



STATE TEACHERS RETIREMENT SYSTEM OF OHIO

# Comprehensive Annual Financial Report 2004

Fiscal Year Ended June 30, 2004



STATE TEACHERS RETIREMENT SYSTEM  
OF OHIO

**2004 Comprehensive Annual Financial Report**  
**Fiscal Year Ended June 30, 2004**

Prepared through the joint efforts of the STRS Ohio staff

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

## The State Teachers Retirement System of Ohio

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
June 30, 2003

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.



President

Executive Director

# Table of Contents

## 2004 Comprehensive Annual Financial Report

### Introduction

Certificate of Achievement .....	1
State Teachers Retirement Board .....	3
STRS Ohio Senior Staff Members .....	3
Letter of Transmittal .....	5

### Financial

Independent Auditors' Report .....	8
Management's Discussion and Analysis.....	9
Financial Statements	
Statements of Plan Net Assets .....	17
Statements of Changes in Plan Net Assets .....	18
Notes to Financial Statements .....	19
Required Supplementary Information	
Required Schedule of Funding Progress, 1999-2004 .....	28
Required Schedule of Employer Contributions, 1999-2004 .....	28
Notes to the Trend Data .....	28
Additional Information	
Schedules of Administrative Expenses .....	29
Schedules of Investment Expenses .....	30

### Investments

Investment Review .....	31
Statement of Investment Objectives and Policy .....	35
Statement of Fund Governance .....	42
Investment Performance .....	45
STRS Ohio Long-Term Policy Objective (5 Years).....	45
Summary of Investment Assets as of June 30, 2004 and 2003.....	46
Investment Distribution by Fair Value as of June 30, 2004 .....	47
Ohio Investment Profile as of June 30, 2004 .....	47
Schedule of U.S. Stock Brokerage Commissions Paid .....	47
Schedule of Largest Investment Holdings as of June 30, 2004 .....	48

### Actuarial

Actuary's Certification Letter .....	50
Statement of Actuarial Assumptions and Methods.....	51
Benefit Recipients Added to and Removed From the Rolls, 1999-2004 .....	52
Schedule of Valuation Data – Active Members, 1995-2004.....	52
Schedule of Valuation Data – Retirees/Beneficiaries, 1995-2004 .....	52
Solvency Test, 1995-2004 .....	53
Analysis of Financial Experience .....	53
Summary of Benefit and Contribution Provisions – Defined Benefit Plan .....	54
Summary of Benefit and Contribution Provisions – Combined Plan .....	56
Summary of Benefit and Contribution Provisions – Defined Contribution Plan .....	58

### Statistical

Expenses by Type, 1995-2004.....	59
Revenues by Source, 1995-2004 .....	59
Number of Benefit Recipients by Type, 1995-2004 .....	60
Average Monthly Allowances by Type, 1995-2004 .....	60
Benefit Expenses by Type, 1995-2004 .....	60
Selected Funding Information, 1995-2004 .....	61
Number of Reporting Employers by Type, 1995-2004.....	61



**Eugene E. Norris, Chair**  
Teacher member since 1996.  
South-Western City Schools,  
Franklin County

**Joseph Endry, Vice Chair**  
Retired teacher member  
since 2001.  
Franklin County

**Michael N. Billrakis**  
Teacher member since 2000.  
Perry Local Schools,  
Lake County

**Robert B. Brown**  
Teacher member since 2003.  
The Ohio State University

**Jack H. Chapman**  
Teacher member since 19  
Reynoldsburg City School  
Franklin County

## 2003–2004 State Teachers Retirement Board

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 assuring financial security for Ohio's educators.

During the 2003–2004 fiscal year, the Retirement Board was composed of six elected members — five active teachers and one retired teacher. These individuals devoted hundreds of volunteer hours in service to STRS Ohio. Joining these six educators at the board table were three ex officio voting members: the auditor of state, the attorney general and the superintendent of public instruction.

In September 2003, Robert B. Brown was selected as a member of the board to fill the active teacher seat vacated by Hazel Sidaway upon her

### STRS Ohio Senior Staff Members

Damon F. Asbury, 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 Blerdeman, director of Governmental Relations  
Eileen F. Boles, executive assistant  
Laura R. Ecklar, director of Communication Services  
Andy Marfurt, director of Human Resource Services  
William Neville, general counsel  
Greg Taylor, director of Information Technology Services



**ary Beth Foley**  
representing Betty D.  
Montgomery, Auditor of State.  
Ex officio member of the board  
since elected to office in 2003.

**Steven Puckett**  
Representing Susan Tave Zelman,  
Superintendent of Public Instruc-  
tion. Ex officio member of the  
board since appointed to office  
in 1999.

**O'Neal Saunders**  
Representing James M. Petro,  
Attorney General. Ex officio  
member of the board since  
elected to office in 2003.

**Deborah Scott**  
Teacher member since 1994.  
Finneytown Local Schools,  
Hamilton County

**Damon F. Asbury**  
Executive Director,  
State Teachers Retirement  
System of Ohio

retirement from teaching. In May 2004, John Lazares was elected to a four-year term as an active teacher member on the board for a term beginning September 2004 and ending August 2008. Then in August, Constance K. Ramser was selected to fill the active teacher seat vacated by Jack Chapman upon his retirement from teaching.

With the passage of Amended Substitute Senate Bill 133, additional individuals are joining the board, while the seats held by the auditor of state and attorney general have been removed. The new board will consist 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 her designated investment expert.



Dec. 7, 2004

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, 2004. This report is intended to provide readers with financial, investment, actuarial and statistical information in a single publication. STRS Ohio management is responsible for the accuracy of the data and for 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 also available to eligible benefit recipients and their eligible dependents.

The *Comprehensive Annual Financial Report* is divided into five sections: (1) the Introductory Section includes this letter of transmittal and information about the administrative organization of STRS Ohio; (2) the Financial Section contains the financial statements, Management's Discussion and Analysis and footnotes, along with the report of the independent auditors; (3) the Investment Section includes a summary of investment assets and the Retirement Board's Statement of Investment Objectives and Policy and Statement of Fund Governance; (4) the Actuarial Section includes results of the annual actuarial valuation and the certification letter of Mellon HR&IS; and (5) the Statistical Section includes historical data showing the progress of the system.

## Major Initiatives

With the signing of Amended Substitute Senate Bill 133 on June 16, 2004, by Gov. Bob Taft, STRS Ohio and the other public pension systems in Ohio began complying with its numerous governance, accountability and monitoring oversight provisions – many of which were already standard practice at STRS Ohio.

One of the biggest changes contained in this pension system legislation was the expansion of the State Teachers Retirement Board to 11 members. One additional retiree was added, as well as three appointees with investment expertise. The Auditor of State and the Attorney General no longer serve on the board.

The results of member surveys and focus groups have always played a major role in STRS Ohio's decision-making. During fiscal 2004, a system was put into place to enable the Retirement Board to conduct ongoing research of various system stakeholders – most particularly, the active and retired members of the system. As part of this initiative, extensive telephone surveys were conducted in July 2004. As expected, both active members and benefit recipients indicated that preserving health care coverage for retirees should be the board's top priority. Working with its many constituents, including the Health Care Advocates for STRS, the Retirement Board continued to assess ways to increase health care funding as well as slow the rate of growth in medical costs to ensure affordable health care coverage is available into the foreseeable future. Changes made to the STRS Ohio Health Care Program for calendar year 2004 resulted in the extension of the life of the health care fund to 2016. This period of stabilization gives the board time to thoroughly research additional funding and cost-containment alternatives.

Administrative expenses for the system continued to decline in fiscal 2004. Total investment and administrative expenses decreased by 7.4% from fiscal 2003. Personnel costs accounted for much of the decrease; reductions were also made in computer support services, postage, printing and travel.

STRS Ohio's strong emphasis on service to members once again earned the system a No. 1 ranking in an international benchmarking study of 52 pension systems conducted by CEM, Inc. This focus on service led to such initiatives as an extensive redesign of the STRS Ohio Web site to provide additional fea-

275 East Broad S  
 Columbus, OH 432  
 614-227-4090  
[www.strsoh.org](http://www.strsoh.org)

RETIREMENT BOARD  
 JOSEPH ENDRY

RETIREMENT BOARD  
 DEBORAH SCOTT

EXECUTIVE DIRECTOR  
 DAMON F. ASBURY

es and improved navigation to site visitors, as well as a new design and more information on the *Annual Statement of Account* it to Defined Benefit and Combined Plan members. Record numbers of members also attended member education programs d personal benefit counseling sessions during the year.

### Investments

al investments increased to \$57.2 billion (including short-term investments and collateral on loaned securities) as of e 30, 2004. The Investment Review starting on Page 31 discusses the investment environment during fiscal 2004. The ocation of investment assets is designed to provide high long-term yields while minimizing risk. A summary of the asset ocation can be found on Page 46.

r the year ended June 30, 2004, investments provided a 17.70% return. STRS Ohio's annualized rate of return over the last ee years was 3.43% and 2.74% for the last five years. Similar benchmark returns over the same one-, three- and five-year riods were 16.35%, 3.25% and 2.42%, respectively.

### Additions to Plan Net Assets

ember and employer contributions, as well as income from investments, vvide the reserves needed to finance retirement benefits. Total contribu- ns and net investment income improved by \$7.46 billion compared the prior year as investment markets generated higher gains in fiscal 004. Member and employer contributions increased in 2004 and 2003 11.7% and 3.8%, respectively. The member contribution rate increased 10% from 9.3% effective July 1, 2003. This increase accounted for i3 million in additional member contributions. Employer contributions lude amounts paid by employers of participants in alternative retire- ent plans (ARPs). ARP participants are not members of STRS Ohio; wever, their employers are required to contribute 3.5% of salaries to RS Ohio to help pay for unfunded liabilities.

Additions to Plan Net Assets (dollar amounts in thousands)	
2004	
Net Investment Income	\$ 8,167,434
Contributions:	
Member	\$ 990,846
Employer	\$ 1,311,175
Health care premiums	\$ 156,970
Other	\$ 20,777
Total Contributions	\$ 2,479,768
<b>Total Additions to Plan Net Assets</b>	<b>\$10,647,202</b>

### Deductions to Plan Net Assets

e principal purpose for STRS Ohio is to provide retirement, survivor and ability benefits to qualified members and their beneficiaries. Total bene- payments, including refunds to terminated members, were more than 3.6 billion. Administrative expenses decreased \$6.5 million from 2003 id nearly \$10 million over the last two years.

Deductions From Plan Net Assets (dollar amounts in thousands)	
2004	
Benefits	\$ 3,534,462
Withdrawals	\$ 102,194
Administrative Expenses	\$ 67,380
<b>Total Deductions from Net Assets</b>	<b>\$ 3,704,036</b>

### Funding

ontribution rates are actuarially determined to provide a level basis of funding using the entry age normal cost method, and an :tuarial valuation is performed annually by Mellon HR&IS, Chicago, Ill. The July 1, 2004, valuation shows that the amortization riod for the unfunded accrued liability decreased slightly to 42.2 years from 42.3 years, and the ratio of assets to total accrued ilibilities increased to 74.8% from 74.2%.

enerally accepted accounting principles require pension plans to report the annual required contributions at the amount neces- rry to have a maximum amortization period of 40 years for disclosure purposes. For financial accounting purposes, the amortiza- n period shown on Page 28 is 40 years to comply with generally accepted accounting principles.

detailed discussion of funding is provided in the Actuarial Section of this report beginning on Page 50.



---

## Internal Controls

The management of STRS Ohio is responsible for and has implemented systems of internal controls, which are designed to provide reasonable assurances for the safeguarding of assets and the reliability of financial records. We believe that the internal controls currently in place are adequate to meet the purpose for which they were intended.

## 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, 2003. 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 14 years. We believe our current report continues to conform to the Certificate of Achievement program requirements and are submitting it to the GFOA.

In addition, STRS Ohio received the Public Pension Coordinating Council's Public Pension Standards Award for 2004 in recognition of meeting professional standards for pension plan design and administration.

## 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,



Damon F. Asbury  
Executive Director



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



**KPMG LLP**  
Suite 500  
191 West Nationwide Boulevard  
Columbus, OH 43215-2568

Telephone 614 249 2300  
Fax 614 249 2348  
Internet [www.us.kpmg.com](http://www.us.kpmg.com)

### Independent Auditors' Report

The Retirement Board  
The State Teachers Retirement System of Ohio

and

The Honorable Betty Montgomery  
Auditor of State:

We have audited the accompanying statements of plan net assets of the State Teachers Retirement System of Ohio (the System) as of June 30, 2004 and 2003, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System'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 examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 present fairly, in all material respects, the financial position of the System as of June 30, 2004 and 2003, and the changes in its 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 November 24, 2004, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the 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 audits.

The management's discussion and analysis on pages 9 through 15 and the schedules of funding progress and employer contributions on page 28 are not a required part of the basic financial statements, but are supplementary information required by Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. 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 financial statements taken as a whole. The financial information included on pages 29 and 30 is presented for the purpose of additional analysis and is not a required part of the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements for the years ended June 30, 2004 and 2003, and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

The introduction section on pages 1 through 7, the investments section on pages 31 through 48, the actuarial section on pages 50 through 58, and the statistical section on pages 59 through 61 have not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

**KPMG LLP**

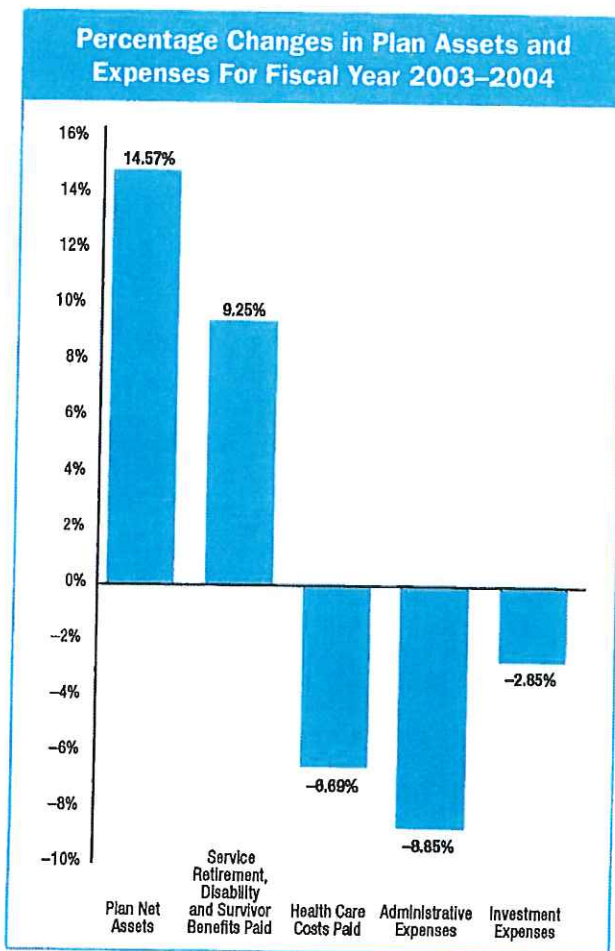
November 24, 2004

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, 2004 and 2003. 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 STRS Ohio's 2004 *Comprehensive Annual Financial Report*.

