

STATE TEACHERS
RETIREMENT SYSTEM
OF OHIO

# 2012 COMPREHENSIVE Annual Financial Report

Fiscal Year Ending June 30, 2012



Retirement Board State Teachers Retirement System of Ohio 275 East Broad Street Columbus, Ohio 43215-3771

We have reviewed the *Independent Auditor's Report* of the State Teachers Retirement System of Ohio, Franklin County, prepared by CliftonLarsonAllen LLP, for the audit period July 1, 2011 through June 30, 2012. Based upon this review, we have accepted these reports in lieu of the audit required by Section 117.11, Revised Code. The Auditor of State did not audit the accompanying financial statements and, accordingly, we are unable to express, and do not express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria, as reflected by the Ohio Constitution, and the Revised Code, policies, procedures and guidelines of the Auditor of State, regulations and grant requirements. The State Teachers Retirement System of Ohio is responsible for compliance with these laws and regulations.

Dave Yost Auditor of State

February 1, 2013



# 2012 COMPREHENSIVE Annual Financial Report

Fiscal Year Ending June 30, 2012

Prepared through the joint efforts of the STRS Ohio staff. 275 E. Broad St., Columbus, OH 43215-3771 • 614.227.4090 • www.strsoh.org

# Certificate of Achievement for Excellence in Financial Reporting

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# The State Teachers Retirement System of Ohio

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 2011

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



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Professional Consultants: Independent Public Accountants, CliftonLarsonAllen LLP, Toledo, Ohio; Investment Consultants, Callan Associates Inc., Chicago, Ill., and Cliffwater LLC, Marina del Ray, Calif.; and Actuarial Consultants, PricewaterhouseCoopers (PwC), Chicago, Ill. See Page 53 for a list of external domestic equity, international and fixed-income managers.

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 providing financial performance and member service that assures financial security for current and future retirees.

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.

Tim Myers was unopposed in the May 2012 election and will continue in his contributing member seat through Aug. 31, 2016. In July 2012, Yoel Mayerfeld was appointed to the board by the treasurer of state, as an investment expert to complete the four-year term begun by Dr. Daniel J. Martin, who resigned his position in April 2012. Mayerfeld will serve on the board through Jan. 7, 2014.

Also in April, Senior Staff member Eileen Boles retired from her role as Retirement Board Liaison. Rhonda Hare was selected to replace Boles.

In June, Dale Price was elected as vice chair and Mark Hill assumed the responsibility of board chair, effective Sept. 1, 2012.

### James McGreevy, Chair

Retired teacher member since 2009.

### Mark Hill, Vice Chair

Contributing member since 2010. Worthington City Schools, Franklin County

### Craig C. Brooks

Appointed jointly by the Speaker of the House of Representatives and the Senate President in 2008.

### Regina F. Burch

Appointed by the Governor of Ohio in 2008.

### John Childs

Representing the Superintendent of Public Instruction. Ex officio member of the board since appointed to office in 2011.

### **Carol Correthers**

Contributing member since 2009. Lorain City Schools, Lorain County

### Taiyia L. Hayden

Contributing member since 2006. Columbus City Schools, Franklin County

### Yoel Mayerfeld

Appointed by the Treasurer of State in 2012.

### Tim Myers

Contributing member since 2008. Elida Local Schools, Allen County

### Dale Price

Contributing member since 2010. Toledo Public Schools, Lucas 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 STRS Ohio members in providing financial performance and member service that assures financial security for current and future retirees.

The vision of STRS Ohio is: To be a premier retirement system as evidenced by:

Comprehensive member benefits: Providing retirement planning, benefits and health care coverage to enhance the quality of life for members, and

Quality service: Striving to exceed the service expectations of members, employers and associates, through

Fiduciary responsibility: Safeguarding members' financial retirement security using ethical and professional business practices, and

Financial performance: Improving funding through prudent investments and resource management, by

Empowerment of associates: Enabling associates to act through the delegation of authority and the acceptance of accountability, and

Organizational renewal: Enhancing STRS Ohio's future by continually acquiring, sharing and implementing new knowledge.

### **STRS Ohio Guiding Principles**

To achieve our mission and vision, we will:

- 1. Make decisions that produce the greatest possible net benefit for members.
- 2. Be proactive rather than reactive by anticipating and dealing with change and growth.
- 3. Attract, develop and retain a highly competent and motivated workforce.
- 4. Build an organizational culture that inspires a high level of professionalism and performance distinguishing STRS Ohio as a workplace now and in the future.
- 5. Provide an open environment for associates to generate new methods or practices to achieve our vision.
- 6. Provide associates with authority commensurate with their responsibilities for efficiency in decision-making and leadership development.
- 7. Continually improve through research, development and evaluation.

### STRS Ohio Senior Staff Members

Michael I. Nehf, Executive Director Sandra L. Knoesel, Deputy Executive Director — Member Benefits **Stephen A. Mitchell,** Deputy Executive Director — Investments Robert A. Slater, Deputy Executive Director — Finance and Chief Financial Officer Terri Meese Bierdeman, 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



# STATE TEACHERS RETIREMENT SYSTEM OF OHIO

Dec. 7, 2012

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, 2012. 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 family members.

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.

275 East Broad Street Columbus, OH 43215-3771 614-227-4090 www.strsoh.org

RETIREMENT BOARD CHAIR MARK HILL

RETIREMENT BOARD VICE CHAIR
DALE PRICE

EXECUTIVE DIRECTOR MICHAEL J. NEHF

### **Major Initiatives**

In February 2012, the Retirement Board selected a new asset mix, effective July 1, 2012, for the system's total fund with a slightly higher risk-return portfolio. The new asset mix is designed to potentially achieve higher returns during the next five to 10 years. Callan Associates, the Retirement Board's investment consultant, said it could support the new target mix if the board's proposed pension reform plan changes were to be adopted in the near future. To the right are the July 1,2012, and new asset mix targets.

Callan projects that the new asset mix could earn a return in excess of 8% over the long term (30-year projection), though in the short term (five to 10 years), the mix is projected to return about 7.6%.

| Asset Class                | July 1, 2012<br>Target | New Asset<br>Mix Target |
|----------------------------|------------------------|-------------------------|
| Broad U.S. equity          | 38%                    | 31%                     |
| Broad international equity | 23%                    | 26%                     |
| Broad U.S. fixed income    | 18%                    | 18%                     |
| Real estate                | 10%                    | 10%                     |
| Private equity             | 5%                     | 7%                      |
| Opportunistic/diversified  | 5%                     | 7%                      |
| Liquidity reserve          | 1%                     | 1%                      |

In March, the Retirement Board approved changes to the actuarial assumptions used to calculate pension liabilities based on the results of a three-year experience review used to evaluate the economic and demographic assumptions. The board's actuarial consultant, PricewaterhouseCoopers (PwC), recommended adjustments to assumptions about mortality, service retirement, inflation, expected investment returns and salary growth. In total, these new assumptions have a negative overall impact on the system's funding.

With the new actuarial assumptions, the system's funded ratio drops to 56.0% and the funding period remains "infinite." Below is an outline of how some of these new assumptions impact the system's funding:

- Reducing the inflation assumption from 3% to 2.75% impacts economic assumptions including expected investment return and individual salary increases.
- Change to mortality assumption increases liabilities STRS Ohio members are living longer and STRS Ohio is paying benefits for a longer period of time.
- Reducing the expected investment return from 8% to 7.75% increases liabilities assets are not expected to grow as fast, due primarily to lower inflation.
- Increasing the salary growth assumption increases liabilities slightly individual teacher salary growth experience was slightly higher than previously assumed.

On Sept. 12, 2012, the Ohio Legislature passed pension reform bills to improve the financial condition of all five Ohio pension systems, including the State Teachers Retirement System of Ohio (STRS Ohio). The STRS Ohio bill goes into effect Jan. 7, 2013, but most of STRS Ohio's plan changes will take effect July 1, 2013, or later.

The bill's passage is the culmination of three years of efforts by STRS Ohio and its stakeholders to address the system's funding challenges. Numerous plans were reviewed with system stakeholders and legislators before agreement was

reached earlier this year. The final version was the basis for the bill and was supported by Healthcare and Pension Advocates for STRS (HPA) — a coalition that is comprised of groups representing more than 470,000 active members and retirees, as well as employers.

STRS Ohio's goals from the beginning were two-fold: preserving the pension fund for the long term and continuing a viable and affordable retiree health care program. The new benefit plan:

- Provides our retired teachers a reasonable and reliable defined benefit pension, reducing the likelihood they would ever have to turn to taxpayer-funded public assistance.
- Continues to offer a retirement plan that will help Ohio's public schools, colleges and universities recruit and retain quality educators.
- Provides a transition period for those teachers who are close to retirement, while recognizing that those further from retirement have more time to plan for their future financial security.
- Preserves all past cost-of-living adjustments (COLAs) and ad hoc increases for current retirees.
- Allows retirees' pensions to continue to grow in the future, but at a slower rate.
- Preserves pensions that can continue to provide a stable source of revenue for local economies and provide tax revenues to support needed government services (more than \$4 billion in STRS Ohio pensions are paid annually to Ohio residents).

### **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. As management, we 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) decreased to \$65.4 billion as of June 30, 2012. The Investment Review starting on Page 35 discusses the investment environment during fiscal 2012. 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, 2012, investments returned 2.34%. STRS Ohio's annualized rate of return was 12.51% over the last three years and 1.08% for the last five years. Similar benchmark returns over the same one-, three- and five-year periods were 2.05%, 12.25% and 1.18%, 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 required to contribute 3.5% of salaries to STRS Ohio to help pay for unfunded liabilities. Effective Jan. 1, 2006, STRS Ohio began receiving Medicare Part D reimbursements for participant prescription costs. Fiscal 2012 included \$43.2 million in Medicare Part D reimbursements. STRS Ohio participated in the Early Retiree Reinsurance Program (ERRP) beginning in fiscal year 2011. ERRP is a government program started in fiscal 2011 and concluding in fiscal 2012. For fiscal 2012, STRS Ohio received \$49.0 million of ERRP reimbursements. These federal subsidies help 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 \$6.6 billion. Refunds increased by 10.7% from fiscal year 2011, 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 PricewaterhouseCoopers (PWC), Chicago, Ill. The July 1, 2012, valuation shows that the amortization period for the unfunded accrued liability remained at infinity from the prior year, and the ratio of assets to total accrued liabilities decreased to 56.0% from 58.8%. A decrease in contributing payroll, caused primarily by the fact that there were nearly 5,000 fewer active members paying into STRS Ohio, led to the slight decline in overall funding progress. While fiscal year 2012 had a negative impact on STRS Ohio's funding, PwC's report noted that with the new benefit plan design in place, STRS Ohio should meet its 30-year amortization schedule within two years if actuarial assumptions — including a 7.75% investment return rate — are achieved.

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 lower subsidy levels led to an improved financial picture for the Health Care Stabilization Fund as of Jan. 1, 2012. STRS Ohio's actuarial consultant, PwC, performed the annual actuarial valuation of the fund, showing the projected life of the STRS Ohio Health Care Program now extends to 2039 — an increase of about 15 years from the previous valuation. The valuation results reflect an increase in the funded ratio to 58.3% at Jan. 1, 2012, from 36.0% at Jan. 1, 2011. The unfunded actuarial accrued liability is \$2.1 billion at Jan. 1, 2012.

### **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, 2011. 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 22 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 2012 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 Zerocutive Director

Robert A. Slater, CPA
Deputy Executive Director
Chief Financial Officer

CliftonLarsonAllen LLP www.cliftonlarsonallen.com



### **Independent Auditor's Report**

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

We have audited the accompanying statements of plan net assets of State Teachers Retirement System of Ohio (STRS Ohio) as of June 30, 2012 and 2011, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of STRS Ohio's management. 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 of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of STRS Ohio's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above presents fairly, in all material respects, the plan net assets of STRS Ohio as of June 30, 2012 and 2011, and the changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued a report dated December 7, 2012, on our consideration of STRS Ohio's internal control over financial reporting and on our test of its compliance with certain provision of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing on internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Accounting principles generally accepted in the United States of America require that 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 basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. However, we did not audit the information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The additional information, including the schedules of administrative expenses, investment expenses, and fees to external asset managers by asset class, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements. The additional information 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. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the 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 information is fairly stated, in all material respects, in relation to the basic financial statements taken 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 audit of the basic financial statements and, accordingly, we express no opinion on them.

Clifton Larson Allen LLP

Toledo, Ohio December 7, 2012

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, 2012 and 2011. 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 2012 Comprehensive Annual Financial Report.

As of June 30, 2012, STRS Ohio held \$64.3 billion in trust on behalf of nearly 476,600 active, inactive and retired educators. This represented a \$2.5 billion decrease from the previous fiscal year-end. In fiscal 2011, STRS Ohio experienced a \$9.5 billion increase from the previous fiscal year-end.

On Sept. 12, 2012, the Ohio Legislature passed pension reform bills to improve the financial condition of all five Ohio pension systems, including STRS Ohio.

The STRS Ohio bill, Substitute Senate Bill 342, was based on the reform plan approved unanimously by the State Teachers Retirement Board in April 2012. The bill goes into effect Jan. 7, 2013, but most of STRS Ohio's plan changes will start *July 1, 2013, or later.* 

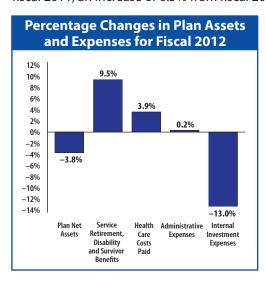
Provisions in the new law are projected to reduce accrued liabilities, preserve the Defined Benefit Plan for Ohio's educators and will allow STRS Ohio to maintain a 1% employer contribution to its health care fund. The changes to STRS Ohio's benefits include: increasing age and service requirements for retirement; a lower, 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 progress. This step to grant increased board authority will not be effective until July 2013, to give the Ohio Retirement Study Council more time to study this provision.

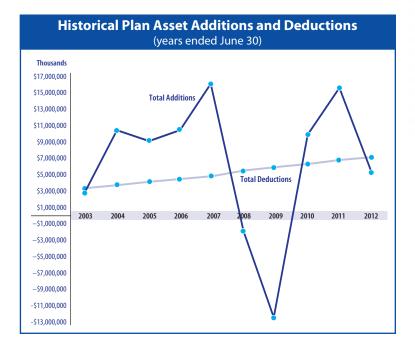
### **Financial Highlights**

The chart below illustrates the percentage changes in plan assets and expenses for fiscal 2012. Highlights of the fiscal year include:

- The investment rate of return was 2.34% in fiscal 2012. The investment rate of return for fiscal 2011 was 22.59% following a 13.54% return in 2010. Five- and 10-year total fund annualized returns are 1.08% and 6.95%, respectively.
- Plan net assets decreased 3.8% from the prior fiscal year, ending at \$64.3 billion as of June 30, 2012. Plan net assets increased 16.6% during fiscal 2011, ending at \$66.8 billion as of June 30, 2011.
- The post-employment health care balance was \$3.1 billion as of June 30, 2012, a decrease of 4.3% from the prior fiscal year. Net investment income (including securities lending) for the fund was \$55.0 million in 2012. The postemployment health care balance increased 14.2% during fiscal 2011, ending at \$3.2 billion as of June 30, 2011.
- Defined contribution accounts finished the year with \$568 million in net assets, an increase of 9.3% from 2011. The defined contribution accounts ended fiscal 2011, with \$519 million in assets, an increase of 35.3% from the end of fiscal 2010.
- Total benefit payments were \$6.4 billion during fiscal 2012, an increase of 8.9% from fiscal 2011. STRS Ohio paid members \$5.7 billion in service retirement, disability and survivor benefits plus \$628 million for health care coverage during fiscal 2012. Total benefit payments were \$5.8 billion during fiscal 2011, an increase of 6.5% from fiscal 2010.



 Total additions to plan net assets were \$4.1 billion during fiscal 2012. Net investment income (including securities lending) during fiscal 2012 totaled \$1.2 billion. Total additions to plan net assets were \$15.6 billion during fiscal 2011, including \$12.6 billion related to net investment income.



| Contributions Years Ended June 30, 2012 and 2011 (dollar amounts in thousands) |    |           |    |           |                      |  |  |
|--|----|-----------|----|-----------|----------------------|--|--|
|  |    | 2012      |    | 2011      | Percentage<br>Change |  |  |
| Employer Contributions   | \$ | 1,479,476 | \$ | 1,511,003 | -2.09%               |  |  |
| Member Contributions   |    | 1,099,473 |    | 1,129,893 | -2.69%               |  |  |
| Health Care Premiums<br>and Government<br>Reimbursements                       |    | 338,477   |    | 292,686   | 15.65%               |  |  |
| Other  |    | 33,558    |    | 29,646    | 13.20%               |  |  |
| Total Revenue  | \$ | 2,950,984 | \$ | 2,963,228 | -0.41%               |  |  |

| Benefits and Administration Years Ended June 30, 2012 and 2011 (dollar amounts in thousands) |              |              |        |  |  |  |  |  |
|--|--------------|--------------|--------|--|--|--|--|--|
| Percentage 2012 2011 Change  |              |              |        |  |  |  |  |  |
| Benefits (includes optional health care)   | \$ 6,368,932 | \$ 5,848,863 | 8.89%  |  |  |  |  |  |
| Refunds  | 183,768      | 166,020      | 10.69% |  |  |  |  |  |
| Administration   | 61,328       | 61,202       | 0.21%  |  |  |  |  |  |
| Total Expenses   | \$ 6,614,028 | \$ 6,076,085 | 8.85%  |  |  |  |  |  |

- Member and employer contributions totaled slightly less than \$2.6 billion during fiscal 2012. Total covered payroll, which is the combined salaries for all plan participants, decreased 1.97%.
   During fiscal 2011, member and employer contributions totaled \$2.6 billion.
- Administrative expenses increased 0.2% to \$61.3 million for fiscal 2012. Investment expenses, which include salaries and benefits for investment personnel, decreased 13.0% to \$31.2 million in fiscal 2012. In fiscal 2011, administrative expenses decreased 1.0% and investment expenses increased 14.9%.

### **Annual Financial Review**

The combined portfolio delivered a 2.34% rate of return in fiscal 2012. Real estate led all investment categories by generating a 13.60% return. International equity had a –11.39% return and domestic stocks return was 3.56%. Alternative investments had a 6.07% return and the fixed-income return was 7.69%. Annualized investment return for the past 10 fiscal years was 6.95%.

The unfunded pension liability for STRS Ohio as of July 1, 2012, is \$46.8 billion, up from \$40.7 billion as of July 1, 2011. The amortization period at July 1, 2012 and 2011, respectively, was infinite. The funded ratio at July 1, 2012, was 56.0%, a decrease from 58.8% at July 1, 2011. STRS Ohio recorded a net actuarial loss of \$4.0 billion for fiscal 2012. The funded ratio of the post-employment health care fund is 58.3% and 36.0% as of Jan. 1, 2012 and 2011, respectively.

Historical additions to and deductions from plan assets 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, 2012 and 2011, are shown in the charts to the left. Pension 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 assets for post-employment health care decreased to \$3.1 billion at June 30, 2012, from \$3.2 billion at June 30, 2011. Premiums received from health care recipients in fiscal 2012 increased to \$246.3 million from \$222.1 million in fiscal 2011. Medicare Part D reimbursements of \$43.2 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. ERRP is a government program started in fiscal 2011 and concluding in fiscal 2012 to reimburse employers for a portion of pre-Medicare health care costs. Health care coverage payments grew 3.9% from fiscal 2011. In fiscal 2011, health care premiums decreased slightly to \$222.1 million from \$222.3 million. Health care coverage payments grew 2.0% from fiscal 2010.

Payment of performance incentives that had been deferred from previous years caused investment administrative expenses to increase \$4.7 million in fiscal 2011 from fiscal 2010. Fiscal 2012 investment administrative expenses declined by 13.0%.

## **Overview of the Financial Statements of STRS Ohio**

The two basic financial statements are the *Statements of Plan Net Assets* and the *Statements of Changes in Plan Net Assets*. 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 Statements of Plan Net Assets are a measure of STRS Ohio's assets and liabilities at the close of the fiscal year. Total assets less current liabilities equal net assets held in trust for future benefits.

