

# State Employees' Retirement System of Illinois



A PENSION TRUST FUND  
OF THE STATE OF ILLINOIS

Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018

# STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

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## FISCAL YEAR 2018 HIGHLIGHTS

86,139	Total Membership
61,397	Active Contributing Members
	Net Position—Restricted for Pensions, fair value
\$17,463,278,241	
	<b>CONTRIBUTIONS</b>
\$254,442,466	Participants
\$1,929,175,044	Employer
\$1,257,039,835	Investment Income
7.6%	Investment Return
	<b>BENEFIT RECIPIENTS</b>
59,749	Retirement Annuities
11,344	Survivors' Annuities
2,086	Disability Benefits
\$2,464,832,022	Benefits Paid
\$50,519,687,332	Total Pension Liability
\$17,463,278,241	Fiduciary Net Position
\$33,056,409,091	Net Pension Liability
34.57%	Funded Ratio

## MISSION STATEMENT

To provide an orderly means whereby aged or disabled employees may retire from active service, without hardship or prejudice, and to enable them to accumulate reserves for themselves and their dependents for old age, disability, death and termination of employment, thus affecting the economy and efficiency in the administration of State government.

**This year's cover commemorates the bicentennial of the State of Illinois**

# STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

A Pension Trust Fund of the State of Illinois

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COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR THE FISCAL YEAR ENDED JUNE 30, 2018

STATE EMPLOYEES' RETIREMENT  
SYSTEM OF ILLINOIS

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

Prepared by the Accounting Division

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# INTRODUCTORY SECTION

## LETTER OF TRANSMITTAL



December 14, 2018

The Board of Trustees and Members  
State Employees' Retirement System of Illinois  
Springfield, IL 62794

Dear Board and Members:

The comprehensive annual financial report (CAFR) of the State Employees' Retirement System of Illinois (System) as of and for the fiscal year ended June 30, 2018 is hereby submitted. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the System.

To the best of our knowledge and belief, the enclosed data are accurate in all material respects and are reported in a manner designed to present fairly the financial position and results of operations of the various funds of the System. All disclosures necessary to enable the reader to gain an understanding of the System's financial activities have been included.

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

The report consists of six sections:

1. The Introductory Section contains this letter of transmittal and the identification of the administrative organization and the Certificate of Achievement for Excellence in Financial Reporting;
2. The Financial Section contains management's discussion and analysis, the report of the Independent Auditors, the financial statements of the System, and certain required and other supplementary financial information;
3. The Investment Section contains a summary of the System's investment management approach and selected summary tables, including investment performance;
4. The Actuarial Section contains an Actuary's Certification Letter and the results of the annual actuarial valuation;
5. The Statistical Section contains significant statistical data;
6. The Plan Summary and Legislative Section contains a summary of the System's plan provisions and current legislative changes.

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.

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. The System is considered to be part of the State of Illinois financial reporting entity, and is to be combined and included in the State of Illinois' comprehensive annual financial report.

## LETTER OF TRANSMITTAL

Although the State Employees' Retirement System, Judges' Retirement System and General Assembly Retirement System share a common administration, they are separate entities for legal and financial reporting purposes. Therefore, the financial statements of the State Employees' Retirement System do not include plan net position information nor the changes in plan net position of the General Assembly Retirement System or Judges' Retirement System.

### PLAN HISTORY & SERVICES PROVIDED

The System is the administrator of a single-employer public employee retirement system established to provide pension benefits for State of Illinois employees. The System also administers widows and survivors benefits as well as the state's occupational and non-occupational disability programs.

The System was established January 1, 1944 and 17,237 state employees became members on that date. As of June 30, 1944, the plan net position of the System amounted to \$1,255,778. The fair value of fiduciary net position at the end of the fiscal year June 30, 2018 is approximately \$17.5 billion, and there are 61,397 active members.

### INVESTMENTS

The System's investments are managed by the Illinois State Board of Investment (ISBI) pursuant to Chapter 40, Article 5/22A of the Illinois Compiled Statutes, using the "prudent person rule".

This rule states that fiduciaries shall discharge their duties solely in the interest of the fund participants and beneficiaries and with the degree of diligence, care and skill which prudent men and women would ordinarily exercise under similar circumstances in a like position.

The ISBI maintains a wide diversification of investments within this fund which is intended to reduce overall risk and increase returns. As further detailed in the Investment Section, the ISBI Commingled Fund had a gain of 7.6%, net of expenses, for the fiscal year ended June 30, 2018. Information regarding the Schedule of Fees and Commissions paid is included in the ISBI annual report.

### FUNDING

Funding is the process of specifically allocating monies for current and future use. Proper funding includes an actuarial review of the fund balances to ensure that funds will be available for current and future benefit payments. The greater the level of funding, the larger the ratio of accumulated assets to the actuarial accrued liability and the greater the level of investment potential.

The funding plan for the System, enacted in 1994 with subsequent modifications, requires that state contributions be paid to the System so that by the end of fiscal year 2045, the ratio of the actuarial value of assets to the actuarial accrued liability will be 90%. For fiscal years 2011 through 2045, the required state contributions are to be computed as a level percentage of participant payroll.

For fiscal years up through 2010, the required state contributions, except for fiscal years 2006 and 2007, were to be increased incrementally as a percentage of the participant payroll so that by fiscal year 2011 the state is contributing at the required level contribution rate to achieve the financing objective by the end of fiscal year 2045. For fiscal year 2018, the state contributed the appropriate amount as required by law.

The funding legislation also provides for the establishment of a continuing appropriation of the required state contributions to the System. This has, in effect, removed the appropriation of these funds from the annual budgetary process.

## LETTER OF TRANSMITTAL

The actuarial determined liability of the System using the State's projected unit credit actuarial cost method for funding purposes at June 30, 2018, amounted to \$47.9 billion. The actuarial value of assets amounted to \$17.5 billion resulting in an unfunded accrued actuarial liability of \$30.4 billion as of the same date. The actuarial determined liability, actuarial value of assets, and unfunded accrued actuarial liability of the System as presented above and in the Actuarial Section of this report using the state's funding method does not conform with GASB Statement No. 67 and therefore, the amounts presented above and in the Actuarial Section of this report differ from the amounts presented for financial reporting purposes in the Financial section of this report. A detailed discussion of funding is provided in the Actuarial Section of this report.

### MAJOR EVENTS/INITIATIVES

During FY 2018, System staff continued to work on the modernization of several business processes through the application developed by the Information Technology Division. Significant progress was made on the development of the module to set up and track System receivables as well as the module that will allow for the request and tracking of optional service purchases. Additionally, through diligent staff efforts, the process by which initial retirement benefits are set up to be processed was coded and tested, thoroughly. As FY 2019 begins, the benefit set up process will be placed into production and that component of the application will be used to set up and calculate new benefits. Likewise, the service purchase module and receivable modules will continue to be tested and developed through FY 2019 and go into production in the later part of the fiscal year.

The System will also administer the two buy out programs created by Public Act 100-0587, detailed further in the Legislative Section of the CAFR. An interactive web tool was developed to allow SERS members to estimate the impact of electing the COLA buy out, if eligible. The education of members on the impact of the buyout options will be handled during individual retirement counseling and at the workshops held throughout the state during the next fiscal year

### ACCOUNTING SYSTEM & INTERNAL CONTROL

This report has been prepared to conform with the principles of governmental accounting and reporting pronounced by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants.

The accrual basis of accounting is used to record the financial transactions and activities of the System. Revenues are recognized in the accounting period in which they are earned, without regard to the date of collection, and expenses are recognized when the corresponding liabilities are incurred, regardless of when payment is made.

The System also uses the State of Illinois, Statewide Accounting Management System (SAMS) as a basis for the preparation of the financial statements. In developing the System's accounting system, consideration is given to the adequacy of internal accounting controls. These controls are designed to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgements by management. Constant effort is directed by the System at improving this level to assure the participants of a financially sound retirement system.

### PROFESSIONAL SERVICES

Independent consultants are retained by the Board of Trustees to perform professional services that are essential to the effective and efficient operation of the System. Actuarial services are provided by Gabriel, Roeder, Smith & Co., Chicago, Illinois.

The annual financial audit of the System was conducted by the accounting firm of RSM US LLP, under the direction of the Auditor General of the State of Illinois. In addition to the annual financial audit, a compliance attestation examination is also performed by the auditors.

## LETTER OF TRANSMITTAL

The purpose of the compliance attestation examination was to determine whether the System obligated, expended, received and used public funds of the state in accordance with the purpose for which such funds have been authorized by law. The System's investment function is managed by the Illinois State Board of Investment.

### CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the State Employees' Retirement System of Illinois for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2017.

The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports.

To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized CAFR, whose contents meet or exceed program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The State Employees' Retirement System of Illinois has received a Certificate of Achievement for the past thirty-two consecutive years (fiscal years ended June 30, 1986 through June 30, 2017).

We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

### ACKNOWLEDGMENTS & COMMENTS

The preparation of this report reflects the combined efforts of the System's staff under the direction of the Board of Trustees. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and for determining responsible stewardship for the assets contributed by the members in the State of Illinois.

On behalf of the Board of Trustees, we would like to express our appreciation to the staff and professional consultants who worked so effectively to ensure the successful operation of the System.

Respectfully submitted,

  
Timothy B. Blair  
Executive Secretary

  
Alan T. Fowler, C.P.A.  
Chief Fiscal Officer

ADMINISTRATION

BOARD OF TRUSTEES



Susana A. Mendoza  
Illinois Comptroller  
Chairperson



David Morris  
Elected Employee  
Vice - Chairperson  
Chairperson of Audit & Compliance Committee  
Member of Executive Committee



Danny Silverthorn  
Appointed by Governor  
Member of Rules & Personnel Committee



Carl Jenkins  
Appointed by Governor



Thomas Allison  
Appointed by Governor



Yasmin Bates-Brown  
Appointed by Governor



Renee Friedman  
Appointed by Governor  
Member of Audit & Compliance Committee



Stephen Mittons  
Elected Employee



Jeremy Hawk  
Elected Employee  
Alternate on Executive Committee



Shaun Dawson  
Elected Employee  
Member of Rules & Personnel Committee

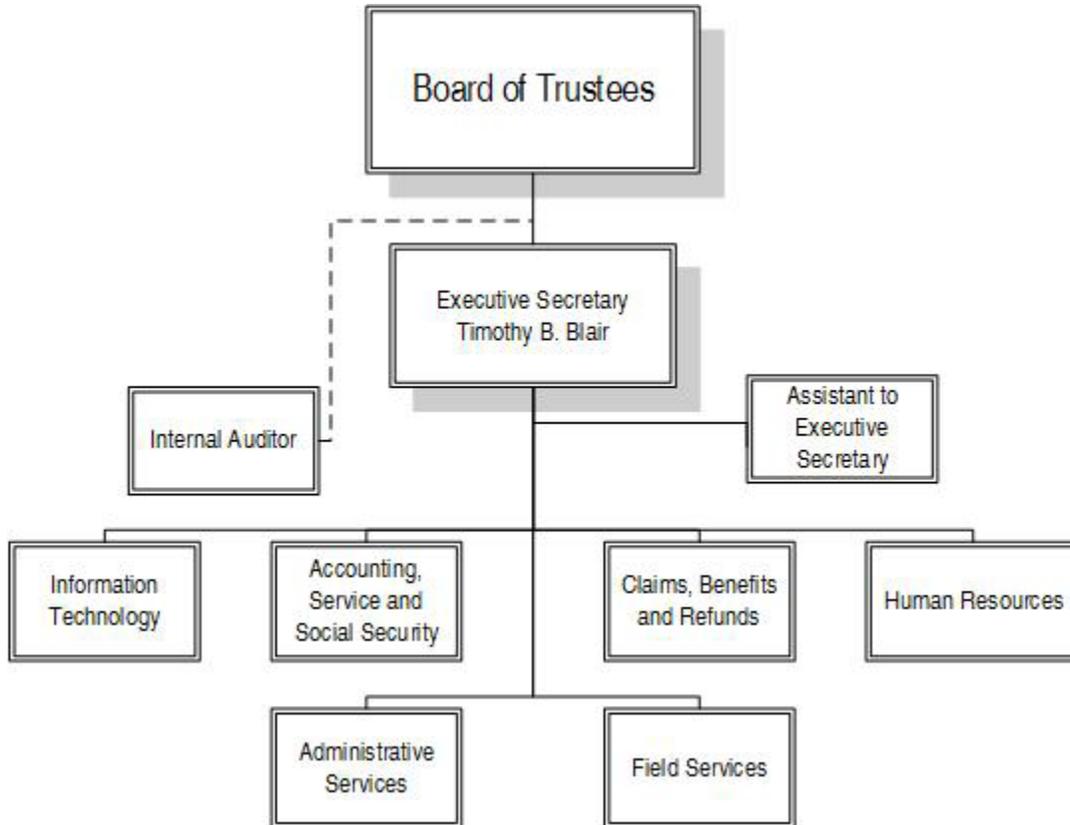


John Tilden  
Elected Annuitant



Alan Latoza  
Elected Annuitant  
Chairperson of Rules & Personnel Committee

# ADMINISTRATION



## Management Group

Accounting, Service & Social Security	Alan T. Fowler
Administrative Services	Robert Cooper
Assistant to Executive Secretary	Jeff Houch
Claims/Benefits & Refunds	Kathy Yemm
Field Services	David F. Thompson
Human Resources	Kelley Gray
Information Technology	James Knoedler
Internal Auditor	Casey Evans

## Advisors, Auditors & Administrators

Consulting Actuary	Gabriel, Roeder, Smith & Company Chicago, Illinois
External Auditor	RSM US LLP Schaumburg, Illinois
Investments	Illinois State Board of Investment Chicago, Illinois



Government Finance Officers Association

Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting

Presented to

**State Employees' Retirement System  
of Illinois**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2017**

*Christopher P. Morill*

Executive Director/CEO

# FINANCIAL SECTION



## 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, 2018, 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 2018 financial statements of the Illinois State Board of Investment, an internal investment pool of the State of Illinois, which statements represent 98 percent, 99 percent and 36 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. 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, 2018, 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.

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# INDEPENDENT AUDITOR'S REPORT

**Emphasis of Matter**

The actuarially determined 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 37 through 39. Our opinion is not modified with respect to this matter.

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

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 14 through 16 and the required supplementary information as listed in the table of contents on pages 42 through 45 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, 2018 was conducted for the purpose of forming an opinion on the System's basic financial statements. The supplementary financial information in the financial section, as listed in the table of contents, and the accompanying introductory, investment, actuarial, statistical and plan summary and legislative sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary financial information in the financial section, as listed in the table of contents, for the year ended June 30, 2018 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, 2018 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 in the financial section, as listed in the table of contents, is fairly stated, in all material respects, in relation to the basic financial statements as a whole for the year ended June 30, 2018.

The introductory, investment, actuarial, statistical and plan summary and legislative sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

*RSM US LLP*

Schaumburg, Illinois  
December 14, 2018

## 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, 2018. It is presented as a narrative overview and analysis. Readers are encouraged to consider the information presented here in conjunction with the Letter of Transmittal included in the Introductory Section of the Comprehensive Annual Financial Report.

The System is a defined benefit, single-employer public employee retirement system. It provides services to approximately 61,400 active state employees and 73,200 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, 2018, 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, 2018. 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 \$933.2 million during fiscal year 2018. This change was primarily the result of an increase in investments of \$948.3 million.
- The System was funded at 34.6% as of June 30, 2018.
- The overall rate of return for the Illinois State Board of Investment (ISBI) Commingled Fund was a gain of 7.6% in fiscal year 2018. The System's annual money-weighted rate of return on its investment in the ISBI Commingled Fund was a gain of 7.6% for fiscal year 2018.

Condensed Statements of Fiduciary Net Position (in millions)			
	As of June 30		Increase/(Decrease) from
	2018	2017	2017 to 2018
Cash	\$ 204.9	\$ 227.5	\$ (22.6)
Receivables	101.8	89.1	12.7
Investments, at fair value *	17,334.3	16,386.0	948.3
Capital Assets, net	8.7	7.7	1.0
Total assets	17,649.7	16,710.3	939.4
Liabilities *	186.4	180.2	6.2
Total fiduciary net position	<u>\$ 17,463.3</u>	<u>\$ 16,530.1</u>	<u>\$ 933.2</u>

\* 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 \$254.4 million and \$251.6 million for the years ended June 30, 2018 and June 30, 2017, respectively. Participant contribution rates are set by statute as a percentage of gross salary. For fiscal year 2018, employer contributions increased to approximately \$1,929.2 million from \$1,798.3 million in fiscal year 2017. The net investment income for fiscal year 2018 was \$1,257.0 million, which was down from the net investment gain from fiscal year 2017 of \$1,812.9 million.

### DEDUCTIONS FROM FIDUCIARY NET POSITION

Deductions from Fiduciary Net Position are primarily benefit payments. During fiscal years 2018 and 2017, the System paid out approximately \$2,464.8 million and \$2,328.6 million, respectively, in benefits. This increase in benefit payments of approximately 5.9% from 2017 to 2018 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 2017 to 2018. 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.