## Financial Highlights

The chart below illustrates the percentage changes in plan assets and expenses for fiscal year 2003–2004. Highlights of the fiscal year include:

- Investment markets improved in fiscal 2004. The investment portfolio rate of return for fiscal 2004 was 17.70% following a 2.32% return in 2003 and 2002's return of -8.13%. Five- and 10-year total fund returns are 2.74% and 8.65%, respectively.

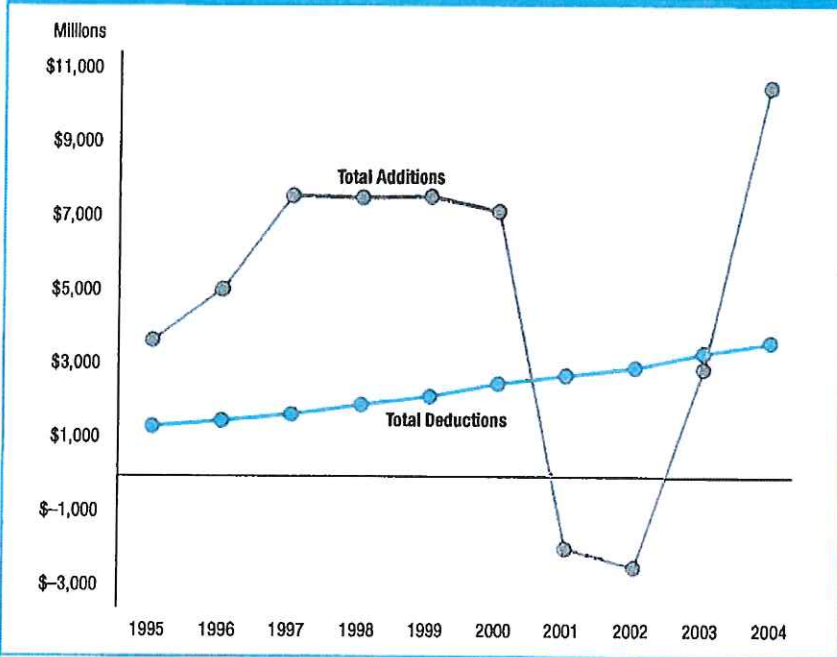


- Total plan net assets increased by 14.57% from the prior fiscal year, ending as of June 30, 2004, at \$54.6 billion.
- The balance in the Health Care Stabilization Fund increased 10.3% to \$3.1 billion. Investment income allocated to the fund improved to \$470.1 million in 2004, up from \$54.8 million in 2003. Major plan design changes resulted in increased participant premiums and out-of-pocket costs and decreased health care coverage payments.
- Total benefit payments were \$3.5 billion during fiscal 2004, an increase of 7% from fiscal 2003. STRS Ohio paid members more than \$3.1 billion in service retirement, disability, and survivor benefits plus \$426 million for health care coverage.
- Total additions to plan net assets were \$10.6 billion, an increase of almost \$7.5 billion over 2003. Net investment income in 2004 totaled \$8.2 billion, most of it coming from appreciation in investment values. Employer and member contributions totaled \$2.3 billion for 2004.
- Administrative expenses declined by 8.85% to end the year at \$67.4 million. Investment expenses, which include salaries and benefits for investment personnel, declined by 2.85% to \$23.8 million. In fiscal year 2003, administrative and investment expenses declined by 4.09% and 7.38%, respectively, from fiscal 2002 amounts.

## Annual Financial Review

Investment performance improved in fiscal 2004 with the combined portfolio delivering a 17.70% rate of return. Every asset class yielded a positive return, led by the international equities return of 29.25%. Domestic stocks achieved a 20.04% return, real estate generated a 17.66% return and fixed income had a 1.50% return. Diversification of investments among the different asset classes, as evidenced by this year's results, enables STRS Ohio to reduce risk by offsetting short-term fluctuations in individual asset classes. STRS Ohio is a long-term investor. Look-

**Historical Expense vs. Revenue Trends**  
(years ended June 30)

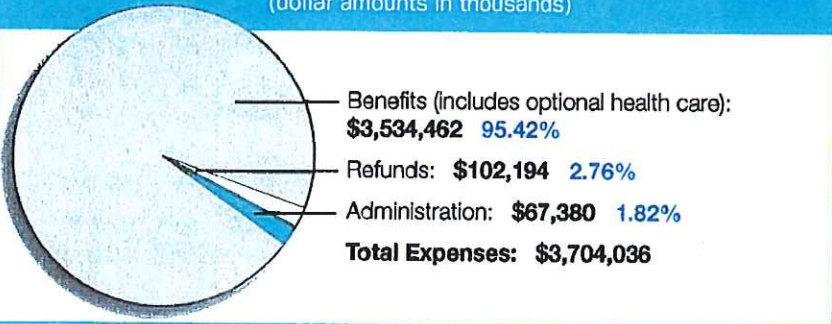


ing at annualized investment returns for the period of July 1, 1995, to June 30, 2004, STRS Ohio had a total fund return of 8.65%, exceeding the actuarial assumption and the total fund objective of 8% by 65 basis points.

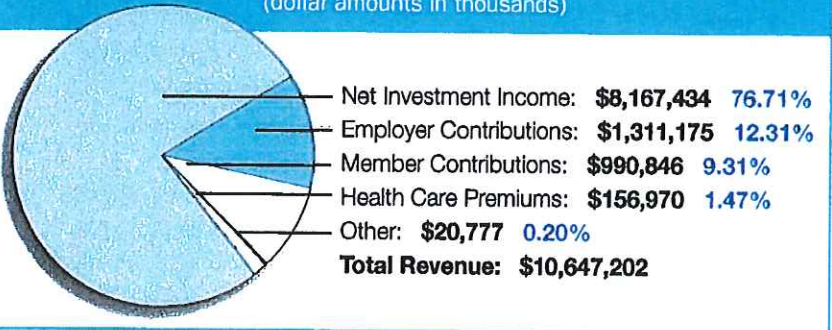
The unfunded pension liability for STRS Ohio, as of July 1, 2004, is \$17.6 billion, up from \$17.0 billion as of July 1, 2003. The expected amortization period to pay off the unfunded liability is 42.2 years at current contribution rates. The funded ratio at July 1, 2004, is 74.8%, a slight increase from 74.2% at July 1, 2003. Actuarial gains from investment returns were offset by experience losses from retirees living longer and retiring earlier than expected. In addition, less-than-expected payroll growth among the active membership, coupled with higher-than-expected individual salary increases, led to only a minor improvement in the funding status. During fiscal 2004, the teacher contribution rate was increased to 10% from 9.3% of earned compensation. This increase generated an additional \$63 million in member contributions to help reduce the unfunded liability.

Historical expense and revenue trends indicate the predictable pattern of increasing expenses (deductions) compared to volatile revenues (additions) as shown in the chart at the top of this page. Although varying from year-to-year, growth in revenues clearly exceeded expenses over the longer term. Expenses by type and revenues by source for fiscal year ended June 30, 2004, are shown in the pie charts to the left. Pension benefit payments, including health care, exceed the amount of money received from member and employer contribu-

**Expenses by Type — Year Ended June 30, 2004**  
(dollar amounts in thousands)



**Revenues by Source — Year Ended June 30, 2004**  
(dollar amounts in thousands)



tions. Investment income, in the form of interest, dividends, rent and increasing investment values, must compensate for the difference between benefit payments and contributions.

Investment market improvements and major plan design changes resulted in the Health Care Stabilization Fund increasing to \$3.1 billion from \$2.8 billion. Premiums charged to health care participants rose 51% in fiscal 2004. Changes in plan coverage and increased oversight of the health care provider network caused health care coverage payments to decrease 6.7% to \$426 million. Smaller modifications have been made to the health care program for 2005.

Administrative expenses were reduced for the second straight year. Total investment and administrative expenses decreased by 7.4%, or \$7.2 million, from fiscal 2003. Total personnel costs account for much of the decrease as reductions in staff and the elimination of performance incentive plan awards for non-Investment associates resulted in lower payroll and fringe benefit costs. Ongoing efforts were made to reduce expenses in 2004, resulting in several line item reductions to such areas as computer support services, postage and printing, and travel.

## 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 the net assets held in trust for future benefits.

The *Statements of Changes in Plan Net Assets* show revenues (additions) and expenses (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 the Health Care Stabilization Fund.

- 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 designated to provide benefits to Combined Plan members are divided between the Defined Benefit Plan and the Defined Contribution Plan.

- The Health Care Stabilization Fund consists of assets set aside to subsidize 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 Funding Progress*, a *Schedule of Employer Contributions* and *Notes to the Trend Data* are included as "required supplementary information." These schedules emphasize the long-term nature of pension plans and show

### Investment Performance

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

#### 1-Year Returns (2004)

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Stocks	20.04%	Russell_3000*	20.38%
International	29.25%	International_Equity	28.56%
Fixed_Income	1.50%	Lehman Universal	1.01%
Real Estate	17.66%	Real Estate Composite	12.24%
<b>Total Fund</b>	<b>17.70%</b>	Total Fund Composite Benchmark	16.35%
		Inflation (GDP Deflator)	2.26%

#### 5-Year Returns (2000–2004)

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Stocks	(1.50%)	Russell 3000*	(1.03%)
International	2.11%	International Equity	(0.11%)
Fixed Income	7.75%	Lehman Universal**	7.05%
Real Estate	10.41%	Real Estate Composite	9.35%
<b>Total Fund</b>	<b>2.74%</b>	Total Fund Composite Benchmark	2.42%
		Inflation (GDP Deflator)	2.06%

#### STRS Ohio Long-Term Policy Objective (5–10 Years)

Equities: 8%–10%	Fixed Income: 6%–7%	Real Estate: 8%–9%	Total Fund: 8%
------------------	---------------------	--------------------	----------------

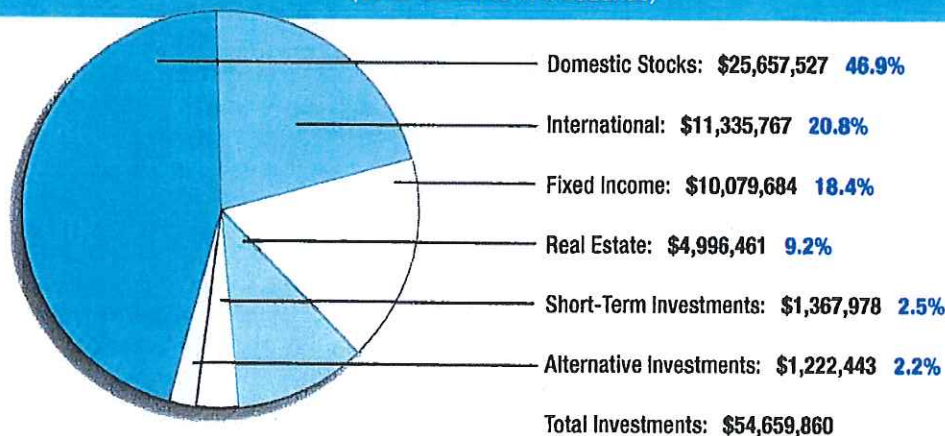
Investment performance is calculated using a time-weighted rate of return.

\*The domestic stocks benchmark is calculated using the Russell 3000 Index for all periods beginning on or after Aug. 1, 2003; the Domestic Equity Composite for April 1, 2003, through July 31, 2003; and the S&P 1500 Index from July 1, 1999, through March 31, 2003.

\*\*The fixed-income benchmark is calculated using the Lehman Universal Index for all periods beginning on or after Oct. 1, 2000, and using the Lehman Aggregate Index for all periods before Oct. 1, 2000.

### Investment Distribution by Fair Value — as of June 30, 2004

(dollar amounts in thousands)



Certain U.S.-based short-term and fixed-income securities have been classified as international investments in order to approximate the investment exposure of international equity swaps.

the progress of STRS Ohio in accumulating sufficient assets to pay benefits when due.

The *Schedule of Funding Progress* shows actuarial trend information for the past six years. It includes the ratio of valuation assets to actuarial accrued liability (funded ratio). The funded ratio increases over time as the funding status of a pension plan improves and vice versa. The *Schedule of Funding Progress* also shows the unfunded actuarial accrued liability as a percentage of member payroll. This percentage decreases as a pension plan grows stronger from a funding standpoint.

The *Schedule of Employer Contributions* 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 legal obligation by contributing at the required contribution rates for each of the six years shown in the schedule. The actuary has determined that for the 2004 fiscal year, employers have contributed 95% of the annual required contributions as established by GASB Statement No. 25.

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

A *Schedule of Administrative Expenses* and a *Schedule of Investment Expenses* are included to detail the administrative and investment costs to operate STRS Ohio.

## Investment Allocation and Fiscal Year Performance

For fiscal year 2004, total investments achieved a 17.70% rate of return. The relative benchmark for STRS Ohio returned 16.35%. STRS Ohio generated 135 basis points of additional value compared to the passively managed benchmark. The target allocations at the end of June 2004 were 1% in short-term investments, 23% fixed income, 45% domestic stock, 20% international, 9% real estate and 2% alternative investments. Amounts actually invested in these categories at the end of June represent

either 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 including the year-end allocation.

## Financial Statement Analysis

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

The value of plan net assets increased 14.6% from fiscal year 2003. The value of plan net assets declined less than 1% from fiscal year 2002 to fiscal year 2003. The increase in the balance of plan net assets in fiscal 2004 is a result of improvements in the fair value of investments. Decreases in the amount of securities on loan for fiscal 2004 caused the securities lending collateral, and the offsetting liability for securities lending, to be less.

The value of capital assets has decreased from fiscal 2002 because capital additions have been less than depreciation in fiscal 2004 and 2003.

Total additions to plan net assets increased substantially for the second consecutive year. The 2004 and 2003 positive investment returns contributed to the large percentage increase in plan additions. Investment income increased \$5.2 billion from 2002 and continued to improve by \$7.3 billion from 2003. The total fund return was 17.70% in 2004, 2.32% in 2003, and -8.13% in 2002.

Member contributions increased by 11.72% in 2004 primarily because the member rate increased to 10% from 9.3%, effective July 1, 2003. Member contributions increased by 7.26% in 2003 as salaries increased and members took advantage of more flexible rollover provisions to purchase service credit. The employer rate remained at 14% of earned compensation for 2003 and 2004.

