



STATE TEACHERS  
RETIREMENT SYSTEM  
OF OHIO

2013

**COMPREHENSIVE**  
Annual Financial Report

Fiscal Years Ending  
June 30, 2013 and 2012





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RETIREMENT SYSTEM  
OF OHIO

2013

# COMPREHENSIVE Annual Financial Report

Prepared through the joint efforts of the STRS Ohio staff.  
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614.227.4090 • [www.strsoh.org](http://www.strsoh.org)

Fiscal Years Ending  
June 30, 2013 and 2012



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Retirement System of Ohio**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2012**

Executive Director/CEO

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*Guiding the members of the Retirement Board is their collective belief that Ohio’s public educators deserve comprehensive benefits and quality service from their retirement system during their careers and in retirement. The Retirement Board provides the direction, fiduciary oversight and policies that enable STRS Ohio to fulfill its mission of partnering with STRS Ohio members in helping to build retirement security.*

*The Retirement Board is composed of 11 members as follows: five elected contributing members; two elected retired members; an investment expert appointed by the governor; an investment expert appointed jointly by the speaker of the Ohio House of Representatives and the Ohio Senate president; an investment expert designated by the treasurer of state; and the superintendent of public instruction or his designated investment expert. These individuals devote hundreds of volunteer hours in service to STRS Ohio.*

*Robert Stein and James McGreevy were reelected to retired teacher member seats on the board during the May 2013 election. The term for these two seats began Sept. 1, 2013, and runs through Aug 31, 2017. Carol Correthers was unopposed in the May 2013 contributing member election and will continue in her seat through Aug. 31, 2017.*

*In December 2012, Senior Staff member Terri Bierdeman retired after directing the governmental relations efforts of STRS Ohio for 12 years. Marla Bump was selected to replace Bierdeman.*

*In June, Robert Stein was elected as vice chair and Dale Price assumed the responsibility of board chair, effective Sept. 1, 2013.*

*In October, Robert Slater, Deputy Executive Director — Finance and Chief Financial Officer, retired after 30 years with STRS Ohio. Paul Snyder was selected to replace Slater.*

*At the end of December 2013, Steven Mitchell, Deputy Executive Director — Investments, will retire after more than 40 years with STRS Ohio. John Morrow has been selected to replace Mitchell.*



**Mark Hill, Chair**  
Contributing member since 2010.  
Worthington City Schools, Franklin County



**Taiyia L. Hayden**  
Contributing member since 2006.  
Columbus City Schools, Franklin County



**Dale Price, Vice Chair**  
Contributing member since 2010.  
Toledo Public Schools, Lucas County



**Yoel Mayerfeld**  
Appointed by the Treasurer of State in 2012.



**Craig C. Brooks**  
Appointed jointly by the Speaker of the House of Representatives and the Senate President in 2008.



**James McGreevy**  
Retired teacher member since 2009.



**Jason Rafeld**  
Representing the Superintendent of Public Instruction. Ex officio member of the board since appointed to office in 2012.



**Tim Myers**  
Contributing member since 2008.  
Elida Local Schools, Allen County



**Carol Correthers**  
Contributing member since 2009.  
Lorain City Schools, Lorain County



**Robert Stein**  
Retired teacher member since 2009.

**Michael J. Nehf**, Executive Director, State Teachers Retirement System of Ohio

## STRS Ohio Mission and Vision

The mission of STRS Ohio is to partner with our members in helping to build retirement security.

The vision of STRS Ohio is to be a leading retirement system by providing comprehensive retirement benefits and quality service to our members through exceptional financial performance, ethical business practices and responsible resource management.

## STRS Ohio Guiding Principles

1. Make decisions that produce the greatest sustainable benefits for our members.
2. To attract, develop and retain highly competent and motivated associates who have authority commensurate with their responsibilities.
3. To continually improve through research, development, evaluation and risk management.
4. Build an organizational culture that inspires a high level of professionalism and performance.

## STRS Ohio Senior Staff Members

**Michael J. Nehf**, Executive Director

**Sandra L. Knoesel**, Deputy Executive Director — Member Benefits

**Stephen A. Mitchell**, Deputy Executive Director — Investments

**Paul M. Snyder**, Deputy Executive Director — Finance and Chief Financial Officer

**Marla E. Bump**, Director, Governmental Relations

**Rhonda Hare**, Retirement Board Liaison

**Andrew J. Marfurt**, Director, Human Resource Services

**William J. Neville**, General Counsel

**David Tackett**, Chief Audit Executive, Internal Audit

**Gregory A. Taylor**, Director, Information Technology Services

**Nicholas J. Treneff**, Director, Communication Services



Dec. 6, 2013

Members of the State Teachers Retirement Board:

We are pleased to present the *Comprehensive Annual Financial Report* of the State Teachers Retirement System of Ohio for the fiscal year ended June 30, 2013. This report is intended to provide financial, investment, actuarial and statistical information in a single publication. STRS Ohio management is responsible for the accuracy of the data, as well as the completeness and fairness of the presentation.

STRS Ohio was created by legislative act on May 8, 1919, as an alternative to separate, often unstable local school district retirement plans. STRS Ohio is a cost-sharing, multiple-employer plan providing service retirement, disability and survivor benefits to teachers and faculty members of public boards of education, state-supported colleges and universities, and the state of Ohio and its political subdivisions. Optional health care coverage is available to eligible benefit recipients and their eligible dependents.

More analysis and information of the financial activities of STRS Ohio can be found in the Management’s Discussion and Analysis section that begins on Page 9 of this report.

### Major Initiatives

In September 2012, the Ohio Legislature passed pension reform bills to improve the financial condition of all five Ohio pension systems, including STRS Ohio. Sub. Senate Bill 342 contained benefit plan changes that impact every STRS Ohio member enrolled in the Defined Benefit Plan. Provisions in the new law reduce accrued liabilities and preserve the Defined Benefit Plan for Ohio’s educators as well as maintain a 1% employer contribution to the STRS Ohio health care fund. The changes to STRS Ohio’s benefits include: increasing age and service requirements for retirement; lowering the fixed benefit formula; increasing the period for determining final average salary; increasing member contributions to the system; reducing the cost-of-living adjustment (COLA); deferring the COLA for future retirees; and eliminating the COLA for fiscal year 2014. The new law also provides the Retirement Board with authority to make future adjustments to the member contribution rate, retirement age and service requirements, and the COLA depending on funding improvements.

The annual pension valuation results from STRS Ohio’s actuarial consultant, Segal Consulting, showed significant improvement in the retirement system’s funding as of July 1, 2013. This is the first valuation completed using the new benefit structure resulting from the passage of pension reform legislation. Segal’s report shows the net result of \$15.7 billion reduction in the actuarial accrued liability due to pension reform changes. In addition, the funding period for the pension fund decreased to 36.1 years from infinity and the funded ratio improved to 66.3% from 56.0%.

The Retirement Board approved several changes that affect members enrolled in STRS Ohio’s Defined Contribution (DC) Plan and Combined Plan, including improving the investment options for participants and a decision to change the portion of employer contributions used to help pay off the retirement system’s unfunded liability. As of June 30, 2013, about 14,500 active members were enrolled in these plans, compared to about 165,000 members enrolled in the Defined Benefit Plan.

The Retirement Board has discretion to transfer any portion of employer contributions necessary to offset the negative financial impact of participation in a DC plan, as determined by STRS Ohio’s actuary. This amount, known as the “mitigating rate,” recognizes that employer contributions are a required and vital part of the long-term funding of the STRS Ohio retirement plan. The current mitigating rate of 3.5% has been in place since DC Plan inception in 2001. Beginning July 1, 2013, the rate increased to 4.5% of the 14% employer contribution. This change impacts members enrolled in STRS Ohio’s Defined Contribution Plan and affects higher education faculty who are enrolled in an alternative retirement plan through a private vendor. Similarly, the 1% increase in member contributions for Combined Plan participants will be used to help pay for the defined benefit portion of their retirement rather than funding their DC accounts.

Beginning July 1, 2013, DC Plan participants contribute 11% of their salary and receive employer contributions of 9.5% of salary into the DC account. The new employer contribution rate reflects a 1% decrease from the current rate; however, the overall 20.5% that goes into the members’ accounts remains the same. In addition, the Retirement Board voted to lower investment fees charged on most investment allocation choices and to add eight new allocation choices to its lineup. The new allocation choices include a Russell Midcap Index and seven “target choice” options — also known as “target-date funds” — with asset



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RETIREMENT BOARD CHAIR  
DALE PRICE

RETIREMENT BOARD VICE CHAIR  
ROBERT STEIN

EXECUTIVE DIRECTOR  
MICHAEL J. NEHF

allocations that change over time. These “target choice” allocation options target a year in the future that would roughly match a participant’s expected retirement date. The closer to the target date, the more conservative the investment mix becomes — moving from a substantial allocation toward stocks in the early years to less risky bonds as the target date nears. The target choice options consist of blends of domestic and international equities, as well as fixed income and real estate investments.

The Retirement Board also approved a change to the employer contribution vesting schedule for new members who enroll in the Defined Contribution Plan on or after July 1, 2013. These members will now vest 20% per year in employer contributions to their DC accounts.

The Retirement Board voted to reduce the amount of employer contributions that are added to the reemployed retiree benefit to 0% from the current 5% rate. This brings equity between the funding of the reemployed retiree benefit and participants in the Defined Benefit Plan. This change became effective for compensation earned on or after July 1, 2013. Reemployed retirees will retain the employer contribution match for previous years of service. Beginning July 1, 2013, 13% of the employer contribution on a reemployed benefit will be used to pay off the unfunded liability and 1% will be allocated to the Health Care Fund.

### **Management Responsibility**

This report consists of management’s representations regarding STRS Ohio’s finances. Management assumes full responsibility for the completeness and reliability of all information presented in this report. To provide a reasonable basis for making these representations, management has established a comprehensive internal control framework that is designed both to protect the assets from loss, theft or misuse and to compile sufficient, reliable information for the preparation of STRS Ohio’s financial statements in conformity with generally accepted accounting principles. The internal control framework has been designed to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatement. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the valuation of the cost and benefits requires estimates and judgments by management. We as management, believe that the internal controls currently in place support this purpose, and assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

### **Investments**

Total investments (including short-term investments) increased to \$69.9 billion as of June 30, 2013. The Investment Review starting on Page 35 discusses the investment environment during fiscal 2013. The allocation of investment assets is designed to provide high long-term yields at optimal risk consistent with the expected long-term rate of return. Investment risks are diversified over a very broad range of market sectors and securities. This strategy reduces portfolio risk to adverse developments in sectors and issuers experiencing unusual difficulties and offers opportunity to benefit from future markets. A summary of the asset allocation can be found on Page 50.

For the fiscal year ended June 30, 2013, investments returned 13.66%. STRS Ohio’s annualized rate of return was 12.56% over the last three years and 4.87% for the last five years. Similar benchmark returns over the same one-, three- and five-year periods were 14.17%, 12.55% and 5.15%, respectively.

### **Plan Contributions**

Member and employer contributions, as well as income from investments, provide funds for pension benefits and health care coverage. Employer contributions include amounts paid by employers of participants in alternative retirement plans (ARPs). ARP participants are not members of STRS Ohio; however, their employers are now required (effective July 1, 2013) to contribute 4.5% of salaries to STRS Ohio to help pay for unfunded liabilities. STRS Ohio receives Medicare Part D reimbursements for participant prescription costs. Fiscal 2013 included \$41.2 million in Medicare Part D reimbursements. This federal subsidy helps offset the overall cost of managing the post-employment health care program.

### **Benefit Payments**

The principal purpose for STRS Ohio is to provide retirement, survivor and disability benefits to qualified members and their beneficiaries. Benefit payments, including refunds to terminated members, totaled \$7.0 billion. Refunds increased by 12.4% from fiscal year 2012, as more members terminated employment and more reemployed retirees took lump-sum payments.

## Funding

Contribution rates are intended to provide a level basis of funding using the entry age normal cost method, and an actuarial valuation is performed annually by Segal Consulting. The July 1, 2013, valuation shows that the amortization period for the unfunded accrued liability decreased to 36.1 years from infinity the prior year, and the ratio of assets to total accrued liabilities increased to 66.3% from 56.0%.

Generally accepted accounting principles require pension plans to report annual required contributions at the amount necessary to have a maximum amortization period of 30 years. Consequently, the amortization period shown on Page 31 is 30 years for financial reporting purposes.

A detailed discussion of funding is provided in the Actuarial Section of this report beginning on Page 54.

## Retiree Health Care Program

Plan changes to build a better long-term financial foundation and strong investment return on assets were two key factors that led to strengthening the financial picture for STRS Ohio's Health Care Fund as of Jan. 1, 2013. The results of the annual actuarial valuation of the fund show the projected life of the STRS Ohio Health Care Program now extends to 2060 — an increase of about 21 years from last year's valuation. The valuation results reflect an increase in the funded ratio to 73.4% at Jan. 1, 2013, from 58.3% at Jan. 1, 2012. The unfunded actuarial accrued liability is \$1.1 billion at Jan. 1, 2013.

## Certificate of Achievement and Other Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to STRS Ohio for its *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2012. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report that conforms to program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for one year. STRS Ohio has received a Certificate of Achievement for the last 23 years. We believe our current report continues to meet the Certificate of Achievement program requirements and will be submitted to the GFOA.

In addition, the Public Pension Coordinating Council (PPCC) presented STRS Ohio with the 2013 Public Pension Standards Award for Administration in recognition of meeting professional standards set forth in the Public Pension Standards. PPCC is a coalition made up of the National Association of State Retirement Administrators (NASRA), the National Council on Teacher Retirement (NCTR) and the National Conference on Public Employee Retirement Systems (NCPERS).

## Acknowledgments

The preparation of this report is possible only through the combined efforts of the STRS Ohio staff. It is intended to provide complete and reliable information as a basis for making management decisions, complying with legal provisions and determining responsible stewardship of the assets contributed by members and their employers.

Respectfully submitted,



Michael J. Nehf  
Executive Director



Paul M. Snyder, CPA  
Deputy Executive Director  
Chief Financial Officer

**Since STRS Ohio issued its 2013 *Certified Annual Financial Report*, the system's actuary, Segal Consulting, has issued a corrected pension valuation report that shows the system's funding period now stands at 40.2 years, rather than 36.1 years that was previously stated. Segal's error miscalculated future member contributions and the time it will take to pay off the system's unfunded actuarial liabilities. The error appears on the following pages in this *Certified Annual Financial Report*: Page 5, Page 7, Page 11, Page 16, Page 22, Page 54 and Page 68.**

**CliftonLarsonAllen**CliftonLarsonAllen LLP  
[www.cliftonlarsonallen.com](http://www.cliftonlarsonallen.com)**INDEPENDENT AUDITORS' REPORT**

The Retirement Board  
State Teachers Retirement System of Ohio, and  
The Honorable Dave Yost, Auditor of State

**Report on the Financial Statements**

We have audited the accompanying financial statements of State Teachers Retirement System of Ohio (STRS Ohio), which comprise the statements of net position as of June 30, 2013 and 2012, and the related statements of changes in net position for the years then ended, and the related notes to the 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.

**Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' 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, the financial statements referred to above present fairly, in all material respects, the financial position of STRS Ohio as of June 30, 2013 and 2012, and the respective changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

*(continued)*

## Other Matters

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of funding progress and employer contributions and related notes, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audits of the 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 audits were conducted for the purpose of forming an opinion on STRS Ohio's financial statements. The additional information, including the administrative expenses, schedules of investment expenses, and external asset managers' fees, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements.

The additional information, as listed in the table of contents, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the additional information, including the administrative expenses, schedules of investment expenses, and external asset managers' fees, as listed in the table of contents, is fairly stated, in all material respects, in relation to the financial statements as a whole.

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

## Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 6, 2013 on our consideration of STRS Ohio's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering STRS Ohio's internal control over financial reporting and compliance.

Toledo, Ohio  
December 6, 2013

*CliftonLarsonAllen LLP*

Management is pleased to provide this overview and analysis of the financial activities of the State Teachers Retirement System of Ohio (STRS Ohio) for the years ended June 30, 2013 and 2012. This information is intended to supplement the financial statements, which begin on Page 17 of this report. We encourage readers to consider additional information and data in this 2013 Comprehensive Annual Financial Report.

As of June 30, 2013, STRS Ohio held \$68.7 billion in trust on behalf of about 480,500 active, inactive and retired educators. This represented a \$4.3 billion increase from the previous fiscal year-end. In fiscal 2012, STRS Ohio experienced a \$2.5 billion decrease from the previous fiscal year-end.

In early 2012, the State Teachers Retirement Board took an important step to strengthen the financial condition of the pension fund by approving a plan that is designed to bring the system to a 30-year funding period. The multifaceted plan was passed by the Ohio Legislature in September 2012 and became effective in January 2013. The plan includes:

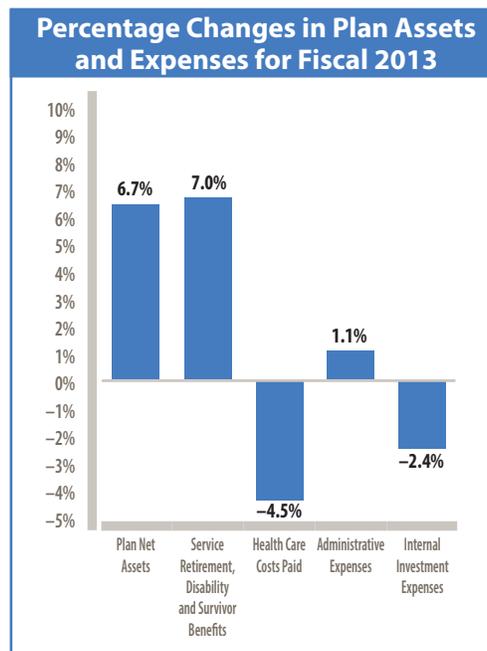
- Increasing the eligibility requirements for FULL retirement to age 65 with five years of service or age 60 with 35 years of service;
- Increasing the eligibility requirements for EARLY retirement to age 60 with 5 years of service or age 55 with 30 years of service (benefit would be actuarially reduced);
- Increasing member contributions to 14% of compensation (phased in over four years);
- Changing benefit formula to 2.2% for all years of service;
- Changing final average salary calculation from the three highest years of earnings to the five highest years of earnings; and
- Reducing COLA from 3% to 2% for all retirees and delaying COLA for all new retirees for 60 months.
- New members will have to work longer to be eligible for disability and survivor benefits;

The new law also provides the Retirement Board with authority to make future adjustments as the need or opportunity arises, depending on the retirement system's funding progress.

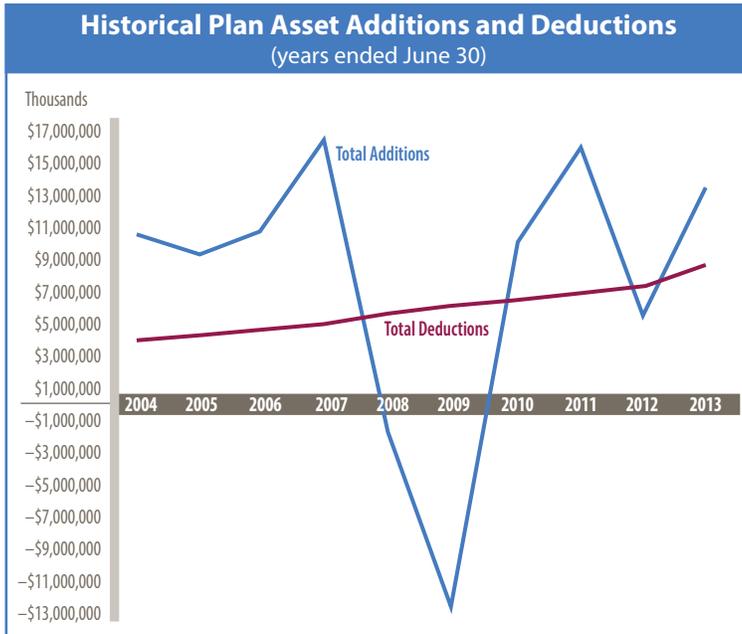
### Financial Highlights

The chart below illustrates the percentage changes in plan assets and expenses for fiscal 2013. Highlights of the fiscal year include:

- The investment rate of return was 13.66% in fiscal 2013. The investment rate of return for fiscal 2012 was 2.34% following a 22.59% return in 2011. Five- and 10-year total fund annualized returns are 4.87% and 8.08%, respectively.
- Plan net position increased 6.7% from the prior fiscal year, ending at \$68.7 billion as of June 30, 2013. Plan net assets decreased 3.8% during fiscal 2012, ending at \$64.3 billion as of June 30, 2012.
- The post-employment health care net position was \$3.3 billion as of June 30, 2013, an increase of 6.6% from the prior fiscal year. Program changes designed to build a long-term financial foundation for the health care program affected fiscal 2013 results. The changes resulted from selection of lower-cost plans, increases in retiree premiums and higher generic drug use. Net investment income (including securities lending) for the fund was \$402.1 million in 2013. The post-employment health care balance decreased 4.3% during fiscal 2012, ending at \$3.1 billion as of June 30, 2012.
- Defined contribution accounts finished the year with \$687 million in net position, an increase of 20.9% from 2012. The defined contribution accounts ended fiscal 2012, with \$568 million in net position, an increase of 9.3% from the end of fiscal 2011.



- Total benefit payments were \$6.8 billion during fiscal 2013, an increase of 6.0% from fiscal 2012. STRS Ohio paid members \$6.1 billion in service retirement, disability and survivor benefits plus \$600 million for health care coverage during fiscal 2013. Total benefit payments were \$6.4 billion during fiscal 2012, an increase of 8.9% from fiscal 2011.



- Total additions to plan net position were \$11.4 billion during fiscal 2013. Net investment income (including securities lending) during fiscal 2013 totaled \$8.5 billion. Total additions to plan net assets were \$4.1 billion during fiscal 2012, including \$1.2 billion related to net investment income.
- Member and employer contributions totaled slightly more than \$2.5 billion during fiscal 2013. Total covered payroll, which is the combined salaries for all plan participants, decreased 1.04%. During fiscal 2012, member and employer contributions totaled nearly \$2.6 billion.
- Administrative expenses increased 1.1% to \$62.0 million for fiscal 2013. Investment expenses, which include salaries and benefits for investment personnel, decreased 2.4% to \$30.5 million in fiscal 2013. In fiscal 2012, administrative expenses increased 0.2% and investment expenses decreased 13.0%.

## Annual Financial Review

The combined portfolio delivered a 13.66% rate of return in fiscal 2013. Domestic equities led all investment categories by generating a 20.15% return. International equity had a 17.80% return and alternative investments returned 14.51%. Real estate had a 11.75% return and the fixed-income return was 0.82%. Annualized investment return for the past 10 fiscal years was 8.08%.

The unfunded pension liability for STRS Ohio as of July 1, 2013, is \$31.8 billion, down from \$46.8 billion as of July 1, 2012. The amortization period at July 1, 2013, is 36.1 years compared to infinity at July 1, 2012. The funded ratio at July 1, 2013, was 66.3%, an increase from 56.0% at July 1, 2012. The funded ratio of the post-employment health care fund was 73.4% and 58.3% as of Jan. 1, 2013 and 2012, respectively.

Historical additions to and deductions from plan net position indicate a pattern of steadily increasing deductions compared to fluctuating additions due to investment volatility, as shown in the chart at the top of the page. Changes in contributions and benefits and administration for fiscal years ended June 30, 2013 and 2012, are shown in the charts to the left. Pension

**Contributions**  
Years Ended June 30, 2013 and 2012 (dollar amounts in thousands)

	2013	2012	Percentage Change
Employer Contributions	\$ 1,457,068	\$ 1,479,476	-1.51%
Member Contributions	1,095,290	1,099,473	-0.38%
Health Care Premiums and Government Reimbursements	303,103	338,477	-10.45%
Other	37,943	33,558	13.07%
<b>Total Revenue</b>	<b>\$ 2,893,404</b>	<b>\$ 2,950,984</b>	<b>-1.95%</b>

**Benefits and Administration**  
Years Ended June 30, 2013 and 2012 (dollar amounts in thousands)

	2013	2012	Percentage Change
Benefits (includes optional health care)	\$ 6,752,153	\$ 6,368,932	6.02%
Refunds	206,492	183,768	12.37%
Administration	62,005	61,328	1.10%
<b>Total Expenses</b>	<b>\$ 7,020,650</b>	<b>\$ 6,614,028</b>	<b>6.15%</b>

benefit payments and health care costs exceed member and employer contributions. STRS Ohio is dependent upon investment income to compensate for the difference between benefit payments and contributions over time.

Net position for post-employment health care increased to \$3.3 billion at June 30, 2013, from \$3.1 billion at June 30, 2012. Premiums received from health care recipients in fiscal 2013 increased to \$261.9 million from \$246.3 million in fiscal 2012. Medicare Part D reimbursements of \$41.2 million were received to help offset prescription drugs costs. Receipts from participation in the Early Retiree Reinsurance Program (ERRP) totaled \$49.0 million in 2012, but the program was discontinued in 2013. ERRP was a government program started in fiscal 2011 to reimburse employers for a portion of pre-Medicare health care costs. Health care coverage payments declined 4.5% from fiscal 2012. In fiscal 2012, health care premiums increased to \$246.3 million from \$222.1 million. Health care coverage payments grew 3.9% from fiscal 2011.

Payment of lower performance incentives caused internal investment expenses to decrease 2.4% in fiscal 2013. Fiscal 2012 investment administrative expenses decreased 13.0%.

## Overview of the Financial Statements of STRS Ohio

The two basic financial statements are the *Statement of Net Position* and the *Statement of Changes in Net Position*. Amounts are shown for the most recent and previous fiscal years for comparison and analysis of changes in individual line items. The statements are prepared in conformity with generally accepted accounting principles.

The *Statement of Net Position* is a measure of STRS Ohio's assets and liabilities at the close of the fiscal year. Total assets less current liabilities equal net position held in trust for future benefits.

The *Statement of Changes in Net Position* shows additions and deductions for the fiscal year. The net increase (or decrease) is the change in net position available for benefits since the end of the previous fiscal year.

For financial reporting purposes, STRS Ohio assets are divided into three primary funds: the Defined Benefit (DB) Plan, the Defined Contribution (DC) Plan and Post-employment Health Care.

- The Defined Benefit Plan is the largest fund and includes member contributions, employer contributions and investment earnings for DB participants. The DB Plan pays service retirement benefits using a fixed formula based on age, years of service and salary. In addition to service retirement, DB participants are eligible for disability and survivor benefits.
- The Defined Contribution Plan began on July 1, 2001. It is an optional plan available to new members. DC participants allocate both member and employer contributions in investment choices provided by STRS Ohio. Benefits are based on the member's account value.

As an alternative to the Defined Benefit or Defined Contribution Plan, new members may elect the Combined Plan. Combined Plan participants allocate their member contributions among the same investment choices as DC members, and employer contributions are used to provide a reduced formula service retirement benefit along with disability and survivor protection. Assets to provide benefits to Combined Plan members are divided between the Defined Benefit Plan and the Defined Contribution Plan.

- Net position for post-employment health care consist of funds set aside to subsidize optional health care coverage for members enrolled in the Defined Benefit and Combined Plans.

The *Notes to Financial Statements* are a fundamental part of the financial statements and provide important information to augment the figures in the financial statements. The notes describe accounting policies along with plan membership and benefits. Supplementary disclosures of selected financial data are included in the notes.

In addition to the basic financial statements and footnotes, a *Schedule of Pension Plan Funding Progress*, a *Schedule of Employer Contributions Related to Pension Plan* and *Notes to Pension Plan Trend Data* are included as "required supplementary information." These schedules emphasize the long-term nature of pension plans and the status of STRS Ohio in accumulating sufficient assets to pay benefits when due.

The *Schedule of Pension Plan Funding Progress* shows actuarial trend information for the past six years. It includes the ratio of valuation assets to actuarial accrued liability (funded ratio). The funded ratio increases over time as the funding status of

## Investment Performance

(total returns, annualized on a fiscal-year basis, July 1–June 30)

### 1-Year Returns (2013)<sup>1</sup>

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Equities	20.15%	Russell 3000	21.46%
International Equities	17.80%	International Blended Benchmark <sup>3</sup>	16.41%
Fixed Income	0.82%	Barclays U.S. Universal Index	0.24%
Real Estate	11.75%	Real Estate Blended Benchmark <sup>4</sup>	10.57%
Alternative Investments	14.51%	Alternative Investments Blended Benchmark <sup>5</sup>	–
<b>Total Fund</b>	<b>13.66%</b>	<b>Total Fund Blended Benchmark<sup>6</sup></b>	<b>14.17%</b>

### 5-Year Returns (2009–2013)<sup>1</sup>

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Equities	7.26%	Russell 3000	7.25%
International Equities	1.11%	International Blended Benchmark <sup>3</sup>	0.45%
Fixed Income	6.31%	Barclays U.S. Universal Index	5.53%
Real Estate	2.45%	Real Estate Blended Benchmark <sup>4</sup>	4.27%
Alternative Investments	5.77%	Alternative Investments Blended Benchmark <sup>5</sup>	8.90%
<b>Total Fund</b>	<b>4.87%</b>	<b>Total Fund Blended Benchmark<sup>6</sup></b>	<b>5.15%</b>

### STRS Ohio Long-Term Policy Objective (10 Years)<sup>2</sup>

**Total Fund: 7.6%**

Investment performance is calculated using a time-weighted rate of return.