	For the Year Ended June 30,		Increase/(Decrease) from
	2018	2017	2017 to 2018
<b>Additions</b>			
Participant contributions	\$ 254.4	\$ 251.6	\$ 2.8
Employer contributions	1,929.2	1,798.3	130.9
Net investment income (loss)	1,257.0	1,812.9	(555.9)
Total additions	<u>3,440.6</u>	<u>3,862.8</u>	<u>(422.2)</u>
<b>Deductions</b>			
Benefits	2,464.8	2,328.6	136.2
Refunds	27.5	26.6	0.9
Administrative expenses	15.3	16.0	(0.7)
Total deductions	<u>2,507.6</u>	<u>2,371.2</u>	<u>136.4</u>
Net increase\decrease) in fiduciary net position	<u>\$ 933.0</u>	<u>\$ 1,491.6</u>	<u>\$ (558.6)</u>

### 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 34.57% on June 30, 2018. The amount by which the total pension liability exceeded the fiduciary net position was \$33.1 billion at June 30, 2018.

### 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 \$1,331.5 million during fiscal year 2018, resulting in a positive return of 7.6%. 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, 2018, the ISBI Commingled Fund earned a compounded rate of return of 6.2%, 8.1%, and 6.0%, 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

The actuarial assumptions used in the funding valuation for June 30, 2018 were based on the experience review for the three years ended June 30, 2015, and annual review of all economic assumptions. The state's statutory (employer) contribution rate for fiscal year 2019, determined by the actuarial valuation, will increase from 45.424% to 49.593% or an additional 4.169% of employee covered payroll. Total employee headcount is expected to remain level.

Tier 2 active members' annual earnings on which they can contribute were capped at \$113,645 in 2018 and will be capped at \$114,952 in 2019. These caps on Tier 2 members' earnings decreases the anticipated amount of future earnings credit as well as the associated contributions.

Benefit payments are projected to continue to grow at a rate of approximately 6 - 8% annually, primarily as a result of the increasing numbers of retirees and the 3% annual COLA.

The ISBI plans to continue to improve the overall investment portfolio performance by increasing reliance on passive investment strategies and reducing investment advisor and management fees.

### 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 [srsacctgdiv@srs.illinois.gov](mailto:srsacctgdiv@srs.illinois.gov).

## FINANCIAL STATEMENTS

# STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

Statement of Fiduciary Net Position  
June 30, 2018

### Assets

Cash	\$ 204,856,059
Receivables:	
Participants' contributions	16,945,386
Employer contributions	79,595,654
Other accounts	5,274,892
Total receivables	<u>101,815,932</u>
Investments:	
Investments - held in the Illinois State Board of Investment Commingled Fund at fair value	17,268,137,475
Securities lending collateral with State Treasurer	66,204,000
Total Investments	<u>17,334,341,475</u>
Capital Assets, net	<u>8,662,595</u>
Total Assets	<u>17,649,676,061</u>

### Liabilities

Benefits payable	6,102,668
Refunds payable	2,540,010
Administrative expenses payable	1,585,093
Participants' deferred service credit accounts	591,626
Due to the State of Illinois	109,374,423
Securities lending collateral	66,204,000
Total Liabilities	<u>186,397,820</u>
Net position-restricted for pensions	<u>\$ 17,463,278,241</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, 2018

Additions:	
Contributions:	
Participants	\$ 254,442,466
Employer	1,929,175,044
Total Contributions	<u>2,183,617,510</u>
Investment income:	
Net appreciation/(depreciation) in fair value of investments	902,665,327
Interest and dividends	378,316,968
Less investment expense,	
other than from securities lending	<u>(25,654,957)</u>
Net income/(loss) from investing,	
other than from securities lending	1,255,327,338
Net income from securities lending	<u>1,712,497</u>
Net investment income/(loss)	<u>1,257,039,835</u>
Total Additions	<u>3,440,657,345</u>
Deductions:	
Benefits:	
Retirement annuities	2,240,156,641
Survivor annuities	144,671,705
Disability benefits	64,708,865
Lump sum benefits	<u>15,294,811</u>
Total Benefits	2,464,832,022
Refunds <i>(including transfers to reciprocating systems)</i>	27,469,348
Administrative	<u>15,257,526</u>
Total Deductions	<u>2,507,558,896</u>
Net increase/(decrease) in net position	<u>933,098,449</u>
Net position restricted for pensions	
Beginning of year	<u>16,530,179,792</u>
End of year	<u>\$ 17,463,278,241</u>

*See accompanying notes to financial statements.*

# FINANCIAL STATEMENTS

## STATE EMPLOYEES' RETIREMENT SYSTEM OF ILLINOIS

Notes to Financial Statements June 30, 2018

### 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.

Pursuant to federal tax laws and regulations governing the administration of public employee pension plans, the System has established a separate fund for the sole purpose of disbursing benefits in accordance with Section 415 of the Internal Revenue Code. For fiscal year 2018, receipts were approximately \$538,830 and disbursements were approximately \$524,300. Due to the immaterial nature of the separate fund, these receipts and disbursements have been included in the financial statements of the System.

At June 30, 2018, participation levels in the System were as follows:

	2018
State agencies	42
State boards and commissions	39
TOTAL	<u>81</u>
Retirees and beneficiaries currently receiving benefits:	
Retirement annuities	59,749
Survivors' annuities	11,344
Disability benefits	2,086
TOTAL	<u>73,179</u>
Inactive employees entitled to benefits, but not yet receiving them	3,925
TOTAL	<u>77,104</u>
Current Employees:	
Vested: Coordinated with Social Security	32,760
Noncoordinated	1,551
Nonvested: Coordinated with Social Security	26,361
Noncoordinated	725
TOTAL	<u>61,397</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 2018 is \$113,645.

### 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 2018 is \$113,645.

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 2018 is \$113,645.

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 2018 is \$113,645.

### 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. 75, “*Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*”, addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. The statement establishes standards for recognizing and measuring liabilities, deferred outflows/deferred inflows of resources and expense/expenditures. In the case of defined benefit OPEB, the statement also identifies methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosures and required supplementary information about defined benefit OPEB are also addressed. This GASB is effective for fiscal years beginning after June 15, 2017 (FY 2018) and it has been determined that it will not impact the System’s financial statements.

GASB Statement No. 82, “*Pension Issues – Amendment to GASB 67 & 68*”, addresses the presentation of payroll related measures in the required supplementary information and the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The System has implemented this statement for the year ended June 30, 2017.

#### 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 as follows: (1) U.S. Government and Agency, Foreign and Corporate Obligations, Convertible Bonds – prices quoted by a major dealer in such securities; (2) Common Stock and Equity Funds, Foreign Preferred Stock, Foreign Equity Securities, Forward Foreign Currency Contracts and Options: (a) Listed – closing prices as reported on the composite summary of national securities exchanges; (b) Over-the-counter – bid prices; (3) Money Market Instruments – amortized cost; (4) Real Estate Investments – fair values based on audited financial statements of the funds and then adjusted by the ISBI and its investment managers for activity from audit date to fiscal year end; (5) Alternative Investments (Private Equity, Hedge Funds, Bank Loans, Opportunistic Debt and Infrastructure) – fair values based on audited financial statements of the funds and then adjusted by the ISBI and its investment managers for activity from audit date to fiscal year end; (6) Commingled Funds – fair values based on audited financial statements of the funds and then adjusted by the ISBI and its investment managers for activity from audit date to fiscal year end.

## FINANCIAL STATEMENTS

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.

### 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 as of June 30, 2015 resulting in the adoption of new assumptions as of June 30, 2016.

### 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% of the net position of the ISBI commingled fund as of June 30, 2018. 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, 2018. 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, 2018
U.S. govt. and agency obligations	\$ 3,772,996,557
Foreign obligations	317,071,356
Corporate obligations	978,155,830
Municipal bonds	8,911,164
Common stock & equity funds	5,227,218,322
Commingled funds	1,721,839,058
Foreign equity securities	2,301,280,852
Foreign preferred stock	8,763,970
Hedge funds	360,744,003
Opportunistic debt	225,053,335
Real estate funds	1,594,774,574
Private equity	706,768,270
Infrastructure	408,985,767
Bank loans	464,315,920
Foreign currency forward contracts	(7,847,062)
Money market instruments	231,743,812
Total investments	\$ 18,320,775,728

### Rate of Return

For the fiscal year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 7.6%. 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, 2018, the ISBI had a non-investment related bank balance of \$903,541. A 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, 2018, the ISBI had an investment related bank balance of \$13,382,746. This balance includes USD and foreign cash balances. As of January 1, 2013, cash held in the investment related bank account is neither 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 \$2.1 billion at the end of fiscal year 2018. 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 2018, 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 ISBI holds investments in hedge funds, real estate funds, opportunistic debt funds, private equity funds 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 judgement 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: Broker quote in an active market;
- Corporate 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: Average 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, 2018 are as follows:

	At June 30, 2018			
	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Totals
Investments by fair value level				
Debt Securities				
Government and agency obligations	\$ -	\$ 3,772,996,557	\$ -	\$ 3,772,996,557
Municipal bonds	-	8,911,164	-	8,911,164
Foreign obligations	-	316,170,777	900,579	317,071,356
Corporate obligations	-	973,728,079	4,427,751	978,155,830
Bank loans	-	36,604,268	427,711,652	464,315,920
Total debt securities	<u>\$ -</u>	<u>\$ 5,108,410,845</u>	<u>\$ 433,039,982</u>	<u>\$ 5,541,450,827</u>
Equity Securities				
Common stock and equity funds	\$ 5,226,061,569	\$ 1,134,591	\$ 22,162	\$ 5,227,218,322
Foreign equity securities	2,297,170,419	3,662,373	448,060	2,301,280,852
Foreign preferred stocks	8,763,970	-	-	8,763,970
Total equity securities	<u>\$ 7,531,995,958</u>	<u>\$ 4,796,964</u>	<u>\$ 470,222</u>	<u>\$ 7,537,263,144</u>
Other				
Foreign currency forward contracts	\$ (7,847,062)	\$ -	\$ -	\$ (7,847,062)
Total other	<u>\$ (7,847,062)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (7,847,062)</u>
Total investments by fair value level	<u>\$ 7,524,148,896</u>	<u>\$ 5,113,207,809</u>	<u>\$ 433,510,204</u>	<u>\$ 13,070,866,909</u>
Investments measured at the Net Asset Value (NAV)				
Commingled funds				\$ 1,721,839,058
Real estate funds				1,594,774,574
Private equity				706,768,270
Infrastructure				408,985,767
Opportunistic debt				225,053,335
Hedge funds				360,744,003
Total investments measured at the NAV				<u>\$ 5,018,165,007</u>
Investments not measured at fair value				
Money market instruments				<u>\$ 231,743,812</u>
Total investments				<u>\$ 18,320,775,728</u>

## FINANCIAL STATEMENTS

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.

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, 2018			
	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled funds	\$ 1,721,839,058	-	Quarterly	90 Days
Real estate funds	1,594,774,574	\$ 713.3 million	Quarterly	90 Days
Private equity	706,768,270	707.6 million	N/A	N/A
Opportunistic debt	225,053,335	660.1 million	N/A	N/A
Hedge funds	360,744,003	-	Quarterly	90 Days
Infrastructure	408,985,767	23.5 million	Quarterly	90 Days
Total Investments measured at the NAV	<u>\$ 5,018,165,007</u>			

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 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 six diversified funds focusing on emerging markets and six 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, 2018. It is 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 sixty-five 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, growth capital and mezzanine capital. Returns are commensurate with the risks presented by this asset class which include illiquidity and lack of standard historical evaluation data. 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, 2018. It is 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 eighteen funds including hedge fund and long only

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equity assets. Returns are commensurate with the risks presented by this asset class which include illiquidity and lack of standard historical evaluation data. 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, 2018, for the majority of the hedge fund investments, the ISBI has plans to transition out entirely or to long only equity assets. It is 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 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, 2018. It is 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 seventeen 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, 2018. It is 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 thirty-six 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, 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, 2018. It is probable that any investments sold will be sold at an amount different from the current NAV of the plan's ownership interest.

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, 2018, real estate equities of approximately \$1,595 million are reported at estimated fair value. Of this amount, \$1,679 million is net assets and \$84 million is long term debt.

Required repayment of real estate debt, which is non-recourse debt, is as follows as of June 30, 2018:

Debt Maturities Year Ending June 30	2018
2019	\$ 25,492,500
2020	57,963,872
	<u>\$ 83,456,372</u>

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### 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, 2018, 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.

### 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, 2018, the effective weighted duration of the ISBI's fixed income portfolio was 6.7 years and the effective duration of the benchmark index was 5.8 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, 2018:

Investment Type	Fair Value	Effective Weighted Duration Years
U.S. Govt. and Agency Obligations		
U.S. Government	\$ 3,051,823,420	8.4
Federal Agency	721,173,138	5.4
Municipal Obligations	8,911,164	10.7
Foreign Obligations	317,071,356	5.3
Corporate Obligations		
Bank & Finance	306,945,996	3.3
Industrial	92,423,482	5.7
Other	578,786,351	5.1
<b>Total</b>	<b><u>\$ 5,077,134,907</u></b>	

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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, 2018, the weighted average maturity of ISBI's bank loan portfolio was 5.1 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 have one issuer investment that exceeded 5% of the total investments of the fund as of June 30, 2018. This security was U.S. Treasury Notes/Bills with a Moody's rating of Aaa. This investment represented 7.0% of the total investments of the fund. The table below and continued on the next page, presents the quality ratings of debt securities held by the ISBI as of June 30, 2018.

	Moody's Quality Rating	
U.S. Government and Agency Obligations	AAA	\$ 3,763,976,416
	Not Rated	9,020,142
Total U.S. Government and Agency Obligations		<u>\$ 3,772,996,557</u>
Municipal Obligations	AAA	\$ 838,626
	AA	1,511,700
	A	1,269,124
	CA	19,320
	Not Rated	5,272,393
Total Municipal Obligations		<u>\$ 8,911,164</u>
Foreign Obligations	AAA	\$ 41,977,946
	AA	27,460,930
	A	54,344,245
	BAA	59,881,915
	BA	27,877,269
	B	47,658,967
	CAA	19,185,346
	CA	740,870
	C	487,825
	Not rated	37,456,043
Total Foreign Obligations		<u>\$ 317,071,356</u>

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	Moody's Quality Rating	
Corporate Obligations		
Bank and Finance		
	AAA	\$ 30,463,803
	AA	1,918,280
	A	186,631,850
	BAA	40,936,878
	BA	17,326,045
	B	10,584,845
	CAA	1,040,188
	C	192,675
	Not Rated	17,851,432
Total Bank and Finance		<u>\$ 306,945,996</u>
Industrial		
	AAA	\$ 170,856
	AA	55,479
	A	16,784,165
	BAA	22,770,802
	BA	7,207,064
	B	27,952,272
	CAA	10,735,935
	Not Rated	6,746,912
Total Industrial		<u>\$ 92,423,482</u>
Other		
	AAA	\$ 12,892,695
	AA	39,432,846
	A	131,626,425
	BAA	140,301,493
	BA	56,287,806
	B	117,871,856
	CAA	52,532,525
	CA	761,400
	C	546,904
	Not Rated	26,532,402
Total Other		<u>\$ 578,786,352</u>
Total Corporate Obligations		<u>\$ 978,155,830</u>
Total Bank Loans	Not Rated	<u>\$ 464,315,920</u>
Total Money Market	Not Rated	<u>\$ 231,743,812</u>

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### 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 \$120,121,360 as of June 30, 2018. The table below presents the foreign currency risk by type of investment as of June 30, 2018.

Currency	2018	
	Foreign Equity Securities & Foreign Preferred Stock	Foreign Obligations
Australian Dollar	\$ 140,703,692	\$ -
Brazilian Real	2,328,245	-
Canadian Dollar	34,869,856	-
Danish Krone	34,178,475	-
English Pound Sterling	379,925,049	-
Euro Currency	697,623,140	-
Hong Kong Dollar	81,794,995	-
Japanese Yen	563,029,069	-
Mexican Peso	2,758,008	-
New Israeli Sheqel	9,802,812	-
Norwegian Krone	23,598,464	-
Singapore Dollar	26,008,370	-
South African Rand	5,241	-
South Korean Won	15,771,428	-
Swedish Krona	65,000,505	-
Swiss Franc	167,379,349	-
Thailand Baht	3,152,176	-
UAE Dirham	464,120	-
Foreign investments denominated in U.S. Dollars	<u>61,651,828</u>	<u>317,071,356</u>
Total	<u>\$ 2,310,044,822</u>	<u>\$ 317,071,356</u>

### Securities Lending

The ISBI participated in a securities lending program with Deutsche Bank AG, New York Branch as of June 30, 2018 who acts as securities lending agent. The ISBI is in the process of winding down this program and therefore, as of June 30, 2018 there were no outstanding loans or balances associated with any of the related financial statement accounts on the Statement of Net Position. Public market securities are loaned to brokers and, in return, the ISBI receives cash and non-cash collateral. All the public market securities were eligible for the securities lending program. Collateral consists solely of cash, government securities and certain equity securities having a fair value equal to or exceeding 102% of the value of the loaned securities (105% for non-U.S. securities). In the event of borrower default, Deutsche Bank AG, New York Branch provides the ISBI with counterparty default indemnification. Investments in the cash collateral account represent securities that were distributed to the ISBI in connection with the in-kind redemption of the ISBI's ownership in the State Street Bank and Trust Company Quality Funds for Short-Term Investment (Quality D). Deutsche Bank is not responsible for any losses with regards to these legacy investments. This arrangement subjects the ISBI to credit risk as the credit quality of these investments may decline over time. The credit risk on the legacy investments is the risk of a possible loss arising from the inability of counterparty to meet its obligations. This loss could include the loss of principal, interest and/or decreased expected cash flows in any of the

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investments held in the ISBI's cash collateral account. In the event counterparty defaults on its obligations, the ISBI would need to credit the cash collateral account with the amount of the default to make the account whole so that once loaned securities are returned, the cash pledged by borrowers can be returned to them.