Health care premiums were increased in 2003 and 2004 to help offset some of the increases in health care costs. Of the \$426 million paid to health care providers in 2004, health care enrollees paid 37% of the total costs through premium deductions. Employers paid 22% of the total cost with the 1% allocation from the 14% employer rate. The remain-

<b>Plan Net Assets</b> (dollar amounts in thousands)					
	2004	2003	2002	Amount Increase (Decrease) From 2003 to 2004	Percentage Change From 2003 to 2004
Cash and Investments	\$ 54,685,321	\$ 47,874,292	\$ 47,726,785	\$ 6,811,029	14.23%
Receivables	766,215	662,599	597,638	103,616	15.64%
Securities lending collateral	2,580,147	3,559,733	3,256,401	(979,586)	(27.52%)
Capital assets	133,859	141,971	148,429	(8,112)	(5.71%)
<b>Total net assets</b>	<b>58,165,542</b>	<b>52,238,595</b>	<b>51,729,253</b>	<b>5,926,947</b>	<b>11.35%</b>
Liabilities	3,562,096	4,578,315	3,806,153	(1,016,219)	(22.20%)
<b>Plan net assets</b>	<b>\$ 54,603,446</b>	<b>\$ 47,660,280</b>	<b>\$ 47,923,100</b>	<b>\$ 6,943,166</b>	<b>14.57%</b>

<b>Additions to Plan Net Assets</b> (dollar amounts in thousands)					
	2004	2003	2002	Amount Increase (Decrease) From 2003 to 2004	Percentage Change From 2003 to 2004
<b>Contributions:</b>					
Member contributions	\$ 990,846	\$ 886,931	\$ 826,910	\$ 103,915	11.72%
Employer contributions	1,311,175	1,263,457	1,204,715	47,718	3.78%
Health care premiums	156,970	103,913	79,590	53,057	51.06%
Other	20,777	21,486	19,985	(709)	(3.30%)
<b>Total contributions</b>	<b>2,479,768</b>	<b>2,275,787</b>	<b>2,131,200</b>	<b>203,981</b>	<b>8.96%</b>
Total investment income (loss)	8,167,434	914,558	(4,308,089)	7,252,876	793.05%
<b>Total additions to plan net assets</b>	<b>\$ 10,647,202</b>	<b>\$ 3,190,345</b>	<b>\$ (2,176,889)</b>	<b>\$ 7,456,857</b>	<b>233.73%</b>

<b>Deductions from Plan Net Assets</b> (dollar amounts in thousands)					
	2004	2003	2002	Amount Increase (Decrease) From 2003 to 2004	Percentage Change From 2003 to 2004
<b>Deductions:</b>					
Benefit payments	\$ 3,108,753	\$ 2,845,503	\$ 2,638,953	\$ 263,250	9.25%
Health care coverage	425,709	456,214	434,287	(30,505)	(6.69%)
Refunds to members	102,194	77,529	84,077	24,665	31.81%
Administrative expenses	67,380	73,919	77,069	(6,539)	(8.85%)
<b>Total deductions</b>	<b>\$ 3,704,036</b>	<b>\$ 3,453,165</b>	<b>\$ 3,234,386</b>	<b>\$ 250,871</b>	<b>7.26%</b>



der of health care costs are paid by investment income allocated to the Health Care Stabilization Fund. For 2003, benefit recipients and employers contributed 23% and 19%, respectively.

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

Total deductions from plan net assets were \$3.7 billion for 2004, a 7.3% increase over 2003. Total deductions were \$3.5 billion for 2003, a 6.8% increase over 2002. The largest component was monthly benefit payments for service retirement, disability and survivor benefits. Total benefit payments increased 9.3% in 2004 and 7.8% in 2003 as a result of new retirees and cost-of-living adjustments.

Health care costs decreased in 2004 from 2003 by 6.7%. Increases in copayments by benefit recipients, changes in the prescription drug plan, and reductions in the number of covered individuals reduced the health care costs from 2003. Health care costs increased 5% for 2003. Aforementioned health care program changes slowed the rate of increase in health care costs. Fiscal 2002 health care costs increased 18% from the prior year.

### Funding Analysis

Although investment markets improved in fiscal 2004, the funding period only decreased by .1 years to 42.2 years from 42.3 years. The funding period was 39 years at the end of fiscal 2002. The 2004 actuarial gain from investment returns was offset by other actuarial losses. Retirees living longer and retiring earlier and payroll increases larger than expected during the most recent actuarial analysis have limited the impact of investment market improvements.

The unfunded accrued liability for STRS Ohio pension benefits is \$17.6 billion at July 1, 2004, up from \$17.0 billion at July 1, 2003. Market changes in investment assets are smoothed over a four-year period for valuation purposes. Valuation assets ended 2004 at \$52.2 billion, up from \$48.9 bil-

lion the prior year. The present value of promised benefits to current and future benefit recipients (the actuarial accrued liability) ended 2004 and 2003 at \$69.9 billion and \$65.9 billion, respectively. The resulting funded ratio, which is the valuation assets divided by the actuarial accrued liability, ended 2004 at 74.8%, up from 74.2% at July 1, 2003.

The State Teachers Retirement Board took two actions to improve pension benefits funding. The allocation of employer contributions to pension benefits was increased to 13% from 9.5% of payroll effective July 1, 2002. Secondly, the STRS Ohio member contribution rate was increased to the 10% legal maximum from 9.3%, effective July 1, 2003.

### 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 Street  
Columbus, OH 43215-3771

(This page intentionally left blank.)

**Statements of Plan Net Assets**

(in thousands)

	June 30, 2004				June 30, 2003			
	Defined Benefit	Defined Contribution	Post-employment Health Care	Totals	Defined Benefit	Defined Contribution	Post-employment Health Care	To
<b>Assets:</b>								
Cash & short-term investments	\$ 1,424,723	\$ 10,148	\$ 87,545	\$ 1,522,416	\$ 1,597,632	\$ 6,064	\$ 102,346	\$ 1,706
<b>Receivables:</b>								
Accrued interest & dividends	147,510		9,000	156,510	132,409		6,520	138
Employer contributions	198,779	31	12,130	210,940	192,548	79	12,293	204
Retirement incentive	4,957			4,957	3,903			3
Member contributions	124,965	59		125,024	111,076	151		111
Due from defined contribution plans	6,760			6,760	6,207			6
Securities sold	245,635		14,987	260,622	184,292		11,761	196
Miscellaneous receivables	1,402			1,402	1,360			1
<b>Total receivables</b>	<b>730,008</b>	<b>90</b>	<b>36,117</b>	<b>766,215</b>	<b>631,795</b>	<b>230</b>	<b>30,574</b>	<b>662</b>
<b>Investments, at fair value:</b>								
Fixed income	10,856,262	30,112	664,202	11,550,576	9,065,140	19,919	579,797	9,664
Common and preferred stock	24,128,198	53,922	1,475,407	25,657,527	20,411,444	30,787	1,304,597	21,746
International	9,167,258	8,788	559,852	9,735,898	8,018,822	4,481	512,037	8,535
Real estate	4,700,417	8,729	287,315	4,996,461	4,881,755	4,760	311,851	5,198
Alternative investments	1,152,148		70,295	1,222,443	961,498		61,362	1,022
<b>Total investments</b>	<b>50,004,283</b>	<b>101,551</b>	<b>3,057,071</b>	<b>53,162,905</b>	<b>43,338,659</b>	<b>59,947</b>	<b>2,769,644</b>	<b>46,168</b>
Invested securities lending collateral	2,431,775		148,372	2,580,147	3,346,184		213,549	3,559
Capital assets, at cost, net of accumulated depreciation of \$70,547 and \$61,104, respectively	133,859			133,859	141,971			141
<b>Total assets</b>	<b>54,724,648</b>	<b>111,789</b>	<b>3,329,105</b>	<b>58,165,542</b>	<b>49,056,241</b>	<b>66,241</b>	<b>3,116,113</b>	<b>52,238</b>
<b>Liabilities:</b>								
Securities purchased	451,550		27,550	479,100	528,682		33,740	562
Real estate note payable	376,998		23,002	400,000	329,003		20,997	350
Accrued expenses & other liabilities	52,824		3,223	56,047	49,830		1,199	51
Due to defined benefit plans		6,760		6,760		6,207		6
Medical benefits payable			40,042	40,042			48,924	48
Obligations under securities lending program	2,431,775		148,372	2,580,147	3,346,184		213,549	3,559
<b>Total liabilities</b>	<b>3,313,147</b>	<b>6,760</b>	<b>242,189</b>	<b>3,562,096</b>	<b>4,253,699</b>	<b>6,207</b>	<b>318,409</b>	<b>4,578</b>
<b>Net assets held in trust for defined benefit, defined contribution and post-employment health care coverage:</b>								
(A unaudited schedule of funding progress is presented on Page 28.)								
	<b>\$ 51,411,501</b>	<b>\$ 105,029</b>	<b>\$ 3,086,916</b>	<b>\$ 54,603,446</b>	<b>\$ 44,802,542</b>	<b>\$ 60,034</b>	<b>\$ 2,797,704</b>	<b>\$ 47,660</b>

See accompanying Notes to Financial Statements.

## Statements of Changes in Plan Net Assets

(in thousands)

	Year Ending June 30, 2004				Year Ending June 30, 2003			
	Defined Benefit	Defined Contribution	Post- employment Health Care	Totals	Defined Benefit	Defined Contribution	Post- employment Health Care	Totals
<b>Contributions</b>								
Member	\$ 967,234	\$ 23,612		\$ 990,846	\$ 868,157	\$ 18,774		\$ 886,931
Employer	1,206,439	13,147	\$ 91,589	1,311,175	1,164,734	10,136	\$ 88,587	1,263,457
Retirement incentive	10,606			10,606	11,679			11,679
Benefit recipient health care premiums			156,970	156,970			103,913	103,913
Other retirement systems	10,171			10,171	9,807			9,807
<b>Total contributions</b>	<b>2,194,450</b>	<b>36,759</b>	<b>248,559</b>	<b>2,479,768</b>	<b>2,054,377</b>	<b>28,910</b>	<b>192,500</b>	<b>2,275,787</b>
<b>Net income (loss) from investing activities:</b>								
Net appreciation (depreciation)								
In fair value of investments	6,356,392	11,723	388,942	6,757,057	(413,236)	2,655	(26,170)	(436,751)
Interest	522,179	67	31,897	554,143	512,276	56	32,655	544,987
Dividends	514,609		31,431	546,040	449,783		28,669	478,452
Real estate income	300,754		18,369	319,123	316,822		20,194	337,016
Less investment expenses	7,693,934	11,790	470,639	8,176,363	865,645	2,711	55,348	923,704
	(22,403)	(49)	(1,371)	(23,823)	(23,017)	(34)	(1,469)	(24,520)
<b>Net income (loss) from investing activities</b>	<b>7,671,531</b>	<b>11,741</b>	<b>469,268</b>	<b>8,152,540</b>	<b>842,628</b>	<b>2,677</b>	<b>53,879</b>	<b>899,184</b>
<b>Securities lending activities</b>								
Securities lending income	35,795		2,186	37,981	57,814		3,685	61,499
Securities lending expenses	(21,758)		(1,329)	(23,087)	(43,361)		(2,764)	(46,125)
<b>Net income from securities lending activities</b>	<b>14,037</b>		<b>857</b>	<b>14,894</b>	<b>14,453</b>		<b>921</b>	<b>15,374</b>
<b>Net investment income (loss)</b>	<b>7,685,568</b>	<b>11,741</b>	<b>470,125</b>	<b>8,167,434</b>	<b>857,081</b>	<b>2,677</b>	<b>54,800</b>	<b>914,558</b>
<b>Total additions</b>	<b>9,880,018</b>	<b>48,500</b>	<b>718,684</b>	<b>10,647,202</b>	<b>2,911,458</b>	<b>31,587</b>	<b>247,300</b>	<b>3,190,345</b>
<b>Deductions</b>								
<b>Benefits:</b>								
Service retirement	2,840,334			2,840,334	2,588,800			2,588,800
Disability retirement	182,889			182,889	175,620			175,620
Survivor benefits	77,089			77,089	73,680			73,680
Health care			425,709	425,709			456,214	456,214
Other retirement systems	8,331			8,331	7,333			7,333
Additional death benefits (net)	110			110	70			70
<b>Total benefit payments</b>	<b>3,108,753</b>		<b>425,709</b>	<b>3,534,462</b>	<b>2,845,503</b>		<b>456,214</b>	<b>3,301,717</b>
<b>Funds to members who have withdrawn</b>								
Administrative expenses	99,538	2,656		102,194	76,453	1,076		77,529
	62,768	849	3,763	67,380	69,085	931	3,903	73,919
<b>Total deductions</b>	<b>3,271,059</b>	<b>3,505</b>	<b>429,472</b>	<b>3,704,036</b>	<b>2,991,041</b>	<b>2,007</b>	<b>460,117</b>	<b>3,453,165</b>
<b>Net increase (decrease)</b>	<b>6,608,959</b>	<b>44,995</b>	<b>289,212</b>	<b>6,943,166</b>	<b>(79,583)</b>	<b>29,580</b>	<b>(212,817)</b>	<b>(262,820)</b>
<b>Assets held in trust for defined benefit, defined contribution and post-employment health care coverage:</b>								
Beginning of year	44,802,542	60,034	2,797,704	47,660,280	44,882,125	30,454	3,010,521	47,923,100
<b>End of year</b>	<b>\$ 51,411,501</b>	<b>\$ 105,029</b>	<b>\$ 3,086,916</b>	<b>\$ 54,603,446</b>	<b>\$ 44,802,542</b>	<b>\$ 60,034</b>	<b>\$ 2,797,704</b>	<b>\$ 47,660,280</b>

## 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 by Chapter 3307 of the Ohio Revised Code (Revised Code) and is administered by a board comprised of five active teacher members, one retired teacher and three voting ex officio members.

Under Amended Substitute Senate Bill 133, which went into effect on Sept. 15, 2004, the composition of the Retirement Board increases to 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 her designated investment expert.

The accompanying financial statements comply with the provisions of the Governmental Accounting Standards Board (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 is 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 recorded in the period the related member salaries are earned. 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.

### **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.

**Reclassifications** – Certain 2003 balances have been reclassified to conform to the current-year presentation.

### **Recently Issued Accounting**

**Pronouncements** – In March 2003, the GASB issued Statement No. 40, *Deposit and Investment Risk Disclosures – an amendment of GASB Statement No. 3*. This statement addresses common deposit and investment risks related to credit risk, concentration of credit risk, interest rate risk and foreign currency risk. The provisions of this statement are effective for financial statements for periods beginning after June 15, 2004.

In April 2004, the GASB issued Statement No. 43, *Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans*. This statement establishes uniform financial reporting standards

for post-employment benefits other than pension plans and supersedes the interim guidance included in Statement No. 26, *Financial Reporting for Post-Employment Health Care Plans Administered by Defined Benefit Plans*. The provisions of this statement are effective in financial statements for periods beginning after Dec. 15, 2005.

STRS Ohio has not yet determined the impact that the two new GASB statements will have on the financial statements.

## 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.

**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 and a Combined Plan. The DC Plan allows members to allocate all their member contributions and employer contributions equal to 10.5% of earned compensation. The Combined Plan offers features of the DC Plan and the DB Plan. In the Combined Plan, member contributions are allocated 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 (i) five years of service credit and attained age 60, (ii) 25 years of service credit and attained age 55, or (iii) 30 years of service credit regardless of age.