The Statements of Changes in Plan Net Assets show additions and deductions for the fiscal year. The net increase (or decrease) is the change in net assets 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 assets 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

### **Investment Performance**

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

### 1-Year Returns (2012)1

| i icai iicaiiis (moim)  |                  |  |              |
|-------------------------|------------------|--|--------------|
| Asset Category          | STRS Ohio Return | Index Name   | Index Return |
| Domestic Equities       | 3.56%            | Russell 3000   | 3.84%        |
| International           | -11.39%          | International Equity Blended Benchmark <sup>3</sup>    | -12.03%      |
| Fixed Income            | 7.69%            | Barclays U.S. Universal Index                          | 7.36%        |
| Real Estate             | 13.60%           | Real Estate Blended Benchmark <sup>4</sup>             | 12.60%       |
| Alternative Investments | 6.07%            | Alternative Investments Blended Benchmark <sup>5</sup> | -            |
| Total Fund              | 2.34%            | Total Fund Blended Benchmark <sup>6</sup>              | 2.05%        |

### 5-Year Returns (2008-2012)1

| Asset Category          | STRS Ohio Return | Index Name   | Index Return |
|-------------------------|------------------|--|--------------|
| Domestic Equities       | -0.05%           | Russell 3000   | 0.39%        |
| International           | -0.03%<br>-4.00% | International Equity Blended Benchmark <sup>3</sup>    | -4.59%       |
| Fixed Income            | 7.55%            | Barclays U.S. Universal Index                          | 6.76%        |
| Real Estate             | 3.74%            | Real Estate Blended Benchmark <sup>4</sup>             | 3.30%        |
| Alternative Investments | 4.80%            | Alternative Investments Blended Benchmark <sup>5</sup> | 2.55%        |
| Alternative investments | 4.0070           |  | 2.3370       |
| Total Fund              | 1.08%            | Total Fund Blended Benchmark <sup>6</sup>              | 1.18%        |

### 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, 2012, 2011, 2010, 2009 and 2008, have been examined by Vincent Performance Services LLC. A copy of the examination report is available upon request.

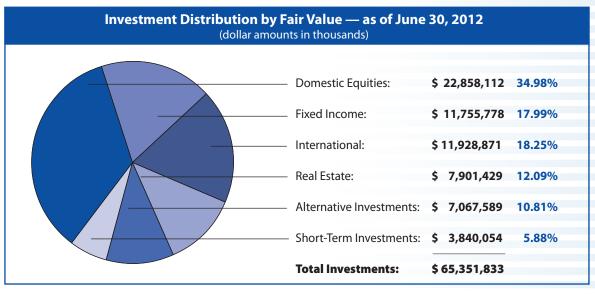
<sup>2</sup>The long-term policy objective is a projected annualized policy return based on return forecasts by asset class before any value added. The State Teachers Retirement Board expects the net value added to be 0.40% per year.

<sup>2</sup>The International Equity Blended Benchmark is calculated monthly using 80% of the MSCI World ex US Index (50% hedged) and 20% of the MSCI Emerging Markets Index.

The Real Estate Blended Benchmark is calculated quarterly using 85% NCREIF Property Index (NPI) and 15% Wilshire REIT Index for all periods beginning on or after Oct. 1, 2007, and 80% NPI, 10% NCREIF Timberland Index and 10% Dow Jones Wilshire REIT Index for periods prior to Oct. 1, 2007.

The Alternative Investments Blended Benchmark is calculated monthly using 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. Given the long-term nature of the asset class, no benchmark return for alternative investments is displayed for the one-year period.

<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.



of 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 2012, the rate of return for total investments was 2.34%. The relative benchmark for STRS Ohio returned 2.05%. The target allocations for fiscal 2012, were 1% liquidity reserves, 18% fixed income, 39% domestic stock, 23% international, 10% real estate and 9% in alternative investments. Amounts actually invested in these categories at the end of June 2012 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 Statements of Changes in Plan Net Assets as a reduction of investment income. Coupled with direct internal investment costs, the cost to manage investments was \$184 million in 2012 and \$176 million in 2011.

### **Financial Statement Analysis**

The tables on Page 14 show condensed information from the Statements of Plan Net Assets and the Statements of Changes in Plan Net Assets.

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

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

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

Employer contributions decreased 2.1% from fiscal 2011 based on statewide covered payroll. Employer contributions increased 0.4% in fiscal 2011. Member contributions 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 and 2012.

Health care premiums helped offset some of the increases in health care costs. Of the \$627.9 million paid to health care providers in fiscal 2012, health care enrollees paid \$246.3 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. Employer contributions of \$101.0 million and government reimbursements of \$92.2 million helped pay health care costs. The remaining health care costs of \$188.4 million were paid from accumulated net assets held for post-employment health care. For fiscal 2011, benefit recipients and employers contributed \$222.1 million and \$103.7 million, respectively.

| Plan Net Assets<br>(dollar amounts in thousands) |  |  |               |                |         |  |  |
|--|--|--|---------------|----------------|---------|--|--|
|  | Amount Increase<br>(Decrease)<br>From 2011 to 2012 | Percentage Change<br>From 2011 to 2012 |               |                |         |  |  |
| Cash and investments                             | \$ 65,359,037                                      | \$ 67,997,923                          | \$ 58,773,588 | \$ (2,638,886) | -3.88%  |  |  |
| Receivables                                      | 946,007  | 766,081                                | 746,461       | 179,926        | 23.49%  |  |  |
| Securities lending collateral                    | 506,224  | 718,885                                | 616,686       | (212,661)      | -29.58% |  |  |
| Capital assets                                   | 111,629  | 116,475                                | 121,830       | (4,846)        | -4.16%  |  |  |
| Total assets                                     | 66,922,897   | 69,599,364                             | 60,258,565    | (2,676,467)    | -3.85%  |  |  |
| Liabilities                                      | 2,601,598  | 2,767,510                              | 2,936,789     | (165,912)      | -5.99%  |  |  |
| Plan net assets                                  | \$ 64,321,299                                      | \$ 66,831,854                          | \$ 57,321,776 | \$ (2,510,555) | -3.76%  |  |  |

| Additions to Plan Net Assets (dollar amounts in thousands) |              |               |              |  |  |  |  |
|--|--------------|---------------|--------------|--|--|--|--|
|  | 2012         | 2011          | 2010         | Amount Increase<br>(Decrease)<br>From 2011 to 2012 | Percentage Change<br>From 2011 to 2012 |  |  |
| Contributions:   |              |               |              |  |  |  |  |
| Member contributions                                       | \$ 1,099,473 | \$ 1,129,893  | \$ 1,112,542 | \$ (30,420)  | -2.69%                                 |  |  |
| Employer contributions                                     | 1,479,476    | 1,511,003     | 1,505,101    | (31,527)   | -2.09%                                 |  |  |
| Health care premiums                                       | 246,264      | 222,130       | 222,316      | 24,134   | 10.86%                                 |  |  |
| Other .  | 125,771      | 100,202       | 61,433       | 25,569   | 25.52%                                 |  |  |
| Total contributions  | 2,950,984    | 2,963,228     | 2,901,392    | (12,244)   | -0.41%                                 |  |  |
| Net investment income                                      | 1,152,489    | 12,622,935    | 7,028,984    | (11,470,446)                                       | -90.87%                                |  |  |
| Total additions to plan net assets                         | \$ 4,103,473 | \$ 15,586,163 | \$ 9,930,376 | \$ (11,482,690)                                    | -73.67%                                |  |  |

| Deductions From Plan Net Assets (dollar amounts in thousands) |              |              |              |                                      |  |  |  |
|---|--------------|--------------|--------------|--------------------------------------|--|--|--|
|   | 2012         | 2011         | 2010         | Amount Increase<br>From 2011 to 2012 | Percentage Change<br>From 2011 to 2012 |  |  |
| Deductions:   |              |              |              |                                      |  |  |  |
| Benefit payments  | \$ 5,725,859 | \$ 5,229,494 | \$ 4,888,908 | \$ 496,365                           | 9.49%                                  |  |  |
| Health care coverage  | 627,890      | 604,456      | 592,416      | 23,434                               | 3.88%                                  |  |  |
| Refunds to members  | 183,768      | 166,020      | 126,981      | 17,748                               | 10.69%                                 |  |  |
| Administrative expenses                                       | 61,328       | 61,202       | 61,808       | 126                                  | 0.21%                                  |  |  |
| Other   | 15,183       | 14,913       | 11,510       | 270                                  | 1.81%                                  |  |  |
| Total deductions  | \$ 6,614,028 | \$ 6,076,085 | \$ 5,681,623 | \$ 537,943                           | 8.85%                                  |  |  |

| Chan                      | <b>ge in Net Assets I</b><br>(dolla | From Plan Additi<br>r amounts in thousan |              | ions                                 |
|---------------------------|-------------------------------------|--|--------------|--------------------------------------|
|                           | 2012                                | 2011                                     | 2010         | Amount Decrease<br>From 2011 to 2012 |
| Change in plan net assets | \$ (2,510,555)                      | \$ 9,510,078                             | \$ 4,248,753 | \$ (12,020,633)                      |

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 plan net assets were \$6.6 billion in fiscal 2012, an 8.9% increase over fiscal 2011. Total deductions from plan net assets 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 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 increased 3.9% in fiscal 2012 and 2.0% in fiscal 2011.

### **Funding Analysis**

The unfunded actuarial accrued liability for STRS Ohio pension benefits was \$46.8 billion as of July 1, 2012, up from \$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 2012 at \$59.5 billion, up from \$58.1 billion the prior year. The present value of promised benefits to current and future benefit recipients (the actuarial accrued liability) at fiscal 2012 and 2011 was \$106.3 billion and \$98.8 billion, respectively. The funded ratio, which is valuation assets divided by actuarial accrued liability, was 56.0% at July 1, 2012, down from 58.8% at July 1, 2011. In fiscal 2012, the funding period remained infinite.

### **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



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|   |                    | June 3                  | 30, 2012                           |                  |                    | June 3                  | 80, 2011                           |                |
|---|--------------------|-------------------------|------------------------------------|------------------|--------------------|-------------------------|------------------------------------|----------------|
|   | Defined<br>Benefit | Defined<br>Contribution | Post-<br>employment<br>Health Care | Totals           | Defined<br>Benefit | Defined<br>Contribution | Post-<br>employment<br>Health Care | Totals         |
| Assets:   |                    |                         |                                    |                  |                    |                         |                                    |                |
| Cash and short-term investments                       | \$ 3,582,559       | \$ 83,000               | \$ 181,699                         | \$ 3,847,258     | \$ 4,089,095       | \$ 75,024               | \$ 208,372                         | \$ 4,372,49    |
| Receivables:  |                    |                         |                                    |                  |                    |                         |                                    |                |
| Accrued interest and dividends                        | 153,731            |                         | 7,797                              | 161,528          | 157,749            |                         | 8,039                              | 165,78         |
| Employer contributions                                | 230,629            | 74                      | 11,697                             | 242,400          | 238,279            | 23                      | 12,142                             | 250,44         |
| Retirement incentive                                  | 1,264              |                         |                                    | 1,264            | 1,588              |                         |                                    | 1,58           |
| Member contributions                                  | 140,950            | 154                     |                                    | 141,104          | 147,126            | 53                      |                                    | 147,17         |
| Due from defined contribution plans                   | 190                |                         | 10 206                             | 190              | 428                |                         | 0.630                              | 100.50         |
| Securities sold Miscellaneous receivables             | 378,688<br>1,627   |                         | 19,206                             | 397,894<br>1,627 | 188,954<br>2,071   |                         | 9,629                              | 198,58<br>2,07 |
| Total receivables                                     |                    | 228                     | 38,700                             | 946,007          |                    | 76                      | 20.010                             |                |
| Total receivables                                     | 907,079            | 220                     | 38,700                             | 940,007          | 736,195            | 70                      | 29,810                             | 766,08         |
| Investments, at fair value:                           |                    |                         |                                    |                  |                    |                         |                                    |                |
| Fixed income  | 11,076,497         | 117,507                 | 561,774                            | 11,755,778       | 12,483,491         | 98,773                  | 636,133                            | 13,218,39      |
| Domestic common and preferred stock                   | 21,508,980         | 258,246                 | 1,090,886                          | 22,858,112       | 22,993,453         | 241,184                 | 1,171,699                          | 24,406,33      |
| International   | 11,299,922         | 55,843                  | 573,106                            | 11,928,871       | 12,270,559         | 59,530                  | 625,283                            | 12,955,37      |
| Real estate   | 7,469,524          | 53,068                  | 378,837                            | 7,901,429        | 6,736,361          | 45,043                  | 343,271                            | 7,124,67       |
| Alternative investments                               | 6,726,440          | 55,555                  | 341,149                            | 7,067,589        | 5,633,577          | .5,0 .5                 | 287,075                            | 5,920,65       |
| Total investments                                     | 58,081,363         | 484,664                 | 2,945,752                          | 61,511,779       | 60,117,441         | 444,530                 | 3,063,461                          | 63,625,43      |
| Invested securities lending collateral                |                    | 101,001                 | 24,435                             |                  |                    | 777,550                 |                                    | 718,88         |
|   | 481,789            |                         | 24,433                             | 506,224          | 684,028            |                         | 34,857                             | / 10,00        |
| Capital assets, at cost, net of accumulated           | 444 (20            |                         |                                    | 444 (20          | 444.475            |                         |                                    | 444.4          |
| depreciation of \$126,527 and \$119,657, respectively |                    | E67 000                 | 2 100 506                          | 111,629          | 116,475            | F10.620                 | 2 226 500                          | 116,47         |
| Total assets  | 63,164,419         | 567,892                 | 3,190,586                          | 66,922,897       | 65,743,234         | 519,630                 | 3,336,500                          | 69,599,36      |
| iabilities:   |                    |                         |                                    |                  |                    |                         |                                    |                |
| Securities purchased and other investment liabilities | 395,296            |                         | 20,049                             | 415,345          | 285,434            |                         | 14,545                             | 299,97         |
| Debt on real estate investments                       | 1,567,563          |                         | 79,503                             | 1,647,066        | 1,629,789          |                         | 83,051                             | 1,712,84       |
| Accrued expenses and other liabilities                | 26,150             |                         | 1,326                              | 27,476           | 27,269             |                         | 1,390                              | 28,65          |
| Due to defined benefit plans                          |                    | 190                     |                                    | 190              |                    | 428                     |                                    | 42             |
| Medical benefits payable                              |                    |                         | 5,297                              | 5,297            |                    |                         | 6,715                              | 6,71           |
| Obligations under securities lending program          | 481,789            |                         | 24,435                             | 506,224          | 684,032            |                         | 34,857                             | 718,88         |
| Total liabilities                                     | 2,470,798          | 190                     | 130,610                            | 2,601,598        | 2,626,524          | 428                     | 140,558                            | 2,767,51       |
| lata a casta bald to topo of the old to a             |                    |                         |                                    |                  |                    |                         |                                    |                |
| let assets held in trust for defined                  |                    |                         |                                    |                  |                    |                         |                                    |                |
| enefit, defined contribution and                      |                    |                         |                                    |                  |                    |                         |                                    |                |
| oost-employment health care coverage:                 |                    |                         |                                    |                  |                    |                         |                                    |                |

|  | Year Ended June 30, 2012 |                    |                     |               | Year Ended June 30, 2011            |                    |              | )11         |
|--|--------------------------|--------------------|---------------------|---------------|-------------------------------------|--------------------|--------------|-------------|
|  | Defined                  | Defined            | Post-<br>employment |               | Post-<br>Defined Defined employment |                    |              |             |
|  | Benefit                  | Contribution       | Health Care         | Totals        | Benefit                             | Contribution       | Health Care  | Totals      |
| Additions                                      |                          |                    |                     |               |                                     |                    |              |             |
| Contributions:                                 |                          |                    |                     |               |                                     |                    |              |             |
| Member   | \$ 1,049,709             | \$ 49,764          | ć 101 03F           | \$ 1,099,473  | \$ 1,081,958                        | \$ 47,935          | ć 103.604    | \$ 1,129,89 |
| Employer<br>Transfers between retirement plans | 1,349,561<br>17,246      | 28,890<br>(17,246) | \$ 101,025          | 1,479,476     | 1,379,104<br>16,264                 | 28,205<br>(16,264) | \$ 103,694   | 1,511,00    |
| Retirement incentive                           | 6,712                    | (17,240)           |                     | 6,712         | 9,427                               | (10,204)           |              | 9,42        |
| Government reimbursements                      | ,                        |                    | 92,213              | 92,213        |                                     |                    | 70,556       | 70,5        |
| Benefit recipient health care premiums         |                          |                    | 246,264             | 246,264       |                                     |                    | 222,130      | 222,1       |
| Other retirement systems                       | 26,846                   |                    |                     | 26,846        | 20,219                              |                    |              | 20,2        |
| Total contributions                            | 2,450,074                | 61,408             | 439,502             | 2,950,984     | 2,506,972                           | 59,876             | 396,380      | 2,963,2     |
| ncome from investing activities:               |                          |                    |                     |               |                                     |                    |              |             |
| Net appreciation (depreciation) in fair value  |                          |                    |                     |               |                                     |                    |              |             |
| of investments                                 | (128,539)                | 2,864              | (6,456)             | (132,131)     | 10,729,075                          | 89,454             | 547,914      | 11,366,4    |
| Interest                                       | 440,488                  | 77                 | 22,124              | 462,689       | 471,889                             | 33                 | 24,096       | 496,0       |
| Dividends                                      | 735,299                  |                    | 36,932              | 772,231       | 691,411                             |                    | 35,306       | 726,7       |
| Real estate income                             | 210,902                  |                    | 10,593              | 221,495       | 191,147                             |                    | 9,760        | 200,9       |
| Investment income                              | 1,258,150                | 2,941              | 63,193              | 1,324,284     | 12,083,522                          | 89,487             | 617,076      | 12,790,0    |
| Less internal investment expenses              | (29,488)                 | (271)              | (1,481)             | (31,240)      | (33,899)                            | (274)              | (1,731)      | (35,9       |
| Less external asset management fees            | (145,031)                |                    | (7,285)             | (152,316)     | (133,146)                           |                    | (6,799)      | (139,9      |
| Net income from investing activities           | 1,083,631                | 2,670              | 54,427              | 1,140,728     | 11,916,477                          | 89,213             | 608,546      | 12,614,2    |
| Securities lending income                      | 12,363                   |                    | 621                 | 12,984        | 9,186                               |                    | 470          | 9,6         |
| Securities lending expenses                    | (1,165)                  |                    | (58)                | (1,223)       | (910)                               |                    | (47)         | (9          |
| Net income from securities lending activities  | 11,198                   |                    | 563                 | 11,761        | 8,276                               |                    | 423          | 8,6         |
| Net investment income                          | 1,094,829                | 2,670              | 54,990              | 1,152,489     | 11,924,753                          | 89,213             | 608,969      | 12,622,9    |
| Total additions                                | 3,544,903                | 64,078             | 494,492             | 4,103,473     | 14,431,725                          | 149,089            | 1,005,349    | 15,586,1    |
| Deductions                                     |                          |                    |                     |               |                                     |                    |              |             |
| Benefits:                                      |                          |                    |                     |               |                                     |                    |              |             |
| Service retirement                             | 5,401,457                |                    |                     | 5,401,457     | 4,908,718                           |                    |              | 4,908,7     |
| Disability benefits                            | 208,929                  |                    |                     | 208,929       | 207,245                             |                    |              | 207,2       |
| Survivor benefits                              | 115,473                  |                    |                     | 115,473       | 113,531                             |                    |              | 113,5       |
| Health care                                    |                          |                    | 627,890             | 627,890       |                                     |                    | 604,456      | 604,4       |
| Other  | 15,183                   |                    |                     | 15,183        | 14,913                              |                    |              | 14,9        |
| Total benefit payments                         | 5,741,042                |                    | 627,890             | 6,368,932     | 5,244,407                           |                    | 604,456      | 5,848,8     |
| Refunds to members who have withdrawn          | 169,071                  | 14,697             | ,                   | 183,768       | 153,243                             | 12,777             | ,            | 166,0       |
| Administrative expenses                        | 57,879                   | 881                | 2,568               | 61,328        | 57,778                              | 922                | 2,502        | 61,2        |
| Total deductions                               | 5,967,992                | 15,578             | 630,458             | 6,614,028     | 5,455,428                           | 13,699             | 606,958      | 6,076,0     |
| Net increase (decrease)                        | (2,423,089)              | 48,500             | (135,966)           | (2,510,555)   | 8,976,297                           | 135,390            | 398,391      | 9,510,0     |
| Net assets held in trust for defined           |                          |                    |                     |               |                                     |                    |              |             |
| benefit, defined contribution and              |                          |                    |                     |               |                                     |                    |              |             |
| post-employment health care coverage:          |                          |                    |                     |               |                                     |                    |              |             |
| Beginning of year                              | 63,116,710               | 519,202            | 3,195,942           | 66,831,854    | 54,140,413                          | 383,812            | 2,797,551    | 57,321,7    |
| End of year                                    | \$ 60,693,621            | \$ 567,702         | \$ 3,059,976        | \$ 64,321,299 | \$ 63,116,710                       | \$ 519,202         | \$ 3,195,942 | \$ 66,831,8 |

## 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 House and the 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 assets 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 \$500 or more with a useful life of at least five years. 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 use of a lower blended discount rate that leads to a much larger total pension liability, the requirement for employers to record a net pension liability based on their proportionate share of STRS Ohio's total net pension liability and quicker employer recognition of pension expense. 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 is still reviewing the recently issued pronouncements to determine the impact on STRS Ohio's financial statements.

