

**STATE EMPLOYEES' RETIREMENT SYSTEM OF THE  
STATE OF ILLINOIS**

FINANCIAL AUDIT  
FOR THE YEAR ENDED JUNE 30, 2019

PERFORMED AS SPECIAL ASSISTANT AUDITORS  
FOR THE AUDITOR GENERAL, STATE OF ILLINOIS



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

**Financial Audit**

**For the Year Ended June 30, 2019**

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**Table of Contents**

System Officials and Office Locations	1
Financial Statement Report	
Summary	2
Independent Auditor's Report	3
Management's Discussion and Analysis (Unaudited)	5
Basic Financial Statements	
Statement of Fiduciary Net Position	8
Statement of Changes in Fiduciary Net Position	9
Notes to the Financial Statements	10
Required Supplementary Information (Unaudited)	
Schedule of Changes in the State's Net Pension Liability and Related Ratios	33
Notes to Schedule of Changes in the State's Net Pension Liability and Related Ratios	35
Schedule of Investment Returns	36
Schedule of State Contributions	37
Notes to Schedule of State Contributions	37
Supplementary Financial Information	
Summary of Revenues by Source	38
Summary Schedule of Cash Receipts and Disbursements	39
Schedule of Payments to Consultants and Advisors	39
Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	40

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

**Financial Audit  
For the Year Ended June 30, 2019**

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**System Officials**

Executive Secretary	Timothy B. Blair
Accounting Division Manager	Alan Fowler, CPA
Chief Internal Auditor	Casey Evans

**Governing Board Members**

Chair of the Board	Susana Mendoza
Trustee (Vice-Chair of the Board)	David Morris
Trustee	Danny Silverthorn
Trustee	Yasmin Bates-Brown
Trustee	Renee Friedman
Trustee	Thomas Allison
Trustee	Carl A. Jenkins
Trustee	Jeremy Hawk
Trustee	Shaun Dawson
Trustee	Stephen Mittons
Trustee	John Tilden
Trustee	Alan Latoza
Trustee	Vacant

**Office Locations**

Springfield Office  
2101 South Veterans Parkway  
P.O. Box 19255  
Springfield, Illinois 62794-9255

Chicago Office  
State of Illinois Building  
160 North LaSalle Street, Suite N725  
Chicago, Illinois 60601

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

**Financial Audit  
For the Year Ended June 30, 2019**

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**Financial Statement Report**

**Summary**

The audit of the accompanying financial statements of the State of Illinois, State Employees' Retirement System (System) was performed by RSM US LLP.

Based on their audit and the report of other auditors, the auditors expressed an unmodified opinion on the System's basic financial statements.

**Exit Conference**

The System waived an exit conference in a correspondence from Casey Evans, Chief Internal Auditor, on November 20, 2019.

**Independent Auditor's Report**

RSM US LLP

Honorable Frank J. Mautino, Auditor General – State of Illinois

Board of Trustees, State Employees' Retirement System of the State of Illinois

**Report on the Financial Statements**

As Special Assistant Auditors for the Auditor General, we have audited the accompanying Statement of Fiduciary Net Position of the State Employees' Retirement System of the State of Illinois (System), as of June 30, 2019, and the Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

**Management's Responsibility for the Financial Statements**

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

**Auditor's Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We did not audit the 2019 financial statements of the Illinois State Board of Investment, an internal investment pool of the State of Illinois, which statements represent 97 percent, 97 percent and 30 percent, respectively, of total assets, net position restricted for pension benefits, and total additions of the System. Those financial statements were audited by other auditors whose report thereon has been furnished to us, and our opinion, insofar as it relates to the amounts included for the Illinois State Board of Investment is based solely on the report of other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

**Opinion**

In our opinion, based on our audit and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2019, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

The actuarially determined net pension liability, calculated as required by GASB Statement No. 67, is dependent on several assumptions including the assumption that future required contributions from State sources are made based on statutory requirements in existence as of the date of this report. These assumptions and required contributions are discussed in Notes 5 and 6 of the financial statements on pages 26 through 28. Our opinion is not modified with respect to this matter.

**Other Matters***Required Supplementary Information:*

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis on pages 5 through 7 and the required supplementary information as listed in the table of contents on pages 33 through 37 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We and other auditors have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information:*

Our audit for the year ended June 30, 2019 was conducted for the purpose of forming an opinion on the System's basic financial statements. The supplementary financial information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The supplementary financial information as listed in the table of contents for the year ended June 30, 2019 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements for the year ended June 30, 2019 and certain additional procedures, including comparing and reconciling such information directly to underlying accounting and other records used to prepare the basic financial statements, or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and other auditors. In our opinion, based on our audit and the report of other auditors, the supplementary financial information as listed in the table of contents, is fairly stated, in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2019.

**Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated December 13, 2019 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

**SIGNED ORIGINAL ON FILE**

Schaumburg, Illinois  
December 13, 2019

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's discussion and analysis of the financial position and performance of the State Employees' Retirement Systems of Illinois (System) for the year ended June 30, 2019. It is presented as a narrative overview and analysis.

The System is a defined benefit, single-employer public employee retirement system. It provides services to approximately 62,000 active state employees and 74,600 benefit recipients. Throughout this discussion and analysis, units of measure (i.e. billions, millions, thousands) are approximate, being rounded up or down to the nearest tenth of the respective unit value.

### OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the System's financial reporting which is comprised of the following components:

1. **Basic Financial Statements and Notes.** For the fiscal year ended June 30, 2019, basic financial statements are presented for the System. This information presents the fiduciary net position restricted for pensions for the System as of June 30, 2019. This financial information also summarizes the changes in fiduciary net position restricted for pensions for the year then ended. The notes to the Financial Statements provide additional information that is essential to achieve a full understanding of the data provided in the basic financial statements.
2. **Required Supplementary Information.** The required supplementary information consists of three schedules and related notes concerning actuarial information, funded status, investment returns and information on State contributions.
3. **Other Supplementary Schedules.** Other schedules include more detailed information pertaining to the System, including schedules of revenues by source, cash receipts and disbursements, and payments to consultants and advisors.

### FINANCIAL HIGHLIGHTS

- The fiduciary net position increased by \$1,028.6 million during fiscal year 2019. This change was primarily the result of an increase in investments of \$733.9 million.
- The System was funded at 35.6% as of June 30, 2019.
- The overall rate of return for the Illinois State Board of Investment (ISBI) Commingled Fund was a gain of 7.1% in fiscal year 2019. The System's annual money-weighted rate of return on its investment in the ISBI Commingled Fund was a gain of 7.1% for fiscal year 2019.

#### Condensed Statements of Fiduciary Net Position (in millions)

	As of June 30		Increase/(Decrease) from
	2019	2018	2018 to 2019
Cash	\$ 211.3	\$ 204.9	\$ 6.4
Receivables	293.3	101.8	191.5
Investments, at fair value *	18,068.2	17,334.3	733.9
Capital Assets, net	10.7	8.7	2.0
Total assets	18,583.5	17,649.7	933.8
Liabilities *	91.6	186.4	(94.8)
Total fiduciary net position	\$ 18,491.9	\$ 17,463.3	\$ 1,028.6

\* Including securities lending collateral

## MANAGEMENT'S DISCUSSION AND ANALYSIS

### ADDITIONS TO FIDUCIARY NET POSITION

Additions to Fiduciary Net Position include employer and participant contributions and net income from investment activities. Participant contributions were approximately \$275.7 million and \$254.4 million for the years ended June 30, 2019 and June 30, 2018, respectively. Participant contribution rates are set by statute as a percentage of gross salary. For fiscal year 2019, employer contributions increased to approximately \$2,274.9 million from \$1,929.2 million in fiscal year 2018. The net investment income for fiscal year 2019 was \$1,118.4 million, which was down from the net investment gain from fiscal year 2018 of \$1,257.0 million.

### DEDUCTIONS FROM FIDUCIARY NET POSITION

Deductions from Fiduciary Net Position are primarily benefit payments. During fiscal years 2019 and 2018, the System paid out approximately \$2,601.3 million and \$2,464.8 million, respectively, in benefits. This increase in benefit payments of approximately 5.5% from 2018 to 2019 is mainly the result of the annual scheduled 3% increase in retirement and other benefit payments. Also attributing to the increase was the increased number of beneficiaries, with more than a 1.9% increase from 2018 to 2019. Refunds were consistently just over 1% of the total deductions in each of the fiscal years presented and administrative costs of the System represented less than 1% of the total deductions in each of the fiscal years presented within the condensed statements.

Condensed Statements of Changes in Fiduciary Net Position  
(in millions)

	For the Year Ended June 30,		Increase/(Decrease)
	2019	2018	from 2018 to 2019
<b>Additions</b>			
Participant contributions	\$ 275.7	\$ 254.4	\$ 21.3
Employer contributions	2,274.9	1,929.2	345.7
Net investment income (loss)	1,118.4	1,257.0	(138.6)
Total additions	3,669.0	3,440.6	228.4
<b>Deductions</b>			
Benefits	2,601.3	2,464.8	136.5
Refunds	24.1	27.5	(3.4)
Administrative expenses	15.0	15.3	(0.3)
Total deductions	2,640.4	2,507.6	132.8
Net increase\decrease) in fiduciary net position	\$ 1,028.6	\$ 933.0	\$ 95.6

### FUNDED RATIO

The funded ratio of the plan measures the ratio of the fiduciary net position against the total pension liability and is one indicator of the fiscal strength of a pension fund's ability to meet obligations to its members. An annual actuarial valuation is performed. The most recent available valuation showed the funded status of the System was 35.64% on June 30, 2019. The amount by which the total pension liability exceeded the fiduciary net position was \$33.4 billion at June 30, 2019.

### INVESTMENTS

Investments of the System are combined in an internal commingled investment pool held by the Illinois State Board of Investment (ISBI). The other entities participating in this commingled pool are the Judges' Retirement System, the General Assembly Retirement System and one other state agency. The investments of this other state agency are immaterial to the total commingled investment pool. Each participating entity owns an equity position in the pool and receives proportionate investment income from the pool in accordance with respective ownership percentage. Investment gains or losses are reported in the Statement of Changes in Net Position of each retirement system.