### Member and Retiree Data at July 1, 2004 and 2003

	2004	2003
Current active members	179,063	179,944
Inactive members eligible for refunds only	116,738	113,588
Terminated members entitled to receive a benefit in the future	17,763	18,012
Retirees and beneficiaries currently receiving a benefit	111,853	108,294
Defined Contribution Plan members	4,531	3,660
Reemployed retirees	17,929	16,933
<b>Total Plan Membership</b>	<b>447,877</b>	<b>440,431</b>

### Participating Employers at June 30, 2004 and 2003

	2004	2003
City school districts	194	194
Local school districts	369	369
County educational service centers	60	60
Exempted village school districts	49	49
Joint vocational schools	49	49
Colleges and universities	37	37
County boards of mental retardation and developmental disabilities	76	76
Community schools	142	130
State of Ohio	1	1
Other	8	7
<b>Total</b>	<b>985</b>	<b>972</b>

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 is multiplied by 2.5%, and each year over 31 years is incrementally increased by .1% starting at 2.6%

for the 32nd year. Members retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit amounts.

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

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

A retiree of STRS Ohio or another Ohio public retirement system is eligible for reemployment as a teacher following the elapse of two months from the date of retirement. Contributions are made by the reemployed member and employer during the reemployment. Upon termination of reemployment or age 65, whichever comes later, the retiree is eligible for a money-purchase benefit or a lump-sum payment in addition to the original retirement allowance.

**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 options. 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 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 will transfer to the Defined Benefit Plan during their fifth year of membership unless they permanently select the DC or Combined 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 normal job duties for at least 12 months) is entitled to a disability benefit. Additionally, eligible survivors of members who die prior to 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 provide access to health care coverage to retirees who participated in the Defined Benefit or Combined Plans and their dependents.

Coverage under the current program includes hospitalization, physicians' fees, prescription drugs and reimbursement of monthly Medicare Part B premiums. Pursuant to the 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 pay a portion of the health care cost in the form of a monthly premium.

Under Ohio law, medical costs paid from the funds of the plan are included in the employer contribu-

tion rate, currently 14% of compensation. Of the 14% employer contribution rate, 1% of covered payroll was allocated to post-employment health care.

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.

**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 and 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 hired after the ARP is established 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, 2004, the ARP participant payroll totaled \$267,342,000 and there were 6,730 participants. For the year ended June 30, 2003, the ARP participant payroll totaled \$238,146,000, and there were 5,956 participants.

### 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 employer rate is limited to 14% and the member rate is limited to 10% of covered payroll. The employer and member contribution rates for the year ended June 30, 2003, were 14% and 9.3%, respectively. Effective July 1, 2003, the member rate increased to the legal maximum of 10%.

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.

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, 2004 and 2003, plan net assets were included in the various funds as shown below:

Fund Balances (in thousands)		
	June 30, 2004	June 30, 2003
Teachers' Savings Fund	\$ 8,600,068	\$ 8,155,685
Employers' Trust Fund	8,337,784	4,466,355
Annuity and Pension Reserve Fund	36,753,700	34,205,217
Survivors' Benefit Fund	806,865	772,989
Defined Contribution Fund	105,029	60,034
<b>Total</b>	<b>\$ 54,603,446</b>	<b>\$ 47,660,280</b>

#### 4. Commitments and Contingencies

STRS Ohio has made commitments to fund various real estate investments totaling approximately \$248,207,640 as of June 30, 2004. The commitments as of June 30, 2004, have expected funding dates from November 2004 to November 2006.

STRS Ohio has made commitments to fund various alternative investments totaling approximately \$1,274,889,983 as of June 30, 2004. The average expected funding dates for the commitments as of June 30, 2004, range from July 2004 to June 2010.

STRS Ohio is a party in various lawsuits. 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. Cash and Investments

**GASB Statement No. 3** – Statement No. 3 of the Governmental Accounting Standards Board requires governmental entities to categorize investments as an indication of the level of risk at fiscal year-end. Category 1 includes investments that are insured or registered or for which the securities are held by STRS Ohio or its agent in the name of STRS Ohio. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the name of STRS Ohio. Category 3 includes uninsured

and unregistered investments for which the securities are held by the counterparty in STRS Ohio's name or held by the counterparty's trust department or agent but not in STRS Ohio's name.

All investments subject to categorization at June 30, 2004 and 2003, meet the criteria of Category 1. Investments are held in the name of STRS Ohio or its nominee by the Treasurer of the State of Ohio as custodian. Real estate investments, alternative investments and securities on loan are investments that, by their nature, are not required to be categorized.

At June 30, 2004 and 2003, the carrying amounts of STRS Ohio cash deposits were approximately \$25,461,000 and \$7,361,000 and the bank cash balances were approximately \$33,411,000 and \$14,524,000, respectively. Of the bank balances, \$100,000 was insured by the Federal Deposit Insurance Corporation. The remaining bank balance was covered by collateral held in the name of STRS Ohio's pledging financial institution, as required by state statute (Category 3).

**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. It further provides that the Retirement Board may invest in bonds, notes, certificates of indebtedness, mortgage notes, real estate, stocks and debentures with certain restrictions as to the nature and quality of the investment and composition of the investment portfolio.

Investments held at fair value by STRS Ohio at June 30, 2004 and 2003, are summarized in the chart on Page 24.

**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 loaned securities' fair value and 105% of the international loaned securities' fair value.

**Investments Held at Fair Value by STRS Ohio  
 at June 30, 2004 and 2003**  
 (summarized and in thousands)

Category	June 30, 2004	June 30, 2003
<b>Short-term:</b>		
Commercial paper	\$ 1,445,955	\$ 1,650,081
Government notes		10,000
Short-term investment funds	51,000	38,600
<b>Total short term</b>	<b>1,496,955</b>	<b>1,698,681</b>
<b>Fixed Income:</b>		
Guaranteed mortgages	3,238,005	2,604,577
U.S. government/agencies:		
Not on securities loan	1,915,391	267,446
On securities loan	822,190	1,455,001
Corporate bonds:		
Not on securities loan	4,343,509	4,109,920
On securities loan	150,588	213,160
Canadian bonds	40,769	43,582
Supernationals	61,077	64,429
High yield and emerging market:		
Not on securities loan	898,909	830,200
On securities loan	80,138	76,541
<b>Total fixed income</b>	<b>11,550,576</b>	<b>9,664,856</b>
<b>Common and preferred stock:</b>		
Not on securities loan	24,858,566	20,741,416
On securities loan	798,961	1,005,412
<b>Total common and preferred stock</b>	<b>25,657,527</b>	<b>21,746,828</b>
<b>International: (See Note 6)</b>		
Not on securities loan	9,083,309	7,836,488
On securities loan	652,589	698,852
<b>Total international</b>	<b>9,735,898</b>	<b>8,535,340</b>
<b>Real estate: (See Note 7)</b>		
East region	824,750	971,298
Midwest region	481,933	540,500
South region	848,058	920,412
West region	1,026,384	1,126,215
REITs	363,273	337,842
Other	1,452,063	1,302,099
<b>Total real estate</b>	<b>4,996,461</b>	<b>5,198,366</b>
<b>Alternative investments: (See Note 8)</b>	<b>1,222,443</b>	<b>1,022,860</b>
<b>Invested securities lending collateral</b>	<b>2,580,147</b>	<b>3,559,733</b>
<b>Total investments and invested securities lending collateral</b>	<b>\$ 57,240,007</b>	<b>\$ 51,426,664</b>

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

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

The credit quality of the invested cash collateral is the same as the credit quality on STRS Ohio direct holdings. There are slight mismatches between the duration of the cash invested and the length of time the securities are on loan. As of June 30, 2004, the average maturity of the invested cash collateral is 281 days. Because much of the cash collateral is invested in floating rate securities, interest rates are reset every 29 days on average as of June 30, 2004. 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 \$2,504,466,000 and \$3,448,966,000 as of June 30, 2004 and 2003, respectively. The fair value of the associated collateral received as of June 30, 2004 and 2003, was approximately \$2,580,147,000 and \$3,559,733,000, respectively.

**Fair Values of International Investments**  
Held at June 30, 2004 and 2003 (in thousands)

	June 30, 2004	June 30, 2003
<b>Externally managed</b>		
International stocks	\$ 5,046,536	\$ 4,321,409
International fixed income	74,282	59,168
International currency and liquidity reserves	116,309	188,248
Forward contracts	(6,799)	15,889
<b>Total externally managed</b>	<b>5,230,328</b>	<b>4,584,714</b>
<b>Internally managed</b>		
Emerging stock and country funds	752,788	985,112
EAFE Index Fund	1,486,420	1,169,872
EAFE stock	2,143,629	1,608,506
EAFE equity swaps	124,905	186,549
EMF equity swaps	(2,172)	587
<b>Total Internally managed</b>	<b>4,505,570</b>	<b>3,950,626</b>
<b>Total International</b>	<b>\$ 9,735,898</b>	<b>\$ 8,535,340</b>

## 6. International Investments

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

### Internally Managed:

**Emerging Stock, Country Funds and EAFE Stock** – STRS Ohio actively invests in developed and emerging markets through individual stock selection 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, Australasia 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** – Five EAFE and six Emerging Market Free (EMF) international equity swap agreements were contracted during fiscal 2004 with maturity dates in fiscal 2005. In exchange for a negotiated LIBOR (London Interbank Offered Rate), STRS Ohio will receive dividends on a quarterly basis. At maturity, STRS Ohio will receive or pay the difference in the change in the various market indices included in the swap agreement. Fixed-income securities with an initial notional amount of \$1.60 billion have been set aside at the Bank of New York as security.

The fair values of international investments held at June 30, 2004 and 2003, are shown in the chart to the left.

## 7. Real Estate Investments

**General** – STRS Ohio properties are geographically distributed throughout the United States. Real estate investments include retail single-tenant stores and malls, single and multitenant office properties and warehouses, apartments, REITs and other.

**REITs** – Real estate investment trusts (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 95% of the company's taxable income to their shareholders. 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 farmland, timberland and opportunity funds that are externally managed. Farmland investments generate income primarily as a result of harvest proceeds. Income is generated from the sale of timber on timberland investments. Finally, opportunity funds generate income as a result of operations and property sales, which are distributed to the investors.

**Real Estate Note Payable and Interest Rate Swap** – During fiscal 2004, STRS Ohio borrowed \$400 million, collateralized by general real estate assets. The note has a two-year term with two one-year options to extend the loan agreement. Also during fiscal 2004, STRS Ohio entered into a two-year interest rate swap agreement to effectively

convert the variable rate note to a fixed rate loan. The 90-day LIBOR variable rate was swapped for a fixed rate of 3.31%.

## 8. Alternative Investments

Alternative investments are primarily investments in private equities, which include venture and buyout/growth opportunities. STRS Ohio invests as a limited partner in closed-end partnerships along with other pension funds, endowments and high-net-worth individuals. Individual alternative investments tend to be limited to a particular industry to take advantage of the general partner's knowledge and skill.

## 9. Derivatives

**Equity Swap Agreements** — As discussed in Note 6, STRS Ohio has entered into international equity swap agreements. No funds are required as collateral by either party; however, STRS Ohio has purchased fixed-income securities equivalent to the initial exposure, which are located in a subcustodial account at the Bank of New York. The initial notional amount of the fixed-income securities is \$1.60 billion. 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. See Note 6 for the related equity swap fair values as of June 30, 2004 and 2003.

**Forward Contracts** — Forward contracts in various currencies were used to transact and hedge direct foreign equity investments that STRS Ohio maintains through the use of outside managers. Additionally, forward contracts were used to hedge currency exposure as a result of the EAFE and EMF 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. STRS Ohio is also subject to the risk that

the counterparty will fail to fulfill the contract. The external money managers hedged \$1.3 billion and \$1.4 billion of currency exposure in various currencies with varying maturities as of June 30, 2004 and 2003, respectively. At June 30, 2004, STRS Ohio hedged \$2.8 billion of currency exposure on the internally managed international investments. At June 30, 2003, STRS Ohio hedged \$2.3 billion of currency exposure on the internally managed international investments.

**Futures** — STRS Ohio had investments in S&P 500 Index 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. From July 2003 to June 2004, S&P futures notional amounts ranged from \$2.7 million to \$5.8 million. From July 2002 to June 2003, the fair value of underlying securities of S&P futures contracts ranged from \$60.3 million to \$1.3 billion. Approximately \$4.6 million was invested in S&P 500 futures at June 30, 2004. There were no outstanding S&P futures contracts at June 30, 2003.

Additionally, futures were used in the EAFE Index Fund. Of the total EAFE Index Fund holdings, \$22.6 million and \$13.2 million was invested in futures at June 30, 2004 and 2003, respectively. External money managers also used futures. Approximately \$25.8 million and \$66.3 million of external money managers' holdings were invested in futures at June 30, 2004 and 2003, respectively.

**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. There were no open option contracts as of June 30, 2004 or 2003.

**Fixed-Income Credit Default Swaps** — STRS Ohio had investments in credit default swaps during the year. The credit default swaps held by STRS Ohio are derivative instruments constructed to replicate the effect of investing in debt obligations of corporate bond issuers. Credit default swaps are used to manage corporate bond exposure. Fixed-

income collateral is allocated to equal the notional value of the contracts. The risk of the credit default swaps and paired collateral is comparable to the underlying debt obligations of corporate issuers that comprise the credit default swaps. STRS Ohio receives fixed premium payments on a quarterly basis in exchange for assuming the credit risk of the bond from the bond holder. At June 30, 2004, the notional value of the credit default swaps held in the STRS Ohio fixed-income portfolio was \$310 million at par. There were no credit default swaps held by STRS Ohio at June 30, 2003.

### 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.

Employees covered by OPERS are required by Ohio law to contribute 8.5% of their salary to the plan. STRS Ohio is required by the same statute to contribute 13.55% of covered payroll; 8.55% is the portion used to fund pension obligations, with the remainder used to fund the health care program for retirees. The required employer contributions for the current year and the two preceding years are shown at the top of this page.

#### STRS Ohio Required Employer Contributions to OPERS

Year Ended June 30	Annual Required Contributions	Percentage Contributed
2004	\$ 5,543,000	100%
2003	\$ 6,073,000	100%
2002	\$ 6,030,000	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, Ohio 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. 12. 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. For calendar years 2003 and 2002, 5.00% was the portion of the employer rate that was used to fund health care for those years.

OPERS expenditures for OPEB during 2003 were \$907,769,000.