<sup>1</sup>The one-year returns for the fiscal years ended June 30, 2008, through 2013, have been examined by Vincent Performance Services LLC. A copy of the examination report is available upon request.

<sup>2</sup>The long-term policy objective is a projected annualized policy return based on return forecasts by asset class before any value added. The State Teachers Retirement Board expects the net value added to be 0.40% per year.

<sup>3</sup>The International Blended Benchmark is calculated monthly using 80% of the MSCI World ex US 50% Hedged Index-Net and 20% of the MSCI Emerging Markets Index-Gross.

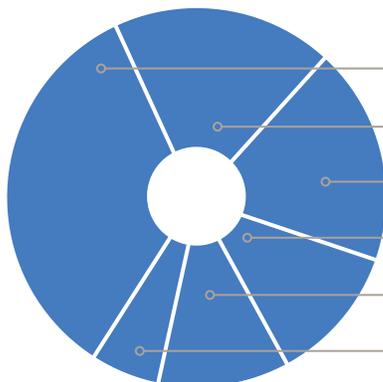
<sup>4</sup>The Real Estate Blended Benchmark is calculated quarterly using 85% NCREIF Property Index (NPI) and 15% FTSE NAREIT Equity REITs Index effective July 1, 2012; 85% NPI and 15% Wilshire REIT Index effective Oct. 1, 2007.

<sup>5</sup>Given the long-term nature of the asset class, no benchmark return for Alternative Investments is displayed for the one- and three-year periods. For the longer five-year period, the Alternative Investments Blended Benchmark is a blend of two benchmarks for private equity and opportunistic/diversified and is calculated using 54.5% of the Russell 3000 Index plus 1% and 45.5% of the Russell 3000 Index minus 1% effective Jan. 1, 2013; 50% of the Russell 3000 Index plus 1% and 50% of the Russell 3000 Index minus 1% effective July 1, 2012; 55.6% of the Russell 3000 Index plus 3% and 44.4% of the Russell 3000 Index minus 1% effective July 1, 2011; 62.5% of the Russell 3000 Index plus 3% and 37.5% of the Russell 3000 Index minus 1% effective July 1, 2010; 71.4% of the Russell 3000 Index plus 3% and 28.6% of the Russell 3000 Index minus 1% effective July 1, 2009; and the Russell 3000 Index plus 3% for periods prior to July 1, 2009.

<sup>6</sup>The Total Fund Blended Benchmark is calculated and rebalanced monthly using a blend of the asset class benchmarks based on the Total Fund's policy weights in effect during the respective period. For alternative investments, however, the actual alternative investments return is used in the calculation of the Total Fund Blended Benchmark. Information concerning asset class benchmarks and policy weights is available upon request.

## Investment Distribution by Fair Value — as of June 30, 2013

(dollar amounts in thousands)



Domestic Equities:	<b>\$ 22,923,599</b>	<b>32.80%</b>
Fixed Income:	<b>\$ 14,108,106</b>	<b>20.19%</b>
International Equities:	<b>\$ 13,968,850</b>	<b>19.99%</b>
Real Estate:	<b>\$ 8,354,648</b>	<b>11.95%</b>
Alternative Investments:	<b>\$ 7,616,022</b>	<b>10.90%</b>
Short-Term Investments:	<b>\$ 2,912,279</b>	<b>4.17%</b>
<b>Total Investments:</b>	<b>\$ 69,883,504</b>	

a pension plan improves and vice versa. The *Schedule of Pension Plan Funding Progress* also shows the unfunded actuarial accrued liability as a percentage of member payroll. This percentage decreases as a pension plan grows financially stronger.

The *Schedule of Employer Contributions Related to Pension Plan* shows the amount of required employer contributions determined in accordance with parameters established by Governmental Accounting Standards Board (GASB) Statement No. 25 and the percentage actually contributed. Employers have met their obligation by contributing at the legally required contribution rates for each of the six years shown in the schedule.

The *Notes to Pension Plan Trend Data* provide the actuarial method and assumptions used to determine the data in the *Schedule of Pension Plan Funding Progress* and the *Schedule of Employer Contributions Related to Pension Plan*.

A separate *Schedule of Health Care Funding Progress, Schedule of Employer Contributions Related to Health Care* and *Notes to Health Care Trend Data* are included as required by GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. The health care information shows the status of STRS Ohio in accumulating sufficient assets to pay health care coverage costs.

*Schedules of Administrative Expenses, Schedules of Investment Expenses* and *Schedules of Fees to External Asset Managers by Asset Class* are included to detail the administrative and investment costs to operate STRS Ohio.

### Investment Allocation and Fiscal Year Performance

For fiscal 2013, the rate of return for total investments was 13.66%. The relative benchmark for STRS Ohio returned 14.17%. The target allocations for the period July 1, 2012–Dec. 31, 2012, were 1% liquidity reserves, 18% fixed income, 38% domestic stock, 23% international equities, 10% real estate and 10% in alternative investments. The target allocations for the period Jan. 1, 2013–June 30, 2013, were 1% liquidity reserves, 18% fixed income, 36% domestic stock, 24% international equities, 10% real estate and 11% in alternative investments. Amounts actually invested in these categories

at the end of June 2013 represent an investment over/underweight if different from the target allocation. Over/underweighting occurs as fair values change and as investment managers determine allocation entry and exit timing strategies. See Page 12 for detailed investment performance.

External asset management fees are shown separately in the *Statement of Changes in Net Position* as a reduction of investment income. Coupled with internal investment costs, the cost to manage investments was \$192 million in 2013 and \$184 million in 2012.

### Financial Statement Analysis

The tables on Page 14 show condensed information from the *Statement of Net Position* and the *Statement of Changes in Net Position*.

Plan net position increased 6.7% in fiscal 2013. Plan net position decreased 3.8% in fiscal 2012 and increased 16.6% in fiscal 2011. The fluctuation of plan net position for fiscal 2013, 2012 and 2011 was primarily due to changes in the fair value of investments.

The value of capital assets decreased from fiscal 2012 because depreciation expense in fiscal 2013 exceeded the cost of new capital items. The same was true from fiscal 2011 to fiscal 2012.

Total investment income increased \$7.3 billion from fiscal 2012. Total investment income for fiscal 2012 decreased \$11.5 billion from fiscal 2011 and increased by more than \$5.6 billion from fiscal 2010.

Employer contributions decreased 1.5% in fiscal 2013 based on lower statewide covered payroll. Employer contributions decreased 2.1% in fiscal 2012 and increased 0.4% in fiscal 2011. Member contributions decreased 0.4% in fiscal 2013, decreased 2.7% in fiscal 2012 and increased 1.6% in fiscal 2011. Member and employer rates remained at 10% and 14%, respectively, of earned compensation for fiscal 2011, 2012 and 2013.

Health care premiums helped offset some of the increases in health care costs. Of the \$599.8 million paid to health care providers in fiscal 2013, health care enrollees paid \$261.9 million through premium deductions. Health care enrollees were also responsible for additional health care costs paid through deductibles, coinsurance, copayments and other out-of-pocket expenditures.

<b>Net Position</b> (dollar amounts in thousands)					
	2013	2012	2011	Amount Increase (Decrease) From 2012 to 2013	Amount Increase (Decrease) From 2011 to 2012
Cash and investments	\$ 69,939,028	\$ 65,359,037	\$ 67,997,923	\$ 4,579,991	\$ (2,638,886)
Receivables	1,644,262	946,007	766,081	698,255	179,926
Securities lending collateral	1,193,446	506,224	718,885	687,222	(212,661)
Capital assets	106,400	111,629	116,475	(5,229)	(4,846)
<b>Total assets</b>	<b>72,883,136</b>	<b>66,922,897</b>	<b>69,599,364</b>	<b>5,960,239</b>	<b>(2,676,467)</b>
Liabilities	4,228,631	2,601,598	2,767,510	1,627,033	(165,912)
<b>Net position</b>	<b>\$ 68,654,505</b>	<b>\$ 64,321,299</b>	<b>\$ 66,831,854</b>	<b>\$ 4,333,206</b>	<b>\$ (2,510,555)</b>

<b>Additions to Net Position</b> (dollar amounts in thousands)					
	2013	2012	2011	Amount Increase (Decrease) From 2012 to 2013	Amount Increase (Decrease) From 2011 to 2012
<b>Contributions:</b>					
Member contributions	\$ 1,095,290	\$ 1,099,473	\$ 1,129,893	\$ (4,183)	\$ (30,420)
Employer contributions	1,457,068	1,479,476	1,511,003	(22,408)	(31,527)
Health care premiums	261,903	246,264	222,130	15,639	24,134
Other	79,143	125,771	100,202	(46,628)	25,569
<b>Total contributions</b>	<b>2,893,404</b>	<b>2,950,984</b>	<b>2,963,228</b>	<b>(57,580)</b>	<b>(12,244)</b>
Net investment income	8,460,452	1,152,489	12,622,935	7,307,963	(11,470,446)
<b>Total additions to net position</b>	<b>\$ 11,353,856</b>	<b>\$ 4,103,473</b>	<b>\$ 15,586,163</b>	<b>\$ 7,250,383</b>	<b>\$ (11,482,690)</b>

<b>Deductions From Net Position</b> (dollar amounts in thousands)					
	2013	2012	2011	Amount Increase (Decrease) From 2012 to 2013	Amount Increase (Decrease) From 2011 to 2012
<b>Deductions:</b>					
Benefit payments	\$ 6,129,068	\$ 5,725,859	\$ 5,229,494	\$ 403,209	\$ 496,365
Health care coverage	599,818	627,890	604,456	(28,072)	23,434
Refunds to members	206,492	183,768	166,020	22,724	17,748
Administrative expenses	62,005	61,328	61,202	677	126
Other	23,267	15,183	14,913	8,084	270
<b>Total deductions from net position</b>	<b>\$ 7,020,650</b>	<b>\$ 6,614,028</b>	<b>\$ 6,076,085</b>	<b>\$ 406,622</b>	<b>\$ 537,943</b>

<b>Change in Net Position From Plan Additions and Deductions</b> (dollar amounts in thousands)					
	2013	2012	2011	Amount Increase (Decrease) From 2012 to 2013	Amount Increase (Decrease) From 2011 to 2012
<b>Change in net position</b>	<b>\$ 4,333,206</b>	<b>\$ (2,510,555)</b>	<b>\$ 9,510,078</b>	<b>\$ 6,843,761</b>	<b>\$ (12,020,633)</b>

Employer contributions of \$99.2 million and government reimbursements of \$41.2 million helped pay health care costs. The remaining health care costs of \$197.5 million were paid from accumulated net position held for post-employment health care. For fiscal 2012, benefit recipients and employers contributed \$246.3 million and \$101.0 million, respectively. For fiscal 2011, benefit recipients and employers contributed \$222.1 million and \$103.7 million, respectively.

STRS Ohio was created to provide retirement, disability and survivor benefits to members and eligible beneficiaries. Expenditures include monthly payments to eligible recipients, refunds of contributions to members who terminate employment, and administrative costs of operating STRS Ohio.

Total deductions from net position were \$7.0 billion in fiscal 2013, a 6.2% increase over fiscal 2012. Total deductions from net position were \$6.6 billion in fiscal 2012, an 8.9% increase over fiscal 2011. Total deductions from net position were \$6.1 billion in fiscal 2011, a 6.9% increase over fiscal 2010. The largest component was monthly benefit payments for service retirement, disability and survivor benefits. Total pension benefit payments increased 7.0% in fiscal 2013, 9.5% in fiscal 2012 and 7.0% in fiscal 2011 as a result of new retirees and cost-of-living adjustments.

Health care costs decreased 4.5% in fiscal 2013, increased 3.9% in fiscal 2012, and increased 2.0% in fiscal 2011.

### **Funding Analysis**

The unfunded actuarial accrued liability for STRS Ohio pension benefits was \$31.8 billion as of July 1, 2013, down significantly from \$46.8 billion at July 1, 2012 and \$40.7 billion at July 1, 2011. Market changes in investment assets are smoothed over a four-year period for valuation purposes, except that the actuarial value of assets shall not be less than 91% nor more than 109% of market value. Valuation assets ended fiscal 2013 at \$62.6 billion, up from \$59.5 billion at fiscal year end 2012 and \$58.1 billion at fiscal year end 2011. The present value of promised benefits to current and future benefit recipients (the

actuarial accrued liability) at fiscal 2013, 2012 and 2011 was \$94.4 billion, \$106.3 billion and \$98.8 billion, respectively. The funded ratio, which is valuation assets divided by actuarial accrued liability, was 66.3% at July 1, 2013, up from 56.0% at July 1, 2012. At July 1, 2011, the funded ratio was 58.8%. At July 1, 2013, the funding period was 36.1 years and was at infinity at July 1, 2012 and July 1, 2011.

### **Requests for Information**

Questions about any information provided in this report should be addressed to:

State Teachers Retirement System of Ohio  
ATTN: Chief Financial Officer  
275 E. Broad St.  
Columbus, OH 43215-3771

## Statements of Net Position (in thousands)

	June 30, 2013				June 30, 2012			
	Defined Benefit	Defined Contribution	Post-employment Health Care	Totals	Defined Benefit	Defined Contribution	Post-employment Health Care	Totals
<b>Assets:</b>								
Cash and short-term investments	\$ 2,735,657	\$ 93,469	\$ 138,677	\$ 2,967,803	\$ 3,582,559	\$ 83,000	\$ 181,699	\$ 3,847,258
<b>Receivables:</b>								
Accrued interest and dividends	153,853		7,799	161,652	153,731		7,797	161,528
Employer contributions	231,763	50	11,749	243,562	230,629	74	11,697	242,400
Retirement incentive	870			870	1,264			1,264
Member contributions	142,009	114		142,123	140,950	154		141,104
Due from defined contribution plans					190			190
Securities sold	1,041,222		52,782	1,094,004	378,688		19,206	397,894
Miscellaneous receivables	2,051			2,051	1,627			1,627
<b>Total receivables</b>	<b>1,571,768</b>	<b>164</b>	<b>72,330</b>	<b>1,644,262</b>	<b>907,079</b>	<b>228</b>	<b>38,700</b>	<b>946,007</b>
<b>Investments, at fair value:</b>								
Fixed income	13,308,037	125,450	674,619	14,108,106	11,076,497	117,507	561,774	11,755,778
Domestic common and preferred stock	21,498,390	335,400	1,089,809	22,923,599	21,508,980	258,246	1,090,886	22,858,112
International	13,227,796	70,502	670,552	13,968,850	11,299,922	55,843	573,106	11,928,871
Real estate	7,892,989	61,543	400,116	8,354,648	7,469,524	53,068	378,837	7,901,429
Alternative investments	7,248,573		367,449	7,616,022	6,726,440		341,149	7,067,589
<b>Total investments</b>	<b>63,175,785</b>	<b>592,895</b>	<b>3,202,545</b>	<b>66,971,225</b>	<b>58,081,363</b>	<b>484,664</b>	<b>2,945,752</b>	<b>61,511,779</b>
Invested securities lending collateral	1,135,866		57,580	1,193,446	481,789		24,435	506,224
Capital assets, at cost, net of accumulated depreciation of \$132,898 and \$126,527, respectively	106,400			106,400	111,629			111,629
<b>Total assets</b>	<b>68,725,476</b>	<b>686,528</b>	<b>3,471,132</b>	<b>72,883,136</b>	<b>63,164,419</b>	<b>567,892</b>	<b>3,190,586</b>	<b>66,922,897</b>
<b>Liabilities:</b>								
Securities purchased and other investment liabilities	1,272,043		64,483	1,336,526	395,296		20,049	415,345
Debt on real estate investments	1,587,375		80,468	1,667,843	1,567,563		79,503	1,647,066
Accrued expenses and other liabilities	24,078		1,221	25,299	26,150		1,326	27,476
Due to defined benefit plans						190		190
Medical benefits payable			5,378	5,378			5,297	5,297
Obligations under securities lending program	1,135,998		57,587	1,193,585	481,789		24,435	506,224
<b>Total liabilities</b>	<b>4,019,494</b>		<b>209,137</b>	<b>4,228,631</b>	<b>2,470,798</b>	<b>190</b>	<b>130,610</b>	<b>2,601,598</b>
<b>Net position held in trust for defined benefit, defined contribution and post-employment health care coverage:</b>								
	<b>\$ 64,705,982</b>	<b>\$ 686,528</b>	<b>\$ 3,261,995</b>	<b>\$ 68,654,505</b>	<b>\$ 60,693,621</b>	<b>\$ 567,702</b>	<b>\$ 3,059,976</b>	<b>\$ 64,321,299</b>

See accompanying Notes to Financial Statements.

**Statements of Changes in Net Position** (in thousands)

	Year Ended June 30, 2013				Year Ended June 30, 2012			
	Defined Benefit	Defined Contribution	Post-employment Health Care	Totals	Defined Benefit	Defined Contribution	Post-employment Health Care	Totals
<b>Additions</b>								
<b>Contributions:</b>								
Member	\$ 1,042,959	\$ 52,331		\$ 1,095,290	\$ 1,049,709	\$ 49,764		\$ 1,099,473
Employer	1,327,862	30,027	\$ 99,179	1,457,068	1,349,561	28,890	\$ 101,025	1,479,476
Transfers between retirement plans	16,738	(16,738)			17,246	(17,246)		
Retirement incentive	4,638			4,638	6,712			6,712
Government reimbursements			41,200	41,200			92,213	92,213
Benefit recipient health care premiums			261,903	261,903			246,264	246,264
Other retirement systems	33,305			33,305	26,846			26,846
<b>Total contributions</b>	<b>2,425,502</b>	<b>65,620</b>	<b>402,282</b>	<b>2,893,404</b>	<b>2,450,074</b>	<b>61,408</b>	<b>439,502</b>	<b>2,950,984</b>
<b>Income from investing activities:</b>								
Net appreciation (depreciation) in fair value of investments	6,732,100	74,265	339,048	7,145,413	(128,539)	2,864	(6,456)	(132,131)
Interest	393,091	110	19,797	412,998	440,488	77	22,124	462,689
Dividends	788,165		39,694	827,859	735,299		36,932	772,231
Real estate income	241,013		12,138	253,151	210,902		10,593	221,495
Investment income	8,154,369	74,375	410,677	8,639,421	1,258,150	2,941	63,193	1,324,284
Less internal investment expenses	(28,742)	(299)	(1,448)	(30,489)	(29,488)	(271)	(1,481)	(31,240)
Less external asset management fees	(154,122)		(7,762)	(161,884)	(145,031)		(7,285)	(152,316)
Net income from investing activities	7,971,505	74,076	401,467	8,447,048	1,083,631	2,670	54,427	1,140,728
Securities lending income	14,139		712	14,851	12,363		621	12,984
Securities lending expenses	(1,378)		(69)	(1,447)	(1,165)		(58)	(1,223)
Net income from securities lending activities	12,761		643	13,404	11,198		563	11,761
Net investment income	7,984,266	74,076	402,110	8,460,452	1,094,829	2,670	54,990	1,152,489
<b>Total additions</b>	<b>10,409,768</b>	<b>139,696</b>	<b>804,392</b>	<b>11,353,856</b>	<b>3,544,903</b>	<b>64,078</b>	<b>494,492</b>	<b>4,103,473</b>
<b>Deductions</b>								
<b>Benefits:</b>								
Service retirement	5,792,657			5,792,657	5,401,457			5,401,457
Disability benefits	211,755			211,755	208,929			208,929
Survivor benefits	124,656			124,656	115,473			115,473
Health care			599,818	599,818			627,890	627,890
Other	23,267			23,267	15,183			15,183
<b>Total benefit payments</b>	<b>6,152,335</b>		<b>599,818</b>	<b>6,752,153</b>	<b>5,741,042</b>		<b>627,890</b>	<b>6,368,932</b>
Refunds to members who have withdrawn	186,459	20,033		206,492	169,071	14,697		183,768
Administrative expenses	58,613	837	2,555	62,005	57,879	881	2,568	61,328
<b>Total deductions</b>	<b>6,397,407</b>	<b>20,870</b>	<b>602,373</b>	<b>7,020,650</b>	<b>5,967,992</b>	<b>15,578</b>	<b>630,458</b>	<b>6,614,028</b>
<b>Net increase (decrease)</b>	<b>4,012,361</b>	<b>118,826</b>	<b>202,019</b>	<b>4,333,206</b>	<b>(2,423,089)</b>	<b>48,500</b>	<b>(135,966)</b>	<b>(2,510,555)</b>
<b>Net position held in trust for defined benefit, defined contribution and post-employment health care coverage:</b>								
Beginning of year	60,693,621	567,702	3,059,976	64,321,299	63,116,710	519,202	3,195,942	66,831,854
<b>End of year</b>	<b>\$ 64,705,982</b>	<b>\$ 686,528</b>	<b>\$ 3,261,995</b>	<b>\$ 68,654,505</b>	<b>\$ 60,693,621</b>	<b>\$ 567,702</b>	<b>\$ 3,059,976</b>	<b>\$ 64,321,299</b>

See accompanying Notes to Financial Statements.

## 1. Summary of Significant Accounting Policies

The financial statements of the State Teachers Retirement System of Ohio (STRS Ohio) presented herein have been prepared on the accrual basis of accounting following the accounting policies set forth below.

**Organization** — STRS Ohio is a cost-sharing, multiple-employer plan that operates under Chapter 3307 of the Ohio Revised Code (Revised Code) and is administered by a board comprised of 11 members as follows: five elected contributing members; two elected retired teacher members; an investment expert appointed by the governor; an investment expert appointed jointly by the speaker of the Ohio House of Representatives and the Ohio Senate President; an investment expert designated by the treasurer of state; and the superintendent of public instruction or his or her designated investment expert.

The accompanying financial statements comply with the provisions of the Governmental Accounting Standards Board (GASB) Statement No. 39, an amendment of GASB Statement No. 14, *The Financial Reporting Entity*. This statement requires that financial statements of the reporting entity include all of the organizations, activities, functions and component units for which the reporting entity is financially accountable. Financial accountability is defined as the appointment of a voting majority of the component unit's board and either (1) the reporting entity's ability to impose its will over the component unit, or (2) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the reporting entity. STRS Ohio does not have financial accountability over any entities.

**Investment Accounting** — Purchases and sales of investments are recorded as of their trade date. Dividend income is recognized on the ex-dividend date. Interest and rental income are recognized as the income is earned.

STRS Ohio has no individual investment that exceeds 5% of net position available for benefits.

**Contributions and Benefits** — Employer and member contributions are recognized when due based on statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

**Capital Assets** — Capital assets are recorded at historical cost. Depreciation is provided on a straight-line basis over estimated useful lives of five to 10 years

for equipment and 40 years for building and building improvements. Capital assets include purchases of \$5,000 or more with a useful life of at least five years. Prior to July 1, 2012, the capitalization amount was \$500. Intangible assets, such as internally developed software, are capitalized in accordance with GASB Statement No. 51 and consistent with the capital asset policy.

**Method Used to Value Investments** — Investments are reported at fair value. Short-term investments, with maturities less than one year, are reported at amortized cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at the then current exchange rates. Fixed-income investments are valued based on their coupon rate relative to the coupon rate for similar securities. The fair value of real estate investments is based on independent appraisals and internal valuations. The fair value of alternative investments is determined by the alternative investment partnership based on the valuation methodology outlined in the partnership agreement.

**Federal Income Tax Status** — Under Section 401(a) of the Internal Revenue Code, STRS Ohio is exempt from federal income taxes.

**Use of Estimates** — In preparing financial statements in conformity with accounting principles generally accepted in the United States of America, the board 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.

**Recently Issued Accounting Pronouncements** — GASB issued Statement No. 67, *Financial Reporting for Pension Plans* and Statement No. 68, *Accounting and Financial Reporting for Pensions* in June 2012. These accounting pronouncements will have an impact on the financial statements of pension plans and contributing employer systems. The largest impact comes from changes as a result of the new standards — the possible use of a lower blended discount rate that leads to a larger total pension liability and the requirement for employers to record a net pension liability based on their proportionate share of STRS Ohio's total net pension liability. GASB Statement No. 67 is effective for the year ending June 30, 2014, and one year later GASB Statement No. 68 will be effective. Management continues to prepare for the implementation of these pronouncements but has not yet determined their impact on STRS Ohio's financial statements. GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and*

*Net Position*, introduces and defines these elements as a consumption or acquisition of net assets that is applicable to a future reporting period and results in the redefinition of net assets to the concept of net position. STRS Ohio implemented GASB Statement No. 63 for the year ended June 30, 2013.

## 2. Description of the STRS Ohio Plan

**Plan Membership** — STRS Ohio is a statewide retirement plan for licensed teachers and other faculty members employed in the public schools of Ohio (the state) or any school, college, university, institution or other agency controlled, managed and supported, in whole or part, by the state or any political subdivision thereof.

See charts to the right for member and retiree data and participating employers.

Active members are defined as participants who earned 0.25 years of service credit or more in the valuation year and those employed on or after Jan. 1, with less than 0.25 years of service credit.

**Plan Options** — New members have a choice of three retirement plan options. In addition to the Defined Benefit (DB) Plan, new members are offered a Defined Contribution (DC) Plan or a Combined Plan. The DC Plan allows members to allocate all their member contributions and employer contributions equal to 10.5% (9.5% effective July 1, 2013) of earned compensation among various investment choices. The Combined Plan offers features of the DC Plan and the DB Plan. In the Combined Plan, member contributions are allocated among investment choices by the member. Employer contributions in the Combined Plan are used to fund a defined benefit payment at a reduced level from the regular DB Plan. Contributions into the DC Plan and the Combined Plan are credited to member accounts as employers submit their payroll information to STRS Ohio, generally on a biweekly basis.

**DB Plan Benefits** — Plan benefits are established under Chapter 3307 of the Revised Code. Any member may retire who has (1) five years of service credit and attained age 60; (2) 25 years of service credit and attained age 55; or (3) 30 years of service credit regardless of age.

The maximum annual retirement allowance, payable for life, is the greater of the “formula benefit” or the “money-purchase benefit” calculation. Under the “formula benefit,” the retirement allowance is based on years of credited service and final average salary, which is the average of the member’s three highest salary years. The annual allowance is determined by multiplying final average salary by 2.2% for the first 30 years of credited service. Each year over

### Member and Retiree Data at July 1, 2013 and 2012

	2013	2012
Current active members	169,945	173,044
Inactive members eligible for refunds only	136,105	134,974
Terminated members entitled to receive a benefit in the future	17,081	17,325
Retirees and beneficiaries currently receiving a benefit	149,221	143,256
Defined Contribution Plan members	8,197	7,954
Reemployed retirees	24,228	23,879
<b>Total Plan Membership</b>	<b>504,777</b>	<b>500,432</b>

### Participating Employers at June 30, 2013 and 2012

	2013	2012
City school districts	194	194
Local school districts	369	370
County educational service centers	55	56
Exempted village school districts	49	49
Joint vocational schools	49	49
Colleges and universities	36	36
County boards of developmental disabilities	67	69
Community schools	322	312
State of Ohio	1	1
Other	11	9
<b>Total</b>	<b>1,153</b>	<b>1,145</b>

30 years is incrementally increased by .1%, starting at 2.5% for the 31st year of contributing service up to a maximum allowance of 100% of final average salary. Upon reaching 35 years of Ohio service, the first 31 years of Ohio contributing service are multiplied by 2.5%, and each year over 31 years is incrementally increased by .1% starting at 2.6% for the 32nd year. Members retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit amounts.

Under the “money-purchase benefit” calculation, a member’s lifetime contributions plus interest at specified rates are matched by an equal amount from contributed employer funds. This total is then divided by an actuarially determined annuity factor to compute the maximum annual retirement allowance.

Since the plan is tax-qualified, benefits are subject to limits established by Section 415 of the Internal Revenue Code. Benefits are increased annually by 3% of the original base amount.

A retiree of STRS Ohio or another Ohio public retirement system is eligible for reemployment as a teacher following the elapse of two months from the date of retirement. Contributions are made by the reemployed member and employer during the reemployment. Upon termination of reemployment or age 65, whichever comes later, the retiree is eligible for an annuity benefit or equivalent lump-sum payment in addition to the original retirement allowance. A reemployed retiree may alternatively receive a refund of member contributions with interest before age 65, once employment is terminated.

In September 2012, the Ohio General Assembly passed and the Governor signed into law Substitute Senate Bill 342. The legislation improves pension funding of the STRS Ohio defined benefit plan. While the effective date of the legislation was Jan. 7, 2013, most of STRS Ohio's plan changes took effect July 1, 2013, or later.