**Subsequent Event** — In September 2012, the Ohio General Assembly passed and the Governor signed into law Substitute Senate Bill 342. This legislation will improve

the pension funding of the STRS Ohio defined benefit plan. While the effective date of the legislation is Jan. 7, 2013, most of STRS Ohio's plan changes will take effect July 1, 2013, or later.

The legislative changes that will improve the funding to STRS Ohio's defined benefit plan increase age and service requirements for retirement; calculate pensions on a lower, fixed formula; increase the period for determining final average salary, increase member contributions to the retirement system; reduce the cost-of-living adjustment (COLA); eliminate the COLA for fiscal year 2014; and defer the COLA for future retirees.

### 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% 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

| Member and Retiree Data at<br>July 1, 2012 and 2011                               |                                   |                                   |  |  |  |
|---|-----------------------------------|-----------------------------------|--|--|--|
|   | 2012                              | 2011                              |  |  |  |
| Current active members<br>Inactive members eligible for                           | 173,044                           | 177,897                           |  |  |  |
| refunds only<br>Terminated members entitled to<br>receive a benefit in the future | 134,974<br>17,325                 | 134,301<br>16,990                 |  |  |  |
| Retirees and beneficiaries<br>currently receiving a benefit                       | 143,256                           | 138,088                           |  |  |  |
| Defined Contribution Plan members Reemployed retirees Total Plan Membership       | 7,954<br>23,879<br><b>500,432</b> | 7,963<br>23,156<br><b>498,395</b> |  |  |  |

| Participating Employers at<br>June 30, 2012 and 2011 |       |       |  |  |  |
|--|-------|-------|--|--|--|
|  | 2012  | 2011  |  |  |  |
| City school districts                                | 194   | 194   |  |  |  |
| Local school districts                               | 370   | 370   |  |  |  |
| County educational service centers                   | 56    | 56    |  |  |  |
| Exempted village school districts                    | 49    | 49    |  |  |  |
| Joint vocational schools                             | 49    | 49    |  |  |  |
| Colleges and universities                            | 36    | 36    |  |  |  |
| County boards of developmental disabilities          | 69    | 69    |  |  |  |
| Community schools                                    | 312   | 291   |  |  |  |
| State of Ohio  | 1     | 1     |  |  |  |
| Other .  | 9     | 9     |  |  |  |
| Total  | 1,145 | 1,124 |  |  |  |

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 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.

### Notes to Financial Statements

Years ended June 30, 2012 and 2011

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.

**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.

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 2012, \$17,246,000 was transferred from the DC and Combined Plan accounts to the Defined Benefit Plan. During fiscal 2011, \$16,264,000 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 family members.

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, 2012, pay a portion of the heath care costs in the form of a monthly premium. Benefit recipients contributed \$246.3 million or 39% of the total health care costs (excluding deductibles, coinsurance and copayments). For the year ended June 30, 2011, benefit recipients contributed 37% 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, 2012 and 2011, employer contributions allocated to health care totaled \$101.0 million and \$103.7 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, 2012 and 2011, STRS Ohio received \$43.2 million and \$40.9 million in Medicare Part D reimbursements, respectively.

STRS Ohio participated in the Early Retiree Reinsurance Program (ERRP). ERRP is managed by Health and Human Services and provides financial assistance to employers that maintain health care coverage for early retirees not yet eligible for Medicare. For the years ended June 30, 2012 and 2011, STRS Ohio received \$49.0 million and \$29.7 million for this program, respectively. ERRP concluded this assistance in 2012.

|                            | Key Methods and Assumptions Used in Actuarial Valuation |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|
| Actuarial Information      | Pension   | Health Care                                    |  |  |  |  |
| Valuation date             | July 1, 2012  | Jan. 1, 2012                                   |  |  |  |  |
| Actuarial cost method      | Entry age   | Entry age                                      |  |  |  |  |
| Amortization method        | Level percentage, open                                  | Level percentage,<br>open                      |  |  |  |  |
| Amortization period        | 30 years  | 30 years                                       |  |  |  |  |
| Asset valuation method     | Four-year, smoothed<br>market with<br>91%/109% corridor | Fair market value                              |  |  |  |  |
| Actuarial assumptions:     |   |  |  |  |  |  |
| Investment rate of return  | 7.75%   | 6.1%   |  |  |  |  |
| Projected salary increases | 12.25% at age 20, to 2.75% at age 70                    | varies by age from 3.0%—12.0%                  |  |  |  |  |
| Payroll increase           | 3.50% for next<br>6 years; 4.00%<br>thereafter          | 3.50% for next<br>7 years; 4.00%<br>thereafter |  |  |  |  |
| Inflation assumption       | 2.75%   | 3.0%   |  |  |  |  |
| Cost-of-living adjustment  | 3.0% simple   | N/A  |  |  |  |  |
| Trend rate                 | N/A   | 7.6%—10.4% initial;<br>5% ultimate             |  |  |  |  |

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 assets.

### **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 assets 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 infinity, but is reduced to 30 years for disclosure compliance.

| Required Pension and Health Care<br>Employer Contributions<br>(dollar amounts in thousands) |                          |                        |                          |                        |  |  |
|---|--------------------------|------------------------|--------------------------|------------------------|--|--|
|   | Pen<br>Annual            | sion                   | Healt<br>Annual          | h Care                 |  |  |
| Year Ended<br>June 30   | Required<br>Contribution | Percent<br>Contributed | Required<br>Contribution | Percent<br>Contributed |  |  |
| 2010  | \$2,623,624              | 52%                    | \$635,447                | 16%                    |  |  |
| 2011  | \$2,715,523              | 51%                    | \$449,136                | 23%                    |  |  |
| 2012  | \$3,248,651              | 41%                    | \$210,132                | 48%                    |  |  |

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, 2012, and the preceeding two years is as follows:

### **Schedule of Pension Plan Funding Progress**

(dollar amounts in thousands)

| Actuarial Actuar<br>Valuation Valu<br>Year of Asso | e Accrued | Unfunded<br>Actuarial<br>Accrued<br>Liability<br>(UAAL) | Funded<br>Ratio        |                                     | UAAL as<br>% of<br>Covered<br>Payroll |
|--|-----------|---|------------------------|-------------------------------------|---------------------------------------|
| 2010 \$55,946,                                     | , . , ,   | \$38,774,410  |                        | \$11,057,260                        | 351%                                  |
| 2011 \$58,110,<br>2012 \$59,489,                   |           | \$40,655,709<br><b>\$46,812,333</b>                     | 58.8%<br><b>56.0</b> % | \$11,097,598<br><b>\$10,879,075</b> | 366%<br><b>430</b> %                  |

The funded status and funding progress of the health care plan as of Jan. 1, 2012, and the preceeding two years is as follows:

### **Schedule of Health Care Plan Funding Progress**

(dollar amounts in thousands)

| Actuarial<br>Valuation<br>Date | Actuarial<br>Value<br>of Assets | Actuarial<br>Accrued<br>Liability | Unfunded<br>Actuarial<br>Accrued<br>Liability<br>(UAAL) | Funded<br>Ratio | Covered<br>Payroll           | UAAL as<br>% of<br>Covered<br>Payroll |
|--------------------------------|---------------------------------|-----------------------------------|---|-----------------|------------------------------|---------------------------------------|
| Jan. 1, 2010<br>Jan. 1, 2011   | \$2,967,540<br>\$3,108,541      | \$11,355,003<br>\$8,631,313       |   |                 | \$10,347,383<br>\$10,520,932 |                                       |
| Jan. 1, 2012                   | \$2,968,157                     | \$5,094,407                       | \$2,126,250   |                 | \$10,549,271                 |                                       |

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, 2012, the ARP participant payroll totaled \$519,754,000. For the year ended June 30, 2011, the ARP participant payroll totaled \$477,923,000.

**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. The member rate is limited to 10% and the employer rate is limited to 14% 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, 2012 and 2011, plan net assets were included in the various funds as shown in the chart below.

| Fund Balances (in thousands)     |               |               |  |  |  |
|----------------------------------|---------------|---------------|--|--|--|
|                                  | June 30, 2012 | June 30, 2011 |  |  |  |
| Teachers' Savings Fund           | \$ 10,985,246 | \$ 10,907,611 |  |  |  |
| Employers' Trust Fund            | (15,342,824)  | (7,036,560)   |  |  |  |
| Annuity and Pension Reserve Fund | 66,970,288    | 61,364,070    |  |  |  |
| Survivors' Benefit Fund          | 1,140,887     | 1,077,531     |  |  |  |
| Defined Contribution Fund        | 567,702       | 519,202       |  |  |  |
| Total                            | \$ 64,321,299 | \$ 66,831,854 |  |  |  |

### 4. Commitments and Contingencies

STRS Ohio has made commitments to fund various real estate investments totaling \$562,546,000 as of June 30, 2012. The commitments as of June 30, 2012, have expected funding dates from August 2012 to March 2017.

STRS Ohio has made commitments to fund various alternative investments totaling \$2,905,260,000 as of June 30, 2012. The expected funding dates for the commitments as of June 30, 2012, range from July 2012 to June 2018.

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, 2012 and 2011, are summarized in the chart below.

| Investments Held at Fa<br>at June 30, 2012 and 2011 | · · · · · · · · · · · · · · · · · · · |               |
|---|---------------------------------------|---------------|
| Category  | June 30, 2012                         | June 30, 2011 |
| Short-term:   |                                       |               |
| Commercial paper                                    | \$ 3,830,054                          | \$ 4,334,154  |
| Short-term investment funds                         | 10,000                                | 33,000        |
| Repurchase agreements                               |                                       | · _           |
| Total short-term                                    | 3,840,054                             | 4,367,154     |
| Fixed income:                                       |                                       |               |
| U.S. government agency obligations                  | 606,085                               | 927,317       |
| Corporate bonds                                     | 4,140,694                             | 4,626,038     |
| High yield and emerging market                      | 1,359,647                             | 1,252,280     |
| Mortgages and asset-backed                          | 3,433,033                             | 4,064,050     |
| U.S. government obligations                         | 2,216,319                             | 2,348,712     |
| Total fixed income                                  | 11,755,778                            | 13,218,397    |
| Domestic common and preferred stock                 | 22,858,112                            | 24,406,336    |
| International: (See Note 6)                         | 11,928,871                            | 12,955,372    |
| Real estate: (See Note 7)                           |                                       |               |
| East region   | 2,579,070                             | 2,361,152     |
| Midwest region                                      | 812,080                               | 1,093,349     |
| South region  | 579,270                               | 567,740       |
| West region   | 1,835,471                             | 1,429,065     |
| REITs   | 944,107                               | 819,738       |
| <b>Other</b>  | 1,151,431                             | 853,631       |
| Total real estate                                   | 7,901,429                             | 7,124,675     |
| Alternative investments: (See Note 8)               | 7,067,589                             | 5,920,652     |
| Invested securities lending collateral              | 506,224                               | 718,885       |
| Total investments and invested                      |                                       |               |
| securities lending collateral                       | \$ 65,858,057                         | \$ 68,711,471 |

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

**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, 2012 and 2011, 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 Fixe<br>Held at June 30, 2012 |               |               | ;             |
|--|---------------|---------------|---------------|
|  | Quality       | June 30, 2012 | June 30, 2011 |
| Investment Type                                  | Rating        | Fair Value    | Fair Value    |
| U.S. government agency obligations               | AAA           | _             | \$ 764,804    |
|  | AA            | \$ 588,983    | 146,014       |
|  | A             | 17,102        | 16,499        |
| Total U.S. government agency obligations         | NR            | 606,085       | 927,317       |
| Total 0.3. government agency obligations         |               | 000,003       | 921,317       |
| Corporate bonds                                  | AAA           | 815,769       | 1,607,948     |
| •  | AA            | 359,991       | 436,964       |
|  | Α             | 1,681,389     | 1,561,501     |
|  | BBB           | 1,037,470     | 886,053       |
|  | BB            | 55,053        | 35,443        |
|  | NR            | 191,022       | 98,129        |
| Total corporate bonds                            |               | 4,140,694     | 4,626,038     |
| High yield and emerging markets fixed income     | AAA           | 1,149         | 264           |
| Thigh yield and emerging markets fixed medice    | AA            | 5,395         | 1,644         |
|  | A             | 18,604        | 25,210        |
|  | BBB           | 197,612       | 143,819       |
|  | BB            | 277,790       | 264,566       |
|  | В             | 511,403       | 489,198       |
|  | CCC and below | 192,951       | 171,501       |
|  | NR            | 154,743       | 156,078       |
| Total high yield and emerging markets fixed i    | ncome         | 1,359,647     | 1,252,280     |
| Mortgages and asset-backed                       | AAA           | 755,364       | 3,965,660     |
| moregages and asset backed                       | AA            | 2,591,205     | -             |
|  | A             | 16,575        | _             |
|  | BBB           | 15,561        | _             |
|  | BB            | · –           | 19,148        |
|  | В             | 8,362         | 12,287        |
|  | CCC           | 16,051        | -             |
|  | NR            | 29,915        | 66,955        |
| Total mortgages and asset-backed                 |               | 3,433,033     | 4,064,050     |
| Credit risk debt securities                      |               | 9,539,459     | 10,869,685    |
| U.S. government obligations                      |               | 2,216,319     | 2,348,712     |
| Total fixed-income investments                   |               | \$ 11,755,778 | \$ 13,218,397 |

**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, 2012 and 2011, the bank cash balances were approximately \$13,821,000 and \$15,388,000, 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, 2012 and 2011.

**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 plan net assets.

|  | June          | 30, 2012         | June          | 30, 2011         |
|--|---------------|------------------|---------------|------------------|
|  | Fair          | Weighted-Average | Fair          | Weighted-Average |
| Investment Type                              | Value         | Duration         | Value         | Duration         |
| U.S. government agency obligations           | \$ 606,085    | 1.093            | \$ 927,317    | 1.068            |
| Corporate bonds                              | 4,140,694     | 3.935            | 4,626,038     | 3.250            |
| High yield and emerging markets fixed income | 1,359,647     | 5.797            | 1,252,280     | 5.759            |
| Mortgages and asset-backed                   | 3,433,033     | 2.995            | 4,064,050     | 4.253            |
| U.S. government obligations                  | 2,216,319     | 6.394            | 2,348,712     | 6.551            |
| Total fixed income                           | \$ 11,755,778 |                  | \$ 13,218,397 |                  |

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 expects 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.

**Domestic Equities** — 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.

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% Wilshire Real Estate Investment Trust 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, 2012 and 2011 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.

|                          | June 3        | 0, 2012                 | June 3        | 0, 2011                |
|--------------------------|---------------|-------------------------|---------------|------------------------|
|                          |               | High Yield &            |               | High Yield &           |
| Foreign Currency         |               | <b>Emerging Markets</b> |               | <b>Emerging Market</b> |
| Denomination             | International | Fixed Income            | International | Fixed Income           |
| Argentina Peso           | 277           | 1,262                   | \$ 559        | 3,182                  |
| Australian Dollar        | 153,686       |                         | 235,794       |                        |
| Brazilian Real           | 157,870       | 3,124                   | 187,855       | 6,479                  |
| British Pound Sterling   | 765,833       | 1,499                   | 520,669       | 1,528                  |
| Canadian Dollar          | 103,398       |                         | 14,883        |                        |
| Chilean Peso             | 49,473        |                         | 34,374        |                        |
| Colombian Peso           | (526)         | 4,211                   | 472           | 4,169                  |
| Czech Koruna             | 20,715        |                         | 27,565        |                        |
| Danish Krone             | 81,399        |                         | 70,377        |                        |
| Egyptian Pound           | 11,433        | 69                      | 13,873        | 67                     |
| Euro Currency            | 528,250       | 9,651                   | 894,865       | 8,874                  |
| Ghana Cedi               |               | 1,225                   |               | 2,484                  |
| Hong Kong Dollar         | 445,051       | •                       | 443,538       | ,                      |
| Hungarian Forint         | 9,467         |                         | 16,542        |                        |
| Indian Rupee             | 111,144       |                         | 123,482       | 646                    |
| Indonesian Rupiah        | 34,984        |                         | 40,353        | 4,665                  |
| Israeli Shekel           | (7,833)       |                         | 36,157        | ,                      |
| Japanese Yen             | 655,034       |                         | 427,140       | 126                    |
| Malaysian Ringgit        | 58,766        |                         | 44,890        | 4,847                  |
| Mexican Nuevo Peso       | 59,995        | 2,728                   | 55,593        | 5,958                  |
| New Zealand Dollar       | 1,737         | _,                      | 110,710       | -,                     |
| Nigerian Naira           | 4,531         | 1,478                   | 110,710       | 264                    |
| Norwegian Krone          | 104,987       | ., 0                    | 213,575       |                        |
| Omani Rial               | 2,533         |                         | 213/373       |                        |
| Philippines Peso         | 39,984        |                         | 20,386        | 668                    |
| Polish Zloty             | 27,993        |                         | 41,894        | 000                    |
| Renminbi Yuan            | 2,,,,,        |                         | 2,234         |                        |
| Russian New Ruble        | 6,894         | 1,123                   | 10,950        |                        |
| Singapore Dollar         | 139,644       | 1,123                   | 102,062       |                        |
| South African Rand       | 200,369       |                         | 219,561       | 5,998                  |
| South Korean Won         | 317,181       |                         | 363,069       | 3,770                  |
| Swedish Krona            | 177,301       |                         | 166,906       |                        |
| Swiss Franc              | 202,360       |                         | 272,990       |                        |
| Taiwan Dollar            | 285,645       |                         | 333,894       |                        |
| Thai Baht                | 83,440        |                         | 77,398        |                        |
| Turkish Lira             | 64,258        | 1,434                   | 69,135        |                        |
| Held In Foreign Currency | 4,897,273     | 27,804                  | 5,193,745     | 49,955                 |
| Held In U.S. Dollars     | 7,031,598     | 1,331,843               | 7,761,627     | 1,202,325              |
| Total                    | 11,928,871    | 1,359,647               | \$ 12,955,372 | \$ 1,252,280           |

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, 2012, the average maturity of the invested cash collateral is 84 days. Because much of the cash collateral is invested in floating rate securities, interest rates are reset every 19 days on average as of June 30, 2012. 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 the loaned securities was approximately \$485,997,000 and \$679,611,000 as of June 30, 2012 and 2011, respectively. The fair value of the associated invested cash collateral as of June 30, 2012 and 2011, was approximately \$506,224,000 and \$718,885,000, respectively.