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 2018, 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%.

The State Treasurer did not impose any restrictions during fiscal year 2018 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 2018 resulting from a default of the borrowers or Deutsche Bank AG.

During fiscal year 2018, 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, 2018 were \$4,521,091,000 and \$4,451,198,793, respectively. The System's portion of securities lending collateral that was invested in repurchase agreements as of June 30, 2018 was \$66,204,000.

### 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.

Foreign currency forward contracts (FX forwards) are used to protect against the currency risk in the ISBI's foreign equity portfolio. A foreign currency forward contract is an agreement to buy or sell a specific amount of a foreign currency at a specified delivery or maturity date for an agreed-upon price. Fluctuations in the market value of foreign currency forward contracts are marked to market on a daily basis. These investments are reported at fair value in the investment section of the ISBI's Statement of Net Position. The gain or loss arising from the difference between the original contracts and the closing of such contracts is recognized in the net increase/decrease in the fair value of investments in the ISBI's Statement of Changes in Net Position. As of June 30, 2018, all foreign currency forward contracts are held by the ISBI's custodian and one investment manager, Northern Trust Asset Management, which is permitted per the investment guidelines to invest in this type of contract under established guidelines.

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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 (arbitrage). 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.

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.

The fair values of the forward contracts are estimated based on the present value of their estimated future cash flows. 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, 2018.

	Changes in Fair Value	Fair Value at Year End	Notional Amount Number of Shares
	2018	2018	2018
FX Forwards	\$ 3,646,386	\$ (7,847,062)	-
Futures	-	-	276
Rights/Warrants	50,984	181,512	435,088
	<u>\$ 3,697,370</u>	<u>\$ (7,665,550)</u>	<u>435,364</u>

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The table below shows the futures positions held by the ISBI as of June 30, 2018.

	Number of Contracts	2018 Contract Principal*
Equity Futures Purchased	263	\$29,211,622
Fixed Income Futures Purchased	-	-
Fixed Income Futures Sold	13	(1,562,438)

\* Contract principal amounts shown represent the fair value of the underlying assets the contracts control. These are shown to present the volume of the transactions but do not reflect the extent to which positions may offset one another. These amounts do not represent the much smaller amounts potentially subject to risk. Contract principal values also do not represent actual recorded values reported in the ISBI's Statement of Net Position.

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. As of June 30, 2018, the ISBI held futures contracts whose underlying instruments were exposed to interest risk but there were no GASB 53 reportable elements. The ISBI has not adopted a formal policy specific to master netting arrangements.

The following table presents the fair value of derivative investments exposed to foreign currency risk as of June 30, 2018:

Currency	2018	
	FX Forwards	Rights
Australian Dollar	\$ (794,929)	\$ 2,265
English Pound Sterling	(1,706,100)	76,108
Euro Currency	(2,533,864)	103,139
Japanese Yen	(2,812,170)	-
	<u>\$ (7,847,063)</u>	<u>\$ 181,512</u>

The ISBI's derivative investments in foreign currency forward contracts are held with counterparties. The counterparties were not rated and the fair value and net exposure as of June 30, 2018 for these contracts were \$0.

## 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 2018, the actuary used the projected unit credit actuarial method for determining the proper employer contribution rate and amount.

For fiscal year 2018, 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 2018, a Due to the State of Illinois was accrued in the amount of \$55,311,496 for the general revenue fund repayment.

Public Act 100-0023 required that the Board of Trustees retroactively recertify the fiscal year 2018 employer contribution rate, allowing the actuarial assumption changes to be smoothed over a five-year period. This resulted in the accrual of a due to other state agencies in the amount of \$50,585,342 representing employer contribution refunds.

The total amount of statutorily required employer contributions, net of the debt service contributions, for fiscal year 2018 was \$1,927,677,233. The total amount of employer contributions received from the State and other sources during fiscal year 2018 was \$1,929,175,044.

## 6. Net Pension Liability of the State

The components of the State's net pension liability for this plan at June 30, 2018 are as follows:

Total Pension Liability (TPL)	Plan Fiduciary Net Position (FNP)	Net Pension Liability	Plan FNP as % of TPL
\$50,519,687,332	\$17,463,278,241	\$33,056,409,091	34.57%

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, 2018, using the following actuarial assumptions, which were based on the results of an actuarial experience study for the period from July 1, 2012 to June 30, 2015, applied to all periods included in the measurement:

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<b>Actuarial Cost Method:</b>	Entry Age Normal
<b>Mortality:</b>	105% of the RP2014 Healthy Annuitant mortality table, sex distinct, with rates projected to 2015; generational mortality improvement factors were added for the 2016 valuation.
<b>Inflation:</b>	2.5%
<b>Investment rate of return:</b>	7.00%
<b>Salary increases:</b>	Salary increase rates based on age-related productivity and merit rates plus inflation. 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.
<b>Retirement age:</b>	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.

### Long-term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined based on an analysis performed by the System's actuary, Gabriel Roeder Smith and Company (GRS), during their annual review of economic actuarial assumptions, with data provided by the Illinois State Board of Investments (ISBI) in conjunction with its investment consultant. The annualized geometric return for each major asset class were combined to produce the long-term expected rate of return by weighting the expected future returns by the target asset allocation percentage and factoring in the impact of each asset classes correlation relative to other assets and finally, by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation as of June 30, 2018, the 20-year simulated real rates of return are summarized in the following table:

Asset Class	Asset Allocation	
	Target Allocation	20 Year Simulated Real Rate of Return
U.S. Equity	23.0%	5.5%
Developed Foreign Equity	13.0%	5.3%
Emerging Market Equity	8.0%	7.8%
Private Equity	7.0%	7.6%
Intermediate Investment Grade Bonds	14.0%	1.5%
Long-term Government Bonds	4.0%	1.8%
TIPS	4.0%	1.5%
High Yield and Bank Loans	5.0%	3.8%
Opportunistic Debt	8.0%	5.0%
Emerging Market Debt	2.0%	3.7%
Core Real Estate	5.5%	3.7%
Non Core Real Estate	4.5%	5.9%
Infrastructure	2.0%	5.8%
<b>Total</b>	<b>100%</b>	

### Discount Rate

A single discount rate of 6.81% was used to measure the total pension liability as of June 30, 2018. This represents an increase of 0.03% from the discount rate used for the June 30, 2017 valuation, 6.78%.

The single discount rate was based on the June 30, 2018 expected rate of return on pension plan investments of 7.00%, and a municipal bond rate, based on an index of 20 year general obligation bonds with an average AA credit rating as published by the Federal Reserve, of 3.62% as of June 30, 2018. The projection

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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 2075 at June 30, 2018. As a result, for fiscal year 2018, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through 2075, 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 2018, the following table presents the plan's net pension liability using a single discount rate of 6.81%, 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, 2018		
	1% decrease 5.81%	Current Discount Rate 6.81%	1% increase 7.81%
State's net pension liability	<u>\$40,018,350,646</u>	<u>\$33,056,409,091</u>	<u>\$27,352,677,576</u>

## 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 as of June 30, 2018 totaled \$823,025 and is included in Administrative Expenses Payable.

## 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 2018 payrolls amounted to \$27.9 million. The total amount remitted to the State of Illinois as of June 30, 2018 was \$24.5 million.

As of June 30, 2018, the following amounts are included in the System's Statement of Plan Net Position regarding the collection of bond principal and interest payments:

	2018
Cash - payments collected but not yet remitted to the State of Illinois	\$ (2,464,435)
Accounts receivable - for June payrolls received in July & August	\$ (1,013,150)
Due to the State of Illinois	<u>\$ (3,477,585)</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, 2018.

	2018
Personal Services	\$ 4,823,735
Employee Retirement Pickup	26,953
Retirement Contributions	2,293,046
Social Security Contributions	366,249
Group Insurance	1,316,179
Contractual Services	1,658,160
Travel	16,004
Commodities	24,303
Printing	19,158
Equipment	20,874
Electronic Data Processing	3,937,347
Telecommunications	56,223
Automotive	9,523
Depreciation/Amortization	831,625
Other (net)	(141,853)
Total	<u>\$ 15,257,526</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.

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.

## FINANCIAL STATEMENTS

### 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 2018:

Personal services	\$ 54,405
Social Security contributions	4,058
Contractual services	22,837
Telecom	<u>300</u>
<b>Total</b>	<b><u>\$ 81,600</u></b>

### 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 2018:

	2018			Ending Balance
	Beginning Balance	Additions	Deletions	
<b>Assets</b>				
Land	\$ 655,241	\$ -	\$ -	\$ 655,241
Land improvements	315,779	-	-	315,779
Building	4,074,333	199,651	-	4,273,984
Equipment	3,079,685	60,247	(374,895)	2,765,037
Capitalized software costs	5,476,286	1,534,750	-	7,011,036
<b>TOTAL</b>	<u>13,601,324</u>	<u>1,794,648</u>	<u>(374,895)</u>	<u>15,021,077</u>
<b>Accumulated depreciation/ amortization</b>				
Land improvements	(15,764)	(2,337)	-	(18,101)
Building	(3,056,968)	(153,133)	-	(3,210,101)
Equipment	(2,135,034)	(325,605)	372,900	(2,087,739)
Capitalized software costs	(691,989)	(350,552)	-	(1,042,541)
<b>TOTAL</b>	<u>(5,899,755)</u>	<u>(831,627)</u>	<u>372,900</u>	<u>(6,358,482)</u>
<b>Net capital assets</b>	<u>\$ 7,701,569</u>	<u>\$ 963,021</u>	<u>\$ 1,995</u>	<u>\$ 8,662,595</u>

**REQUIRED SUPPLEMENTARY INFORMATION**

**SCHEDULE OF CHANGES IN THE STATE'S NET  
PENSION LIABILITY AND RELATED RATIOS**  
Fiscal Years Ended June 30, 2018 through 2014

	2018	2017
<b>Total pension liability</b>		
Service cost	\$ 828,485,950	\$ 893,147,418
Interest	3,295,855,347	3,217,531,841
Difference between expected and actual experience	(185,488,891)	(601,530,567)
Assumption changes	(348,811,194)	(884,705,099)
Benefit payments	(2,464,832,022)	(2,328,620,783)
Refunds	(27,469,348)	(26,608,011)
Administrative expense	(15,257,526)	(15,957,439)
<b>Net change in total pension liability</b>	1,082,482,316	253,257,360
<b>Total pension liability - beginning</b>	49,437,205,016	49,183,947,656
<b>Total pension liability - ending (a)</b>	\$ 50,519,687,332	\$ 49,437,205,016
<b>Plan fiduciary net position</b>		
Contributions - employer	\$ 1,929,175,044	\$ 1,798,348,440
Contributions - participant	254,442,466	251,610,974
Net investment income	1,257,039,835	1,812,878,460
Benefit payments	(2,464,832,022)	(2,328,620,783)
Refunds	(27,469,348)	(26,608,011)
Administrative expense	(15,257,526)	(15,957,439)
<b>Net change in plan fiduciary net position</b>	933,098,449	1,491,651,641
<b>Plan fiduciary net position - beginning</b>	16,530,179,792	15,038,528,151
<b>Plan fiduciary net position - ending (b)</b>	\$ 17,463,278,241	\$ 16,530,179,792
<b>State's net pension liability - ending (a)-(b)</b>	\$ 33,056,409,091	\$ 32,907,025,224
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	34.57%	33.44%
<b>Covered payroll</b>	\$ 4,240,108,939	\$ 4,192,582,495
<b>State's net pension liability as a percentage of covered payroll</b>	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, 2018 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
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>	<u>5,916,892,028</u>	<u>1,581,969,445</u>	<u>4,867,312,648</u>
<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>	<u>\$ 49,183,947,656</u>	<u>\$43,267,055,628</u>	<u>\$41,685,086,183</u>
<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>	<u>(220,338,421)</u>	<u>677,300,331</u>	<u>2,181,265,767</u>
<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>	<u>\$ 15,038,528,151</u>	<u>\$15,258,866,572</u>	<u>\$ 14,581,566,241</u>
<b>State's net pension liability - ending (a)-(b)</b>	<u>\$ 34,145,419,506</u>	<u>\$28,008,189,056</u>	<u>\$27,103,519,942</u>
<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, 2018

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.

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

#### 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.

#### 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					
	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	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
2009	\$ 1,003,432,849	\$ 774,910,344	\$ (228,522,505)	\$ 4,027,263,000	19.24%
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%

#### Notes to Schedule of State Contributions:

**Valuation Date:** June 30, 2016

**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:** 25 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

	2018
Contributions:	
Participants	\$ 247,350,932
Interest paid by participants	6,200,644
Repayment of refunds	890,890
Total participant contributions	254,442,466
Employer:	
General Revenue Fund	1,263,917,454
Employing state agencies and appropriations	664,098,293
Paid by participants	1,159,297
Total employer contributions	1,929,175,044
Total contributions	2,183,617,510
Investment income:	
Net appreciation/(depreciation) in fair value of investments	902,665,327
Interest and dividends from investments	376,809,271
Interest earned on cash balances	1,507,697
Less investment expense, other than from securities lending	(25,654,957)
Net income/(loss) from investing, other than from securities lending	1,255,327,338
Net securities lending income	1,712,497
Net investment income/(loss)	1,257,039,835
Total revenues	\$ 3,440,657,345

## SUPPLEMENTARY FINANCIAL INFORMATION

### SUMMARY SCHEDULE OF CASH RECEIPTS & DISBURSEMENTS

	2018
Cash balance, beginning of year	\$ <u>227,542,784</u>
Receipts:	
Participant contributions	239,120,050
Employer contributions (net of bond principal and interest transfers)	761,112,175
General Revenue Fund/Pension Contribution Fund	1,265,863,611
Transfers from Illinois State Board of Investment	310,000,000
Interest income on cash balance	1,436,870
Claims receivable payments	7,266,714
Installment payments	3,187,532
Other	641,614
Total cash receipts	<u>2,588,628,566</u>
Disbursements:	
Annuity payments:	
Retirement annuities	2,240,789,712
Widow's and Survivor's annuities	144,919,225
Disability benefits	62,093,337
Lump Sum benefits	16,198,932
Refunds (including transfers to reciprocal systems)	27,494,863
Refund to the General Revenue Fund	103,392,221
Administrative expenses	16,427,001
Total cash disbursements	<u>2,611,315,291</u>
Cash balance, end of year	<u>\$ 204,856,059</u>

### SCHEDULE OF PAYMENTS TO CONSULTANTS & ADVISORS

	2018
Legal Services	\$ 41,365
Actuarial Costs	134,654
Audit Expense	70,492
Physicians and Disability Inspections	233,356
Financial Planning	41,105
Management Consultants	922,818
TOTAL	<u>\$ 1,443,790</u>

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# INVESTMENT SECTION

## INVESTMENT SECTION

### INVESTMENT REPORT

By state law, the System's investment function is managed by the Illinois State Board of Investment (ISBI). The ISBI was created in 1969 to provide a means of centralizing the investment management function for public employee pension funds and retirement systems operating in the state.

In addition to the assets of the State Employees' Retirement System, the ISBI also manages the investment function for the Judges' Retirement System, General Assembly Retirement System, and one other state agency. All ISBI investments are accounted for in a commingled fund (ISBI Fund).

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.

As of June 30, 2018, the ISBI's total net position under management, valued at market, amounted to \$18.3 billion. Of the total market value of the net position under management, \$17.3 billion or approximately 94.2% represented assets of the State Employees' Retirement System as of June 30, 2018.

The investment authority of the ISBI is provided in Chapter 40, Section 5/22A of the Illinois Compiled Statutes (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.

A summary of the portfolio's largest holdings, as well as the complete listing of the ISBI portfolio, are included in the ISBI Annual Report. A schedule of fees and commissions paid by brokerage firms and a listing of transactions executed, including transaction value, are also contained in the ISBI Annual Report. A copy of the ISBI Annual Report can be obtained from the ISBI at 180 North LaSalle Street, Suite 2015, Chicago, Illinois 60601 or by visiting the ISBI's website at [www.ISBI.Illinois.gov](http://www.ISBI.Illinois.gov).