The legislative changes that improve funding to STRS Ohio's defined benefit plan are: increasing age and service requirements for retirement; pensions calculated on a lower, fixed formula; increasing the period for determining final average salary; increasing member contributions to the retirement system; reducing the cost-of-living adjustment (COLA); eliminating the COLA for fiscal year 2014; and deferring the COLA for future retirees.

**DC Plan Benefits** — Benefits are established under Chapter 3307.80 to 3307.89 of the Revised Code.

For members who select the DC Plan, all member contributions and employer contributions at a rate of 10.5% are placed in an investment account. The member determines how to allocate the member and employer money among various investment choices. The member receives a quarterly statement of his or her account activity and balance. The remaining 3.5% of the 14.0% employer rate is allocated to the defined benefit unfunded liability. Effective July 1, 2013, 9.5% of employer contributions are placed in the member's account and 4.5% is allocated to the defined benefit unfunded liability.

A member is eligible to receive a retirement benefit at age 50 and termination of employment. The member may elect to receive a lifetime monthly annuity or a lump-sum withdrawal. Employer contributions into member accounts are vested after the first anniversary of the first day of paid service.

Members in the DC Plan who become disabled are entitled only to their account balance. If a member dies before retirement benefits begin, the member's designated beneficiary is entitled to receive the member's account balance.

**Combined Plan** — In the Combined Plan, member contributions are allocated among investment choices by the member, and employer contributions are used to fund a defined benefit payment.

A member's defined benefit is determined by multiplying 1% of the member's final average salary by the member's years of service credit. The defined benefit portion of the Combined Plan payment is payable to a member on or after age 60. The DC portion of the account may be taken as a lump sum or converted to a lifetime monthly annuity.

Both DC and Combined Plan members transfer to the Defined Benefit Plan during their fifth year of membership unless they permanently select the DC or Combined Plan. During fiscal 2013, \$16,738,000 was transferred from the DC and Combined Plan accounts to the Defined Benefit Plan. During fiscal 2012, \$17,246,000 was transferred from the DC and Combined Plan accounts to the Defined Benefit Plan.

**Death, Survivor and Disability Benefits** — A Defined Benefit Plan or Combined Plan member with five or more years of credited service who becomes disabled (illness or injury preventing individual's ability to perform regular job duties for at least 12 months) is entitled to a disability benefit. Additionally, eligible survivors of members who die before service retirement may qualify for monthly benefits.

A death benefit of \$1,000 is payable to the beneficiary of each deceased retired member who participated in the Defined Benefit Plan. Death benefit coverage up to \$2,000 can be purchased by participants in the DB, DC or Combined Plans. Various other benefits are available to members' beneficiaries.

**Health Care Coverage After Retirement** — Ohio law authorizes the State Teachers Retirement Board to offer a cost-sharing, multiple-employer health care plan. STRS Ohio provides access to health care coverage to eligible retirees who participated in the Defined Benefit or Combined Plans and their eligible dependents.

Coverage under the current program includes hospitalization, physicians' fees, prescription drugs and reimbursement of monthly Medicare Part B premiums. Pursuant to the Ohio Revised Code, the Retirement Board has discretionary authority over how much, if any, of the associated health care costs will be absorbed by the plan. All benefit recipients, for the year ended June 30, 2013, pay a portion of the health care costs in the form of a monthly premium. Benefit recipients contributed \$261.9 million or 44% of the total health care costs (excluding deductibles, coinsurance and copayments). For the year

ended June 30, 2012, benefit recipients contributed 39% of the total health care costs.

Under Ohio law, funds to pay health care costs may be deducted from employer contributions, currently 14% of compensation. Of the 14% employer contribution rate, 1% of covered payroll was allocated to post-employment health care. For the years ended June 30, 2013 and 2012, employer contributions allocated to health care totaled \$99.2 million and \$101.0 million, respectively.

Medicare Part D is a federal program to help cover the costs of prescription drugs for Medicare beneficiaries. This program allows STRS Ohio to recover part of the cost for providing prescription coverage since all eligible STRS Ohio health care plans include creditable prescription drug coverage. For the years ended June 30, 2013 and 2012, STRS Ohio received \$41.2 million and \$43.2 million in Medicare Part D reimbursements, respectively.

STRS Ohio participated in the Early Retiree Reinsurance Program (ERRP) until the program concluded in 2012. ERRP was managed by Health and Human Services and provided financial assistance to employers that maintained health care coverage for early retirees not yet eligible for Medicare. For the year ended June 30, 2013, STRS

Ohio did not receive financial assistance. For the year ended June 30, 2012, STRS Ohio received \$49.0 million.

Pension and post-employment health care assets are commingled for investment purposes. Consequently, amounts reported for individual asset classes are allocated between pension and post-employment health care based upon ending net position.

### Pension Plan and Health Care Plan Funding Progress

— The actuarial assumptions and methods used in the pension plan and health care valuations were selected in compliance with the parameters established under GASB Statements No. 25 and No. 43. As noted previously, health care plan net assets are commingled with pension plan net position for investment purposes.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and health care cost trends. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedule of employer contributions shown below presents information about the amounts contributed to the plan by employers in comparison to the annual required contribution (ARC), an amount that is actuarially determined in accordance with parameters of GASB Statements No. 25 and No. 43. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost for each year and amortize any unfunded actuarial liabilities over a period not to exceed 30 years. The most recent pension valuation reflects an amortization period of 36.1, but is reduced to 30 years for disclosure compliance.

### Key Methods and Assumptions Used in Actuarial Valuation

Actuarial Information	Pension	Health Care
Valuation date	July 1, 2013	Jan. 1, 2013
Actuarial cost method	Entry age	Entry age
Amortization method	Level percentage, open	Level percentage, open
Amortization period	30 years	30 years
Asset valuation method	Four-year, smoothed market with 91%/109% corridor	Fair market value
<b>Actuarial assumptions:</b>		
Investment rate of return	7.75%	6.5%
Projected salary increases	12.25% at age 20, to 2.75% at age 70	varies by age from 2.75%–12.25%
Payroll increase	3.50% for next 5 years; 4.00% thereafter	3.50% for next 6 years; 4.00% thereafter
Inflation assumption	2.75%	2.75%
Cost-of-living adjustment	2.0% simple; varies with retirement date	N/A
Trend rate	N/A	7.3%–9.8% initial; 5% ultimate

### Required Pension and Health Care Employer Contributions (dollar amounts in thousands)

Year Ended June 30	Pension		Health Care	
	Annual Required Contribution	Percent Contributed	Annual Required Contribution	Percent Contributed
2011	\$2,715,523	51%	\$449,136	23%
2012	\$3,248,651	41%	\$210,107	48%
2013	\$2,910,537	46%	\$143,810	69%

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the employer and plan participants), and include the types of benefits provided at the time of the valuation. The actuarial methods and assumptions used include

techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The funded status and funding progress of the pension plan and health care plan require an actuarial valuation. The funded status and funding progress of the pension plan as of June 30, 2013, and the preceding two years is as follows:

### Schedule of Pension Plan Funding Progress

(dollar amounts in thousands)

Actuarial Valuation Year	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
2011	\$58,110,495	\$98,766,204	\$40,655,709	58.8%	\$11,097,598	366%
2012	\$59,489,508	\$106,301,841	\$46,812,333	56.0%	\$10,879,075	430%
2013	\$62,590,786	\$94,366,694	\$31,775,908	66.3%	\$10,765,635	295%

The funded status and funding progress of the health care plan as of Jan. 1, 2013, and the preceding two years is as follows:

### Schedule of Health Care Plan Funding Progress

(dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
Jan. 1, 2011	\$3,108,541	\$8,631,313	\$5,522,772	36.0%	\$10,520,932	52.5%
Jan. 1, 2012	\$2,968,157	\$5,094,407	\$2,126,250	58.3%	\$10,549,271	20.2%
Jan. 1, 2013	\$3,121,576	\$4,254,096	\$1,132,520	73.4%	\$10,277,783	11.0%

The schedules of funding progress present multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits. Schedules of funding progress for the pension and health care plans are presented on Pages 31 and 32.

**Refunds** — Withdrawal cancels a member's rights and benefits in STRS Ohio.

Upon termination of employment, a Defined Benefit Plan member may withdraw accumulated contributions made to STRS Ohio. Refunds of member contributions may include interest and 50% matching payments.

A Combined Plan member is eligible for the present value of future benefits from the defined benefit portion of the

account if he or she terminates employment after at least five years of service. For the defined contribution portion of the account, the refund consists of member contributions plus any investment gains or losses on those contributions.

Defined Contribution Plan members receive their contributions plus any investment gains or losses until they have completed one year of membership. After one year of membership, members receive the balance in their accounts, including employer contributions and related gains or losses.

**Alternative Retirement Plan** — Eligible faculty of Ohio's public colleges and universities may choose to enroll in either STRS Ohio or an alternative retirement plan (ARP) offered by their employer.

Employees have 120 days from their date of hire to select a retirement plan.

For employees who elect an ARP, employers are required to remit employer contributions to STRS Ohio at a rate of 3.5% of payroll. For the year ended June 30, 2013, the ARP participant payroll totaled \$568,670,000. For the year ended June 30, 2012, the ARP participant payroll totaled \$519,754,000.

**Administrative Expenses** — The costs of administering the Defined Benefit and post-employment health care plans are financed by investment income. The administrative costs of the Defined Contribution Plan are financed by participant fees.

### 3. Contribution Requirements and Reserves

Employer and member contribution rates are established by the Retirement Board and limited by Chapter 3307 of the Revised Code. Through June 30, 2013, the member rate was limited to 10% and the employer rate was limited to 14% of covered payroll. Effective July 1, 2013, the member contribution rate increased to 11% of covered payroll.

Various funds are established under the Revised Code to account for contributions, reserves, income and administrative expenses.

The Teachers' Savings Fund (TSF) is used to accumulate member contributions in trust.

The Employers' Trust Fund (ETF) is used to accumulate employer contributions in trust. The ETF includes assets allocated to post-employment health care from which payments for health care coverage are made. Investment fair value changes for the Defined Benefit Plan and the health care program from year-to-year are recorded in the ETF.

The Annuity and Pension Reserve Fund (APRF) is the fund from which all annuities and pension payments to retired members are made. Reserves are transferred to this fund from the TSF and ETF funds at the time of retirement.

The Survivors' Benefit Fund is the fund from which all survivor benefit payments are made for which reserves have been transferred from the TSF and the ETF.

The Defined Contribution Fund accumulates DC member and employer contributions, Combined Plan member contributions, investment earnings and DC plan expenses.

The Guarantee Fund is used to accumulate income derived from gifts, bequests and investments for the year.

The Expense Fund is the fund from which all expenses for the administration and management of STRS Ohio are paid each year.

After interest is allocated to the various funds, the Guarantee Fund and the Expense Fund are closed into the ETF at year-end.

At June 30, 2013 and 2012, STRS Ohio's net position was included in the various funds as shown in the chart below.

#### Fund Balances (in thousands)

	June 30, 2013	June 30, 2012
Teachers' Savings Fund	\$ 10,962,886	\$ 10,985,246
Employers' Trust Fund	(11,070,349)	(15,342,824)
Annuity and Pension Reserve Fund	66,957,724	66,970,288
Survivors' Benefit Fund	1,117,716	1,140,887
Defined Contribution Fund	686,528	567,702
<b>Total</b>	<b>\$ 68,654,505</b>	<b>\$ 64,321,299</b>

#### 4. Commitments and Contingencies

STRS Ohio has made commitments to fund various real estate investments totaling \$617,148,000 as of June 30, 2013. The commitments as of June 30, 2013, have expected funding dates from August 2013 to March 2017.

STRS Ohio has made commitments to fund various alternative investments totaling \$2,866,029,000 as of June 30, 2013. The expected funding dates for the commitments as of June 30, 2013, range from July 2013 to June 2019.

STRS Ohio is a party in various legal actions. While the final outcome cannot be determined at this time, management is of the opinion that the liability, if any, for these legal actions will not have a material adverse effect on the net assets available for benefits.

#### 5. Deposit and Investment Risk Disclosure

**Investment Authority** — The investment authority of the Retirement Board is governed by Section 3307.15 of the Revised Code that also requires the Retirement Board to publish its investment policies annually and make copies available to interested parties. This section requires that investments be made with care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

Investments held at fair value by STRS Ohio at June 30, 2013 and 2012, are summarized in the chart below.

#### Investments Held at Fair Value by STRS Ohio at June 30, 2013 and 2012 (summarized and in thousands)

Category	June 30, 2013	June 30, 2012
<b>Short-term:</b>		
Commercial paper	\$ 2,825,279	\$ 3,830,054
Short-term investment funds	12,000	10,000
Repurchase agreements	75,000	—
<b>Total short-term</b>	<b>2,912,279</b>	<b>3,840,054</b>
<b>Fixed income:</b>		
U.S. government agency obligations	785,027	606,085
Corporate bonds	3,931,650	4,140,694
High yield and emerging market	1,535,316	1,359,647
Mortgages and asset-backed	3,599,995	3,433,033
U.S. government obligations	4,256,118	2,216,319
<b>Total fixed income</b>	<b>14,108,106</b>	<b>11,755,778</b>
<b>Domestic common and preferred stock</b>	<b>22,923,599</b>	<b>22,858,112</b>
<b>International: (See Note 6)</b>	<b>13,968,850</b>	<b>11,928,871</b>
<b>Real estate: (See Note 7)</b>		
East region	2,764,200	2,579,070
Midwest region	871,916	812,080
South region	556,659	579,270
West region	2,060,767	1,835,471
REITs	1,043,027	944,107
Other	1,058,079	1,151,431
<b>Total real estate</b>	<b>8,354,648</b>	<b>7,901,429</b>
<b>Alternative investments: (See Note 8)</b>	<b>7,616,022</b>	<b>7,067,589</b>
<b>Invested securities lending collateral</b>	<b>1,193,446</b>	<b>506,224</b>
<b>Total investments and invested securities lending collateral</b>	<b>\$ 71,076,950</b>	<b>\$ 65,858,057</b>

**Cash and Short-Term Investments** — Cash and short-term investments are combined for reporting purposes and include bank cash balances of \$55,524,000 at June 30, 2013, and \$7,204,000 at June 30, 2012, on the *Statements of Net Position*.

**GASB Statement No. 40** — GASB Statement No. 40, *Deposit and Investment Risk Disclosures*, addresses common deposit and investment risks related to credit risk, concentration of credit risk, interest rate risk and foreign currency risk.

**Credit Risk** — The quality ratings of investments in fixed-income securities as described by Standard & Poor's or Moody's at June 30, 2013 and 2012, are shown in the chart below. U.S. government fixed-income securities or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk.

### Quality Ratings of Fixed-Income Investments Held at June 30, 2013 and 2012 (in thousands)

Investment Type	Quality Rating	June 30, 2013 Fair Value	June 30, 2012 Fair Value
U.S. government agency obligations	AA	767,977	\$ 588,983
	A	17,050	17,102
<b>Total U.S. government agency obligations</b>		<b>785,027</b>	<b>606,085</b>
Corporate bonds	AAA	564,174	815,769
	AA	538,613	359,991
	A	1,475,523	1,681,389
	BBB	1,264,244	1,037,470
	BB	34,996	55,053
	NR	54,100	191,022
<b>Total corporate bonds</b>		<b>3,931,650</b>	<b>4,140,694</b>
High yield and emerging markets fixed income	AAA	—	1,149
	AA	12,396	5,395
	A	44,260	18,604
	BBB	266,009	197,612
	BB	277,542	277,790
	B	509,092	511,403
	CCC and below	251,955	192,951
	NR	174,062	154,743
<b>Total high yield and emerging markets fixed income</b>		<b>1,535,316</b>	<b>1,359,647</b>
Mortgages and asset-backed	AAA	1,153,300	755,364
	AA	2,365,447	2,591,205
	A	—	16,575
	BBB	10,834	15,561
	B	5,393	8,362
	CCC and below	24,508	16,051
	NR	40,513	29,915
<b>Total mortgages and asset-backed</b>		<b>3,599,995</b>	<b>3,433,033</b>
<b>Credit risk debt securities</b>		<b>9,851,988</b>	<b>9,539,459</b>
<b>U.S. government obligations</b>		<b>4,256,118</b>	<b>2,216,319</b>
<b>Total fixed-income investments</b>		<b>\$ 14,108,106</b>	<b>\$ 11,755,778</b>

**Custodial Credit Risk** — Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Custodial credit risk is the risk that, in the event of a failure of the counterparty, STRS Ohio will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of STRS Ohio, and are held by either the counterparty or the counterparty's trust department or agent but not in the name of STRS Ohio.

All investments are held in the name of STRS Ohio or its nominee by the Treasurer of the State of Ohio as custodian. At June 30, 2013 and 2012, the bank cash balances were approximately \$62,831,000 and \$13,821,000, respectively. Bank balances are insured up to \$250,000 by the Federal Deposit Insurance Corporation. The remaining bank deposits are covered by collateral held in the name of STRS Ohio's pledging financial institution, as required by state statute.

**Interest Rate Risk** — Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. Duration is a 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 full price. The longer the maturity, the more the value of the fixed-income investment will fluctuate with interest rate changes. The table on Page 26 shows the maturities by weighted-average duration at June 30, 2013 and 2012.

**Concentration of Credit Risk** — STRS Ohio is guided by statute and policy in the selection of security investments. No investment in any one organization represents 5% or more of STRS Ohio's net position as of June 30, 2013 and 2012.

**Duration of Fixed-Income Investments Held at June 30, 2013 and 2012** (in thousands)

Investment Type	June 30, 2013		June 30, 2012	
	Fair Value	Weighted-Average Duration	Fair Value	Weighted-Average Duration
U.S. government agency obligations	\$ 785,027	0.612	\$ 606,085	1.093
Corporate bonds	3,931,650	4.694	4,140,694	3.935
High yield and emerging markets fixed income	1,535,316	4.922	1,359,647	5.797
Mortgages and asset-backed	3,599,995	4.277	3,433,033	2.995
U.S. government obligations	4,256,118	5.456	2,216,319	6.394
<b>Total fixed income</b>	<b>\$ 14,108,106</b>		<b>\$ 11,755,778</b>	

Significant investment guidelines that relate to investment concentration, interest rate risk and foreign currency risk by major asset class are as follows:

**Overall Investment Portfolio** — The Retirement Board has approved a target risk budget range of 0.60% to 1.20%, with a working range of 0.20% to 1.60%, annualized active management for the total fund. A risk budget is the amount the Retirement Board has approved for returns to vary from an unmanaged passive investment profile. The board's objective is for active management to add net 0.40% of annualized excess return over moving five-year periods.

**Fixed Income** — The portfolio will seek diversification by market sector, quality and issuer. The risk budget range for fixed income is 0.10% to 1.50% using the Barclays U.S. Universal Index as the benchmark. Derivatives may be used to adjust the exposure to interest rates, individual securities or to various market sectors in the portfolio. Underlying exposure of derivatives for fixed-income investments will not exceed 5% of total fund assets.

**Global Equities — Domestic** — The risk budget range for domestic equities is 0.20% to 1.50% using the Russell 3000 as the benchmark. Derivatives may be used in management of the equity portfolio. The use of leverage is prohibited. Underlying exposure of equity derivatives will not exceed 10% of total fund assets.

**Global Equities — International** — International assets will be a diversified portfolio including both developed and emerging countries. The risk budget range for international equity is between 1.00% to 2.50% using a blended benchmark of 80% MSCI World ex US Index (50% hedged) and 20% MSCI Emerging Markets Index. Derivatives may be used in management of the portfolio

and underlying exposure of derivatives for international investments will not exceed 10% of total fund assets.

**Real Estate** — The real estate portfolio shall be diversified between property type, geographic location and investment structure. The risk budget range for real estate investments is 2.00% to 7.00% using a benchmark of 85% NCREIF Property Index and 15% FTSE NAREIT Equity REITs Index. Investments in non-core real estate, which includes domestic and international opportunity funds and real estate development projects, shall not exceed 20% of total real estate assets. Derivatives may be used and will not exceed 1% of total fund assets. STRS Ohio may borrow funds on a secured or unsecured basis and leverage is limited to 50% in aggregate of internally managed real estate assets excluding publicly traded real estate investment trusts (REITs).

**Foreign Currency Risk** — Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. Forward currency contracts may be used to manage the exposure to foreign currencies. The system's foreign currencies and investments at June 30, 2013 and 2012 are shown in the chart on Page 27. The investments figures are comprised of numerous portfolios within international equity, debt securities and real estate investments.

**Securities Lending** — STRS Ohio participates in a domestic and international securities lending program whereby securities are loaned to investment brokers/dealers (borrower). Securities loaned are collateralized by the borrower at 102% of the domestic equity and U.S. dollar-denominated fixed-income loaned securities' fair value and 105% of the international loaned securities' fair value.

STRS Ohio lends domestic equities, international, U.S. Treasuries, agencies and corporate bonds. The collateral received is cash, U.S. Treasuries or related agency securities. STRS Ohio cannot sell or pledge collateral received. If a borrower defaults, then the collateral can be liquidated.

A custodial agent bank administers the program and STRS Ohio receives a fee from the borrower for the use of loaned securities. Cash collateral from securities lending is invested in repurchase agreements, commercial paper and U.S. corporate obligations.

The credit quality of the invested cash collateral is the same as the credit quality on STRS Ohio direct holdings. There are slight mismatches between the duration of the cash invested and the length of time the securities are on loan. As of June 30, 2013, the average maturity of the invested cash collateral is 64 days. Because much of the cash collateral is invested in floating rate securities, interest rates are reset every 14 days on average as of June 30, 2013. STRS Ohio has minimized its exposure to credit risk due to borrower default by having the custodial agent bank determine daily that the required collateral meets the specified collateral requirements. There are no restrictions on the amount of securities that can be loaned. The fair value of loaned securities was approximately \$1,157,202,000 and \$485,997,000 as of June 30, 2013 and 2012, respectively. The fair value of the associated invested cash collateral as of June 30, 2013 and 2012, was \$1,193,446,000 and \$506,224,000, respectively.

<b>Foreign Currency Held at June 30, 2013 and 2012 (in thousands)</b>				
Foreign Currency Denomination	June 30, 2013		June 30, 2012	
	International	High Yield & Emerging Markets Fixed Income	International	High Yield & Emerging Markets Fixed Income
Argentina Peso	\$ 49	\$ 178	\$ 277	\$ 1,262
Australian Dollar	125,495		153,686	
Brazilian Real	159,262	11,797	157,870	3,124
British Pound Sterling	713,871	1,910	765,833	1,499
Canadian Dollar	210,248		103,398	
Chilean Peso	62,077		49,473	
Colombian Peso	958	4,182	(526)	4,211
Czech Koruna	17,134		20,715	
Danish Krone	147,638		81,399	
Egyptian Pound	2,716	57	11,433	69
Euro Currency	721,057	1,818	528,250	9,651
Ghana Cedi				1,225
Hong Kong Dollar	705,919		445,051	
Hungarian Forint	11,932		9,467	
Indian Rupee	164,913	447	111,144	
Indonesian Rupiah	30,880		34,984	
Israeli Shekel	6,676		(7,833)	
Japanese Yen	747,220		655,034	
Malaysian Ringgit	61,653		58,766	
Mexican Nuevo Peso	75,022	3,103	59,995	2,728
New Zealand Dollar	109,888		1,737	
Nigerian Naira	8,449	1,189	4,531	1,478
Norwegian Krone	60,910		104,987	
Omani Rial	2,830		2,533	
Philippines Peso	32,332		39,984	
Polish Zloty	32,362		27,993	
Renminbi Yuan	(15)			
Russian New Ruble	(2,827)	575	6,894	1,123
Singapore Dollar	121,397		139,644	
South African Rand	211,635		200,369	
South Korean Won	375,511		317,181	
Swedish Krona	169,537		177,301	
Swiss Franc	236,676		202,360	
Taiwan Dollar	306,631		285,645	
Thai Baht	125,512		83,440	
Turkish Lira	89,992	436	64,258	1,434
Held In Foreign Currency	5,845,540	25,692	4,897,273	27,804
Held In U.S. Dollars	8,123,310	1,509,624	7,031,598	1,331,843
<b>Total</b>	<b>\$13,968,850</b>	<b>\$ 1,535,316</b>	<b>\$ 11,928,871</b>	<b>\$ 1,359,647</b>

## 6. International Investments

**Externally Managed** — STRS Ohio has investments in international equity securities through the use of external money managers. It is the intent of STRS Ohio and the money managers to be fully invested; however, cash and short-term fixed-income investments may be held temporarily. The portfolios are managed in accordance with various mandates based on Morgan Stanley Capital International's (MSCI) indexes. Investments are held in both developed and emerging international markets.

## Internally Managed:

### Developed Markets, Emerging Stock and Country Funds

— STRS Ohio actively invests in developed and emerging markets through individual stock selection, including international publicly traded real estate securities, and traded country funds. Each country fund consists of individual equity securities pooled together in an attempt to match or exceed the local country's index.

**Europe, Australia and Far East (EAFE) Index Fund** — To increase diversification in international developed markets, STRS Ohio invests in an EAFE Index Fund. The EAFE Index Fund purchases foreign equities, futures and other traded investments to replicate the makeup of the EAFE benchmark.

**Equity Swaps** — Four EAFE and two Emerging Market Free (EMF) international equity swap agreements were contracted during fiscal 2013 with maturity dates in fiscal 2014. In exchange for LIBOR (London Interbank Offered Rate) minus a negotiated spread, STRS Ohio will receive or pay the difference of the change in the total return of the various market indices included in the swap agreements. Fixed-income securities with a notional amount of \$1.34 billion have been set aside at the State Street Bank and Trust Company as security.

**Forward Contracts** — Managers have the ability to add value through currency management. Forward currency contracts are used to minimize the impact of foreign currency fluctuations on the asset positions of foreign investments.

The fair values of international investments held at June 30, 2013 and 2012, are shown in the chart below.

Fair Values of International Investments Held at June 30, 2013 and 2012 (in thousands)		
	June 30, 2013	June 30, 2012
<b>Externally managed</b>		
International stocks	\$ 5,640,451	\$ 4,671,190
International currency and liquidity reserves	148,067	161,857
Forward contracts	47,193	(17,395)
<b>Total externally managed</b>	<b>5,835,711</b>	<b>4,815,652</b>
<b>Internally managed</b>		
Developed markets	4,746,955	4,166,223
Emerging stock and country funds	1,915,823	1,667,055
International publicly traded real estate securities	—	20
EAFE Index Fund	1,413,481	1,186,414
EAFE equity swaps	(42,012)	46,836
EMF equity swaps	380	54,145
Forward contracts	98,512	(7,474)
<b>Total internally managed</b>	<b>8,133,139</b>	<b>7,113,219</b>
<b>Total international</b>	<b>\$ 13,968,850</b>	<b>\$ 11,928,871</b>

## 7. Real Estate Investments

**Direct** — STRS Ohio properties are diversified between property type, geographic location and investment structure. Direct real estate assets include both single and multi-tenant retail, office and warehouse properties, as well as apartments.

**Public Real Estate** — Public real estate includes publicly traded real estate securities and real estate investment trusts (REITs). REITs are real estate company stocks with a high dividend-income component. REITs divide the ownership of the real estate company and its properties among all the shareholders. REITs are required to distribute 90% of the company's taxable income to their shareholders annually in the form of dividends. Distributions are taxable to shareholders rather than the real estate company. STRS Ohio is exempt from federal and state income taxes.

**Other** — Other real estate investments include commingled funds that are externally managed. Commingled funds generate income as a result of operations and property sales, which are distributed to the investors.

### Debt on Real Estate Investments and Interest Rate Swaps

— STRS Ohio uses debt to lower the cash outlay in acquiring real estate assets and to positively impact the performance of the real estate portfolio. Of the debt on real estate investments, \$256 million and \$250 million was recourse debt as of June 30, 2013 and 2012, respectively. This debt is recourse to STRS Ohio with a covenant not to mortgage a specific pool of real estate assets. The remainder of the debt on real estate investments at June 30, 2013 and 2012, is non-recourse debt, which means that in the event of default, the specific real estate holding is used as collateral for the loan and general assets of STRS Ohio are not pledged as collateral.

At June 30, 2013, the recourse loans of \$256 million had maturity dates of May 2015 and April 2016. Interest on the recourse loans is based on LIBOR plus a spread.

Of the non-recourse debt at June 30, 2013, loan maturities ranged from November 2013

to July 2034. Non-recourse debt at June 30, 2012, had loan maturities ranging from May 2013 to July 2034. The repayment schedule for real estate debt is reflected in the table below.

Real Estate Debt Repayment Schedule As of June 30, 2013 (in thousands)		
By Fiscal Year	Principal	Interest
2014	\$ 152,890	\$ 45,115
2015	255,907	40,847
2016	75,849	34,390
2017	365,992	23,703
2018	25,882	11,310
2019–2023	258,873	40,250
2024–2028	130,900	1,638
2029–2033	149,000	1,109
2034–2038	252,550	178
<b>Total</b>	<b>\$ 1,667,843</b>	<b>\$ 198,540</b>

## 8. Alternative Investments

Alternative investments are primarily investments in private equities and opportunistic/diversified investments. Private equity is actively managed and includes venture and buyout/growth opportunities. STRS Ohio invests as a limited partner in closed-end partnerships along with other pension funds, endowments and high-net-worth individuals. Private equity investments tend to be limited to a particular industry to take advantage of the general partner's knowledge and skill. Opportunistic/diversified investments are actively managed and are tactical in nature with a goal of downside protection during equity bear markets.