### 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 2012 with maturity dates in fiscal 2013. 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 \$1.18 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, 2012 and 2011, are shown in the chart below.

| Fair Values of International Investments Held at June 30, 2012 and 2011 (in thousands) |               |               |  |  |
|--|---------------|---------------|--|--|
|  | June 30, 2012 | June 30, 2011 |  |  |
| Externally managed   |               |               |  |  |
| International stocks   | \$ 4,671,190  | \$ 5,753,225  |  |  |
| International currency and   |               |               |  |  |
| liquidity reserves   | 161,857       | 107,247       |  |  |
| Forward contracts  | (17,395)      | 2,913         |  |  |
| Total externally managed   | 4,815,652     | 5,863,385     |  |  |
| Internally managed   |               |               |  |  |
| Developed markets  | 4,166,223     | 3,853,060     |  |  |
| Emerging stock and country funds   | 1,667,055     | 1,768,118     |  |  |
| International publicly traded  |               |               |  |  |
| real estate securities   | 20            | 37,084        |  |  |
| EAFE Index Fund  | 1,186,414     | 1,335,081     |  |  |
| EAFE equity swaps  | 46,836        | 37,089        |  |  |
| EMF equity swaps   | 54,145        | 68,835        |  |  |
| Forward contracts  | (7,474)       | (7,280)       |  |  |
| Total internally managed   | 7,113,219     | 7,091,987     |  |  |
| Total international  | \$ 11,928,871 | \$ 12,955,372 |  |  |

### 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, \$250 million and \$300 million was recourse debt as of June 30, 2012 and 2011, 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, 2012 and 2011, 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, 2012, the recourse loan of \$250 million had a maturity date of May 2015. Interest on the recourse loan is based on LIBOR plus a spread.

Of the non-recourse debt at June 30, 2012, loan maturities ranged from May 2013 to

July 2034. Non-recourse debt at June 30, 2011, had loan maturities ranging from May 2012 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, 2012 (in thousands) |              |            |  |  |
|--|--------------|------------|--|--|
| By Fiscal Year   | Principal    | Interest   |  |  |
| 2013   | \$ 133,176   | \$ 47,795  |  |  |
| 2014   | 150,484      | 40,343     |  |  |
| 2015   | 253,276      | 36,064     |  |  |
| 2016   | 62,634       | 29,764     |  |  |
| 2017   | 352,095      | 19,905     |  |  |
| 2018-2022  | 162,551      | 34,258     |  |  |
| 2023-2027  | 49,000       | 4,304      |  |  |
| 2028-2032  | 231,300      | 2,983      |  |  |
| 2033-2037  | 252,550      | 836        |  |  |
| Total  | \$ 1,647,066 | \$ 216,252 |  |  |

### 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 closedend 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 fixedincome 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, 2012. The notional amount of the contracts was \$1.18 billion. The unrealized gain at June 30, 2012, was \$43.8 million and is included as net appreciation/ depreciation in the Statements of Changes in Plan Net Assets. 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 unrealized gain or loss on forward-currency contracts is included as net appreciation/depreciation in the Statements of Changes in Plan Net Assets. STRS Ohio is also subject to the risk that the counterparty will fail to fulfill the contract.

**Futures** — STRS Ohio had investments in S&P 500 Index and Russell 2000 futures during the year. 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 Plan Net Assets.

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, 2012 and 2011, is shown in the chart below.

| Exposure to Future<br>Held at June 30, 20 |               |               |
|---|---------------|---------------|
|   | June 30, 2012 | June 30, 2011 |
| Forward contracts                         |               |               |
| Externally managed                        | \$ 3,212,129  | \$ 4,668,174  |
| Internally managed                        | 2,698,002     | 4,740,361     |
| Total forward contracts                   | \$ 5,910,131  | \$ 9,408,535  |
| Future contracts                          |               |               |
| S&P 500                                   | \$ 328,791    | \$ 6,714      |
| Russell 2000                              | 31,816        | _             |
| EAFE Index Fund                           | 20,773        | 20,709        |
| Externally managed                        | 8,413         | 15,030        |
| Total future contracts                    | \$ 389,793    | \$ 42,453     |

**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, 2012, was \$14.3 million. The negative fair value of the options contracts of \$505,000 is included in the *Statements of Plan Net Assets*.

**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 \$6,110,000 and \$6,350,000 as of June 30, 2012 and 2011, 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 \$6,233,000 at June 30, 2012, which is included in the *Statements of Plan Net Assets*. STRS Ohio held credit linked notes with a value of \$14,582,000 at June 30, 2011.

**Fixed-Income Interest Rate Swaps** — Interest rate swaps are derivative instruments in which one party exchanges a stream of fixed interest rate cash flows for floating interest rate cash flows. A notional amount of principal is required to compute the actual cash amounts and is determined at the inception of the contract. At June 30, 2012 and 2011, STRS Ohio did not hold any interest rate swaps.

### 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.

| STRS Ohio Required Employer<br>Contributions to OPERS |               |             |  |
|---|---------------|-------------|--|
| Year  | Annual        |             |  |
| Ended   | Required      | Percentage  |  |
| June 30   | Contributions | Contributed |  |
| 2010  | \$6,648,000   | 100%        |  |
| 2011  | \$7,338,000   | 100%        |  |
| 2012  | \$6,560,000   | 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 5.0% from July 1, 2010, to Dec. 31, 2010 and 4.0% for 2011.

### **Required Schedule of Pension Plan Funding Progress** For the Years Ended June 30, 2007–2012 (dollar amounts in thousands)

| Valuation<br>Year | Actuarial<br>Accrued<br>Liability<br>(AAL)* | Valuation<br>Assets* | Unfunded<br>Actuarial<br>Accrued<br>Liability<br>(UAAL)* | Ratio of<br>Assets<br>to AAL | Covered<br>Payroll** | UAAL as<br>% of<br>Covered<br>Payroll |
|-------------------|---|----------------------|--|------------------------------|----------------------|---------------------------------------|
| 2007              | \$81,126,642                                | \$66,671,511         | \$14,455,131   | 82.2%                        | \$10,199,505         | 142%                                  |
| 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%                                  |

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

### **Required Schedule of Employer Contributions Related to Pension Plan** For the Years Ended June 30, 2007–2012 (dollar amounts in thousands)

| Year<br>Ended | Annual<br>Required | Percentage  |
|---------------|--------------------|-------------|
| June 30       | Contributions*     | Contributed |
| 2007          | \$1,539,805        | 83%         |
| 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%         |

<sup>\*</sup>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 40 years; reduced to 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.

<sup>\*\*</sup>Revised economic and non-economic assumptions due to experience review.

| Valuation date               | July 1, 2012                               | July 1, 2011                               |
|------------------------------|--|--|
| 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 |
| Actuarial assumptions:       |  |  |
| Investment rate of return    | 7.75%                                      | 8.00%                                      |
| Projected salary increases   | 12.25% at age 20 to 2.75% at age 70        | 12.00% at age 20 to 3.25% 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%                                      |
| Cost-of-living adjustments   | 3% simple                                  | 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.

<sup>\*\*</sup>Covered payroll includes salaries for alternative retirement plan participants and defined contribution plan participants. For 2012 and 2011, alternative retirement plan participant payroll totaled \$519,754 and \$477,923, respectively. For 2012 and 2011, defined contribution plan payroll totaled \$256,811 and \$250,307, respectively.

| Required Schedule of Health Care Funding Progress, 2008–2012 (dollar amounts in thousands) |                                 |                                   |   |                 |                    |                                       |
|--|---------------------------------|-----------------------------------|---|-----------------|--------------------|---------------------------------------|
| Actuarial<br>Valuation<br>Date   | Actuarial<br>Value<br>of Assets | Actuarial<br>Accrued<br>Liability | Unfunded<br>Actuarial<br>Accrued<br>Liability<br>(UAAL) | Funded<br>Ratio | Covered<br>Payroll | UAAL as<br>% of<br>Covered<br>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%                                 |

| equired Schedule of Employer Contributions Related to Health Care For the Years Ended June 30, 2008–2012 (dollar amounts in thousands) |                                     |                           |  |  |
|--|-------------------------------------|---------------------------|--|--|
| Year<br>Ended<br>June 30   | Annual<br>Required<br>Contributions | Percentage<br>Contributed |  |  |
| 2008   | \$582,217                           | 16.9%                     |  |  |
| 2009   | \$775,262                           | 13.1%                     |  |  |
| 2010   | \$635,447                           | 16.3%                     |  |  |
| 2011   | \$449,136                           | 23.1%                     |  |  |
| 2012   | \$210,132                           | 48.1%                     |  |  |

| Notes to Health Care Trend Data |  |  |  |  |
|---------------------------------|--|--|--|--|
| laluation date                  | Jan. 1, 2012                             | Jan. 1, 2011                             |  |  |
| 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                        |  |  |
| Actuarial assumptions:          |  |  |  |  |
| Investment rate of return       | 6.10%                                    | 5.40%                                    |  |  |
| Projected salary increases      | 12.00% at age 20 to 3.00% at age 65      | 12.00% at age 20 to 3.00% at age 65      |  |  |
| Payroll increase                | 3.50% for next 7 years; 4.00% thereafter | 3.50% for next 8 years; 4.00% thereafter |  |  |
| Inflation assumption            | 3.00%                                    | 3.00%                                    |  |  |
| Trend rates                     | 7.60%–10.4% initial; 5.00% ultimate      | 7.80%—11.00% initial; 5.00% ultimate     |  |  |

## **Schedules of Administrative Expenses** For the Years Ending June 30, 2012 and 2011

|   | 2012                   | 2011                   |
|---|------------------------|------------------------|
| Personnel   |                        |                        |
| Salaries and wages                                  | \$ 30,788,169          | \$ 29,748,697          |
| Retirement contributions                            | 4,197,875              | 4,273,598              |
| Benefits  | 4,996,017              | 5,027,395              |
| Total personnel                                     | 39,982,061             | 39,049,690             |
| Professional and technical services                 |                        |                        |
| Computer support services                           | 1,244,272              | 1,255,951              |
| Health care services                                | 838,406                | 869,529                |
| Actuary   | 330,139                | 196,730                |
| Auditing  | 177,679                | 219,376                |
| Defined contribution administrative fees            | 934,989                | 902,253                |
| Legal   | 182,272                | 167,504                |
| Temporary employment services                       | 60,444                 | 67,174                 |
| Total professional and technical services           | 3,768,201              | 3,678,517              |
| Postage and courier services  Printing and supplies | 1,256,371<br>1.448.658 | 1,379,906<br>1,450,829 |
| Printing and supplies                               | 1,448,658              | 1,450,829              |
| Telephone   | 254,271                | 416,582                |
| Total communications                                | 2,959,300              | 3,247,317              |
| Other expenses                                      |                        |                        |
| Equipment repairs and maintenance                   | 4,415,413              | 4,203,255              |
| Building utilities and maintenance                  | 1,380,495              | 1,548,682              |
| Transportation and travel                           | 213,489                | 221,686                |
| Recruitment fees                                    | 24,262                 | 19,854                 |
| Equipment rental                                    | 0                      | 19,080                 |
| Depreciation  | 7,011,079              | 7,494,545              |
| Member and staff education                          | 202,892                | 220,317                |
| Insurance   | 733,095                | 726,946                |
| Memberships and subscriptions                       | 152,007                | 140,448                |
| Ohio Retirement Study Council                       | 236,668                | 255,626                |
| Miscellaneous                                       | 249,407                | 376,339                |
| Total other expenses                                | 14,618,807             | 15,226,778             |
|   |                        |                        |

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.

|   | 2012          | 2011          |
|---|---------------|---------------|
| Personnel                                 |               |               |
| Salaries and wages                        | \$ 19,672,396 | \$ 23,555,586 |
| Retirement contributions                  | 2,362,519     | 3,064,710     |
| Benefits                                  | 2,011,968     | 1,895,392     |
| Total personnel                           | 24,046,883    | 28,515,688    |
| Professional and technical services       |               |               |
| Investment research                       | 2,626,594     | 2,636,695     |
| Financial asset advisors                  | 839,233       | 771,787       |
| Banking fees                              | 1,438,378     | 1,849,227     |
| Total professional and technical services | 4,904,205     | 5,257,709     |
| Other expenses                            |               |               |
| Printing and supplies                     | 3,913         | 4,959         |
| Building utilities and maintenance        | 321,925       | 318,683       |

369,126

84,371

43,601

2,289,113

\$ 31,240,201

1,466,177

See accompanying independent auditors' report.

Miscellaneous

Investment quotation systems

Memberships and subscriptions

Total investment expenses

Total other expenses

Travel

|                                     | June 30, 2012 an |                |
|-------------------------------------|------------------|----------------|
|                                     | 2012             | 2011           |
| Asset class                         |                  |                |
| Domestic common and preferred stock | \$ 11,389,358    | \$ 11,512,629  |
| International                       | 22,295,552       | 24,072,061     |
| Fixed income                        | 5,476,611        | 5,188,337      |
| Alternative investments             | 94,768,811       | 77,870,472     |
| Real estate                         | 18,386,064       | 21,301,018     |
| Total external manager fees         | \$ 152,316,396   | \$ 139,944,517 |

327,238

1,368,820

72,517

38,126

2,130,343

\$ 35,903,740

## **Investment Review**

For Fiscal Year July 1, 2011, through June 30, 2012 **Prepared by STRS Ohio's Investments Associates** 

## The economy continues to grow at a subpar pace

Following three quarters of subpar real economic growth averaging only an annualized 1.3%, the U.S. economy rebounded to a 4.1% annualized growth rate in the second quarter of the fiscal year before easing back to a modest 1.6% growth rate in the second half of fiscal year 2012. That left fiscal year growth at just 2.1% — lower than the economy's longer-term potential growth of roughly 2.5% and similar to fiscal year 2011's disappointing 1.9% growth rate. Economic activity has remained in a relatively narrow band of 1.5% to 2.5% for more than two years and should continue in that range in fiscal year 2013.

There remain many potential shocks that could disrupt even a modest-to-moderately growing economy — much like what the U.S. and global economies experienced a year-and-a-half ago when the Greek debt crisis exploded, Japan lost significant production from an earthquake and tsunami, the Arab Spring led to soaring oil and gasoline prices and poor winter and spring weather in the United States played havoc on industrial and agricultural production. One foreseeable hurdle in fiscal year 2013 is the "fiscal cliff" of tax hikes and federal spending reductions that the United States is quickly approaching. Without changes, the two sets of tax bracket cuts during the Bush administration that covered nearly all taxpayers, the alternative minimum tax adjustment that prevents more taxpayers from paying the AMT, the 2% payroll tax cut on wages and other tax incentives and reductions would end after Dec. 31. In addition, emergency unemployment benefits and the adjustments to Medicare doctor reimbursement rates that keep doctors seeing Medicare patients would stop while the acrossthe-board spending reductions in domestic and, particularly, defense spending agreed to in last year's Budget Control Act would go into effect.

If Congress and the president do nothing between now and the end of the calendar year to alleviate the economic impact from current fiscal policy plans, the U.S. economy could easily fall into another recession. Some estimates project that the abrupt tax increases and spending reductions would equal roughly 3.5% of the nation's gross domestic product (GDP) in

calendar 2013. Barclays Capital calculates that the tax and spending changes would deduct 2.8 percentage points from first calendar quarter real GDP growth which, in the latest Blue Chip Economic Indicators, is currently projected to be about 1.7% — producing the first negative growth rate quarter since the Great Recession. Morgan Stanley estimates fiscal tightening in calendar 2013 would actually amount to about 5% of GDP rather than the commonly cited 3.5%.

The United States has never faced a similar 5% of GDP fiscal change in such a short period of time. The closest example would be fiscal tightening in federal fiscal year 1969 when the Congressional Budget Office estimates the changes amounted to 3.1% of potential GDP or about 3.75% of GDP in calendar 1969. Most economists agree that the fiscal tightening was the primary factor triggering a recession from what had been real GDP growth at about 5% and an unemployment rate below 4% throughout most of 1968 and into early 1969. In the current situation, the Congress and president likely will find a way to prevent such a severe and immediate fiscal tightening by extending some of the fiscal programs. Nonetheless, fewer policy changes and smaller fiscal policy tightening will still slow next calendar year's economic growth from what it would be without the changes. In the STRS Ohio economic forecast, we expect a similar growth pattern to that forecasted in the Blue Chip for the first calendar quarter.

In the United States, the fiscal cliff arose out of concern for the country's longer-term fiscal deficit and debt imbalances. While it is likely that most of the fiscal restraint will not occur in calendar 2013. continuing the large deficits and debts have costs attached to them that will reverberate through the U.S. economy for years to come. A recent study at the National Bureau of Economic Research from the authors of 2009's "This Time is Different: Eight Centuries of Financial Folly" — the highly-praised and rigorous analysis of financial crises over eight centuries suggests real economic activity is slashed by an average 1.2 percentage points and remains that way for an average of 23 years when a country enters an extended public debt overhang period.

Carmen and Vincent Reinhart and Ken Rogoff define a debt overhang, or a prolonged period of exceptionally high public debt, as one where the gross public debt to gross domestic product ratio exceeds 90% for five or more years. In the United States, the seven years from 1944–1950 did have such a debt overhang from financing World War II. Real economic growth plunged at the same time in response to both the heavy indebtedness and end to the war that led to significant spending cuts for the federal government. The future trend for the United States, as entitlement spending on Medicare and Social Security for Baby Boomers likely will require ever greater debt financing, is more troubling than the debt position from financing such a major war. The country is already in its fourth year of gross public debt to GDP ratios above 90% and, as the Office of Management and Budget 10-year forecast (which has overly optimistic economic assumptions built into it) shows, it will remain above that level for at least the coming decade.

While the researchers are concerned about countries not only facing public debt problems but also "quadruple debt overhang problems" from the public sector, the private sector, external sector and pensions, they do not recommend that developed countries go through a period of "rapid public debt deleveraging in an environment of extremely weak growth and high unemployment." Nonetheless, the debt problems will continue to mount for countries with weak economies, requiring significant revenue and expenditure changes in better times that will weigh on future economic growth. It likely will lead to an even tougher economic background for the next few decades in addition to the significant demographic changes of Baby Boomers reaching their retirement years that should lower long-term potential economic growth to around 2.5% from the 3% to 3.5% growth experienced in recent decades in the United States.

Since the end of the Great Recession in mid-2009, real economic growth in the United States has advanced at a disappointing 2.2% annualized rate. That growth rate is quite a bit slower than what would normally be expected following a severe recession where real gross domestic product fell an annualized 3.2% over a year-and-a-half or 4.7% non-annualized peak-to-trough. 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 continue to be felt through aftershocks for many quarters to come.

However, an alternative measure of real economic growth — real gross domestic income (GDI) — is signaling a more trend-like economic environment since the recession's end. Annualized real GDI growth has grown 2.4% — still short of the recovery normally seen after severe recessions, but more accurately matching the growth trend expected when the unemployment rate dropped from its 10% peak in October 2009 to 7.8% in September. Much of the difference in the two measures of economic activity can be attributed to the robust growth in corporate profits. Nominal after-tax corporate profits with inventory valuation and capital consumption adjustments peaked in the third quarter of 2006 and then reached its lowest point in the fourth quarter of 2008. Since that trough, that measure of corporate profits has grown 98% or an annualized 21.5% the second strongest 14-quarter growth rate in U.S. profits in the post-World War II period. Adjusted for inflation, corporate profits have grown 88% or an annualized 19.8% — the strongest 14-quarter growth rate in real profits during the postwar period. Because GDI includes corporate profits and other types of income while GDP attempts to measure output of goods and services, the real GDI measure of economic activity sometimes leads the real GDP calculation particularly during periods of extreme income losses or gains like those experienced before and after the Great Recession. It suggests that a disappointing recovery from the Great Recession could move into a better growth phase in coming years.

#### Fixed income returns outperform benchmark

As the highly partisan debate over the U.S. debt ceiling impaired confidence and the European debt crisis broadened to include Spain and Italy, longterm Treasury yields declined rapidly in the early months of fiscal year 2012. In addition, continued high unemployment and below potential economic growth caused the Federal Reserve to continue its highly accommodative monetary policy. This included the federal funds rate remaining at 0% for 42 months and the initiation of a new maturity extension program (sometimes referred to as "Operation Twist"). Under the maturity extension program, the Federal Reserve sells or redeems shorter-term Treasury securities and uses the proceeds to buy longer-term Treasury securities. This has extended the average maturity of the securities in the Federal Reserve's portfolio and contributed to longer-term yields remaining low for the entire year.

Fiscal year 2012 was a good year for fixed income market returns as interest rates declined and credit

conditions, while volatile, generally improved. The 10-year U.S. Treasury bond yield fell from 3.16% at the beginning of the fiscal year to 1.66% at fiscal year-end. Over the course of the entire fiscal year, the sectors of the bond market with the highest returns were U.S. Treasury securities and the credit-sensitive sectors. The net result was a fixed income benchmark return of 7.36% in fiscal year 2012, as recorded by the Barclays U.S. Universal Index.