The following investment information and analysis has been prepared from information provided by the ISBI. Investment performance returns are prepared by Northern Trust. Investment activities are presented on a trade date basis and measurements are calculated using time weighted rates of return consistent with investment industry standards.

### INVESTMENT POLICY AND ASSET ALLOCATION

The ISBI operates under a strategic investment policy. The investment objective of the total portfolio is to maximize the rate of return on investments within a prudent level of risk. To achieve this objective, the ISBI invests in different types of assets and uses multiple managers to ensure diversification.

The investment policy of the ISBI establishes asset allocation targets and ranges for each asset class, selected to achieve overall risk and return objectives. This policy is implemented by allocations to investment managers with assignments to invest in specific asset classes, with defined security selection styles and methodologies.

Changes made to the portfolio during fiscal year 2018 amounted to routine adjustments associated with the administration of an institutional portfolio – periodic rebalancing, funding of private equity and real estate commitments, selection of new limited partnerships, and continual monitoring of the portfolio.

The portfolio is regularly adjusted to manage exposures and to closely track the asset allocation policy adopted by the ISBI Board. The asset allocation policy targets and actual allocations for fiscal year 2018 are shown in the following table.

## INVESTMENT SECTION

### INVESTMENT ASSET ALLOCATION

	Fair Value	2018 Actual Asset Mix	Policy Target
U.S. equity	\$ 5,227,218,322	28%	23%
U.S. equity hedge funds	360,744,003	2	0
International equity	2,310,044,822	13	21
Commingled funds <sup>4</sup>	1,721,839,058	9	0
Fixed income <sup>1</sup>	5,077,134,906	28	26
Bank loans	464,315,921	3	3
Real estate	1,594,774,575	9	10
Private equity <sup>2</sup>	706,768,270	4	7
Infrastructure <sup>2</sup>	408,985,767	2	2
Opportunistic Debt	225,053,335	1	8
Cash <sup>3</sup>	239,555,471	1	0
Total	<u>\$ 18,336,434,449</u>	<u>100%</u>	<u>100%</u>

*1 Maturities of one year or longer, including convertible bonds.*

*2 Interests in limited partnerships and other entities which have limited liquidity.*

*3 Includes money market instruments and other assets, less liabilities.*

*4 Holdings include fixed income and equity investments.*

### INVESTMENT PORTFOLIO SUMMARY

	June 30, 2018	
Investments, at fair value		
U.S. Govt. and Agency Obligations	\$ 3,772,996,557	20.58%
Foreign Obligations	317,071,356	1.73%
Corporate Obligations	978,155,830	5.33%
Municipal Bonds	8,911,164	0.05%
Common Stock & Equity Funds	5,227,218,322	28.51%
Commingled Funds	1,721,839,058	9.39%
Foreign Equity Securities	2,301,280,852	12.55%
Foreign Preferred Stock	8,763,970	0.05%
Hedge Funds	360,744,003	1.97%
Opportunistic Debt	225,053,335	1.23%
Real Estate Funds	1,594,774,574	8.70%
Private Equity	706,768,270	3.85%
Money Market Instruments	231,743,812	1.26%
Real Assets	408,985,767	2.23%
Bank Loans	464,315,920	2.53%
Foreign Currency Forward Contracts	(7,847,062)	(0.04)%
	<u>18,320,775,728</u>	<u>99.91%</u>
Other Assets, Less Liabilities	15,658,721	0.09%
Net Position, at Fair Value	<u>\$ 18,336,434,449</u>	<u>100.00%</u>

## INVESTMENT SECTION

### ADDITIONAL INVESTMENT INFORMATION

The following table shows a comparison of ISBI investment operations of the System for fiscal years 2018 and 2017:

	2018	2017	Increase/(Decrease)	
			Amount	Percentage
Balance at beginning of year, at fair value	\$ 16,322,605,336	\$ 14,741,054,632	\$ 1,581,505,904	10.7%
Cash transferred to (from) ISBI, net	(310,000,000)	(230,000,000)	(80,000,000)	(34.8)%
Net ISBI investment revenue:				
Net appreciation in fair value of investments	902,665,327	1,442,502,754	(539,837,427)	(37.4)%
Interest and dividends	376,809,272	397,018,360	(20,209,089)	(5.1)%
Less investment expense, other than from securities lending	(25,654,957)	(28,874,161)	3,219,204	11.1%
Net income from investing, other than from securities lending	1,253,819,642	1,810,646,953	(556,827,312)	(30.8)%
Net securities lending income	1,712,497	903,751	808,746	89.5%
Net ISBI investment revenue	1,255,532,139	1,811,550,704	(556,018,566)	(30.7)%
Balance at end of year, at fair value	\$ 17,268,137,475	\$ 16,322,605,336	\$ 945,532,338	5.8%

In addition, interest on the average balance in the System's cash account in the State Treasury for FY2018 was \$1,507,697 compared to \$1,327,756 during FY2017.

### MANAGEMENT EXPENSES

The ISBI's total expenses for fiscal year 2018, based on \$18.3 billion in net position, was \$27.2 million. The resulting expense ratio (expenses divided by average fair value of assets) for fiscal year 2018 was 0.15%. As a result of the ISBI's commitment to control costs, the investment management fees are typically in the bottom quartile of fees paid by the ISBI's peer group.

### ANALYSIS OF INVESTMENT PERFORMANCE

In fiscal year 2018, investors enjoyed gains in international and U.S. equities as measured by the market indices. The ISBI's total fund was up 7.6% for fiscal year 2018, net of all expenses. This follows a positive return of 12.3% in 2017 after having experienced a negative return of 0.8% in fiscal year 2016. Positive returns of 4.7% and 17.9% occurred during fiscal years 2015 and 2014, respectively.

The ISBI staff, as well as its retained consultants, aggressively monitors the totality of the portfolio.

The following table reflects the investment performance over the last five years as well as the three, five, and ten year average returns for all categories in addition to their individual benchmarks.

## INVESTMENT SECTION

### ANALYSIS OF INVESTMENT PERFORMANCE

	2018	2017	2016	2015	2014	3 Years	5 Years	10 Years
Total Fund	7.6%	12.3%	(0.8)%	4.7%	17.9%	6.2%	8.1%	6.0%
Composite Benchmark*	7.4	12.0	0.7	4.0	16.3	6.6	7.9	6.0
Consumer Price Index	2.9	1.6	0.1	0.1	2.1	1.8	1.5	1.6
U.S. Equities	14.3	18.7	(1.7)	6.4	24.1	10.0	11.9	9.8
Russell 3000 Index	14.8	18.5	2.1	7.3	25.2	11.6	13.3	10.2
International Equities	7.6	22.1	(7.1)	(1.0)	23.8	6.7	8.1	4.9
MSCI-ACWI ex US Index IMI Gross	7.7	20.5	(9.2)	(4.6)	22.8	5.5	6.4	2.9
Fixed Income	0.9	0.9	1.6	(1.4)	6.5	1.1	1.6	2.4
Barclays Capital U.S. Universal Index	(0.3)	0.9	5.8	1.6	5.2	2.1	2.6	4.1
Real Estate	7.3	7.1	12.0	16.3	14.5	8.4	10.8	3.6
NCREIF Real Estate Index	7.1	6.9	10.8	13.4	11.7	8.3	10.0	6.3
Private Equity	20.6	17.9	7.9	21.5	24.7	14.8	17.6	12.3

*Note: Calculations are based on a time series of linked monthly returns (IRR), producing a time weighted effect. Total fund return is presented net of fees. All other return information is presented gross of fees*

**\* Composite Benchmark:**

**Effective 07/17:** 23% Russell 3000; 13% MSCI-EAFE Index; 8% MSCI Emerging Markets Index; 7% Cambridge Private Equity Index (1Q lagged); 10% Barclays Aggregate; 4% Barclays Intermediate Treasuries; 4% Barclays Long Term Treasury Index; 4% Barclays US TIPS Index; 2.5% Barclays High Yield Index; 2.5% CSFB Leveraged Loan Index; 1.0% JPM GBI EM Global Diversified (unhedged); 1.0% JPM EMBI Global Diversified (hedged); 8% S&P/LSTA US Levered Loan 100 Index; 10% NCREIF ODCE ; 2% CPI + 3.5%.

**Effective 07/16:** 23% Russell 3000; 13% MSCI-EAFE index; 7% MSCI Emerging Markets index; 10% Cambridge Private Equity index; 11% Barclays Aggregate; 3% Barclays Long Term Treasury index; 10% Barclays US TIPS index; 3% Barclays High Yield index; 3% CSFB Leveraged Loan index; 1.5% JPM GBI EII Global Diversified (unhedged); 1.5% JPM EMBI Global Diversified (hedged); 11% NCREIF ODCE; 5% CPI +4%; 3% HFRI Fund of Fund Composite.

**Effective 06/14:** 30% Russell 3000; 20% MSCI-ACWI ex US IMI Gross; 25% Barclays Capital U.S. Universal; 10% NCREIF ODCE; 5% Custom Private Equity Benchmark which is based on preliminary data subject to change; 10% HFRI Fund of Funds Index. The Custom Private Equity benchmark is based on peer universe return data compiled and published by Cambridge Associates, LLC. The custom benchmark returns are calculated as pooled internal rates of return (IRR).

**Effective 01/14:** 30% Russell 3000; 20% MSCI-ACWI ex US; 25% Barclays Capital U.S. Universal; 10% NCREIF ODCE; 5% Venture Economics Pooled Average Periodic IRR which is based on preliminary data subject to revision on a quarterly basis; 10% HFRI Fund of Funds Index.

**Effective 07/11:** 30% Russell 3000; 20% MSCI-ACWI ex US; 25% Barclays Capital U.S. Universal; 10% NCREIF ODCE; 5% Venture Economics Pooled Average Periodic IRR which is based on preliminary data subject to revision on a quarterly basis; 10% HFRX Equity Hedged Index.

**Effective 07/07:** 30% Russell 3000; 20% MSCI-EAFE; 25% Lehman Universal; 10% NCREIF; 5% Venture Economics Pooled Average Periodic IRR which is based on preliminary data subject to revision on a quarterly basis; 10% HFRX Equity Hedged Index.

**Effective 03/06:** 8% Russell Midcap Growth; 7% Russell 2000 Value; 5% Russell 1000 Growth; 15% Russell 1000 Value; 10% S&P 500; 3% S&P Dev. Ex-U.S.-<\$2B; 7% MSCI-EAFE; 10% NCREIF; 5% Lehman High Yield; 10% Lehman Aggregate; 10% Lehman Int. Govt/Corp; 10% NCREIF

**Effective 12/03:** 45% Wilshire 5000; 10% MSCI-EAFE; 25% Lehman Universal; 10% NCREIF; 5% Venture Economic All Private Equity Index which is based on preliminary data subject to revision on a quarterly basis; 5% HFRX Equity Hedged Index.

Effective 11/08, the Lehman Universal benchmark ceased to exist. Barclays Capital U.S. Universal is the benchmark currently used by ISBI.

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## ACTUARIAL SECTION

*The schedules in this section of the report were prepared to support the actuarially determined contribution for fiscal year 2020 under the State of Illinois' funding plan. The total actuarial liability, the actuarial value of assets, and unfunded accrued actuarial liability as presented in the Actuarial section of this report using the State's funding method does not conform with GASB Statement No. 67 and therefore, the amounts presented in the Actuarial section of this report differ from the amounts presented for financial reporting purposes in the financial section of this report.*

# ACTUARY'S CERTIFICATION LETTER



P: 312.456.9800 | F: 312.683.3271 | [www.grsconsulting.com](http://www.grsconsulting.com)

November 26, 2018

Board of Trustees and Executive Secretary  
State Employees' Retirement System of Illinois  
P. O. Box 19255  
2101 S. Veterans Parkway  
Springfield, Illinois 62794-9255

**Re: Actuarial Certification**

At your request, we have performed the annual actuarial valuation of the assets and liabilities of the State Employees' Retirement System of Illinois ("SERS") as of June 30, 2018. This actuarial valuation has been performed to measure the funding status of the System and determine the State's statutory contribution rate for the year beginning July 1, 2019, and ending June 30, 2020. Public Act ("P.A.") 100-0023, effective July 6, 2017, modified the State's funding policy to include smoothing State contribution rate increases or decreases due to changes in actuarial assumptions, including investment return assumptions, over a five year period in equal annual amounts beginning in fiscal year 2018. In addition, changes in actuarial or investment assumptions that increased or decreased the State contribution rate in fiscal years 2014 through 2017 are to be smoothed over a five-year period in equal annual amounts, applying only to the portion of the five year phase-in that is applicable to fiscal years on and after 2018.

Gabriel, Roeder, Smith & Company ("GRS") has prepared this report exclusively for the Trustees of the State Employees' Retirement System of Illinois; GRS is not responsible for reliance upon this report by any other party. This report may be provided to parties other than SERS only in its entirety and only with the permission of the Trustees.

The required statutory contribution rate has been determined under the Projected Unit Credit Cost Method, providing for 90 percent funding of total actuarial liabilities by fiscal year 2045 as required by 40 ILCS Section 5/14-131(e). Contribution rates are determined according to P.A. 93-0002 and P.A. 100-0023 reflecting the infusion of the proceeds from the sale of general obligation bonds and five-year smoothing of State contribution rate increases due to changes in actuarial assumptions resulting from the 2013 and 2016 experience reviews, and 2018 economic assumption review of SERS. The total rate includes a portion of the debt service due to the sale of the general obligation bonds per P.A. 93-0002. The applicable portion of the debt service includes the amount necessary to pay all principal and interest for State fiscal year 2020 on the general obligation bonds except portions reserved under Section 7.2(c) of the General Obligation Bond Act. Additionally, this amount is decreased by the amount set aside in the capitalized interest fund on the understanding this was the legislative intent. The contribution rates reflect the impact of P.A. 96-0889, which created a second tier for members of SERS hired after December 31, 2010.

For the actuarial valuation as of June 30, 2018, the assumed rate of return used to discount liabilities and project assets was 7.00 percent.

The required statutory contribution rates and amounts for fiscal year beginning July 1, 2019, as determined in the June 30, 2018, actuarial valuation are shown on the following page.

120 North LaSalle Street | Suite 1350 | Chicago, Illinois 60602-3495

# ACTUARY'S CERTIFICATION LETTER

Board of Trustees and Executive Secretary  
 November 26, 2018  
 Page 2

	Employer's		Amortization		
	Normal Cost <sup>a</sup>	Payment <sup>b</sup>	Preliminary	Debt Service	Total
Required Rate	14.339%	37.811%	52.150%	2.140%	54.290%
Required Contribution	630,005,000	1,661,244,000	2,291,249,000	94,022,000	2,385,271,000

<sup>a</sup> Includes Administrative Expenses.

<sup>b</sup> Under the Statutory funding policy an amortization payment is not directly calculated. The amortization payment is the difference between the preliminary statutory contribution and the employer normal cost contribution.

Based on the provisions of P.A. 97-0694, the required statutory contribution for the fiscal year beginning July 1, 2019, is submitted to the state actuary, governor, and General Assembly. Under the act, the state actuary is required to review the assumptions and methods used to perform the actuarial valuation and develop the required statutory contributions. The final certification of the required statutory contribution is due by January 15, 2019.

Pursuant to P.A. 96-0043, for purposes of determining the statutory contribution rate, an actuarial value of the System's assets was used. The actuarial value of assets is assumed to earn a rate of return equal to the System's actuarially assumed rate of return. The liabilities have been valued based on financial and employee data, which is supplied by the administrative staff of the System and verified by the System's auditor. We did not audit this data, but have reviewed the statistical support and concluded that the data is reasonable and consistent with the prior year's data.

In our opinion, the calculations also comply with the requirements of Illinois state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The System's current contribution rate determined under the statutory funding policy may not conform with the Actuarial Standards of Practice. Therefore, the Board adopted a contribution policy to be used to calculate the Actuarially Determined Contribution ("ADC") under GASB Statement Nos. 67 and 68 for financial reporting purposes. All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Although the statutory contribution requirements were met, the statutory funding method generates a contribution requirement that is less than a reasonable actuarially determined contribution. Meeting the statutory requirement does not mean that the undersigned agree that adequate actuarial funding has been achieved. We recommend the adherence to a funding policy, such as the Board policy used to calculate the ADC under GASB Statement Nos. 67 and 68, that finances the normal cost of the plan as well as an amortization payment that seeks to pay off any unfunded accrued liability over a closed-period of 25 years, as a level percent of capped payroll.

This actuarial valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.



## ACTUARY'S CERTIFICATION LETTER

Board of Trustees and Executive Secretary  
November 26, 2018  
Page 3

We certify that the information presented herein is accurate and fairly portrays the actuarial position of SERS as of June 30, 2018. We prepared the accompanying Summary of Actuarial Cost Method and Major Actuarial Assumptions, but the SERS staff prepared the other supporting schedules in this section and the trend tables in the financial section, based on information supplied in our report.