**Required Schedule of Funding Progress**  
For the Years Ending June 30, 1999–2004 (dollar amounts in thousands)

Valuation Year	Actuarial Accrued Liability (AAL)*	Valuation Assets*	Unfunded Actuarial Accrued Liability (UAAL)*	Ratio of Assets to AAL	Covered Payroll**	UAAL as % of Covered Payroll
2004	\$ 69,867,425	\$ 52,253,798	\$ 17,613,627	74.8%	\$ 9,565,978	184%
2003	65,936,357	48,899,215	17,037,142	74.2%	9,206,086	185%
2002	63,215,643	48,958,824	14,256,819	77.4%	8,747,101	163%
2001	59,425,300	54,194,672	5,230,628	91.2%	8,256,683	63%
2000	55,774,052	51,293,815	4,480,237	92.0%	7,845,021	57%
1999	51,979,974	46,341,436	5,638,538	89.2%	7,444,243	76%

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

\*\*Covered payroll includes salaries for alternative retirement plan participants and defined contribution plan participants. For 2004 and 2003, alternative retirement plan participant payroll totaled \$267,342 and \$238,146, respectively. For 2004 and 2003, defined contribution plan payroll totaled \$137,610 and \$106,713, respectively.

**Required Schedule of Employer Contributions**  
For the Years Ending June 30, 1999–2004 (dollar amounts in thousands)

Year Ended June 30	Annual Required Contributions*	Percentage Contributed
2004	\$ 1,270,388	95%
2003	1,163,732	100%
2002	814,647	100%
2001	777,416	100%
2000	470,343	100%
1999	446,655	100%

\*The amounts reported in this schedule do not include contributions for post-employment health care coverage. The Government Accounting Standards Board (GASB) requires disclosure of the Annual Required Contributions (ARC) using a maximum amortization period of 40 years. 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.

**Notes to the Trend Data**

Valuation date	July 1, 2004	July 1, 2003
Actuarial cost method	Entry age	Entry age
Amortization method	Level percent open	Level percent open
Remaining amortization period (for GASB disclosure)	40.0 years	40.0 years
Asset valuation method	4-year smoothed market with 91%/109% corridor	4-year smoothed market with 91%/109% corridor
<b>Actuarial assumptions:</b>		
Investment rate of return	8.00%	8.00%
Projected salary increases	10.45% at age 20 to 3.85% at age 65	10.45% at age 20 to 3.85% at age 65
Inflation assumption	3.50%	3.50%
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.

**Schedules of Administrative Expenses  
For the Years Ending June 30, 2004 and 2003**

	2004	2003
<b>Personnel</b>		
Salaries and wages	\$ 28,731,933	\$ 31,430,974
Retirement contributions	3,895,554	4,148,664
Benefits	4,190,891	3,914,906
<b>Total personnel</b>	<b>36,818,378</b>	<b>39,494,544</b>
<b>Professional and technical services</b>		
Computer support services	6,491,279	7,775,333
Health care services	1,339,565	1,334,514
Actuary	548,675	651,737
Auditing	100,504	58,713
Defined contribution administrative fees	1,006,874	552,848
Legal	347,899	161,123
Temporary employment services	56,353	83,509
<b>Total professional and technical services</b>	<b>9,891,149</b>	<b>10,617,777</b>
<b>Communications</b>		
Postage and courier services	1,362,914	1,833,467
Printing and supplies	1,880,339	2,529,703
Telephone	657,992	777,349
<b>Total communications</b>	<b>3,901,245</b>	<b>5,140,519</b>
<b>Other expenses</b>		
Equipment repairs and maintenance	4,013,505	3,267,356
Building utilities and maintenance	1,186,083	1,525,896
Transportation and travel	255,184	484,894
Recruitment fees	15,145	43,941
Equipment rental	16,037	1,575,683
Depreciation	9,516,175	9,937,462
Member and staff education	195,669	313,849
Insurance	800,453	594,032
Memberships and subscriptions	161,630	163,767
Retirement study commission	317,818	242,353
Miscellaneous	291,056	516,593
<b>Total other expenses</b>	<b>16,766,755</b>	<b>18,665,826</b>
<b>Total administrative expenses</b>	<b>\$ 67,379,527</b>	<b>\$ 73,918,666</b>

Note: Above amounts do not include investment administrative expenses, which are deducted from investment income.

See accompanying independent auditors' report.

**Schedules of Investment Expenses  
 For the Years Ending June 30, 2004 and 2003**

	2004	2003
<b>Personnel</b>		
Salaries and wages	\$ 13,237,624	\$ 14,595,168
Retirement contributions	1,647,044	1,923,899
Benefits	928,881	1,357,896
<b>Total personnel</b>	<b>15,813,549</b>	<b>17,876,963</b>
<b>Professional and technical services</b>		
Legal	79,089	45,755
Investment research	442,747	462,694
Real estate and international advisors	524,746	524,655
Investment advisors	377,497	356,194
Banking fees	5,775,337	4,196,532
<b>Total professional and technical services</b>	<b>7,199,416</b>	<b>5,585,830</b>
<b>Other expenses</b>		
Printing and supplies	23,621	27,118
Building utilities and maintenance	256,475	349,675
Travel	311,751	389,699
Equipment rental	96,486	126,944
Memberships and subscriptions	109,139	117,167
Miscellaneous	12,324	46,998
<b>Total other expenses</b>	<b>809,796</b>	<b>1,057,601</b>
<b>Total investment expenses</b>	<b>\$ 23,822,761</b>	<b>\$ 24,520,394</b>

See accompanying independent auditors' report.



## Investment Review

For Fiscal Year July 1, 2003, through June 30, 2004  
Prepared by STRS Ohio's Investments Associates

### **Business spending took the baton from consumer spending as the economy and inflation heated up**

In the July 1, 2003–June 30, 2004 fiscal year, the U.S. economy continued to bear a strong resemblance to the early 1990s recovery that led to an historic 10-year expansion. Each expansion began with a strong rebound in economic growth, though few new jobs were created. Each expansion also witnessed low and largely contained inflation. Moreover, each expansion was surrounded by a great deal of doubt about its sustainability.

Like 10 years ago, there are now signs that today's economy will continue to grow from solid demand of both businesses and consumers, that strong job growth will occur, and that inflation pressures will build even as actual inflation moves only modestly higher. As with that earlier period, the Federal Reserve will have to remove an extraordinary amount of monetary policy stimulus, though it will likely continue to be at a gradual pace as opposed to the abrupt one seen in 1994–1995. Furthermore, the global economy is in much better shape than a few years ago, allowing the United States to be one of a number of growth engines to keep global activity moving forward. However, even as they move short-term interest rates higher, central banks will largely continue to provide stimulative monetary policy to fight any remaining threat of deflation and ensure a sustainable expansion.

U.S. economic growth moved well above its roughly 3.25% longer-term trend for the first time in four years during fiscal 2004 when it grew a robust 4.8%. Consumption growth remained solid for most of the year as stimulative monetary and fiscal policy continued to provide a favorable environment for sturdy consumer spending. Historically low mortgage rates persisted for yet another year, adding stable footing for sustained strength in residential investment. In addition, robust corporate profit growth and improved business confidence lured the corporate sector to the spending party.

As a result, business investment in capital equipment surprised to the upside, adding the final piece to the puzzle and officially pushing the economic cycle from recovery to full-blown expansion.

Fiscal 2004 jumped out of the gate with the first quarter posting the highest annualized Gross Domestic Product (GDP) growth rate in nearly 20 years. However, tax refund checks boosted consumer spending that accounted for the lion's share of the strength. Though the stock market continued to post solid gains, there were still questions about both corporate spending and fears of deflation. In addition, by the end of the fiscal first quarter, the bulk of the tax stimulus had passed and the labor market remained extremely weak.

October approached and consumer spending slowed from its torrid growth rate. As a result, worries about labor market weakness leading to a downturn in consumer spending intensified. Business activity had improved, but not enough to restore broad confidence that the recovery was safe. By December, however, it was evident that business spending had returned as investment in capital equipment grew at the highest year-over-year rate since the first quarter of fiscal 2000. Furthermore, though fiscal stimulus and mortgage cash-out refinancing dollars were shrinking, consumers – aided by generous discounts – recovered by Christmas and posted respectable spending in the fiscal year's second quarter.

Deflation concerns dissipated as the Federal Reserve vowed to keep monetary policy accommodative for a considerable period to stimulate demand. The economy was clearly advancing in the first half of fiscal 2004, but continued weak labor market reports left behind doubts that an economic expansion was sustainable.

January brought continued business spending strength and anecdotal evidence of labor market improvement. However, government payroll data remained extremely disappointing. This intensified

investors' concerns and more questions surfaced about the future condition of consumer spending. These questions were answered with the March and April payroll employment reports. A total of 677,000 jobs were added during the two months and the unemployment rate dipped to 5.6%, leaving no doubt that the economic expansion was alive and gaining steam.

At the end of the fiscal year, a soft spot developed in consumer spending — real personal consumption grew only 1.6% in the final quarter of the year. Much of the weakness came from a steep drop in auto sales during June, but a turnaround appeared to develop early in fiscal 2005. With continuing signs that business conditions were still soaring, the disappointing end to the fiscal year was likely a short-term event.

For much of fiscal 2004, inflation remained well contained — outside of energy prices — to the point that deflation fears developed early in the year. Consumer prices dropped to as low as a 1.7% year-over-year growth rate in March, while core consumer prices (which exclude food and energy costs) bottomed out near 1% in December. As a result, pricing power remained elusive for businesses for much of the fiscal year and the Federal Reserve shifted into deflation watch.

By January, extremely easy monetary and fiscal policy had finally worked, triggering enough consumer and business demand to drive core consumer prices marginally higher. Inflation indicators continued to move higher during the remainder of the fiscal year, squashing any remaining fears of deflation. By the end of the fiscal year, consumer prices were growing by 3.2% — up from 2.1% during fiscal 2003 — while core consumer prices were advancing by 1.8% — up from 1.5% in the prior fiscal year.

To answer these growing inflation pressures, the Federal Reserve raised short-term interest rates by 1/4 of a percentage point on the last day of the fiscal year. The central bank has indicated it would pursue a gradual tightening campaign for monetary policy to get interest rates back in line with economic fundamentals. Nonetheless, with historically low interest rates for 2-1/2 years, it will take some time before the Federal Reserve

attains a neutral stance, let alone a restrictive stance, toward monetary policy.

Following is a summary of how these economic forces affected different asset classes during the 2003-2004 fiscal year.

### **An improving economy led to low returns for the bond market**

During the fiscal year, the Federal Reserve maintained a highly accommodative monetary policy to support economic growth and avoid deflation. Late in the fiscal year, investors began to anticipate a change in this policy. Subsequently, long-term interest rates increased. The 10-year Treasury yield climbed from 3.5% at the beginning of the fiscal year to end the year at 4.6%. Since bond prices decline when interest rates rise, total returns were less than coupon income. That resulted in only modestly positive bond returns in fiscal 2004.

The Federal Funds Rate, the key rate indicator for money markets and one controlled by the Federal Reserve, was steady at 1% for the entire fiscal year until June 30. During the last quarter of the fiscal year, yields on U.S. government and agency notes ticked slightly upward in anticipation of the June 30 Federal Funds Rate increase. Short-term money market investments, such as U.S. Treasury bills and commercial paper, produced yields that closely matched the 1% Federal Funds Rate.

The STRS Ohio fixed-income portfolio returned 1.50% versus the benchmark's return of 1.01%. Over the three prior fiscal years, the STRS Ohio fixed-income portfolio returned an annual average of 7.33% versus the benchmark's return of 6.65%. The STRS Ohio performance over the prior five fiscal years was 7.75% versus the benchmark's 7.05%. A more complete report of STRS Ohio performance appears on Page 45.

### **Domestic equities soared as the economy rebounded**

The past fiscal year was a tale told in two chapters. The first half of the year witnessed the continuation of the rally that started in March

2003. All major indexes trended upward with the strongest move coming in the NASDAQ Composite. Since January 2004, however, the overall market moved sideways while the technology-heavy NASDAQ trended downward.

For the entire fiscal year, the S&P 500 and NASDAQ Composite generated returns in excess of 18% and 25%, respectively. The first blush of economic recovery, along with 20% year-over-year earnings gains, is behind us. Going forward, firms with good business models that can execute well in a solid, but not booming, economic environment will be the leaders. Conversely, firms that disappoint high expectations will be punished in the market.

The STRS Ohio domestic equities portfolio returned 20.04%, below the benchmark return of 20.38%. Over the past three years, the STRS Ohio domestic equities portfolio returned an annual average of -0.26% versus the benchmark's 0.23%. The STRS Ohio performance over the past five fiscal years was -1.50% versus the benchmark's -1.03%. A more complete report of STRS Ohio performance appears on Page 45.

### **International equity markets also rose with the improving global economy**

Equity markets were strong around the world in the fiscal year. The developed markets, represented by the Morgan Stanley Capital International (MSCI) World ex US Index rose a stunning 26.8%. The primary cause for the strong upturn in international markets was the strength of the economic recovery around the world. When combined with accommodative monetary policies, the result was exceptional returns in every market. Corporate profits remained strong in most markets.

The returns in the international markets were the strongest in years with every market but one (Finland) being up in excess of 25%: Austria rose 60%, Norway was up 59.4%, Sweden grew 53.2% and Japan was up 46.4%. Currency played a major role in returns for fiscal 2004 as the euro appreciated

a further 6% and the yen 10% against the dollar, giving a strong tailwind to U.S.-dollar-based investors.

The STRS Ohio international portfolio returned 29.25% during the fiscal year, outpacing its benchmark that grew 28.56%. The STRS Ohio international portfolio returned an annual average of 4.27% versus the benchmark's return of 2.18% over the past three fiscal years. Over the past five fiscal years, the portfolio returned an annual average of 2.11% versus the benchmark's return of -0.11%. A more complete report of STRS Ohio performance appears on Page 45.

### **Real estate and REITs produced strong returns**

Over the past fiscal year, Real Estate Investment Trusts (REITs) continued to benefit from the overall market uncertainty and investors' desire for yield. This resulted in continued strong flow of funds into REIT securities, though there was a pullback in the rate of fund flows late in the fiscal year.

For the 12 months ending June 30, 2004, an estimated \$6 billion of new capital was invested in REIT mutual funds. That was more than twice the amount added in each of the prior two years. While real estate fundamentals were still weak over the past fiscal year, the tremendous amount of capital flowing into REITs significantly outweighed effects of negative fundamentals. That resulted in surprisingly strong returns for the fiscal year.

The relative attractiveness of real estate and REITs compared to other investment opportunities came from the smoother, more predictable operating fundamentals and, therefore, more predictable earnings.

The STRS Ohio's real estate portfolio soared by 17.66% during the fiscal year, considerably outperforming the 12.24% return of its benchmark. Over the past three fiscal years, the STRS Ohio real estate portfolio returned an annual average of 9.11% versus the benchmark's return

of 8.18%. The STRS Ohio portfolio performance over the past five fiscal years was 10.41% versus the benchmark return of 9.35%. A more complete report of STRS Ohio performance appears on Page 45.