The net investment gain of the total ISBI Commingled Fund was approximately \$1,184.0 million during fiscal year 2019, resulting in a positive return of 7.1%. The actual rate of return earned by the System will vary from the return earned on the total ISBI Commingled Fund as the result of overall market conditions at the time of additional investments in or withdrawals from the ISBI Commingled Fund. For the three, five, and ten year period ended June 30, 2019, the ISBI Commingled Fund earned a compounded rate of return of 9.0%, 6.1%, and 9.2%, respectively.

The ISBI is exposed to general market risk. This general market risk is reflected in asset valuations fluctuating with market volatility. Any impact from market volatility on the ISBI's investment portfolio depends in large measure on how deep the market downturn is, how long it lasts, and how it fits within fiscal year reporting periods. The resulting market risk and associated realized and unrealized gains and losses could significantly impact the ISBI's financial condition.

### FUTURE OUTLOOK

All actuarial assumptions used in the June 30, 2019 funding valuation were based on the experience review for the three years ended June 30, 2018. The state's statutory (employer) contribution rate for fiscal year 2020, determined by the actuarial valuation, will increase from 49.131% to 52.150% or an additional 3.019% of employee covered payroll. Total employee headcount is expected to remain level.

Tier 2 active members' annual pensionable earnings were capped at \$114,952 in 2019 and will be capped at \$115,929 in 2020. The caps on Tier 2 members' calendar year earnings decrease the anticipated amount of future earnings credit as well as the associated contributions.

During most of FY 2019 SERS retiring members had the option to elect the COLA buyout created by Public Act 100-0587. Retiring Tier 1 members may elect to receive a delayed and reduced COLA, and in return receive a lump sum accelerated benefit equal to 70% of the actuarially determined present value of the difference between the traditional COLA and the reduced COLA. The amount of the accelerated benefit is paid from the Pension Trust Fund but then reimbursed from a dedicated bond fund. In FY 2019, approximately 22% of retiring members participated in this new benefit option and that participation rate is expected to continue.

Public Act 100-0587 also created a Total buyout option for inactive vested SERS participants. This program allows vested inactive members to receive a lump sum payment equal to 60% of the present value of projected benefits. The program was implemented in late FY 2019 with only very limited participation, but the participation rate is expected to be between 5% and 10% in FY 2020, the first full fiscal year of implementation.

Benefit payments are projected to continue to grow at a rate of approximately 6 - 8% annually, primarily as a result of the growth in the number of annuitants and the 3% annual COLA.

The ISBI plans to continue to accomplish its strategy of seeking to maximize the likelihood of meeting long-term return objectives while maintaining prudent risk exposure and controlling fees and expenses related to the management of the fund.

### REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the System's finances. For questions concerning the information in this report or for additional information, contact the Accounting Division of the State Employees' Retirement System at [srsactgdiv@srs.illinois.gov](mailto:srsactgdiv@srs.illinois.gov).

# FINANCIAL STATEMENTS

## STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

Statement of Fiduciary Net Position  
June 30, 2019

### Assets

Cash	\$ 211,289,280
Receivables:	
Participants' contributions	34,265,932
Employer contributions	242,634,706
Other accounts	16,358,140
Total receivables	<u>293,258,778</u>
Investments:	
Investments - held in the Illinois State Board of Investment Commingled Fund at fair value	18,025,048,500
Securities lending collateral with State Treasurer	43,142,000
Total Investments	<u>18,068,190,500</u>
Capital Assets, net	<u>10,710,395</u>
Total Assets	<u>18,583,448,953</u>

### Liabilities

Benefits payable	18,183,074
Refunds payable	2,620,460
Administrative expenses payable	2,268,254
Participants' deferred service credit accounts	792,174
Due to the State of Illinois	24,554,339
Securities lending collateral	43,142,000
Total Liabilities	<u>91,560,301</u>
Net position-restricted for pensions	<u>\$ 18,491,888,652</u>

*See accompanying notes to financial statements.*

# FINANCIAL STATEMENTS

## STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

Statement of Changes in Fiduciary Net Position  
for the Year Ended June 30, 2019

Additions:	
Contributions:	
Participants	\$ 275,675,175
Employer	2,274,925,279
Total Contributions	<u>2,550,600,454</u>
Investment income:	
Net appreciation/(depreciation) in fair value of investments	845,866,191
Interest and dividends	297,231,739
Less investment expense, other than from securities lending	<u>(24,669,122)</u>
Net income/(loss) from investing, other than from securities lending	1,118,428,808
Net income from securities lending	102
Net investment income/(loss)	<u>1,118,428,910</u>
Total Additions	<u>3,669,029,364</u>
Deductions:	
Benefits:	
Retirement annuities	2,368,679,904
Survivor annuities	153,161,557
Disability benefits	62,214,438
Lump sum benefits	<u>17,250,694</u>
Total Benefits	2,601,306,593
Refunds <i>(including transfers to reciprocating systems)</i>	24,133,508
Administrative	<u>14,978,852</u>
Total Deductions	<u>2,640,418,953</u>
Net increase/(decrease) in net position	<u>1,028,610,411</u>
Net position restricted for pensions	
Beginning of year	17,463,278,241
End of year	<u>\$ 18,491,888,652</u>

*See accompanying notes to financial statements.*

# FINANCIAL STATEMENTS

## STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

Notes to Financial Statements June 30, 2019

### 1. Reporting Entity

Generally accepted accounting principles require that the financial reporting entity include: 1) the primary government; 2) organizations for which the primary government is financially accountable; and 3) other organizations for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete.

The State Employees' Retirement System of Illinois (System) is administered by a Board of Trustees consisting of thirteen persons, which includes: a. the Comptroller, who shall be the Chairperson; b. six persons appointed by the Governor with the advice and consent of the Senate who may not be members of the system or hold an elective State office and who shall serve for a term of 5 years, except that the terms of the initial appointees under the amendatory Act of the 96th General Assembly shall be as follows: 3 for a term of 3 years and 3 for a term of 5 years; c. four active participants of the System having at least 8 years of creditable service, to be elected from the contributing members of the System by the contributing members; and d. two annuitants of the System who have been annuitants for at least one full year, to be elected from and by the annuitants of the System. Operation of the System and the direction of its policies are the responsibility of the Board of Trustees of the System.

Based on the criteria of the Governmental Accounting Standards Board Statement No. 61, there are no other state agencies, boards or commissions, or other organizations required to be combined with the System. However, the System is a pension trust fund of the State of Illinois financial reporting entity, and is to be combined and included in the State of Illinois' comprehensive annual financial report.

At June 30, 2019, participation levels in the System were as follows:

	2019
State agencies	41
State boards and commissions	<u>38</u>
TOTAL	<u>79</u>
Retirees and beneficiaries currently receiving benefits:	
Retirement annuities	61,007
Survivors' annuities	11,573
Disability benefits	<u>2,009</u>
TOTAL	<u>74,589</u>
Inactive employees entitled to benefits, but not yet receiving them	<u>3,843</u>
TOTAL	<u>78,432</u>
Current Employees:	
Vested: Coordinated with Social Security	32,555
Noncoordinated	1,521
Nonvested: Coordinated with Social Security	27,208
Noncoordinated	<u>742</u>
TOTAL	<u>62,026</u>

## 2. Plan Description

The System is the administrator of a single-employer, defined benefit public employee retirement system (PERS) established and administered by the State of Illinois to provide pension benefits for its employees. The plan is comprised of two tiers of contribution requirements and benefit levels. The provisions below apply to both Tier 1 & 2 employees, except where noted. A summary of the plan provisions pertaining to eligibility and membership, contributions, and benefits are displayed in the table below:

### a. Eligibility and Membership

Generally, anyone entering state service, except those in positions subject to membership in certain other state sponsored retirement systems, persons employed after June 30, 1979 as public service employment program participants under the Federal CETA program, and other exceptions as indicated in state law, become members of the System immediately.

Employees appointed by the Governor and requiring confirmation by the State of Illinois Senate may elect to become members of the System.

### b. Employee Contributions

Participating members contribute specified percentages of their salaries for retirement annuities and survivors' annuities in accordance with Chapter 40, Section 5/14-133 of the Illinois Compiled Statutes (ILCS).

Contributions are excluded from gross income for Federal and State income tax purposes. The total contribution rate is 4% if the member is covered by Social Security and 8% if the member is not covered. Certain employment categories which are eligible for benefits under alternative formulas contribute at the rate of 8 1/2% or 12 1/2% depending upon whether or not the employee is covered by Social Security. Participants' contributions are fully refundable, without interest, upon withdrawal from state employment.

Tier 1	Tier 2
No annual compensation limit on contributions.	Beginning on or after January 1, 2011, annual compensation on which contributions are taken cannot exceed \$106,800. This amount increases annually by 3% or one-half of the Consumer Price Index, whichever is less. The salary limit for calendar year 2019 is \$114,952.

### c. Employer Contributions

The State of Illinois is obligated to make payment for the required departmental employer contributions, all allowances, annuities, any benefits granted under Chapter 40, Article 5/14 of the ILCS and all administrative expenses of the System to the extent specified in the ILCS. State law provides that the employer contribution rate be determined based upon the results of each annual actuarial valuation.

### d. Retirement Annuity Benefits

The System is governed by Chapter 40, Article 5/14 of the ILCS. Vesting and benefit provisions of the System are defined in the ILCS. The retirement annuity is based on the member's final average compensation and the number of years of service credit that have been established. The retirement benefit formula available to general state employees is 1.67% for each year of covered service and 2.2% for each year of noncovered service. Alternative formula employees have a formula of 2.5% for covered service and 3.0% for noncovered service.

The maximum retirement annuity payable is 75% of final average compensation for regular employees and 80% for alternative formula employees. The minimum retirement annuity payable is \$15.00 for each year of covered employment and \$25.00 for each year of noncovered employment.

