2020 2021	1,023 936	2,572 2,630	33 32		

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Member Contributions

Employee contributions are established by the Illinois Pension Code as 9.0 percent of earnings. Employee contributions are either collected through payroll deductions or paid by the employer as part of an employment agreement. The employee contributions are submitted by the participating employers directly to the System for credit to each participant's accumulated contributions account. The number of members having contributions credited to their accounts at June 30, 2021 and 2020 are as follows:

	2021	2020
Current Members – Defined Benefit Plan		
Active members (currently contributing)	159,027	163,115
Inactive members (not currently contributing)	145,769	138,279
Total Current Members – Defined Benefit Plan	304,796	301,394

Member payrolls totaled \$11,120,776,122 and \$10,827,438,800 for the fiscal years ended June 30, 2021 and 2020, respectively.

Schedule of Changes in Statutory Reserve Accounts

			Statutory Reserve Accounts	
	Fully Funded Reserve Balance (Actuarial Accrued Liability)	Total Net Assets Held in Trust for Pension Benefits	Minimum Retirement Annuity	Benefit Trust
Balance at July 1, 2019	\$131,456,968,953	\$ 53,262,789,367	\$ 9,703,319	\$53,253,086,048
Allocation of excess of revenues over expenses Statutory transfers in (out)		(946,311,596)	70 582,201	(946,311,666) (582,201)
Net increase	4,141,578,060	(946,311,596)	582,271	(946,893,867)
Balance at June 30, 2020	135,598,547,013	52,316,477,771	10,285,590	52,306,192,181
Allocation of revenues in excess of expenses Statutory transfers in (out)		11,896,027,249	208 617,142	11,896,027,041 (617,142)
Net increase	3,315,727,904	11,896,027,249	617,350	11,895,409,899
Balance at June 30, 2021	\$138,914,274,917	\$ <u>64,212,505,020</u>	\$ <u>10,902,940</u>	\$ <u>64,201,602,080</u>

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Analysis of Changes in Statutory Reserve Accounts

Statutory reserve accounts are maintained in accordance with the provisions of 40 ILCS 5/16-101 et.seq. A brief discussion of the statutory reserve accounts follows:

Benefit Trust

This reserve serves as a clearing account for System 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 System 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 the System, 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 temporarily or accidentally 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 as calculated by the actuary is \$79,934,351,951 in 2021 and \$80,707,571,185 in 2020.

Minimum Retirement Annuity

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 appropriates funds necessary to pay the minimum benefits provided in the legislation. All benefits paid under this program are charged to the reserve. This reserve is fully funded.

Analysis of Operations (Unaudited)
For the Years Ended June 30, 2021 and 2020

Number of Employees

The average number of employees for the last two fiscal years is as follows:

	2021	2020
Administration – Internal	35	34
Executives	10	10
Information Technology	39	36
Investments	28	29
Lisle Office	8	9
Member Services	61	63
Support Services	21	22
	202	203