# 2003 Annual Report

1944 - 2004

CELEBRATING

*60*

YEARS OF
EXCELLENCE

**Public School
Retirement System of
the City Of St. Louis**

## *Board of Trustees*

An eleven-member Board of Trustees is responsible for general administration of PSRSSTL as well as investment of PSRSSTL assets. The Board of Education appoints four trustees; PSRSSTL members elect seven. Terms of office are four years. Active PSRSSTL members elect five trustees – one administrator, two teachers and two non-teachers. Retired members elect two trustees – one retired teacher and one retired non-teacher. At April 1, 2004, the following individuals served on the Board of Trustees.

***Appointed by the Board of Education***

Marlene E. Davis
John P. Mahoney
Paulette McKinney
William Purdy

***Elected by Retired Members***

Norbert Eisele
Lois Jean Turner

***Elected by Active Members***

Amy S. Collins
Joseph H. Davenport
Mary Franklin
Doris A. Graham
Helen L. Herndon

## *Administrative Staff*

PSRSSTL employs the administrative staff members listed below.

| | |
|---|---|
| Executive Director | Gail A. Lakin |
| Director of Technology | Lonnie R. Caldwell |
| Accounting Specialist | Marty Winters |
| Insurance Benefits Specialist | Carolyn M. Feuchtenbeiner |
| Communications/Data Specialist | James U. Hammond |
| Member Services Supervisor | Amy Williams |
| Member Services Specialist | JoAnne Couch |
| Member Services Specialist | Miasha Tate |
| Member Services Clerical Assistant | Michelle Taylor |

## *Professional Advisors*

The individuals and firms listed below provide professional services to the Board of Trustees and PSRSSTL Administrative Staff.

| | |
|---|---|
| Legal Counsel | Jeffrey E. Hartnett<br>Bartley Goffstein, LLC |
| Investment Advisor | Doris Ewing<br>New England Pension Consultants |
| Independent Auditor | Thomas S. Helm<br>Huber, Ring, Helm & Company |
| Actuary | James S. Rubie, Jr.<br>W. Alfred Hayes & Company |

**PUBLIC SCHOOL RETIREMENT SYSTEM**
**OF THE CITY OF ST. LOUIS**
**ONE U.S. BANK PLAZA, SUITE 2510**
**ST. LOUIS, MO 63101-1657**

**OFFICE OF THE**
**EXECUTIVE DIRECTOR**

**PHONE: (314) 241-7763**
**FAX: (314) 241-1806**

April, 2004

On behalf of the Board of Trustees, I am pleased to present the Annual Report of the Public School Retirement System of the City of St. Louis (PSRSSTL) for the fiscal year ended December 31, 2003. This report provides financial, investment, actuarial and statistical information about PSRSSTL.

PSRSSTL management is responsible for the contents and presentation of material in this report. To the best of our knowledge, we believe the information in this report is accurate in all material respects. We also believe the information is presented in a manner that fairly represents the status of PSRSSTL.

### *The Year in Review*

During 2003, we processed 235 new retirements, 188 DROP Applications and 104 applications for Supplemental Pension Benefits under the Sick Leave Conversion Program sponsored by St. Louis Public Schools. In addition, we processed more than 1135 distributions for members who left PSRSSTL and we extended a hearty welcome to more than 285 new members.

### *Financial Summary*

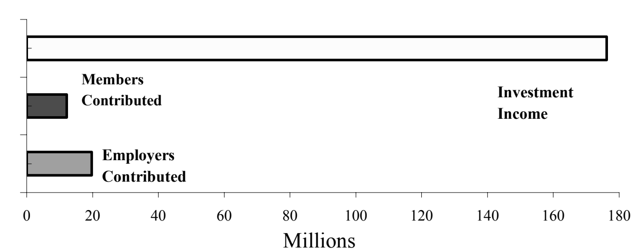
PSRSSTL management is charged with the responsibility of maintaining appropriate internal accounting and procedural controls. These controls provide reasonable assurance that PSRSSTL assets are protected from loss due to unauthorized use or disposition, that financial transactions are executed in accordance with proper authorization, and that transactions are recorded accurately to facilitate the annual preparation of audited financial statements.

Huber, Ring, Helm & Co., an independent accounting firm, audited PSRSSTL financial statements for the year ended December 31, 2003. This Annual Report contains those audited financial statements in their entirety. Summary financial information is provided as follows.

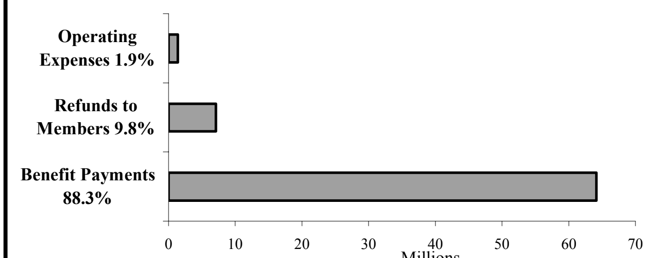
| | |
|---|---|
| Net Assets as of 12-31-2002 | $ 853,610,639 |
| Additions | |
| Employer Contributions | 19,742,779 |
| Member Contributions | 12,186,084 |
| Net Investment Income (Loss) | 176,197,590 |
| Deductions | |
| Benefits Paid to Members | 64,143,396 |
| Refunds Paid to Members | 7,090,729 |
| Operating Expenses | 1,401,994 |
| Net Assets as of 12-31-2003 | $ 989,100,973 |

Additions and deductions from the fund are presented graphically below.

**ADDITIONS TO THE FUND**




**DEDUCTIONS FROM THE FUND**



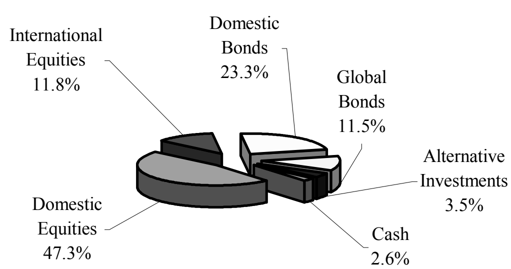
### *Investment Performance*

One of the most important decisions made by any board of trustees is how a retirement system's investments will be allocated and diversified among different asset classes. A fund's asset allocation is critical to mitigating volatility and improving long-term returns.

As of December 31, 2003, PSRSSTL assets were broadly diversified as follows.

| | | |
|---|---|---|
| Domestic Equities | 47.3% | |
| International Equities | 11.8% | |
| Domestic Fixed Income | 23.3% | |
| Global Bonds | 11.5% | |
| Cash | 2.6% | |
| Financial Composite | | 96.5% |
| Real Estate Investments | 1.5% | |
| Private Investments | 2.0% | |
| Alternative Investments | | 3.5% |
| Total Portfolio | | 100% |

ASSET ALLOCATION DECEMBER 31, 2003




Finally, following three years of market performance that presented excruciating challenges for personal and institutional investors alike, wherever we looked in 2003, the news was good! We saw double-digit equity markets around the globe and solid corporate bond markets. Even the weak U.S. dollar contributed to our bottom line because it boosted the returns on our international investments.

The S&P 500 increased 12.2% in the fourth quarter capping off a 28.7% year. During 2003, the Russell 2000 Index was up over 47% - while the NASDAQ, which tracks small company stocks, was up 50%!