## Regular Formula Tier 1

A member must have a minimum of eight years of service credit and may retire at:

- Age 60, with 8 years of service credit.
- Any age, when the member's age (years & whole months) plus years of service credit (years & whole months) equal 85 years (1,020 months) (Rule of 85) with eight years of credited service.
- Between ages 55-60 with 25-30 years of service credit (reduced 1/2 of 1% for each month under age 60).

The retirement benefit is based on final average compensation and credited service. Final average compensation is the 48 highest consecutive months of service within the last 120 months of service.

Under the Rule of 85, a member is eligible for the first 3% increase on January 1 following the first full year of retirement, even if the member is not age 60. If the member retires at age 60 or older, he/she will receive a 3% pension increase every year on January 1, following the first full year of retirement.

If the member retires before age 60 with a reduced retirement benefit, he/she will receive a 3% pension increase every January 1 after the member turns age 60 and has been retired at least one full year. These pension increases are not limited by the 75% maximum.

## Alternative Formula Tier 1

Members eligible for the alternative formula may retire at age 50 with 25 years of service credit, or at age 55 with 20 years of service credit.

Final average compensation is figured one of three ways:

- The average of the highest 48 consecutive months over the last 120 months of service (for members in service prior to January 1, 1998).
- Average of last 48 months of service.
- Final rate of pay: cannot exceed the average of the last 24 months of pay by 115%.

Alternative formula retirees receive their first 3% pension increase on January 1 following the first full year of retirement after age 55. These increases are not limited by the 80% maximum.

## Regular Formula Tier 2

A member must have a minimum of 10 years of credited service and may retire at:

- Age 67, with 10 years of credited service.
- Between ages 62-67 with 10 years of credited service (reduced 1/2 of 1% for each month under age 67).

The retirement benefit is based on final average compensation and credited service. For regular formula employees, final average compensation is the average of the 96 highest consecutive months of service within the last 120 months of service. The retirement benefit is calculated on a maximum salary of \$106,800. This amount increases annually by 3% or one-half of the Consumer Price Index, whichever is less.

If the member retires at age 67 or older, he/she will receive a pension increase of 3% or one-half of the Consumer Price Index for the preceding calendar year, whichever is less, every year on January 1, following the first full year of retirement. The salary limit for calendar year 2019 is \$114,952.

If the member retires before age 67 with a reduced retirement benefit, he/she will receive a pension increase of 3% or one-half of the Consumer Price Index for the preceding calendar year, whichever is less, every January 1 after the member turns age 67 and has been retired at least one full year. These pension increases are not limited by the 75% maximum.

## Alternative Formula Tier 2

Members eligible for the alternative formula may retire at age 60 with 20 years of service.

Final average compensation is the average monthly salary during the 96 highest consecutive months of service within the last 120 months. The retirement benefit is calculated on a maximum salary of \$106,800. This amount increases annually by 3% or one-half of the Consumer Price Index, whichever is less. The salary limit for calendar year 2019 is \$114,952.

Alternative formula retirees receive their first pension increase of 3% or one-half of the Consumer Price Index for the preceding calendar year, whichever is less, following the first full year of retirement after age 60. These increases are not limited by the 80% maximum.

## FINANCIAL STATEMENTS

### e. Disability & Death Benefits

Occupational and nonoccupational (including temporary) disability benefits are available through the System. To be eligible for nonoccupational (including temporary) disability benefits, an employee must have at least eighteen months of credited service with the System.

The nonoccupational (including temporary) disability benefit is equal to 50% of the monthly rate of compensation of the employee on the date of removal from the payroll. Occupational disability benefits are provided when the member becomes disabled as a direct result of injuries or diseases arising out of and in the course of state employment. The monthly benefit is equal to 75% of the monthly rate of compensation on the date of removal from the payroll. This benefit amount is reduced by Workers' Compensation or payments under the Occupational Diseases Act.

Occupational and nonoccupational death benefits are also available through the System. Certain nonoccupational death benefits vest after eighteen months of credited service. Occupational death benefits are provided from the date of employment.

#### Tier 1

For disability benefits, final average compensation is the rate of pay on the date of the disability, or the 48 highest consecutive months of service within the last 10 years, whichever is greater.

#### Tier 2

For disability benefits, final average compensation is the rate of pay on the date of the disability, or the 96 highest consecutive months of service within the last 10 years, whichever is greater. The disability benefit is calculated on a maximum salary of \$106,800. The salary limit for calendar year 2019 is \$114,952.

## 3. Summary of Significant Accounting Policies & Plan Asset Matters

### a. Basis of Accounting

The financial transactions of the System are maintained and these financial statements have been prepared using the accrual basis of accounting in conformity with generally accepted accounting principles. Employee and employer contributions are recognized as revenues when due pursuant to statutory requirements.

Benefits and refunds are recognized as expenses when due and payable in accordance with the terms of the plan.

### b. Cash

The System retains all of its available cash in a commingled investment pool managed by the Treasurer of the State of Illinois (Treasurer). All deposits are fully collateralized by the Treasurer.

“Available cash” is determined to be that amount which is required for the current operating expenditures of the System. The excess of available cash is transferred to the Illinois State Board of Investment (ISBI) for purposes of long-term investment for the System.

### c. Implementation of New Accounting Standards

GASB Statement No. 83, “Certain Asset Retirement Obligations”, addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. This GASB is effective for fiscal years beginning after June 15, 2018 (FY 2019) and it has been determined that it will not impact the System’s financial statements.

GASB Statement No. 88, “Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements”, defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. The Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. This GASB is effective for fiscal years beginning after June 15, 2018 (FY 2019) and it has been determined that it will not impact the System’s financial statements.

### d. Methods Used to Value Investments

Investments are managed by the ISBI pursuant to Chapter 40, Article 5/22A of the Illinois Compiled Statutes (ILCS) and are maintained in the ISBI Commingled Fund.

Investments owned are reported at fair value. Units of the ISBI Commingled Fund are issued to the participating entities on the last day of the month based on the unit net asset value calculated as of that date. Net investment income of the ISBI Commingled Fund is allocated to each of the participating entities on the last day of the month on the basis of percentage of accumulated units owned by the respective systems. Management expenses are deducted monthly from income before distribution.

The investment authority of the ISBI is provided in Chapter 40, Section 5/22A-112 of the ILCS. Such investment authority requires that all opportunities be undertaken with care, skill, prudence and diligence given prevailing circumstances that a prudent person acting in like capacity and experience would undertake.

## FINANCIAL STATEMENTS

### e. Actuarial Experience Review

In accordance with Illinois Compiled Statutes, an actuarial experience review is to be performed at least once every three years to determine the adequacy of actuarial assumptions regarding the mortality, retirement, disability, employment, turnover, interest and earnable compensation of the members and beneficiaries of the System. An experience review was last performed for the three-year period July 1, 2015 to June 30, 2018 resulting in the adoption of new assumptions as of June 30, 2019. Assumption changes include changes to the investment returns, rate of inflation, mortality and other as detailed in the Required Supplementary Information of this CAFR.

### f. Administrative Expenses

Expenses related to the administration of the System are financed through investment earnings and employer retirement contributions. These expenses are budgeted and approved by the System's Board of Trustees.

### g. Risk Management

The System, as part of the primary government of the State, provides for risks of loss associated with workers' compensation and general liability through the State's self-insurance program. The System obtains commercial insurance for fidelity, surety, and property. There have been no commercial insurance claims in the past four fiscal years.

### h. General Litigation

The System is subject to claims and lawsuits that arise primarily in the ordinary course of business. It is the opinion of management that the disposition or ultimate resolution of such claims and lawsuits will not have a material adverse effect on the fiduciary net position or the changes in fiduciary net position of the System.

### i. Use of Estimates

In preparing financial statements in conformity with U.S. generally accepted accounting principles, the System makes estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

## 4. Investments

### Introduction

Investments of the System are combined in a commingled internal investment pool and held by the Illinois State Board of Investment (ISBI). The System owns approximately 94% (\$18,025,048,500) of the net position of the ISBI commingled fund as of June 30, 2019. A schedule of investment expenses is included in the ISBI's annual report.

For additional information on ISBI's investments, please refer to their Annual Report as of June 30, 2019. A copy of the report can be obtained from the ISBI at 180 North LaSalle Street, Suite 2015, Chicago, Illinois 60601 or by visiting their website, <https://www.isbinvestment.com>.

### **Summary of the ISBI Fund's investments at fair value by type**

	June 30, 2019
U.S. govt. and agency obligations	\$ 249,211,178
Foreign obligations	145,836,447
Corporate obligations	687,426,898
Municipal bonds	2,174,758
Common stock & equity funds	2,961,709,654
Commingled funds	10,791,639,807
Foreign equity securities	233,173,589
Foreign preferred stock	50,471
Hedge funds	141,715,793
Opportunistic debt	506,150,801
Real estate funds	1,737,430,583
Private equity	779,475,084
Infrastructure	316,264,251
Bank loans	392,020,733
Money market instruments	156,715,534
Total investments	\$ 19,100,995,581

### Rate of Return

For the fiscal year ended June 30, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 7.1%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### Deposits

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, the System's and ISBI's deposits may not be returned. All non-investment related bank balances at year end are insured or collateralized with securities held by the Illinois State Treasurer or agents in the name of the State Treasurer. As of June 30, 2019, the ISBI had a non-investment related bank balance of \$515,822. A Custodial Credit Risk Policy was implemented by the ISBI staff and formally adopted by the ISBI Board in July of 2007. The policy outlines the control procedures used to monitor custodial credit risk. These assets are under the custody of Northern Trust. Northern Trust has an A+ Long-term Deposit/Debt rating by Standard & Poor's and an A2 rating by Moody's. Certain investments of the ISBI with maturities of 90 days or less would be considered cash equivalents; these consist of short-term investment funds and U.S. Treasury bills with maturities of 90 days or less, which are not subject to the custodial credit risk. For financial statement presentation and investment purposes, the ISBI reports these types of cash equivalents as Money Market Instruments within their investments. As of June 30, 2019, the ISBI had an investment related bank balance of \$10,098,916. This balance includes USD and foreign cash balances. Cash held in the investment related bank account is neither federally insured nor collateralized for amounts in excess of \$250,000. However, the ISBI is the beneficiary of multiple policies and bonds held by Northern Trust providing for recovery of various potential losses related to services provided by Northern Trust as the ISBI's custodian. At any given point and time, the foreign cash balances may be exposed to custodial credit risk.