The STRS Ohio fixed income portfolio returned 7.69% versus the benchmark's return of 7.36%. Over the three prior fiscal years, the STRS Ohio fixed income portfolio returned an annual average of 8.67% versus the benchmark's return of 7.55%. The STRS Ohio performance over the prior five fiscal years was 7.55% versus the benchmark's 6.76%. A more complete report of STRS Ohio performance appears on Page 49.

## **Domestic equity returns moderate**

Fiscal year 2012 saw the U.S. equity market rise for the third consecutive year as the economy and the financial markets continued to rebound from the 2009 financial crisis. The S&P 500 gained 5.4% on a total return basis, closing the year at 1,362.16. While positive, the return was muted relative to the strong gains seen in 2010 and 2011 where returns were in excess of 14% and 30%, respectively.

Despite a continuation of strong corporate profits, the earnings growth rate declined in 2012. The decelerating profit growth and muted equity market gains reflected only moderate U.S. economic growth. The market returns were largely driven by a continuation of corporate earnings growth, albeit at a slower rate than seen in the previous two years. Corporate earnings growth continued to result from better margins rather than strong top-line growth as companies continued to focus on corporate cost

The STRS Ohio domestic equities portfolio returned 3.56% versus the Russell 3000 benchmark's return of 3.84%. Over the three prior fiscal years, the STRS Ohio domestic equities portfolio returned an annualized 16.60% versus the benchmark's return of 16.73%. The STRS Ohio performance over the prior five fiscal years was -0.05% versus the benchmark return of 0.39%. A more complete report of STRS Ohio performance appears on Page 49.

#### International markets struggle

Following two years of solid gains, international markets struggled once again as sovereign debt concerns reemerged and drove market returns lower. The World ex-US Index (50% hedged) for developed markets fell 11.2%, while the MSCI EMF Index for emerging markets declined 15.7%.

The bulk of the decline came in the first half of the fiscal year while the second half remained in a trading range with little progress seen. Additionally, roughly 25% of the decline for the fiscal year is attributable to the strength in the U.S. dollar. Concerns over sovereign debt issues in Greece, Spain and Italy have boosted the dollar as a safe haven which negatively impacted the returns of dollar-based investors such as STRS Ohio. During the first half of the year, markets corrected in response to the first phase of the Greek sovereign debt restructuring; in market parlance, this was a "risk off" trade. Trend reversal followed in the fiscal third quarter as the Europeans, through the European Central Bank (ECB), introduced the Long Term Refinancing Operation (LTRO) as a mechanism to inject liquidity into the European banking system. That calmed increasingly jittery financial markets. Economic data for the United States also started improving, which supported a temporary shift into risky assets into the third quarter of the fiscal year before trailing off in the final quarter.

Returns for the 12 months were generally weak among the developed markets. The best performing countries were Ireland (+1.9%), Belgium (-0.5%) and New Zealand (-1.7%). The three weakest markets were seen in Greece (-68.1%), Austria (-41.2%) and Portugal (-40.6%). The largest variable on a regional basis was the weakness of the euro. Its weakness was the distinguishing factor in pulling European returns down below the level of the other regions in the developed markets. The emerging markets were even weaker than the developed markets. The three best markets were positive, including Philippines (+26.2%), Peru (+16.6%) and Thailand (+9.4%). The weakest markets were Argentina (-64.3%), Hungary (-38.3%) and Poland (-29.5%). Like developed markets, the European emerging countries were a step function weaker than other regions with the exception of the two larger Latin American countries, Brazil and Argentina.

The STRS Ohio international portfolio returned -11.39% versus the benchmark's return of -12.03%. Over the past three fiscal years, the STRS Ohio international portfolio returned an annualized 7.55% versus the benchmark's return of 6.55%. The STRS Ohio performance over the prior five fiscal years was -4.00% versus the benchmark's return of -4.59%. A more complete report of STRS Ohio performance appears on Page 49.

## **Commercial real estate recovery broadens**

The recovery in the real estate market has broadened to encompass most markets and property types to some degree or another. The operating fundamentals of real estate — rents and occupancy — continue to show signs of improvement, although in some areas the capital markets have gotten ahead of the fundamentals and that is resulting in fairly aggressive pricing. This is more prevalent in top tier markets and assets as these are the first to recover coming out of a national downturn. While second tier markets got off to a slower start in the recovery, they are gaining ground as investors allocate more capital to these markets in search of higher returns.

Real estate's quick jump out of the gate will taper to reflect the more moderate pace of the overall economy. A sustainable real estate recovery is highly dependent on job growth and, if that wanes, so too will real estate property fundamentals. 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 2012. The real estate public market (REITs) with a total return of 13.21% in fiscal year 2012 was only slightly higher than the private markets but it significantly outperformed the broader equity market. This comes after last fiscal year's 35%+ return and the prior year's 55%+ return for the Wilshire REIT Index. We anticipate continued high volatility in REITs.

The STRS Ohio total real estate portfolio returned 13.60% versus the benchmark's return of 12.60% in fiscal year 2012. Over the three prior fiscal years, the STRS Ohio real estate total portfolio returned an annual average of 11.45% versus the benchmark's return of 12.73%. The STRS Ohio performance over the prior five fiscal years was 3.74% versus the benchmark's 3.30%. A more complete report of STRS Ohio performance appears on Page 49.

# Alternative investment returns slightly ahead of public markets

During fiscal year 2012, alternative investment returns were affected by public markets returns that were below their long-term expected returns. Alternative investments finished the fiscal year with a return of 6.07% as compared to the 3.84% return for the Russell 3000 public equity index. Alternative investment managers sought to take advantage of the capital markets in order to exit their investments through strategic sales and IPOs. In the private equity portfolio, this activity generated distributions that were sufficient to fund 1.08 times the capital called during the fiscal year.

There are two portfolios within alternative investments: private equity and opportunistic/ diversified. During fiscal year 2012, further progress was made growing the opportunistic/diversified portfolio. This allocation was established in 2009 at 1% of total fund on a schedule to grow 1% each year to 5% on July 1, 2012. Therefore, during fiscal year 2012, the allocation was 4%. The actual market value of the opportunistic/diversified portfolio reached 4.3% by fiscal year end, increasing from 2.5% at the end of fiscal year 2011. The private equity allocation was 5% during fiscal year 2012, which was unchanged from the previous fiscal year. The actual market value of the private equity portfolio ended the year at 6.8% compared to 6.2% at the end of fiscal year 2011. As a result of the fiscal year 2012 Asset-Liability Study, the target allocation for both portfolios is now scheduled to increase in one percent increments to 7% each on a staggered schedule that ends on July 1, 2013, for private equity and on Jan. 1, 2014, for the opportunistic/diversified portfolio.

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 2012, the alternative investment five-year return was 4.80% as compared to the blended five-year benchmark return of 2.55%, which is based on the relative benchmarks for private equity and opportunistic/diversified and the targeted allocations during that five-year period. A more complete report of STRS Ohio performance appears on Page 49.

# Total fund beats the benchmark in fiscal year 2012

During fiscal year 2012, the STRS Ohio fund returned 2.34% versus the benchmark's (blended index of industry benchmarks) return of 2.05%. Over the three prior fiscal years, the STRS Ohio fund returned an annual average of 12.51% versus the benchmark's return of 12.25%. The STRS Ohio fund performance over the prior five fiscal years was 1.08% versus the benchmark's 1.18%. A more complete report of STRS Ohio fund performance appears on Page 49.

# **Statement of Investment Objectives and Policy**

Effective April 19, 2012

## 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 April 19, 2012.

## 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<br>Schedule |  |  |
| Quarterly Performance<br>Review                                      | Board Consultant   | Quarterly          |  |  |
| Statement of Investment<br>Objectives and Policy/<br>Fund Governance | STRS Ohio Investment<br>Staff/Reviewed by Board<br>Consultant                    | Annually           |  |  |
| Annual Plan (Includes Risk<br>Budget)                                | STRS Ohio Investment<br>Staff/Reviewed by Board<br>Consultant                    | Annually           |  |  |
| Actuarial Study  | Actuary/STRS Ohio Finance<br>Department  | Annually           |  |  |
| Asset/Liability Study  | STRS Ohio Investment Staff/<br>STRS Ohio Senior Staff/<br>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.

- 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%.

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

| Asset Class               | Target<br>Allocation <sup>1</sup> | Rebalancing<br>Range | Expected<br>10-Year<br>Policy Returns <sup>2</sup> | Expected<br>Management<br>Net Returns <sup>3</sup> | Expected<br>Total<br>Return |
|---------------------------|-----------------------------------|----------------------|--|--|-----------------------------|
| Equity                    |                                   |                      |  |  |                             |
| Domestic                  | 38.00%                            | 25-45%               | 8.00%  | 0.25%  | 8.25%                       |
| International             | 23.00%                            | 18-30%               | 7.85%  | 1.00%  | 8.85%                       |
| Alternatives              | 10.00%5                           | 5-16% <sup>5</sup>   | 8.00%  |  | 8.00%                       |
| Private Equity            | 5.00%5                            | 3-8%5                | 9.00%  |  | 9.00%                       |
| Opportunistic/Diversified | 5.00%5                            | 2-8%5                | 7.00%  |  | 7.00%                       |
| Fixed Income              | 18.00%                            | 13-25%               | 3.75%  | 0.35%  | 4.10%                       |
| Real Estate               | 10.00%                            | 6-13%                | 6.75%  | 1.00%  | 7.75%                       |
| Liquidity Reserve         | 1.00%                             | 0-5%                 | 3.00%  |  | 3.00%                       |
| Total Fund 5              | 100.00%                           |                      | 7.61%  | 0.40%  | 8.01% <sup>4</sup>          |

- 1 The target allocation percentage will be effective as of July 1, 2012. The eventual new target weights will be phased-in over an 18-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 an 18-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**

Currently Scheduled for

|                           |         | currently serieuale | u ioi        |              |              |
|---------------------------|---------|---------------------|--------------|--------------|--------------|
|                           | Current | July 1, 2012        | Jan. 1, 2013 | July 1, 2013 | Jan. 1, 2014 |
| Liquidity Reserve         | 1%      | 1%                  | 1%           | 1%           | 1%           |
| Fixed Income              | 18%     | 18%                 | 18%          | 18%          | 18%          |
| Domestic Equities         | 39%     | 38%                 | 36%          | 33%          | 31%          |
| International             | 23%     | 23%                 | 24%          | 25%          | 26%          |
| Real Estate               | 10%     | 10%                 | 10%          | 10%          | 10%          |
| Private Equity            | 5%      | 5%                  | 6%           | 7%           | 7%           |
| Opportunistic/Diversified | 4%      | 5%                  | 5%           | 6%           | 7%           |
|                           |         |                     |              |              |              |

- 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 of public market securities and real estate assets 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 Boardapproved 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 Boardapproved 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% Wilshire Real Estate Trust Investment Trust Index through June 30, 2012. Effective July 1, 2012, the new real estate investment trust (REIT) Index will be the 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 primarily modeled on hedge funds, commodities, and infrastructure, but can include current "opportunistic" investments such as commercial mortgage-backed securities, non-agency mortgages, and distressed debt, and may include low volatility equity, defensive equity, emerging market equities, master limited partnerships, listed private equity, closed-end funds, diversified alpha/beta strategies, volatility strategies, local currency emerging market debt, bank loans, agricultural investing, managed futures, natural resources, green and energy investing, micro-finance institutions, etc.
- (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 brokerdealers 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 Ohioqualified 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.

| <b>Exhibit 3:</b> EXAMPLE Total Fund Trustee Summary Report, as of June 30, 2011 |                            |         |         |          |
|--|----------------------------|---------|---------|----------|
| Experienced Returns  | Annualized Rates of Return |         |         |          |
| Experienced Keturns  | 1 Year                     | 3 Years | 5 Years | 10 Years |
| Have returns affected funded ratio?  |                            |         |         |          |
| 1. Total fund return   | 22.59%                     | 2.93%   | 4.48%   | 5.81%    |
| 2. Actuarial discount rate   | 8.00%                      | 8.00%   | 8.00%   | 7.95%    |
| 3. Out/under-performance (1–2)   | 14.59%                     | 5.07%   | 3.52%   | 2.14%    |
| Has plan been rewarded for capital market risk?                                  |                            |         |         |          |
| 4. Total fund benchmark return*  | 22.36%                     | 3.32%   | 4.42%   | 5.51%    |
| <ol><li>Minimum risk/high opportunity cost policy of 91-day T-Bills</li></ol>    | 0.16%                      | 0.28%   | 1.73%   | 1.95%    |
| 6. Impact of asset mix policy (4–5)  | 22.20%                     | 3.04%   | 2.69%   | 3.56%    |
| Has plan been rewarded for active management risk?                               |                            |         |         |          |
| 7. Active management return (1–4)  | 0.23%                      | 0.39%   | 0.06%   | 0.30%    |
| 8. Net active management return estimated  | 0.12%                      | 0.50%   | 0.05%   | 0.19%    |

<sup>\*</sup>The Total Fund benchmark is a blend of the asset class benchmarks based on the total fund's target allocation for the respective asset classes. Effective July 1, 2012, the Total Fund benchmark will be calculated using 18% Barclays Capital Universal Index, 38% Russell 3000, 23% International Blended Benchmark, 10% Real Estate Blended Benchmark, 10% Alternative Investment actual return, and 1% three-month Treasury Bill Index. Effective Jan. 1, 2013 the Total Fund benchmark will be calculated using 18% Barclays Capital Universal Index, 36% Russell 3000, 24% International Blended Benchmark, 10% Real Estate Blended Benchmark, 11% Alternative Investment actual return and 1% three-month Treasury Bill Index.

## **Statement of Fund Governance**

Effective April 19, 2012

## 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 dayto-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 April 19, 2012.

## 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 dayto-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 ("STRS Ohio") (1) complied with all the composite construction requirements of the Global Investment Performance Standards (GIPS®) on a firm-wide basis for the period from July 1, 2006 through June 30, 2012, and (2) designed its policies and procedures to calculate and present performance in compliance with the GIPS standards as of June 30, 2012. STRS Ohio'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 verification procedures set forth in the GIPS standards and the Guidance Statement on Verification. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, State Teachers Retirement System of Ohio has, in all material respects:

Vincent Performance Services LLC

- Complied with all the composite construction requirements of the GIPS standards on a firm-wide basis for the period from July 1, 2006 through June 30, 2012, and
- Designed its policies and procedures to calculate and present performance in compliance with the GIPS standards as of June 30, 2012.

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 STRS Ohio 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

August 21, 2012

#### **Investment Performance**

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

| 1-Year | Keturns    | (2012)' |
|--------|------------|---------|
|        | Asset Cate | vaory   |

| Asset Category                       | STRS Ohio Return | Index Name   | Index Return |
|--------------------------------------|------------------|--|--------------|
| Domestic Equities <sup>7</sup>       | 3.56%            | Russell 3000   | 3.84%        |
| International <sup>7</sup>           | -11.39%          | International Equity Blended Benchmark <sup>3</sup>    | -12.03%      |
| Fixed Income <sup>7</sup>            | 7.69%            | Barclays U.S. Universal Index                          | 7.36%        |
| Real Estate <sup>7</sup>             | 13.60%           | Real Estate Blended Benchmark <sup>4</sup>             | 12.60%       |
| Alternative Investments <sup>7</sup> | 6.07%            | Alternative Investments Blended Benchmark <sup>5</sup> | _            |
| Total Fund                           | 2.34%            | Total Fund Blended Benchmark <sup>6</sup>              | 2.05%        |

#### 3-Year Returns (2010-2012)1

| Asset Category                       | STRS Ohio Return | Index Name   | Index Return |
|--------------------------------------|------------------|--|--------------|
| Domestic Equities <sup>7</sup>       | 16.60%           | Russell 3000   | 16.73%       |
| International <sup>7</sup>           | 7.55%            | International Equity Blended Benchmark <sup>3</sup>    | 6.55%        |
| Fixed Income <sup>7</sup>            | 8.67%            | Barclays U.S. Universal Index                          | 7.55%        |
| Real Estate <sup>7</sup>             | 11.45%           | Real Estate Blended Benchmark <sup>4</sup>             | 12.73%       |
| Alternative Investments <sup>7</sup> | 15.31%           | Alternative Investments Blended Benchmark <sup>5</sup> | _            |
| Total Fund                           | 12.51%           | Total Fund Blended Benchmark <sup>6</sup>              | 12.25%       |

#### 5-Year Returns (2008–2012)1

| Asset Ca  | tegory                      | STRS Ohio Return | Index Name   | Index Return |
|-----------|-----------------------------|------------------|--|--------------|
| Domestic  | : Equities <sup>7</sup>     | -0.05%           | Russell 3000   | 0.39%        |
| Internati |                             | -4.00%           | International Equity Blended Benchmark <sup>3</sup>    | -4.59%       |
| Fixed Inc | ome <sup>7</sup>            | 7.55%            | Barclays U.S. Universal Index                          | 6.76%        |
| Real Esta | te <sup>7</sup>             | 3.74%            | Real Estate Blended Benchmark <sup>4</sup>             | 3.30%        |
| Alternati | ve Investments <sup>7</sup> | 4.80%            | Alternative Investments Blended Benchmark <sup>5</sup> | 2.55%        |
| Total Fu  | nd                          | 1.08%            | Total Fund Blended Benchmark <sup>6</sup>              | 1.18%        |

#### 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, 2012: Liquidity Reserves 5.9%, Fixed Income 16.3%, Domestic Equities 36.4%, International Equities 20.5%, 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. As of June 30, 2012, the current actuarial rate of return is 8.0%; the new actuarial rate of return effective July 1, 2012, 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, 2012 and 2011, debt as a percentage of these assets was 24.6% and 27.5%, respectively. Derivatives may also be used and cannot exceed 1% of Total Fund assets.

The one-year returns for the fiscal years ended June 30, 2012, 2011, 2010, 2009 and 2008, have been examined by Vincent Performance Services LLC. A copy of the examination report is available upon request.

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 Equity Blended Benchmark is calculated monthly using 80% of the MSCI World ex US Index (50% hedged) and 20% of the MSCI Emerging Markets Index.

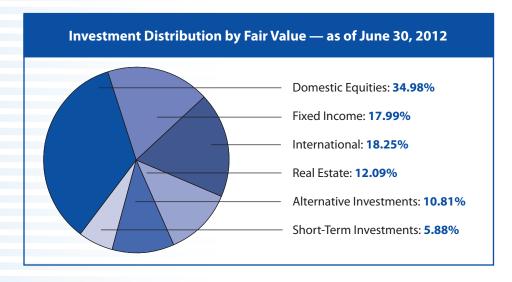
The Real Estate Blended Benchmark is calculated quarterly using 85% NCREIF Property Index (NPI) and 15% Wilshire REIT Index for all periods beginning on or after Oct. 1, 2007, and 80% NPI, 10% NCREIF Timberland Index and 10% Dow Jones Wilshire REIT Index for periods prior to Oct. 1, 2007.

The Alternative Investments Blended Benchmark is calculated monthly using 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. Given the long-term nature of the asset class, no benchmark return for alternative investments is displayed for the one- and three-year periods.