Even though most of the gain came in the first six months of 2003, the Lehman Aggregate Bond Index rose 4.1% over the year. While the Treasury market posted only modest gains due to rising interest rates and large budget deficits, corporate bonds earned 7.7% and high-yield bonds rose by 29%.

International stock and bond markets outpaced their domestic counterparts in 2003. The EAFE Index (which is the benchmark for international equities) was up 38.6% – and – equities in the emerging markets rose almost 52%. International bonds, as measured by the Citigroup WGBI Index (excluding U.S. Bonds), rose 18.5%.

We are pleased to report that the well-diversified and prudently constructed PSRSSTL portfolio allowed us to participate in these market rebounds across the board. During 2003 the PSRSSTL portfolio earned 22.8%, ranking in the top 35% of public pension systems. More importantly, however, recognizing the long-term PSRSSTL investment horizon, for the five-year period ending December 31, 2003, the PSRSSTL portfolio earned 6.3% ranking in the top 9% of public plans.

Additional investment information is provided in the Investment Information Section of this report.

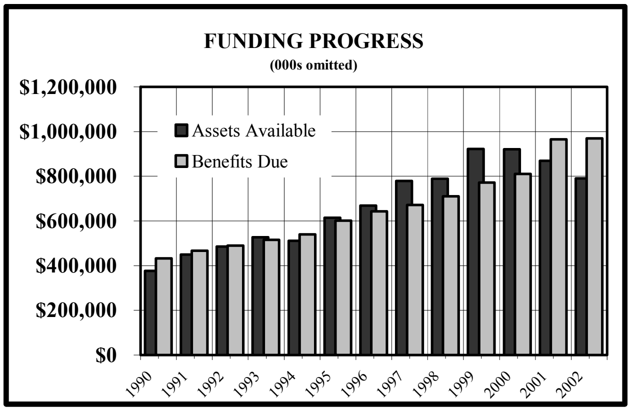
### *Actuarial and Funding Summary*

Each year, PSRSSTL has an independent actuarial valuation conducted. The valuation has two primary purposes: (1) to measure the relative financial condition of the System, and (2) to determine the level of the annual contribution that should be made to PSRSSTL during the upcoming year so that sufficient assets are available for benefit payments in the future.

The annual valuation as of January 1, 2003 indicated PSRSSTL was 90.0% funded on an actuarial basis; and 81.5% funded on a market value basis. Additional detail about the funding status of PSRSSTL is provided in the Actuarial Section of this report.

In summary, as measured at the beginning of 2003, PSRSSTL benefit obligations and the assets available to satisfy those obligations are set forth as follows:

| | |
|---|---|
| *Projected Benefit Obligations* | $970,023,191 |
| *Net Assets Available for Benefits* | |
| Actuarial Value of Assets | $873,260,102 |
| Market Value of Assets | $790,898,408 |
| *Funding Ratio (Assets ÷ Obligations)* | |
| Actuarial Value Funding Ratio | 90.0% |
| Market Value Funding Ratio | 81.5% |




As we discussed in the Financial and Investment Sections of this report, it is noteworthy that the market value of PSRSSTL assets increased from $790,898,408 at the beginning of the year to $989,100,973 at year-end.

It is the opinion of the independent actuary, assuming future contributions will be made as recommended, that PSRSSTL will continue to be funded on a sound actuarial basis.

Detailed actuarial information is provided in the Actuarial Section of this report.

***Acknowledgments & Reflections***

I want to express my gratitude to the Board of Trustees for their support, their dedication, and the many hours of personal time they devoted to PSRSSTL during the past year. I also want to recognize the outstanding quality of the services provided by the PSRSSTL professional advisors. In addition, I want to thank the administrative staff for their enthusiastic assistance, expertise and hard work. The recent successes of PSRSSTL have been made possible only through the efforts of these and many other individuals.

Finally, I want to mention that as 2003 drew to a close, we paused to reflect with pride on the sixty-year history of the organization. We thought about the many individuals – trustees, legislators, administrators and staff – who, over the last sixty years, made so many valuable contributions to the vibrancy and successes of PSRSSTL. We look forward to the challenges and successes that lie ahead, honored to serve the thousands of dedicated people who have spent or will spend so many years of their professional lives improving public education in the City of St. Louis.

Sincerely,

Gail A. Lakin
Executive Director

# PUBLIC SCHOOL RETIREMENT SYSTEM
# OF THE CITY OF ST. LOUIS

## FINANCIAL STATEMENTS

## DECEMBER 31, 2003 AND 2002

## INDEX TO FINANCIAL STATEMENTS

# INDEPENDENT AUDITOR'S REPORT

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**Independent Auditor's Report**

The Board of Trustees
Public School Retirement System
of the City of St. Louis
St. Louis, Missouri

We have audited the accompanying statements of plan net assets of the Public School Retirement System of the City of St. Louis (the "System") as of December 31, 2003 and 2002 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. Those standards require that we plan and perform the audits 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.

As discussed in Note 2, investments in partnerships amounting to $31,110,813 and $33,668,151 (3% in 2003 and 4% in 2002 of plan net assets) as of December 31, 2003 and 2002, respectively, have been valued at cost. Accounting principles generally accepted in the United States of America require these investments to be recorded at fair value, however, a reasonable estimate of fair value could not be made without incurring excessive costs. Therefore, these investments are recorded at cost. The affect on the financial statements of not applying adequate procedures to determine the fair value of these investments is not determinable.

In our opinion, except for the affects of the procedures used to determine the valuation of investments in partnerships at December 31, 2003 and 2002 as described in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Public School Retirement System of the City of St. Louis as of December 31, 2003 and 2002 and changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Huber, Ring, Helm + Co., P.C.
St. Louis, Missouri
January 30, 2004

## STATEMENTS OF PLAN NET ASSETS
## DECEMBER 31, 2003 AND 2002

### ASSETS

| | 2003 | 2002 |
|---|---|---|
| **CASH** | $ 24,466,747 | $ 5,911,009 |
| | | |
| **RECEIVABLES** | | |
| Accrued interest and dividends | 5,449,000 | 3,623,858 |
| Contributions | 124,737 | 191,337 |
| | 5,573,737 | 3,815,195 |
| | | |
| **INVESTMENTS**, at fair value | | |
| Cash equivalents | 24,954,579 | 46,506,484 |
| Bonds | | |
| U.S. Government and agency issues | 97,451,454 | 98,092,066 |
| Corporate | 125,806,789 | 135,775,862 |
| Foreign corporate and government bonds | 105,190,045 | |
| Common and preferred stocks | 404,008,767 | 282,364,602 |
| Mutual funds | 170,285,419 | 247,014,623 |
| Real estate partnerships - insurance contracts | 1,156,835 | 1,087,389 |
| | 928,853,888 | 810,841,026 |
| | | |
| **INVESTMENTS**, at estimated fair value | | |
| Real estate loans, first mortgages | 111,156 | 129,852 |
| | | |
| **INVESTMENTS**, at cost | | |
| Limited partnerships | 6,825,048 | 7,764,356 |
| Real estate partnerships - other | 9,451,298 | 8,282,058 |
| Venture capital partnerships | 14,834,467 | 17,621,737 |
| | 31,110,813 | 33,668,151 |
| Total investments | 960,075,857 | 844,639,029 |
| | | |
| Total assets | 990,116,341 | 854,365,233 |

### LIABILITIES

| | | |
|---|---|---|
| **ACCOUNTS PAYABLE AND ACCRUED EXPENSES** | 1,015,368 | 754,594 |
| | | |
| **NET ASSETS HELD IN TRUST FOR PENSION BENEFITS** | | |
| (A schedule of funding progress is presented on page 15.) | $ 989,100,973 | $ 853,610,639 |

The accompanying notes are an integral part of these financial statements.