### Investment Commitments

The ISBI had total investment commitments of \$2.2 billion at the end of fiscal year 2019. The ISBI's real estate, private equity, infrastructure and opportunistic debt investment portfolios consist of passive interests in limited partnerships. At the end of fiscal year 2019, the ISBI had no outstanding commitments to separate real estate accounts within the real estate and private equity investment portfolios. The ISBI would fund outstanding commitments by utilizing available cash and then selling liquid securities in the portfolio as necessary.

### Investment Liquidity

The majority of the ISBI's portfolio is highly liquid. However, the ISBI holds investments in hedge funds, real estate funds, opportunistic debt funds, private equity funds, commingled funds, bank loans and infrastructure funds that are considered illiquid by the very nature of the investment. Market risk exists with respect to these investments as the ISBI may not be able to exit from the illiquid investments during periods of significant market value declines.

### Alternative Investments

The ISBI's investments in alternative investment vehicles consist of Commingled Funds, Private Equity Funds, Hedge Funds, Infrastructure Funds, Opportunistic Debt Funds and Real Estate Funds. These types of vehicles are used for making investments in various equity and debt securities according to the investment strategies as determined by the fund managers at the commencement of the fund.

### Fair Value Measurements

Fair value is the amount that would be received to sell the investment in an orderly transaction between market participants at the measurement date (i.e. exit price). The fair value measurements are determined within a framework that utilizes a three-tier hierarchy, which maximizes the use of observable inputs and minimizes the use of unobservable inputs. Investments measured and reported at fair value are classified and disclosed in one of the following categories:

- Level 1 – Unadjusted quoted prices in active markets for identical assets.
- Level 2 – Inputs other than quoted prices that are observable for the asset, either directly or indirectly. These inputs include:
  - a. quoted prices for similar assets in active markets;
  - b. quoted prices for identical or similar assets in markets that are not active;
  - c. inputs other than quoted prices that are observable for the asset; or
  - d. inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 – Inputs that are unobservable for the asset. The valuation of these investments requires significant judgment due to the absence of quoted market values, inherent lack of liquidity, and changes in market conditions.

The valuation methodologies are as follows:

- U.S. Treasuries and U.S. Agencies: quoted prices for identical securities in markets that are not active;
- Foreign Government Obligations and Foreign Corporate Obligations: brokers quote in an active market;
- Corporate Bonds: quoted prices for similar securities in active markets;
- Municipal Bonds: quoted prices for similar securities in active markets;
- Bank Loans: discounted cashflow, internal assumptions, weighting of the best available pricing inputs and third party pricing services;
- Common Stock and Equity Funds, Foreign Preferred Stocks, Foreign Equity Securities and Commingled Funds-Domestic and Foreign: quoted prices for identical securities in an active market. Brokers quote in an active market;
- Money Market Funds: amortized cost which approximates fair value;
- Derivative Instruments: valued using a market approach that considers foreign exchange rates.

## FINANCIAL STATEMENTS

The recurring fair value measurements for the year ended June 30, 2019 are as follows:

	At June 30, 2019			
	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Totals
Investments by fair value level				
Debt Securities				
Government and agency obligations	\$ -	\$ 249,211,178	\$ -	\$ 249,211,178
Municipal bonds	-	2,174,758	-	2,174,758
Foreign obligations	-	144,492,096	1,344,351	145,836,447
Corporate obligations	-	682,393,510	5,033,388	687,426,898
Bank loans	-	355,891,348	36,129,385	392,020,733
Total debt securities	<u>\$ -</u>	<u>\$ 1,434,162,890</u>	<u>\$ 42,507,124</u>	<u>\$ 1,476,670,014</u>
Equity Securities				
Common stock and equity funds	\$ 2,959,422,375	\$ 665,184	\$ 1,622,095	\$ 2,961,709,654
Foreign equity securities	231,976,472	-	1,197,117	233,173,589
Foreign preferred stocks	50,471	-	-	50,471
Total equity securities	<u>\$ 3,191,449,318</u>	<u>\$ 665,184</u>	<u>\$ 2,819,212</u>	<u>\$ 3,194,933,714</u>
Other				
Commingled funds <sup>1</sup>	\$ 10,332,807,146	\$ -	\$ -	\$ 10,332,807,146
Total other	<u>\$ 10,332,807,146</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 10,332,807,146</u>
Total investments by fair value level	<u>\$ 13,524,256,464</u>	<u>\$ 1,434,828,074</u>	<u>\$ 45,326,336</u>	<u>\$ 15,004,410,874</u>
Investments measured at the Net Asset Value (NAV)				
Commingled funds				\$ 458,832,661
Real estate funds				1,737,430,583
Private equity				779,475,084
Infrastructure				316,264,251
Opportunistic debt				506,150,801
Hedge funds				141,715,793
Total investments measured at the NAV				<u>\$ 3,939,869,173</u>
Investments not measured at fair value				
Money market instruments				<u>\$ 156,715,534</u>
Total investments				<u>\$ 19,100,995,581</u>

1. Commingled funds with readily determinable fair value reported as Level 1.

Investments valued using the net asset value (NAV) per share (or its equivalent) are considered “alternative investments” and, unlike more traditional investments, generally do not have readily obtainable market values and take the form of limited partnerships. The ISBI values these investments based on the partnerships’ audited financial statements. If June 30 statements are available, those values are used preferentially. However, some partnerships have fiscal years ending at other than June 30. If June 30 valuations are not available, the value is adjusted from the most recently available valuation taking into account subsequent calls and distributions, adjusted for unrealized appreciation/depreciation, other income and fees.

## FINANCIAL STATEMENTS

The following table presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for alternative investments measured at NAV:

	June 30, 2019			
	Fair Value	Unfunded Commitments*	Redemption Frequency	Redemption Notice Period
Commingled funds	\$ 458,832,661	-	Quarterly	90 Days
Real estate funds	1,737,430,583	\$ 474.1	Quarterly	90 Days
Private equity	779,475,084	793.6	N/A	N/A
Opportunistic debt	506,150,801	872.6	N/A	N/A
Hedge funds	141,715,793	-	Quarterly	90 Days
Infrastructure	316,264,251	23.3	Quarterly	90 Days
Total Investments measured at the NAV	<u>\$ 3,939,869,173</u>			

\* In millions

1) Commingled Funds – The ISBI’s investments in this category consist of assets that are blended together with other investments in order to provide economies of scale which allows for lower trading costs per dollar of investment and diversification. These investments provide primarily liquid exposure to publicly traded equity and fixed income markets. The equity and fixed income portfolios provide diversification benefits and return enhancement to the overall fund in both domestic and international equity markets. Commingled funds are also called “pooled funds” and “master trusts”. Investment strategies consist of investments in eighteen domestic and international public equity and fixed income funds, seven diversified funds focusing on emerging markets and five long-only equity funds. The fair value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. The ISBI has no plans to liquidate these investments as of June 30, 2019. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan’s ownership interest.

2) Private Equity – The ISBI’s assets in this category consist of investments in funds not listed in public exchanges. Investment strategies consist of investments in seventy funds with the goals of generating returns significantly greater than typically available in the public market and diversifying the ISBI’s overall portfolio which is comprised predominantly of fixed income and equity assets. The strategies of Private Equity funds include, but are not limited to, leveraged buyouts, venture capital and growth capital. Returns are commensurate with the risks presented by this asset class which include illiquidity. The fair value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. The ISBI has no plans to liquidate these investments as of June 30, 2019. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan’s ownership interest.

3) Hedge Funds – The ISBI is currently in the process of transitioning investments in hedge fund vehicles to long-only equity vehicles. Assets in this category have historically consisted of investments in funds that seek to generate better than average return and provide a hedge against a downward trend in the overall market. Investment strategies currently consist of investments in six funds including hedge fund and long only equity assets. Returns are commensurate with the risks presented by this asset class which include illiquidity. The fair value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. As of June 30, 2019, for the majority of the hedge fund investments, the ISBI has plans to transition out entirely or to long only equity assets. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan’s ownership interest.

4) Infrastructure – The ISBI’s assets in this category consist of investments in funds that identify infrastructure assets which provide essential services or facilities to a community (ports, bridges, toll roads etc.) and are typically made as a privatization initiative on the part of a government entity. Investment strategies consist of investments in six funds with the goals of diversifying the ISBI’s overall portfolio which is comprised predominantly of fixed income and equity assets and providing capital appreciation and income generation. The fair

## FINANCIAL STATEMENTS

value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. The ISBI has no plans to liquidate these investments as of June 30, 2019. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan's ownership interest.

5) Opportunistic Debt – This category consists of investments in private fixed income markets. Investment strategies consist of investments in thirty funds with the goals of diversifying the ISBI's overall portfolio, providing downside protection through assets that are capital collateralized and supplementing the total return of the portfolio which is comprised predominantly of fixed income and equity assets. The fair value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. The ISBI has no plans to liquidate these investments as of June 30, 2019. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan's ownership interest.

6) Real Estate Funds – The ISBI's assets in this category consist of investments in the Core and Non-Core Real Estate Fund categories. Investment strategies consist of investments in forty funds with the goals of diversifying the ISBI's overall portfolio, providing capital appreciation and supplementing the total return of the portfolio through exposure to private real estate assets in both open-end and closed-end structures. Investments in this category are globally diversified and consist of office, industrial, multi-family, retail, storage and other types of assets. Core assets are expected to provide strong diversification through primary markets and high-income potential. Non-Core assets are typically higher risk assets with stronger capital appreciation. The fair value of these investments is based on audited financial statements of the funds adjusted for activity from the audit date to year end. The ISBI has no plans to liquidate these investments as of June 30, 2019. It is not probable that any investments sold will be sold at an amount different from the current NAV of the plan's ownership interest.

In addition, historically certain real estate investments are leveraged whereby partnerships have been established to purchase properties through a combination of contributions from the ISBI and through acquisition of debt. At June 30, 2019, these specific investments were in the process of winding down, therefore, no debt is currently associated with them.