### **Total fund returns outperformed benchmark returns in fiscal 2004**

During fiscal 2004, the STRS Ohio fund returned 17.70% versus the benchmark's (hybrid index of industry benchmarks) return of 16.35%. The improving economy led to gains in all the asset classes. Over the three prior fiscal years, the STRS Ohio fund returned an annual average of 3.43% versus the benchmark's return of 3.25%. The STRS Ohio fund performance over the prior five fiscal years was 2.74% versus the benchmark's 2.42%. The strong performance in fiscal 2004 was the first year since 2000 that the fund's total return exceeded the absolute long-term return goal – currently at 8% – for STRS Ohio investments. The total return on STRS Ohio investment assets over the preceding five fiscal years exceeded the rate of inflation, as measured by the GDP deflator, by 0.68 percentage point.

## Statement of Investment Objectives and Policy

Effective Jan. 16, 2004

### 1.0 Purpose

- 1.1 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 regular meetings, policies, objectives, or criteria for the operation of the investment program . . ." (ORC Section 3307.15).
- 1.2 To fulfill the statutory requirement of ORC Section 3307.15, the Board has adopted this Statement of Investment Objectives and Policy (the "Statement") to govern the investment of the Fund. This Statement summarizes the objectives and policies for the investment of the Fund.
- 1.3 The Board has approved these objectives and policies after careful consideration of STRS Ohio benefit provisions, and the implications of alternative objectives and policies.
- 1.4 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; Ohio General Assembly and Governor; and agents engaged by the Board to manage and administer the Fund.
- 1.5 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.
- 1.6 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.
- 1.7 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.
- 1.8 The Board acknowledges its responsibilities under ORC Chapter 3307 and to the extent that this Statement is inconsistent with ORC Chapter 3307, Chapter 3307 shall control.
- 1.9 The Board approved this Statement on Jan. 16, 2004.

### 2.0 Investment Objective

- 2.1 Subject to the Ohio Revised Code, the investment objective for the total fund is to earn, over moving 20-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 8.0%.
- 2.2 The Board believes, based on the assumptions herein, that the investment policies summarized in this document 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 20-year time horizon.

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

- 3.1 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 1. The exhibit also summarizes the Board's return expectations for the asset mix policy and active management.
- 3.2 Sixty-seven 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.
- 3.3 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.
- 3.4 Forecasts of capital market and active management returns undertaken by the Board's asset management consultant indicate that the Board's investment policy summarized

in Exhibit 1 has an expected 20-year annualized return of 8.3%. The expected 8.3% annualized return is 0.3% above the Board-approved 8.0% actuarial rate of return.

- 3.5 The same forecasts also indicate that there is an estimated 55% probability that the approved investment policy will not achieve the 8.0% ARR over the 20-year horizon. An expected 8.3% annualized return and a 55% probability of not earning an 8.0% actuarial return is not contradictory. This is the inevitable consequence of the skewed distributions that characterize capital market returns.
- 3.6 The 7.85% expected asset mix policy return was developed with reference to the observed long-term relationships among major asset classes, adjusted by current market conditions as of Dec. 31, 2002. The Board believes this return expectation is reasonable, but recognizes that the actual 20-year asset mix policy return can deviate significantly from this expectation – both positively and negatively.
- 3.7 Fund assets are invested using a combination of passive and active management strategies. Active management of public market securities and real estate assets is expected to earn 0.45% per annum of additional returns over moving five-year periods. The Board

**Exhibit 1: Asset Mix Policy and Return Expectations for STRS Ohio Total Fund**

Asset Class	Target Allocation	Rebalancing Range	Expected 20-Year Policy Returns <sup>1</sup>	Expected Five-Year Management Returns <sup>2</sup>	Expected Total Return
<b>Equity</b>					
Domestic	45%	43-50%	8.40%	0.25%	8.65%
International	20%	15-25%	8.40%	1.00%	9.40%
Alternatives	2%	1-3%	13.60%		13.60%
<b>Total Equity</b>	<b>67%</b>				
Fixed Income	23%	13-28%	6.00%	0.35%	6.35%
Real Estate	9%	6-12%	7.80%	0.75%	8.55%
Liquidity Reserve	1%	0-4%	4.30%		4.30%
<b>Total Fund</b>	<b>100%</b>		<b>7.85%</b>	<b>0.45%</b>	<b>8.30%</b>

<sup>1</sup> Based on capital market forecasts developed by the Russell Investment Group, for the 20 years ending Dec. 31, 2022.

<sup>2</sup> Excludes impact of rebalancing decisions. The impact of rebalancing on total fund returns is included in investment reports to the Board.

recognizes that unsuccessful active management can reduce total fund returns.

- 3.8 Investment objectives and guidelines for individual asset classes have been approved by the Board, and are summarized below.
- 3.9 Liquidity reserves are kept at a minimum level, but sufficient to cover the short-term cash flow needs.
- 3.10 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.

#### **4.0 Rebalancing**

- 4.1 Exposures to selected asset classes are maintained within the rebalancing ranges specified in Exhibit 1. Rebalancing ensures that the Fund's actual asset allocation remains close to the target asset mix policy.
- 4.2 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.
- 4.3 Investment staff has the authority to actively manage asset mix exposures within the specified rebalancing ranges. In its Annual Investment Plan prepared for the Board, staff explains how they are managing asset class exposures based on short- and intermediate-term capital forecasts.
- 4.4 The impact of rebalancing decisions on total fund returns is included in investment performance reports to the Board.

#### **5.0 Passive and Active Management within Risk Budgets**

- 5.1 STRS Ohio investment staff has been delegated the responsibility for managing the Fund's exposure to passive and active invest-

ment strategies, subject to the constraint that active risk does not exceed Board-approved target risk budgets for the total fund and individual asset classes.

- 5.2 The Board has approved a target risk budget of 1.0% annualized for active management for the total fund. In exchange for assuming this level of active risk, the Board expects active management to add 0.45% of annualized excess return over moving five-year periods.
- 5.3 The Board realizes that actual management returns will likely be above or below the 0.45% target over any five-year moving period, and therefore will evaluate the success of the 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.
- 5.4 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.
- 5.5 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 earns below index fund returns.
- 5.6 Because there are no index fund products for real estate and alternative investments, these asset classes must be actively managed.

#### **6.0 Domestic Equity**

- 6.1 Domestic equity is being managed relative to a Board-approved 0.6% risk budget, and is expected to earn at least 0.25% of annualized excess return above the Russell 3000 Index over moving five-year periods.

6.2 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.

## 7.0 International Equity

7.1 International equity is being managed relative to a Board-approved 2.0% risk budget, and is expected to earn at least 1.0% of annualized excess return above a blended benchmark of 75% MSCI World ex-US (50% hedged) and 25% MSCI Emerging Market Free Index over moving five-year periods.

7.2 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.

## 8.0 Fixed Income

- 8.1 Fixed income is being managed relative to a Board-approved 0.7% risk budget, and is expected to earn at least 0.35% of annualized excess returns above the Lehman Brothers Universal Bond Index over moving five-year periods.
- 8.2 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.
- 8.3 Key elements of the strategy:
  - (a) The portfolio will primarily be managed internally, with multiple external managers utilized in specialist 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.

## 9.0 Real Estate

9.1 Real estate investments are being managed relative to a Board-approved 2.75% annualized risk budget, and are expected to earn at least 0.75% of annualized excess returns above a composite benchmark over moving five-year periods. The composite benchmark is 80% NCREIF Property Index, 10% NCREIF Timberland Index and 10% Wilshire Real Estate Investment Trust Index.

9.2 Key elements of the strategy:

- (a) Real estate is 100% actively managed



because index funds replicating the real estate broad market are not available. The portfolio is primarily managed internally.

- (b) Direct property investments represent most of the real estate portfolio. Specialist managers are utilized. Risk is diversified by investing across major property types and geographic areas.
- (c) Leverage of up to 50% is permitted with the core real estate portfolio.
- (d) Exchange traded real estate investment trusts (REITs) are targeted at 10% of the real estate portfolio to enhance liquidity, diversification and excess returns.
- (e) 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.
- (f) Leverage is employed within REITS and non-core real estate investments, and these leverage levels are monitored by investment staff.

## 10.0 Alternative Investments

10.1 Alternative investments are being managed with the objective of earning at least 5% net of fees above domestic public equity markets over very long time horizons, typically moving 10-year periods. Because alternative investments are traded infrequently, risk budget concepts are not applicable.

10.2 Key elements of the strategy:

- (a) Alternative investments are 100% actively managed because index funds are not available.
- (b) Asset class risk is diversified by investing across different types of alternative investments including private equity (venture capital, leverage buyouts, mezzanine debt, sector and international funds), distressed debt and hedge 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.

## 11.0 Derivatives

11.1 Derivatives may be used in the management of internal and external fixed income, equity and real estate portfolios. Derivatives are typically, but not exclusively, futures contracts, option contracts and option contracts on futures for market indexes. Options on individual securities, baskets of securities and equity-linked notes are further examples. Derivatives are both exchange traded and traded over the counter.

11.2 Derivative exposures must be of a hedging or positioning nature, not speculative.

11.3 Leveraged derivative positions are prohibited.

11.4 As a percentage of Fund assets, the underlying exposure of derivative positions 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.

## 12.0 Proxy Voting

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

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

### 13.0 Ohio Investments

- 13.1 The Board will give due consideration to investments that enhance the general welfare of the state 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.
- 13.2 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.

### 14.0 Broker-Dealers

- 14.1 Purchases and sales of publicly traded securities shall be executed with broker-dealers from a list reviewed by the Board. The list shall be limited, as practicable, to 65 firms plus those in the Ohio and emerging firms sub-list.
- 14.2 Selection shall be based on an evaluation by the 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.
- 14.3 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.
- 14.4 The Board shall give equal consideration to minority-owned and controlled firms and to firms owned and controlled by women.
- 14.5 The Board shall be proactive in its intent to include firms that have an operating office located in Ohio, minority-owned and controlled firms, and firms owned and controlled by women.

- 14.6 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.
- 14.7 When stocks are purchased during underwriting, allocations may be made to dealers not on the approved list provided the managing underwriter is so listed.
- 14.8 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.

### 15.0 Securities Lending

- 15.1 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 State and each security lent must be fully collateralized. Results of the program must be reported to the Board annually.

### 16.0 Security Valuation

- 16.1 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 NASDAQ Official Closing Price (NOCP) as reflected by NASDAQ 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) Real estate valued through a combination of independent appraisals and manager valuations. Methodology underlying internal valuations will be reviewed by the real estate consultant. REIT shares are valued at primary closing prices on the principal registered stock exchange.
- (f) The most recent manager valuations for alternative investments.
- (g) International investments are valued by the subcustodian using relevant closing market prices and exchange rates.

**17.0 Performance Monitoring and Evaluation**

- 17.1 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 hourly to daily, weekly, monthly, quarterly and annually.
- 17.2 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?
- 17.3 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.

- 17.4 Exhibit 2 is one of many reports used by the Board to monitor and evaluate performance of the total fund. Panel one indicates if the total fund return exceeded the 8.0% actuarial rate of return over the one-year period ending Sept. 30, 2003. Panel two indicates if the Fund was rewarded for investing in higher return but more risky equity investments over the same period. And panel three indicates if active management added or subtracted returns.
- 17.5 Additional reports provide the Board with a multilevel 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 internal and externally managed portfolios; and
  - (d) Performance of individual external managers.

Exhibit 2: EXAMPLE Total Fund Board Report	
STRS Ohio Total Fund Board Report	
One-Year Return, Gross of Fees, Ending Sept. 30, 2003	
<b>Have returns affected benefit security?</b>	
1. Total fund total return	19.81%
2. Actuarial rate of return	8.00%
<b>3. Out-performance (1 - 2)</b>	<b>11.81%</b>
<b>Has plan been rewarded for capital market risk?</b>	
4. Total fund total policy return	18.70%
5. Minimum risk/high cost policy of 91-Day T-bills	1.22%
<b>6. Impact of asset mix policy (4 - 5)</b>	<b>17.48%</b>
<b>Has plan been rewarded for active management risk?</b>	
<b>7. Active management effect (1 - 4)</b>	<b>1.11%</b>

## Statement of Fund Governance

Effective Jan. 16, 2004

### 1.0 Purpose

- 1.1 This Statement of Fund Governance (the "Statement") summarizes the governance structure established by 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; Ohio General Assembly and Governor; and agents engaged by the Board to manage, administer or advise on STRS Ohio assets.
- 1.4 The Statement summarizes more detailed documents policy and procedure documents prepared and maintained by STRS Ohio investment staff, and numerous other documents that govern the day-to-day management of STRS Ohio assets.
- 1.5 The Board regularly assesses the continued suitability of the STRS Ohio fund governance structure, initiates change as necessary and updates this Statement accordingly.
- 1.6 The Board may authorize its administrative officers and committees to act for it in accord with its policies (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, 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.
- 1.8 The Board acknowledges its responsibilities under ORC Chapter 3307 and to the extent that this Statement is inconsistent with ORC Chapter 3307, Chapter 3307 shall control.
- 1.9 The Board approved this Statement on Jan. 16, 2004.

### 2.0 Governance Principles

- 2.1 Three principles guided the Board's development of the STRS Ohio fund governance structure:
  - (a) As STRS Ohio governing fiduciary, the Board is ultimately accountable for all investment decisions. Section 3307.15 of the Ohio Revised Code (the "Code") vests the investment function in the Board and requires the Board to "... adopt, in regular meetings, policies, objectives, or criteria for the operation of the investment program . . ." Section 3307.15 of the Code sets forth the fiduciary responsibility of the Board in discharging its duties with respect to the fund.
  - (b) To ensure STRS Ohio assets are prudently, profitably and efficiently managed on a day-to-day basis, the Board needs to delegate the management and implementation of Board investment policies to qualified managing and operating fiduciaries. Sections 3307.04 and

3307.15 of the Code empower the Board to authorize its committees and administrative officers to act for it in accord with Board policies. The fiduciary responsibility of Board delegates in discharging their duties with respect to the fund is specified in Section 3307.15.

- (c) To ensure effective oversight of delegates, the Board requires informative and timely performance reports that reveal if managing and operating fiduciaries have complied with established policies, and indicate how assets under their care have performed relative to Board-approved investment objectives.

### **3.0 Investment Decisions Retained by the Board**

3.1 The Board approves the following investment policies:

- (a) Total fund risk and return objectives;
- (b) Total fund target asset mix policy;
- (c) Total fund asset mix policy rebalancing ranges;
- (d) Active management risk and return objectives at the total fund and asset class levels;
- (e) Proxy voting;
- (f) Ohio investments;
- (g) Securities lending;
- (h) Broker-dealer selection and use; and
- (i) Performance measurement criteria and evaluation standards.

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) Ensure 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 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 investment staff, Board-retained investment consultants, and other experts and sources as considered prudent by the Board.