**STATEMENTS OF CHANGES IN PLAN NET ASSETS**
**YEARS ENDED DECEMBER 31, 2003 AND 2002**

| **ADDITIONS** | **2003** | **2002** |
|---|---|---|
| Employer Contributions | $19,742,779 | $21,213,347 |
| Member Contributions | 12,186,084 | 13,171,337 |
| | 31,928,863 | 34,384,684 |
| Net appreciation (depreciation) in fair value of investments | | |
| Cash equivalents | 412,375 | 918,558 |
| Bonds | | |
| U.S. Government and agency issues | 1,872,007 | 11,514,701 |
| Corporate | 13,166,136 | 6,001,678 |
| Income from foreign corporate and government bonds | 10,770,461 | |
| Common and preferred stock | 94,490,425 | (63,741,563) |
| Mutual funds | 57,097,575 | (8,964,765) |
| Real estate loans | 16,006 | 19,297 |
| Limited partnerships | 765,141 | 433,493 |
| Real estate partnerships | 1,420,408 | 85,869 |
| Venture capital partnerships | (132,041) | (942,050) |
| | 179,878,493 | (54,674,782) |
| Less investment expense | 3,680,903 | 3,476,463 |
| Net investment income (loss) | 176,197,590 | (58,151,245) |
| Total additions | 208,126,453 | (23,766,561) |
| **DEDUCTIONS** | | |
| Benefits paid | | |
| Retirement and death benefits | 61,652,472 | 57,876,776 |
| Health care subsidies and supplemental payments | 2,490,924 | 2,447,267 |
| | 64,143,396 | 60,324,043 |
| Operating expenses | 1,401,994 | 1,263,687 |
| Contribution refunds due to death or resignation | 7,090,729 | 3,281,320 |
| Total deductions | 72,636,119 | 64,869,050 |
| **NET INCREASE** | 135,490,334 | (88,635,611) |
| **NET ASSETS HELD IN TRUST FOR PENSION BENEFITS** | | |
| **BEGINNING OF YEAR AS REPORTED** | **853,610,639** | **942,246,250** |
| **END OF YEAR** | **$ 989,100,973** | **$ 853,610,639** |

The accompanying notes are an integral part of these financial statements.

## NOTES TO FINANCIAL STATEMENTS

### NOTE 1 – DESCRIPTION OF SYSTEM

***General***

The Public School Retirement System of the City of St. Louis is a funding agency existing under provisions of the Revised Statutes of the State of Missouri (the "Statutes") to provide retirement benefits for all employees of the Board of Education of the City of St. Louis, of the Charter Schools located within the St. Louis School District, of all employees of the Public School Retirement System of the City of St. Louis, and of certain employees of Harris Stowe State College of St. Louis. The System is a multi-employer defined benefit pension plan.

Operations and management of the System are generally prescribed in the Statutes and are supervised by the Board of Trustees.

***Membership***

All persons employed on a full-time regular basis are members of the System as a condition of employment. Membership statistics, as of the latest actuarial valuations, are as follows:

| | January 1, 2003 | January 1, 2002 |
|---|---|---|
| Active members | 6,928 | 6,589 |
| Inactive members | 494 | 118 |
| Total members not retired | 7,422 | 6,707 |
| Retired members | | |
| Service and survivors | 3,312 | 3,340 |
| Disability | 266 | 250 |
| | 3,578 | 3,590 |
| Total Membership | 11,000 | 10,297 |

***Benefits***

Upon retirement at age 65 (or at any age if age plus years of credited service add up to 85 or more), members receive monthly payments for life of yearly benefits equal to years of credited service multiplied by 2% of average final compensation, but not to exceed 60% of average final compensation.

Members are eligible, after accumulation of five years of credited service, for disability benefits. Survivors' benefits are available for beneficiaries of members who die after at least 18 months of active membership.

The System pays a portion of health insurance premiums for retirees under Section 169.476 of the Statutes, as an expense of the System.

## NOTES TO FINANCIAL STATEMENTS

## NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### *Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of plan assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and reported amounts of additions and deductions to plan net assets during the reporting period. Actual results could differ from those estimates.

### *Basis of Accounting*

Plan member contributions of 5.0%, effective July 1, 1999, are mandatory and are recognized in the period in which contributions are due. Employer contributions to the plan are also mandatory and are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

### *Tax Status*

The System has been determined to be exempt from federal income taxes under Section 115 of the Internal Revenue Code.

### *Contributions Receivable*

Contributions receivable consists of amounts due from members and employers for contributions which were due, according to terms of the plan, by December 31, 2003 and 2002, offset by certain contributions received prior to the due date of January 31, 2004 and 2003.

### *Method Used to Value Investments*

Unless otherwise noted, investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on national or international exchanges are valued at the latest reported sales price at current exchange rates.

The real estate loans have effective interest rates ranging from 8.75% to 17.5% with varying maturities up to 30 years and are stated at the outstanding principal balance, which approximates estimated fair value.

For other investments for which there are no quoted market prices, a reasonable estimate of fair value could not be made without incurring excessive costs, therefore, these investments are generally reported at cost.

Real estate partnerships – insurance contracts

The System has entered into contracts with several insurance companies. The accounts are credited with actual earnings on the underlying investments and charged for plan withdrawals and administration expenses charged by the insurance companies. These investments are stated at fair value as determined by the insurance companies.

### *Net Appreciation (Depreciation) in Fair Value of Investments*

Net appreciation (depreciation) in fair value of investments includes: realized gains (losses), unrealized appreciation (depreciation), dividends, interest, and other investment income. However, Limited, Real Estate and Venture Capital Partnerships are recorded at cost, which excludes unrealized appreciation (depreciation) because these amounts cannot be determined without incurring excessive costs.

### *Furniture and Equipment*

Acquisitions of furniture and equipment are charged to operating expense. The value of furniture and equipment owned by the System is deemed immaterial in relation to the total assets of the System.