This actuarial certification is provided to the intended user, the Board of Trustees, in conjunction with the SERS actuarial valuation report as of June 30, 2018. Additional information regarding actuarial assumptions and methods, and important additional disclosures are provided in the full actuarial valuation report as of June 30, 2018, which is available on the SERS website, and is an integral part of this certification.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the SERS as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

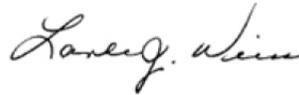
Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries (MAAA) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

**Gabriel, Roeder, Smith & Company**



Alex Rivera, FSA, EA, MAAA  
Senior Consultant



Lance J. Weiss, EA, MAAA, FCA  
Senior Consultant



### INTRODUCTION

Annually, the System's actuarial consultant prepares a valuation of the liabilities and reserves of the System in order to make a determination of the amount of contributions required from the state. These results are then certified to the Board.

The Board, in turn, has the duty of certifying an employer contribution amount, required to be paid to the System by the state during the succeeding fiscal year.

The System receives contributions from several sources which can be considered as employer contributions, with the largest source being the regular state appropriation.

The employers' contribution amount, together with members' contributions, income from investments and any other income received by the System, shall be sufficient to meet the cost of maintaining and administering the System on a funded basis in accordance with actuarial reserve requirements, pursuant to Chapter 40, Section 5/14-131 of the Illinois Compiled Statutes.

The statutes define "actuarial reserves" as "An accumulation of funds in advance of benefit payments which will be sufficient with respect to each member and his beneficiaries, if any, to pay the prescribed benefits, computed according to the actuarial tables, without further contributions by or on behalf of the member."

In August, 1994, Senate Bill 533 was signed into law as Public Act 88-0593. This funding legislation, which became effective July 1, 1995, provides that:

- For fiscal years 1996 through 2010, the contribution to the System, as a percentage of the payroll, shall be increased in equal annual increments so that by fiscal year 2010 the contribution rate is at the same level as the contribution rate for fiscal years 2011 through 2045.
- For fiscal years 2011 through 2045, the minimum contribution to the System for each fiscal year shall be an amount determined to be sufficient to bring the total actuarial value of assets of the System up to 90% of the total actuarial liabilities of the System by the end of fiscal year 2045. In making these determinations, the required contribution shall be calculated each year as a level percentage of payroll over the years remaining to and including fiscal year 2045 and shall be determined under the projected unit credit actuarial cost method.
- Beginning in fiscal year 2045, the minimum contribution to the System for each fiscal year shall be the amount needed to maintain the total actuarial value of assets of the System at 90% of the total actuarial liabilities of the System.

The funding legislation also provides for the establishment of a continuing appropriation of the required state contributions to the System. This has, in effect, removed the appropriation of these funds from the annual budgetary process.

In April, 2003, House Bill 2660 was signed into law as Public Act 93-0002. This legislation authorized the sale of \$10 billion of General Obligation bonds for the purpose of making contributions to the five state-financed retirement systems. This legislation also modified the funding plan by mandating that, beginning in fiscal year 2005, the required state contribution for each fiscal year not exceed the state contributions that would have been required had the General Obligation bond program not been in effect, reduced by the total debt service for each year for the System's portion of the General Obligation bond proceeds.

In June, 2005, Senate Bill 0027 was signed into law as Public Act 94-0004. This legislation further modified the funding plan by reducing the amount of required employer contributions for fiscal years 2006 and 2007 that would have otherwise been required under Public Act 88-0593, as modified by Public Act 93-0002. The required state contributions for fiscal years 2008 through 2010 were then to be increased incrementally as a percentage of the participant payroll so that by fiscal year 2011 the state would be contributing at the required level contribution rate to achieve the financing objective of a 90% funded status by the end of fiscal year 2045.

For fiscal year 2018, the System received the actuarially determined employer contributions in accordance with the state's statutory funding plan described above. As stated in the actuarial certification letter, although the statutory funding plan has been met, the contributions are less than the Board's policy to calculate the actuarially determined contribution under GASB 67 and 68.

The Schedule of State Contributions contained within the Required Supplementary Information (RSI) section of this report, includes a ten-year comparative history of the actuarially determined contributions and the actual contributions paid by the State.

### REVIEW BY THE STATE ACTUARY

Pursuant to state law, the assumptions and valuations prepared by the actuaries of each of the state-funded retirement systems are to be reviewed annually by the State Actuary, Cheiron. Within the review of the FY 2017 SERS actuarial valuation, Cheiron recognized and recommended the continued annual review of economic assumptions prior to the commencement of the valuation so that changes to the assumptions can be implemented in the valuation.

Cheiron recognized that the actual funding of the System is based on State statute and a statutory change would be required to fully implement their recommendations to change the funding methodology. Finally, they recommended the inclusion of stress testing within the valuation report itself to document the variety of issues that stressors can have on State costs to sustain the System.

A summary of the assumption changes adopted for recent valuations can be found in this section and within the RSI of this annual report.

### ACTUARIAL COST METHOD AND SUMMARY OF MAJOR ACTUARIAL ASSUMPTIONS

The actuarial cost method used by the System for funding purposes that is statutorily required by the State of Illinois differs from the entry age actuarial cost method mandated by GASB Statement No. 67 that is used for financial reporting purposes. The System utilizes the projected unit credit actuarial cost method. Under this method, the actuarial liability is the actuarial present value or that portion of a participant's projected benefit that is attributable to service to date on the basis of future compensation projected to retirement. For fiscal year 2018, a projected unit credit normal cost method is used. Under this method, the projected pension at retirement age is first calculated and the value thereof at the individual member's current or attained age is determined.

Certain assumptions used to determine the State's required contribution under its statutory funding plan differ from assumptions used for financial reporting purposes that are mandated by GASB Statement No. 67. GASB Statement No. 67 mandates the use of a long-term blended rate of return that utilizes the System's expected rate of return (7.0%) until the projected fiduciary net position of the System is exhausted at which point a 20 year tax-exempt general obligation municipal bond rate is used (3.62)% resulting in a long-term blended rate of return of 6.81% that differs from the System's expected rate of return of 7.0% used for State funding purposes. The State uses an actuarial value of assets of \$17,478,139,578 that recognizes gains and losses from investment returns in equal amounts over a five year period in its assumptions. GASB Statement No. 67 mandates the use of the market value of assets of \$17,463,278,241 in its assumptions used for financial reporting purposes.

The normal cost for the member for the current year is equal to the value so determined divided by the member's projected service at retirement. The normal cost for the plan for the year is the sum of the individual normal costs.

Actuarial gains and losses are recognized in the unfunded actuarial liability of the System. For purposes of determining future employer contributions, however, the actuarial gains and losses are amortized in accordance with the funding plan as previously described.

For ancillary benefits for active members, in particular disability benefits, death and survivor benefits, termination benefits, and the post-retirement increments, the same procedure as outlined above is followed.

A description of the actuarial assumptions utilized for FY2018 follows:

## ACTUARIAL SECTION

**Dates of Adoption:** The Projected Unit Credit Normal Cost Method was adopted June 30, 1989; the interest rate assumption was adopted June 30, 2010 and revised June 30, 2014 and again for June 30, 2016; all other assumptions were adopted June 30, 2016.

**Asset Valuation Method:** The actuarial value of assets is equal to the fair value of assets adjusted for any actuarial gains or losses from investment return incurred in the fiscal year recognized in equal amounts over the five year period following that fiscal year.

**Interest:** 7.00% per annum, compounded annually.

**Mortality: Post-Retirement Mortality** – 105% of the RP2014 Healthy Annuitant mortality table, sex distinct. No adjustment is made for post-disabled mortality. Generational mortality improvements were factored using the MP2014 two dimensional mortality improvement scales recently released by the Society of Actuaries. This provides a margin of future mortality improvements based on the experience study report of the State Employees' Retirement System for the period from July 1, 2012 to June 30, 2015 and the 2018 economic assumption review.

**Pre-Retirement Mortality, including terminated vested members prior to attaining age 50** – Based on 75% for males and 90% for females of the RP2014 Total Employee mortality table. 5% of deaths among active employees are assumed to be in the performance of their duty.

**Salary Increases:** Illustrative rates of increase per individual employee per annum, compounded annually: These increases include a component for inflation of 3.00% per annum.

Age	Annual Increase
25	7.42%
30	5.95%
35	5.05%
40	4.72%
45	4.33%
50	4.01%
55	3.80%
60	3.60%
65	3.22%
70	3.00%

**Retirement Rates:** Listed below are representative sample rates of retirement that vary by age. The rates apply only to employees who have fulfilled the service requirement necessary for retirement at any given age:

Retirement Rates for Regular Formula Employees		
Age	Tier 1	
	Male	Females
50	15.0%	25.0%
55	17.5%	16.0%
60	10.0%	16.0%
65	20.0%	25.0%
70	17.5%	20.0%

Retirement Rates for Regular Formula Employees	
Age	Tier 2
	67
70	35.0%
72	20.0%
75	100.0%

Retirement Rates for Alternative Formula Employees				
Age	Tier 1		Tier 2	
	Male	Females	Male	Females
50	60.0%	40.0%	-	-
55	35.0%	30.0%	-	-
60	30.0%	30.0%	50.0%	50.0%
65	55.0%	40.0%	55.0%	40.0%
70	50.0%	60.0%	50.0%	60.0%

## ACTUARIAL SECTION

**Termination:** Listed below are representative sample rates of termination that vary by age. It is assumed that terminated employees will not be rehired. The rates apply only to employees who have not fulfilled the service requirements necessary for retirement at any given age.

Service Years	Service-Based Withdrawal							
	Tier 1				Tier 2			
	General Employees		Alternative Formula Employees		General Employees		Alternative Formula Employees	
	Male	Females	Males	Females	Male	Females	Male	Females
0	.2300	.2300	.0325	.0600	.2700	.2500	.0500	.0775
1	.1200	.1200	.0325	.0450	.1400	.1600	.0350	.0475
5	.0425	.0475	.0175	.0300	.0500	.0600	.0200	.0325
10	.0250	.0250	.0150	.0200	.0250	.0350	.0175	.0225
15	.0150	.0150	.0100	.0150	.0150	.0150	.0100	.0150
20	.0150	.0100	.0100	.0150	.0150	.0150	.0100	.0150
25	.0150	.0100	.0100	.0150	.0150	.0150	.0100	.0150
30+	.0150	.0100	.0100	.0150	.0150	.0150	.0100	.0150

**Assets:** Assets available for benefits are used as described in the Illinois Compiled Statutes.

**Expenses:** As estimated and advised by SERS staff, based on current expenses and are expected to increase in relation to the projected capped payroll.

**Marital Status:** 85% of active male employees are assumed to be married, 65% of active females are assumed to be married. Actual marital status at benefit commencement is used for retirees.

**Spouse's Age:** The female spouse is assumed to be three years younger than the male spouse.

In addition to the above, other assumptions used include disability incidence, recovery from disability, mortality of disabled lives, remarriage rates, ages, and numbers of children and Social Security benefit levels.

**Post-retirement Benefit Increases:** Tier 1 - 3.0% annually, compounded. Tier 2 - 3.0% per year or one-half of the annual increase in the Consumer Price Index for the preceding year, whichever is less, on the original benefit.

**Experience Review:** Pursuant to state law, the System had the actuary perform this review for the three year period ended June 30, 2015. Additionally, the actuaries performed a review of economic assumptions in 2018.

**NOTE:** *The actuarial assumptions have been recommended by the actuary, and adopted by the System's Board of Trustees, at the dates indicated previously.*

## ACTUARIAL SECTION

For FY 2018, the following assumption changes were implemented:

- The rate of inflation decreased from 2.75% to 2.50%.
- The general wage inflation assumption was reduced from 3.25% to 3.00%.

Key assumption changes which were based on the most recently completed experience study and implemented in prior fiscal years' valuations included the following:

- The investment return assumption was decreased from 7.25% to 7.00%.
- 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.

### VALUATION RESULTS

	June 30, 2018
Actuarial Liability	
For Annuitants:	
For Benefit Recipients:	
Retirement Annuities	\$ 31,269,280,905
Survivor Annuities	1,743,964,994
Disability Annuities	540,719,519
Deferred:	
Retirement Annuities	6,459,891
Survivor Annuities	9,562,262
TOTAL	\$ 33,569,987,568
For Inactive Members:	
Eligible for Deferred Vested Pension Benefits	698,783,649
Eligible for Return of Contributions Only	44,938,026
TOTAL	\$ 743,721,675
For Active Members	\$ 13,611,973,550
Actuarial Present Value of Credited Projected Benefits	\$ 47,925,682,793
Actuarial Value of Assets	17,478,139,578
Unfunded Actuarial Present Value of Credited Projected Benefits	\$ 30,447,543,215

## ACTUARIAL SECTION

### SUMMARY OF AND CHANGES TO THE PLAN PROVISIONS

Refer to the Plan Summary and Legislative Section for a summary of the plan provisions and legislative amendments that were evaluated and considered by the actuary during the valuation process.

### SHORT-TERM SOLVENCY TEST

A short-term solvency test is one means of checking a system's progress under its funding program. In a short-term solvency test, the plan's present assets (primarily cash and investments) are compared with:

1. Active member contributions on deposit.
2. The liabilities for future benefits to present retired lives.
3. The liabilities for service already rendered by active members.

In a system that has been following level percent of payroll financing, the liabilities for service already rendered by active members (liability 3) should be partially covered by the remainder of present assets. If the system continues using level cost financing, the funded portion of liability 3 will increase over time, although it is very rare for a system to have its liability 3 fully funded.

### COMPUTED ACTUARIAL VALUES (in thousands of dollars)

Fiscal Year	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets*	Percentage of Actuarial Values Covered by Net Assets Available		
					(1)	(2)	(3)
2009	\$2,188,603	\$14,908,642	\$8,201,101	\$10,999,954	100.0%	59.1%	0.0%
2010	2,284,078	16,962,553	10,062,833	10,961,540	100.0	51.2	0.0
2011	2,365,334	18,247,534	10,782,140	11,159,837	100.0	48.2	0.0
2012	2,332,853	20,424,898	10,333,435	11,477,264	100.0	44.8	0.0
2013	2,374,437	22,102,837	10,243,491	11,877,419	100.0	43.0	0.0
2014	2,426,821	24,803,913	12,296,111	13,315,613	100.0	43.9	0.0
2015	2,480,787	26,170,735	12,091,888	14,741,736	100.0	46.8	0.0
2016	2,491,707	30,092,439	12,931,224	15,632,604	100.0	43.7	0.0
2017	2,495,796	31,927,643	12,277,909	16,558,874	100.0	44.0	0.0
2018	2,514,227	33,569,988	11,841,468	17,478,140	100.0	44.6	0.0

\* For fiscal years prior to 2009, the actuarial value of assets was equal to the fair value of assets. Beginning in fiscal year 2009, the actuarial value of assets was equal to the fair value of assets adjusted for any actuarial gains or losses from investment return incurred in the fiscal year recognized in equal amounts over the five year period following that fiscal year.

## ACTUARIAL SECTION

### RECONCILIATION OF UNFUNDED ACTUARIAL LIABILITY

	2018
Unfunded Liability, Beginning of Fiscal Year	\$ 30,142,474,735
Contributions Due	
Interest on the Unfunded Liability	2,109,973,231
Participants (includes Repayment of Refunds)	254,442,466
Total Normal Cost	668,709,844
Interest on Normal Cost	31,763,865
Total Due	<u>\$ 3,064,889,406</u>
Contributions Paid	
Participants (includes Repayment of Refunds)	\$ 254,442,466
Employing State Agencies and Appropriations	1,929,175,044
Interest on Contributions	75,134,006
Total Paid	<u>\$ 2,258,751,516</u>
Increase in the Unfunded Liability	<u>\$ 806,137,890</u>
Actuarial (Gains) Losses	
a. Salary Increases	\$ (287,352,188)
b. Investment Income	+ (95,232,463)
c. Demographic	95,471,795
Total Actuarial (Gain)	<u>\$ (287,112,856)</u>
Assumption Changes	<u>+ \$ (213,956,554)</u>
Total Increase(Decrease) in Actuarial Liability	<u>= \$ 305,068,480</u>
Unfunded Liability, End of Fiscal Year	\$ 30,447,543,215

## ACTUARIAL SECTION

### SUMMARY OF ACCRUED AND UNFUNDED ACCRUED LIABILITIES (Analysis of Funding)

In an inflationary economy, the value of the dollar decreases. This environment results in employees' pay and retirement benefits increasing in dollar amounts resulting in unfunded accrued liabilities which increase in dollar amounts, all at a time when the actual substance of these items may be decreasing.

Looking at just the dollar amounts of unfunded accrued liabilities can be misleading. The ratio of the unfunded accrued liabilities to active employee payroll provides an index which clarifies understanding. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the system.

Observation of this relative index over a period of years will give an indication of whether the system is becoming financially stronger or weaker.