### Custodial Credit Risk for Investments

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the ISBI will not be able to recover the value of investments or collateral securities that are in the possession of a counterparty. As of June 30, 2019, there were no investments that were uninsured and unregistered securities held by the counterparty or by its trust department or agent but not in the ISBI's name.

## FINANCIAL STATEMENTS

### Interest Rate Risk

The ISBI manages its exposure to fair value losses arising from interest rate risk by diversifying the debt securities portfolio and maintaining the debt securities portfolio to an effective duration consistent with the Barclay's U.S. Universal Index (benchmark index). As of June 30, 2019, the effective weighted duration of the ISBI's fixed income portfolio was 3.9 years and the effective duration of the benchmark index was 5.6 years.

Duration is the measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's fair value. The effective duration measures the sensitivity of market price to parallel shifts in the yield curve. The table below shows the detail of the duration by investment type as of June 30, 2019:

Investment Type	Fair Value	Effective Weighted Duration Years
U.S. Govt. and Agency Obligations		
U.S. Government	\$ 137,474,273	17.3
Federal Agency	111,736,905	0.7
Municipal Bonds	2,174,758	8.9
Foreign Obligations	145,836,447	5.0
Corporate Obligations		
Bank & Finance	384,384,066	1.0
Industrial	28,443,584	2.4
Other	274,599,248	1.9
Total	<u>\$ 1,084,649,281</u>	

For the ISBI's bank loan portfolio, the appropriate measure of interest rate risk is weighted average maturity. Weighted average maturity is the average time it takes for securities in a portfolio to measure weighted in proportion to the dollar amount that is invested in the portfolio. Weighted average maturity measures the sensitivity of fixed-income portfolios to interest rate changes. At June 30, 2019, the weighted average maturity of ISBI's bank loan portfolio was 5.4 years.

### Concentration of Credit Risk and Credit Risk for Investments

The ISBI's portfolio of investments is managed by professional investment management firms. These investment management firms are required to maintain diversified portfolios. Each investment manager must comply with risk management guidelines individually assigned to them as part of their investment management agreement. The ISBI did not have any issuer investment that exceeded 5% of the total investments of the fund as of June 30, 2019. The table on the next page, presents the quality ratings of debt securities held by the ISBI as of June 30, 2019.

## FINANCIAL STATEMENTS

	Moody's Quality Rating	
U.S. Government and Agency Obligations	AAA	\$ 228,539,950
	Not Rated	20,671,228
Total U.S. Government and Agency Obligations		<u>\$ 249,211,178</u>
Municipal Bonds	BAA	\$ 291,344
	BA	77,000
	CA	417,079
	Not Rated	1,389,335
Total Municipal Bonds		<u>\$ 2,174,758</u>
Foreign Obligations	A	\$ 4,364,260
	BAA	19,812,291
	BA	26,487,958
	B	49,504,144
	CAA	18,146,476
	C	457,938
	Not rated	27,063,380
Total Foreign Obligations		<u>\$ 145,836,447</u>
Corporate Obligations		
Bank and Finance	A	\$ 278,372,451
	BAA	966,420
	BA	34,339,146
	B	9,465,868
	CAA	11,063,162
	CA	314,125
	Not Rated	49,862,895
Total Bank and Finance		<u>\$ 384,384,066</u>
Industrial	BA	\$ 1,301,169
	B	15,771,460
	CAA	10,635,088
	C	178,970
	Not Rated	556,897
Total Industrial		<u>\$ 28,443,584</u>
Other	A	\$ 76,339,274
	BAA	2,043,298
	BA	33,091,099
	B	90,633,361
	CAA	46,064,297
	CA	4,040,166
	C	86,400
	Not Rated	22,301,353
Total Other		<u>\$ 274,599,248</u>
Total Corporate Obligations		<u>\$ 687,426,898</u>
Total Bank Loans	Not Rated	<u>\$ 392,020,733</u>
Total Money Market	Not Rated	<u>\$ 156,715,534</u>

## FINANCIAL STATEMENTS

### Foreign Currency Risk

The ISBI's international portfolio is constructed on the principles of diversification, quality, growth, and value. Risk of loss arises from changes in currency exchange rates and other factors. Certain investments held in infrastructure and real estate funds trade in a reported currency of Euro-based dollars valued at \$144,982,621 as of June 30, 2019. The table below presents the foreign currency risk by type of investment as of June 30, 2019.

Currency	2019	
	Foreign Equity Securities & Foreign Preferred Stock	Foreign Obligations
Australian Dollar	\$ 4,103,129	\$ -
Canadian Dollar	12,261,123	-
Danish Krone	966,170	-
English Pound Sterling	27,770,930	-
Euro Currency	72,549,960	-
Hong Kong Dollar	12,967,971	-
Japanese Yen	48,061,352	-
Mexican Peso	1,834,533	-
New Israeli Sheqel	216,831	-
New Zealand Dollar	770,757	-
Norwegian Krone	651,149	-
Singapore Dollar	1,409,626	-
South African Rand	4,400	-
South Korean Won	4,493,569	-
Swedish Krona	3,017,935	-
Swiss Franc	25,477,021	-
Thailand Baht	2,142,558	-
UAE Dirham	229,583	-
Foreign investments denominated in U.S. Dollars	<u>14,295,463</u>	<u>145,836,447</u>
Total	<u>\$ 233,224,060</u>	<u>\$ 145,836,447</u>

### Securities Lending

The ISBI participated in a securities lending program with Deutsche Bank AG, New York Branch which was discontinued prior to June 30, 2019. There were no outstanding loans or balances associated with any of the related financial statement accounts on the Statement of Net Position as of June 30, 2019.

Cash and cash equivalents included in the System's Statement of Fiduciary Net Position consist of deposits held in the State Treasury. The Illinois Office of the Treasurer invests the deposits held and allocates investment income on a monthly basis.

The State Treasurer lends securities to broker-dealers and other entities for collateral that will be returned for the same securities in the future. The State Treasurer has, through a Securities Lending Agreement, authorized Deutsche Bank AG to lend the State Treasurer's securities to broker-dealers and banks pursuant to a form of loan agreement.

During fiscal year 2019, Deutsche Bank AG lent U.S. Agency securities and U.S. Treasury securities and received as collateral U.S. dollar denominated cash. Borrowers were required to deliver collateral for each loan equal to at least 100% of the aggregate fair value of the loaned securities. Loans are marked to market daily. If the fair value of collateral falls below 100%, the borrower must provide additional collateral to raise the fair value to 100%.

## FINANCIAL STATEMENTS

The State Treasurer did not impose any restrictions during fiscal year 2019 on the amount of the loans of available, eligible securities. In the event of borrower default, Deutsche Bank AG provides the State Treasurer with counterparty default indemnification. In addition, Deutsche Bank AG is obligated to indemnify the State Treasurer if Deutsche Bank AG loses any securities, collateral or investments of the State Treasurer in Deutsche Bank AG's custody. There were no losses during fiscal year 2019 resulting from a default of the borrowers or Deutsche Bank AG.

During fiscal year 2019, the State Treasurer and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in repurchase agreements with approved counterparties collateralized with securities approved by Deutsche Bank AG and marked to market daily at no less than 102%. Because the loans are terminable at will, their duration did not generally match the duration of the investments made with cash collateral. The State Treasurer had no credit risk as a result of its securities lending program as the collateral held exceeded the fair value of the securities lent. The securities lending collateral received that was invested in repurchase agreements and the fair value of securities on loan for the State Treasurer as of June 30, 2019 were \$3,103,274,125 and \$3,064,814,670, respectively. The System's portion of securities lending collateral that was invested in repurchase agreements as of June 30, 2019 was \$43,142,000.

### Derivative Securities

In fiscal year 2010, the ISBI implemented GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, with respect to investments held in derivative securities. A derivative security is an investment whose payoff depends upon the value of other assets such as commodity prices, bond and stock prices, or a market index. The ISBI invests in derivative instruments including forward foreign currency contracts, futures, rights and warrants. The ISBI's derivatives are considered investment derivatives.

The ISBI's investment managers use financial futures to replicate an underlying security they wish to hold (sell) in the portfolio. In certain instances, it may be beneficial to own a futures contract rather than the underlying security. Additionally, financial futures are used in the ISBI's fixed income portfolio to adjust portfolio strategy and overall portfolio duration. A financial futures contract is an agreement to buy or sell a specific amount at a specified delivery or maturity date for an agreed-upon price. If the fair values of the futures contract vary from the original contract price, a gain or loss is recognized and paid to or received from the clearinghouse. The gain or loss is recognized in the net increase/decrease in the fair value of investments in the ISBI's Statement of Changes in Net Position. Financial futures represent an off-balance sheet obligation, as there are no balance sheet assets or liabilities associated with those contracts. The cash or securities to meet these obligations are held in the ISBI's investment portfolio.

The ISBI's investment managers use options in an attempt to add value to the portfolio (collect premiums) or protect (hedge) a position in the portfolio. Financial options are an agreement that gives one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price, called the strike price, on or before a specified expiration date. As a writer of financial options, the ISBI receives a premium at the outset of the agreement and bears the risk of an unfavorable change in the price of the financial instrument underlying the option. All written financial options are recognized as a liability in the ISBI's Statement of Net Position. As a purchaser of financial options, the ISBI pays a premium at the outset of the agreement and the counterparty bears the risk of an unfavorable change in the price of the financial instrument underlying the option. The gain or loss associated with options is recognized in the net increase/decrease in the fair value of investments in the ISBI's Statement of Changes in Net Position.

## FINANCIAL STATEMENTS

Rights and warrants allow the ISBI's investment managers to replicate an underlying security they wish to hold (sell) in the portfolio. Rights and warrants provide the holder with the right, but not the obligation, to buy or sell a company's stock at a predetermined price. Rights usually expire after a few weeks and warrants can expire from one to several years. Under certain circumstances, a type of warrant called Participatory Notes (P-Notes) are used in the portfolio by the ISBI's investment managers that are not registered to trade in domestic Indian Capital Markets. P-Notes are issued by Indian-based brokerage firms against an underlying Indian security permitting holders to get a share in the income from the security. These investments are reported at fair value in the investment section of the ISBI's Statement of Net Position within the common stock and foreign equity classifications. The gain or loss associated with rights and warrants is recognized in the net increase/decrease in the fair value of investments in the ISBI's Statement of Changes in Net Position.