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

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

|  | June 30, 2012 |         | June 30, 2011 |         |
|--|---------------|---------|---------------|---------|
|  | Fair Value    | %       | Fair Value    | %       |
| Short term                             |               |         |               |         |
| Commercial paper                       | \$ 3,830,054  | 5.86%   | \$ 4,334,154  | 6.37%   |
| Short-term investment funds            | 10,000        | 0.02%   | 33,000        | 0.05%   |
| Total short term                       | 3,840,054     | 5.88%   | 4,367,154     | 6.42%   |
| Fixed income                           |               |         |               |         |
| U.S. government agency obligations and |               |         |               |         |
| U.S. government obligations            | 2,822,404     | 4.32%   | 3,276,029     | 4.82%   |
| Corporate bonds                        | 4,140,694     | 6.34%   | 4,626,038     | 6.80%   |
| High yield and emerging market         | 1,359,647     | 2.08%   | 1,252,280     | 1.84%   |
| Mortgages and asset-backed             | 3,433,033     | 5.25%   | 4,064,050     | 5.98%   |
| Total fixed income                     | 11,755,778    | 17.99%  | 13,218,397    | 19.44%  |
| Domestic common and preferred stock    | 22,858,112    | 34.98%  | 24,406,336    | 35.90%  |
| Real estate                            |               |         |               |         |
| East region                            | 2,579,070     | 3.95%   | 2,361,152     | 3.47%   |
| Midwest region                         | 812,080       | 1.24%   | 1,093,349     | 1.61%   |
| South region                           | 579,270       | 0.89%   | 567,740       | 0.83%   |
| West region                            | 1,835,471     | 2.81%   | 1,429,065     | 2.10%   |
| REITs                                  | 944,107       | 1.44%   | 819,738       | 1.21%   |
| Other                                  | 1,151,431     | 1.76%   | 853,631       | 1.26%   |
| Total real estate                      | 7,901,429     | 12.09%  | 7,124,675     | 10.48%  |
| Alternative investments                | 7,067,589     | 10.81%  | 5,920,652     | 8.71%   |
| International                          | 11,928,871    | 18.25%  | 12,955,372    | 19.05%  |
| Total investments                      | \$ 65,351,833 | 100.00% | \$ 67,992,586 | 100.00% |



#### Ohio Investment Profile — as of June 30, 2012 (in thousands) STRS Ohio continues to engage Liquidity reserves 9,999 in quality Ohio investments. Fixed income 94,144 As of June 30, 2012, STRS Ohio Common stock 713,336 investments in companies with Alternative investments 226,210 headquarters in Ohio are valued Real estate 139,430 at more than \$1.2 billion. **Total Ohio-headquartered investments** \$ 1,183,119

| Brokerage Firm   | Shares<br>Traded* | Commissions<br>Paid | Avg. Cents<br>Per Share |
|--|-------------------|---------------------|-------------------------|
| ITG, Inc.  | 62,768,790        | \$ 775,478          | 1.2                     |
| Citigroup  | 20,325,589        | 755,426             | 3.7                     |
| Cantor Fitzgerald  | 27,679,765        | 747,554             | 2.7                     |
| UBS Investment Bank  | 44,764,088        | 664,465             | 1.5                     |
| JP Morgan Securities                                       | 12,454,673        | 569,045             | 4.6                     |
| Morgan Stanley   | 15,368,016        | 532,014             | 3.5                     |
| Barclays Capital   | 25,434,271        | 497,091             | 2.0                     |
| Susquehanna Financial Group                                | 22,208,879        | 487,733             | 2.2                     |
| Baird (Robert) & Company                                   | 10,903,193        | 470,735             | 4.3                     |
| Banc of America Securities                                 | 10,990,502        | 448,351             | 4.1                     |
| Goldman Sachs  | 43,608,294        | 444,990             | 1.0                     |
| Deutsche Bank Securities                                   | 8,783,921         | 416,654             | 4.7                     |
| Credit Suisse Securities                                   | 8,417,687         | 314,180             | 3.7                     |
| Bernstein (Sanford C.) & Company                           | 6,095,706         | 296,089             | 4.9                     |
| Wells Fargo Securities                                     | 6,168,604         | 262,161             | 4.2                     |
| Jefferies & Company  | 5,769,560         | 245,895             | 4.3                     |
| ICAP Corporates LLC  | 9,244,972         | 220,995             | 2.4                     |
| Instinet   | 29,444,487        | 220,836             | 0.8                     |
| Liquidnet Inc.   | 12,191,361        | 215,892             | 1.8                     |
| RBC Capital Markets  | 5,638,603         | 195,071             | 3.5                     |
| International Strategy & Investment Group Inc.             | 3,714,669         | 185,733             | 5.0                     |
| Cowen & Company  | 3,952,260         | 182,554             | 4.6                     |
| Keybanc Capital Markets                                    | 3,393,349         | 163,506             | 4.8                     |
| Piper Jaffray  | 3,569,815         | 160,560             | 4.5                     |
| Oppenheimer & Company                                      | 3,458,329         | 153,634             | 4.4                     |
| Others (includes 78 brokerage firms and external managers) | 207,571,785       | 5,285,195           | 2.5                     |
| Total  | 613,921,168       | \$14,911,837        | 2.4                     |

| Schedule of Largest In (as of June 3               |                             |               |
|--|-----------------------------|---------------|
|  |                             |               |
| Domestic Equities —                                | - 10p 20 Holdings<br>Shares | Fair Value    |
| Apple Computer Inc.                                | 1,645,300                   | \$ 960,855,2  |
| Exxon Mobil Corp.                                  | 6,539,597                   | \$ 559,593,3  |
| Microsoft Corp.                                    | 12,525,800                  | \$ 383,164,2  |
| General Electric Co.                               | 16,027,100                  | \$ 334,004,7  |
| Philip Morris International                        | 3,724,400                   | \$ 324,991,1  |
| International Business Machines Corp.              | 1,464,000                   | \$ 286,329,1  |
| AT&T Inc.  | 7,984,482                   | \$ 284,726,6  |
| Chevron Corp.                                      | 2,452,779                   | \$ 258,768,1  |
| Wells Fargo Co.                                    | 7,452,694                   | \$ 249,218,0  |
| Procter & Gamble Co.                               | 3,665,286                   | \$ 224,498,7  |
| Coca Cola Co.                                      | 2,697,300                   | \$ 210,901,8  |
| Pfizer Inc.  | 9,023,100                   | \$ 207,531,3  |
| JPMorgan Chase & Co.                               | 5,666,612                   | \$ 202,468,0  |
| PepsiCo Inc.                                       | 2,841,530                   | \$ 200,782,5  |
| VISA INC-CLASS A                                   | 1,587,700                   | \$ 196,287,3  |
| Google Inc.  | 321,500                     | \$ 186,492,5  |
| Johnson & Johnson                                  | 2,743,600                   | \$ 185,357,6  |
| Merck & Co. Inc.                                   | 4,224,671                   | \$ 176,380,0  |
| Oracle Systems Corp.                               | 5,204,141                   | \$ 154,562,9  |
| Oualcomm Inc.                                      | 2,745,700                   | \$ 152,880,5  |
|  | , ,                         | Ų 132/000/S   |
| International Equities                             | — Iop 20 Holdings<br>Shares | Fair Value    |
| Cl C (41. 1/1 4 1/1 4 1/1 4 )                      |                             |               |
| GlaxoSmithKline (United Kingdom)                   | 6,107,861                   | \$ 138,620,8  |
| Vodafone (United Kingdom)                          | 42,227,701                  | \$ 118,720,9  |
| Samsung Electronics (South Korea)                  | 92,403                      | \$ 96,892,65  |
| British American Tobacco (United Kingdom)          | 1,813,769                   | \$ 92,214,40  |
| Roche (Switzerland)                                | 470,210                     | \$ 81,274,54  |
| Nova Nordisk (Denmark)                             | 521,419                     | \$ 75,522,17  |
| Astrazenca (United Kingdom)                        | 1,649,842                   | \$ 73,826,94  |
| Royal Dutch Shell (United Kingdom)                 | 2,112,657                   | \$ 71,159,50  |
| BP (United Kingdom)                                | 10,430,935                  | \$ 69,032,72  |
| Nestle (Switzerland)                               | 1,152,426                   | \$ 68,853,34  |
| Novartis AG (Switzerland)                          | 1,231,417                   | \$ 68,824,04  |
| Diageo (United Kingdom)                            | 2,618,755                   | \$ 67,443,29  |
| Taiwan Semiconductor (Taiwan)                      | 24,673,355                  | \$ 67,122,09  |
| HSBC (United Kingdom)                              | 7,201,216                   | \$ 63,374,83  |
| Honda Motor (Japan)                                | 1,764,675                   | \$ 60,798,24  |
| Nippon Telegraph and Telephone (Japan)             | 1,296,900                   | \$ 60,139,49  |
| Total SA (France)                                  | 1,266,733                   | \$ 57,067,93  |
| Munchener Rueckvers (Germany)                      | 381,915                     | \$ 53,870,98  |
| Royal Dutch Shell (United Kingdom)                 | 1,538,692                   | \$ 53,697,30  |
| Bayerische Motoren Werke (Germany)                 | 726,954                     | \$ 52,520,25  |
| Fixed Income — T                                   |                             |               |
|  | Par Value Par Value         | Fair Value    |
| Federal Home Loan Bank, 0.268%, due 02/7/2014, AA  | 150,000,000                 | \$ 150,178,0  |
| U.S. Treasury N/B, 2.375%, due 08/31/2014, AA      | 129,300,000                 | \$ 134,946,5  |
| U.S. Treasury N/B, 2.125%, due 11/30/2014, AA      | 115,100,000                 | \$ 119,953,70 |
| U.S. Treasury N/B, 2.625%, due 11/15/2020, AA      | 105,550,000                 | \$ 116,007,8  |
| FHLMC GOLD #A97047, 4.500%, due 02/1/2041, AA      | 107,564,791                 | \$ 115,196,5  |
| FNMA Pool #AI7802, 4.500%, due 07/1/2041, AA       | 98,411,468                  | \$ 105,808,0  |
| Federal Home Loan Bank, 0.266%, due 05/1/2013, AA  | 100,000,000                 | \$ 100,029,4  |
| FNMA Pool #AE0949, 3.856%, due 02/1/2041, AA       | 93,115,328                  | \$ 99,133,37  |
| Freddie Mac, 1.375%, due 01/9/2013, AA             | 91,400,000                  | \$ 91,960,28  |
| U.S. Treasury N/B, 3.250%, due 06/30/2016, AA      | 82,950,000                  | \$ 91,658,92  |
| Federal Home Loan Bank, 0.231%, due 11/18/2013, AA | 90,000,000                  | \$ 89,959,50  |
| CSFB 2004-C1 A4, 1.591%, due 01/15/2037, AAA       | 82,044,640                  | \$ 85,336,27  |
| FNMA Pool #AH5583, 4.228%, due 02/1/2041, AA       | 76,625,157                  | \$ 82,384,30  |
| U.S. Treasury N/B, 0.375%, due 06/30/2013, AA      | 81,950,000                  | \$ 82,048,34  |
| U.S. Treasury N/B, 0.250%, due 04/30/2014, AA      | 80,310,000                  | \$ 80,209,61  |
| Fannie Mae, 0.345%, due 05/17/2013, AA             | 80,000,000                  | \$ 80,086,40  |
| U.S. Treasury N/B, 3.000%, due 09/30/2016, AA      | 72,850,000                  | \$ 80,071,62  |
| U.S. Treasury N/B, 2.625%, due 08/15/2020, AA      | 71,500,000                  | \$ 78,677,88  |
| U.S. Treasury N/B, 4.250%, due 51455, AA           | 59,288,000                  | \$ 77,524,39  |
|  | J7,200,000                  | 4 11,J4T,J7   |

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

|                    | Schedule of External Managers<br>(as of June 30, 2012)  |  |  |
|--------------------|---|--|--|
| Do                 | omestic Equity  |  |  |
| Large Cap Enhanced | Intech  |  |  |
| Small Cap          | Chartwell Investment Partners Neuberger Berman Eagle Asset Management Fuller & Thaler Asset Management Lord, Abbett & Company |  |  |
|                    | M.A. Weatherbie & Company Next Century Growth Investors   |  |  |
|                    | nternational  |  |  |
| EAFE               | Arrowstreet Capital Alliance Bernstein Marvin & Palmer Associates   |  |  |
| Emerging Market    | First State Investments<br>Genesis Asset Managers<br>Marvin & Palmer Associates<br>Alliance Bernstein                         |  |  |
|                    | Fixed Income  |  |  |
| High Yield         | Pacific Investment Management Company<br>Oaktree Capital Management   |  |  |
| Emerging Market    | Pyramis Global Advisors Stone Harbor Investment Partners  |  |  |



November 9, 2012

The Retirement Board 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) as of July 1, 2012, prepared in accordance with Section 3307.51 of Chapter 3307 of the Ohio Revised Code, pursuant to our engagement letter with STRS Ohio dated December 2007. 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.

#### **Actuarial Assumptions and Methods**

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 actuarial methods are unchanged from the prior valuation.

The actuarial assumptions and methods comply with the parameters set forth in Governmental Accounting Standards 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 total contribution rate from employers and members is 24% of payroll. The Board allocates the total contribution rate between pension and survivor benefits and health care. For fiscal 2013, the Board has allocated 1% toward health care, leaving 23% for pension and survivor benefits. The valuation indicates that the contribution rate of 23% for fiscal 2013 and after is insufficient to provide for the payment of the pension and survivor benefits, as the funding period is infinite. An infinite funding period means the contributions collected will never amortize the unfunded accrued liability, and ultimately the system will not be able to meet its pension obligations.

On September 26, 2012, the STRS Ohio's Pension Reform Bill was signed into law to improve the financial condition of the STRS system. The valuation results presented herein, do not reflect the plan changes.

Prior to updating the assumptions, the valuation indicates that for the fiscal year ending June 30, 2012, the actuarial experience of STRS Ohio was somewhat favorable generating a net actuarial gain of \$197 million. This gain is the net result of a \$1,183 million gain due to the recognition of deferred prior asset gains under the system's asset valuation method, a \$858 million loss due to unfavorable investment return experienced in fiscal 2012 and a net \$128 million loss due to unfavorable demographic experience in fiscal 2012. Updating the assumptions resulted in a \$4,178 million increase in the unfunded accrued liability as of July 1, 2012.

#### 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 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.

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, and changes in plan provisions or applicable law. 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 in connection with our actuarial valuation of the System 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 is not intended to satisfy the requirements of any standard or to be used for any purpose other than those specifically stated herein. Significantly different results from those presented in this report may be required or applicable for other purposes.

This document is not intended or written to be used, and it cannot be used, for the purposes 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 other professional actuarial organizations and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension plans. To the best of our knowledge, the individuals have no relationship that may impair, or appear to impair the objectivity of our work.

Respectfully submitted,

PricewaterhouseCoopers LLP

Sheldon Gamzon

Fellow of the Society of Actuaries

Member of the American Academy of Actuaries

Calherine R Marin

Catherine Marron

Associate of the Society of Actuaries Member of the American Academy of Actuaries

# **Statement of Actuarial Assumptions and Methods**

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

**Financing Objective:** To establish contributions as a level percentage of active member payroll which, when invested, will be sufficient to provide specified benefits to STRS Ohio members and retirees.

**Interest Rate:** 7.75% per annum, compounded annually. (Adopted 2012)

Mortality Rates: For post-retirement mortality, mortality is based on the RP 2000 Combined (Projection 2022 — Scale AA). Males' ages are set back two years through age 89 and no set back is applied for males 90 and above. Females younger than age 80 are set back four years, females older than 80 and younger than 90 are set back one year, while no set back is applied for females ages 90 and above.

For pre-retirement mortality, mortality for males is based on the same male post-retirement mortality rates with the exception that pre-retirement mortality

|       | and Salar            | y increas  | se                  |
|-------|----------------------|------------|---------------------|
| Age   | Vested<br>Withdrawal | Disability | Salary<br>Increase* |
| MEN   |                      |            |                     |
| 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%               |
| WOMEN |                      |            |                     |
| 20    | 13.20%               | .010%      | 12.25%              |
| 25    | 12.54%               | .010%      | 12.25%              |
| 30    | 4.20%                | .011%      | 8.25%               |
| 35    | 2.40%                | .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%               |

rates for males age 45 and older are 25% less than the male post-retirement mortality rates. Pre-retirement mortality for females is based on the same female post-retirement mortality rates with the exception that the pre-retirement mortality rates for females between ages 50 and 57 are 25% less than the female post-retirement mortality rates and the pre-retirement mortality rates for females ages 58 and older are 50% less than the female post-retirement rates. Special mortality tables are used for the period after disability retirement. (Adopted 2012)

**Future Expenses:** The assumed interest rate is net of the anticipated future administrative expenses of the fund.

**Actuarial Cost Method:** Projected benefit method with level percentage entry age normal cost and open-end unfunded accrued liability. Gains and losses are reflected in the accrued liability.

**Asset Valuation Method:** A four-year moving market average value of assets that spreads the difference between the actual investment income and the expected income (based on the valuation interest rate) over a period of four years. The actuarial value shall not be less than 91% or more than 109% of market value. (Adopted 1997)

**Payroll Growth:** 3.50% per annum compounded annually for the next six years, 4.00% thereafter. (Adopted 2008)

#### **Separations From Active Service and Salary Increases:**

Representative values of the assumed rates of separation and annual rates of salary increase are shown in the table to the left. For non-vested terminations, withdrawal rates are as follows for all ages (male and female): Under one year — 35%; one to two years — 25%; two to three years — 15%; and three to five years — 10%. (Adopted 2012)

|       | Retirement Rates             |                           |                           |           |  |
|-------|------------------------------|---------------------------|---------------------------|-----------|--|
| Age   | Under 25 Years<br>of Service | 25–29 Years<br>of Service | 30–34 Years<br>of Service | 35+ Years |  |
| MEN   |                              |                           |                           |           |  |
| 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%      |  |
| WOMEN |                              |                           |                           |           |  |
| 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%      |  |

**Replacement of Retiring Members:** The majority of members who retire do so effective July 1. These members are replaced by new members who are hired after July 1. As a result, new members are not reported on the census data. To compensate for this disparity, assumed payroll for these new members is equal to the difference between actual total system payroll for the fiscal year just ended and reported payroll for members reported on the valuation date and an estimate is made of the liabilities for new July 1 retirees.

Census and Assets: The valuation was based on members of the system as of July 1, 2012, and does not take into account future members. All census and asset data was supplied by the system.

**Definition of Active Member:** Members
employed on July 1, 2012,
who have earned at least
0.25 years of service or
were employed on or after
Jan. 1, 2012, and have less
than 0.25 years of service,
are considered active.

Marital Status: 80% of male members and 60% of female members are assumed to be married. Husbands of female participants are assumed to be one year older than their spouse and wives of male participants are assumed to be three years younger than their spouse.

## Benefit Recipients Added to and Removed From the Rolls, 2005–2012

| Fiscal<br>Year<br>Ended | Beginning<br>Number of<br>Benefit<br>Recipients | Beginning<br>Annual<br>Allowances<br>(in thousands) | Benefit<br>Recipients<br>Added | Payments<br>Added<br>(in thousands) | Benefit<br>Recipients<br>Removed | Payments<br>Removed<br>(in thousands) | Ending<br>Number of<br>Benefit<br>Recipients | Ending<br>Annual<br>Allowance<br>(in thousands) |
|-------------------------|---|---|--------------------------------|-------------------------------------|----------------------------------|---------------------------------------|--|---|
| 2005                    | 111,853   | \$3,272,078   | 6.929                          | \$330,284                           | 3,387                            | \$62,121                              | 115,395                                      | \$3,540,241                                     |
| 2005                    | 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                                     |

## Schedule of Valuation Data — Active Members, 2003–2012

| Valuation<br>Date* | Number  | Annualized<br>Salaries<br>(in thousands) | Annual<br>Average Pay | % Increase<br>in Average Pay |
|--------------------|---------|--|-----------------------|------------------------------|
| 2003               | 179,944 | \$8,425,838                              | \$46,825              | 4%                           |
| 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%                           |

\*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, 2003-2012

| Valuation<br>Date | Number  | Annual<br>Allowances<br>(in thousands) | % Increase<br>in Annual<br>Allowances | Average Annual<br>Allowances |
|-------------------|---------|--|---------------------------------------|------------------------------|
| 2003              | 108,294 | \$3,021,825                            | 8%                                    | \$27,904                     |
| 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                     |

|                   | (1)                               | Accrued Liability for: (2)       | (3)  |                      | Lia  | ortion of Accru<br>bilities Covere<br>Valuation Asse | d by |
|-------------------|-----------------------------------|----------------------------------|--|----------------------|------|--|------|
| Valuation<br>Date | Active<br>Member<br>Contributions | Retirees<br>and<br>Beneficiaries | Active Members<br>(Employer-Financed<br>Portion) | Valuation<br>Assets* | (1)  | (2)  | (3)  |
| 2003              | \$8,155,685                       | \$34,938,341                     | \$22,842,331                                     | \$48,899,215         | 100% | 100%   | 25%  |
| 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%   |

| Analysis of<br>Gains and Losses in Accrue<br>Between Assumed Experier  | ed Liabilities R | esulting Fror | n Differences     |                 |                |
|--|------------------|---------------|-------------------|-----------------|----------------|
|  |                  | Gain (lo      | ss) for year ende | ed June 30:     |                |
| Type of Activity:  | 2012             | 2011          | 2010              | 2009            | 2008           |
| Investment income. If there is greater investment income than assumed, there is a gain. If less, there is a loss.  | \$ 324,840       | \$ 588,454    | \$ (731,414)      | \$ (17,353,396) | \$ (593,933)   |
| Payroll growth. If more contributions from payroll growth are received than expected, there is a gain. If less, there is a loss.   | (69,993)         | (77,193)      | (30,530)          | (35,590)        | (55,621)       |
| Salary increases. If there are smaller salary increases than assumed, there is a gain. If greater increases, there is a loss.  | 1,030,921        | 680,760       | 404,084           | 133,050         | 327,750        |
| 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. | (995,369)        | (535,829)     | (664,659)         | (493,354)       | (436,523)      |
| Death after retirement. If retirees live shorter than expected, there is a gain. If retirees live longer than assumed, there is a loss.  | (80,989)         | (488,586)     | 744,522           | (66,627)        | (136,493)      |
| Defined Contribution Plan administrative expenses. If there is more expense than participant income, there is a loss.  | 0                | 0             | 0                 | 0               | 0              |
| Final plan reselection. If the account value from defined contribution accounts is greater than the reestablished defined benefit account balance, there is a gain.  | (12,658)         | 13,373        | (1,061)           | 14,538          | 821            |
| Gain (or loss) during year from financial experience   | 196,752          | 180,979       | (279,058)         | (17,801,379)    | (893,999)      |
| Actuarial loss due to assumption changes   | (4,178,741)      | 0             | 0                 | 0               | (1,065,526)    |
| Composite gain (or loss) during the year   | \$ (3,981,989)   | \$ 180,979    | \$ (279,058)      | \$ (17,801,379) | \$ (1,959,525) |

# Summary of Benefit and Contribution Provisions — Defined Benefit Plan

## **Eligibility for Membership**

Immediate upon commencement of employment.