## 9. Derivatives

**Equity Swap Agreements** — As discussed in Note 6, STRS Ohio has entered into international equity swap agreements. No funds are required as collateral by either party; however, STRS Ohio has purchased fixed-income securities equivalent to the initial exposure, which are located in a subcustodial account at the State Street Bank and Trust Company as of June 30, 2013. The notional amount of the contracts was \$1.34 billion. The unrealized loss at June 30, 2013, was \$41.6 million and is included as net appreciation/depreciation in the *Statement of Changes in Net Position*. The market risk of the swap is the same as if STRS Ohio owned the underlying stocks that comprise the indexes. The revenues and expenses resulting from these agreements have been recorded in the basic financial statements.

**Forward Contracts** — Forward contracts in various currencies are used to transact and hedge direct foreign equity and real estate investments that STRS Ohio maintains through the use of outside managers. Additionally, forward contracts are used to hedge currency exposure as a result of the EAFE equity swap agreements. STRS Ohio is obligated to deliver the foreign currency at a certain dollar price sometime in the future. To fulfill this obligation at maturity, STRS Ohio must obtain the currency in the open market. Before the contract matures, STRS Ohio can enter into an offsetting forward contract that nets out the original contract. These events expose STRS Ohio to currency market risk, which can fluctuate. The fair value of the foreign currency forwards is the unrealized gain or loss and is included as net appreciation/depreciation in the *Statements of Changes in Net Position*. STRS Ohio is also subject to the risk that the counterparty will fail to fulfill the contract.

**Futures** — Index futures are designed to offer lower cost and more efficient alternatives to buying individual stocks that comprise the index. The market and credit risk of the futures were the same as if STRS Ohio had owned the underlying stocks that comprise the index. The realized gain or loss on index futures is included as net appreciation/depreciation in the *Statements of Changes in Net Position*.

Additionally, futures were used in the EAFE Index Fund and by external money managers. The system's exposure to future and forward contracts at June 30, 2013 and 2012, is shown in the chart below.

Exposure to Future and Forward Contracts Held at June 30, 2013 and 2012 (in thousands)		
	June 30, 2013	June 30, 2012
<b>Forward contracts</b>		
Externally managed	\$ 4,148,840	\$ 3,212,129
Internally managed	3,396,521	2,698,002
<b>Total forward contracts</b>	<b>\$ 7,545,361</b>	<b>\$ 5,910,131</b>
<b>Future contracts</b>		
S&P 500	–	\$ 328,791
Russell 2000	–	31,816
EAFE Index Fund	\$ 22,309	20,773
Externally managed	16,615	8,413
<b>Total future contracts</b>	<b>\$ 38,924</b>	<b>\$ 389,793</b>

**Options** — STRS Ohio writes option contracts on existing stock positions to enhance the return on the stock portfolio. In exchange for a premium, STRS Ohio gives the option buyer the right to buy or sell the underlying stock. Options are also purchased to "cover" existing written open option positions. The notional value of the options contracts at June 30, 2013, was \$21.6 million.

The negative fair value of the options contracts of \$97,000 at June 30, 2013, is included in the *Statements of Net Position*.

**Warrants** — Warrants allow the right to purchase underlying stock shares at a specified price. Warrants are usually added on as an incentive to an issuer's fixed-income securities. STRS Ohio held warrants with a value of \$791,000 as of June 30, 2013, and is included in the *Statement of Net Position*.

**Fixed-Income Credit Default Swaps** — STRS Ohio may manage credit exposure through the use of credit default swaps. A credit default swap is a contract whereby the credit risk associated with an investment is transferred by entering into an agreement with another party who, in exchange for periodic fees, agrees to make payments in the event of a default or other predetermined credit event. One of the main advantages of a credit default swap is it allows for exposure to credit risk while limiting exposure to other risks, such as interest rate and currency risk. STRS Ohio held credit default swaps with notional values of \$200,000 and \$6,110,000 as of June 30, 2013 and 2012, respectively.

**Fixed-Income Credit Linked Notes** — Credit linked notes are structured securities whose principal and interest payments are based on a reference to underlying bonds. One of the general reasons for owning credit linked notes is to gain exposure to an underlying security where, otherwise, direct ownership is limited by restrictions imposed by certain countries. STRS Ohio held credit linked notes with a value of \$1,496,000 at June 30, 2013, which is included in the *Statement of Net Position*. STRS Ohio held credit linked notes with a value of \$6,233,000 at June 30, 2012.

## 10. Pension Plan

Substantially all STRS Ohio employees are required to participate in a contributory retirement plan administered by the Ohio Public Employees Retirement System of Ohio (OPERS). OPERS is a cost-sharing, multiple-employer public employee retirement system.

Eligible employees are entitled to a retirement benefit, payable monthly for life, equal to 2.2% of their final average salary for each year of credited service up to 30 years and 2.5% for each year of service over 30 years. Final average salary is the employee's average salary over the highest three years of earnings. Benefits fully vest on reaching five years of service. Vested employees may retire at any age with 30 years of credited service; at age 55 with a minimum of 25 years

of credited service; and at age 60 with a minimum of five years of service. Employees retiring with less than 30 years of service and under age 65 receive reduced retirement benefits. Benefits are established by state law.

The member and employer contribution rates are 10.0% and 14.0% of covered payroll, respectively. The required employer contributions for the current year and the two preceding years are shown in the chart below.

Year Ended June 30	Annual Required Contributions	Percentage Contributed
2011	\$7,338,000	100%
2012	\$6,560,000	100%
2013	\$6,853,000	100%

Historical trend information showing the progress of OPERS in accumulating sufficient assets to pay benefits when due is presented in the OPERS *Comprehensive Annual Financial Report*. OPERS issues a publicly available financial report for the plans. The report may be obtained by writing to OPERS, 277 E. Town St., Columbus, OH 43215-4642.

OPERS also provides post-employment health care coverage to age and service retirees with 10 or more years of qualifying Ohio service credit and to primary survivor recipients of such retirees. Health care coverage for disability recipients is available. The health care coverage provided by the retirement system is considered an Other Post-Employment Benefit (OPEB) as described in GASB Statement No. 43. A portion of each employer's contribution to OPERS is set aside for funding post-employment health care. The Revised Code provides statutory authority for employer contributions. The employer rate set aside for post-employment health care was 4.0% for 2012 and 2011.

**Required Schedule of Pension Plan Funding Progress**  
**For the Years Ended June 30, 2008–2013** (dollar amounts in thousands)

Valuation Year	Actuarial Accrued Liability (AAL)*	Valuation Assets*	Unfunded Actuarial Accrued Liability (UAAL)*	Ratio of Assets to AAL	Covered Payroll**	UAAL as % of Covered Payroll
2008	\$87,432,348	\$69,198,008	\$18,234,340	79.1%	\$10,460,473	174%
2009	\$91,440,955	\$54,902,859	\$36,538,096	60.0%	\$10,800,817	338%
2010	\$94,720,669	\$55,946,259	\$38,774,410	59.1%	\$11,057,260	351%
2011**	\$98,766,204	\$58,110,495	\$40,655,709	58.8%	\$11,097,598	366%
2012**	\$106,301,841	\$59,489,508	\$46,812,333	56.0%	\$10,879,075	430%
2013	\$94,366,694	\$62,590,786	\$31,775,908	66.3%	\$10,765,635	295%

\*The amounts reported in this schedule do not include assets or liabilities for post-employment health care coverage.

\*\*Covered payroll includes salaries for alternative retirement plan participants and defined contribution plan participants. For 2013 and 2012, alternative retirement plan participant payroll totaled \$586,670 and \$519,754, respectively. For 2013 and 2012, defined contribution plan payroll totaled \$279,054 and \$256,811, respectively.

**Required Schedule of Employer Contributions Related to Pension Plan**  
**For the Years Ended June 30, 2008–2013** (dollar amounts in thousands)

Year Ended June 30	Annual Required Contributions*	Percentage Contributed
2008**	\$1,329,498	100%
2009	\$1,502,240	89%
2010	\$2,623,624	52%
2011	\$2,715,523	51%
2012**	\$3,248,651	41%
2013	\$2,910,537	46%

\*The amounts reported in this schedule do not include contributions for post-employment health care coverage. The Governmental Accounting Standards Board (GASB) requires disclosure of the Annual Required Contributions (ARC) using a maximum amortization period of 30 years effective July 1, 2007. Amounts shown as the ARC for each year may be different from the contributions required by state statute. The information here was determined as part of the actuarial valuations for the dates indicated. Additional information as of the latest actuarial valuation is shown in the table below.

\*\*Revised economic and non-economic assumptions due to experience review.

**Notes to Pension Plan Trend Data**

Valuation date	July 1, 2013	July 1, 2012
Actuarial cost method	Entry age	Entry age
Amortization method	Level percentage, open	Level percentage, open
Remaining amortization period (for GASB disclosure)	30.0 years	30.0 years
Asset valuation method	Four-year, smoothed with 91%/109% corridor	Four-year, smoothed with 91%/109% corridor
<b>Actuarial assumptions:</b>		
Investment rate of return	7.75%	7.75%
Projected salary increases	12.25% at age 20 to 2.75% at age 70	12.25% at age 20 to 2.75% at age 70
Payroll increase	3.50% for next 5 years, 4.00% thereafter	3.50% for next 6 years, 4.00% thereafter
Inflation assumption	2.75%	2.75%
Cost-of-living adjustments	2% simple; varies with retirement date	3% simple

The information presented in the required supplemental schedules was determined as part of the actuarial valuations for the dates indicated. See accompanying independent auditors' report.

### Required Schedule of Health Care Funding Progress, 2008–2013

(dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
Jan. 1, 2008	\$4,037,843	\$12,170,949	\$8,133,106	33.2%	\$9,834,501	82.7%
Jan. 1, 2009	\$2,693,699	\$13,413,723	\$10,720,024	20.1%	\$10,053,041	106.6%
Jan. 1, 2010	\$2,967,540	\$11,355,003	\$8,387,463	26.1%	\$10,347,383	81.1%
Jan. 1, 2011	\$3,108,541	\$8,631,313	\$5,522,772	36.0%	\$10,520,932	52.5%
Jan. 1, 2012	\$2,968,157	\$5,094,407	\$2,126,250	58.3%	\$10,549,271	20.2%
Jan. 1, 2013	\$3,121,576	\$4,254,096	\$1,132,520	73.4%	\$10,277,783	11.0%

### Required Schedule of Employer Contributions Related to Health Care For the Years Ended June 30, 2008–2013 (dollar amounts in thousands)

Year Ended June 30	Annual Required Contributions	Percentage Contributed
2008	\$582,217	16.9%
2009	\$775,262	13.1%
2010	\$635,447	16.3%
2011	\$449,136	23.1%
2012	\$210,107	48.1%
2013	\$143,810	69.0%

### Notes to Health Care Trend Data

Valuation date	Jan. 1, 2013	Jan. 1, 2012
Actuarial cost method	Entry age	Entry age
Amortization method	Level percentage, open	Level percentage, open
Remaining amortization period	30.0 years	30.0 years
Asset valuation method	Fair market value	Fair market value
<b>Actuarial assumptions:</b>		
Investment rate of return	6.50%	6.10%
Projected salary increases	12.25% at age 20 to 2.75% at age 70	12.00% at age 20 to 3.00% at age 65
Payroll increase	3.50% for next 6 years; 4.00% thereafter	3.50% for next 7 years; 4.00% thereafter
Inflation assumption	2.75%	3.00%
Trend rates	7.30%–9.8% initial; 5.00% ultimate	7.60%–10.4% initial; 5.00% ultimate

The information presented in the required supplemental schedules was determined as part of the actuarial valuations for the dates indicated. See accompanying independent auditors' report.

**Schedules of Administrative Expenses  
For the Years Ending June 30, 2013 and 2012**

	2013	2012
<b>Personnel</b>		
Salaries and wages	\$ 31,822,367	\$ 30,788,169
Retirement contributions	4,313,639	4,197,875
Benefits	5,319,536	4,996,017
<b>Total personnel</b>	<b>41,455,542</b>	<b>39,982,061</b>
<b>Professional and technical services</b>		
Computer support services	1,073,644	1,244,272
Health care services	757,855	838,406
Actuary	227,208	330,139
Auditing	172,967	177,679
Defined contribution administrative fees	889,984	934,989
Legal	216,230	182,272
Temporary employment services	24,931	60,444
<b>Total professional and technical services</b>	<b>3,362,819</b>	<b>3,768,201</b>
<b>Communications</b>		
Postage and courier services	1,191,727	1,256,371
Printing and supplies	1,483,731	1,448,658
Telephone	273,627	254,271
<b>Total communications</b>	<b>2,949,085</b>	<b>2,959,300</b>
<b>Other expenses</b>		
Equipment repairs and maintenance	4,105,381	4,415,413
Building utilities and maintenance	1,410,224	1,380,495
Transportation and travel	212,504	213,489
Recruitment fees	34,168	24,262
Depreciation	6,821,526	7,011,079
Member and staff education	216,210	202,892
Insurance	649,273	733,095
Memberships and subscriptions	159,102	152,007
Ohio Retirement Study Council	249,675	236,668
Miscellaneous	379,553	249,407
<b>Total other expenses</b>	<b>14,237,616</b>	<b>14,618,807</b>
<b>Total administrative expenses</b>	<b>62,005,062</b>	<b>61,328,369</b>

Note: Above amounts do not include investment administrative expenses, which are deducted from investment income and shown in a separate schedule on Page 34.

See accompanying independent auditors' report.

### Schedules of Investment Expenses For the Years Ending June 30, 2013 and 2012

	2013	2012
<b>Personnel</b>		
Salaries and wages	\$ 18,983,338	\$ 19,672,396
Retirement contributions	2,539,306	2,362,519
Benefits	1,774,651	2,011,968
<b>Total personnel</b>	<b>23,297,295</b>	<b>24,046,883</b>
<b>Professional and technical services</b>		
Investment research	2,608,692	2,626,594
Financial asset advisors	720,893	839,233
Banking fees	1,438,460	1,438,378
<b>Total professional and technical services</b>	<b>4,768,045</b>	<b>4,904,205</b>
<b>Other expenses</b>		
Printing and supplies	5,359	3,913
Building utilities and maintenance	331,565	321,925
Travel	404,390	369,126
Staff education	14,034	13,107
Investment quotation systems	1,543,033	1,466,177
Memberships and subscriptions	91,608	84,371
Miscellaneous	33,178	30,494
<b>Total other expenses</b>	<b>2,423,167</b>	<b>2,289,113</b>
<b>Total investment expenses</b>	<b>\$ 30,488,507</b>	<b>\$ 31,240,201</b>

See accompanying independent auditors' report.

### Schedules of Fees to External Asset Managers by Asset Class For the Years Ending June 30, 2013 and 2012

	2013	2012
<b>Asset class</b>		
Domestic common and preferred stock	\$ 12,591,441	\$ 11,389,358
International	22,979,840	22,295,552
Fixed income	5,919,830	5,476,611
Alternative investments	100,346,331	94,768,811
Real estate	20,046,948	18,386,064
<b>Total external manager fees</b>	<b>\$ 161,884,390</b>	<b>\$ 152,316,396</b>

See accompanying independent auditors' report.

## Investment Review

For Fiscal Year July 1, 2012, through June 30, 2013

Prepared by STRS Ohio's Investments Associates

### Headline economic growth disappoints while the private sector economy improves

In the four years since the end of the Great Recession, real (inflation-adjusted) economic growth has been disappointing. Real gross domestic product (GDP) has grown only an annualized 2.2% during the period — below even the long-term trend potential growth rate of roughly 2.5%. Typically, a strong economic recovery follows deep and prolonged recessions like the Great Recession, which saw a drop in annualized economic growth of -2.9% over an 18-month period. For instance, the 1973-1975 recession experienced a similar annualized drop in real GDP of -2.5% over 16 months while economic activity fell during the two recessions of the 1980-1982 period by a combined annualized -2.8% over 22 months. Real economic activity in the first four years following the end of each of those recession periods grew an annualized 5% compared to today's expansion of 2.2%.

Some of the disappointment in economic growth can be attributed to contraction in both federal and state and local government spending since the federal fiscal stimulus largely ended in the fall of 2010. Ongoing financial and economic problems among foreign economies have also hurt U.S. economic activity through trade impacts. In fact, focusing only on U.S. private domestic final sales (GDP less government, foreign trade and the change in inventories), underlying economic activity has grown by a stronger 2.7% annualized rate since the end of the Great Recession. Nonetheless, compared to the deep and prolonged recessions of the 1970s and 1980s, even that improved rate of economic growth falls well short of the 6% annualized growth rates of private domestic demand in the first four years of those earlier expansions.

Because the Great Recession was triggered by a financial crisis instead of by more traditional factors — like higher inflation leading to restrictive monetary policy or an overbuilding of inventories leading to a significant cutback in production — the damage done has and will likely continue to be felt through slower headline growth for many quarters

to come. In fact, the gap between total economic activity and private domestic demand has widened further in recent quarters. Continued constraints from government spending and foreign trade limited real GDP growth in the middle quarters of fiscal 2013 to just an annualized 0.6%, sparking fears for the fourth straight year that another recession or "growth recession" (where job gains are few and businesses are unwilling to expand) was developing. However, private domestic final sales have accelerated to a 2.5% annualized growth rate during the middle quarters of fiscal 2013 from a 2.1% recorded in the prior two quarters. That change points to underlying economic fundamentals (for the 85% of the economy that private domestic demand covers) that have actually improved, suggesting the U.S. economy is healthier than assumed by studying only the headline-grabbing GDP growth rate.

Much of the strength in the private domestic economy has come from a huge improvement in housing activity in recent quarters. Real residential investment grew an annualized 15.2% over fiscal 2013. During the fiscal year, construction of new homes averaged an annualized 876,000 units per month with a high of one million annualized units in March. That remains well below the more than two million units per month pace that the country recorded at the peak of the housing bubble seven years ago, but it is significantly greater than the half a million units trough registered just two years ago. Furthermore, in the past year, home price measures have risen by 10% or better, confirming that the housing market has again heated up and that household wealth has improved.

Monthly private payroll gains during fiscal 2013 averaged 194,000, with monthly increases varying between 118,000 and 319,000. Long-term labor force growth has fallen to 75,000 to 100,000 a month from 125,000 to 150,000 in recent expansions because Baby Boomers are increasingly retiring and being replaced by generations with fewer potential workers. That slower labor force growth means smaller job gains than the United States has seen in prior expansions and will lower

the unemployment rate. At fiscal year end, the unemployment rate was 7.6% — down from a peak of 10% soon after the end of the Great Recession — but still at a high rate four years into an economic expansion. In the post-World War II period, the previous high for the unemployment rate at four years into an expansion was 6.9% in 1986 and the average was 5.6%.

Though improving, the relatively high unemployment rate has produced only slow income growth. Real disposable (after taxes) personal income grew only 0.8% in the fiscal year while real consumer spending advanced by 1.9%. Adjusted for the country's population, real disposable personal income per capita only advanced a woeful 0.1% over the fiscal year when a healthier 2% or so rate of increase was needed. Consumer spending has grown at a faster rate because real estate and stock market gains pushed household net worth to nearly \$75 trillion at fiscal year end from \$67 trillion when fiscal 2012 ended, pushing net worth to an all-time high and nearly \$20 trillion higher than its Great Recession trough. That increase in well-being has helped to spark additional consumer spending beyond what has occurred due to only moderate job and modest income gains. The housing sector recovery in the midst of ongoing contraction in the government and foreign sectors will be an important component to continued moderate personal consumption that has faced intense pressures from higher taxes and a volatile jobs market.

Inflation pressures in the United States eased further in fiscal 2013 from the modest problems they posed in fiscal 2012. Since the domestic and global economies grew at only a modest-to-moderate pace in fiscal 2013, there will likely continue to be little inflation in the economy during the upcoming fiscal year as economic activity gradually improves at home and abroad. In fact, commodity prices fell and labor costs remain well contained, suggesting there are few arguments — other than highly stimulative monetary policy — for an attack of higher inflation. The gap between actual and potential economic growth in the United States and abroad remains large, limiting how much price pressures can be passed through to the consumption stage of the economy.

Because inflation in a moderately-growing economy should remain behaved while employment prospects only gradually improve over the upcoming fiscal year, the Federal Reserve will likely continue to run a stimulative monetary policy that partially offsets the ongoing fiscal policy drag. Tapering back the size of its latest quantitative easing program could occur in fiscal 2014 because of the anticipated improvement in employment and economic growth, but the Federal Reserve is expected to maintain stimulative monetary policy throughout fiscal 2014. The Federal Reserve has announced that the short-term federal funds rate will not be raised from near zero until the unemployment rate falls to at least 6.5% and inflation, as well as inflation expectations, begin to move above its target rate of 2%. Those conditions are not likely to be met until the latter part of fiscal 2015, at the earliest.

#### **Fixed income returns outperform benchmark**

As economic conditions improved, long-term Treasury yields rose during the fiscal year. The Federal Reserve continued its highly accommodative monetary policy. This included the federal funds rate remaining at 0% for 54 months and the initiation of a third round of quantitative easing. The intent of these policies is to maintain downward pressure on long-term interest rates and support asset prices. Toward the end of the fiscal year the Federal Reserve signaled its intention to taper the quantitative easing program, which caused interest rates to rise and fixed income returns to fall.

Fixed income market returns were slightly positive in fiscal year 2013 as interest rates rose. The 10-year U.S. Treasury bond yield rose from 1.66% at the beginning of the fiscal year to 2.49% at fiscal year-end. Over the course of the entire fiscal year, the modest returns of credit-sensitive sectors were offset by negative returns of U.S. Treasury securities. The net result was a fixed income benchmark return of 0.24% in fiscal year 2013, as recorded by the Barclays U.S. Universal Index.

The STRS Ohio fixed income portfolio returned 0.82% versus the benchmark's return of 0.24%. Over the three prior fiscal years, the STRS Ohio fixed income portfolio returned an annual average of 4.53% versus the benchmark's return of 4.09%. The STRS Ohio performance over the prior five fiscal years was 6.31% versus the benchmark's 5.53%. A more complete report of STRS Ohio performance appears on Page 49.

### Domestic equities post strong returns in 2013

Fiscal year 2013 saw the U.S. equity market rise for the fourth consecutive year as the economy and the financial markets continued to rebound from the 2009 financial crisis. Despite slowing earnings growth, returns reaccelerated from the more modest increases seen in fiscal year 2012. The S&P 500 gained 20.6% on a total return basis, closing the year at 1606.28.

After rapidly recovering from the recession levels, S&P 500 earnings growth slowed dramatically last year. The S&P 500 earnings were essentially flat versus fiscal 2012. The rising margin story that has driven earnings growth for several years abated somewhat over the past year; however, corporate margins remain near all-time highs. The market gains were almost entirely the result of price-to-earnings ratio expansion driven primarily by low interest rates.

The STRS Ohio domestic equities portfolio returned 20.15% versus the Russell 3000 benchmark's return of 21.46%. Over the three prior fiscal years, the STRS Ohio domestic equities portfolio returned an annualized 18.34% versus the benchmark's return of 18.63%. The STRS Ohio performance over the prior five fiscal years was 7.26% versus the benchmark return of 7.25%. A more complete report of STRS Ohio performance appears on Page 49.

### International equity recovery led by developed markets

The international markets recovered from last year's struggles as concerns about a eurozone breakup receded and Japan began a large monetary expansion program to help stimulate its economy. The World ex-US Index (50% hedged) for developed markets rose 19.9%, while the MSCI EMF Index for emerging markets trailed with an increase of 3.2%

Returns for the 12 months were generally strong among the developed markets. The best performing countries were Greece (+33.3%), Finland (+30.8%), and Switzerland (+30.1%). The three weakest markets were seen in Canada (+4.6%), Israel (+5.1%), and Italy (+7.7%). The returns in Europe were particularly robust due to the supportive comments made by the European

Central Bank that whatever efforts needed to preserve the euro would be undertaken. The Japanese market was also very strong, but the yen weakened nearly 20% against the U.S. dollar.

The emerging markets were laggards. The three best markets were positive, including Philippines (+26.7%), Thailand (+18.7%), and Turkey (+17.5%). The weakest markets were Peru (-21.8%), Czech Republic (-14.2%), and Egypt (-11.9%). The significant underperformance of the emerging markets relative to the developed markets occurred during the second half of the fiscal year. The emerging markets first reacted to the decelerating Chinese economy and how that would impact both China itself and the global export outlook. Late in the fiscal year, the emerging markets were weak due to fears about the repercussions from the likely tapering of U.S. quantitative easing.

The STRS Ohio international portfolio returned 17.80% versus the benchmark's return of 16.41%. Over the past three fiscal years, the STRS Ohio international portfolio returned an annualized 9.03% versus the benchmark's return of 8.10%. The STRS Ohio performance over the prior five years was 1.11% versus the benchmark's return of 0.45%. A more complete report of STRS Ohio performance appears on Page 49.

### Commercial real estate recovery broadens

The recovery in the commercial real estate market has taken hold across the country in the four primary property types. The operating fundamentals of real estate — rents and occupancy — have improved, leading to gains in operating income across the board. Second tier markets got off to a slower start in the recovery as investors focused on core properties in top tier markets which provide better liquidity in times of distress. As the improvement in fundamentals broadened and pricing in top tier markets was at or near pre-recession levels, both debt and equity capital moved to second tier markets in search of higher returns. This increase in capital flows accelerated the performance of second tier markets while performance of first tier markets moderated.

Private market real estate has turned in three consecutive years of double-digit total returns. Rising interest rates will slow future price appreciation across the asset class. However,

relative to other asset classes, real estate provides a strong income return with private market real estate enjoying an income return of almost 6% in fiscal year 2013. This will continue to drive strong capital flows to the asset class which, when coupled with growth in operating income, should provide pricing support as long as interest rates rise at a modest pace.

The real estate public market (REITs) has also turned in three consecutive years of double-digit total returns, averaging almost 20% annually. Fiscal 2013 saw a slowdown with a total return of 9.4%, which is closer to the 10-year average of just under 11%. The pace of rising interest rates will also be important for the performance of REITs over the next couple of years.

The STRS Ohio total real estate portfolio returned 11.75% versus the benchmark's return of 10.57% in fiscal year 2013. Over the three prior fiscal years, the STRS Ohio real estate total portfolio returned an annual average return of 15.91% versus the benchmark's return of 14.15%. The STRS Ohio performance over the prior five fiscal years was 2.45% versus the benchmark's 4.27%. A more complete report of STRS Ohio performance appears on Page 49.

### **Alternative investment returns lagged behind the public markets**

During fiscal year 2013, alternative investment returns lagged behind public market returns that were well above their long-term expected returns. Alternative investments finished the fiscal year with a return of 14.51% as compared to a 21.46% return for the Russell 3000 public equity index. Alternative investment managers continued to take advantage of the capital markets to exit their investments through strategic sales and IPOs and to recapitalize the companies they held. In the private equity portfolio, this activity generated distributions that were almost two times the capital that was called during the fiscal year.

There are two portfolios within alternative investments: private equity and opportunistic/diversified. As a result of the fiscal year 2012 asset-liability study, the target allocation for each portfolio has been increasing toward a 7% allocation, which will be reached during the next fiscal year. During fiscal 2013, the private equity

allocation was 5% during the first half and increased to 6% during the second half. By the end of the fiscal year, the actual market value of the private equity portfolio was 6.5% of total fund compared to 6.8% at the end of fiscal year 2012. During fiscal year 2013, the opportunistic/diversified allocation was 5%. The actual market value of the opportunistic/diversified portfolio grew from \$2.7 billion to \$3.1 billion during fiscal year 2013, bringing it to 4.6% of total fund.

Over the long term, the private equity portfolio within alternative investments is targeted to earn 1% above the annualized return of the Russell 3000 index and the opportunistic/diversified portfolio is targeted to earn 1% below the Russell 3000 index. At the end of fiscal year 2013, the alternative investment five-year return was 5.77% as compared to the blended five-year benchmark return of 8.90%, which is based on the relative benchmarks for private equity and opportunistic/diversified and the targeted allocations during that five-year period. However, performance exceeded the benchmark over the ten-year period. The alternative investment ten-year return was 12.11% as compared to the blended benchmark return of 10.27%. A more complete report of STRS Ohio performance appears on Page 49.

### **Total fund returns were strong in fiscal year 2013 and over the prior three years**

During fiscal year 2013, the STRS Ohio fund returned 13.66% versus the benchmark's (blended index of industry benchmarks) return of 14.17%. Over the three prior fiscal years, the STRS Ohio fund returned an annual average of 12.56% versus the benchmark's return of 12.55%. The STRS Ohio fund performance over the prior five fiscal years was 4.87% versus the benchmark's 5.15%. A more complete report of STRS Ohio fund performance appears on Page 49.