## NOTES TO FINANCIAL STATEMENTS

### NOTE 3 – INVESTMENTS

At December 31, 2003 and 2002, investments consisted of the following:

| | 2003 | |
|---|---|---|
| | Market Value | Cost |
| Cash equivalents | $ 24,954,579 | $ 24,954,579 |
| Bonds | | |
| U.S. Government and agency issues | 97,451,454 | 98,481,209 |
| Corporate | 125,806,789 | 127,954,212 |
| Foreign corporate and government bonds | 105,190,045 | 98,232,011 |
| Common and preferred stocks | 404,008,767 | 340,759,379 |
| Mutual funds | 170,285,419 | 158,943,414 |
| Real estate partnerships - insurance contracts | 1,156,835 | 1,122,635 |
| | 928,853,888 | 850,447,439 |
| Real estate loans, first mortgages | 111,156 | 111,156 |
| Limited partnerships | 6,825,048 | 6,825,048 |
| Real estate partnerships - other | 9,451,298 | 9,451,298 |
| Venture capital partnerships | 14,834,467 | 14,834,467 |
| | 31,110,813 | 31,110,813 |
| | $ 960,075,857 | $ 881,669,408 |

| | 2002 | |
|---|---|---|
| | Market Value | Cost |
| Cash equivalents | $ 46,506,484 | $ 46,506,484 |
| Bonds | | |
| U.S. Government and agency issues | 98,092,066 | 95,407,269 |
| Corporate | 135,775,862 | 137,087,713 |
| Common and preferred stocks | 282,364,602 | 314,120,852 |
| Mutual funds | 247,014,623 | 239,500,732 |
| Real estate partnerships - insurance contracts | 1,087,389 | 1,036,466 |
| | 810,841,026 | 833,659,516 |
| Real estate loans, first mortgages | 129,852 | 129,852 |
| Limited partnerships | 7,764,356 | 7,764,356 |
| Real estate partnerships - other | 8,282,058 | 8,282,058 |
| Venture capital partnerships | 17,621,737 | 17,621,737 |
| | 33,668,151 | 33,668,151 |
| | $ 844,639,029 | $ 867,457,519 |

## NOTES TO FINANCIAL STATEMENTS

### NOTE 4 – FUTURE MINIMUM LEASE PAYMENTS

The System leases office space under an operating lease expiring in August 2004. Rent expense for the years ended December 31, 2003 and 2002 was $77,506 and $73,718, respectively. Approximate future minimum lease payments for the remaining term of the lease are as follows:

| Year | Minimum Lease Payments |
|---|---|
| 2004 | $ 48,620 |

### NOTE 5 – CONCENTRATION OF CREDIT AND MARKET RISK

Financial instruments that potentially subject the System to concentrations of credit and market risk consist principally of cash and investments. The System places its temporary cash investments with major financial institutions. At December 31, 2003 and 2002 the System had approximately $24,900,000 and $6,000,000 in cash on deposit at US Bank. These balances were insured by the Federal Deposit Insurance Corporation ("FDIC") for $100,000. A portion of the remaining balances is collateralized by US Bank assets held jointly in the name of US Bank, NA and the System, held by the Federal Reserve Bank of Cleveland as Trustee. Regulations require that government entities, in case of bank failure, have collateral to cover losses that could exceed the FDIC limit of $100,000. The market value of the collateralized securities at December 31, 2003 was $9,116,183. The remaining deposit balances are neither insured nor collateralized. A significant portion of the System's investments is held by US Bank of St. Louis, N.A.

On December 31, 2003, the System received $18,931,085 from the St. Louis Board of Education for the 2003 St. Louis Public Schools' annual regular pension contribution. The funds were transferred from the operating cash account to investments on January 2, 2004.

The System has significant amounts of investments that are subject to market risk. Market risk is the possibility that future changes in market price may make a financial instrument less valuable. The other investments are also subject to risk. This risk is the possibility that, upon disposition, the value received may be less than the amount invested.

At December 31, 2003 the System had the following concentrations, defined as investments (other than those issued or guaranteed by the U.S. government) in any one organization that represents 5% or more of net assets held in trust for pension benefits.

| Mutual Funds | Fair Value |
|---|---|
| State Street Global Advisors - EAFE Index Fund | $ 112,062,403 |

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# Independent Auditor's Report On Supplemental Information

The Board of Trustees
Public School Retirement System
of the City of St. Louis
St. Louis, Missouri

Our report on our audits of the basic financial statements of the Public School Retirement System of the City of St. Louis for 2003 and 2002 appears on page 7. Those audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of funding progress and employer contributions are presented for the purpose of additional analysis and are a required part of the basic financial statements. The supplemental schedules of operating expenses are presented for the purpose of additional analysis and are not a required part of the basic financial statements. These supplemental schedules are the responsibility of the System's management. The supplemental information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Huber, Ring, Helm & Co., P.C.

St. Louis, Missouri
January 30, 2004

**SCHEDULE OF FUNDING PROGRESS** (in millions)

| Actuarial Valuation Date January 1, | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) - Frozen Entry Age (b) | Unfunded AAL (UAAL) (b-a) |
|---|---|---|---|
| 1990 | 373.3 | 460.7 | 87.4 |
| 1991 | 395.7 | 472.5 | 76.8 |
| 1992 | 427.7 | 502.0 | 74.3 |
| 1993 | 458.3 | 530.8 | 72.5 |
| 1994 | 487.4 | 557.9 | 70.5 |
| 1995 | 519.1 | 588.2 | 69.1 |
| 1996 | 562.2 | 664.8 | 102.6 |
| 1997 | 598.6 | 716.7 | 118.1 |
| 1998 | 644.4 | 759.7 | 115.3 |
| 1999 | 694.3 | 846.9 | 152.6 |
| 2000 | 770.1 | 937.7 | 167.6 |
| 2001 | 828.1 | 1,022.0 | 193.9 |
| 2002 | 861.1 | 1,069.8 | 208.7 |
| 2003 | 873.3 | 1,063.2 | 189.9 |

| Actuarial Valuation Date January 1, | Funded Ratio (a/b) | Annual Covered Payroll (c) | UAAL as a % of Covered Payroll ((b-a)/c) |
|---|---|---|---|
| 1990 | 81.0 | 194.6 | 44.9 |
| 1991 | 83.7 | 198.5 | 38.7 |
| 1992 | 85.2 | 194.2 | 38.3 |
| 1993 | 86.3 | 194.6 | 37.3 |
| 1994 | 87.4 | 202.4 | 34.9 |
| 1995 | 88.3 | 207.1 | 33.3 |
| 1996 | 84.6 | 206.9 | 49.6 |
| 1997 | 83.5 | 210.2 | 56.2 |
| 1998 | 84.8 | 210.8 | 54.7 |
| 1999 | 82.0 | 215.6 | 70.8 |
| 2000 | 82.1 | 216.7 | 77.3 |
| 2001 | 81.0 | 235.1 | 82.5 |
| 2002 | 80.5 | 243.9 | 85.6 |
| 2003 | 82.1 | 283.9 | 66.9 |

See independent auditor's report on supplemental information.

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

| Year Ended December 31, | Annual Required Contribution | Percent Contributed |
|---|---|---|
| 1990 | 13,147,093 | 94.0% |
| 1991 | 14,020,492 | 94.9% |
| 1992 | 14,970,746 | 97.2% |
| 1993 | 14,098,562 | 98.4% |
| 1994 | 15,441,488 | 99.2% |
| 1995 | 15,087,519 | 99.6% |
| 1996 | 16,619,187 | 100.1% |
| 1997 | 16,876,759 | 100.2% |
| 1998 | 15,328,067 | 111.1% |
| 1999 | 13,906,270 | 124.5% |
| 2000 | 15,543,984 | 111.9% |
| 2001 | 18,168,580 | 100.2% |
| 2002 | 19,076,442 | 100.6% |
| 2003 | 19,517,288 | * |

* To be determined at the end of the year.