## Investment Performance

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

## 1-Year Returns (2004)

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Stocks	20.04%	Russell 3000*	20.38%
International	29.25%	International Equity	28.56%
Fixed Income	1.50%	Lehman Universal	1.01%
Real Estate	17.66%	Real Estate Composite	12.24%
<b>Total Fund</b>	<b>17.70%</b>	Total Fund Composite Benchmark Inflation (GDP Deflator)	16.35% 2.26%

## 3-Year Returns (2002–2004)

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Stocks	(0.26%)	Russell 3000*	0.23%
International	4.27%	International Equity	2.18%
Fixed Income	7.33%	Lehman Universal*	6.65%
Real Estate	9.11%	Real Estate Composite	8.18%
<b>Total Fund</b>	<b>3.43%</b>	Total Fund Composite Benchmark Inflation (GDP Deflator)	3.25% 1.88%

## 5-Year Returns (2000–2004)

Asset Category	STRS Ohio Return	Index Name	Index Return
Domestic Stocks	(1.50%)	Russell 3000*	(1.03%)
International	2.11%	International Equity	(0.11%)
Fixed Income	7.75%	Lehman Universal**	7.05%
Real Estate	10.41%	Real Estate Composite	9.35%
<b>Total Fund</b>	<b>2.74%</b>	Total Fund Composite Benchmark Inflation (GDP Deflator)	2.42% 2.06%

## STRS Ohio Long-Term Policy Objective (5–10 Years)

Equities: 8%–10%	Fixed Income: 6%–7%	Real Estate: 8%–9%	Total Fund: 8%
------------------	---------------------	--------------------	----------------

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

\*The domestic stocks benchmark is calculated using the Russell 3000 Index for all periods beginning on or after Aug. 1, 2003; the Domestic Equity Composite for April 1, 2003, through July 31, 2003; and the S&P 1500 Index from July 1, 1999, through March 31, 2003.

\*\*The fixed-income benchmark is calculated using the Lehman Universal Index for all periods beginning on or after Oct. 1, 2000, and using the Lehman Aggregate Index for all periods before Oct. 1, 2000.

State Teachers Retirement System of Ohio is defined and created by the Ohio Revised Code, Chapter 3307.15. The STRS Ohio Total Fund performance results consist of all assets of the fund, including both internally and externally managed accounts. All results are calculated in U.S. dollars and net of brokerage commissions, expenses related to trading, and applicable foreign withholding taxes on dividends, interest and capital gains. Performance results are generally gross of fees. Net of fees results are available upon request. Investment management fees vary among asset class. Dispersion data is not applicable. STRS Ohio has prepared this report in accordance with the Performance Presentation Standards of the Association for Investment Management and Research (AIMR-PPS), the U.S. and Canadian version of the Global Investment Management Performance Standards (GIPS). AIMR has not been involved in the preparation or review of this report.

**Summary of Investment Assets**  
**As of June 30, 2004 and 2003** (dollar amounts in thousands)

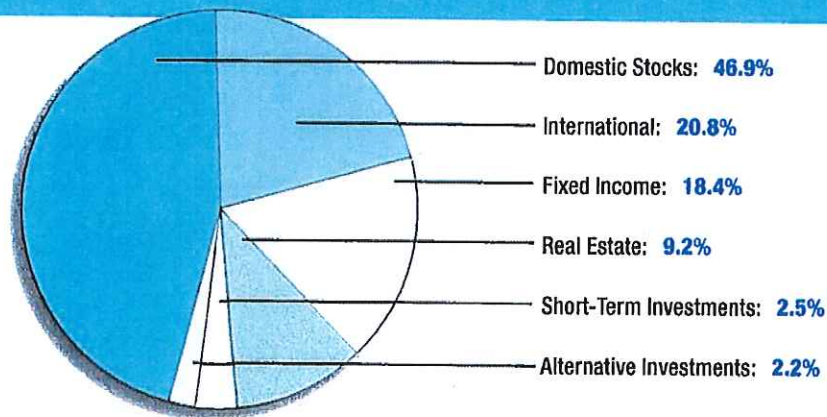
	June 30, 2004 Fair Value	%	June 30, 2003 Fair Value	%
<b>Short term</b>				
Commercial paper	\$ 1,316,978	2.4%	\$ 1,609,980	3.4%
Government notes		0.0%	10,000	0.0%
Short-term investment funds	51,000	0.1%	38,600	0.1%
<b>Total short term</b>	<b>1,367,978</b>	<b>2.5%</b>	<b>1,658,580</b>	<b>3.5%</b>
<b>Fixed income</b>				
Guaranteed mortgages	3,351,456	6.1%	2,684,600	5.7%
U.S. government and governmental agencies	2,699,869	4.9%	1,683,747	3.5%
Corporate bonds	3,008,543	5.5%	2,781,021	5.8%
Canadian bonds	40,769	0.1%	43,582	0.1%
High yield and emerging market	979,047	1.8%	906,741	1.8%
<b>Total fixed income</b>	<b>10,079,684</b>	<b>18.4%</b>	<b>8,099,691</b>	<b>16.9%</b>
<b>Common and preferred stock</b>	<b>25,657,527</b>	<b>46.9%</b>	<b>21,746,828</b>	<b>45.4%</b>
<b>Real estate</b>				
East region	824,750	1.5%	971,298	2.0%
Midwest region	481,933	0.9%	540,500	1.1%
South region	848,058	1.6%	920,412	1.9%
West region	1,026,384	1.8%	1,126,215	2.4%
REITs	363,273	0.7%	337,842	0.7%
Other	1,452,063	2.7%	1,302,099	2.8%
<b>Total real estate</b>	<b>4,996,461</b>	<b>9.2%</b>	<b>5,198,366</b>	<b>10.9%</b>
<b>Alternative investments</b>	<b>1,222,443</b>	<b>2.2%</b>	<b>1,022,860</b>	<b>2.1%</b>
<b>International</b>	<b>11,335,767</b>	<b>20.8%</b>	<b>10,140,606</b>	<b>21.2%</b>
<b>Total investments</b>	<b>\$ 54,659,860</b>	<b>100.0%</b>	<b>\$ 47,866,931</b>	<b>100.0%</b>

Investment asset schedule excludes invested securities lending collateral.

For purposes of this schedule, certain U.S.-based short-term and fixed-income securities have been classified as international investments in order to approximate the investment exposure of international equity swaps.



## Investment Distribution by Fair Value — as of June 30, 2004



Certain U.S.-based short-term and fixed-income securities have been classified as international investments in order to approximate the investment exposure of international equity swaps.

Ohio Investment Profile —  
as of June 30, 2004 (in thousands)

STRS Ohio continues to engage in quality Ohio investments. As of June 30, 2004, STRS Ohio investments in companies with headquarters in Ohio are valued at more than \$1.5 billion.

Liquidity reserves	\$ 33,986
Fixed income	170,047
Common stock	893,784
Alternative investments	128,829
Real estate	289,752
<b>Total Ohio-headquartered Investments</b>	<b>\$1,516,398</b>

Schedule of U.S. Stock Brokerage Commissions Paid  
(for the year ended June 30, 2004)

Brokerage Firm	Shares Traded	Commissions Paid	Avg. Cents Per Share
Lehman Brothers	245,475,935	\$ 5,268,447	2.1
Morgan Stanley	229,630,271	3,336,436	1.5
Prudential Securities	13,468,753	699,235	5.2
Jefferies & Company	16,697,650	681,467	4.1
Bear, Stearns, & Company	9,829,822	498,073	5.1
Standard & Poor's Securities	9,950,200	492,325	4.9
Instinet Corporation	45,572,029	469,896	1.0
Fidelity Capital Market	9,019,955	457,781	5.1
Cantor Fitzgerald	10,831,956	422,488	3.9
Citigroup	7,443,448	351,659	4.7
Chapdelaine Institutional Equities	7,030,416	349,521	5.0
Bloomberg Tradebook	15,416,479	308,345	2.0
Jones Trading Institutional Services	5,679,129	301,590	5.3
UBS Investment Bank	6,480,711	280,300	4.3
Merrill Lynch	5,365,474	255,844	4.8
CIBC World Markets	4,218,000	212,725	5.0
Credit Suisse First Boston	4,044,900	203,875	5.0
Goldman, Sachs & Company	4,282,219	197,593	4.6
SG Cowen Securities	3,847,940	195,720	5.1
Banc of America Securities	3,737,000	160,750	4.3
JPMorgan Chase	3,309,700	160,685	4.9
Bank of NY Direct Execution Inc.	3,475,500	143,005	4.1
Sanford Bernstein & Company	2,452,000	120,500	4.9
Robert W. Baird & Company	2,413,600	112,179	4.6
Deutsche Bank	1,964,700	97,629	5.0
Others (Includes 38 brokerage firms and external managers)	263,046,183	6,092,711	2.3
<b>Total</b>	<b>934,683,970</b>	<b>\$21,970,779</b>	<b>2.3</b>

## Schedule of Largest Investment Holdings\*

(as of June 30, 2004)

## Domestic Stocks — Top 20 Holdings

	Shares	Fair Value
General Electric Co.	20,727,461	\$671,569,736
Exxon Mobil Corp.	13,921,977	\$618,274,998
Pfizer Inc.	17,042,852	\$584,228,966
Citigroup Inc.	11,097,383	\$516,028,309
Microsoft Corp.	17,104,835	\$488,514,087
Bank of America	4,492,359	\$380,143,418
Intel Corp.	13,454,753	\$371,351,182
Johnson & Johnson	6,112,152	\$340,446,866
American International Group	4,322,475	\$308,106,018
Cisco Systems	12,515,714	\$296,622,421
Procter & Gamble Co.	5,276,028	\$287,226,964
Wal-Mart Stores Inc.	4,835,185	\$255,104,360
International Business Machines Corp.	2,713,824	\$239,223,585
Merck & Co. Inc.	4,946,103	\$234,939,892
Chevrontexaco Corp.	2,239,300	\$210,740,523
Verizon Communications	5,817,895	\$210,549,620
Pepsico Inc.	3,722,819	\$200,585,487
Altria Group Inc.	3,830,944	\$191,738,747
Home Depot Inc.	5,369,671	\$189,012,419
Coca-Cola Co.	3,726,800	\$188,128,864

## International Stocks — Top 20 Holdings

	Shares	Fair Value
Toyota Motor Corp. (Japan)	2,073,776	\$ 84,007,790
BP Amoco Capital (United Kingdom)	9,292,460	\$ 82,071,600
Samsung Electronic (Republic of Korea)	189,472	\$ 78,249,475
Siemens AG NPV (Germany)	809,473	\$ 58,216,266
Norsk HYDRO ASA NO (Norway)	881,011	\$ 57,267,113
BNP Paribas (France)	930,387	\$ 57,222,366
Telefonica SA (Spain)	3,859,800	\$ 57,058,730
Sumitomo Mitsui Fi (Japan)	8,222	\$ 56,365,649
Total SA (France)	292,360	\$ 55,740,129
E. on AG NPV (Germany)	761,074	\$ 54,911,410
Banco Santander (Spain)	5,214,331	\$ 54,116,369
Vodafone (United Kingdom)	24,408,195	\$ 53,451,026
Research In Motion (Canada)	751,600	\$ 51,447,020
ENI SPA (Italy)	2,520,150	\$ 50,041,183
Nissan Motor Co. (Japan)	4,419,600	\$ 49,133,671
GlaxoSmithKline (United Kingdom)	2,366,915	\$ 47,904,917
Sun Hung Kai Prope (Hong Kong)	5,701,400	\$ 46,784,317
Lukoil Spons (Russia)	441,898	\$ 46,178,341
Canon Inc. (Japan)	856,600	\$ 45,142,058
Mitsubishi Tokyo (Japan)	4,732	\$ 43,802,768

## Fixed Income — Top 20 Holdings

	Par Value	Fair Value
U.S. Treasury, 10.38%, due 11/15/09, AAA+	\$111,230,000	\$114,834,964
U.S. Treasury, 8.75%, due 8/12/20, AAA+	\$ 82,110,000	\$113,739,593
U.S. Treasury, 12.00%, due 8/15/13, AAA+	\$ 70,000,000	\$ 92,412,600
U.S. Treasury Zero Strips, .00%, due 5/15/05, AAA+	\$ 89,400,000	\$ 87,940,098
FNMA Dwarf Pool #254510, 5.00%, due 11/1/17, AAA+	\$ 86,017,077	\$ 86,462,646
Freddie Mac, 3.63%, due 9/15/08, AAA+	\$ 79,000,000	\$ 77,857,660
FHLMC Gold #A14276, 5.50%, due 10/1/33, AAA+	\$ 77,627,200	\$ 77,557,336
FHR 2521 BN, 5.00%, due 8/15/16, AAA+	\$ 75,260,000	\$ 76,671,125
MBNA Credit Card, 1.33%, due 3/15/06, AAA	\$ 75,000,000	\$ 75,047,295
Carco Auto Ln, 1.30%, due 11/15/04, AAA	\$ 75,000,000	\$ 75,018,990
U.S. Treasury, 2.00%, due 5/15/06, AAA+	\$ 75,200,000	\$ 74,311,136
Federal Home Loan Bank, 1.37%, due 3/15/05, AAA+	\$ 70,000,000	\$ 69,993,000
U.S. Treasury, 2.00%, due 8/31/05, AAA+	\$ 70,000,000	\$ 69,849,500
U.S. Treasury, 8.88%, due 2/15/19, AAA+	\$ 49,750,000	\$ 68,884,348
U.S. Treasury, 2.63%, due 11/15/06, AAA+	\$ 65,000,000	\$ 64,552,150
FHLMC Gold 15Yr #E99643, 4.50%, due 10/1/18, AAA+	\$ 65,633,630	\$ 64,430,566
U.S. Treasury, 3.25%, due 8/15/08, AAA+	\$ 65,000,000	\$ 64,218,050
Eord Credit Floorplan, 1.33%, due 7/17/06, AAA	\$ 62,500,000	\$ 62,501,344
U.S. Treasury, 1.50%, due 7/31/05, AAA+	\$ 62,000,000	\$ 61,594,520
FNMA Pool #708935, 5.50%, due 6/1/33, AAA+	\$ 60,919,388	\$ 60,845,066

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

(This page intentionally left blank.)



**Human Resources & Investor Solutions**

November 11, 2004

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 actuarial valuation of the assets and liabilities of the State Teachers Retirement System of Ohio (STRS Ohio) as of July 1, 2004, prepared in accordance with Section 3307.51 of Chapter 3307 of the Ohio Revised Code. The valuation takes into account all of the promised benefits to which members are entitled, including pension and survivor benefits.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, including a valuation interest rate of 8% per annum compounded annually. The assumptions and 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. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by STRS Ohio.

**Funding Adequacy**

The current total contribution rate from employers and members is 24%. The Board allocates the total contribution rate between pension and survivor benefits and health care. For fiscal 2004 and after, the Board has allocated 1% toward health care, leaving 23% for pension and survivor benefits. The valuation indicates that the contribution rates of 23% for fiscal 2005 and after is sufficient to provide for the payment of the promised pension and survivor benefits, with a 42.2-year funding period to amortize the unfunded accrued liability. The funding period has decreased 0.1 years from last year's funding period (i.e., decreased from 42.3 years to 42.2 years). The funding period decreased by less than the full year expected had all assumptions been met because of net actuarial losses.