### ACCRUED AND UNFUNDED ACCRUED LIABILITIES

Fiscal Year	Total Actuarial Liability	(in thousands of dollars)				
		Actuarial Value of Assets*	Net Position as a % of Actuarial Liability	Total Unfunded Actuarial Liability	Member Payroll	Unfunded Actuarial Liability as a % of Member Payroll
2009	\$ 25,298,346	\$ 10,999,954	43.5%	\$ 14,298,392	\$ 4,027,263	355.0%
2010	29,309,464	10,961,540	37.4	18,347,924	4,119,361	445.4
2011	31,395,008	11,159,837	35.6	20,235,171	4,211,186	480.5
2012	33,091,186	11,477,264	34.7	21,613,922	4,329,084	499.3
2013	34,720,765	11,877,419	34.2	22,843,346	4,236,191	539.2
2014	39,526,845	13,315,613	33.7	26,211,232	4,416,153	593.5
2015	40,743,410	14,741,736	36.2	26,001,674	4,453,684	583.8
2016	45,515,370	15,632,604	34.4	29,882,766	4,284,362	697.5
2017	46,701,348	16,558,874	35.5	30,142,475	4,195,778	718.4
2018	47,925,683	17,478,140	36.5	30,447,543	4,243,742	717.5

\* For fiscal years prior to 2009, the actuarial value of assets was equal to the fair value of assets. Beginning in fiscal year 2009, the actuarial value of assets was equal to the fair value of assets adjusted for any actuarial gains or losses from investment return incurred in the fiscal year recognized in equal amounts over the five year period following that fiscal year.

### SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase/(Decrease) In Average Pay
6/30/09	65,599	\$ 4,027,263,000	\$ 61,392	2.5%
6/30/10	64,143	4,119,360,892	64,222	4.6
6/30/11	66,363	4,211,186,269	63,457	(1.2)
6/30/12	62,732	4,329,083,716	69,009	8.7
6/30/13	61,545	4,236,191,257	68,831	(0.3)
6/30/14	62,844	4,416,152,691	70,272	2.1
6/30/15	63,273	4,453,683,664	70,388	0.2
6/30/16	61,317	4,284,362,301	69,872	(0.7)
6/30/17	60,612	4,195,777,563	69,224	(0.9)
6/30/18	61,397	4,243,741,707	69,120	(0.1)

## ACTUARIAL SECTION

### SCHEDULE OF RETIRANTS ADDED TO AND REMOVED FROM ROLLS

Fiscal Year	Beginning Balance	Additions	(Removals)	Ending Balance
2009	43,781	2,046	(1,261)	44,566
2010	44,566	2,416	(1,323)	45,659
2011	45,659	2,753	(1,410)	47,002
2012	47,002	4,360	(1,362)	50,000
2013	50,000	3,099	(1,105)	51,994
2014	51,994	2,904	(1,420)	53,478
2015	53,478	2,805	(1,481)	54,802
2016	54,802	3,325	(1,302)	56,825
2017	56,825	3,173	(1,545)	58,453
2018	58,453	2,882	(1,586)	59,749

### SCHEDULE OF SURVIVORS' ANNUITANTS ADDED TO AND REMOVED FROM ROLLS

Fiscal Year	Beginning Balance	Additions	(Removals)	Ending Balance
2009	10,104	713	(581)	10,236
2010	10,236	686	(597)	10,325
2011	10,325	715	(612)	10,428
2012	10,428	754	(680)	10,502
2013	10,502	752	(585)	10,669
2014	10,669	782	(632)	10,819
2015	10,819	771	(701)	10,889
2016	10,889	813	(659)	11,043
2017	11,043	813	(670)	11,186
2018	11,186	801	(643)	11,344

### SCHEDULE OF DISABILITY RECIPIENTS ADDED TO AND REMOVED FROM ROLLS

Fiscal Year	Beginning Balance	Additions	(Removals)	Ending Balance
2009	2,226	2,118	(2,047)	2,297
2010	2,297	2,236	(2,125)	2,408
2011	2,408	2,226	(2,278)	2,356
2012	2,356	1,884	(1,954)	2,286
2013	2,286	1,847	(1,746)	2,387
2014	2,387	1,698	(1,773)	2,312
2015	2,312	1,702	(1,751)	2,263
2016	2,263	1,704	(1,804)	2,163
2017	2,163	1,642	(1,639)	2,166
2018	2,166	1,528	(1,608)	2,086

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# STATISTICAL SECTION

The tables in this section present detailed information on benefit payments and recipients, members and employer contributions and miscellaneous demographic information.

**1. Financial Schedules: Pages 70-72**

These schedules present information about assets, liabilities, reserves and changes in fiduciary net position over a 10-year period.

Source: The System's Comprehensive Annual Financial Report (CAFR) for the relevant year.

**2. Member & Benefit Analysis: Pages 72-73**

These schedules show a breakdown of the characteristics of active and total employees, as well as a display of the number of beneficiary recipients by type and termination refund.

Source: Annual report and data produced from the System's electronic files for the relevant year.

**3. Benefit Demographics: Pages 74-76**

These schedules provide an overview of the types of benefits provided based upon the benefit formula: demographics of age, type of benefit, months of service, range of benefits and location of retirees.

Source: Annual report and data produced from the System's electronic files for the relevant year.

## STATISTICAL SECTION

### CHANGES IN FIDUCIARY NET POSITION

Fiscal Year	2009	2010	2011	2012
<b>Additions</b>				
Member contributions	\$ 242,227,432	\$ 246,172,971	\$ 254,201,379	\$ 259,122,881
Employer contributions:	774,910,344	1,095,545,856	1,127,886,796	1,391,416,375
Net investment income/(loss)	<u>(2,208,897,635)</u>	<u>799,895,861</u>	<u>1,930,208,393</u>	<u>5,975,369</u>
Total additions to /(deduction from) fiduciary net position	<u>(1,191,759,859)</u>	<u>2,141,614,688</u>	<u>3,312,296,568</u>	<u>1,656,514,625</u>
<b>Deductions</b>				
Benefit Payments:				
Retirement annuities	1,164,454,557	1,237,118,008	1,329,155,991	1,454,910,158
Survivors' annuities	73,697,450	89,516,980	95,118,041	101,136,325
Disability	46,513,406	48,312,629	53,056,325	56,098,869
Lump-sum payments	<u>15,548,262</u>	<u>15,693,575</u>	<u>14,733,290</u>	<u>15,228,249</u>
Total benefit payments	<u>1,300,213,675</u>	<u>1,390,641,192</u>	<u>1,492,063,647</u>	<u>1,627,373,601</u>
<b>Refunds:</b>				
Termination	10,262,279	9,922,582	10,971,215	12,241,107
Other	<u>4,597,208</u>	<u>5,351,592</u>	<u>26,604,714</u>	<u>11,259,218</u>
Total refunds	<u>14,859,487</u>	<u>15,274,174</u>	<u>37,575,929</u>	<u>23,500,325</u>
Administrative expenses	<u>10,681,376</u>	<u>11,720,755</u>	<u>13,734,961</u>	<u>15,705,561</u>
Total deductions from fiduciary net position	<u>1,325,754,538</u>	<u>1,417,636,121</u>	<u>1,543,374,537</u>	<u>1,666,579,487</u>
<b>Change in fiduciary net position</b>	<b><u>\$ (2,517,514,397)</u></b>	<b><u>\$ 723,978,567</u></b>	<b><u>\$ 1,768,922,031</u></b>	<b><u>\$ (10,064,862)</u></b>

## STATISTICAL SECTION

2013	2014	2015	2016	2017	2018
\$ 248,169,706	\$ 269,232,241	\$ 266,139,156	\$ 256,198,172	\$ 251,610,974	\$ 254,442,466
1,531,932,137	1,699,447,826	1,804,319,356	1,882,243,268	1,798,348,440	1,929,175,044
<u>1,501,238,191</u>	<u>2,169,346,258</u>	<u>681,377,052</u>	<u>(125,442,932)</u>	<u>1,812,878,460</u>	<u>1,257,039,835</u>
<u>3,281,340,034</u>	<u>4,138,026,325</u>	<u>2,751,835,564</u>	<u>2,012,998,508</u>	<u>3,862,837,874</u>	<u>3,440,657,345</u>
1,614,596,770	1,720,825,103	1,833,999,371	1,977,598,561	2,111,021,041	2,240,156,641
107,533,834	114,177,228	121,930,337	128,689,627	136,359,106	144,671,705
59,882,478	64,782,236	63,929,747	64,057,780	64,167,865	64,708,865
<u>17,952,573</u>	<u>17,278,072</u>	<u>14,998,980</u>	<u>20,155,235</u>	<u>17,072,771</u>	<u>15,294,811</u>
<u>1,799,965,655</u>	<u>1,917,062,639</u>	<u>2,034,858,435</u>	<u>2,190,501,203</u>	<u>2,328,620,783</u>	<u>2,464,832,022</u>
14,095,530	13,931,435	13,162,521	15,967,718	15,939,397	16,830,102
<u>10,194,872</u>	<u>9,151,379</u>	<u>9,966,454</u>	<u>10,741,012</u>	<u>10,668,614</u>	<u>10,639,246</u>
<u>24,290,402</u>	<u>23,082,814</u>	<u>23,128,975</u>	<u>26,708,730</u>	<u>26,608,011</u>	<u>27,469,348</u>
<u>17,471,327</u>	<u>16,615,105</u>	<u>16,547,823</u>	<u>16,126,997</u>	<u>15,957,439</u>	<u>15,257,526</u>
<u>1,841,727,384</u>	<u>1,956,760,558</u>	<u>2,074,535,233</u>	<u>2,233,336,930</u>	<u>2,371,186,233</u>	<u>2,507,558,896</u>
<b><u>\$ 1,439,612,650</u></b>	<b><u>\$ 2,181,265,767</u></b>	<b><u>\$ 677,300,331</u></b>	<b><u>\$ (220,338,422)</u></b>	<b><u>\$ 1,491,651,641</u></b>	<b><u>\$ 933,098,449</u></b>

## STATISTICAL SECTION

### ASSET BALANCES

FY Ended June 30	Cash	Receivables	Investments	Securities lending collateral with State Treasurer	Capital Assets, Net of Depreciation/Amortization	Total
2009	\$ 232,679,069	\$ 57,435,470	\$ 8,200,755,918	\$ -	\$ 2,574,759	\$ 8,493,445,216
2010	49,912,665	39,333,474	9,120,601,694	22,587,000	2,808,489	9,235,243,322
2011	54,940,085	41,167,867	10,882,484,004	26,414,000	2,676,348	11,007,682,304
2012	133,959,043	160,807,074	10,675,772,261	72,867,000	2,723,398	11,046,128,776
2013	146,354,061	145,440,601	12,176,459,191	113,169,000	2,792,664	12,584,215,517
2014	200,752,173	101,401,701	14,286,499,013	84,013,000	4,122,801	14,676,788,688
2015	170,646,589	128,747,086	14,967,254,053	64,779,000	5,272,553	15,336,699,281
2016	300,328,830	86,542,095	14,741,054,632	64,256,000	6,938,949	15,199,120,506
2017	227,542,784	89,108,754	16,322,605,337	63,393,000	7,701,569	16,710,351,444
2018	204,856,059	101,815,932	17,268,137,475	66,204,000	8,662,595	17,649,676,061

### LIABILITIES AND RESERVE BALANCES

RESERVES						
FY Ended June 30	Liabilities	Reserve For Member Contributions	Reserve For Interest Accumulations	Reserve For Future Operations	Total Reserves	Total
2009	\$15,593,128	\$2,188,602,984	\$1,537,128,750	\$4,752,120,354	\$8,477,852,088	\$8,493,445,216
2010	33,412,667	2,284,078,225	1,639,304,137	5,278,448,293	9,201,830,655	9,235,243,322
2011	36,929,618	2,365,334,319	1,724,204,960	6,881,213,407	10,970,752,686	11,007,682,304
2012	85,440,952	2,332,852,502	1,685,093,457	6,942,741,865	10,960,687,824	11,046,128,776
2013	183,915,043	2,374,437,475	1,733,896,564	8,291,966,435	12,400,300,474	12,584,215,517
2014	95,222,447	2,426,821,370	1,781,416,644	10,373,328,227	14,581,566,241	14,676,788,688
2015	77,832,709	2,480,786,913	1,836,247,980	10,941,831,679	15,258,866,572	15,336,699,281
2016	160,592,356	2,491,707,570	1,852,232,320	10,694,588,260	15,038,528,150	15,199,120,506
2017	180,171,652	2,495,796,008	1,864,814,438	12,169,569,346	16,530,179,792	16,710,351,444
2018	186,397,820	2,514,227,384	1,896,570,051	13,052,480,806	17,463,278,241	17,649,676,061

### NUMBER OF RECURRING BENEFIT PAYMENTS / TERMINATION REFUNDS

FY Ended June 30	Retirement Annuities	Survivors' Annuities	Disability* Benefits	Total Recurring Benefit Payments	Termination Refunds
2009	44,566	10,236	2,297	57,099	1,387
2010	45,659	10,325	2,408	58,392	1,420
2011	47,002	10,428	2,356	59,786	1,816
2012	50,000	10,502	2,286	62,788	1,964
2013	51,994	10,669	2,387	65,050	2,080
2014	53,478	10,819	2,312	66,609	2,467
2015	54,802	10,889	2,263	67,954	2,293
2016	56,825	11,043	2,163	70,031	2,792
2017	58,453	11,186	2,166	71,805	2,595
2018	59,749	11,344	2,086	73,179	2,384

*\* Includes individuals receiving total temporary disability payments under the Workers' Compensation Act.*

## STATISTICAL SECTION

### TOTAL MEMBERSHIP - COORDINATED/NONCOORDINATED

FY Ended June 30	COORDINATED MEMBERS			NONCOORDINATED MEMBERS			Total Male Members	Total Female Members	Total Members
	Male	Female	Total	Male	Female	Total			
2009	42,687	40,678	83,365	2,606	485	3,091	45,293	41,163	86,456
2010	41,835	39,838	81,673	2,512	470	2,982	44,347	40,308	84,655
2011	44,146	40,696	84,842	2,387	432	2,819	46,533	41,128	87,661
2012	43,364	39,325	82,689	2,298	386	2,684	45,662	39,711	85,373
2013	43,753	38,965	82,718	2,361	450	2,811	46,114	39,415	85,529
2014	44,296	39,724	84,020	2,414	589	3,003	46,710	40,313	87,023
2015	45,232	40,790	86,022	2,228	331	2,559	47,460	41,121	88,581
2016	44,826	40,165	84,991	2,135	311	2,446	46,961	40,476	87,437
2017	43,888	39,155	83,043	2,035	293	2,328	45,923	39,448	85,371
2018	43,761	39,872	83,633	2,208	298	2,506	45,969	40,170	86,139

### ACTIVE MEMBERSHIP - COORDINATED/NONCOORDINATED

FY Ended June 30	COORDINATED MEMBERS			NONCOORDINATED MEMBERS			Total Male Members	Total Female Members	Total Active Members	Annual Earnings Reported
	Male	Female	Total	Male	Female	Total				
2009	32,026	30,739	62,765	2,430	404	2,834	34,456	31,143	65,599	4,027,263,000
2010	31,363	30,077	61,440	2,325	378	2,703	33,688	30,455	64,143	4,119,360,892
2011	32,797	31,011	63,808	2,206	349	2,555	35,003	31,360	66,363	4,211,186,269
2012	31,073	29,252	60,325	2,102	305	2,407	33,175	29,557	62,732	4,329,083,716
2013	30,559	28,486	59,045	2,147	353	2,500	32,706	28,839	61,545	4,236,191,257
2014	30,843	29,344	60,187	2,185	472	2,657	33,028	29,816	62,844	4,416,152,691
2015	31,059	29,861	60,920	2,062	291	2,353	33,121	30,152	63,273	4,453,683,664
2016	30,180	28,937	59,117	1,951	249	2,200	32,131	29,186	61,317	4,284,362,301
2017	29,945	28,547	58,492	1,885	235	2,120	31,830	28,782	60,612	4,195,777,563
2018	29,960	29,162	59,122	2,035	240	2,275	31,995	29,402	61,397	4,243,741,707

### Active Membership - Tier Breakout

FY Ended June 30	Tier 1	Tier 2	Total Active Members
2013	55,271	6,274	61,545
2014	52,593	10,251	62,844
2015	49,433	13,840	63,273
2016	45,943	15,374	61,317
2017	43,046	17,566	60,612
2018	40,261	21,136	61,397

## STATISTICAL SECTION

### RETIREMENT ANNUITIES

#### Average Monthly Benefit For Current Year Retirees By Type

	Fiscal Year Ending June 30				
	2018	2017	2016	2015	2014
Not Coordinated with Social Security	\$ 4,119.42	\$ 3,741.43	\$ 3,968.65	\$ 2,962.91	\$ 2,929.30
Coordinated with Social Security	2,840.34	2,796.19	2,724.38	2,478.98	2,498.95
Alternative Formula	8,450.92	8,198.26	8,378.30	8,039.86	8,472.02
Dept. of Corrections/DHS - Special Formula - Not Coordinated with Social Security	-	-	5,663.39	2,445.56	5,309.68
Dept. of Corrections/DHS - Special Formula Coordinated with Social Security	4,519.67	4,632.01	4,471.71	4,441.76	4,366.85
Air Pilots - Coordinated with Social Security	-	-	-	5,520.60	5,693.40
<b>TOTAL AVERAGE</b>	<u>\$ 3,340.56</u>	<u>\$ 3,310.42</u>	<u>\$ 3,225.06</u>	<u>\$ 3,117.25</u>	<u>\$ 3,168.81</u>