The information presented in the required supplemental schedules was determined as part of the actuarial valuation prepared by W. Alfred Hayes and Company at January 1, 2003. Additional information related to the above actuarial valuation follows:

| | |
|---|---|
| Actuarial cost method: | Frozen entry age. |
| Rate of investment return: | 8% for 2003 and 2002, net of expenses. |
| Turnover or withdrawal rates: | Various by age and year of membership based on actual experience |
| Turnover or withdrawal rates: | of the System. |
| Mortality or death rates: | 1983 Group Annuity Mortality Tables for males and females is used for active and retired members and beneficiaries. |
| Disability rates: | Various by age of active members based on actual experience of the System. |
| Rates of retirement between ages of 55 and 70: | Various based on actual experience of the System. |
| Rate of salary increases: | Based on actual experience of the System, at the rate of 4.5 % per year. |
| Asset valuation method: | The assumed yield method of valuing assets, less the expense and contingency reserve. |

The Unfunded Actuarial Accrued Liability (UFAAL) was originally determined and frozen as of January 1, 1981. Effective January 1, 2002, the UFAAL was redetermined. The difference between the original UFAAL and the new UFAAL will be phased in over five (5) years and the UFAAL will be amortized over thirty (30) years.

See independent auditor's report on supplemental information.

**SCHEDULES OF OPERATING EXPENSES**
**YEARS ENDED DECEMBER 31, 2003 AND 2002**

| | 2003 | 2002 |
|---|---|---|
| Actuarial services | $ 215,275 | $ 253,215 |
| Accounting and auditing fees | 44,686 | 27,617 |
| Computer programming and consultation | 57,177 | 51,838 |
| Convention, conferences, seminars | | |
| Executive Director | 3,367 | 3,704 |
| Trustees | 20,703 | 31,893 |
| Dues and subscriptions | 1,565 | 3,319 |
| Employee benefits | 16,094 | 16,286 |
| Furniture and equipment | 76,844 | 10,046 |
| Insurance - group hospitalization | 52,781 | 51,062 |
| Insurance - casualty and bonding | 60,660 | 41,490 |
| Legal fees and expense | 66,553 | 35,856 |
| Medical fees | 3,743 | 1,586 |
| Office repairs and maintenance | 8,190 | 7,112 |
| Office supplies and expense | 16,862 | 13,054 |
| Postage | 60,616 | 59,832 |
| Pension contribution | 32,308 | 31,359 |
| Printing and stationery | 13,043 | 25,609 |
| Rent | 77,506 | 73,718 |
| Salaries - administrative and clerical | 495,280 | 453,292 |
| Payroll taxes | 36,615 | 34,467 |
| Telephone | 11,170 | 9,143 |
| Miscellaneous expense | 30,956 | 28,189 |
| Total | $ 1,401,994 | $ 1,263,687 |

***Trustees' Expenses***

The Trustees attended conferences and business meetings in connection with business of the System. The Trustees received no salaries but were allowed expenses relating to their attendance at such events as follows:

| | 2003 | 2002 |
|---|---|---|
| Transportation and registration | $ 8,725 | $ 18,204 |
| Lodging, meals, and miscellaneous | 11,978 | 13,689 |
| Other | | |
| Total | $ 20,703 | $ 31,893 |

See independent auditor's report on supplemental information.

## THE CAPITAL MARKET ENVIRONMENT

### *Domestic Stocks*

For the first time in three years, the S&P Index was positive in calendar year 2003, posting a return of 28.7%. Both value and growth stocks contributed to the gains, as shown by the Russell 1000 Growth Index up 29.7% and the Russell 1000 Value Index up 30.0%.

### *Domestic Bonds*

The Lehman Aggregate Index was up 4.1% for the year, with corporate bonds gaining 7.7% and treasury bonds up 2.3%. As compared with last year when high yield bonds were the only domestic fixed income asset class to show a loss, high-yield bonds were up 29% during 2003.

### *International Markets*

The international equity markets performed very well with the Citigroup PMI EPAC Index up 38.4% while emerging markets equities gained more than 50%.

The Citigroup World Government Bond Index gained 14.9%, up over 5% in just the last quarter.

## INVESTMENT PERFORMANCE

### *Investment Goals*

PSRSSTL has a well-diversified investment portfolio with long-term goals of earning an 8.6% return and exceeding the rate of inflation by 4.0%. Over the short-term (three to five years), PSRSSTL assets are structured to mitigate volatility while ranking in the top half of a universe of public funds.

### *Investment Performance*

For the year ending December 31, 2003, the PSRSSTL portfolio returned 22.8%, ranking in the upper 35% of the Investment Consultants' Cooperative (ICC) Universe of Public Funds. This universe includes 1,700 public funds with assets of $1.5 trillion. For the five-year period ending December 31, 2003, PSRSSTL investment performance ranked in the upper 9% of the ICC Universe, earning a 6.3% return.

Investment performance by asset class for one-year and five-year periods ending December 31, 2003 is set forth below.

| | One Year | Five Years |
|---|---|---|
| *PSRS Total Portfolio* | *22.8%* | *6.3%* |
| Allocation Index | 23.5% | 3.7% |
| Median Public Fund | 22.1% | 4.5% |
| *PSRS Domestic Equities* | *33.7%* | *6.2%* |
| S&P 500 | 28.7% | -0.6% |
| Median Public Fund | 31.1% | 0.4% |
| *PSRS Domestic Bonds* | *8.9%* | *6.0%* |
| Lehman Aggregate Index | 4.1% | 6.6% |
| Median Public Fund | 5.1% | 6.8% |
| *PSRS International Equities* | *31.5%* | *N/A* |
| PMI EPAC Index | 38.4% | 0.7% |
| MSCI Emerging Index | 55.8% | 10.5% |
| Median International Fund | 34.8% | 5.8% |
| *PSRS Global Bonds* | *21.7%* | *9.0%* |
| Citigroup Global Index | 14.9% | 5.7% |
| Median Global Bonds | 16.6% | 6.8% |

## INVESTMENT STATISTICS

The Investment Information Section of this report provides statistical information about the PSRSSTL investment managers, securities held in the portfolio, and brokerage fees paid in 2003.