## Statement of Investment Objectives and Policy

Effective Jan. 17, 2013

### 1.0 Purpose

- 1.1 The State Teachers Retirement System of Ohio ("STRS Ohio") was established for the benefit of the teachers of the public schools of the State of Ohio. STRS Ohio is dedicated to partnering with STRS Ohio members to provide financial performance and member service that assures financial security for current and future retirees.
- 1.2 The State Teachers Retirement Board of Ohio (the "Board") is vested with the operation and management of the State Teachers Retirement System of Ohio ("STRS Ohio") (ORC Section 3307.04). The Board has the full power to invest the assets (the "Fund") of STRS Ohio (ORC Section 3307.15). The Board is required to "... adopt in a regular meeting, policies, objectives or criteria for the operation of the investment program ... " (ORC Section 3307.15).
- 1.3 To fulfill the statutory requirement of ORC Section 3307.15, the Board has adopted this Statement of Investment Objectives and Policies (the "Statement") to govern the investment of the Fund. This Statement summarizes the objectives and policies for the investment of the Fund.
- 1.4 The Board has approved these objectives and policies after careful consideration of STRS Ohio benefit provisions, and the implications of alternative objectives and policies.
- 1.5 The Statement has been prepared with five audiences in mind: incumbent, new and prospective Board members; STRS Ohio investment staff; STRS Ohio active and retired members; the Ohio General Assembly and Governor; and agents engaged by the Board to manage and administer the Fund.
- 1.6 The Board regularly, but in no event less than annually, will assess the continued suitability of this Statement, initiate change as necessary and update this Statement accordingly.
- 1.7 The Board may authorize its administrative officers and committees to act for it in accord with its policies (ORC Sections 3307.04 and 3307.15). The Board, no less frequently than annually, adopts a resolution delegating to the Executive Director and the Deputy Executive Director — Investments the authority to acquire, dispose, operate and manage the Fund, subject to the Board's policies and to subsequent approval by the Board. Consequently, the Executive Director, the Deputy Executive Director — Investments and the investment staff are responsible for preparing and maintaining numerous supporting management documents that

govern the implementation of Board policies, including, but not limited to, individual investment manager mandates and guidelines, agent agreements and limited partnership documents.

- 1.8 In carrying out the operation and management of STRS Ohio, the Board, the Executive Director, his/her investment staff and others that are considered fiduciaries as defined in ORC Section 3307.01(K) are subject to various fiduciary responsibilities in ORC Chapter 3307, including those found in ORC Sections 3307.15, 3307.151, 3307.181 and 3307.18. This Statement incorporates, and is subject to, all of the provisions of ORC Chapter 3307.
- 1.9 The Board acknowledges its responsibilities under ORC Chapter 3307 and to the extent that this Statement is inconsistent with ORC Chapter 3307, Chapter 3307 shall control.
- 1.95 The Board approved this Statement on Jan. 17, 2013.

### 2.0 Investment Objective

- 2.1 Subject to the Ohio Revised Code, the investment objectives for the total fund are:
  - (a) to earn, over moving 30-year periods, an annualized return that equals or exceeds the actuarial rate of return (ARR) approved by the Board to value STRS Ohio liabilities. The current actuarial rate of return is 7.75%;
  - (b) to earn a rate of return that enables the System to meet pension liabilities and fulfill minimum funding requirements;
  - (c) to earn a rate of return that equals or exceeds the System's long-term policy index with an acceptable level of risk; and
  - (d) maintain sufficient liquidity to satisfy cash flow needs.
- 2.2 The Board believes, based on the assumptions in this Statement, that the investment policies summarized in this Statement will achieve this long-term actuarial objective at an acceptable level of risk. The Board evaluates risk in terms of the probability of not achieving the ARR over a 30-year time horizon.

### 3.0 Key Document Policy

To assist the Board and the investment staff, the following key documents will be produced or reviewed according to the schedule in Exhibit 1.

### Exhibit 1: Key Document Schedule

Key Document	Document Source	Review Schedule
Quarterly Performance Review	Board Consultant	Quarterly
Statement of Investment Objectives and Policy/ Fund Governance	STRS Ohio Investment Staff/Reviewed by Board Consultant	Annually
Annual Plan (Includes Risk Budget)	STRS Ohio Investment Staff/Reviewed by Board Consultant	Annually
Actuarial Study	Actuary/STRS Ohio Finance Department	Annually
Asset/Liability Study	STRS Ohio Investment Staff/ STRS Ohio Senior Staff/ Board Consultant/Board	Every 3–5 years

### 4.0 Asset Mix Policy, Risk Diversification and Return Expectations

- 4.1 After careful consideration of the investment objectives, liability structure, funded status and liquidity needs of STRS Ohio, and the return, risk and risk-diversifying characteristics of different asset classes, the Board approved the asset mix policy presented in Exhibit 2 (below). The exhibit also summarizes the Board's return expectations for the asset mix policy and active management.
- 4.2 Seventy-one percent of the Fund is targeted for investment in equities, inclusive of alternative investments. Equity investments have provided the highest returns over long time periods, but can produce low and even negative returns over shorter periods.
- 4.3 The risk of low returns over shorter time periods makes 100% equity policies unsuitable for most pension funds, including STRS Ohio. By investing across multiple equity asset classes, and

in lower return but less risky fixed-income and real estate, the Board is managing and diversifying total fund risk.

### Exhibit 2: Asset Mix Policy and Return Expectations for STRS Ohio Total Fund

Asset Class	Target Allocation <sup>1</sup>	Rebalancing Range	Expected 10-Year Policy Returns <sup>2</sup>	Expected Management Net Returns <sup>3</sup>	Expected Total Return
<b>Equity</b>					
Domestic	36%	25–45%	8.00%	0.25%	8.25%
International	24%	18–30%	7.85%	1.00%	8.85%
Alternatives	11% <sup>5</sup>	5–16% <sup>5</sup>	8.00%		8.00%
Private Equity	6% <sup>5</sup>	3–8% <sup>5</sup>	9.00%		9.00%
Opportunistic/Diversified	5% <sup>5</sup>	2–8% <sup>5</sup>	7.00%		7.00%
<b>Fixed Income</b>	18%	13–25%	3.75%	0.35%	4.10%
Real Estate	10%	6–13%	6.75%	1.00%	7.75%
Liquidity Reserve	1%	0–5%	3.00%		3.00%
<b>Total Fund<sup>5</sup></b>	<b>100%</b>		<b>7.61%</b>	<b>0.40%</b>	<b>8.01%<sup>4</sup></b>

<sup>1</sup> The target allocation percentage will be effective as of Jan. 1, 2013. The eventual new target weights will be phased-in over an 12-month period, based on the "Phase-In Target Weights" table in the next section.

<sup>2</sup> The expected 10-year policy returns are based on the investment consultant's capital market assumptions in the 2012 asset-liability study for each asset class and total fund using the eventual new target weights effective January 1, 2014. The eventual new target weights will be phased-in over a 12-month period based on the table below. Over a 30-year period, the Board's investment consultant indicates that this asset mix should generate a return in excess of 8%, without net value added by management.

<sup>3</sup> Individual asset classes (except real estate) are gross value added; the total fund is net of all investment management costs, and real estate is net of external management fees.

<sup>4</sup> The 10-year total fund return forecast is 8.01% per year, which includes the expected net value added by management and is based on the eventual new target weights effective Jan. 1, 2014.

<sup>5</sup> The Private Equity and Opportunistic Diversified target weights and rebalancing ranges are only meant to be general guidelines; the official target weight and rebalancing range is at the total alternative investment asset class level.

#### Phase-In Target Weights

	Current		
	Jan. 1, 2013	July 1, 2013	Jan. 1, 2014
Liquidity Reserve	1%	1%	1%
Fixed Income	18%	18%	18%
Domestic Equities	36%	33%	31%
International	24%	25%	26%
Real Estate	10%	10%	10%
Private Equity	6%	7%	7%
Opportunistic/Diversified	5%	6%	7%

- 4.4 Forecasts of capital market and active management returns undertaken by the Board's investment consultant indicate that the Board's asset allocation summarized in Exhibit 2 has an expected 10-year annualized return of 7.61% (without net value added). Over a 30-year period, the Board's investment consultant indicates that this asset mix should generate a return in excess of 8%, without net value added by management.

- 4.5 From the 2012 Asset-Liability Study, the 7.61% expected asset mix policy return was developed with reference to the observed long-term relationships among major asset classes. The Board believes this return expectation is reasonable, but recognizes that the actual 10-year asset mix policy return can deviate significantly from this expectation — both positively and negatively. The volatility level associated with this asset mix is approximately 14.60%.

- 4.6 Fund assets are invested using a combination of passive and active management strategies. Passive management reduces both the risk for underperformance and the opportunities of outperformance. Active management is expected to earn net 0.40% per annum of additional returns over moving five-year periods. The Board recognizes that unsuccessful active management can reduce total fund returns.
- 4.7 Investment objectives and guidelines for individual asset classes have been approved by the Board and are summarized below.
- 4.8 Liquidity reserves are kept at a minimum level, but sufficient to cover the short-term cash flow needs. STRS Ohio investment staff may utilize a derivative overlay to maintain the level at 1%.
- 4.9 The Board reviews at least annually its expectations for asset class and active management performance, and assesses how the updated expectations affect the probability that the Fund will achieve the established investment objectives.

**5.0 Rebalancing**

- 5.1 Exposures to selected asset classes are actively managed within the rebalancing ranges specified in Exhibit 2. Rebalancing ensures that the Fund's actual asset allocation remains close to the target asset mix policy.
- 5.2 The Fund's actual asset allocation is monitored at least monthly relative to established asset allocation policy targets and ranges. The timing and magnitude of rebalancing are decided with due consideration to the liquidity of the investments and the associated transaction costs.
- 5.3 In its Annual Investment Plan prepared for the Board, staff explains how it is managing asset class exposures based on short- and intermediate-term capital forecasts.
- 5.4 The impact of rebalancing decisions on total fund returns is included in investment performance reports to the Board.

**6.0 Passive and Active Management Within Risk Budgets**

- 6.1 STRS Ohio investment staff has been delegated the responsibility for managing the Fund's exposure to passive and active investment strategies, subject to the constraint that active risk does not exceed Board-approved target risk budgets for the total fund and individual asset classes.

- 6.2 The Board has approved a target risk budget of .60% to 1.20%, with a working range of .20% to 1.60%, annualized active management for the total fund. In exchange for assuming this level of active risk, the Board expects active management to add net 0.40% of annualized excess return over moving five-year periods to judge its effectiveness.
- 6.3 The Board realizes that actual active management returns will likely be above or below the net 0.40% target over any five-year moving period, and therefore will evaluate the success of STRS Ohio active management program within this context. The Board recognizes that any amount of management return in excess of the associated investment costs improves the security of STRS Ohio plan members.
- 6.4 Passive management uses low cost index funds to access the return streams available from the world's capital markets. Indexed funds control costs, are useful tools for evaluating active management strategies, capture exposure to the more efficient markets and facilitate rebalancing to the policy asset mix.
- 6.5 Active management tries to earn higher returns than those available from index funds by making value-adding security selection and asset mix timing decisions. Unsuccessful active management results in below index fund returns.
- 6.6 Because there are no index fund products for real estate and alternative investments, these asset classes must be actively managed. Active versus passive decisions in all asset classes are based upon using the best available information.
- 6.7 Aggregate short sale positions for all asset classes may not exceed 3% of total fund assets.

**7.0 Global Equities — Domestic**

- 7.1 Domestic equity is being managed relative to a Board-approved risk budget range of .20% to 1.50%, and is expected to earn at least 0.25% of annualized excess return above the Russell 3000 Index over moving five-year periods.
- 7.2 Key elements of the strategy:
  - (a) The portfolio's active management adds value primarily through security selection. Sector tilts by style, economic sectors or market capitalization are managed in accordance with the risk budget for domestic equities.
  - (b) The portfolio utilizes a variety of portfolio management approaches including quantitative and fundamental techniques to diversify the source of excess return.

(c) The portfolio utilizes a combination of internal and external management, utilizing multiple internal portfolio managers and multiple external manager firms to improve the likelihood of achieving excess returns, to diversify risk and to control costs.

7.3 Short sales may be used in the management of STRS Ohio domestic equity portfolios, but may not exceed 10% of the value of the asset class.

## 8.0 Global Equities — International

8.1 International equity is being managed relative to a Board-approved risk budget range of 1.00% to 2.50%, and is expected to earn at least 1.0% of annualized excess return above a blended benchmark of 80% MSCI World ex US (50% hedged) and 20% MSCI Emerging Markets Index over moving five-year periods.

8.2 Key elements of the strategy:

(a) The portfolio emphasizes fundamental management approaches and exposures to security selection and country allocation decisions. These decisions have been shown to be the principal sources of the excess return in international equity portfolios. Managers have the ability to add value through currency management.

(b) Aggregate exposures to countries, currencies, equity styles and market capitalization are monitored and managed relative to their benchmark exposures.

(c) The portfolio utilizes a combination of internal and external management, with multiple internal portfolio managers and multiple external manager firms to improve the likelihood of achieving excess returns, to diversify risk and to control costs.

(d) STRS Ohio utilizes a 50% hedged benchmark on the developed markets portfolios in order to reduce the overall exposure to currency risk. With a 50% hedged benchmark, all developed market portfolios are generally hedged around the 50% benchmark level. Active currency positions are taken from time to time in some portfolios at the managers' discretion. This is generally limited to 10 percentage points under or over hedged around the benchmark for the internal portfolios. Three-month currency forwards are the investment instrument generally used for hedges.

8.3 Short sales may be used in the management of STRS Ohio international equity portfolios, but may not exceed 10% of the value of the asset class.

## 9.0 Fixed Income

9.1 Fixed income is being managed relative to a Board-approved risk budget range of 0.10% to 1.50%, and is expected to earn at least 0.35% of annualized excess returns above the Barclays U.S. Universal Bond Index over moving five-year periods.

9.2 All of fixed income is actively managed because active management is generally low cost and market opportunities exist for skilled managers to generate excess returns.

9.3 Key elements of the strategy:

(a) The portfolio will primarily be managed internally, with multiple external managers utilized in specialized segments of the market such as high yield and emerging market debt.

(b) The portfolio will emphasize issue selection, credit analysis, sector allocations and duration management.

(c) Aggregate exposures to duration, credit and sectors are monitored and managed relative to corresponding exposures in the asset class benchmark.

9.4 Short sales may be used in the management of STRS Ohio fixed-income portfolios, but may not exceed 10% of the value of the asset class.

## 10.0 Real Estate

10.1 Real estate investments are being managed relative to a Board-approved risk budget range of 2.00% to 7.00%, and are expected to earn at least 1.00% of annualized excess returns above a blended benchmark over moving five-year periods. The Real Estate Blended Benchmark is 85% NCREIF Property Index and 15% FTSE NAREIT Equity REITs Index.

10.2 Key elements of the strategy:

(a) Real Estate is 100% actively managed. The portfolio is primarily managed internally. External Managers are used primarily for specialized segments of the market. Direct property investments represent most of the real estate portfolio. Risk is diversified by investing across major property types and geographic areas.

(b) Leverage of up to and including 50%, in aggregate, is permitted for internally managed assets (excluding REITs).

(c) Publicly traded REITs are targeted at 15% of the real estate portfolio to enhance liquidity, diversification and excess returns.

(d) Non-core real estate investments are limited to 20% of the real estate portfolio. Investment strategies will be characterized as “opportunistic” based on the market conditions prevailing at the time of investment.

10.3 Short sales may be used in the management of REITs, but may not exceed 10% of the value of the asset class.

### 11.0 Alternative Investments (Private Equity and Opportunistic/Diversified)

11.1 Alternative investments involve separate allocations to private equity and opportunistic/diversified investments.

11.2 Private equity investments are being managed with the objective of earning at least 1% net of fees above domestic public equity markets (Russell 3000 Index) over moving 10-year periods. Private equity investments are traded infrequently and, therefore, risk budget concepts are not applicable.

11.3 Key elements of the private equity strategy:

- (a) Private equity investments are 100% actively managed.
- (b) Private equity risk is diversified by investing across different types of investments including, but not limited to, venture capital, leverage buyouts, mezzanine debt, sector and international funds.
- (c) Private equity risk is also diversified by investing across vintage years, industry sectors, investment size, development stage and geography.
- (d) Private equity investments are managed by general partners with good deal flow, specialized areas of expertise, established or promising net of fees track records and fully disclosed and verifiable management procedures.

11.4 Opportunistic/diversified investments are being managed with the objective of earning domestic public equity-like returns (approximately 1% net of fees below domestic public equity markets [Russell 3000 Index] over moving 10-year periods, but with the goal of downside protection during equity bear markets. Investments in this category can be liquid or illiquid and, therefore, risk budget concepts are not applicable.

11.5 Key elements of the opportunistic/diversified strategy:

- (a) Opportunistic/diversified investments are tactical in nature and typically are actively managed because index funds are not available.
- (b) Downside protection during equity bear markets can be achieved and asset class risk is diversified by investing across different types of opportunistic/diversified investments.

(c) Opportunistic/diversified investments may be made directly, through specialist managers or through fund-of-funds.

### 12.0 Derivatives

12.1 Derivatives may be used in the management of STRS Ohio internal and external liquidity reserves, fixed income, equity and real estate portfolios. Derivatives are typically, but not exclusively, futures contracts, equity swaps, credit default swaps, option contracts and option contracts on futures for market indexes. Options on individual securities, baskets of securities and equity-linked notes, and shorting for positioning purposes are further examples. Derivatives are both exchange traded and traded over the counter.

12.2 Derivative exposures must be of a hedging or positioning nature. As a percentage of Fund assets, the underlying exposure of all positioning derivatives will not exceed:

- (a) 5% for fixed-income investments;
- (b) 10% for domestic equity investments;
- (c) 10% for international equity investments; and
- (d) 1% for real estate investments.

Hedging derivatives will not be included in the limits above, but must be footnoted.

12.3 Any use of leverage will adhere to asset allocation restrictions and asset class active management risk range constraints.

### 13.0 Proxy Voting

13.1 Common stock proxies are valuable and should be voted in the best interest of STRS Ohio active and retired members.

13.2 The Board shall maintain stock proxy voting policies and has directed STRS Ohio investment staff and the proxy voting agents to use these policies as guidelines for voting common stock proxies held by the Fund.

### 14.0 Ohio Investments

14.1 The Board will give due consideration to investments that enhance the general welfare of the State of Ohio and its citizens provided that assets are invested in the best interest of STRS Ohio active and retired members. Preference will be given to Ohio investments offering competitive returns at risk levels comparable to similar investments currently available to the Board.

- 14.2 STRS Ohio investment staff shall maintain and implement an Ohio Investment Plan. The plan shall set forth procedures to assure that a special effort will be made by the investment staff to examine and evaluate all legal investment opportunities in the state and, where policy criteria are satisfied, to acquire such investments.

### 15.0 Broker-Dealers

- 15.1 Purchases and sales of publicly traded securities shall be executed with broker-dealers from a list reviewed by the Board. In those rare situations where best execution cannot be achieved through a broker-dealer on the list, the Deputy Executive Director — Investments may approve the use of a broker-dealer not on the list.
- 15.2 Selection shall be based on an evaluation by the STRS Ohio investment staff as to financial soundness, underwriting capabilities, research services, execution capabilities and other factors required by the staff to fulfill its assigned investment responsibilities.
- 15.3 Specific transactions will be directed to the broker on that list most capable of providing brokerage services necessary to obtain both the best available price and the most favorable execution.
- 15.4 The Board shall give equal consideration to smaller Ohio-headquartered broker-dealers or smaller broker-dealers with at least one Ohio office and broker-dealers owned and controlled by minorities and/or women, provided the assets are transacted in the best interest of STRS Ohio members.
- 15.5 The Board has a goal to increase the use of Ohio-qualified broker-dealers for the execution of domestic equity and fixed-income securities transactions, when the services that Ohio-qualified broker-dealers provide are equal in quality, cost, scope and execution capabilities to all broker-dealers approved to transact securities transactions on behalf of the Board.
- 15.6 Each firm listed shall file with the Board on an annual basis such evidence of financial responsibility as required by the Board. This information shall include, but not be limited to, an audited financial statement.
- 15.7 When stocks are purchased during underwriting, allocations may be made to dealers not on the approved list provided the managing underwriter is so listed.
- 15.8 When entering into real estate transactions, the Board shall give equal consideration to Ohio firms providing associated professional services, minority-owned and controlled firms, and firms owned and controlled by women.

### 16.0 Securities Lending

The Board may operate a securities lending program to enhance the income of the Fund. The program must be operated by a bank trustee who follows the custodial requirements of the Treasurer of the State of Ohio and each security lent must be fully collateralized. Results of the program must be reported to the Board annually.

### 17.0 Securities Litigation

Involvement in securities litigation is an important responsibility for institutional investors with major public market exposure. The Board shall maintain a policy to determine the appropriate action to be taken when class action litigation is initiated against a company that generates a significant loss for the Board during the class period.

### 18.0 Security Valuation

Valuation of investments shall be the total of:

- (a) The primary closing price on the principal registered stock exchange for all common and preferred stocks so listed.
- (b) The official closing price as reflected by either the OTCBB (Over the Counter Bulletin Board) or the Pink Sheets for common and preferred stocks not listed on a registered stock exchange.
- (c) The current value as determined by a qualified independent service for all bonds, notes and certificates of indebtedness.
- (d) Amortized cost for commercial paper, certificates of deposit, repurchase agreements and other short-term investments with a maturity of 270 or fewer days.
- (e) The value of private direct real estate as determined by a valuation process consistent with GIPS standards; primary closing price on the principal registered stock exchange for all public real estate securities; and most recent external manager reported valuations updated to include current capital activity on externally managed funds.
- (f) The most recent external manager valuations for alternative investments updated to include current capital activity.
- (g) International investments are valued by the subcustodian using relevant closing market prices and exchange rates.

**19.0 Performance Monitoring and Evaluation**

- 19.1 The Board and its agents use a variety of compliance, verification and performance measurement tools to monitor, measure and evaluate how well STRS Ohio assets are being managed. Monitoring, reporting and evaluation frequencies range from live real time performance, to daily, weekly, monthly, quarterly and annually.
- 19.2 The Board has developed a performance monitoring and evaluation system that answers two fundamental fiduciary questions:
  - (a) Are the assets being prudently managed? More specifically, are assets being managed in accordance with established laws, policies and procedures, and are individual investment managers in compliance with their mandates?
  - (b) Are the assets being profitably managed? More specifically, has performance affected benefit security, has capital market risk been rewarded and has active management risk been rewarded?
- 19.3 If there is a deviation from Board policies, STRS Ohio investment staff is required to provide the Board with a report explaining how the deviation was discovered, the reasons for the deviation, the impact on Fund performance, if any, and steps taken to mitigate future occurrences.

- 19.4 Exhibit 3 is an example of one of many reports used by the Board to monitor and evaluate performance of the total fund. Panel one indicates whether the total fund return exceeded the actuarial rate of return. Panel two indicates whether the Fund was rewarded for investing in higher return but more risky equity investments. Panel three indicates whether active management added or subtracted returns.
- 19.5 Additional reports provide the Board with a multi-level view of investment activities at different levels and over different time horizons. These include:
  - (a) Performance of the total fund;
  - (b) Performance of individual asset class strategies;
  - (c) Performance of internally and externally managed portfolios; and
  - (d) Performance of individual external managers.

**Exhibit 3: EXAMPLE Total Fund Trustee Summary Report, as of June 30, 2012**

Experienced Returns	Annualized Rates of Return			
	1 Year	3 Years	5 Years	10 Years
<b>Have returns affected funded ratio?</b>				
1. Total fund return	2.34%	12.51%	1.08%	6.95%
2. Actuarial discount rate	8.00%	8.00%	8.00%	7.97%
3. Out/under-performance (1–2)	-5.66%	4.51%	-6.92%	-1.02%
<b>Has plan been rewarded for capital market risk?</b>				
4. Total fund blended benchmark return*	2.05%	12.25%	1.18%	6.53%
5. Minimum risk/high opportunity cost policy of 91-day T-Bills	0.06%	0.11%	0.75%	1.74%
6. Impact of asset mix policy (4–5)	1.99%	12.14%	0.43%	4.79%
<b>Has plan been rewarded for active management risk?</b>				
7. Active management return (1–4)	0.29%	0.26%	-0.10%	0.42%
8. Net active management return estimated	0.18%	0.15%	-0.21%	0.31%

\* The Total Fund blended benchmark is a blend of the asset class benchmarks based on the total fund's target allocation for the respective asset classes. Effective Jan. 1, 2013 the Total Fund blended benchmark will be calculated using 18% Barclays U.S. Universal Index, 36% Russell 3000, 24% International Blended Benchmark, 10% Real Estate Blended Benchmark, 11% Alternative Investment actual return and 1% BofA Merrill Lynch three-month U.S. Treasury Bill Index.

## Statement of Fund Governance

Effective Jan. 17, 2013

### 1.0 Purpose

- 1.1 This Statement of Fund Governance (the "Statement") summarizes the governance structure established by the Board of the State Teachers Retirement Board of Ohio (the "Board") to ensure the prudent, effective and efficient management of the assets of the State Teachers Retirement System of Ohio ("STRS Ohio").
- 1.2 The fund governance structure was approved by the Board after careful consideration of alternative approaches to governing a very large and growing pension fund within an increasingly complex financial and investment environment.
- 1.3 The Statement has been prepared with five audiences in mind: incumbent, new and prospective Board members; STRS Ohio investment staff; STRS Ohio active and retired members; the Ohio General Assembly and Governor; and agents engaged by the Board to manage, administer or advise on STRS Ohio's assets ("Fund").
- 1.4 The Statement summarizes more detailed policy and procedure documents prepared and maintained by STRS Ohio investment staff, and numerous other documents that govern the day-to-day management of STRS Ohio assets.
- 1.5 The Board regularly assesses the continued suitability of the STRS Ohio fund governance structure, initiates change as necessary and updates this Statement accordingly.
- 1.6 The Board may authorize its administrative officers and committees to act for it in accord with its policies (Ohio Revised Code [ORC] Sections 3307.04 and 3307.15). The Board, no less frequently than annually, adopts a resolution delegating to the Executive Director and the Deputy Executive Director — Investments the authority to acquire, dispose, operate and manage the Fund, subject to the Board's policies and to subsequent approval by the Board.
- 1.7 In carrying out the operation and management of STRS Ohio, the Board, the Executive Director, the investment staff and others that are considered fiduciaries as defined in ORC Section 3307.01(K) are subject to various fiduciary responsibilities in ORC Chapter 3307, including those found in ORC

Sections 3307.15, 3307.151, 3307.181 and 3307.18. This Statement incorporates, and is subject to, all of the provisions of ORC Chapter 3307.

- 1.8 The Board acknowledges its responsibilities under ORC Chapter 3307 and to the extent that this Statement is inconsistent with ORC Chapter 3307, Chapter 3307 shall control.
- 1.9 The Board approved this Statement on Jan. 17, 2013.

### 2.0 Governance Principles

- 2.1 Three principles guided the Board's development of the STRS Ohio fund governance structure:
  - (a) As STRS Ohio governing fiduciary, the Board is ultimately accountable for all investment decisions. Section 3307.15 of the Ohio Revised Code (the "Code") vests the investment function in the Board and requires the Board to "... adopt, in regular meetings, policies, objectives, or criteria for the operation of the investment program . . ." Section 3307.15 of the Code sets forth the fiduciary responsibility of the Board in discharging its duties with respect to the fund.
  - (b) To ensure STRS Ohio assets are prudently, profitably and efficiently managed on a day-to-day basis, the Board needs to delegate the management and implementation of Board investment policies to qualified managing and operating fiduciaries. Sections 3307.04 and 3307.15 of the Code empower the Board to authorize its committees and administrative officers to act for it in accord with Board policies. The fiduciary responsibility of Board delegates in discharging their duties with respect to the fund is specified in Section 3307.15.
  - (c) To ensure effective oversight of delegates, the Board requires informative and timely performance reports that reveal if managing and operating fiduciaries have complied with established policies, and indicate how assets under their care have performed relative to Board-approved investment objectives.

### 3.0 Investment Decisions Retained by the Board

- 3.1 The Board approves the following investment policies:
- (a) Statement of Investment Objectives and Policy, which includes the following:
    - (i) Total fund risk and return objectives;
    - (ii) Total fund target asset mix policy;
    - (iii) Total fund asset mix policy rebalancing ranges;
    - (iv) Active management risk and return objectives at the total fund and asset class levels; and
    - (v) Performance measurement criteria and evaluation standards.
  - (b) Proxy voting;
  - (c) Ohio investments;
  - (d) Securities lending;
  - (e) Broker-dealer selection criteria and procedures;
  - (f) Ohio-qualified investment managers and brokers; and
  - (g) Securities litigation.
- 3.2 Before approving or amending policy decisions, the Board seeks advice, guidance and recommendations from STRS Ohio investment staff, Board-retained investment consultants, and other experts or sources as considered prudent by the Board.