### RETIREMENT ANNUITIES

#### Current Age of Active Recipients

Age	Fiscal Year Ending June 30				
	2018	2017	2016	2015	2014
Under 51	149	181	157	194	219
51-55	2,376	2,467	2,568	2,539	2,595
56-60	6,284	6,302	6,265	6,132	6,199
61-65	11,252	11,397	11,327	11,177	11,475
66-70	14,214	14,408	13,669	12,863	11,917
71-75	11,125	9,738	9,239	8,643	8,122
76-80	6,569	6,284	6,054	5,842	5,539
81-85	4,086	3,977	3,903	3,832	3,835
86-89	1,993	2,001	1,995	1,990	2,017
Over 89	1,701	1,698	1,648	1,590	1,560
Total	<u>59,749</u>	<u>58,453</u>	<u>56,825</u>	<u>54,802</u>	<u>53,478</u>
Average Age	<u>69.79</u>	<u>69.61</u>	<u>69.49</u>	<u>69.41</u>	<u>69.27</u>

### RETIREMENT ANNUITIES

#### Average Service (in months) for Current Year Retirees at Effective Date of Benefit

Fiscal Year Ending June 30	2018	2017	2016	2015	2014
Not Coordinated with Social Security	460.95	447.48	421.07	422.10	375.36
Coordinated with Social Security	318.05	319.51	317.30	302.83	309.08
Alternative Formula	313.50	304.09	313.90	327.95	319.85
Dept. of Corrections - Special Formula- Not Coordinated with Social Security	-	-	357.62	424.50	304.00
Dept. of Corrections -Special Formula- Coordinated with Social Security	302.82	310.52	311.52	311.48	317.97
Air Pilots - Coordinated with Social Security	-	-	-	300.50	297.25
<b>TOTAL AVERAGE</b>	<u>314.98</u>	<u>317.78</u>	<u>316.45</u>	<u>306.09</u>	<u>312.02</u>

# STATISTICAL SECTION

Annuitants by Benefit Range (Monthly) June 30, 2018						Survivors' by Benefit Range (Monthly) June 30, 2018					Occupational and Non-Occupational (Incl. Temp) Disabilities by Benefit Range (Monthly) June 30, 2018					
Benefit Range	Total	Cumulative Total	% of Total	Cumulative % of Total		Benefit Range	Total	Cumulative Total	% of Total	Cumulative % of Total	Benefit Range	Total	Cumulative Total	% of Total	Cumulative % of Total	
\$ 1 - 500	3,428	3,428	5.7%	5.7%	\$	1 - 500	2,573	2,573	22.7%	22.7%	\$	1 - 500	147	147	7.0%	7.0%
501 - 1,000	5,245	8,673	8.8%	14.5%		501 - 1,000	3,987	6,560	35.2%	57.9%		501 - 1,000	320	467	15.4%	22.4%
1,001 - 2,000	11,204	19,877	18.8%	33.3%		1,001 - 2,000	2,829	9,389	24.9%	82.8%		1,001 - 2,000	509	976	24.4%	46.8%
2,001 - 3,000	10,800	30,677	18.0%	51.3%		2,001 - 3,000	1,331	10,720	11.7%	94.5%		2,001 - 3,000	530	1,506	25.4%	72.2%
3,001 - 4,000	10,292	40,969	17.3%	68.6%		3,001 - 4,000	499	11,219	4.4%	98.9%		3,001 - 4,000	364	1,870	17.4%	89.6%
4,001 - 5,000	8,401	49,370	14.0%	82.6%		4,001 - 5,000	112	11,331	1.0%	99.9%		4,001 - 5,000	168	2,038	8.1%	97.7%
5,001 - 7,500	8,075	57,445	13.5%	96.1%		5,001 - 7,500	13	11,344	0.1%	100.0%		5,001 - 7,500	47	2,085	2.3%	100.0%
Over 7,500	2,304	59,749	3.9%	100.0%		Over 7,500	-	11,344	0.0%	100.0%		Over 7,500	1	2,086	0.0%	100.0%

## ACTIVE RETIREES BY STATE



## STATISTICAL SECTION

### Average Benefit Payments Fiscal Years 2009 through 2018

Retirement Effective Dates	Years Credited Service						
	0-5	5-10	10-15	15-20	20-25	25-30	30+
<b>Period 7/1/08 to 6/30/09</b>							
Average monthly benefit	\$ -	\$ 645	\$ 835	\$ 1,398	\$ 2,343	\$ 3,598	\$ 3,051
Final average salary	\$ -	\$ 4,308	\$ 4,075	\$ 4,360	\$ 4,926	\$ 5,783	\$ 5,402
Number of retired members	-	91	187	191	409	509	659
<b>Period 7/1/09 to 6/30/10</b>							
Average monthly benefit	\$ -	\$ 587	\$ 817	\$ 1,437	\$ 2,438	\$ 3,687	\$ 3,243
Final average salary	\$ -	\$ 3,975	\$ 4,046	\$ 4,623	\$ 5,193	\$ 5,928	\$ 5,537
Number of retired members	-	101	188	233	555	617	722
<b>Period 7/1/10 to 6/30/11</b>							
Average monthly benefit	\$ -	\$ 597	\$ 852	\$ 1,460	\$ 2,591	\$ 3,936	\$ 3,273
Final average salary	\$ -	\$ 4,089	\$ 4,383	\$ 4,894	\$ 5,549	\$ 6,502	\$ 5,858
Number of retired members	-	96	233	224	532	747	921
<b>Period 7/1/11 to 6/30/12</b>							
Average monthly benefit	\$ -	\$ 740	\$ 944	\$ 1,401	\$ 2,620	\$ 3,989	\$ 3,514
Final average salary	\$ -	\$ 4,939	\$ 4,739	\$ 4,788	\$ 5,687	\$ 6,491	\$ 5,922
Number of retired members	-	104	268	328	843	1,226	1,591
<b>Period 7/1/12 to 6/30/13</b>							
Average monthly benefit	\$ -	\$ 670	\$ 1,041	\$ 1,568	\$ 2,678	\$ 3,845	\$ 3,471
Final average salary	\$ -	\$ 4,852	\$ 4,971	\$ 5,285	\$ 5,854	\$ 6,641	\$ 6,176
Number of retired members	-	99	312	299	574	813	1,002
<b>Period 7/1/13 to 6/30/14</b>							
Average monthly benefit	\$ -	\$ 637	\$ 1,130	\$ 1,565	\$ 2,870	\$ 4,115	\$ 3,873
Final average salary	\$ -	\$ 4,479	\$ 5,322	\$ 5,422	\$ 6,114	\$ 6,866	\$ 6,580
Number of retired members	-	81	239	291	571	826	896
<b>Period 7/1/14 to 6/30/15</b>							
Average monthly benefit	\$ -	\$ 742	\$ 1,114	\$ 1,742	\$ 2,769	\$ 4,062	\$ 3,902
Final average salary	\$ -	\$ 5,213	\$ 5,391	\$ 5,785	\$ 6,173	\$ 6,959	\$ 6,751
Number of retired members	-	88	260	310	541	785	821
<b>Period 7/1/15 to 6/30/16</b>							
Average monthly benefit	\$ -	\$ 686	\$ 1,130	\$ 1,768	\$ 2,792	\$ 3,861	\$ 4,011
Final average salary	\$ -	\$ 4,750	\$ 5,512	\$ 5,650	\$ 6,421	\$ 6,918	\$ 6,854
Number of retired members	-	92	227	345	634	884	1,148
<b>Period 7/1/16 to 6/30/17</b>							
Average monthly benefit	\$ -	\$ 754	\$ 1,062	\$ 1,804	\$ 3,023	\$ 3,952	\$ 4,074
Final average salary	\$ -	\$ 5,401	\$ 5,332	\$ 6,040	\$ 6,674	\$ 7,093	\$ 7,005
Number of retired members	-	82	238	356	535	879	1,090
<b>Period 7/1/17 to 6/30/18</b>							
Average monthly benefit	\$ -	\$ 666	\$ 1,113	\$ 2,016	\$ 3,006	\$ 4,039	\$ 4,117
Final average salary	\$ -	\$ 4,934	\$ 5,463	\$ 5,917	\$ 6,631	\$ 7,088	\$ 7,193
Number of retired members	-	94	207	316	534	768	966

# **PLAN SUMMARY & LEGISLATIVE SECTION**

## PLAN SUMMARY

# SUMMARY OF RETIREMENT SYSTEM PLAN (As of June 30, 2018)

### 1. Purpose

The State Employees' Retirement System of Illinois, a state agency, provides an orderly means whereby aged or disabled employees may be retired from active service without prejudice or hardship and enables the employees to accumulate reserves for themselves and their dependents for old age, disability, death and termination of employment.

The single employer defined benefit plan is comprised of two tiers of contributions requirements and benefit levels.

Tier 1 applies to any person who was a member or participant prior to January 1, 2011 of any reciprocal retirement system or pension fund established under the provisions of 40 ILCS 5 except Articles 2, 3, 4, 5, 6 or 18.

Tier 2 applies to any person who first becomes a member or participant January 1, 2011 or later of any reciprocal retirement system or pension fund established under the provisions of 40 ILCS 5.

The provisions below apply to both Tier 1 and 2 employees except where noted.

### 2. Administration

Responsibility for the operation of the System and the direction of its policies is vested in a Board of Trustees consisting of thirteen members. The administration of the System is the responsibility of the Executive Secretary who is appointed by the Board of Trustees. Administrative policies and procedures are designed to ensure an accurate accounting of the funds of the System and prompt payment of claims for benefits within the applicable statutes.

### 3. Employee Membership

Generally, all persons who entered state service prior to December 1, 2010, became members of the System after serving a six month qualifying period unless their position was subject to membership in another state supported system. After November 30, 2010, all employees entering state service 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. Other exceptions are identified by the law.

### 4. Member Contributions & Formulas

Members are required to contribute a percentage of salary as their share of meeting the cost of the various benefits. They receive a percentage of their final average compensation as their monthly benefit. This benefit is calculated by multiplying the appropriate formula times the years of service times the final average compensation.

#### Regular Formula:

	Contribution Rate:	Retirement Benefit Formula:
A. Member with Social Security (Coordinated)	4%	1.67%
B. Member without Social Security (Non-Coordinated)	8%	2.20%

#### Alternative Formula:

	Contribution Rate:	Retirement Benefit Formula:
A. Member with Social Security (Coordinated)	8.5%	2.50%
B. Member without Social Security (Non-Coordinated)	12.5%	3.00%

Members coordinated with Social Security also pay the current Social Security tax rate.

Tier 2 salary subject to contributions is capped in accordance with the statute governing the System. This cap is increased each year by 3% or ½ of the percentage increase in the consumer price index-u, whichever is less.

## PLAN SUMMARY

All positions are under the regular formula except as detailed below.

### 5. Alternative Formula Positions

Tier 1 positions under the alternative formula without Social Security are: State policemen, Special Agents, Fire Fighters, Secretary of State Investigators, Conservation Police Officers, Department of Revenue or the Illinois Gaming Board Investigators, Central Management Services Police Officers, Mental Health Police Officers, Dangerous Drug Investigators, State Police Investigators, Attorney General Investigators, Controlled Substance Inspectors, State's Attorney Appellate Prosecutor Investigators, Commerce Commission Police Officers and Arson Investigators.

Tier 1 positions under the alternative formula with or without Social Security are: Security employees of the Departments of Corrections, Juvenile Justice and Human Services, Air Pilots and State Highway Maintenance Workers.

Tier 2 positions under the alternative formula without Social Security are: State Policemen and Fire Fighters.

Tier 2 positions under the alternative formula with Social Security are: Correction Officers at the Departments of Corrections and Juvenile Justice.

### 6. Final Average Compensation: Retirement

Tier 1 Regular Formula:

Final average compensation is the monthly average of the highest 48 consecutive months of wages within the last 120 months of wages. The average of the last 12 months cannot exceed the 48 month average by more than 25%.

Tier 1 Alternative Formula:

For members in service prior to 1/1/1998, the final average compensation is the highest of the three calculations listed below. For members in service after 12/31/1997, the final average compensation is the highest of either number 1 or 2 listed below.

1. Final monthly rate of pay in the alternative formula position. The final rate of pay cannot exceed the average of the last 24 months by more than 15%.
2. The monthly average of the last 48 months of wages.
3. The monthly average of the highest 48 consecutive months of wages with the last 120 months of wages.

Tier 2 Regular Formula and Alternative Formula:

Final average compensation is the monthly average of the highest 96 consecutive months of wages within the last 120 months of wages. The salary for any calendar year is capped in accordance with the statute governing the System. This cap is increased each calendar year by 3% or ½ of the percentage increase in the consumer price index, whichever is less.

### 7. Retirement Annuity

#### A. Qualification of a Member

A member's state service must be terminated by resignation, layoff, discharge or dismissal to be eligible to receive a retirement annuity.

Tier 1 Regular Formula:

A member must have at least 8 years of service to be eligible for a benefit under any circumstances.

1. Age 60;
2. Age and service add up to 85 years; or

## PLAN SUMMARY

3. Age 55 to 60 with 25 to 30 years of service credit with the retirement annuity reduced  $\frac{1}{2}$  of 1% for each month under age 60.

Tier 1 Alternative Formula:

1. Age 50 with 25 years in the alternative formula, or
2. Age 55 with 20 years in the alternative formula.

Tier 2 Regular Formula:

A member must have at least 10 years of service to be eligible for a benefit under any circumstances.

1. Age 67; or
2. Age 62 with the retirement annuity reduced  $\frac{1}{2}$  of 1% for each month under age 67.

Tier 2 Alternative Formula:

1. Age 60 with 20 years in the alternative formula.

### **B. Amount of Retirement Annuity**

Tier 1 and Tier 2 Regular Formula, Alternative Formula and Special Formula

Maximum benefit under the Regular Formula is 75% of the Final Average Compensation. Maximum Benefit under the Alternative Formula is 80% of the Final Average Compensation.

Minimum benefit is \$15.00 per year of service with Social Security and \$25.00 per year of service without Social Security.

Pension Computation:

1. Years of service X Applicable formula(s) X Applicable Final Average Compensation = Unreduced Monthly Benefit
2. Unreduced monthly benefit X reduction percent = Reduced Monthly Benefit (if applicable).

Special Formula: This formula applies only to Tier 1 Alternative Formula service as security employees of the Departments of Corrections and Juvenile Justice and the Department of Human Services who have 20 years of total state service and some service, but less than 20 years in the alternative formula. These individuals must meet the eligibility requirements under the regular formula and they receive 2.5% or 3.0% on their alternative formula service as security employees and 1.67% or 2.2% on their regular formula service.

Alternative formula refund: Members with alternative formula service who do not qualify for the alternative formula and choose to retire under the regular formula receive a refund of the difference in contributions between the alternative formula and the regular formula.

Widow survivor refund: Members who retire and do not have anyone eligible for survivors' benefits receive a refund of the contributions for the benefit. The contribution rate for the widow survivor benefit is  $\frac{1}{2}$  of 1% for members with Social Security and 1% for members without Social Security.

### **C. Optional Forms of Payment:**

Reversionary Annuity: A member may elect to receive a smaller retirement annuity during his lifetime in order to provide a designated dependent with a lifetime income. That payment would be in addition to any other benefit payable by the system.

## PLAN SUMMARY

**Level Income:** A member who contributes to Social Security as a state employee may elect to have their retirement annuity payments increased before the age at which the member can receive Social Security benefits and reduced after that age to provide a uniform retirement annuity income throughout their retired life. To be eligible for this election, the member must have established eligibility for a Social Security retirement annuity.

**Social Security Offset Removal:** A member with Social Security can elect to have their pension reduced by 3.825% so that the Social Security offset on survivor benefits in the law will not apply to their eligible survivors.

A retiree who has made this election may only make an irrevocable revocation of the reduction of their retirement annuity if there is a change in marital status due to death or divorce. The retiree is not entitled to reimbursement of any benefit reduction prior to the revocation.

### D. Annual Increase in Benefit:

**Tier 1 Regular Formula:** 3% compounded each year on January 1, after member has been on benefits for one full calendar year. If a member elects to take a reduced pension, they do not receive their first increase until January 1st after they turn 60 and have been on benefits for one full calendar year.

**Tier 1 Alternative Formula:** 3% compounded each January 1st after member turns 55 and has been on benefits for a full calendar year.