## INVESTMENTS AS OF DECEMBER 31, 2003 (000s omitted)

| | MANAGEMENT STYLE | RELATIVE TO TOTAL PORTFOLIO: MARKET VALUE Value | % | TARGET VALUE Value | % | VARIANCE Value | % | MARKET VALUE Value | % |
|---|---|---|---|---|---|---|---|---|---|
| **LARGE CAP GROWTH DOMESTIC EQUITIES** | | 82,089 | 8.5% | 96,217 | 10.0% | (14,128) | -1.5% | | |
| Buford, Dixon, Harper & Sparrow | Large Cap Growth | | | | | | | 16,280 | 19.8% |
| Monetary Management Group | Large Cap Growth | | | | | | | 44,391 | 54.1% |
| Weatherfield | Large Cap Growth | | | | | | | 21,418 | 26.1% |
| **LARGE CAP CORE DOMESTIC EQUITIES** | | 49,808 | 5.2% | 86,595 | 9.0% | (36,787) | -3.8% | | |
| Batterymarch Financial | Large Cap Core | | | | | | | 29,690 | 59.6% |
| Vanguard Institutional Index * | Large Cap Core | | | | | | | 12,634 | 25.4% |
| Vanguard Admiral Shares *(Funds Benefits Payments)* * | Large Cap Core | | | | | | | 7,484 | 15.0% |
| **LARGE CAP VALUE DOMESTIC EQUITIES** | | 88,604 | 9.2% | 48,108 | 5.0% | 40,496 | 4.2% | | |
| Chicago Equity Partners | Large Cap Value | | | | | | | 37,574 | 42.4% |
| The Edgar Lomax Company | Large Cap Value | | | | | | | 17,791 | 20.1% |
| Todd Investment Advisors | Large Cap Value | | | | | | | 33,239 | 37.5% |
| **MID CAP GROWTH DOMESTIC EQUITIES** | | 36,262 | 3.8% | 28,865 | 3.0% | 7,397 | 0.8% | | |
| New Amsterdam Partners | Mid Cap Growth | | | | | | | 36,262 | 100.0% |
| **SMALL/MICRO CAP DOMESTIC EQUITIES** | | 130,791 | 13.6% | 96,217 | 10.0% | 34,574 | 3.6% | | |
| Westfield Capital Management | Small Cap Growth | | | | | | | 44,097 | 33.7% |
| Systematic Financial Management | Small Cap Value | | | | | | | 45,278 | 34.6% |
| DFA * | Micro Cap | | | | | | | 41,416 | 31.7% |
| **TACTICAL ASSET ALLOCATION** | | 100,132 | 10.4% | 76,973 | 8.0% | 23,159 | 2.4% | | |
| Boston Trust Company | Balanced Fund | | | | | | | 100,132 | 100.0% |
| **INTERNATIONAL EQUITIES** | | 106,828 | 11.1% | 125,082 | 13.0% | (18,254) | -1.9% | | |
| Unfunded | Emerging Markets | | | | | | | 0 | 0.0% |
| State Street Index Fund * | International Equities | | | | | | | 106,828 | 100.0% |
| **CORE DOMESTIC BONDS** | | 160,462 | 16.7% | 96,217 | 10.0% | 64,245 | 6.7% | | |
| Vanderbilt Capital | Core Domestic Bonds | | | | | | | 68,898 | 42.9% |
| MDL Capital | Core Domestic Bonds | | | | | | | 22,413 | 14.0% |
| John Hancock | Core Domestic Bonds | | | | | | | 69,151 | 43.1% |
| **HIGH YIELD DOMESTIC BONDS** | | 59,471 | 6.2% | 48,108 | 5.0% | 11,363 | 1.2% | | |
| Credit Suisse | High Yield Bonds | | | | | | | 59,471 | 100.0% |
| **GLOBAL BONDS** | | 108,593 | 11.3% | 96,217 | 10.0% | 12,376 | 1.3% | | |
| Delaware International | Global Bonds | | | | | | | 108,593 | 100.0% |
| **MARKET NEUTRAL STRATEGY** | | 0 | 0.0% | 38,487 | 4.0% | (38,487) | -4.0% | | |
| Unfunded | Market Neutral | | | | | | | | |
| **HEDGED STRATEGIES** | | 0 | 0.0% | 48,108 | 5.0% | (48,108) | -5.0% | | |
| Unfunded | Fund of Funds | | | | | | | | |
| **REAL ESTATE **** | | 14,239 | 1.5% | 48,108 | 5.0% | (33,869) | -3.5% | | |
| Seven Funds & Residential Mortgages | Real Estate | | | | | | | 14,239 | 100.0% |
| **ALTERNATIVE INVESTMENTS **** | | 22,343 | 2.3% | 28,865 | 3.0% | (6,522) | -0.7% | | |
| Three Partnerships | Mezzanine Debt | | | | | | | 5,530 | 24.8% |
| Seventeen Investments | Venture Capital | | | | | | | 16,813 | 75.2% |
| **CASH** *(Does Not Include Managers' Residual Cash)* | STIF | 2,545 | 0.3% | 0 | 0.0% | 2,545 | 0.3% | | |
| **TOTAL** | | **$962,167** | **100.0%** | **$962,167** | **100.0%** | | | | |

* Institutional Comingled Fund - Valued as of Previous Month End
** Real Estate and Alternative Investment Market Values Provided by NEPC. Alternative Investments are valued at cost.

During the latter half of 2003, the Board of Trustees conducted its five-year analysis of the PSRSSTL Asset Allocation Policy. The target values shown above represent the newly adopted Asset Allocation Policy, which will be funded when the portfolio is restructured during the first six months of 2004. Notable changes in the PSRSSTL Asset Allocation Policy include the addition of Market Neutral and Hedge Fund strategies as well as a modest increase to Real Estate and the decision to fund the Emerging Markets allocation.

## DOMESTIC EQUITY INVESTMENTS

| | |
|---|---|
| 2003 Return | 33.7% |
| Average Market Capitalization | $45,329,300 |
| P/E Ratio | 19.14 |
| Price/Book Ratio | 3.74 |
| Five Year Earnings Growth Rate | 10.59 |

**Ten Largest Equity Holdings**

| Company | Dollar Value | Percent of Portfolio | Company | Dollar Value | Percent of Portfolio |
|---|---|---|---|---|---|
| Bank of America Corp. | $6,487,656 | 1.4% | Pfizer Inc. | 4,716,944 | 1.0% |
| Citigroup Inc. | 6,123,423 | 1.3% | Intel Corp. | 4,300,838 | 0.9% |
| General Electric Co. | 5,551,220 | 1.2% | Merck & Co. Inc. | 4,157,425 | 0.9% |
| Microsoft Corp. | 5,445,652 | 1.2% | Dell Inc. | 3,822,613 | 0.8% |
| Exxon Mobil Corp. | 5,413,289 | 1.2% | Cisco Systems | 3,799,661 | 0.8% |

**Ten Best Performing Equity Holdings**

| Company | Return | Company | Return |
|---|---|---|---|
| Allou Healthcare | 4900.0% | Zymtex Inc. | 650.0% |
| Nucentrix Broadband | 1762.0% | Arrhythmia Resh Tec. | 402.9% |
| Wireless Webconnect | 1200.0% | Cal Maine Foods Inc. | 389.1% |
| Bayou Steel Corp. | 900.0% | Primus Knowledge So. | 339.9% |
| Standard Automotive | 900.0% | Imperial Sugar Co. W | 288.7% |

**Ten Worst Performing Equity Holdings**

| Company | Return | Company | Return |
|---|---|---|---|
| Team America Inc. Co. | -100.0% | Aurora Foods | -95.2% |
| Piccadilly Cafeteria | -100.0% | Rohn Industries, Inc. | -95.0% |
| Holiday RV Superstore | -99.6% | Cannon Express, Inc. | -92.2% |
| Rouge Inds Inc. Del. | -98.9% | Greens Worldwide, Inc. | -92.1% |
| Aspeon Inc. | -96.4% | Fleming Cos Com $US | -91.4% |

## DOMESTIC BOND INVESTMENTS

PSRSSTL domestic bond investments had an overall average maturity of 6.87 years, a duration of 4.02 years, and an average quality rating of 7.93. During 2003, the PSRSSTL domestic bond portfolio earned 8.9%. A statistical description of the bond investments is shown below.