The valuation indicates that for the fiscal year ending June 30, 2004, the actuarial experience of STRS Ohio was unfavorable and generated net actuarial losses of \$178 million.

**Financial Results and Membership Data**

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

Qualified actuaries completed the valuations in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice.

Respectively submitted,

Kim M. Nicholl, F.S.A.  
Principal and Consulting Actuary

**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:** 8% per annum, compounded annually. (Adopted 2003)

**Death After Retirement:** According to the UP 94 Mortality Table (Projection 2002 – Scale AA), with two-year setback in age for males and one-year setback in age for females. Special mortality tables are used for the period after disability retirement. (Adopted 2003)

**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:** 4.5% per annum compounded annually. Included in the total payroll growth assumption is a 3.50% increase as a result of inflation. (Adopted 1998)

**Separations From Active Service:** Representative values of the assumed rates of separation and annual rates of salary increase are shown in the table below. (Adopted 1993)

**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, 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.

**Census and Assets:** The valuation was based on members of the system as of July 1, 2004, and does not take into account future members. All census and asset data was supplied by the system.

Superannuation								
Age	Non-Vested Withdrawal	Vested Withdrawal	Death	Disability	30 Years Service Retirement	25-29 Years Service Retirement	Under 25 Years Service Retirement	Salary Increase *
<b>MEN</b>								
20	.1900	.1500	.0002	—	—	—	—	.1045
30	.1500	.0400	.0006	.0002	—	—	—	.0825
40	.1375	.0240	.0009	.0010	.2500	—	—	.0605
50	.1340	.0150	.0013	.0024	.2500	—	—	.0473
55	.1340	.0150	.0020	.0030	.1500	.2000	—	.0440
60	.1340	.0150	.0033	.0035	.2000	.0900	.1500	.0413
65	.1340	—	.0060	.0040	.4000	.2500	.1800	.0385
70	.1340	—	.0110	.0040	.2500	.1500	.1400	.0385
<b>WOMEN</b>								
20	.1500	.2000	.0002	—	—	—	—	.1045
30	.1175	.0800	.0003	.0002	—	—	—	.0825
40	.0900	.0250	.0005	.0012	.2200	—	—	.0605
50	.0900	.0200	.0009	.0024	.2200	—	—	.0473
55	.0900	.0200	.0012	.0030	.1500	.2000	—	.0440
60	.0725	.0200	.0021	.0035	.3000	.1300	.2500	.0413
65	.0725	—	.0040	.0040	.3500	.3500	.2300	.0385
70	.0725	—	.0079	.0040	.3500	.2000	.1300	.0385

\*Includes an inflation adjustment of 3.50%.

**Benefit Recipients Added to and Removed From the Rolls, 1999-2004**

Fiscal Year Ended	Beginning	Additions	Deletions	Ending
2004	108,294	7,038	3,479	111,853
2003	105,300	6,299	3,305	108,294
2002	102,132	6,500	3,332	105,300
2001	99,011	6,436	3,315	102,132
2000	95,796	6,536	3,321	99,011
1999	91,999	6,922	3,125	95,796

**Schedule of Valuation Data — Active Members, 1995-2004**

Valuation Date	Number	Annualized Salaries (In thousands)	Annual Average Pay	% Increase In Average Pay
2004	179,063	\$8,646,404	\$48,287	3%
2003	179,944	8,425,838	46,825	4%
2002	178,557	8,063,134	45,157	4%
2001	177,013	7,721,258	43,620	3%
2000	174,072	7,386,122	42,431	3%
1999	170,854	7,040,902	41,210	3%
1998	170,126	6,834,060	40,171	3%
1997	168,943	6,564,294	38,855	3%
1996	166,927	6,307,142	37,784	3%
1995	166,623	6,110,218	36,670	3%

**Schedule of Valuation Data — Retirees/Beneficiaries, 1995-2004**

Valuation Date	Number	Annual Allowances (In thousands)	% Increase In Annual Allowances	Average Annual Allowances
2004	111,853	\$3,272,078	8%	\$29,253
2003	108,294	3,021,825	8%	27,904
2002	105,300	2,806,482	8%	26,652
2001	102,132	2,595,549	9%	25,414
2000	99,011	2,391,680	14%	24,156
1999	95,796	2,103,139	9%	21,954
1998	91,999	1,929,988	12%	20,978
1997	88,718	1,722,037	9%	19,410
1996	86,132	1,579,771	10%	18,341
1995	83,136	1,434,032	17%	17,249

## Solvency Test, 1995-2004 (dollar amounts in thousands)

Valuation Date	Accrued Liability for:			Valuation Assets*	Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions*	(2) Retirees and Beneficiaries*	(3) Active Members (Employer-Financed Portion)*		(1)	(2)	(3)
2004	\$8,600,068	\$37,870,700	\$26,483,574	\$55,340,715	100%	100%	33%
2003	8,155,685	34,938,341	25,640,035	51,696,919	100%	100%	34%
2002	7,771,703	32,639,291	25,815,171	51,969,345	100%	100%	45%
2001	7,445,894	30,145,012	25,090,334	57,450,612	100%	100%	79%
2000	7,174,675	27,604,436	24,414,047	54,712,921	100%	100%	82%
1999	6,867,910	25,152,626	22,742,804	49,124,802	100%	100%	75%
1998	6,569,783	22,994,697	21,563,608	43,865,907	100%	100%	66%
1997	6,222,725	20,249,628	20,091,418	38,743,272	100%	100%	61%
1996	5,862,250	18,420,595	18,484,067	34,569,651	100%	100%	56%
1995	5,533,684	16,745,090	17,708,401	31,416,677	100%	100%	52%

\*The amounts reported include funds set aside to pay post-employment health care benefits.

## Analysis of Financial Experience

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

Type of Activity:	Gain (loss) for year ended June 30:				
	2004	2003	2002	2001	2000
Investment income. If there is greater investment income than assumed, there is a gain. If less, there is a loss.	\$ 458,527	\$(2,976,966)	\$(8,336,907)	\$ (52,901)	\$ 2,656,964
Payroll growth. If more contributions from payroll growth are received than expected, there is a gain. If less, there is a loss.	(173,960)	71,967	80,926	32,051	138,966
Salary increases. If there are smaller salary increases than assumed, there is a gain. If greater increases, there is a loss.	(129,322)	(285,789)	(564,621)	(554,162)	(472,983)
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.	(221,112)	766,258	(378,242)	184,272	(64,386)
Death after retirement. If retirees live shorter than expected, there is a gain. If retirees live longer than assumed, there is a loss.	(105,826)	(117,031)	359,922	(254,890)	(150,951)
Defined Contribution Plan administrative expenses. If there is more expense than participant income, there is a loss.	(6,761)	(6,207)	(5,525)		
Gain (or loss) during year from financial experience	(178,454)	(2,547,768)	(8,844,447)	(645,630)	2,107,610
Nonrecurring items adjustment for plan amendments	0	0	0	(70,159)	0
<b>Composite gain (or loss) during the year</b>	<b>\$(178,454)</b>	<b>\$(2,547,768)</b>	<b>\$(8,844,447)</b>	<b>\$(715,789)</b>	<b>\$ 2,107,610</b>

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

Annual salary is subject to a limit of \$200,000 as adjusted 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 normal 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 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 normal 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's Benefit**

**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, certain designated 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 over age 65.

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

**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 4% interest
Three or more years but less than five years	Member contributions with 5% interest
Five or more years	150% of member contributions with 5% 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 effective July 1, 2003.

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 a limit of \$200,000 as adjusted under Section 401(a)(17).

#### 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. Prior to 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 Benefit**

**Eligibility**

Completion of five or more years of service and permanently incapacitated for the performance of duty.

**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's Benefit**

**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, certain designated beneficiaries may elect to receive the following benefits in lieu of return of contributions.

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

Service-based 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 over age 65.

**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 prior to 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 effective July 1, 2003.

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 after 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's Benefit

#### **Eligibility**

Upon death.

#### **Amount**

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

### Optional Forms of Payment

The actuarial equivalent of the member's defined contribution account can be paid on or after age 50 as a lifetime annuity. Options 1 through 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 effective July 1, 2003.

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.

**Expenses by Type**  
Years Ending June 30, 1995-2004 (in thousands)

Fiscal Year	Benefits	Refunds	Administration	Total
2004	\$3,534,462	\$102,194	\$67,380	\$3,704,036
2003	3,301,717	77,529	73,919	3,453,165
2002	3,073,240	84,077	77,069	3,234,386
2001	2,855,859	93,868	72,277	3,022,004
2000	2,634,484	105,759	57,817	2,798,060
1999	2,307,449	91,037	48,967	2,447,453
1998	2,088,869	87,705	42,489	2,219,063
1997	1,880,129	32,313	42,884	1,955,326
1996	1,718,861	24,118	37,747	1,780,726
1995	1,563,757	21,233	38,926	1,623,916

**Revenues by Source**  
Years Ending June 30, 1995-2004 (in thousands)

Fiscal Year	Member Contributions	Employer Contributions	Net Investment Income	Health Care Premiums	State Appropriations	Other**	Total
2004	\$990,846	\$1,311,175	\$8,167,434	\$156,970	\$0	\$20,777	\$10,647,202
2003	886,931	1,263,457	914,558	103,913	0	21,486	3,190,345
2002	826,910	1,204,715	(4,308,089)	79,590	0	19,985	(2,176,889)
2001	785,009	1,142,440	(3,694,121)	68,582	0	35,000	(1,663,090)
2000	755,146	1,086,125	5,504,137	60,375	1,514	48,676	7,455,973
1999	716,551	1,037,541	6,003,597	47,819	1,780	47,234	7,854,522
1998	697,404	995,925	6,039,679	39,682	2,067	45,292	7,820,049
1997	679,499	953,447	6,143,363*	38,347	2,377	58,188	7,875,221
1996	635,716	918,288	3,664,683	37,224	2,698	90,935	5,349,544
1995	624,812	891,245	2,340,907	36,842	3,035	71,047	3,967,888

\*Effective July 1, 1996, net investment income includes the net (depreciation) appreciation in fair value of investments.

\*\*Includes retirement incentive purchases and other Ohio retirement system transfers.

**Number of Benefit Recipients by Type, 1995-2004**

As of July 1	Service Retirement	Disability Benefits	Beneficiaries Receiving Optional Allowances	Survivor Benefits	Total
2004	92,574	6,531	7,079	5,669	111,853
2003	89,257	6,552	6,885	5,600	108,294
2002	86,666	6,498	6,623	5,513	105,300
2001	83,918	6,449	6,340	5,425	102,132
2000	81,111	6,367	6,152	5,381	99,011
1999	78,341	6,259	5,948	5,248	95,796
1998	75,482	6,157	5,675	4,685	91,999
1997	72,601	6,000	5,486	4,631	88,718
1996	70,448	5,923	5,206	4,555	86,132
1995	67,989	5,711	4,941	4,495	83,136

**Average Monthly Allowances by Type, 1995-2004**

As of July 1	Service Retirement	Disability Benefits	Beneficiaries Receiving Optional Allowances	Survivor Benefits	All Benefit Recipients
2004	\$2,584	\$2,393	\$1,574	\$1,185	\$2,438
2003	2,462	2,321	1,519	1,141	2,325
2002	2,349	2,241	1,457	1,096	2,221
2001	2,238	2,168	1,396	1,047	2,118
2000	2,124	2,101	1,340	1,003	2,013
1999	1,938	1,961	1,086	894	1,830
1998	1,844	1,887	1,031	893	1,748
1997	1,705	1,764	974	822	1,618
1996	1,608	1,688	931	779	1,528
1995	1,510	1,603	886	732	1,437

**Benefit Expenses by Type, 1995-2004 (in thousands)**

Fiscal Year Ended	Service Retirement	Disability Benefits	Survivor Benefits	Supplemental Benefit	Health Care	Other	Total
2004	\$2,840,334	\$182,889	\$77,089	\$0	\$425,709	\$8,441	\$3,534,462
2003	2,588,800	175,620	73,680	0	456,214	7,403	3,301,717
2002	2,395,318	168,704	69,214	0	434,287	5,717	3,073,240
2001	2,203,280	160,775	65,591	50,386	369,354	6,473	2,855,859
2000	2,019,521	152,365	62,346	48,493	343,512	8,247	2,634,484
1999	1,764,172	139,296	52,863	46,448	297,748	6,922	2,307,449
1998	1,601,143	130,429	47,920	44,876	258,906	5,595	2,088,869
1997	1,440,163	118,893	43,539	43,278	230,424	3,832	1,880,129
1996	1,307,482	109,250	40,283	41,750	213,997	6,099	1,718,861
1995	1,185,066	100,805	37,756	34,567	202,609	2,954	1,563,757

**Selected Funding Information, 1995–2004** (dollars in thousands)

As of July 1	Contribution Rate		Interest Assumption	Payroll Growth Assumption	Unfunded Accrued Liability*	Funding Period
	Member	Employer				
2004	10.00%	14.00%	8.00%	5.50%	\$17,613,627	42.2 Yrs.
2003	10.00%	14.00%	8.00%	5.50%	17,037,142	42.3 Yrs.
2002	9.30%	14.00%	7.75%	4.50%	14,256,819	39.0 Yrs.
2001	9.30%	14.00%	7.75%	4.50%	5,230,628	27.5 Yrs.
2000	9.30%	14.00%	7.75%	4.50%	4,480,237	23.1 Yrs.
1999	9.30%	14.00%	7.50%	4.50%	5,638,538	16.3 Yrs.
1998	9.30%	14.00%	7.50%	4.50%	7,262,181	24.2 Yrs.
1997	9.30%	14.00%	7.50%	4.50%	7,820,498	26.9 Yrs.
1996	9.30%	14.00%	7.50%	4.50%	8,197,261	28.4 Yrs.
1995	9.30%	14.00%	7.50%	5.00%	8,570,498	29.3 Yrs.

\*Excluding health care

**Number of Reporting Employers by Type, 1995–2004**

Fiscal Year Ended	City School Districts	Local School Districts	County							Community Schools*	Other	Total
			Educational Service Centers	Exempted Village Districts	Vocational & Technical Schools	Colleges & Universities	County MR/DD Boards					
2004	194	369	60	49	49	37	76	142	9	985		
2003	194	369	60	49	49	37	76	130	8	972		
2002	194	369	60	49	49	37	77	101	8	944		
2001	194	369	61	49	49	37	80	72	8	919		
2000	194	369	61	49	49	37	82	51	8	900		
1999	192	371	63	49	49	37	82	16	7	866		
1998	192	372	65	49	49	37	82	*	8	854		
1997	192	371	73	49	49	37	82	*	8	861		
1996	192	371	80	49	49	37	82	*	8	868		
1995	192	371	80	49	49	37	82	*	9	869		

\*Community schools were added as reporting employers in fiscal 1999.

(This page intentionally left blank.)





State Teachers Retirement System of Ohio

275 E. Broad Street

Columbus, OH 43215-3771

614.227.4090

[www.strsoh.org](http://www.strsoh.org)