Futures contracts are exchange traded instruments where the fair value is determined by the equilibrium between the forces of supply and demand. The fair value of a right or warrant closely tracks the intrinsic value of the underlying stock and can be determined either by formulaic methodology (most commonly Black-Scholes) or intrinsic value methodology.

The table below presents the investment derivative instruments aggregated by type that were held by the ISBI as of June 30, 2019.

	Changes in Fair Value	Fair Value at Year End	Notional Amount Number of Shares
	2019	2019	2019
FX Forwards	\$ 7,847,062	\$ -	-
Rights/Warrants	(180,086)	1,426	125,206
Swap Liabilities	(1,624,578)	(1,624,578)	-
	<u>\$ 6,042,398</u>	<u>\$ (1,623,152)</u>	<u>125,206</u>

Derivative transactions involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. Derivatives which are exchange traded are not subject to credit risk. No derivatives held are subject to custodial credit risk. Market risk is the possibility that a change in interest (interest rate risk) or currency rates (foreign currency risk) will cause the value of a financial instrument to decrease or become more costly to settle. The market risk associated with derivatives, the prices of which are constantly fluctuating, is regulated by imposing strict limits as to the types, amounts and degree of risk that investment managers may undertake. These limits are approved by the Board of Trustees and management of the ISBI and the risk positions of the investment managers are reviewed on a periodic basis to monitor compliance with the limits.

The ISBI's derivative investments in foreign currency forward contracts are held with counterparties. No contracts of this type were held as of June 30, 2019.

## FINANCIAL STATEMENTS

### 5. Funding - Statutory Contributions Required & Contributions Made

On an annual basis, a valuation of the liabilities and reserves of the System is performed by the System's actuarial consultants in order to determine the amount of contributions statutorily required from the State of Illinois. For fiscal year 2019, the actuary used the projected unit credit actuarial method for determining the proper employer contribution rate and amount.

For fiscal year 2019, the required employer contributions were computed in accordance with the State's funding plan. This funding legislation provides for a systematic 50 year funding plan with an ultimate goal to fund the cost of maintaining and administering the System at an actuarial funded ratio of 90%.

In addition, the funding plan provided for a 15 year phase-in period to allow the state to adapt to the increased financial commitment. Since the 15 year phase-in period ended June 30, 2010, the state's contribution will remain at a level percentage of payroll for the next 35 years until the 90% funded level is achieved.

The employer contributions associated with the payrolls from the general revenue fund are paid in equal installments each month to the System based on the projected payroll for the year. At the end of the fiscal year, a reconciliation is performed with the State Comptroller's Office to calculate the actual general revenue wages subject to retirement and actual employer contributions due the System from the general revenue fund. If this calculation is greater than the general revenue employer contributions paid, an employer contribution receivable is accrued. If this calculation is less than the general revenue employer contributions paid, a Due to the State of Illinois (General Revenue Fund) is accrued. For fiscal year 2019, a receivable from the State of Illinois was accrued in the amount of \$142,972,909 for the general revenue fund underpayment.

Public Act 100-0587 required that the SERS Board of Trustees retroactively recertify the fiscal year 2019 employer contribution rate, providing actuarial assumption changes related to the expected effect of the COLA Buyout and Total Buyout programs. This resulted in the accrual of a due to other state agencies in the amount of \$7,155,379 representing employer contribution refunds associated with FY 2019 employer contributions.

The total amount of statutorily required employer contributions, net of the debt service contributions, for fiscal year 2019 was \$2,272,999,647. The total amount of employer contributions received from the State and other sources during fiscal year 2019 was \$2,274,925,279.

### 6. Net Pension Liability of the State

The components of the State's net pension liability for this plan at June 30, 2019 are as follows:

<u>Total Pension Liability (TPL)</u>	<u>Plan Fiduciary Net Position (FNP)</u>	<u>Net Pension Liability</u>	<u>Plan FNP as % of TPL</u>
\$51,885,938,889	\$18,491,888,652	\$33,394,050,237	35.64%

The System is significantly underfunded which raises concerns about its future financial solvency should there be a significant market downturn coupled with the State's inability or unwillingness to pay the employer contributions.

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2019, using the following actuarial assumptions, which were based on the results of an actuarial experience study for the period from July 1, 2015 to June 30, 2018, applied to all periods included in the measurement. Key assumption changes for this valuation include changes to the investment returns, rate of inflation, mortality and others as detailed in the Required Supplementary Information of this CAFR.

Additionally, assumptions pertaining to the new accelerated pension benefit (Total Buyout Program and COLA Buyout Program) were built into the model. These programs (Public Act 100-0587) allow certain members eligible for a pension to elect an accelerated present value payment based on a percentage of future benefits payable in exchange for giving up those future benefits. The accelerated payment is financed through the sale of bonds.

The June 30, 2019 actuarial valuation used the following actuarial assumptions:

## FINANCIAL STATEMENTS

Actuarial Cost Method:	Entry Age Normal
Mortality:	Pub-2010 General and Public Safety Healthy Retiree mortality tables, sex distinct, with rates projected to 2018 generational mortality improvement factors were updated to projection scale MP-2018.
Inflation:	2.25%
Investment rate of return:	6.75%
Salary increases:	Salary increase rates based on age-related productivity and merit rates plus inflation.
Post-retirement increase:	Post-retirement benefit increases of 3.00%, compounded, for Tier 1 and 3.00% or one-half of the annual increase in the Consumer Price Index, whichever is less, simple, for Tier 2.
Retirement age:	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the June 30, 2019, valuation pursuant to an experience study of the period July 1, 2015 to June 30, 2018.

### Long-term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments is reviewed annually by the System's actuary, Gabriel Roeder Smith and Company (GRS), as part of the economic assumptions review. The actuarial assumptions are developed using historical data and projections employed to model future returns as provided by the Illinois State Board of Investments (ISBI) in conjunction with its investment consultant. The assumed rate of inflation which must be combined with the projected real return is 2.25%.

The target allocations and forward looking annualized geometric real rates of return for each major asset class, which are applicable for a 20-year projection period, are summarized in the following table. The 20-year projections produced an estimated annual real return of 4.77% and a standard deviation of 12.9% for the aggregate portfolio.

Asset Class	Asset Allocation	
	Target Allocation	20 Year Simulated Real Rate of Return
U.S. Equity	23%	4.8%
Developed Foreign Equity	13%	4.6%
Emerging Market Equity	8%	6.9%
Private Equity	7%	6.8%
Intermediate Investment Grade Bonds	14%	0.7%
Long-term Government Bonds	4%	1.0%
TIPS	4%	0.8%
High Yield and Bank Loans	5%	2.7%
Opportunistic Debt	8%	4.2%
Emerging Market Debt	2%	2.7%
Real Estate	10%	4.4%
Infrastructure	2%	4.1%
Total	<u>100%</u>	

## FINANCIAL STATEMENTS

### Discount Rate

A single discount rate of 6.47% was used to measure the total pension liability as of June 30, 2019. This represents a decrease of 0.34% from the discount rate used for the June 30, 2018 valuation, 6.81%.

The single discount rate was based on the June 30, 2019 expected rate of return on pension plan investments of 6.75%, and a municipal bond rate of 3.13% as of June 30, 2019. The projection of cash flows used to determine the single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the statutory contributions and the member rate. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2073 at June 30, 2019. As a result, for fiscal year 2019, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through 2073, and the municipal bond rate was applied to all benefit payments after that date.

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

For fiscal year 2019, the following table presents the plan's net pension liability using a single discount rate of 6.47%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage point lower or 1-percentage point higher.

	June 30, 2019		
	1% decrease	Current Discount Rate	1% increase
	5.47%	6.47%	7.47%
State's net pension liability	\$40,386,118,764	\$33,394,050,237	\$27,645,296,483

## 7. Compensated Absences

Employees of the System are entitled to receive compensation for all accrued but unused vacation time upon termination of employment. Additionally, employees of the System are entitled to receive compensation for one-half of the unused sick days that were earned on and after January 1, 1984 and before January 1, 1998, upon termination of employment. The accrued compensated absences, which is included in Administrative Expenses Payable, is shown on the following table:

	2019			
	Beginning Balance	Current Year Additions	Current Year Deletions	Ending Balance
Accrued Compensated Absences	\$ 823,025	\$ 896,277	\$ 955,298	\$ 764,004

## FINANCIAL STATEMENTS

### 8. Collection and Remittance of Bond and Interest Payments

On April 7, 2003, House Bill 2660 was signed into law as Public Act 93-0002. This legislation authorized the State to issue \$10 billion in general obligation bonds for the purpose of making required contributions to the five state-funded retirement systems, including the State Employees' Retirement System. On July 1, 2003, the net bond proceeds were allocated and distributed to each of the five state-funded retirement systems based on each system's relative percentage of the total unfunded liability at June 30, 2002. The State Employees' Retirement System received an allocation of bond proceeds totaling \$1,385,895,278 and deposited all of the proceeds into the Illinois State Board of Investment Commingled Fund on July 2, 2003.

Public Act 93-0839, effective July 30, 2004, requires that employer contributions to the System shall include an additional amount to be paid over to the General Obligation Bond Retirement and Interest Fund to pay principal of and interest on those general obligation bonds due that fiscal year. This debt service payment is to be made on the first day of each month, or as soon thereafter as practical.

The total debt service payments received for all fiscal year 2019 payrolls amounted to \$30.3 million. The total amount remitted to the State of Illinois as of June 30, 2019 was \$26.0 million.