### 4.0 Investment Decisions Delegated to Investment Staff

- 4.1 The Board, through the Executive Director, has delegated to qualified STRS Ohio investment staff the following investment management and implementation decisions:
- (a) Buying, selling, managing and monitoring individual securities, real assets and/or other investment transactions to achieve the total fund and asset class investment objectives approved by the Board;
  - (b) Retaining, managing and terminating external investment managers within each asset class as required to achieve the total fund and asset class investment objectives approved by the Board;
  - (c) Ensuring total fund, asset class and individual manager portfolios comply with established parameters and risk levels; and
  - (d) Preparing, negotiating and executing external investment manager mandates, guidelines and fee agreements.

- 4.2 In making these decisions, STRS Ohio investment staff seeks the advice, guidance and recommendations of Board-retained investment consultants, external investment managers, and other experts and sources as considered prudent by STRS Ohio staff.

### 5.0 Board Oversight

- 5.1 The Board requires investment staff to prepare and deliver an Annual Investment Plan that explains how STRS Ohio assets will be managed in order to achieve the Board-established investment objectives. This provides the Board a focused opportunity to:
- (a) Question and comment on staff's investment management plans;
  - (b) Request additional information and support about staff's investment intentions; and
  - (c) Express its confidence in the Annual Investment Plan.
- 5.2 The Board meets at least quarterly to assess how assets are being managed relative to the Annual Investment Plan, to monitor and evaluate investment performance relative to objectives and to address other investments issues as are warranted.
- 5.3 The Board approves the criteria and standards for monitoring and evaluating the impact different investment decisions have on total fund, asset class and manager-level performance. Performance is monitored and evaluated with respect to risk and return objectives established by the Board.
- (a) Investment risks are monitored and evaluated quarterly by comparing total fund and asset class risk characteristics relative to suitable benchmarks.
  - (b) Investment returns are monitored monthly and evaluated quarterly by comparing total fund and asset class returns relative to suitable benchmarks.
- 5.4 Before approving or amending the criteria for monitoring and evaluating investment decisions, the Board seeks advice, guidance and recommendations from STRS Ohio investment staff, Board-retained investment consultants, and other experts and sources as considered prudent by the Board.



State Teachers Retirement System of Ohio  
275 E. Broad Street  
Columbus, OH 43215-3771

We have verified whether State Teachers Retirement System of Ohio (“the Firm”) (1) complied with all the composite construction requirements of the Global Investment Performance Standards (GIPS<sup>®</sup>) on a firm-wide basis for the periods from July 1, 2006 through June 30, 2013, and (2) designed its policies and procedures to calculate and present performance in compliance with the GIPS standards as of June 30, 2013. The Firm’s management is responsible for compliance with the GIPS standards and the design of its policies and procedures. Our responsibility is to express an opinion based on our verification. We conducted this verification in accordance with the required verification procedures of the GIPS standards. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, the Firm has, in all material respects:

- Complied with all the composite construction requirements of the GIPS standards on a firm-wide basis for the periods from July 1, 2006 through June 30, 2013, and
- Designed its policies and procedures to calculate and present performance in compliance with the GIPS standards as of June 30, 2013.

Since our verification was designed to form an opinion on a firm-wide basis this report does not relate to any composite compliant presentation of the Firm and does not ensure the accuracy of any specific composite compliant presentation, including what is reflected in this Comprehensive Annual Financial Report.

*Vincent Performance Services LLC*

Vincent Performance Services LLC  
August 15, 2013

### Investment Performance

(total returns, annualized on a fiscal-year basis, July 1–June 30)

#### 1-Year Returns (2013)<sup>1</sup>

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Equities <sup>7</sup>	20.15%	Russell 3000	21.46%
International Equities <sup>7</sup>	17.80%	International Blended Benchmark <sup>3</sup>	16.41%
Fixed Income <sup>7</sup>	0.82%	Barclays U.S. Universal Index	0.24%
Real Estate <sup>7</sup>	11.75%	Real Estate Blended Benchmark <sup>4</sup>	10.57%
Alternative Investments <sup>7</sup>	14.51%	Alternative Investments Blended Benchmark <sup>5</sup>	–
<b>Total Fund</b>	<b>13.66%</b>	<b>Total Fund Blended Benchmark<sup>6</sup></b>	<b>14.17%</b>

#### 3-Year Returns (2011–2013)<sup>1</sup>

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Equities <sup>7</sup>	18.34%	Russell 3000	18.63%
International Equities <sup>7</sup>	9.03%	International Blended Benchmark <sup>3</sup>	8.10%
Fixed Income <sup>7</sup>	4.53%	Barclays U.S. Universal Index	4.09%
Real Estate <sup>7</sup>	15.91%	Real Estate Blended Benchmark <sup>4</sup>	14.15%
Alternative Investments <sup>7</sup>	13.51%	Alternative Investments Blended Benchmark <sup>5</sup>	–
<b>Total Fund</b>	<b>12.56%</b>	<b>Total Fund Blended Benchmark<sup>6</sup></b>	<b>12.55%</b>

#### 5-Year Returns (2009–2013)<sup>1</sup>

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Equities <sup>7</sup>	7.26%	Russell 3000	7.25%
International Equities <sup>7</sup>	1.11%	International Blended Benchmark <sup>3</sup>	0.45%
Fixed Income <sup>7</sup>	6.31%	Barclays U.S. Universal Index	5.53%
Real Estate <sup>7</sup>	2.45%	Real Estate Blended Benchmark <sup>4</sup>	4.27%
Alternative Investments <sup>7</sup>	5.77%	Alternative Investments Blended Benchmark <sup>5</sup>	8.90%
<b>Total Fund</b>	<b>4.87%</b>	<b>Total Fund Blended Benchmark<sup>6</sup></b>	<b>5.15%</b>

#### STRS Ohio Long-Term Policy Objective (10 Years)<sup>2</sup>

**Total Fund: 7.6%**

State Teachers Retirement System of Ohio claims compliance with the Global Investment Performance Standards (GIPS®). To receive a compliant presentation and/or a description of the firm's composite, please contact the STRS Ohio Communication Services Department at (614) 227-2825.

State Teachers Retirement System of Ohio is defined and created by the Ohio Revised Code, Chapter 3307.15. The STRS Ohio Total Fund performance returns consist of all assets of the fund, including both internally and externally managed accounts. All returns are calculated in U.S. dollars using a time-weighted rate of return. All returns are net of brokerage commissions, expenses related to trading, and applicable foreign withholding taxes on dividends, interest and capital gains. Performance is net of fees for external managed real estate and alternative investments and gross of fees on all other investments. Net of fees returns are available upon request and investment management fees vary among asset classes. All measurements and comparisons have been made using standard performance evaluation methods, and results are presented in a manner consistent with the investment industry in general and public pension funds in particular.

The Total Fund reflects an asset allocation to the following asset classes as of June 30, 2013: Liquidity Reserves 4.5%, Fixed Income 18.4%, Domestic Equities 33.7%, International Equities 22.5%, Real Estate 9.8% and Alternative Investments 11.1%. The investment objective for the Total Fund is to earn, over moving 30-year periods, an annualized return that equals or exceeds the actuarial rate of return, approved by the State Teachers Retirement Board ("Board") to value STRS Ohio liabilities. Effective July 1, 2012, the actuarial rate of return is 7.75%.

As part of the Total Fund strategy, certain asset classes may use derivatives and/or leverage. The following asset classes may use derivatives and/or leverage to gain exposure to certain sectors of the market:

- Fixed Income: Exposure to derivatives may not exceed 5% of Total Fund assets. A variety of derivatives may be used to adjust the exposure to interest rates, individual securities or to market sectors in the fixed income asset class.
- Domestic Equities: Exposure to derivatives, including, but not limited to, futures, stock options and index options may not exceed 10% of Total Fund assets.
- International Equities: Exposure to derivatives, including swap agreements, may not exceed 10% of Total Fund assets.
- Real Estate: Activities may include borrowing funds on a secured or unsecured basis with leverage limited to 50% of the internally managed direct real estate assets. At June 30, 2013 and 2012, debt as a percentage of these assets was 23.9% and 24.6%, respectively. Derivatives may also be used and cannot exceed 1% of Total Fund assets.

<sup>1</sup>The one-year returns for the fiscal years ended June 30, 2008, through 2013, have been examined by Vincent Performance Services LLC. A copy of the examination report is available upon request.

<sup>2</sup>The long-term policy objective is a projected annualized policy return based on return forecasts by asset class before any value added. The State Teachers Retirement Board expects the net value added to be 0.40% per year.

<sup>3</sup>The International Blended Benchmark is calculated monthly using 80% of the MSCI World ex US 50% Hedged Index-Net and 20% of the MSCI Emerging Markets Index-Gross.

<sup>4</sup>The Real Estate Blended Benchmark is calculated quarterly using 85% NCREIF Property Index (NPI) and 15% FTSE NAREIT Equity REITs Index effective July 1, 2012; 85% NPI and 15% Wilshire REIT Index effective Oct. 1, 2007.

<sup>5</sup>Given the long-term nature of the asset class, no benchmark return for Alternative Investments is displayed for the one- and three-year periods. For the longer five-year period, the Alternative Investments Blended Benchmark is a blend of two benchmarks for private equity and opportunistic/diversified and is calculated using 54.5% of the Russell 3000 Index plus 1% and 45.5% of the Russell 3000 Index minus 1% effective Jan. 1, 2013; 50% of the Russell 3000 Index plus 1% and 50% of the Russell 3000 Index minus 1% effective July 1, 2012; 55.6% of the Russell 3000 Index plus 3% and 44.4% of the Russell 3000 Index minus 1% effective July 1, 2011; 62.5% of the Russell 3000 Index plus 3% and 37.5% of the Russell 3000 Index minus 1% effective July 1, 2010; 71.4% of the Russell 3000 Index plus 3% and 28.6% of the Russell 3000 Index minus 1% effective July 1, 2009; and the Russell 3000 Index plus 3% for periods prior to July 1, 2009.

<sup>6</sup>The Total Fund Blended Benchmark is calculated and rebalanced monthly using a blend of the asset class benchmarks based on the Total Fund's policy weights in effect during the respective period. For alternative investments, however, the actual alternative investments return is used in the calculation of the Total Fund Blended Benchmark. Information concerning asset class benchmarks and policy weights is available upon request.

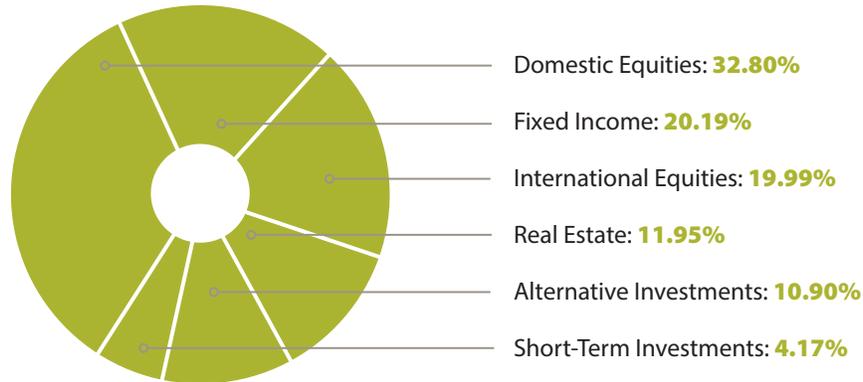
<sup>7</sup>Returns are supplemental to the Total Fund composite returns.

**Summary of Investment Assets**  
 As of June 30, 2013 and 2012 (dollar amounts in thousands)

	June 30, 2013 Fair Value	%	June 30, 2012 Fair Value	%
<b>Short term</b>				
Commercial paper	\$ 2,825,279	4.04%	\$ 3,830,054	5.86%
Short-term investment funds	12,000	0.02%	10,000	0.02%
Repurchase Agreements	75,000	0.11%	—	0.00%
<b>Total short term</b>	<b>2,912,279</b>	<b>4.17%</b>	<b>3,840,054</b>	<b>5.88%</b>
<b>Fixed income</b>				
U.S. government agency obligations and U.S. government obligations	5,041,145	7.21%	2,822,404	4.32%
Corporate bonds	3,931,650	5.63%	4,140,694	6.34%
High yield and emerging market	1,535,316	2.20%	1,359,647	2.08%
Mortgages and asset-backed	3,599,995	5.15%	3,433,033	5.25%
<b>Total fixed income</b>	<b>14,108,106</b>	<b>20.19%</b>	<b>11,755,778</b>	<b>17.99%</b>
<b>Domestic common and preferred stock</b>	<b>22,923,599</b>	<b>32.80%</b>	<b>22,858,112</b>	<b>34.98%</b>
<b>Real estate</b>				
East region	2,764,200	3.95%	2,579,070	3.95%
Midwest region	871,916	1.25%	812,080	1.24%
South region	556,659	0.80%	579,270	0.89%
West region	2,060,767	2.95%	1,835,471	2.81%
REITs	1,043,027	1.49%	944,107	1.44%
Other	1,058,079	1.51%	1,151,431	1.76%
<b>Total real estate</b>	<b>8,354,648</b>	<b>11.95%</b>	<b>7,901,429</b>	<b>12.09%</b>
<b>Alternative investments</b>	<b>7,616,022</b>	<b>10.90%</b>	<b>7,067,589</b>	<b>10.81%</b>
<b>International</b>	<b>13,968,850</b>	<b>19.99%</b>	<b>11,928,871</b>	<b>18.25%</b>
<b>Total investments</b>	<b>\$ 69,883,504</b>	<b>100.00%</b>	<b>\$ 65,351,833</b>	<b>100.00%</b>

Investment asset schedule excludes invested securities lending collateral.

**Investment Distribution by Fair Value — as of June 30, 2013**



**Ohio Investment Profile — as of June 30, 2013 (in thousands)**

STRS Ohio continues to engage in quality Ohio investments. As of June 30, 2013, STRS Ohio investments in companies with headquarters in Ohio are valued at more than \$1.2 billion.

Liquidity reserves	\$	31,996
Fixed income		79,196
Common stock		725,054
Alternative investments		243,711
Real estate		150,275
<b>Total Ohio-headquartered investments</b>	<b>\$</b>	<b>1,230,232</b>

**Schedule of U.S. Stock Brokerage Commissions Paid**  
(for the year ended June 30, 2013)

Brokerage Firm	Shares Traded*	Commissions Paid	Avg. Cents Per Share
Citigroup	25,979,642	\$ 982,842	3.8
ITG, Inc.	40,188,099	943,568	2.3
Instinet	106,612,396	799,752	0.8
JP Morgan Securities	44,943,180	704,118	1.6
Cantor Fitzgerald	21,010,896	626,263	3.0
UBS Investment Bank	19,957,680	582,663	2.9
Goldman Sachs	33,222,343	521,812	1.6
Barclays Capital	11,437,452	416,003	3.6
Baird (Robert) & Company	10,357,572	392,488	3.8
Credit Suisse Securities	10,678,411	356,825	3.3
Jefferies & Company	7,967,423	342,715	4.3
Deutsche Bank Securities	7,074,019	323,165	4.6
Morgan Stanley	7,110,147	303,697	4.3
Banc of America Securities	8,027,680	274,836	3.4
Wells Fargo Securities	5,877,194	253,657	4.3
International Strategy & Investment Group Inc.	5,160,270	241,821	4.7
Cowen & Company	5,136,297	227,847	4.4
Bernstein (Sanford C.) & Company	4,537,580	224,650	5.0
Weeden & Company	10,532,180	205,707	2.0
Keybank Capital Markets	3,951,876	190,865	4.8
Susquehanna Financial Group	5,978,784	159,924	2.7
Piper Jaffray	3,082,747	150,894	4.9
Green Street Advisors	3,581,662	148,024	4.1
Macquarie Capital	2,974,513	146,926	4.9
Oppenheimer & Company	2,946,427	142,578	4.8
Others (includes 80 brokerage firms and external managers)	225,071,592	5,503,249	2.4
<b>Total</b>	<b>633,398,062</b>	<b>\$15,166,886</b>	<b>2.4</b>

\*Includes option equivalent shares  
Excludes commissions on futures trading

## Schedule of Largest Investment Holdings\*

(as of June 30, 2013)

### Domestic Equities — Top 20 Holdings

	Shares	Fair Value
Apple Computer Inc.	1,422,200	\$ 563,304,976
Exxon Mobil Corp.	5,650,397	\$ 510,513,369
Microsoft Corp.	11,962,700	\$ 413,072,031
General Electric Co.	13,004,600	\$ 301,576,674
Google Inc.	339,700	\$ 299,061,689
Philip Morris International	3,217,000	\$ 278,656,540
Wells Fargo Co.	6,639,194	\$ 273,999,536
Johnson & Johnson	3,026,200	\$ 259,829,532
JPMorgan Chase & Co.	4,736,512	\$ 250,040,468
Visa Inc.-Class A	1,351,500	\$ 246,986,625
AT&T Inc.	6,937,582	\$ 245,590,403
Chevron Corp.	2,037,879	\$ 241,162,601
Procter & Gamble Co.	3,044,282	\$ 234,379,271
International Business Machines Corp.	1,199,400	\$ 229,217,334
PepsiCo Inc.	2,477,830	\$ 202,661,716
Coca Cola Co.	4,853,900	\$ 194,689,929
Pfizer Inc.	6,745,800	\$ 188,949,858
Merck & Co. Inc.	3,986,071	\$ 185,152,998
Citigroup Inc.	3,859,740	\$ 185,151,728
Qualcomm Inc.	2,848,100	\$ 173,961,948

### International Equities — Top 20 Holdings

	Shares	Fair Value
Roche (Switzerland)	658,667	\$ 163,596,412
HSBC (United Kingdom)	12,620,717	\$ 130,547,392
GlaxoSmithKline (United Kingdom)	4,924,735	\$ 123,094,847
Samsung Electronics (South Korea)	102,433	\$ 120,366,959
Toyota Motor (Japan)	1,851,331	\$ 111,637,114
Nestle (Switzerland)	1,583,163	\$ 103,658,984
Taiwan Semiconductor (Taiwan)	24,304,355	\$ 90,013,126
Sumitomo Mitsui Financial (Japan)	1,768,300	\$ 80,996,275
Vodafone (United Kingdom)	27,644,640	\$ 78,762,943
Sanofi (France)	738,413	\$ 76,421,311
Honda Motor (Japan)	2,049,775	\$ 76,039,874
Novartis AG (Switzerland)	1,026,896	\$ 72,826,425
Allianz SE (Germany)	472,006	\$ 68,869,487
Muenchener Rueckver (Germany)	361,181	\$ 66,384,591
Royal Dutch Shell (United Kingdom)	1,967,678	\$ 62,671,938
British American Tobacco (United Kingdom)	1,209,392	\$ 61,769,558
Fuji Heavy Industries Ltd (Japan)	2,452,221	\$ 60,358,185
AXA SA (France)	2,987,216	\$ 58,612,834
BNP Paribas (France)	1,035,120	\$ 56,477,359
Koninklijke DSM NV (Netherlands)	857,270	\$ 55,782,946

### Fixed Income — Top 20 Holdings

	Par Value	Fair Value
U.S. Treasury N/B, 1.750%, due 05/15/2022, AA	162,620,000	\$ 154,994,748
U.S. Treasury N/B, 1.125%, due 12/31/2019, AA	158,550,000	\$ 151,897,242
Federal Home Loan Bank, 0.073%, due 02/07/2014, AA	150,000,000	\$ 150,050,090
Federal Home Loan Bank, 0.133%, due 02/5/2014, AA	150,000,000	\$ 149,985,000
U.S. Treasury N/B, 2.375%, due 08/31/2014, AA	129,300,000	\$ 132,537,672
Fannie Mae, 0.124%, due 10/01/2014, AA	130,000,000	\$ 129,877,800
U.S. Treasury N/B, 0.500%, due 07/31/2017, AA	132,100,000	\$ 128,915,069
U.S. Treasury N/B, 0.250%, due 03/31/2014, AA	124,900,000	\$ 124,978,687
U.S. Treasury N/B, 2.125%, due 11/30/2014, AA	115,100,000	\$ 118,167,415
U.S. Treasury N/B, 1.625%, due 11/15/2022, AA	125,650,000	\$ 117,235,219
U.S. Treasury N/B, 0.875%, due 02/28/2017, AA	116,100,000	\$ 115,796,979
CCCIT 2013-A1 A1, 0.290%, due 04/24/2017, AAA	115,000,000	\$ 114,682,715
FHLMC GOLD #Q15849, 3.500%, due 02/1/2043, AA	112,123,957	\$ 113,785,634
U.S. Treasury N/B, 0.250%, due 09/15/2015, AA	111,100,000	\$ 110,655,600
U.S. Treasury N/B, 2.625%, due 11/15/2020, AA	105,550,000	\$ 109,964,101
Federal Home Loan Bank, 0.170%, due 03/06/2015, AA	100,000,000	\$ 99,916,000
Federal Home Loan Bank, 0.034%, due 11/18/2013, AA	90,000,000	\$ 89,993,700
U.S. Treasury N/B, 3.250%, due 06/30/2016, AA	82,950,000	\$ 89,289,868
U.S. Treasury N/B, 0.625%, due 05/31/2017, AA	90,000,000	\$ 88,556,400
U.S. Treasury N/B, 0.125%, due 12/31/2014, AA	84,600,000	\$ 84,444,336

\*A complete list of investment holdings is available from STRS Ohio.

**Schedule of External Managers**

(as of June 30, 2013)

**Domestic Equity**

**Large Cap Enhanced** Intech

**Small Cap** Chartwell Investment Partners

Neuberger Berman

Eagle Asset Management

Fuller & Thaler Asset Management

M.A. Weatherbie & Company

Next Century Growth Investors

**International**

**EAFE** Arrowstreet Capital

Alliance Bernstein

Marvin & Palmer Associates

**Emerging Market** First State Investments

Genesis Asset Managers

Marvin & Palmer Associates

Alliance Bernstein

**Fixed Income**

**High Yield** Pacific Investment Management Company

Oaktree Capital Management

**Emerging Market** Pyramis Global Advisors

Stone Harbor Investment Partners


**Segal Consulting**

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November 14, 2013

Board of Trustees  
State Teachers Retirement System of Ohio  
275 East Broad Street  
Columbus, Ohio 43215

Ladies and Gentlemen:

This report presents the results of the annual valuation of the assets and liabilities of The State Teachers Retirement System of Ohio (STRS Ohio or System) as of July 1, 2013, prepared in accordance with Section 3307.51 of Chapter 3307 of the Ohio Revised Code. This valuation takes into account all of the pension and survivor benefits to which members are entitled. A separate valuation of the retiree health care benefits provided by the System is performed as of January 1 of each year.

#### Benefit Provisions

The actuarial valuation reflects the benefit and contribution provisions set forth in Chapter 3307 of the Ohio Revised Code. The benefits and members contributions were changed with the pension reform legislation passed in September 2012. Summary highlights of the pension reform changes include:

- Member contributions increase from 10% to 14%, phased in 1% per year beginning July 1, 2013, through July 1, 2016.
- Service credit requirements for retirement with an unreduced benefit will increase from 30 years to 35 years of service by August 1, 2023. Beginning August 1, 2026, a minimum age of 60 is required. This change will be phased in beginning August 1, 2015, when eligibility for unreduced benefits increases to 31 years of service. The service credit requirement increases by one year every other year (e.g., the eligibility requirement is 32 years at August 1, 2017, 33 years at August 1, 2019, etc.). An unreduced retirement benefit continues to be available at age 65 with a minimum of five years of service.
- Service credit requirements for an actuarially reduced benefit will increase from age 55 with 25 years of service to any age with 30 years of service by August 1, 2023. This change will be phased in beginning August 1, 2015, when eligibility for a reduced benefit increases to age 55 with 26 years of service or any age with 30 years of service. The service credit requirement increases by one year every other year (e.g., the eligibility requirement is age 55 with 27 years of service at August 1, 2017, age 55 with 28 years of service August 1, 2019, etc.). A retirement benefit continues to be available at age 60 with a minimum of five years of service; however, the benefit will be actuarially reduced beginning August 1, 2015.
- Final average salary is changed to be the average of the five highest years of earnings beginning August 1, 2015.
- The current 35-year enhanced benefit formula will be eliminated after July 1, 2015. The new benefit formula is 2.2% for all years of service.
- Members who retire before July 1, 2013, will not receive a cost-of-living adjustment (COLA) during the 2014 fiscal year. Members who retire effective July 1, 2013, will not receive a COLA on July 1, 2014. After missing one COLA, retirees will resume a COLA of 2% per year. Members retiring after July 1, 2013, will receive a 2% COLA, but it will not begin until the fifth anniversary of retirement.
- Members who are eligible to retire on July 1, 2015, will continue to maintain retirement eligibility if they continue working, and the benefit will be the greater of (a) the benefit calculated upon retirement under the new formula, or (b) the benefit as of July 1, 2015, under the prior formula.

#### Actuarial Assumptions and Methods

With the exception of the retirement rates, the valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, reflecting the three-year experience review covering the period July 1, 2008 through June 30, 2011. The retirement rates were modified with this valuation to reflect the plan changes that were adopted with the pension reform legislation. The other actuarial methods are unchanged from the prior valuation.

The actuarial assumptions and methods comply with the parameters set forth in Governmental Accounting Standards Board Statement No. 25.

#### Assets and Membership Data

STRS Ohio reported to the actuary the individual data for members of the System as of the valuation date. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared by STRS Ohio.

#### Funding Adequacy

The member and employer contribution rates are established by statute. The member contribution rate increased from 10% of salary to 11% of salary effective July 1, 2013. The member contribution rate is scheduled to increase to 12% of salary effective July 1, 2014, to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016. The employer contribution rate is 14% of payroll. For fiscal 2014, the total contribution rate is 25% of payroll. The Board allocates the total contribution rate between pension and survivor benefits and health care. For fiscal 2014, the Board has allocated 1% toward health care, leaving 24% for pension and survivor benefits. The valuation indicates that the pension and survivor benefits contribution rate of 24% for fiscal 2014, increasing by 1% per year to 28% of payroll in fiscal 2017 and after is sufficient to provide for the payment of the pension and survivor benefits, as the funding period is 36.1 years (provided that the funding period decreases by one year in each future year.)

The valuation indicates that for the fiscal year ending June 30, 2013, the actuarial experience of STRS Ohio was somewhat favorable generating a net actuarial gain of \$17,755 million. This gain is the net result of a \$15,662 million decrease in actuarial accrued liability due to the pension reform changes, a \$2,483 million gain due to favorable investment return experience and a net \$391 million loss due to unfavorable demographic experience in fiscal 2013.

#### Financial Results

This report shows detailed summaries of the financial results of the valuation used in preparing this valuation. The actuary prepared supporting schedules included in the Actuarial and Statistical Sections of the STRS Ohio Comprehensive Annual Financial Report. The actuary also prepared the trend data schedules included in the Financial Section of the STRS Ohio Comprehensive Annual Financial Report.

#### Actuarial Certification

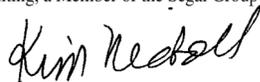
In preparing the results presented in this report, we have relied upon information STRS Ohio provided to us regarding the benefit provisions, System members, benefit payments and unaudited plan assets. While the scope of our engagement did not call for us to perform an audit or independent verification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

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented also comply with Chapter 3307 of the Ohio Revised Code, and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. Both are Fellows of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and both are experienced in performing valuations for large public retirement systems. They both meet the Qualification Standards of the American Academy of Actuaries.

Respectfully submitted,

Segal Consulting, a Member of the Segal Group

By:

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

  
Matthew A. Strom, FSA, MAAA, EA  
Consulting Actuary

This section presents the results of the annual valuation of the assets and liabilities of the State Teachers Retirement System of Ohio (STRS Ohio) as of July 1, 2013, prepared by its actuary, Segal Consulting, in accordance with Section 3307.51 of Chapter 3307 of the Ohio Revised Code.

## Statement of Actuarial Assumptions and Methods

The assumptions below have been adopted by the State Teachers Retirement Board after consulting with the actuary.

**Investment Return Rate:** 7.75% per annum, compounded annually and net of all expenses.

**Mortality Rates — Post-Retirement:** RP-2000 Combined Mortality Table (Projection 2022 – Scale AA). Males are set back two years through age 89 and no set back for age 90 and above. Females are set back four years through age 79, one year set back from age 80 through 89, and no set back from age 90 and above. (Adopted effective July 1, 2012.)

**Mortality Rates — Pre-Retirement:** Mortality rates for males are the same as the male post-retirement mortality rates with the exception that pre-retirement mortality rates for male age 45 and older are 25% less than the male post-retirement mortality rates. Mortality rates for females are the same as the female post-retirement rates with the exception that the pre-retirement mortality rates for females between age 50

and 57 are 25% less than the female post-retirement mortality rates, and the pre-retirement mortality rates for females age 58 and older are 50% less than the female post-retirement mortality rates. (Adopted effective July 1, 2012.)