| Bond Portfolio Maturity in Years | Percent of Portfolio |
|---|---|
| 0.0 - 1.0 | 4.1% |
| 1.0 - 3.0 | 25.8% |
| 3.0 - 5.0 | 27.5% |
| 5.0 - 10.0 | 26.3% |
| 10.0 - 20.0 | 2.2% |
| 20 + | 3.0% |
| Unclassified | 11.2% |

| Bond Portfolio Duration in Years | Percent of Portfolio |
|---|---|
| 0.0 - 1.0 | 4.9% |
| 1.0 - 3.0 | 27.6% |
| 3.0 - 4.0 | 18.1% |
| 4.0 - 6.0 | 25.1% |
| 6.0 - 8.0 | 8.6% |
| 8.0 + | 4.3% |
| Unclassified | 11.4% |

| Bond Portfolio Quality Rating | Percent of Portfolio |
|---|---|
| Government (10) | 45.0% |
| Aaa(10) | 3.1% |
| Aa(9) | 2.8% |
| A(8) | 6.1% |
| Baa(7) | 9.5% |
| Below Baa(6-1) | 29.6% |
| Other | 3.9% |

## BROKERAGE FEES

| Brokerage Company | Commission | Brokerage Company | Commission | Brokerage Company | Commission |
|---|---|---|---|---|---|
| A G Edwards | 4,763.00 | First Union | 5,625.50 | Morgan Stanley | 19,172.50 |
| ABD Securities | 860.00 | Fox Pitt Kelton Inc. | 228.00 | Morgan Equities Inc. | 992.00 |
| Access Securities | 4,002.00 | Frank Russell | 360.00 | Needham | 3,569.00 |
| Adams Harknett and Hill | 5,176.00 | Friedman, Billings & Ramsey | 2,086.35 | Nutmeg Securities | 979.00 |
| Advest | 16.00 | Fulcrum Global Partners | 300.00 | Oppenheimer & Co. | 1,858.00 |
| Alex Brown & Sons | 2,569.50 | Gerard Klauer Mattison | 1,528.00 | Ormes Capital Markets | 495.00 |
| Allen & Co. | 1,576.00 | Goldman Sachs | 13,979.00 | Pacific Equities Growth | 2,061.25 |
| American Technology Research | 820.00 | Griswold Company | 1,164.00 | Paine Webber | 1,686.00 |
| Autranet Incorporated | 318.65 | GRW Capital | 6,007.56 | Pershing | 471.50 |
| B Trade Services LLC | 285.00 | Guzman & Co. | 75.00 | Prudential Equities Group | 272.00 |
| Baird & Company | 20.00 | Heflin | 304.00 | Prudential Securities | 4,072.28 |
| Banc Boston Securities Inc. | 24.00 | Hoenig & Co. | 1,720.00 | Raymond James | 642.00 |
| Bear Stearns | 13,702.75 | Howard Weil | 32.00 | RBC Dominion Securities Group | 2,303.50 |
| Berean Capital, Inc. | 1,062.00 | Independent Research Group | 20.00 | Sandler, O'Neill | 1,409.00 |
| Berstein, Sanford & Co. | 6,381.00 | Instinet | 8,548.26 | SBC Capital Markets | 28,714.67 |
| Blair, William | 2,226.00 | Investment Technology Group | 14,083.71 | Schwab, Charles & Co. | 1,128.00 |
| Boston Institutional Services | 2,766.00 | ISI Group, Inc. | 712.00 | Scotti McLeod USA Inc. | 15.00 |
| Brean Murray Foster Securities | 156.00 | J P Morgan | 4,974.00 | SK International | 425.00 |
| Bridge Trading Ernst Co. | 6,185.65 | Jackson Partners | 4,140.00 | Smith Barney Shearson | 120.00 |
| Broadcourt | 183,785.62 | Jefferies | 22,671.45 | Solomon Brothers | 17,615.75 |
| Burns Fry & Timm | 604.00 | Johnson Rice | 236.00 | Soundview Financial | 1,621.00 |
| Cable Howse | 120.00 | JOM Securities | 1,882.00 | Standard/Poor Securities | 20,706.85 |
| Cantor Fitzgerald | 33,956.58 | Jones Associates | 10,731.00 | Stephens Inc. | 328.00 |
| Capital Institution Services | 2,749.00 | Kauffman Brothers | 272.00 | Stifel Nicolaus | 1,852.00 |
| Carlin Equities | 332.00 | Keefe Bruyette | 451.00 | Suntrup Robinson Humphrey | 196.00 |
| Comvest | 256.00 | Knight Securities LP | 1,452.00 | Unterburg Harris | 996.00 |
| Cowen & Co. | 3,639.00 | Lazard Freres & Co. | 260.00 | US Bank Asset Mgmt | 3,096.00 |
| Croix Securities | 1,122.01 | Leerink Swann & Co. | 978.64 | Utendahl Capital Partners | 562.00 |
| Deutsche Bank Capital | 800.00 | Legg Mason Wood Walker | 460.00 | Wagner Stott | 308.00 |
| Donaldson & Co. | 11,405.30 | Lehman Brothers | 42,805.60 | Wedbush Securities | 1,316.00 |
| Donaldson Lufkin | 17,736.40 | Liquinet Inc. | 5,676.50 | Weeden & Co. | 2,995.50 |
| Exection Services | 2,805.00 | Magna Securities | 55.00 | Weiss Pack and Greer | 8,560.00 |
| Factset Data Systems | 26,627.95 | McDonald & Co. | 1,750.00 | Wells Fargo Securities | 284.00 |
| Fahnestock & Co. | 970.00 | Merrill Lynch Pierce | 12,742.70 | Westminster Researach | 234.00 |
| Fidelity Capital Markets | 1,145.00 | Midwest Research Securities | 525.00 | Wheat First Securities | 27,605.00 |
| Fidelity Capital Markets | 130.00 | Miller Tabak Roberts Securites | 696.00 | Whitaker Securities | 44.00 |
| First Albany Corp | 232.00 | Monness Crespi | 344.00 | Williams Capital Group | 1,080.00 |
| First Boston | 17,442.20 | Montgomery Securities | 3,856.50 | Wilshire Associates, Inc. | 69,194.36 |
| **TOTAL COMMISSIONS** | | | | | **$761,480.54** |

## MARKET VALUE OF ASSETS

| Investment Category | As of December 31, 2001 | | As of December 31, 2002 | | As of December 31, 2003 | |
|---|---|---|---|---|---|---|
| | Market Value | % of Total | Market Value | % of Total | Market Value | % of Total |
| Cash, Receivables, Cash Equivalents | $54,629,662 | 5.8% | $56,232,688 | 6.6% | $54,995,063 | 5.6% |
| U.S. Bonds, Bills and Mortgages | 104,712,936 | 11.1% | 98,092,066 | 11.5% | 97,451,454 | 9.8% |
| Corporate Bonds | 147,404,245 | 15.6% | 135,775,862 | 15.9% | 125,806,789 | 12.7% |
| Foreign Corporate & Government Bonds | 0 | 0.0% | 0 | 0.0% | 105,190,045 | 33.1% |
| Common Stocks | 380,796,183 | 40.4% | 282,364,602 | 33.0% | 404,008,767 | 33.1% |
| Mutual Funds | 213,058,724 | 22.6% | 247,014,623 | 28.9% | 170,285,419 | 17.2% |
| Real Estate - Insurance Contracts | 1,020,690 | 0.1% | 1,087,389 | 0.1% | 1,156,835 | 0.1% |
| Mortgages | 172,166 | 0.0% | 129,852 | 0.0% | 111,156 | 0.0% |
| Alternative Investments * | 41,304,911 | 4.4% | 33,668,151 | 3.9% | 31,110,813 | 3.1% |
| **Total** | **$943,099,517** | **100.0%** | **$854,365,233** | **100.0%** | **$990,116,341** | **100.0%** |

* Carried at Cost Value

# PUBLIC SCHOOL RETIREMENT SYSTEM
# OF THE CITY OF ST. LOUIS

## ACTUARIAL VALUATION
## AS OF JANUARY 1, 2003

OCTOBER

2003

## PURPOSE OF THE REPORT

This report is submitted in accordance with Section 169.450-15 Revised Statutes of Missouri (R.S. Mo.) 1997 and amendments that require the actuary to make an annual valuation of the assets and liabilities of the System. The purpose of the actuarial valuation is twofold: (1) to determine the required annual contributions from the Board of Education, the Retirement System and Harris-Stowe State College (or the State of Missouri); and (2) to develop information to measure the relative financial condition of the System.