As of June 30, 2019, the following amounts are included in the System's Statement of Plan Net Position regarding the collection of bond principal and interest payments:

	2019
Cash - payments collected but not yet remitted to the State of Illinois	\$ (2,664,520)
Accounts receivable - for June payrolls received in July & August	<u>\$ (1,620,040)</u>
Due to the State of Illinois	<u>\$ (4,284,560)</u>

## FINANCIAL STATEMENTS

### 9. Administrative Expenses & Other Post-Employment Benefits

Expenses related to the administration of the System are financed through investment earnings and employer retirement contributions. These expenses which are budgeted and approved by the System's Board of Trustees, are displayed in the table below for June 30, 2019.

	2019
Personal Services	\$ 4,932,669
Employee Retirement Pickup	32,882
Retirement Contributions	2,568,634
Social Security Contributions	370,293
Group Insurance	1,335,170
Contractual Services	1,953,466
Travel	12,235
Commodities	16,370
Printing	32,018
Equipment	1,987
Electronic Data Processing	2,731,088
Telecommunications	44,413
Automotive	19,539
Depreciation/Amortization	972,770
Other (net)	(44,682)
Total	<u>\$ 14,978,852</u>

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

Health, dental, and vision benefits include basic benefits for annuitants and dependents under the State's self-insurance plan and insurance contracts currently in force. Annuitants may be required to contribute towards health, dental, and vision benefits with the amount based on factors such as date of retirement, years of credited service with the State, whether the annuitant is covered by Medicare, and whether the annuitant has chosen a managed health care plan. Annuitants who retired prior to January 1, 1998, and who are vested in the State Employees' Retirement System do not contribute towards health, dental, and vision benefits. For annuitants who retired on or after January 1, 1998, the annuitant's contribution amount is reduced five percent for each year of credited service with the State allowing those annuitants with twenty or more years of credited service to not have to contribute towards health, dental, and vision benefits. Annuitants also receive life insurance coverage equal to the annual salary of the last day of employment until age 60, at which time the benefit becomes \$5,000.

The State pays the System's portion of employer costs for the benefits provided. The total cost of the State's portion of health, dental, vision, and life insurance benefits of all members, including post-employment health, dental, vision, and life insurance benefits, is recognized as an expenditure by the State in the Illinois Comprehensive Annual Financial Report. The State finances the costs on a pay-as-you-go basis. The total costs incurred for health, dental, vision, and life insurance benefits are separated by individual department or fund for annuitants and their dependents and active employees and their dependents after the State adopted GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions. The System and the State Comptroller has determined that it would be inappropriate for the System to record its allocated share of the State's other post-employment benefits (OPEB) expense and liability associated with its employees because accounting standards would require that those cost be reallocated and recovered from other state agencies and funds through employer pension contributions.

## FINANCIAL STATEMENTS

A summary of post-employment benefit provisions, changes in benefit provisions, employee eligibility requirements including eligibility for vesting, and the authority under which benefit provisions are established are included as an integral part of the financial statements of the Department of Central Management Services. A copy of the financial statements of the Department of Central Management Services may be obtained by writing to the Department of Central Management Services, Stratton Office Building, 401 South Spring Street, Springfield, Illinois 62706.

### 10. Social Security Division - Administrative Expenses

The Social Security Division of the State Employees' Retirement System was created by 40 ILCS 5/21, to administer the state's responsibilities under Title II Section 218 of the Federal Social Security Act and the master federal-state agreement.

The state's responsibilities include extending Social Security coverage by agreement to any of the state's retirement systems or units of local government requesting social security or medicare only coverage for their members or employees.

In addition, the Social Security Division was responsible for collecting wage information and contribution payments from covered retirement systems and units of local government on wages paid prior to January 1, 1987. Administrative expenses for the Social Security Division are appropriated annually by the State Legislature and are as follows for fiscal year 2019:

Personal services	\$ 45,665
Social Security contributions	3,402
Contractual services	22,860
Electronic Data Processing	671
Telecom	<u>215</u>
Total	<u>\$ 72,813</u>

## FINANCIAL STATEMENTS

### 11. Capital Assets

Capital assets over \$100 are capitalized at their cost at the time of acquisition. Depreciation is computed using the straight-line method over the estimated useful life of the asset. The estimated useful lives are as follows: (1) office furniture - 10 years, (2) equipment - 6 years, (3) automobiles and certain electronic data processing equipment - 3 years, (4) building - 30 years, (5) land improvements - 15 years, and (6) capitalized software - 20 years. Land is carried at its original cost, including applicable legal fees, surveying costs, etc. This is a summary of changes in capital assets for 2019:

	Beginning Balance	2019		Ending Balance
		Additions	Deletions	
Assets				
Land	\$ 655,241	\$ -	\$ -	\$ 655,241
Land improvements	315,779	-	-	315,779
Building	4,273,984	204,535	-	4,478,519
Equipment	2,765,037	87,408	(296,279)	2,556,166
Capitalized software costs	7,011,035	2,731,748	-	9,742,783
TOTAL	<u>15,021,076</u>	<u>3,023,691</u>	<u>(296,279)</u>	<u>17,748,488</u>
Accumulated depreciation/amortization				
Land improvements	(18,101)	(2,378)	-	(20,479)
Building	(3,210,101)	(157,680)	-	(3,367,781)
Equipment	(2,087,739)	(325,573)	293,159	(2,120,153)
Capitalized software costs	(1,042,541)	(487,139)	-	(1,529,680)
TOTAL	<u>(6,358,482)</u>	<u>(972,770)</u>	<u>293,159</u>	<u>(7,038,093)</u>
Net capital assets	<u>\$ 8,662,594</u>	<u>\$ 2,050,921</u>	<u>\$ (3,120)</u>	<u>\$ 10,710,395</u>

**REQUIRED SUPPLEMENTARY INFORMATION**

**SCHEDULE OF CHANGES IN THE STATE'S NET  
PENSION LIABILITY AND RELATED RATIOS  
Fiscal Years Ended June 30, 2019 through 2014**

	<u>2019</u>	<u>2018</u>	<u>2017</u>
<b>Total pension liability</b>			
Service cost	\$ 801,415,244	\$ 828,485,950	\$ 893,147,418
Interest	3,378,803,879	3,295,855,347	3,217,531,841
Change of Benefit Terms (1)	(462,609,552)	-	-
Difference between expected and actual experience	(24,683,325)	(185,488,891)	(601,530,567)
Assumption changes	313,744,264	(348,811,194)	(884,705,099)
Benefit payments	(2,601,306,593)	(2,464,832,022)	(2,328,620,783)
Refunds	(24,133,508)	(27,469,348)	(26,608,011)
Administrative expense	(14,978,852)	(15,257,526)	(15,957,439)
<b>Net change in total pension liability</b>	<u>1,366,251,557</u>	<u>1,082,482,316</u>	<u>253,257,360</u>
<b>Total pension liability - beginning</b>	<u>50,519,687,332</u>	<u>49,437,205,016</u>	<u>49,183,947,656</u>
<b>Total pension liability - ending (a)</b>	<u>\$ 51,885,938,889</u>	<u>\$ 50,519,687,332</u>	<u>\$ 49,437,205,016</u>
<b>Plan fiduciary net position</b>			
Contributions - employer	\$ 2,274,925,279	\$ 1,929,175,044	\$ 1,798,348,440
Contributions - participant	275,675,175	254,442,466	251,610,974
Net investment income	1,118,428,910	1,257,039,835	1,812,878,460
Benefit payments	(2,601,306,593)	(2,464,832,022)	(2,328,620,783)
Refunds	(24,133,508)	(27,469,348)	(26,608,011)
Administrative expense	(14,978,852)	(15,257,526)	(15,957,439)
<b>Net change in plan fiduciary net position</b>	<u>1,028,610,411</u>	<u>933,098,449</u>	<u>1,491,651,641</u>
<b>Plan fiduciary net position - beginning</b>	<u>17,463,278,241</u>	<u>16,530,179,792</u>	<u>15,038,528,151</u>
<b>Plan fiduciary net position - ending (b)</b>	<u>\$ 18,491,888,652</u>	<u>\$ 17,463,278,241</u>	<u>\$ 16,530,179,792</u>
<b>State's net pension liability - ending (a)-(b)</b>	<u>\$ 33,394,050,237</u>	<u>\$ 33,056,409,091</u>	<u>\$ 32,907,025,224</u>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	35.64%	34.57%	33.44%
<b>Covered payroll</b>	\$ 4,621,647,466	\$ 4,240,108,939	\$ 4,192,582,495
<b>State's net pension liability as a percentage of covered payroll</b>	722.56%	779.61%	784.89%

## REQUIRED SUPPLEMENTARY INFORMATION

### SCHEDULE OF CHANGES IN THE STATE'S NET PENSION LIABILITY AND RELATED RATIOS Fiscal Years Ended June 30, 2019 through 2014

	2016	2015	2014
<b>Total pension liability</b>			
Service cost	\$ 843,376,643	\$ 847,997,030	\$ 776,487,959
Interest	2,989,387,125	2,912,736,360	2,754,121,665
Change of Benefit Terms	-	-	-
Difference between expected and actual experience	(730,622,389)	(464,942,210)	150,997,067
Assumption changes	5,048,087,579	360,713,498	3,142,466,514
Benefit payments	(2,190,501,203)	(2,034,858,435)	(1,917,062,639)
Refunds	(26,708,730)	(23,128,975)	(23,082,814)
Administrative expense	(16,126,997)	(16,547,823)	(16,615,105)
<b>Net change in total pension liability</b>	5,916,892,028	1,581,969,445	4,867,312,648
<b>Total pension liability - beginning</b>	43,267,055,628	41,685,086,183	36,817,773,535
<b>Total pension liability - ending (a)</b>	\$ 49,183,947,656	\$43,267,055,628	\$41,685,086,183
<b>Plan fiduciary net position</b>			
Contributions - employer	\$ 1,882,243,268	\$ 1,804,319,356	\$ 1,699,447,826
Contributions - participant	256,198,172	266,139,156	269,232,241
Net investment income	(125,442,931)	681,377,052	2,169,346,258
Benefit payments	(2,190,501,203)	(2,034,858,435)	(1,917,062,639)
Refunds	(26,708,730)	(23,128,975)	(23,082,814)
Administrative expense	(16,126,997)	(16,547,823)	(16,615,105)
<b>Net change in plan fiduciary net position</b>	(220,338,421)	677,300,331	2,181,265,767
<b>Plan fiduciary net position - beginning</b>	15,258,866,572	14,581,566,241	12,400,300,474
<b>Plan fiduciary net position - ending (b)</b>	\$ 15,038,528,151	\$15,258,866,572	\$ 14,581,566,241
<b>State's net pension liability - ending (a)-(b)</b>	\$ 34,145,419,506	\$28,008,189,056	\$27,103,519,942
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	30.58%	35.27%	34.98%
<b>Covered payroll</b>	\$ 4,282,020,350	\$ 4,452,369,221	\$ 4,414,784,230
<b>State's net pension liability as a percentage of covered payroll</b>	797.41%	629.06%	613.93%

## REQUIRED SUPPLEMENTARY INFORMATION

### Notes to the Schedule of Changes in the State's Net Pension Liability and Related Ratios

Valuation Date: June 30, 2019

This Schedule is intended to show information for ten (10) years. Information prior to 2014 is not available. The additional years will be added, prospectively, as they become available.