**Mortality Rates — Post-Retirement Disabled:** Shown below for selected ages. (Adopted effective July 1, 2012.)

**Salary Increase Rates:** Shown below for selected ages. (Adopted effective July 1, 2012.)

**Payroll Growth Rate:** 3.50% per annum compounded annually for the next five years, 4.00% thereafter.

**Percent Married:** For valuation purposes, 80% of male members and 60% of female members are assumed to be married. Male members are assumed to be one year older than their spouses, and female members are assumed to be three years younger than their spouses. (The assumed age difference adopted effective July 1, 2012.)

**Asset Valuation Method:** The actuarial value of assets is based on the market value of assets with a four-year phase-in of actual investment return in excess of (or less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the actuarial value of assets (adjusted for receipts and disbursements during the year). The actual investment return for this purpose is determined net of all investment and administrative expenses. The actuarial value is further adjusted, if necessary, to be within 9% of the market value.

**Actuarial Cost Method:** Normal cost and actuarial accrued liability are calculated on an individual basis and are allocated by salary. Entry age is determined as the

Annual Rates of Separation and Salary Increase			
Age	Vested Withdrawal	Disability	Salary Increase
<b>MEN</b>			
20	11.25%	.008%	12.25%
25	11.25%	.008%	12.25%
30	2.40%	.014%	8.25%
35	1.96%	.030%	7.45%
40	1.62%	.071%	6.05%
45	2.00%	.131%	5.50%
50	2.00%	.180%	4.75%
55	4.00%	.225%	4.25%
60	4.00%	.263%	3.75%
65	0.00%	.300%	3.25%
70	—	—	2.75%
<b>WOMEN</b>			
20	13.20%	.010%	12.25%
25	12.54%	.010%	12.25%
30	4.22%	.011%	8.25%
35	2.38%	.033%	7.45%
40	1.69%	.060%	6.05%
45	1.35%	.083%	5.50%
50	2.00%	.120%	4.75%
55	3.00%	.150%	4.25%
60	3.00%	.175%	3.75%
65	0.00%	.200%	3.25%
70	—	—	2.75%

Retirement Rates				
Age	Under 25 Years of Service	25–29 Years of Service	30–34 Years of Service	35+ Years of Service
<b>MEN</b>				
52	0%	0%	20%	40%
55	0%	6%	10%	60%
60	10%	10%	15%	45%
65	20%	20%	10%	30%
70	15%	20%	10%	20%
75	100%	100%	100%	100%
<b>WOMEN</b>				
52	0%	0%	20%	50%
55	0%	9%	10%	50%
60	10%	15%	25%	45%
65	25%	30%	30%	45%
70	20%	20%	30%	30%
75	100%	100%	100%	100%

age at member's enrollment in STRS Ohio. The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets.

**Amortization Period and Method:** The GASB Annual Required Contribution (ARC) is determined as the sum of (a) the employer normal cost rate, and (b) a level percentage of payroll required to amortize the unfunded actuarial accrued liability over a 30-year period.

**Census and Assets:** The valuation was based on members of the system as of July 1, 2013, and does not take into account future members. All census and asset data was supplied by the system.

### Benefit Recipients Added to and Removed From the Rolls, 2006–2013

Fiscal Year Ended	Beginning Number of Benefit Recipients	Beginning Annual Allowances (in thousands)	Benefit Recipients Added	Payments Added (in thousands)	Benefit Recipients Removed	Payments Removed (in thousands)	Ending Number of Benefit Recipients	Ending Annual Allowance (in thousands)
2006	115,395	\$3,540,241	7,194	\$354,245	3,405	\$66,091	119,184	\$3,828,395
2007	119,184	\$3,828,395	7,289	\$370,503	3,539	\$74,241	122,934	\$4,124,657
2008	122,934	\$4,124,657	7,182	\$373,385	3,610	\$79,243	126,506	\$4,418,799
2009	126,506	\$4,418,799	6,675	\$366,645	3,522	\$78,480	129,659	\$4,706,964
2010	129,659	\$4,706,964	7,089	\$334,654	3,645	\$83,658	133,103	\$4,957,960
2011	133,103	\$4,957,960	7,744	\$501,900	2,759	\$66,488	138,088	\$5,393,372
2012	138,088	\$5,393,372	8,761	\$512,952	3,593	\$90,917	143,256	\$5,815,407
2013	143,256	\$5,815,407	8,493	\$441,942	2,528	\$67,167	149,221	\$6,190,182

### Schedule of Valuation Data — Active Members, 2004–2013

Valuation Date*	Number	Annualized Salaries (in thousands)	Annual Average Pay	% Increase in Average Pay
2004	179,063	\$8,646,404	\$48,287	3%
2005	176,692	\$8,757,200	\$49,562	3%
2006	175,065	\$8,894,400	\$50,806	3%
2007	174,110	\$9,051,842	\$51,989	2%
2008	173,327	\$9,187,562	\$53,007	2%
2009	174,807	\$9,502,701	\$54,361	3%
2010	175,842	\$9,633,355	\$54,784	1%
2011	177,897	\$9,609,723	\$54,018	-1%
2012	173,044	\$9,330,845	\$53,922	0%
2013	169,945	\$9,118,035	\$53,653	0%

\*For valuations prior to July 1, 2010, active members are defined as participants who earned 0.25 years of service credit or more, in the valuation year. Starting with the July 1, 2010 figures, active members are defined as participants who earned 0.25 years of service credit or more in the valuation year and those employed on or after Jan. 1, with less than 0.25 years of service.

### Schedule of Valuation Data — Retirees/Beneficiaries, 2004–2013

Valuation Date	Number	Annual Allowances (in thousands)	% Increase in Annual Allowances	Average Annual Allowances
2004	111,853	\$3,272,078	8%	\$29,253
2005	115,395	\$3,540,241	8%	\$30,679
2006	119,184	\$3,828,395	8%	\$32,122
2007	122,934	\$4,124,657	8%	\$33,552
2008	126,506	\$4,418,799	7%	\$34,930
2009	129,659	\$4,706,964	7%	\$36,303
2010	133,103	\$4,957,960	5%	\$37,249
2011	138,088	\$5,393,372	9%	\$39,057
2012	143,256	\$5,815,407	8%	\$40,595
2013	149,221	\$6,190,182	6%	\$41,483

**Solvency Test, 2004–2013** (dollar amounts in thousands)

Valuation Date	Accrued Liability for:			Valuation Assets*	Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer-Financed Portion)		(1)	(2)	(3)
2004	\$8,600,068	\$37,870,700	\$23,396,658	\$52,253,799	100%	100%	25%
2005	\$8,940,971	\$40,937,540	\$23,938,603	\$53,765,570	100%	100%	16%
2006	\$9,284,076	\$44,219,489	\$23,867,459	\$58,008,050	100%	100%	19%
2007	\$9,563,124	\$47,526,142	\$24,037,375	\$66,671,511	100%	100%	40%
2008	\$9,737,926	\$51,874,103	\$25,820,319	\$69,198,008	100%	100%	29%
2009	\$10,295,816	\$54,909,046	\$26,236,093	\$54,902,859	100%	81%	0%
2010	\$10,641,167	\$57,754,654	\$26,324,848	\$55,946,259	100%	78%	0%
2011	\$10,907,611	\$62,441,600	\$25,416,993	\$58,110,495	100%	76%	0%
2012	\$10,985,246	\$68,111,175	\$27,205,420	\$59,489,508	100%	71%	0%
2013	\$10,962,886	\$68,075,440	\$15,328,367	\$62,590,786	100%	76%	0%

\*Excludes health care assets.

**Analysis of Financial Experience**

Gains and Losses in Accrued Liabilities Resulting From Differences Between Assumed Experience and Actual Experience (in thousands)

Type of Activity:	Gain (loss) for year ended June 30:				
	2013	2012	2011	2010	2009
Investment income. If there is greater investment income than assumed, there is a gain. If less, there is a loss.	\$ 2,483,140	\$ 324,840	\$ 588,454	\$ (731,414)	\$ (17,353,396)
Payroll growth. If more contributions from payroll growth are received than expected, there is a gain. If less, there is a loss.	(36,193)	(69,993)	(77,193)	(30,530)	(35,590)
Salary increases. If there are smaller salary increases than assumed, there is a gain. If greater increases, there is a loss.	816,457	1,030,921	680,760	404,084	133,050
Retirement and other separation experience. If members retire from service at an older age or with a lower final average salary than assumed, there is a gain. If separation claims are less than expected, there is a gain. If new members don't enter the system as expected, there is a loss.	(1,199,362)	(995,369)	(535,829)	(664,659)	(493,354)
Death after retirement. If retirees live shorter than expected, there is a gain. If retirees live longer than assumed, there is a loss.	39,580	(80,989)	(488,586)	744,522	(66,627)
Final plan reselection. If the account value from defined contribution accounts is greater than the reestablished defined benefit account balance, there is a gain.	(11,124)	(12,658)	13,373	(1,061)	14,538
Gain (or loss) during year from financial experience	2,092,498	196,752	180,979	(279,058)	(17,801,379)
Actuarial gain (or loss) due to assumption changes/plan amendments	15,662,266	(4,178,741)	0	0	0
Composite gain (or loss) during the year	\$17,754,764	\$ (3,981,989)	\$ 180,979	\$ (279,058)	\$ (17,801,379)

## Summary of Benefit and Contribution Provisions — Defined Benefit Plan

### Eligibility for Membership

Immediate upon commencement of employment.

### Service Retirement

#### Eligibility

Age 60 with five years of qualifying service credit, or age 55 with 25 years of service, or 30 years of service regardless of age. Age and service requirements for retirement will increase effective Aug. 1, 2015.

Effective Aug. 1, 2015, service credit requirements for retirement with an unreduced benefit will increase as follows:

Unreduced Benefit for Retirement Between:	Minimum Age and Years of Service
Now–7/1/2015	Any age and 30 years; or age 65 and 5 years
8/1/2015–7/1/2017	Any age and 31 years; or age 65 and 5 years
8/1/2017–7/1/2019	Any age and 32 years; or age 65 and 5 years
8/1/2019–7/1/2021	Any age and 33 years; or age 65 and 5 years
8/1/2021–7/1/2023	Any age and 34 years; or age 65 and 5 years
8/1/2023–7/1/2026	Any age and 35 years; or age 65 and 5 years
8/1/2026	Age 60 and 35 years; or age 65 and 5 years

#### Amounts

Prior to July 1, 2015, annual amount equal to the greater of (a) 2.2% of final average salary for the three highest years of earnings, multiplied by years of total Ohio service credit, or 2.5% of final average salary for the three highest paid years if the member has 35 or more years of contributing service credit multiplied by years of total contributing service credit, except that for years of contributing service credit in excess of 30, the following percentages will apply:

Year	Percentage
31	2.5%
32	2.6%
33	2.7%
34	2.8%
35	2.9%
36	3.0%
37	3.1%
38	3.2%
39	3.3%

or (b) \$86 multiplied by years of service credit. Effective Aug. 1, 2013, the \$86 per year calculation was eliminated.

Effective Aug. 1, 2015, annual amount equal to 2.2% of final average salary for the five highest years of earnings, multiplied by all years of service.

For members who are eligible to retire on July 1, 2015, annual amount will be greater of (a) the benefit amount calculated upon retirement under the new benefit formula, or (b) the benefit amount as of July 1, 2015 under the current formula.

Annual salary is subject to the limit under Section 401(a) (17) of the Internal Revenue Code.

**Maximum benefit** — The lesser of (a) 100% of average annual salary or (b) the limit as established by Section 415 of the Internal Revenue Code.

**Minimum benefit** — Money-purchase benefit, which includes member's contributions with interest, plus matching employer contributions, provided as an annuity. Effective Aug. 1, 2013, the money-purchase benefit was eliminated.

Prior to July 1, 2015, if the member has less than 30 years of service at retirement and is younger than age 65, the following reduction factors apply:

Attained Age	Years of Ohio Service Credit	Percentage of Base Amount
58	25	75%
59	26	80%
60	27	85%
61		88%
	28	90%
62		91%
63		94%
	29	95%
64		97%
65	30 or more	100%

Effective Aug. 1, 2015, the service credit requirements for an actuarially reduced benefit are as follows:

Reduced Benefit for Retirement Between:	Minimum Age and Years of Service
Now–7/1/2015	Age 55 and 25 years; or age 60 and 5 years
8/1/2015–7/1/2017	Any age and 30 years; or age 55 and 26 years; or age 60 and 5 years
8/1/2017–7/1/2019	Any age and 30 years; or age 55 and 27 years; or age 60 and 5 years
8/1/2019–7/1/2021	Any age and 30 years; or age 55 and 28 years; or age 60 and 5 years
8/1/2021–7/1/2023	Any age and 30 years; or age 55 and 29 years; or age 60 and 5 years
8/1/2023	Any age and 30 years; or age 60 and 5 years

The actuarially reduced benefit reflects a reduction for each year that the member retires before meeting eligibility for an unreduced benefit.

## Disability Retirement

### Eligibility

Membership before July 30, 1992, and election of this benefit, completion of five or more years of qualifying service credit, under age 60 and permanently incapacitated for the performance of duty.

### Amount

- (1) Annuity with a reserve equal to the member's accumulated contributions, plus
- (2) The difference between (1) and 2% of the average salary during the three highest paid years or \$86 times total service plus years and months from date of disability to age 60. Maximum allowance is 75% of final average salary. Minimum allowance is 30% of final average salary.

## Disability Allowance

### Eligibility

Membership after July 29, 1992, or membership before July 30, 1992, and election of this benefit, completion of five or more years of qualifying service credit and permanently incapacitated for the performance of duty. For membership on or after July 1, 2013, completion of 10 years of qualifying service credit and permanently incapacitated for the performance of duty.

### Amount

2.2% of the average salary during the three highest paid years times total service. Maximum allowance is 60% of final average salary. Minimum allowance is 45% of final average salary. The disability allowance payment terminates at age 65 (or later if payment begins after age 60). After termination of the disability allowance, the member may apply for service retirement. Benefits commencing Aug. 1, 2015, or later will be based on a five-year final average salary.

## Death After Retirement

Lump-sum payment of \$1,000 upon death after service or disability retirement.

## Survivor Benefits

### Eligibility

Upon death after at least 1-1/2 years of credit with at least 1/4 year of such service in the 2-1/2 years preceding death or upon death of a disability recipient. For membership on or after July 1, 2013, upon death after at least five years of qualifying service credit and died not later than one year after the date service terminated or upon the death of a disability recipient.

Qualified survivors will receive the highest benefit from among the following for which they are eligible: dependent-based benefit, service-based benefit, and retirement-based benefit.

Qualified survivors are the spouse, dependent children, and/or dependent parents over age 65.

### Dependent-based benefit

Monthly survivor benefits are determined according to the number of qualified survivors. These benefits are payable as a percentage of final average salary. The percentages are as follows:

Number of Qualified Dependents	% of Average Annual Salary for Three Highest Paid Years	Minimum Annual Benefit
1	25%	\$1,152
2	40%	\$2,232
3	50%	\$2,832
4	55%	\$2,832
5 or more	60%	\$2,832

### Service-based benefit

If a member has 20 or more years of service before death, monthly survivor benefits are determined according to the number of years of service credit. These benefits are payable as a percentage of final average salary. The percentages are as follows:

Years of Service	% of Final Average Salary
20	29%
21	33%
22	37%
23	41%
24	45%
25	48%
26	51%
27	54%
28	57%
29 or more	60%

### Retirement-based benefit

If a member dies after meeting service retirement eligibility, the monthly survivor benefit is determined as if the member had actually retired and provided the maximum joint and survivor benefit to the qualified survivor (Option 1). Early retirement reduction applies if the member is not eligible for unreduced benefit.

The primary beneficiary may withdraw the deceased member's account in lieu of receiving monthly benefits if there are no children who are qualified survivors.

## Lump-Sum Withdrawal Option

In lieu of any other pension or survivor benefits, a member who leaves the system can receive his or her member contributions with interest in a lump sum according to the following schedule:

Credited Service	Lump-Sum Amount
Less than three years	Member contributions with 2% interest
Three or more years but less than five years	Member contributions with 3% interest
Five or more years	150% of member contributions with 3% interest

**The board has the authority to modify the interest credited to member contributions.**

## Plans of Payment

There are four basic plans of payment:

**Plan I — Single Life Annuity:** if a member chooses this plan at retirement and later marries, he/she may change the plan to a Joint and Survivor Annuity with his/her spouse as beneficiary within the first year of the marriage.

**Plan II — Joint and Survivor Annuity:** there are four options under this plan of payment:

- Options 1, 2 and 3 apply to a single primary beneficiary
- Option 4 applies to multiple primary beneficiaries

**Plan III — Annuity Certain:** if a death occurs before the guaranteed period ends, a beneficiary receives the same monthly benefit until the guaranteed period expires. If a member names more than one beneficiary, a lump-sum payment, representing the present value of the remaining payments is divided equally and paid to the beneficiaries. If all beneficiaries die before the expiration of the certain period, the present value of all remaining payments is paid to the estate of the beneficiary last receiving payments.

**Plan IV — Partial Lump-Sum Option Plan:** allows a member to take an amount from six to 36 times the monthly Single Life Annuity benefit in a lump sum at retirement. The remainder of a member's lifetime benefits will be paid based on member's selected plan of payment: Single Life Annuity, Joint and Survivor Annuity or Annuity Certain.

## Optional Forms of Benefit

**Option 1** — 100% joint and survivorship. Reduced retirement allowance payable to the member, continuing after the member's death, for life to the member's sole beneficiary named at retirement.

**Option 2** — A joint and survivorship annuity payable during the lifetime of the member, with the member's sole beneficiary named at retirement to receive some other portion of the member's annuity after the member's death.

**Option 3** — The sole member's reduced retirement allowance provided under Option 1 or Option 2 is to be paid after the member's death for life to the member's sole beneficiary named at retirement, except that in the event of the death of the sole beneficiary or termination of marriage between the retiree and the sole beneficiary, the retiree may elect to return to his single lifetime benefit equivalent. In the case of termination of marriage, the election may be made with the written consent of the beneficiary or by court order.

**Option 4** — Members who retire Nov. 1, 2006, or later may elect a reduced benefit to provide continuing lifetime benefits for up to four primary beneficiaries under a Joint and Survivor Annuity. A member may specify percentages of his/her benefit or a flat dollar amount for each beneficiary; however, the total benefit amount payable to all beneficiaries cannot exceed the amount payable to the member.

## Cost-of-Living Benefits

The basic benefit is increased each year by 2% of the original base benefit.

Members who retired before July 1, 2013, will not receive a COLA during the 2014 fiscal year. Members who retired effective July 1, 2013, will not receive a COLA on July 1, 2014. After missing one COLA, retirees will resume COLA at 2% per year.

For members retiring Aug. 1, 2013, or later, the 2% COLA is paid on the fifth anniversary of the retirement benefit. Future annual increases are calculated on the original benefit and are not compounded.

## Health Care

Retirees, their spouses and dependents are eligible for a comprehensive medical expense health care plan as may be offered by the Retirement Board, subject to changes in terms and conditions from time to time.

## Contribution

**By Members:** 11% of salary. The member contribution rate is scheduled to increase to 12% of salary effective July 1, 2014, to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.

**By Employers:** 14% of salaries of their employees who are members.

## Summary of Benefit and Contribution Provisions — Combined Plan

### Eligibility for Membership

New members hired on or after July 1, 2001, may elect in writing to participate in the Combined Plan.

### Service Retirement

#### Eligibility

Age 60 with five years of service.

#### Amount

The balance in the member's defined contribution account plus an annual amount equal to 1% of final average salary for the three highest paid years multiplied by years of total Ohio service credit.

Effective Aug. 1, 2015, final average salary will be average of the member's five highest salary years.

Annual salary is subject to the limit under Section 401(a)(17) of the Internal Revenue Code.

### Vesting

#### Eligibility

Completion of five years of service for the defined benefit portion. Member contributions and earnings are 100% vested at all times.

#### Amount

A member who terminates with five or more years of service credit can receive the actuarial equivalent present value of the defined benefit formula. Before age 50, a withdrawal must include both the defined benefit and defined contribution portions of the account.

### Early Retirement

#### Eligibility

Before age 60 with five years of service.

#### Amount

At age 50 or after, a member may elect to withdraw the full value of his or her defined contribution account and receive the withdrawal value of the defined benefit in a single sum, or leave the defined benefit on account for a benefit payable at age 60. The member may withdraw the defined benefit portion of the account only if he or she is also withdrawing the defined contribution account.

### Disability Benefits

#### Eligibility

Completion of five or more years of qualifying service credit and permanently incapacitated for the performance of duty. For membership on or after July 1, 2013, completion of 10 years of qualifying service credit with STRS Ohio.

#### Amount

Members have the option of receiving disability benefits under the disability allowance program of the Defined Benefit Plan. All contributions and investment gains in the member's defined contribution account are used to fund the benefit. At age 65, the disability allowance converts to a service retirement benefit with a 2.2% formula. Alternatively, the member's defined contribution account is available.

### Survivor Benefits

#### Eligibility

Upon death after at least 1-1/2 years of qualifying service credit with at least 1/4 year of such service in the 2-1/2 years preceding death or upon death of a disability retiree. For membership on or after July 1, 2013, upon death at least five years of qualifying service credit and died no later than one year after service terminated or upon death of a disability recipient.

#### Amount

Qualified survivors have the option of receiving dependent-based, service-based or retirement-based benefits described under the Defined Benefit Plan. Both employer contributions and the member's contributions and any investment gains in the member's defined contribution account are used to fund the benefit. Survivors also have the option to withdraw the defined contribution and defined benefit portions of the Combined Plan account.

### Optional Forms of Payment of Defined Benefit Portion

A lump sum of the actuarial equivalent of the defined benefit formula benefit. If a member withdraws the defined contribution account before age 50, the defined benefit portion is paid in a lump sum.

Joint and Survivorship Options — Options 1 through 4 described in the Defined Benefit Plan provisions are available, as well as the PLOP. All alternative forms of payment are the actuarial equivalent of the Single Life Annuity benefit payable at age 60 provided the monthly benefit is at least \$100.

### Optional Forms of Payment of Member's Defined Contribution Account

The actuarial equivalent of the member's defined contribution account can be paid on or after age 50 as a lifetime annuity. Options 1 through 4, described in the Defined Benefit Plan provisions, are also available. The monthly annuity must be \$100 or more to receive the member's defined contribution account in the form of an annuity.

The vested amount of the member's defined contribution account upon termination of employment can be paid as a single lump sum. If a member takes a lump sum of the defined benefit formula benefit, the member must simultaneously withdraw the lump-sum value of the member's defined contribution account in a single lump sum.

## Cost-of-Living Benefits

Not available on the service retirement benefit. For disability and survivor benefits, the basic benefit is increased each year by 2% of the original base benefit.

Changes to the cost-of-living adjustment are described under the Defined Benefit Plan section.

## Health Care

Retirees, their spouses and dependents are eligible for a comprehensive medical expense health care plan as may be offered by the Retirement Board, subject to changes in terms and conditions from time to time.

## Contribution

**By Members:** 11% of salary, with 10% deposited into the member's defined contribution account and 1% to fund the defined benefit. The member contribution rate is scheduled to increase to 12% of salary effective July 1, 2014, to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.

**By Employers:** 14% of salaries is used to fund the defined benefit formula and health care.

## Summary of Benefit and Contribution Provisions — Defined Contribution Plan

### Eligibility for Membership

New members hired on or after July 1, 2001, may elect in writing to participate in the Defined Contribution Plan.

### Service Retirement

#### Eligibility

Termination after age 50.

#### Amount

The balance in the member's defined contribution account.

### Vesting

#### Eligibility

Employer contributions and earnings on the member's account are vested after the first anniversary of membership. Effective July 1, 2013, members vest 20% per year in employer contributions and all gains and losses on those contributions. Member contributions and earnings are 100% vested immediately.

#### Amount

The balance in the member's defined contribution account.

## Early Retirement

### Eligibility

Termination before age 50.

### Amount

The balance in the member's defined contribution account.

## Disability Benefits

### Eligibility

Permanently incapacitated for the performance of duty and termination of employment.

### Amount

The balance in the member's defined contribution account. At age 50, other payment options are available, but employment must first be terminated.

## Survivor Benefits

### Eligibility

Upon death.

### Amount

The balance in the member's defined contribution account. A spouse may either continue to manage the member's defined contribution account or withdraw the account.

## Optional Forms of Payment

The actuarial equivalent of the member's defined contribution account can be paid on or after age 50 as a lifetime annuity. Options 1 through 4, described in the Defined Benefit Plan provisions, are also available. The monthly annuity must be \$100 or more to receive the member's defined contribution account in the form of an annuity.

## Cost-of-Living Benefits

Not available.

## Health Care

Not available.

## Contribution

**By Members:** 11% of salary is deposited into the member's defined contribution account.

The member contribution rate is scheduled to increase to 12% of salary effective July 1, 2014, to 13% of salary effective July 1, 2015, and to 14% of salary effective July 1, 2016.

**By Employers:** 9.5% of salary is deposited into the member's defined contribution account. 4.5% of salaries is used to amortize the unfunded actuarial accrued liability of the defined benefit plan.



**FOREWORD AND ACTUARIAL CERTIFICATION**

We are pleased to present this report containing the results of the January 1, 2013 actuarial valuation of the State Teachers Retirement System of Ohio ("STRS Ohio") Postretirement Retiree Health Care Benefit Plan, pursuant to our Agreement with STRS Ohio dated December 1, 2007.

STRS Ohio retained PricewaterhouseCoopers LLP ("PwC") to perform an actuarial valuation of its Retiree Health Care Benefit Plan ("the Plan") for the purposes of calculating the necessary information for accounting and reporting requirements in accordance with Government Accounting Standards Board Statement No. 43 (GASB 43). This valuation has been conducted in accordance with the required Actuarial Standards of Practice as issued by the American Academy of Actuaries.

Actuarial calculations under GASB 43 are for purposes of fulfilling STRS Ohio's financial accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of GASB 43.

In preparing the results presented in this report, we have relied upon information STRS Ohio provided to us regarding plan provisions, plan participants, claims and premium data, unaudited plan assets and benefit payments. We have collected the active and inactive census data as of July 1, 2012, and the retiree, survivor and dependent census data as of January 1, 2013. In addition, claims data and plan asset information were collected as of January 1, 2013. While the scope of our engagement did not call for us to perform an audit or independent verification of this information, we have reviewed this information for reasonableness. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

GASB 43 requires that each significant assumption reflect the best estimate of the Plan's future experience solely with respect to that assumption. STRS Ohio has determined and taken responsibility for the actuarial assumptions and the accounting policies and methods employed in the valuation of obligations and costs under GASB 43.

A range of results, different from those presented in this report could be considered reasonable. Future actuarial measurements may differ significantly from the current measurement presented in this report due to a number of factors including but not limited to: plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methods used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), rounding conventions and changes in plan provisions or applicable law. Particularly, the assumptions used in future actuarial measurements will reflect the experience study performed in 2011 and are expected to differ from prior valuations. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

This report was prepared for the internal use of STRS Ohio and their auditors in connection with our actuarial valuation of the Plan and not for reliance by any other person. PwC disclaims any contractual or other responsibility or duty of care to others based upon the services or deliverables provided in connection with this report.

This report does not purport to comply with any other purposes not stated herein. Significantly different results from what is presented in this report may be appropriate for other purposes.

This document was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law.

The undersigned actuaries are members of the Society of Actuaries and the American Academy of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to postretirement medical and life insurance plans. To the best of our knowledge, the individuals involved in this engagement have no relationship that may impair, or appear to impair, the objectivity of our work. We appreciate this opportunity to be of service to STRS Ohio. We are available to answer any questions with respect to our report.

Respectfully submitted,

PRICEWATERHOUSECOOPERS LLP

Sheldon Gamzon

Fellow of the Society of Actuaries  
Member of the American Academy of Actuaries  
March 7, 2013

Jill Stockard

Fellow of the Society of Actuaries  
Member of the American Academy of Actuaries

A separate annual valuation of the retiree health care benefits provided by STRS Ohio was performed as of Jan. 1, 2013, by PricewaterhouseCoopers (PWC).

### Statement of Actuarial Assumptions and Methods — Health Care

The assumptions below have been adopted by the State Teachers Retirement Board after consulting with the actuary.

**GASB Statement No. 43:** Provides STRS Ohio's responsibility for accounting and financial reporting for all post-employment benefits other than pension. Such benefits are commonly referred to as "other post-employment benefits" (OPEB).

**Valuation Basis:** Covers the retiree health care benefits that STRS Ohio provides to its members and their dependents. Plan benefits include:

- Medical and prescription drug benefits
- Reimbursement of a portion of Medicare Part B premiums

The valuation includes the following membership groups:

- Active members
- Inactive nonretired members
- Retired members
- Survivors of retired members
- Dependents

The valuation was based on the plan provision in effect on Jan. 1, 2013. The active and inactive member census data was as of July 1, 2012, and the retiree, survivor and dependent census data was as of Jan. 1, 2013. The active and inactive populations were projected to Jan. 1, 2013, by removing members who retired prior to that date and replacing them with new hires with similar characteristics.