**Tier 2 Regular Formula:** 3% or  $\frac{1}{2}$  of the percentage increase in the consumer price index-u, whichever is less, computed on the original benefit each January 1st after member is 67 and has been on benefits for a full calendar year.

**Tier 2 Alternative Formula:** 3% or  $\frac{1}{2}$  the percentage increase in the consumer price index-u, whichever is less, computed on the original benefit each January 1st after member is 60 and has been on benefits for a full calendar year.

## 8. Survivors' Annuity

### A. Qualifications of Survivor Tier 1 and Tier 2

If death occurs after termination of state service and the member was not receiving a retirement annuity, the Tier 1 member must have established at least 8 years of service credit and the Tier 2 member must have established at least 10 years of service credit.

An eligible spouse qualifies at age 50 or at any age if the spouse is caring for any unmarried children of the member under age 18 (age 22 if a full time student) or over 18 if mentally or physically disabled and unable to work; unmarried children under age 18 (age 22 if a full time student) if no spouse survives; or dependent parents at age 50 if neither an eligible spouse nor eligible children survive the member.

A spouse that is the sole nominated beneficiary and sole survivor may elect other death benefits as described in Number 11.

### B. Final Average Compensation: Death

#### Tier 1

For a full time member, the final average compensation is the higher of the monthly rate of compensation or the monthly average of the highest 48 consecutive months of wages within the last 120 months of wages. If a member has less than 48 months of service, the total wages are divided by the total months of service to arrive at the monthly average. If a member is part time, the monthly rate is equal to the wages received during the last month a member received a full month of service credit before death.

## PLAN SUMMARY

### Tier 2

Final average compensation is the monthly average of the highest 96 months of wages within the last 120 months of wages. If a member has less than 96 months of service, the total wages are divided by the total months of service to arrive at the monthly average. The salary for any calendar year is capped in accordance with the statute governing the System. This cap is increased each calendar year by 3% or ½ of the percentage increase in the consumer price index-u, whichever is less.

### **C. Amount of Payment**

#### Tier 1

If the member's death occurs before retirement, the named beneficiary receives a lump sum refund of all the member's retirement contributions plus the interest credited to the member's account, excluding contributions for widow and survivors' benefits. A single lump sum payment of \$1,000 is also made to the qualified survivor of the member.

An eligible spouse receives a monthly annuity equal to 30% of the member's final average compensation subject to a maximum of \$400.

If children of the member are under the care of the spouse, the annuity is increased for each child, subject to a maximum of \$600 or 80% of final average compensation.

If only eligible children survive, the monthly annuity may not exceed \$600 or 80% of the final average compensation, whichever is less. The maximum combined monthly payment to parents may not exceed \$400.

If the member's death occurs after termination of state employment, but before the member receives a retirement annuity, the monthly benefit is the same as during active employment or 80% of the earned retirement annuity at date of death.

The minimum total survivor benefit payable to the survivors; annuity beneficiaries of a deceased member or annuitant shall be 50% of the amount of retirement annuity that was or would have been payable to the deceased member on the date of death.

For survivors of retired members who were covered by Social Security and who did not elect the Social Security offset removal option, monthly benefits payable are reduced by one-half of the amount of benefits they are eligible to receive from Social Security from the deceased member's account. The Social Security offset may not reduce the benefit by more than 50%. The offset does not apply to the survivor of members who die before receiving retirement benefits whether active or inactive, survivors of members who retired prior to January 1, 1998 and survivors who were receiving benefits prior to July 1, 2009. For survivors of retired members who were covered by Social Security and did elect the Social Security offset removal option, the offset does not apply.

#### Tier 2

A single lump sum payment of \$1,000 and a monthly benefit of 66 2/3% of the members earned pension at death. This benefit is allocated among all eligible survivors.

For survivors of retired members who were covered by Social Security as a state employee and who did not elect the social security offset removal option, monthly benefits payable are reduced by one-half of the amount of benefits they are eligible to receive from Social Security from the deceased member's account. The Social Security offset may not reduce the benefit by more than 50%. The offset does not apply to members who die before receiving retirement benefits whether active or inactive. For survivors of retired members who were covered by Social Security and elected the Social Security offset removal option, the offset does not apply.

#### **D. Duration of Payment**

The monthly annuity payable to a spouse terminates upon death or is suspended until age 50 if there are no longer any qualifying minor children; to children upon death, marriage, or attainment of age 18 (age 22 if a full time student), except for a child who at age 18 is physically or mentally disabled and unable to accept gainful employment, which terminate at death or gainful employment. Dependent parents' benefits terminate at death or remarriage.

#### **E. Annual Increase in Benefit**

##### Tier 1

The survivor benefit is increased by 3% each January 1, after receipt of benefits for one full year. Survivors of retired members receive an increase on January 1 following the commencement of the benefit.

##### Tier 2

The benefit is increased by 3% or ½ of the percentage increase in the consumer price index-u, whichever is less, computed on the original benefit amount each January 1, after receipt of benefits for one full calendar year. Survivors of retired members increase on January 1 following the commencement of the benefit.

### **9. Widow's Annuity (Tier 1 only)**

The widow of a male member who was a participant in the System prior to July 19, 1961, may have the option of taking a Widow's Annuity rather than the Survivors' Annuity.

#### **A. Qualification of a Widow**

An eligible widow receives a Widow's Annuity if she is age 50 or over or has in her care any of the member's unmarried children under age 18 (age 22 if a full time student). If she is not age 50 and has no such children in her care, she becomes eligible at age 50.

#### **B. Amount of Payment**

The Widow's Annuity consists of a lump sum payment of \$500, plus a monthly annuity equal to 50% of the retirement annuity earned or received by the member at the date of death.

If the widow has in her care eligible children of the member, the monthly annuity is increased 5% because of each child, subject to a maximum payment equal to 66 2/3% of the earned retirement annuity.

Monthly benefits payable to a widow of a member who was covered by Social Security as a state employee are reduced by one-half of the amount of benefits she is eligible to receive from Social Security as a widow. The Social Security offset may not reduce the benefit by more than 50%. The offset does not apply to the members who die before receiving retirement benefits whether active or inactive, widows of members who retired prior to 1/1/1998 and widows who were receiving benefits prior to July 1, 2009.

#### **C. Duration of Payment**

The monthly payment to the widow continues for her lifetime or is suspended until age 50 if there are no longer any qualifying minor children. If the amount of benefit was increased because of eligible children, it is adjusted downward as these children's benefits are terminated due to death, marriage or attainment of age 18 (age 22 if a full time student).

#### **D. Annual Increase in Benefit**

The widow's benefit is increased by 3% each January 1, after receipt of benefits for one full year. Widows of retired members receive the increase on January 1 following the commencement of the benefit.

## 10. Occupational Death Benefit

### A. Qualification of Survivors

If a member's death results from a job related cause, the spouse may be eligible for an Occupational Death Benefit. If only unmarried children under age 18 (age 22 if a full time student) survive, they may be eligible for the benefit. If neither a spouse nor eligible children survive, a dependent father or mother may be eligible.

### B. Amount of Payment

The nominated beneficiary receives a lump sum payment consisting of all contributions made by the member plus the interest credited to the member's account. A surviving spouse is entitled to a monthly benefit equal to 50% of the member's final average compensation.

If children age 18 (age 22 if a full time student) also survive, the annuity is increased by 15% of such average because of each child subject to a maximum of 75%. If no eligible spouse and children under age 18 (age 22 if a full time student) survive, each child receives a monthly allowance of 15% of the final average compensation. The combined payment to children may not exceed 50% of the member's final average compensation.

If there is no eligible spouse or eligible children, a benefit of 25% of final average compensation is payable to each surviving dependent parent for life.

In all cases, the monthly benefit is reduced by any payments awarded under the Workers' Compensation Act or Workers' Occupational Diseases Act.

### C. Duration of Payment

The monthly annuity payable to a spouse or a dependent parent terminates at death; to children at death, or attainment of age 18 (age 22 if a full time student), or marriage.

### D. Annual Increase in Benefit

Tier 1

The Occupational Death Benefit is increased by 3% each January 1 following the first anniversary of the annuity.

Tier 2

The Occupational Death Benefit is increased by 3% or ½ of the percentage increase in the consumer price index-u, whichever is less, computed on the original benefit each January 1, following the first anniversary of the annuity.

## 11. Other Death Benefits

If the beneficiary or beneficiaries of the member do not qualify for any of the previously described death benefits, one of the following benefits is payable:

### A. Before Retirement

If a member's death occurred while in state service, the benefit consists of:

1. A refund of all contributions plus the interest credited to the member's account;
2. A payment equal to one month's salary for each full year of service credit not to exceed six month's salary.

If the member had terminated state service, but not yet qualified for a retirement annuity, the benefit consists of a refund of all the member's contributions to the System plus the interest credited to the member's account.

## **B. After Retirement**

The benefit consists of a lump sum payment equal to the excess of contributions plus the interest credited to the member's account over the total amount of retirement annuity payments made to the member. The minimum payment is \$500.

### **12. Final Average Compensation All Disability Benefits**

#### **Tier 1**

For a full time member, the final average compensation is the higher of the monthly rate of compensation or the monthly average of the highest 48 consecutive months of wages within the last 120 months of wages. If a member has less than 48 months service, the total wages are divided by the total months of service to arrive at the monthly average.

If a member is part time, the monthly rate is equal to the wages received during the last month a member received a full month of service credit before disability.

#### **Tier 2**

Final average compensation is the monthly average of the highest 96 months of wages within the last 120 months of wages. If a member has less than 96 months, the total wages are divided by the total months of service to arrive at the monthly average. The salary for any calendar year is capped in accordance with the statute governing the System. This cap is increased each calendar year by 3% or ½ of the percentage increase in the consumer price index-u, whichever is less.

### **13. Non-Occupational Disability Benefits**

#### **A. Qualification and Amount of Payment**

Available to any member who has established at least 18 months of creditable service and who has been granted a disability leave of absence by employing agency. The benefit is 50% of final average compensation, plus a credit to the member's account of service and contributions. It begins on the 31st day of absence from service on account of disability (including any periods for which sick pay was received).

If the member has Social Security coverage as a state employee, the benefit payable by the System is reduced by the amount of any disability or retirement payment to which he is entitled under Social Security.

#### **B. Duration of Payment**

The member is eligible for the monthly benefit until the occurrence of any of the following events:

1. Disability ceases;
2. Resumption of gainful employment;
3. Payments are made for a period of time equal to one-half of the service credit established as of the date disability began;
4. Attainment of age 65, if benefit commenced prior to the attainment of age 60;
5. The fifth anniversary of the effective date of the benefit if the benefit commenced on or after the attainment of age 60;
6. Death of a member.

#### **C. Increase in Benefit**

The Nonoccupational Disability Benefit shall be increased by 7% on January 1, following the fourth anniversary of the benefit and 3% each year thereafter.

## 14. Occupational Disability Benefits

### A. Qualification and Amount of Payment

Provided for any member who becomes disabled as the direct result of an injury or disease arising out of and in the course of state employment.

The benefit is 75% of final average compensation, plus a credit to the member's account of service and contributions. The cash benefit is reduced by any payment received under the Workers' Compensation Act or Workers' Occupational Diseases Act.

### B. Duration of Payment

Monthly benefits are payable until the occurrence of any of the following events:

1. Disability ceases;
2. Resumption of gainful employment;
3. Attainment of age 65, if benefit commenced prior to the attainment of age 60;
4. The fifth anniversary of the effective date of the benefit if the benefit commenced on or after the attainment of age 60;
5. Death of a member.

### C. Increase in Benefit

The Occupational Disability Benefit shall be increased by 7% on January 1, following the fourth anniversary of the benefit and 3% each year thereafter.

## 15. Temporary Disability Benefits

### A. Qualification and Amount of Payment

Available to any member who becomes disabled, has established at least 18 months of creditable service, has been denied benefits under the Workers' Compensation Act or the Workers' Occupational Diseases Act, or had benefits terminated, and has filed an appeal with the Illinois Workers' Compensation Commission. The benefit is 50% of final average compensation, plus a credit to the member's account of service and contributions.

The benefit shall begin to accrue on the 31st day of absence from service and shall be payable upon the expiration of 31 days from the day the member last received compensation.

## PLAN SUMMARY

If the member has Social Security coverage as a state employee, the benefit payable to the System is reduced by the amount of any disability or, if age 65, any retirement payment to which he is eligible under Social Security.

### **B. Duration of Payment**

The member is eligible for the monthly benefit until the occurrence of any of the following events:

1. Disability ceases;
2. Resumption of gainful employment;
3. Payments are made for a period of time equal to one-half of the service credit established as of the date disability began;
4. Attainment of age 65, if benefit commenced prior to the attainment of age 60;
5. The fifth anniversary of the effective date of the benefit if the benefit commenced on or after the attainment of age 60;
6. Death of a member;
7. Benefits are paid or awarded under the Workers' Compensation Act or the Workers' Occupational Diseases Act.

### **16. Separation Benefits**

Upon termination of state employment by resignation, discharge, dismissal or layoff, a member may obtain a refund of the contributions made to the System, excluding interest. The member must be off the payroll for 14 days to be eligible for a refund. By accepting a refund, a member forfeits all accrued rights and benefits in the System for himself and his beneficiaries.

## LEGISLATIVE AMENDMENTS

Legislative amendments with an effective date during fiscal year 2018 having an impact on the System:

**Senate Bill 0042** (Public Act 100-0023; effective July 6, 2017)

Provides that the Board of Trustees is to implement a Hybrid Plan “as soon as possible” by adopting a Board resolution. Such plan will be available to members that first join the System on or after the implementation date and who are not coordinated with Social Security. In addition, those current Tier 2 members not coordinated with social security may irrevocably elect to participate in the Hybrid plan. The election process for current Tier 2 members shall be developed by the System.

The Hybrid plan shall consist of a defined benefit component as well as a defined contribution component. New members eligible for the plan shall have the choice to elect to participate in this plan, or the Tier 2 plan, but must make the election within 30 days of becoming enrolled in the System. The defined contribution component must attain qualified plan status and receive necessary approvals from the IRS prior to the enrollment of any members into the plan.

Furthermore, PA 100-0023 requires that any changes in liabilities resulting from assumption modifications shall be smoothed over a five-year period. Beginning in fiscal year 2018, State contribution rate changes due to changes in the actuarial assumptions will be phased-in over a five-year period. In addition, any actuarial assumption changes that impacted the State contribution rate in fiscal years 2014 through 2017 are to be smoothed over a five-year period applying only the portion of the five-year phase in that is applicable to fiscal years on and after 2018. No later than November 1, 2017, the Board shall recalculate and recertify the FY 2018 contribution factoring the changes to the required State contribution formula resulting from this legislation.

**House Bill 0350** (Public Act 100-0334; effective August 25, 2017)

Provides that an eligible survivor of a member shall be ineligible for benefits if convicted of any felony relating to, arising out of, or in connection with the service of the member that earned such benefit.

**Senate Bill 1519** (Public Act 100-0019; effective January 1, 2018)

Adjusts the educational requirement from a specific bachelor’s or advanced degree (criminal justice, psychology, etc.) to any bachelor’s or advanced degree for certain employees of the Department of Juvenile Justice (DJJ) with job duties to either participate or assist in the rehabilitative and vocational training of delinquent youths, supervise the daily activities involving direct and continuing responsibility for the youth’s security, welfare and development, or participate in the personal rehabilitation of delinquent youth by training, supervising, and assisting lower level personnel who perform these duties.

Additionally, Public Act 100-0019 amends the SERS article in the compiled statutes to mirror this change in the alternative formula requirements.

**House Bill 3342** (Public Act 100-0587; effective June 4, 2018)

Creates an accelerated benefit payment program election for SERS members based on certain eligibility factors.

Members who are Tier 1 and eligible for a retirement annuity but have never received one can elect to participate in the automatic annual increase (AAI) accelerated benefit upon termination of service. The member forfeits all rights to future 3% compounded automatic annual increases in favor of a 1.5% automatic annual increase (not compounded) that begins on January 1 of the later of their retirement anniversary or their sixty-seventh birthday. Additionally the member receives 70% of the actuarially determined present value of the difference in the two AAI programs

Members (tier 1 or 2) who are vested but inactive that have not yet received a retirement annuity can elect to participate in the vested inactive accelerated benefit program. The member electing this option forfeits all rights to future benefit payments but retains access to state retiree healthcare. Additionally, the member receives 60% of the actuarially determined present value of the retirement benefits that the member is entitled to at the date of the election.

## LEGISLATIVE SECTION

Accelerated benefit payments will be funded by issuance of bonds. The ability to participate in the accelerated benefit program expires June 30, 2021. In June 2019, the fiscal year 2019 employer contribution will also be recertified based on the participation level in the accelerated benefit programs.

### NEW LEGISLATION

Legislative amendments with an effective date subsequent to June 30, 2018 having an impact on the System:

**House Bill 5611** (Public Act 100-0611; effective July 20, 2018)

Provides that certain SERS members, following their consolidation into the Department of Central Management Services from the Department of Corrections or the Department of Juvenile Justice, shall continue to receive alternative formula retirement credits for their service after the transfer.