(1) "Change of Benefit Terms" relates to the Buyout Program that was extended by Public Act 101-0010.

### Key Assumption Changes Related to the Schedule of Changes in the State's Net Pension Liability and Related Ratios

#### 2019 Changes in Assumptions:

- The rate of inflation decreased from 2.5% to 2.25%.
- The investment return assumption was reduced from 7.00% to 6.75%.
- The payroll growth assumption was decreased from 3.00% to 2.75%.
- The salary increase assumption was decreased from 3.00% to 2.75%.
- Mortality improvement factors were update to the projection scale MP-2018.
- Mortality tables were updated to
  - Post Retirement: Pub-2010 General Healthy Retiree for Regular Formula members and Pub-2010 Public Safety Health Retiree for Alternative Formula members.
  - Pre-Retirement: Pub-2010 General Employee for Regular Formula members and Pub-2010 Public Safety Employee for Alternative Formula members.
- Scaling factors were applied to partially reflect observed mortality experience to the extent it is credible.
- Normal retirement rates were increased to better reflect observed experience.
- Early retirement rates were decreased to better reflect observed experience.
- Turnover rates were increased to better reflect observed experience.
- The load for inactive members eligible for deferred vested pension benefits was changed to 11% for Regular Formula members and 9% for Alternative Formula members.
- The assumed election for accelerated benefit payments under the COLA buyout was set at 21% of eligible Regular Formula members and 28% of eligible Alternative Formula members.
- The assumed election for accelerated benefit payments under the Total buyout was set at 5% of eligible inactive members.

#### 2018 Changes in Assumptions:

- The rate of inflation decreased from 2.75% to 2.50%.
- The salary increase assumption was decreased from 3.25% to 3.00%.

#### 2017 Changes in Assumptions:

- There were no significant assumption changes.

## REQUIRED SUPPLEMENTARY INFORMATION

### 2016 Changes in Assumptions:

- The rate of inflation decreased from 3.00% to 2.75%.
- The investment return assumption was decreased from 7.25% to 7.00%.
- The salary increase assumption was decreased from 3.5% to 3.25%.
- Separate Tier 2 turnover rates were implemented for members eligible for regular formula and alternative formula benefits. The new rates increased the expected turnover.
- Generational mortality improvement factors were added to reflect future mortality improvements. The new mortality tables move from a single dimensional age-based table to a two dimensional table where the year of a person's birth influences their mortality rate.
- An assumption was added that all current and future active members would increase service by 4.5 months upon retirement due to the optional service purchase of unused sick and vacation leave upon leaving state employment.

### 2015 Changes in Assumptions:

- There were no significant assumption changes.

### SCHEDULE OF INVESTMENT RETURNS

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	7.1%	7.6%	12.4%	(0.9)%	4.8%	17.9%

\* **NOTE:** This Schedule is intended to show information for ten (10) years. Information prior to 2014 is not available. The additional years will be added, prospectively, as they become available.

## REQUIRED SUPPLEMENTARY INFORMATION

### SCHEDULE OF STATE CONTRIBUTIONS

Fiscal Year Ended June 30	Actuarially determined contribution	Contributions received	Contribution (deficiency) excess	Covered Payroll	Contributions received as a percentage of covered payroll
2010	1,177,313,343	1,095,545,856	(81,767,487)	4,119,360,842	26.60%
2011	1,289,002,005	1,127,886,796	(161,115,209)	4,211,186,269	26.78%
2012	1,614,834,808	1,391,416,375	(223,418,433)	4,328,767,884	32.14%
2013	1,741,286,416	1,531,932,137	(209,354,279)	4,235,366,263	36.17%
2014	1,956,841,419	1,699,447,826	(257,393,593)	4,414,784,230	38.49%
2015	2,045,354,223	1,804,319,356	(241,034,867)	4,452,369,221	40.52%
2016	2,019,691,233	1,882,243,268	(137,447,965)	4,282,020,350	43.96%
2017	2,129,482,987	1,798,348,440	(331,134,547)	4,192,582,495	42.89%
2018	2,739,377,709	1,929,175,044	(810,202,665)	4,240,108,939	45.50%
2019	2,995,968,149	2,274,925,279	(721,042,870)	4,621,647,466	49.22%

#### Notes to Schedule of State Contributions:

Valuation Date: June 30, 2017

Notes Actuarially determined contribution rates are calculated as of June 30, which is 12 months prior to the beginning of the fiscal year in which the contributions will be made.

Covered payroll for fiscal years on and after June 30, 2012, were restated to comply with the requirements of GASB Statement No. 82. For fiscal years prior to June 30, 2012, covered payroll was not restated to comply with the requirements of GASB Statement No. 82 due to system limitations.

#### Methods and Assumptions as of the Valuation Date:

Actuarial Cost Method: Projected Unit Credit

Amortization Method: Normal cost plus a level percentage of capped payroll amortization of the unfunded accrued liability.

Remaining Amortization Period: 23 years, closed

Asset Valuation Method: 5 year smoothed market

Inflation: 2.75%

Salary Increases: Salary increase rates based on age-related productivity and merit rates plus inflation.

Post Retirement Benefits: Post-retirement benefit increases of 3.00%, compounded, for Tier 1 and 3.00% or one-half of the annual increase in the Consumer Price Index whichever is less, simple, for Tier 2.

Investment Rate of Return: 7.00%

Retirement Age: Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the June 30, 2014, valuation pursuant to an experience study of the period July 1, 2009 to June 30, 2013.

Mortality: 105% of the RP2014 Healthy Annuitant table, sex distinct with generational mortality improvements.

## SUPPLEMENTARY FINANCIAL INFORMATION

### SUMMARY OF REVENUES BY SOURCE

	2019
Contributions:	
Participants	\$ 268,693,998
Interest paid by participants	6,023,740
Repayment of refunds	957,437
Total participant contributions	<u>275,675,175</u>
Employer:	
General Revenue Fund	1,537,655,159
Employing state agencies and appropriations	736,146,007
Paid by participants	1,124,113
Total employer contributions	<u>2,274,925,279</u>
Total contributions	<u>2,550,600,454</u>
Investment income:	
Net appreciation/(depreciation) in fair value of investments	845,866,191
Interest and dividends from investments	292,713,854
Interest earned on cash balances	4,517,885
Less investment expense, other than from securities lending	<u>(24,669,122)</u>
Net income/(loss) from investing, other than from securities lending	1,118,428,808
Net securities lending income	<u>102</u>
Net investment income/(loss)	<u>1,118,428,910</u>
Total revenues	<u>\$ 3,669,029,364</u>

## SUPPLEMENTARY FINANCIAL INFORMATION

### SUMMARY SCHEDULE OF CASH RECEIPTS & DISBURSEMENTS

	2019
Cash balance, beginning of year	\$ <u>204,856,059</u>
Receipts:	
Participant contributions	247,923,659
Employer contributions (net of bond principal and interest transfers)	791,109,926
General Revenue Fund/Pension Contribution Fund	1,341,576,972
Transfers from Illinois State Board of Investment	357,000,000
Interest income on cash balance	4,489,013
Claims receivable payments	7,189,226
Installment payments	3,052,499
Buyout program bond proceeds	29,578,288
Other	368,091
Total cash receipts	<u>2,782,287,674</u>
Disbursements:	
Annuity payments:	
Retirement annuities	2,368,786,704
Widow's and Survivor's annuities	153,313,159
Disability benefits	59,904,085
Lump Sum benefits	16,754,716
Buy Out Payments	29,578,288
Refunds (including transfers to reciprocal systems)	25,063,070
Refund to the General Revenue Fund	105,950,981
Administrative expenses	16,503,450
Total cash disbursements	<u>2,775,854,453</u>
Cash balance, end of year	<u>\$ 211,289,280</u>

### SCHEDULE OF PAYMENTS TO CONSULTANTS & ADVISORS

	2019
Legal Services	\$ 38,130
Actuarial Costs	195,860
Audit Expense	87,096
Physicians and Disability Inspections	253,628
Financial Planning	42,721
Management Consultants	814,687
TOTAL	<u>\$ 1,432,121</u>

**Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards**

Honorable Frank J. Mautino  
Auditor General, State of Illinois

Board of Trustees  
State Employees' Retirement System of the State of Illinois

**Report on the Financial Statements**

As Special Assistant Auditors for the Auditor General, we have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the State Employees' Retirement System of the State of Illinois (System), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents and we have issued our report thereon dated December 13, 2019. Our report includes a reference to other auditors who audited the financial statements of the Illinois State Board of Investment, an internal investment pool of the State of Illinois, as described in our report on the System's financial statements. This report does not include the results of the other auditors' testing of internal control over financial reporting (internal control) or compliance and other matters that are reported on separately by those auditors. Our report also includes a reference to the fact that the actuarially determined net pension liability is dependent on several assumptions, including the assumption that future required contributions from State sources are made based on statutory requirements.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System's internal control to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, 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, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* 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. Given these limitations, during our audit, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

**SIGNED ORIGINAL ON FILE**

Schaumburg, Illinois  
December 13, 2019