The GASB Statement No. 43 discount rate is the expected rate of return on the assets used to pay the benefits. If the retiree health care benefits are not pre-funded, GASB Statement No. 43 specifies the use of a discount rate that reflects the expected return on the general assets of the plan sponsor. If the benefits are fully pre-funded, the discount rate is based on the expected return on the assets that supports the benefits. If the benefits are partially pre-funded, the discount rate is a blend of the expected return on the sponsor's general assets and the plan assets. For the fiscal year ended June 30, 2013, the blended GASB Statement No. 43 discount rate was 6.5% and has been determined based on the plan's funded ratio.

**Changes From the Prior Valuation:** Effective Jan. 1, 2013, the subsidy rate was determined based on the premium rates prior to reflecting pharmacy rebates. The per capita costs for 2013 reflect plan design changes that were made to beneficiary cost-sharing at the point of service and expected changes in prescription drug costs due to contractual drug pricing changes with Express Scripts. The per capita costs for 2013 and beyond were increased to reflect the PCORI (Patient-Centered Outcomes Research Institute) fee as well as a transitional reinsurance fee under health care reform. The average benefit payment, shown to the right, is the amount paid by STRS Ohio to providers after deducting member premiums and the 1% employer contribution.

### Health Care Solvency Test, 2011–2013

(dollar amounts in thousands)

Actuarial Valuation Date	Accrued Liability For:			Fair Market Value of Assets	Portion of Accrued Liability Covered by:		
	(1) Active Members	(2) Inactive Members	(3) Retirees, Survivors & Dependents		(1)	(2)	(3)
Jan. 1, 2011	\$4,389,465	\$86,325	\$4,155,523	\$3,108,541	71%	0%	0%
Jan. 1, 2012	\$2,536,826	\$58,182	\$2,499,399	\$2,968,157	100%	100%	15%
Jan. 1, 2013	\$2,026,570	\$53,512	\$2,174,014	\$3,121,576	100%	100%	48%

### Key Methods and Assumptions Used in Health Care Actuarial Valuation

Valuation date	Jan. 1, 2013
Actuarial cost method	Entry age normal, level percent of pay
Amortization method	30 years, open, level percent of pay
Asset valuation method	Fair market value

#### Actuarial Assumptions

Investment rate of return	6.5%
Projected salary increases	Varies by age from 2.75%–12.25%
Payroll increase	3.50% through 2018; 4.00% thereafter

#### Health Care Cost Trend Rates

	Initial Rate	Ultimate Rate	Ultimate Year
Pre-65 PPO	9.3%	5.0%	2021
Post-65 PPO	7.3%	5.0%	2021
Pre-65 HMO	9.3%	5.0%	2021
Post-65 HMO	8.3%	5.0%	2021
Post-65 MA	8.3%	5.0%	2021
Prescription drugs	9.8%	5.0%	2021

### Summary of Membership Data

Valuation date	Jan. 1, 2013	Jan. 1, 2012	Jan. 1, 2011
Active members	173,044	177,897	175,842
Inactive members	17,003	16,685	17,377
Medicare Part B premium reimbursement	\$12,199	\$11,596	\$10,839
Average per participant annual benefit payment	\$2,153	\$2,561	\$2,210

#### STRS Ohio Health Care Program Enrollees

	Jan. 1, 2013	Added	Terminated	Jan. 1, 2012	Jan. 1, 2011
Retirees	92,668	6,504	3,369	89,533	85,802
Disabled retirees	4,595	129	228	4,694	4,767
Survivors	4,632	269	741	5,104	5,530
Spouses and dependents (excluding children)	19,387	5,531	5,754	19,610	19,655
Total	121,282	12,433	10,092	118,941	115,754

The objective of the statistical section is to provide financial statement users with historical perspective, context and detail to assist in using the information in the financial statements and the notes to the financial statements to better understand and assess STRS Ohio's economic condition.

The schedules on Pages 66–67 show financial trend information that assists users in understanding and assessing how STRS Ohio's financial position has changed over time. The financial trend schedules presented are:

- Changes in Net Assets
- Net Assets by Plan
- Benefit Expenses by Type

Demographic and economic information begins on Page 68. This information is intended to assist users in understanding the environment in which STRS Ohio operates and to provide information that facilitates comparisons of financial statement information over time and among governments. The demographic and economic information presented are:

- Actuarial Funded Ratio and Funding Period
- Selected Funding Information — Defined Benefit Plan
- Number of Benefit Recipients by Type
- Summary of Active Membership Data

Operating information, which begins on Page 70, is intended to provide contextual information about STRS Ohio's operation to assist in using financial statement information. The operating information presented is:

- Benefit Payments by Type
- Average Benefit Payments for Service Retirees
- Number of Reporting Employers by Type
- Principal Participating Employers

### Changes in Net Assets Years Ending June 30, 2004–2013 (in thousands)

Defined Benefit Plan										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Additions:</b>										
Member contributions	\$ 967,234	\$ 969,226	\$ 987,900	\$ 1,002,876	\$ 1,017,720	\$ 1,041,248	\$ 1,066,483	\$ 1,081,958	\$ 1,049,709	\$ 1,042,959
Employer contributions	1,206,439	1,232,317	1,255,053	1,272,559	1,305,027	1,347,741	1,374,327	1,379,104	1,349,561	1,327,862
Investment income (loss)	7,685,568	6,101,662	7,550,742	12,693,905	(3,926,797)	(14,371,713)	6,641,516	11,924,753	1,094,829	7,984,266
Other	20,777	20,488	18,974	36,313	37,945	35,324	39,857	45,910	50,804	54,681
<b>Total additions</b>	<b>9,880,018</b>	<b>8,323,693</b>	<b>9,812,669</b>	<b>15,005,653</b>	<b>(1,566,105)</b>	<b>(11,947,400)</b>	<b>9,122,183</b>	<b>14,431,725</b>	<b>3,544,903</b>	<b>10,409,768</b>
<b>Deductions:</b>										
Benefit payments	3,108,753	3,383,605	3,684,385	4,007,705	4,338,617	4,613,751	4,900,418	5,244,407	5,741,042	6,152,335
Refunds	99,538	110,018	121,290	128,587	133,832	121,863	117,751	153,243	169,071	186,459
Administrative expenses	62,768	59,093	63,398	60,002	59,467	58,679	59,320	57,778	57,879	58,613
<b>Total deductions</b>	<b>3,271,059</b>	<b>3,552,716</b>	<b>3,869,073</b>	<b>4,196,294</b>	<b>4,531,916</b>	<b>4,794,293</b>	<b>5,077,489</b>	<b>5,455,428</b>	<b>5,967,992</b>	<b>6,397,407</b>
<b>Net increase (decrease)</b>	<b>6,608,959</b>	<b>4,770,977</b>	<b>5,943,596</b>	<b>10,809,359</b>	<b>(6,098,021)</b>	<b>(16,741,693)</b>	<b>4,044,694</b>	<b>8,976,297</b>	<b>(2,423,089)</b>	<b>4,012,361</b>
Net assets held in trust, beginning of year	44,802,542	51,411,501	56,182,478	62,126,074	72,935,433	66,837,412	50,095,719	54,140,413	63,116,710	60,693,621
Net assets held in trust, end of year	\$51,411,501	\$56,182,478	\$62,126,074	\$72,935,433	\$66,837,412	\$50,095,719	\$54,140,413	\$63,116,710	\$60,693,621	\$64,705,982
Post-Employment Health Care Plan										
<b>Additions:</b>										
Employer contributions	\$ 91,589	\$ 93,066	\$ 94,610	\$ 96,287	\$ 98,342	\$ 101,221	\$ 103,415	\$ 103,694	\$ 101,025	\$ 99,179
Health care premiums	156,970	188,835	189,432	201,537	214,700	225,627	222,316	222,130	246,264	261,903
Investment income (loss)	470,125	361,600	433,999	713,400	(217,501)	(778,556)	348,311	608,969	54,990	402,110
Government reimbursements	0	0	17,947	36,312	36,915	37,956	38,156	70,556	92,213	41,200
<b>Total additions</b>	<b>718,684</b>	<b>643,501</b>	<b>735,988</b>	<b>1,047,536</b>	<b>132,456</b>	<b>(413,752)</b>	<b>712,198</b>	<b>1,005,349</b>	<b>494,492</b>	<b>804,392</b>
<b>Deductions:</b>										
Health care provider payments	425,709	443,615	490,122	503,407	540,493	558,344	592,416	604,456	627,890	599,818
Administrative expenses	3,763	3,879	3,204	3,027	2,913	3,349	2,523	2,502	2,568	2,555
<b>Total deductions</b>	<b>429,472</b>	<b>447,494</b>	<b>493,326</b>	<b>506,434</b>	<b>543,406</b>	<b>561,693</b>	<b>594,939</b>	<b>606,958</b>	<b>630,458</b>	<b>602,373</b>
<b>Net increase (decrease)</b>	<b>289,212</b>	<b>196,007</b>	<b>242,662</b>	<b>541,102</b>	<b>(410,950)</b>	<b>(975,445)</b>	<b>117,259</b>	<b>398,391</b>	<b>(135,966)</b>	<b>202,019</b>
Net assets held in trust, beginning of year	2,797,704	3,086,916	3,282,923	3,525,585	4,066,687	3,655,737	2,680,292	2,797,551	3,195,942	3,059,976
Net assets held in trust, end of year	\$ 3,086,916	\$ 3,282,923	\$ 3,525,585	\$ 4,066,687	\$ 3,655,737	\$ 2,680,292	\$ 2,797,551	\$ 3,195,942	\$ 3,059,976	\$ 3,261,995
Defined Contribution Plan										
<b>Additions:</b>										
Member contributions	\$ 23,612	\$ 28,641	\$ 33,070	\$ 36,709	\$ 40,829	\$ 44,490	\$ 46,059	\$ 47,935	\$ 49,764	\$ 52,331
Employer contributions	13,147	16,270	19,280	21,645	24,471	26,873	27,359	28,205	28,890	30,027
Investment income (loss)	11,741	13,560	19,830	37,023	(31,120)	(59,251)	39,157	89,213	2,670	74,076
Transfers between retirement plans	0	0	0	(15,845)	(14,399)	(14,644)	(16,580)	(16,264)	(17,246)	(16,738)
<b>Total additions</b>	<b>48,500</b>	<b>58,471</b>	<b>72,180</b>	<b>79,532</b>	<b>19,781</b>	<b>(2,532)</b>	<b>95,995</b>	<b>149,089</b>	<b>64,078</b>	<b>139,696</b>
<b>Deductions:</b>										
Refunds	2,656	4,533	5,918	6,407	9,086	7,427	9,230	12,777	14,697	20,033
Administrative expenses	849	733	491	358	240	256	(35)	922	881	837
<b>Total deductions</b>	<b>3,505</b>	<b>5,266</b>	<b>6,409</b>	<b>6,765</b>	<b>9,326</b>	<b>7,683</b>	<b>9,195</b>	<b>13,699</b>	<b>15,578</b>	<b>20,870</b>
<b>Net increase (decrease)</b>	<b>44,995</b>	<b>53,205</b>	<b>65,771</b>	<b>72,767</b>	<b>10,455</b>	<b>(10,215)</b>	<b>86,800</b>	<b>135,390</b>	<b>48,500</b>	<b>118,826</b>
Net assets held in trust, beginning of year	60,034	105,029	158,234	224,005	296,772	307,227	297,012	383,812	519,202	567,702
Net assets held in trust, end of year	\$ 105,029	\$ 158,234	\$ 224,005	\$ 296,772	\$ 307,227	\$ 297,012	\$ 383,812	\$ 519,202	\$ 567,702	\$ 686,528

**Net Assets by Plan**  
**Years Ending June 30, 2004–2013** (in thousands)

Fiscal Year	Defined Benefit Plan	Post-Employment Health Care Plan	Defined Contribution Plan	Total Net Assets
2004	\$51,411,501	\$3,086,916	\$105,029	\$54,603,446
2005	\$56,182,478	\$3,282,923	\$158,234	\$59,623,635
2006	\$62,126,074	\$3,525,585	\$224,005	\$65,875,664
2007	\$72,935,433	\$4,066,687	\$296,772	\$77,298,892
2008	\$66,837,412	\$3,655,737	\$307,227	\$70,800,376
2009	\$50,095,719	\$2,680,292	\$297,012	\$53,073,023
2010	\$54,140,413	\$2,797,551	\$383,812	\$57,321,776
2011	\$63,116,710	\$3,195,942	\$519,202	\$66,831,854
2012	\$60,693,621	\$3,059,976	\$567,702	\$64,321,299
2013	\$64,705,982	\$3,261,995	\$686,528	\$68,654,505

**Benefit Expenses by Type**  
**Years Ending June 30, 2004–2013** (in thousands)

Fiscal Year	Service Retirement	Disability Benefits	Survivor Benefits	Other	Total
2004	\$2,840,334	\$182,889	\$77,089	\$8,441	\$3,108,753
2005	\$3,106,371	\$187,426	\$81,589	\$8,219	\$3,383,605
2006	\$3,393,968	\$193,329	\$86,023	\$11,065	\$3,684,385
2007	\$3,708,919	\$198,581	\$90,092	\$10,113	\$4,007,705
2008	\$4,029,937	\$201,949	\$94,167	\$12,564	\$4,338,617
2009	\$4,299,310	\$204,939	\$99,139	\$10,363	\$4,613,751
2010	\$4,579,805	\$205,989	\$103,114	\$11,510	\$4,900,418
2011	\$4,908,718	\$207,245	\$113,531	\$14,913	\$5,244,407
2012	\$5,401,457	\$208,929	\$115,473	\$15,183	\$5,741,042
2013	\$5,792,657	\$211,755	\$124,656	\$23,267	\$6,152,335

### Actuarial Funded Ratio and Funding Period 2004–2013 (dollar amounts in thousands)

At July 1	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Funding Period
2004	\$52,253,798	\$69,867,425	\$17,613,627	74.8%	42.2 Yrs.
2005	\$53,765,570	\$73,817,114	\$20,051,544	72.8%	55.5 Yrs.
2006	\$58,008,050	\$77,371,024	\$19,362,974	75.0%	47.2 Yrs.
2007	\$66,671,511	\$81,126,642	\$14,455,131	82.2%	26.1 Yrs.
2008	\$69,198,008	\$87,432,348	\$18,234,340	79.1%	41.2 Yrs.
2009	\$54,902,859	\$91,440,955	\$36,538,096	60.0%	Infinite Yrs.
2010	\$55,946,259	\$94,720,669	\$38,774,410	59.1%	Infinite Yrs.
2011	\$58,110,495	\$98,766,204	\$40,655,709	58.8%	Infinite Yrs.
2012	\$59,489,508	\$106,301,841	\$46,812,333	56.0%	Infinite Yrs.
2013	\$62,590,786	\$94,366,694	\$31,775,908	66.3%	36.1 Yrs.

### Selected Funding Information — Defined Benefit Plan 2004–2013

As of July 1	Member Contribution Rate	Employer Contribution Rate				Interest Rate Assumption	Payroll Growth Assumption
		Normal Cost	Health Care	Unfunded Actuarial Accrued Liability	Total Employer Rate		
2004	10.00%	4.90%	1.00%	8.10%	14.00%	8.00%	4.50%
2005	10.00%	4.90%	1.00%	8.10%	14.00%	8.00%	4.50%
2006	10.00%	4.82%	1.00%	8.18%	14.00%	8.00%	4.50%
2007	10.00%	4.81%	1.00%	8.19%	14.00%	8.00%	4.50%
2008	10.00%	4.24%	1.00%	8.76%	14.00%	8.00%	3.50%
2009	10.00%	4.34%	1.00%	8.66%	14.00%	8.00%	3.50%
2010	10.00%	4.30%	1.00%	8.70%	14.00%	8.00%	3.50%
2011	10.00%	3.98%	1.00%	9.02%	14.00%	8.00%	3.50%
2012	10.00%	5.94%	1.00%	7.06%	14.00%	7.75%	3.50%
2013	11.00%	1.03%	1.00%	11.97%	14.00%	7.75%	3.50%

### Number of Benefit Recipients by Type 2004–2013

As of July 1	Service Retirement	Disability Benefits	Beneficiaries Receiving Optional Allowances	Survivor Benefits	Total
2004	92,574	6,531	7,079	5,669	111,853
2005	95,843	6,514	7,314	5,724	115,395
2006	99,248	6,588	7,574	5,774	119,184
2007	102,771	6,480	7,859	5,824	122,934
2008	106,099	6,417	8,151	5,839	126,506
2009	109,031	6,340	8,387	5,901	129,659
2010	112,483	6,104	8,619	5,897	133,103
2011	117,138	6,028	9,012	5,910	138,088
2012	122,136	5,951	9,300	5,869	143,256
2013	127,797	5,890	9,621	5,913	149,221

**Summary of Active Membership Data  
2004–2013 (dollars in thousands)**

Defined Benefit Plan												
As of July 1	Active Members	Females			Males				Total			
		Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service
2004	123,320	\$5,738,523	43.22	12.65	52,034	\$2,787,446	44.21	13.38	175,354	\$8,525,969	43.51	12.87
2005	121,940	\$5,832,249	43.37	12.80	50,738	\$2,787,043	44.36	13.42	172,678	\$8,619,292	43.66	12.98
2006	121,106	\$5,937,660	43.45	12.85	49,923	\$2,808,086	44.38	13.33	171,029	\$8,745,746	43.72	12.99
2007	120,641	\$6,058,709	43.50	12.84	49,201	\$2,829,219	44.41	13.21	169,842	\$8,887,928	43.76	12.95
2008	120,514	\$6,176,798	44.05	13.12	48,500	\$2,837,340	44.95	13.37	169,014	\$9,014,138	44.31	13.19
2009	121,544	\$6,402,337	43.98	13.09	48,763	\$2,909,210	44.90	13.18	170,307	\$9,311,547	44.24	13.12
2010	122,730	\$6,509,962	43.97	12.89	48,609	\$2,921,391	44.81	13.01	171,339	\$9,431,353	44.21	12.92
2011	123,721	\$6,481,816	43.67	12.38	49,562	\$2,914,809	44.59	12.42	173,283	\$9,396,625	43.94	12.39
2012	119,931	\$6,269,684	43.61	12.42	48,442	\$2,839,622	44.58	12.39	168,373	\$9,109,306	43.89	12.41
2013	117,359	\$6,116,458	43.27	12.17	47,698	\$2,765,389	44.24	11.97	165,057	\$8,881,847	43.55	12.11

Combined Plan												
As of July 1	Active Members	Females			Males				Total			
		Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service
2004	2,833	\$91,090	35.85	2.82	876	\$29,345	38.99	2.55	3,709	\$120,435	36.59	2.76
2005	3,081	\$104,158	36.13	3.28	933	\$33,750	39.22	3.02	4,014	\$137,908	36.85	3.22
2006	3,144	\$112,499	36.60	3.76	892	\$36,155	39.81	3.68	4,036	\$148,654	37.31	3.74
2007	3,342	\$124,417	36.90	4.16	926	\$39,497	40.12	4.04	4,268	\$163,914	37.60	4.13
2008	3,387	\$132,008	37.91	4.91	926	\$41,416	40.86	4.79	4,313	\$173,424	38.54	4.88
2009	3,528	\$145,617	38.46	5.39	972	\$45,537	41.24	5.22	4,500	\$191,154	39.06	5.35
2010	3,518	\$154,180	38.98	6.08	985	\$47,821	42.11	5.80	4,503	\$202,001	39.67	6.02
2011	3,611	\$163,273	39.51	6.59	1,003	\$49,825	42.30	6.29	4,614	\$213,098	40.11	6.53
2012	3,642	\$168,991	39.94	7.15	1,029	\$52,548	42.55	6.67	4,671	\$221,539	40.52	7.04
2013	3,819	\$180,102	40.30	7.51	1,069	\$56,086	42.72	6.97	4,888	\$236,188	40.83	7.39

Total Active Membership												
As of July 1	Active Members	Females			Males				Total			
		Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service	Active Members	Annual Salaries	Average Age	Average Service
2004	126,153	\$5,829,613	43.05	12.43	52,910	\$2,816,791	44.12	13.20	179,063	\$8,646,404	43.37	12.66
2005	125,021	\$5,936,407	43.20	12.56	51,671	\$2,820,793	44.27	13.23	176,692	\$8,757,200	43.51	12.76
2006	124,250	\$6,050,159	43.45	12.85	50,815	\$2,844,241	44.30	13.16	175,065	\$8,894,400	43.58	12.77
2007	123,983	\$6,183,126	43.32	12.60	50,127	\$2,868,716	44.33	13.04	174,110	\$9,051,842	43.61	12.73
2008	123,901	\$6,308,806	43.88	12.90	49,426	\$2,878,756	44.87	13.21	173,327	\$9,187,562	44.16	12.99
2009	125,072	\$6,547,954	43.82	12.87	49,735	\$2,954,747	44.83	13.02	174,807	\$9,502,701	44.11	12.92
2010	126,248	\$6,664,142	43.83	12.70	49,594	\$2,969,212	44.75	12.86	175,842	\$9,633,354	44.09	12.74
2011	127,332	\$6,645,089	43.55	12.22	50,565	\$2,964,634	44.54	12.29	177,897	\$9,609,723	43.84	12.24
2012	123,573	\$6,438,675	43.50	12.26	49,471	\$2,892,170	44.54	12.27	173,044	\$9,330,845	43.80	12.26
2013	121,178	\$6,296,561	43.17	12.02	48,767	\$2,821,475	44.20	11.86	169,945	\$9,118,035	43.47	11.98

Note: Members enrolled in STRS Ohio's Defined Contribution Plan and reemployed retirees are not reflected in the above figures.

### Benefit Payments by Type As of July 1, 2013

Age Last Birthday	Number	Annual Allowance (in thousands)	Average Annual Allowance
<b>Service Retirees</b>			
Under 60	11,592	\$ 602,072	\$ 51,939
60-64	28,745	1,437,851	50,021
65-69	30,183	1,424,523	47,196
70-74	21,534	925,689	42,987
75-79	14,806	567,420	38,324
Over 79	20,937	640,474	30,591
<b>Total</b>	<b>127,797</b>	<b>\$ 5,598,029</b>	<b>\$ 43,804</b>
<b>Beneficiaries Receiving Optional Allowances</b>			
Under 60	465	\$ 11,563	\$ 24,867
60-64	486	17,408	35,818
65-69	867	30,334	34,987
70-74	1,254	41,925	33,433
75-79	1,626	46,405	28,540
Over 79	4,923	112,797	22,912
<b>Total</b>	<b>9,621</b>	<b>\$ 260,432</b>	<b>\$ 27,069</b>
<b>Survivor Benefit Beneficiaries</b>			
Under 60	1,636	\$ 25,281	\$ 15,453
60-64	767	19,476	25,392
65-69	877	21,001	23,947
70-74	734	16,911	23,040
75-79	705	14,707	20,860
Over 79	1,194	21,609	18,098
<b>Total</b>	<b>5,913</b>	<b>\$ 118,985</b>	<b>\$ 20,123</b>
<b>Disability Beneficiaries</b>			
Under 60	1,509	\$ 56,341	\$ 37,337
60-64	1,346	51,631	38,359
65-69	1,159	45,309	39,093
70-74	762	27,554	36,160
75-79	523	16,334	31,232
Over 79	591	15,568	26,341
<b>Total</b>	<b>5,890</b>	<b>\$ 212,737</b>	<b>\$ 36,118</b>
<b>Grand Total</b>	<b>149,221</b>	<b>\$ 6,190,182</b>	<b>\$ 41,483</b>

### Average Benefit Payments for Service Retirees, 2004–2013

		Years of Service Credit					Average/ Total	
		5–9	10–14	15–19	20–24	25–29		>=30
2004	Average monthly benefit	\$317	\$704	\$1,175	\$1,803	\$2,365	\$3,815	\$3,149
	Average final average salary	\$22,873	\$34,369	\$43,591	\$52,442	\$58,161	\$63,780	\$58,440
	Number of recipients	261	223	231	261	476	3,704	5,156
2005	Average monthly benefit	\$392	\$746	\$1,187	\$1,904	\$2,392	\$4,003	\$3,419
	Average final average salary	\$29,291	\$33,986	\$42,990	\$54,611	\$58,866	\$66,075	\$61,763
	Number of recipients	188	137	225	272	516	4,075	5,413
2006	Average monthly benefit	\$399	\$859	\$1,370	\$1,911	\$2,537	\$4,068	\$3,505
	Average final average salary	\$27,055	\$42,280	\$50,235	\$54,608	\$62,027	\$67,315	\$63,649
	Number of recipients	156	159	247	298	577	4,379	5,816
2007	Average monthly benefit	\$425	\$830	\$1,279	\$1,978	\$2,578	\$4,235	\$3,592
	Average final average salary	\$31,415	\$39,215	\$47,769	\$57,835	\$64,025	\$69,713	\$65,417
	Number of recipients	196	177	277	360	622	4,605	6,237
2008	Average monthly benefit	\$406	\$831	\$1,352	\$2,024	\$2,600	\$4,309	\$3,611
	Average final average salary	\$30,224	\$40,804	\$49,447	\$60,033	\$64,959	\$71,113	\$66,378
	Number of recipients	200	182	314	366	551	4,288	5,901
2009	Average monthly benefit	\$431	\$822	\$1,382	\$2,193	\$2,697	\$4,497	\$3,754
	Average final average salary	\$28,623	\$38,507	\$51,590	\$64,199	\$67,168	\$73,260	\$68,136
	Number of recipients	199	158	288	310	429	3,698	5,082
2010	Average monthly benefit	\$455	\$934	\$1,349	\$2,030	\$2,780	\$4,680	\$3,887
	Average final average salary	\$30,030	\$46,509	\$50,407	\$59,781	\$67,794	\$74,810	\$69,522
	Number of recipients	174	155	282	359	543	3,833	5,346
2011	Average monthly benefit	\$480	\$992	\$1,540	\$2,377	\$2,890	\$4,689	\$3,937
	Average final average salary	\$33,330	\$46,727	\$55,904	\$68,932	\$70,775	\$75,724	\$71,591
	Number of recipients	171	201	365	438	685	4,595	6,455
2012	Average monthly benefit	\$496	\$946	\$1,625	\$2,385	\$2,965	\$4,727	\$3,921
	Average final average salary	\$31,235	\$45,473	\$58,519	\$68,884	\$72,224	\$77,181	\$72,706
	Number of recipients	204	241	450	674	960	5,463	7,992
2013	Average monthly benefit	\$482	\$945	\$1,714	\$2,407	\$3,144	\$4,796	\$3,886
	Average final average salary	\$33,742	\$47,370	\$62,954	\$68,669	\$75,864	\$79,557	\$74,643
	Number of recipients	203	280	541	724	1,198	5,113	8,059

### Number of Reporting Employers by Type, 2004–2013

Fiscal Year Ended	City School Districts	Local School Districts	County Educational Service Centers	Exempted Village School Districts	Joint Vocational Schools	Colleges & Universities	County Boards of Developmental Disabilities	Community Schools	Other	Total
2004	194	369	60	49	49	37	76	142	9	985
2005	194	370	60	49	49	37	74	219	9	1,061
2006	194	369	60	49	49	37	73	246	9	1,086
2007	194	369	60	49	49	36	73	255	9	1,094
2008	194	370	59	49	49	36	73	272	9	1,111
2009	194	370	58	49	49	36	71	280	10	1,117
2010	194	370	57	49	49	36	69	273	10	1,107
2011	194	370	56	49	49	36	69	291	10	1,124
2012	194	370	56	49	49	36	69	312	10	1,145
2013	194	369	55	49	49	36	67	322	12	1,153

### Principal Participating Employers For the Year Ended June 30, 2013

Employer	Covered Members	Prior Year Rank	Percentage of Membership
Columbus City Schools	5,709	1	2.24%
The Ohio State University	5,312	2	2.09%
Cleveland Municipal Schools	4,154	3	1.63%
Kent State University	3,172	4	1.25%
University of Cincinnati	3,161	5	1.24%
Cincinnati City Schools	3,078	6	1.21%
Akron City Schools	2,620	7	1.03%
Cuyahoga Community College	2,587	8	1.02%
University of Akron	2,467	9	0.97%
Toledo City Schools	2,458	10	0.97%
All Others	219,648		86.35%
<b>Total Covered Members</b>	<b>254,366*</b>		<b>100.00%</b>

\*Covered members include any participant in STRS Ohio who made contributions through a reporting employer during the fiscal year. Part-time teachers working in multiple school districts are included within each school's payroll data and, consequently, are reported more than once. Participating employers include every publicly funded school in Ohio employing a certified teacher. A complete listing of participating employers is available upon request. Years prior to the current year are not reflected since the participating employers do not change substantially from year to year.



## STATE TEACHERS RETIREMENT SYSTEM OF OHIO

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