#### **Service Retirement**

## **Eligibility**

Any age with 30 years of service, age 55 with 25 years of service, or age 60 with five years of service. Members retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit amounts.

## **Amounts**

Annual amount equal to the greater of (a) 2.2% of final average salary for the three highest paid years, 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 service credit — except that for years of Ohio contributing service credit in excess of 30 the following formula percentage 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, and adjusted by the following percentage:

| Attained<br>Age | Years of<br>Ohio<br>Service Credit | Percentage of<br>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%                         |

Annual salary is subject to the limit under Section 401(a)(17).

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

Minimum benefit — The sum of the annuity provided by: (a) the member's contribution with interest, (b) a pension equal to the annuity, and (c) an additional pension of \$40 multiplied by the number of years of prior and military service.

## **Disability Retirement**

## Eligibility

A member may qualify if the following criteria are met: membership before July 30,1992, and election of this benefit; completion of five or more years of service; under age 60; and incapacitated for the performance of regular job duties for at least 12 months.

#### **Amount**

- (1) Annuity with a reserve equal to the member's accumulated contributions, plus
- (2) The difference between (1) (noted above) and the greater of 2% of the average salary during the three highest paid years times total service plus years and months from date of disability to age 60, 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**

A member may qualify if the following criteria are met: membership after July 29,1992, or membership on or before July 29,1992, and election of this benefit; completion of five or more years of service; and incapacitated for the performance of regular job duties for at least 12 months.

#### **Amount**

The amount is 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.

#### **Death After Retirement**

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

## **Survivor Benefits**

#### Eligibility

A member may qualify for this benefit after at least 1-1/2 years of credit for Ohio service with at least 1/4 year of such service in the 2-1/2 years preceding death; or upon death of a disability retiree.

#### **Amount**

If a member was eligible for retirement, a spouse or other sole dependent beneficiary may elect to receive Option 1 benefits in lieu of return of contributions. If a member was not eligible for retirement, qualified beneficiaries may elect to receive dependent-based benefits in lieu of return of contributions (see chart below) or service-based benefits, which provide a minimum benefit of a percentage of final average salary based on years of credited service ranging from 29% with 20 years of service to 60% with 29 years of service.

Qualified beneficiaries are spouse, dependent children and/or dependent parents age 65 or older.

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

## **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<br>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.

## **Optional Forms of Benefit**

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

**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 member's reduced retirement allowance provided under Option 1 or Option 2 paid for life to the member's sole beneficiary (named at retirement) after the member's death. 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 a single lifetime benefit equivalent, available for an actuarially computed charge as determined by the Retirement Board. 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** — A life annuity payable during the lifetime of the member with a guarantee that, upon the member's death before the expiration of a certain period, the benefit will continue for the remainder of such period to the beneficiary. Joint beneficiaries may receive the present value of any remaining payments in a lump-sum settlement. 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 benefits.

**Option 5** — A plan of payment established by the Retirement Board combining any of the features of Options 1, 2 and 4.

#### Partial Lump-Sum Option Plan (PLOP) —

A lump-sum payment totaling between six and 36 times the member's monthly retirement benefit value. Lifetime monthly benefit payments then start at a reduced amount to account for the sum taken up front in a single payment.

## **Refund of Contributions**

A member's contributions with interest are refunded upon termination of employment where no other benefit is payable. Upon death after retirement or upon death of a survivor in receipt of benefits, the member's accumulated contributions, less payments made, are returned to the designated beneficiary.

## **Cost-of-Living Benefits**

The basic benefit is increased each year by 3% of the original base benefit.

#### **Health Care**

Retirees, their spouse and dependents have access to a medical expense health care plan as may be offered by the Retirement Board and which is subject to changes in terms and conditions from time to time.

#### Contribution

By members: 10% of salary.

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.

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**

The normal retirement benefit commencing at age 60. At age 50 or after, a member who elects to withdraw the full value of his or her defined contribution account may receive the withdrawal value of the formula benefit in a single sum, or leave the formula 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.

## **Late Retirement**

## Eligibility

After age 60 with five years of service.

#### Amount

The formula benefit described in the service retirement section based on service credit and final average salary at termination without any actuarial adjustment.

## **Disability Benefits**

## Eligibility

Completion of five or more years of service and incapacitated for the performance of regular job duties for at least 12 months.

#### **Amount**

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

#### **Survivor Benefits**

## Eligibility

Upon death after at least 1-1/2 years of credit for Ohio service with at least 1/4 year of such service in the 2-1/2 years preceding death or upon death of a disability retiree.

#### **Amount**

Qualified surviving members have the option of receiving survivor benefits paid as an annuity. All contributions and investment gains in the member's defined contribution account are used to fund the benefit. If a member had 30 years of service, was age 55 with 25 years of service or age 60 with five years of service, the spouse or other sole dependent beneficiary may elect to receive an Option 1 benefit in lieu of return of contributions.

If a member did not meet the eligibility requirements described above, qualified beneficiaries may elect to receive the following benefits in lieu of return of contributions.

| Number of<br>Qualified | Annual Salary for Three Highest | Minimum<br>Annual |  |  |
|------------------------|---------------------------------|-------------------|--|--|
| Dependents             | Paid Years                      | 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 benefits provide a minimum benefit of a percentage of final average salary based on years of credited service ranging from 29% with 20 years of service to 60% with 29 years of service.

Alternatively, the member's defined contribution account is available.

Qualified beneficiaries are spouse, dependent children and/or dependent parents age 65 or older.

## **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 formula benefit is paid in a lump sum.

Joint and Survivorship Options — Options 1 through 5 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.

## **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 5, 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 by 3% each year.

#### **Health Care**

Retirees, their spouse and dependents have access to a medical expense health care plan as may be offered by the Retirement Board and which is subject to changes in terms and conditions from time to time.

#### **Contribution**

By members: 10% of salary is deposited into the member's defined contribution account.

By employers: 13.7% of salaries is used to fund the defined benefit formula and health care; 0.3% of salaries is used to fund administrative expenses for the Defined Contribution Plan.

## **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. Member contributions and earnings are 100% vested at all times.

#### **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 Benefit**

Not available. However, members who terminate employment may withdraw their account.

#### **Survivor Benefits**

## **Eligibility**

Upon death.

#### **Amount**

The balance in the member's defined contribution 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 5, 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: 10% of salary is deposited into the member's defined contribution account.

By employers: 10.5% of salary is deposited into the member's defined contribution account: 3.5% of salaries is used to amortize the unfunded liability of the Defined Benefit Plan.

## FOREWORD AND ACTUARIAL CERTIFICATION



We are pleased to present this report containing the results of the January 1, 2012 actuarial valuation of the State Teachers Retirement System of Ohio ("STRS Ohio") Postretirement Retiree Health Care Benefit Plan, pursuant to our capitalized 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

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, 2011, and the retiree, survivor and dependent census data as of January 1, 2012. In addition, claims data and plan asset information were collected as of January 1, 2012. 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 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 needed 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

A. Lay

Jill Stockard

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

Stockenel

April 11, 2012

## **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 postemployment 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, 2012. The active and inactive member census data was as of July 1, 2011, and the retiree, survivor and dependent census data was as of Jan. 1, 2012. The active and inactive populations were projected to Jan. 1, 2012, 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 support 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, 2012, the blended GASB Statement No. 43 discount rate was 6.1% and has been determined based on the plan's funded ratio.

Changes From the Prior Valuation: Effective Jan. 1, 2012, the subsidy rate changed for all participants from 2.5% to 2.4% per year of service (up to 30 years), and will continue to decrease 0.1% each year until the ultimate subsidy is 2.1% per year of service in 2015. The maximum subsidy is 72% in 2012 decreasing to 63% in 2015. 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, 2010-2012 (dollar amounts in thousands) **Accrued Liability For: Portion of Accrued Liability Covered** (3) Fair by For: Actuarial (1) Market (2) Retirees, Valuation Active Inactive **Survivors &** Value of Date Members Members **Dependents** Assets (1) (2) (3) Jan. 1, 2010 \$5,683,068 \$112,721 \$5,559,214 \$2,967,540 52% 0% 0% Jan. 1, 2011 \$4,389,465 \$86,325 \$4,155,523 \$3,108,541 71% 0% Jan. 1, 2012 \$2,536,826 \$58,182 \$2,499,399 \$2,968,157 100% 100% 15%

| Key Methods and Assumptions<br>Used in Health Care Actuarial Valuation |              |                                      |                         |  |  |  |  |  |  |
|--|--------------|--------------------------------------|-------------------------|--|--|--|--|--|--|
| Valuation date   |              | Jan. 1, 2012                         |                         |  |  |  |  |  |  |
| Actuarial cost me  | ethod        | Entry age norma                      | l, level percent of pay |  |  |  |  |  |  |
| Amortization me  | thod         | 30 years, open, le                   | evel percent of pay     |  |  |  |  |  |  |
| Asset valuation r  | nethod       | Fair market value                    |                         |  |  |  |  |  |  |
| Actuarial assum  | ptions:      |                                      |                         |  |  |  |  |  |  |
| Investment rat   | e of return  | 6.1%                                 |                         |  |  |  |  |  |  |
| Projected salar  | y increases  | Varies by age from 3.0%—12.0%        |                         |  |  |  |  |  |  |
| Payroll increas  | e            | 3.50% through 2018; 4.00% thereafter |                         |  |  |  |  |  |  |
| Health care cost   | trend rates: |                                      |                         |  |  |  |  |  |  |
|  | Initial Rate | Ultimate Rate                        | Ultimate Year           |  |  |  |  |  |  |
| Pre-65 PPO   | 9.8%         | 5.0%                                 | 2021                    |  |  |  |  |  |  |
| Post-65 PPO  | 7.6%         | 5.0%                                 | 2021                    |  |  |  |  |  |  |
| Pre-65 HMO   | 9.8%         | 5.0%                                 | 2021                    |  |  |  |  |  |  |
| Post-65 HMO  | 9.8%         | 5.0%                                 | 2021                    |  |  |  |  |  |  |
| Post-65 MA   | 9.8%         | 5.0%                                 | 2021                    |  |  |  |  |  |  |
| Prescription drugs   | 10.4%        | 5.0%                                 | 2021                    |  |  |  |  |  |  |

| Summary of Membership Data                   |              |              |              |  |  |  |  |  |  |  |
|--|--------------|--------------|--------------|--|--|--|--|--|--|--|
| Valuation date                               | Jan. 1, 2012 | Jan. 1, 2011 | Jan. 1, 2010 |  |  |  |  |  |  |  |
| Active members                               | 177,897      | 175,842      | 174,807      |  |  |  |  |  |  |  |
| Inactive members                             | 16,685       | 17,377       | 17,980       |  |  |  |  |  |  |  |
| STRS Ohio Health Care Program enrollees:     |              |              |              |  |  |  |  |  |  |  |
| Retirees                                     | 89,533       | 85,802       | 83,461       |  |  |  |  |  |  |  |
| Disabled retirees                            | 4,694        | 4,767        | 4,854        |  |  |  |  |  |  |  |
| Survivors                                    | 5,104        | 5,530        | 5,555        |  |  |  |  |  |  |  |
| Spouses and dependents                       |              |              |              |  |  |  |  |  |  |  |
| (excluding children)                         | 19,610       | 19,655       | 19,591       |  |  |  |  |  |  |  |
| Total  | 118,941      | 115,754      | 113,461      |  |  |  |  |  |  |  |
| Medicare Part B premium reimbursement        | 11,596       | 10,839       | 10,255       |  |  |  |  |  |  |  |
| Average per participant annual benefit payme | nt \$2,561   | \$2,210      | \$2,311      |  |  |  |  |  |  |  |

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, 2003–2012 (in thousands)

|  |                         |              |                         | Defined E     | Benefit Plan |                  |              |              |              | 1           |
|--|-------------------------|--------------|-------------------------|---------------|--------------|------------------|--------------|--------------|--------------|-------------|
|  | 2003                    | 2004         | 2005                    | 2006          | 2007         | 2008             | 2009         | 2010         | 2011         | 2012        |
| Additions:                                 |                         |              |                         |               |              |                  |              |              |              |             |
| Member contributions                       | \$ 868,157              | \$ 967,234   | \$ 969,226              | \$ 987,900    | \$ 1,002,876 | \$ 1,017,720     | \$ 1,041,248 | \$ 1,066,483 | \$ 1.081,958 | \$ 1,049,70 |
| Employer contributions                     | 1,164,734               | 1,206,439    | 1,232,317               | 1,255,053     | 1,272,559    | 1,305,027        | 1,347,741    | 1,374,327    | 1,379,104    | 1,349,56    |
| Investment income (loss)                   | 857,081                 | 7,685,568    | 6,101,662               | 7,550,742     | 12,693,905   | (3,926,797)      | (14,371,713) | 6,641,516    | 11,924,753   | 1,094,82    |
| Other                                      | 21,486                  | 20,777       | 20,488                  | 18,974        | 36,313       | 37,945           | 35,324       | 39,857       | 45,910       | 50,80       |
| Total additions                            | 2,911,458               | 9,880,018    | 8,323,693               | 9,812,669     | 15,005,653   | (1,566,105)      | (11,947,400) | 9,122,183    | 14,431,725   | 3,544,90    |
| Deductions:                                |                         |              |                         |               |              |                  |              |              |              |             |
| Benefit payments                           | 2,845,503               | 3,108,753    | 3,383,605               | 3,684,385     | 4,007,705    | 4,338,617        | 4,613,751    | 4,900,418    | 5,244,407    | 5,741,04    |
| Refunds                                    | 76,453                  | 99,538       | 110,018                 | 121,290       | 128,587      | 133,832          | 121,863      | 117,751      | 153,243      | 169,07      |
|  | ,                       |              | ,                       |               |              |                  |              |              |              |             |
| Administrative expenses                    | 69,085                  | 62,768       | 59,093                  | 63,398        | 60,002       | 59,467           | 58,679       | 59,320       | 57,778       | 57,87       |
| Total deductions                           | 2,991,041               | 3,271,059    | 3,552,716               | 3,869,073     | 4,196,294    | 4,531,916        | 4,794,293    | 5,077,489    | 5,455,428    | 5,967,9     |
| Net increase (decrease)                    | (79,583)                | 6,608,959    | 4,770,977               | 5,943,596     | 10,809,359   | (6,098,021)      | (16,741,693) | 4,044,694    | 8,976,297    | (2,423,08   |
| Net assets held in trust,                  | (///202)                | 0,000,22     | 1,7.7 2,7.7.            | 5,5 .5,275    | 10/005/005   | (0,000,000,000.) | (10)/11/020/ | .,,,,,,,,,   | 0,77.0,277   | (=) .==);   |
| beginning of year                          | 44,882,125              | 44,802,542   | 51,411,501              | 56,182,478    | 62,126,074   | 72,935,433       | 66,837,412   | 50,095,719   | 54,140,413   | 63,116,71   |
| Net assets held in trust,                  | 44,002,123              | 44,002,342   | 31, <del>4</del> 11,301 | 30,102,470    | 02,120,074   | 12,755,455       | 00,037,412   | 30,093,719   | 34,140,413   | 03,110,7    |
| end 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 | \$60,693,62 |
|  |                         |              | Post-                   | <br>Employmer | nt Health Ca | are Plan         |              |              |              |             |
| Additions:                                 |                         |              |                         |               |              |                  |              |              |              |             |
|  | ė 00 F07                | . 04 F00     | t 03.000                |               | ¢ 04 30=     | ¢ 00.343         | ć 101 221    | ć 103 ttr    | £ 102 (0)    | £ 404 5     |
| Employer contributions                     | \$ 88,587               | \$ 91,589    | \$ 93,066               | \$ 94,610     | \$ 96,287    | \$ 98,342        | \$ 101,221   | \$ 103,415   | \$ 103,694   | \$ 101,0    |
| Health care premiums                       | 103,913                 | 156,970      | 188,835                 | 189,432       | 201,537      | 214,700          | 225,627      | 222,316      | 222,130      | 246,2       |
| Investment income (loss)                   | 54,800                  | 470,125      | 361,600                 | 433,999       | 713,400      | (217,501)        | (778,556)    | 348,311      | 608,969      | 54,9        |
| Government reimbursements                  | 0                       | 0            | 0                       | 17,947        | 36,312       | 36,915           | 37,956       | 38,156       | 70,556       | 92,2        |
| Total additions                            | 247,300                 | 718,684      | 643,501                 | 735,988       | 1,047,536    | 132,456          | (413,752)    | 712,198      | 1,005,349    | 494,4       |
| <b>Deductions:</b><br>Health care provider |                         |              |                         |               |              |                  |              |              |              |             |
| payments                                   | 456,214                 | 425,709      | 443,615                 | 490,122       | 503,407      | 540,493          | 558,344      | 592,416      | 604,456      | 627,89      |
| Administrative expenses                    | 3,903                   | 3,763        | 3,879                   | 3,204         | 3,027        | 2,913            | 3,349        | 2,523        | 2,502        | 2,5         |
| Total deductions                           | 460,117                 | 429,472      | 447,494                 | 493,326       | 506,434      | 543,406          | 561,693      | 594,939      | 606,958      | 630,4       |
| Net increase (decrease)                    | (212,817)               | 289,212      | 196,007                 | 242,662       | 541,102      | (410,950)        | (975,445)    | 117,259      | 398,391      | (135,9      |
| Net assets held in trust,                  | (212,017)               | 207,212      | 170,007                 | 212,002       | 311,102      | (110,230)        | (273,113)    | 117,237      | 370,371      | (133,7      |
| •  | 2 010 521               | 2 707 704    | 3.006.016               | 2 202 022     | 2 525 505    | 4.000.007        | 3 (55 737    | 2 (00 202    | 3 707 551    | 2 105 0     |
| beginning of year                          | 3,010,521               | 2,797,704    | 3,086,916               | 3,282,923     | 3,525,585    | 4,066,687        | 3,655,737    | 2,680,292    | 2,797,551    | 3,195,9     |
| Net assets held in trust,<br>end 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 | \$ 3,059,9  |
| ellu oi yeal                               | ⊋ Z,/3/,/U <del>4</del> | \$ 3,000,710 | \$ 3,202,723            | \$ 3,323,303  | \$ 4,000,007 | \$ 3,033,131     | \$ 2,000,292 | ⊋ 2,171,331  | 3 3,173,742  | \$ 3,037,7  |
|  |                         | l            |                         | efined Con    | tribution P  | lan              | l            |              |              |             |
| Additions:                                 |                         |              |                         |               |              |                  |              |              |              |             |
| Member contributions                       | \$ 18,774               | \$ 23,612    | \$ 28,641               | \$ 33,070     | \$ 36,709    | \$ 40,829        | \$ 44,490    | \$ 46,059    | \$ 47,935    | \$ 49,7     |
| Employer contributions                     | 10,136                  | 13,147       | 16,270                  | 19,280        | 21,645       | 24,471           | 26,873       | 27,359       | 28,205       | 28,8        |
| Investment income (loss)                   | 2,677                   | 11,741       | 13,560                  | 19,830        | 37,023       | (31,120)         | (59,251)     | 39,157       | 89,213       | 2,6         |
| Transfers between                          | 2,077                   | 11,771       | 15,500                  | 17,030        | 31,023       | (31,120)         | (33,231)     | 37,137       | 07,213       | 2,0         |
| retirement plans                           | 0                       | 0            | 0                       | 0             | (15,845)     | (14,399)         | (14,644)     | (16,580)     | (16,264)     | (17,2       |
| Total additions                            | 31,587                  | 48,500       | 58,471                  | 72,180        | 79,532       | 19,781           | (2,532)      | 95,995       | 149,089      | 64,0        |
| <b>Deductions:</b>                         |                         |              |                         |               |              |                  |              |              |              |             |
| Refunds                                    | 1,076                   | 2,656        | 4,533                   | 5,918         | 6,407        | 9,086            | 7,427        | 9,230        | 12,777       | 14,6        |
|  |                         |              |                         |               |              |                  |              |              |              |             |
| Administrative expenses                    | 931                     | 849          | 733<br>5 266            | 491<br>6.400  | 358          | 240              | 256<br>7.693 | (35)         | 922          | 15.5        |
| Total deductions                           | 2,007                   | 3,505        | 5,266                   | 6,409         | 6,765        | 9,326            | 7,683        | 9,195        | 13,699       | 15,5        |
| Net increase (decrease)                    | 29,580                  | 44,995       | 53,205                  | 65,771        | 72,767       | 10,455           | (10,215)     | 86,800       | 135,390      | 48,5        |
| Net assets held in trust,                  |                         |              |                         |               |              |                  |              |              |              |             |
| beginning of year                          | 30,454                  | 60,034       | 105,029                 | 158,234       | 224,005      | 296,772          | 307,227      | 297,012      | 383,812      | 519,2       |
| Net assets held in trust,<br>end of year   | <u>.</u>                |              | \$ 158,234              | \$ 224,005    |              | \$ 307,227       |              |              |              | \$ 567,7    |
|  | \$ 60,034               | \$ 105,029   | £ 150 334               |               | \$ 296,772   |                  | \$ 297,012   | \$ 383,812   | \$ 519,202   |             |

| Net Assets by Plan Years Ending June 30, 2003–2012 (in thousands) |                         |                                     |                              |                     |  |  |  |  |  |  |
|---|-------------------------|-------------------------------------|------------------------------|---------------------|--|--|--|--|--|--|
| Fiscal<br>Year  | Defined Benefit<br>Plan | Post-Employment<br>Health Care Plan | Defined Contribution<br>Plan | Total<br>Net Assets |  |  |  |  |  |  |
| 2003  | \$44,802,542            | \$2,797,704                         | \$60,034                     | \$47,660,280        |  |  |  |  |  |  |
| 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        |  |  |  |  |  |  |

|        | Benefit Expenses by Type Years Ending June 30, 2003–2012 (in thousands) |            |           |          |             |  |  |  |  |  |
|--------|---|------------|-----------|----------|-------------|--|--|--|--|--|
| Fiscal | Service   | Disability | Survivor  | 0:1      | ***         |  |  |  |  |  |
| Year   | Retirement  | Benefits   | Benefits  | Other    | Total       |  |  |  |  |  |
| 2003   | \$2,588,800   | \$175,620  | \$73,680  | \$7,403  | \$2,845,503 |  |  |  |  |  |
| 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 |  |  |  |  |  |

|              | 2003–2012 (dollar amounts in thousands) |                                |   |                 |                   |  |  |  |  |  |
|--------------|---|--------------------------------|---|-----------------|-------------------|--|--|--|--|--|
| At<br>July 1 | Actuarial Value of Assets               | Actuarial Accrued<br>Liability | Unfunded Actuarial<br>Accrued Liability | Funded<br>Ratio | Funding<br>Period |  |  |  |  |  |
| 2003         | \$48,899,215                            | \$65,936,357                   | \$17,037,142                            | 74.2%           | 42.3 Yrs.         |  |  |  |  |  |
| 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.     |  |  |  |  |  |

|                 | Selected Funding Information — Defined Benefit Plan<br>2003–2012 |                |             |   |                        |                             |                              |  |  |  |  |
|-----------------|--|----------------|-------------|---|------------------------|-----------------------------|------------------------------|--|--|--|--|
|                 | Member   |                | Employer Co | ontribution Rate                        |                        |                             |                              |  |  |  |  |
| As of<br>July 1 | Contribution<br>Rate   | Normal<br>Cost | Health Care | Unfunded Actuarial<br>Accrued Liability | Total<br>Employer Rate | Interest Rate<br>Assumption | Payroll Growth<br>Assumption |  |  |  |  |
| 2003            | 10.00%   | 4.89%          | 1.00%       | 8.11%                                   | 14.00%                 | 8.00%                       | 4.50%                        |  |  |  |  |
| 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%                        |  |  |  |  |

|              | Number of Benefit Recipients by Type 2003–2012 |                        |  |                      |         |  |  |  |  |
|--------------|--|------------------------|--|----------------------|---------|--|--|--|--|
| As of July 1 | Service<br>Retirement                          | Disability<br>Benefits | Beneficiaries<br>Receiving<br>Optional<br>Allowances | Survivor<br>Benefits | Total   |  |  |  |  |
| 2003         | 89,257   | 6,552                  | 6,885  | 5,600                | 108,294 |  |  |  |  |
| 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 |  |  |  |  |

# Summary of Active Membership Data 2003–2012 (dollars in thousands)

|        | Defined Benefit Plan |             |         |         |         |             |         |         |         |             |         |         |
|--------|----------------------|-------------|---------|---------|---------|-------------|---------|---------|---------|-------------|---------|---------|
|        |                      | Fem         | ales    |         | Males   |             |         |         | Total   |             |         |         |
| As of  | Active               | Annual      | Average | Average | Active  | Annual      | Average | Average | Active  | Annual      | Average | Average |
| July 1 | Members              | Salaries    | Age     | Service | Members | Salaries    | Age     | Service | Members | Salaries    | Age     | Service |
|        |                      |             |         |         |         |             |         |         |         |             |         |         |
| 2003   | 123,850              | \$5,567,951 | 43.03   | 12.52   | 52,862  | \$2,758,722 | 44.11   | 13.41   | 176,712 | \$8,326,673 | 43.35   | 12.78   |
| 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   |

|        |         |           |         |         | Cor     | mbined Pla | n       |         |         |           |         |         |  |
|--------|---------|-----------|---------|---------|---------|------------|---------|---------|---------|-----------|---------|---------|--|
|        | Females |           |         |         |         | Males      |         |         |         | Total     |         |         |  |
| As of  | Active  | Annual    | Average | Average | Active  | Annual     | Average | Average | Active  | Annual    | Average | Average |  |
| July 1 | Members | Salaries  | Age     | Service | Members | Salaries   | Age     | Service | Members | Salaries  | Age     | Service |  |
| 2003   | 2,474   | \$75,715  | 35.80   | 2.41    | 758     | \$23,449   | 38.83   | 2.18    | 3,232   | \$99.164  | 36.51   | 2.35    |  |
| 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    |  |

|        |         |             |         |         | Total A | ctive Memb  | ership  |         |         |             |         |         |
|--------|---------|-------------|---------|---------|---------|-------------|---------|---------|---------|-------------|---------|---------|
|        |         | Fem         | ales    |         |         | Ma          |         | Total   |         |             |         |         |
| As of  | Active  | Annual      | Average | Average | Active  | Annual      | Average | Average | Active  | Annual      | Average | Average |
| July 1 | Members | Salaries    | Age     | Service | Members | Salaries    | Age     | Service | Members | Salaries    | Age     | Service |
|        |         |             |         |         |         |             |         |         |         |             |         |         |
| 2003   | 126,324 | \$5,643,666 | 42.89   | 12.32   | 53,620  | \$2,782,171 | 44.04   | 13.25   | 179,944 | \$8,425,837 | 43.23   | 12.60   |
| 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   |

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, 2012  |  |   |  |  |  |  |  |
|--|--|---|--|--|--|--|--|
|  |  | Annual  | Average  |  |  |  |  |
| Age Last   |  | Allowance   | Annual   |  |  |  |  |
| Birthday   | Number   | ( in thousands)   | Allowance  |  |  |  |  |
| Service Retirees   |  |   |  |  |  |  |  |
| Under 60   | 9,501  | \$ 488,855  | \$ 51,453  |  |  |  |  |
| 60–64  | 27,176   | 1,364,607   | 50,214   |  |  |  |  |
| 65–69  | 28,834   | 1,340,454   | 46,489   |  |  |  |  |
| 70–74  | 20,580   | 872,412   | 42,391   |  |  |  |  |
| 75–79  | 14,514   | 543,280   | 37,431   |  |  |  |  |
| 0ver 79  | 21,531   | 641,948   | 29,815   |  |  |  |  |
| Total  | 122,136  | \$ 5,251,555  | \$42,998   |  |  |  |  |
| Optional Allowances Under 60 60–64   | 454<br>437   | \$ 11,129<br>14,928   | \$ 24,512<br>34,160  |  |  |  |  |
| 65–69  | 801  | 27,517  | 34,353   |  |  |  |  |
| 70–74  | 1,171  | 37,987  | 32,439   |  |  |  |  |
| 75–79  | 1,542  | 42,455  | 27,533   |  |  |  |  |
| Over 79  | 4,895  | 108,894   | 22,246   |  |  |  |  |
| Total  | 9,300  | \$ 242,909  | \$ 26,119  |  |  |  |  |
| Survivor Benefit Beneficiaries Under 60 60–64 65–69                                    | 1,619<br>746<br>884  | \$ 23,092<br>17,434   | \$ 14,263<br>23,370  |  |  |  |  |
| 70–74<br>75–79<br>Over 79<br><b>Total</b>  | 724<br>656<br>1,240<br>5,869   | 20,551<br>16,258<br>13,457<br>21,719<br>\$ 112,510                | 23,247<br>22,456<br>20,513<br>17,515<br>\$ 19,170  |  |  |  |  |
| 75–79 Over 79 Total  Disability Beneficiaries Under 60 60–64 65–69 70–74 75–79 Over 79 | 724<br>656<br>1,240<br>5,869<br>1,489<br>1,427<br>1,154<br>737<br>521<br>623 | \$ 52,617<br>\$ 53,885<br>\$ 43,960<br>25,816<br>16,102<br>16,053 | 23,247<br>22,456<br>20,513<br>17,515<br>\$ 19,170<br>\$ 35,337<br>37,761<br>38,093<br>35,029<br>30,906<br>25,767 |  |  |  |  |
| 75–79<br>Over 79<br>Total  Disability Beneficiaries Under 60 60–64 65–69 70–74 75–79   | 724<br>656<br>1,240<br>5,869<br>1,489<br>1,427<br>1,154<br>737<br>521        | \$ 52,617<br>\$ 53,885<br>\$ 43,960<br>\$ 16,102                  | 23,247<br>22,456<br>20,513<br>17,515<br>\$ 19,170<br>\$ 35,337<br>37,761<br>38,093<br>35,029<br>30,906           |  |  |  |  |

|      |   |          |          | Years of Se | ervice Credit |          |          | Averag   |
|------|---|----------|----------|-------------|---------------|----------|----------|----------|
|      |   | 5–9      | 10–14    | 15–19       | 20–24         | 25–29    | >=30     | Total    |
| 2003 | Average monthly benefit                           | \$301    | \$672    | \$1,182     | \$1,710       | \$2,232  | \$3,668  | \$3,003  |
|      | Average final average salary                      | \$20,067 | \$30,751 | \$42,129    | \$48,616      | \$55,395 | \$62,109 | \$56,242 |
|      | Number of recipients                              | 259      | 208      | 214         | 275           | 459      | 3,439    | 4,85     |
| 2004 | Average monthly benefit                           | \$317    | \$704    | \$1,175     | \$1,803       | \$2,365  | \$3,815  | \$3,14   |
|      | Average final average salary                      | \$22,873 | \$34,369 | \$43,591    | \$52,442      | \$58,161 | \$63,780 | \$58,44  |
|      | Number of recipients                              | 261      | 223      | 231         | 261           | 476      | 3,704    | 5,15     |
| 2005 | Average monthly benefit                           | \$392    | \$746    | \$1,187     | \$1,904       | \$2,392  | \$4,003  | \$3,419  |
| .005 | 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    | 5,41     |
| 2006 | Average monthly benefit                           | \$399    | \$859    | \$1,370     | \$1,911       | \$2,537  | \$4,068  | \$3,50   |
| .000 | Average final average salary                      | \$27,055 | \$42,280 | \$50,235    | \$54,608      | \$62,027 | \$67,315 | \$63,64  |
|      | Number of recipients                              | 156      | 159      | 247         | 298           | 577      | 4,379    | 5,81     |
| 007  | Average monthly benefit                           | \$425    | \$830    | \$1,279     | \$1,978       | \$2,578  | \$4,235  | \$3,59   |
|      | Average final average salary                      | \$31,415 | \$39,215 | \$47,769    | \$57,835      | \$64,025 | \$69,713 | \$65,41  |
|      | Number of recipients                              | 196      | 177      | 277         | 360           | 622      | 4,605    | 6,23     |
| .008 | Average monthly benefit                           | \$406    | \$831    | \$1,352     | \$2,024       | \$2,600  | \$4,309  | \$3,61   |
|      | Average final average salary                      | \$30,224 | \$40,804 | \$49,447    | \$60,033      | \$64,959 | \$71,113 | \$66,37  |
|      | Number of recipients                              | 200      | 182      | 314         | 366           | 551      | 4,288    | 5,90     |
| 009  | Average monthly benefit                           | \$431    | \$822    | \$1,382     | \$2,193       | \$2,697  | \$4,497  | \$3,75   |
|      | Average final average salary                      | \$28,623 | \$38,507 | \$51,590    | \$64,199      | \$67,168 | \$73,260 | \$68,13  |
|      | Number of recipients                              | 199      | 158      | 288         | 310           | 429      | 3,698    | 5,08     |
| 010  | Average monthly benefit                           | \$455    | \$934    | \$1,349     | \$2,030       | \$2,780  | \$4,680  | \$3,88   |
|      | Average final average salary                      | \$30,030 | \$46,509 | \$50,407    | \$59,781      | \$67,794 | \$74,810 | \$69,52  |
|      | Number of recipients                              | 174      | 155      | 282         | 359           | 543      | 3,833    | 5,34     |
| 011  | Average monthly benefit                           | \$480    | \$992    | \$1,540     | \$2,377       | \$2,890  | \$4,689  | \$3,93   |
|      | Average final average salary                      | \$33,330 | \$46,727 | \$55,904    | \$68,932      | \$70,775 | \$75,724 | \$71,59  |
|      | Number of recipients                              | 171      | 201      | 365         | 438           | 685      | 4,595    | 6,45     |
| 012  | Average monthly benefit                           | \$496    | \$946    | \$1,625     | \$2,385       | \$2,965  | \$4,727  | \$3,92   |
|      | Average final average salary Number of recipients | \$31,235 | \$45,473 | \$58,519    | \$68,884      | \$72,224 | \$77,181 | \$72,70  |

| Fiscal<br>Year | City<br>School | Local<br>School | County<br>Educational<br>Service | Exempted<br>Village<br>School | Joint<br>Vocational | Colleges<br>& | County<br>Boards of<br>Developmental |         | 041   | T-4-  |
|----------------|----------------|-----------------|----------------------------------|-------------------------------|---------------------|---------------|--------------------------------------|---------|-------|-------|
| Ended          | Districts      | Districts       | Centers                          | Districts                     | Schools             | Universities  | Disabilities                         | Schools | Other | Tota  |
| 2003           | 194            | 369             | 60                               | 49                            | 49                  | 37            | 76                                   | 130     | 8     | 972   |
| 2004           | 194            | 369             | 60                               | 49                            | 49                  | 37            | 76                                   | 142     | 9     | 985   |
| 2005           | 194            | 370             | 60                               | 49                            | 49                  | 37            | 74                                   | 219     | 9     | 1,06  |
| 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     | 1,11  |
| 2009           | 194            | 370             | 58                               | 49                            | 49                  | 36            | 71                                   | 280     | 10    | 1,11  |
| 2010           | 194            | 370             | 57                               | 49                            | 49                  | 36            | 69                                   | 273     | 10    | 1,10  |
| 2011           | 194            | 370             | 56                               | 49                            | 49                  | 36            | 69                                   | 291     | 10    | 1,12  |
| 2012           | 194            | 370             | 56                               | 49                            | 49                  | 36            | 69                                   | 312     | 10    | 1,14  |

## Principal Participating Employers For the Year Ended June 30, 2012

| Employer                    | Covered<br>Members | Prior Year<br>Rank | Percentage of Membership |
|-----------------------------|--------------------|--------------------|--------------------------|
| Columbus City Schools       | 5,792              | 1                  | 2.24%                    |
| The Ohio State University   | 5,358              | 2                  | 2.07%                    |
| Cleveland Municipal Schools | 4,670              | 3                  | 1.81%                    |
| Kent State University       | 3,114              | 5                  | 1.21%                    |
| University of Cincinnati    | 3,090              | 4                  | 1.20%                    |
| Cincinnati City Schools     | 2,916              | 6                  | 1.13%                    |
| Akron City Schools          | 2,800              | 7                  | 1.08%                    |
| Cuyahoga Community College  | 2,645              | 8                  | 1.02%                    |
| Univerity of Akron          | 2,535              | 9                  | 0.98%                    |
| Toledo City Schools         | 2,402              | 10                 | 0.93%                    |
| All Others                  | 223,188            |                    | 86.33%                   |
| Total Covered Members       | 258,510*           |                    | 100.00%                  |

\*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

275 E. Broad St., Columbus, OH 43215-3771 • 614.227.4090 • www.strsoh.org





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

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

We have audited the basic financial statements of the State Teachers Retirement System of Ohio (STRS Ohio) as of and for the year ended June 30, 2012, and have issued our report thereon dated December 7, 2012. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

## **Internal Control Over Financial Reporting**

In planning and performing our audit, we considered STRS Ohio's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the basic financial statements, but not for the purpose of expressing an opinion on the effectiveness of STRS Ohio's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of STRS Ohio's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

The Retirement Board
State Teachers Retirement System of Ohio
and
The Honorable Dave Yost
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## **Compliance and Other Matters**

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

This report is intended solely for the information and use of The Retirement Board of STRS Ohio; its management; The Honorable Dave Yost, Auditor of State; and other oversight agencies and is not intended to be and should not be used by anyone other than these specified parties.

Clifton Larson Allen LLP

Toledo, Ohio December 7, 2012





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

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

We have audited the basic financial statements of the State Teachers Retirement System of Ohio (STRS Ohio) as of and for the year ended June 30, 2012, and have issued our report thereon dated December 7, 2012. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

## **Internal Control Over Financial Reporting**

In planning and performing our audit, we considered STRS Ohio's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the basic financial statements, but not for the purpose of expressing an opinion on the effectiveness of STRS Ohio's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of STRS Ohio's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and would not necessarily identify all deficiencies in the internal control that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

The Retirement Board
State Teachers Retirement System of Ohio
and
The Honorable Dave Yost
Page 2

## **Compliance and Other Matters**

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

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Clifton Larson Allen LLP

Toledo, Ohio December 7, 2012



#### STATE TEACHERS RETIREMENT SYSTEM OF OHIO

#### FRANKLIN COUNTY

#### **CLERK'S CERTIFICATION**

This is a true and correct copy of the report which is required to be filed in the Office of the Auditor of State pursuant to Section 117.26, Revised Code, and which is filed in Columbus, Ohio.

**CLERK OF THE BUREAU** 

Susan Babbitt

**CERTIFIED FEBRUARY 14, 2013**