The required contribution to the Retirement System from the Board of Education, the Retirement System, charter schools and Harris-Stowe State College (or the State of Missouri) is computed in accordance with Section 169.490 R.S. Mo. 1997. The amount of the required contribution is stated in Table C of this report. A description of the actuarial cost method and assumptions appears in Section 3.

Information concerning the financial condition and factors affecting it will be found throughout the report. There is no generally accepted single measure or standard for determining whether or not a retirement system is "actuarially sound." The financial health of a retirement system is measured best on a relative basis. Results are compared over a period of years to determine whether adequate progress is being made in the funding of the system's liabilities. Another relative measure is the stability of the contribution rate, with recognition for changes in funding requirements due to changes in benefit provisions. The actuarial balance sheet also provides an indication of the relative financial condition of the plan.

## COMMENTS

This actuarial valuation is based on the same actuarial assumptions and actuarial cost method as were sued in the prior actuarial valuation. The System had favorable actuarial experience for the year ending December 31, 2002, resulting in a decrease in the Annual Required Contribution rate from 8.00% to 6.77%. The primary factors producing the favorable experience were higher than expected turnover and the decrease in number of members participating in the extended school year program. Partially offsetting the favorable demographic experience was a net investment return on an actuarial basis of 7.00%, which was below the 8.00% assumed rate of return for 2002.

As a part of the package to increase benefits in 2001, the Board of Education agreed to fix the employer contribution at 8.00% for 2001 and institute a one-year lag for future years. Therefore, this actuarial valuation is used to determine the actual contribution rate for 2004. The dollar amount of the actual contribution decreased from $19,517,288 for 2003 to $19,210,506 for 2004. As a percentage of covered compensation the contribution rate for 2004 decreased to 6.77% from 8.00% for 2003.

Under the actuarial funding method used to determine the contribution, actuarial gains (or losses) result in a decrease (or increase) in the normal cost rate. Actuarial gains (or losses) result from differences between the actual experience of the System and the expected experience projected by the actuarial assumptions. The assumptions are based on the long-term expected experience of the System. Actuarial gains (or losses) reflect short-term deviations between actual and expected experience. Since the normal cost is redetermined on an annual basis, the normal cost will usually fluctuate from year-to-year. For 2003, the annual normal cost is $2,035,547 or 0.72% of the covered payroll of $283,935,810.

The actuarial accrued liability contribution is determined as the amount necessary to amortize the remaining Unfunded Frozen Actuarial Accrued Liability (UFAAL) over a period of 30 years. As a modification to the actuarial cost method, the Board of Trustees acted to redetermine the UFAAL effective January 1, 2002 and to phase in the difference between the new and old UFAAL over a five-year period. This portion of the contribution only changes to reflect changes in benefits or changes in actuarial assumptions and methods. The UFAAL was decreased by $15,174,627 as the adjustment of the 5-year phase-in of the redetermined UFAAL. The Board of Trustees also adopted a 30-year amortization period for the UFAAL, replacing the 30 to 50 year periods applying to the original UFAAL and supplements.

In our opinion, the Retirement System has been and will continue to be funded on a sound actuarial basis provided the required contributions are made as recommended in this report.

Respectfully submitted,

James S. Rubie, Jr., F.S.A.

## SUMMARY OF PRINCIPAL RESULTS OF THE ACTUARIAL VALUATION AS OF JANUARY 1, 2003

### ANNUAL REQUIRED CONTRIBUTION

| 2003 | Board of Education | Harris-Stowe State College | Retirement System | Charter Schools | Total |
|---|---|---|---|---|---|
| Normal Cost Contribution | $ 1,973,677 | $ 953 | $ 3,179 | $ 57,738 | $ 2,035,547 |
| Actuarial Accrued Liability Contribution | 16,652,928 | 8,040 | 26,826 | 487,165 | 7,174,959 |
| Annual Required Contribution | $ 18,626,605 | $ 8,993 | $ 30,005 | $ 544,903 | $ 19,210,506 |
| Covered Payroll | 275,305,609 | 132,920 | 443,494 | 8,053,787 | 283,935,810 |
| ARC as % of Covered Payroll | 6.77% | 6.77% | 6.77% | 6.77% | 6.77% |
| **2002*** | | | | | |
| Normal Cost Contribution | $ 952,895 | $ 629 | $ 1,626 | $ 27,251 | $ 982,401 |
| Actuarial Accrued Liability Contribution | 17,978,190 | 11,876 | 30,682 | 514,139 | 18,534,887 |
| Annual Required Contribution | $ 18,931,085 | $ 12,505 | $ 32,308 | $ 541,390 | $ 19,517,288 |
| Covered Payroll | 236,555,079 | 156,266 | 403,712 | 6,764,981 | 243,880,038 |
| ARC as % of Covered Payroll | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% |

| SYSTEM ASSETS | January 1, 2002* | January 1, 2003 |
|---|---|---|
| Expense and Contingency Reserve | $ 73,531,272 | $ 62,712,231 |
| Market Value, excluding Expense & Contingency Reserve | 868,714,978 | 790,058,583 |
| Actuarial Value | 861,128,076 | 873,260,102 |
| **SYSTEM LIABILITIES** | | |
| Unfunded Actuarial Accrued Liability | $ 208,661,737 | $ 189,949,103 |
| Actuarial Present Value of Projected Accrued Benefits | 964,833,027 | 970,023,191 |
| **FUNDING RATIO** | | |
| Actuarial Value Funding Ratio | 89.3% | 90.0% |
| Market Value Funding Ratio | 90.0% | 81.5% |

* *Prior year shown for comparison purposes only.*

## ACTUARIAL METHODOLOGY

### INTRODUCTION

The actuarial valuation of a defined benefit retirement system is comprised of two separate processes.

First, the actuarial present value, as of the valuation date, of both current and projected benefits to be paid under the plan is determined. In determining the actuarial present value of these benefits, actuarial assumptions must be made as to the number of participants eventually receiving benefits, the amount of benefits to be paid, and the portion of the benefit obligation to be covered by future investment earnings.

Second, the financing of these benefit obligations on an advance basis is established. An actuarial cost method is applied to establish the NORMAL COST, which is the rate at which future costs will accrue annually after the valuation date. The actuarial cost method is applied to determine the ACTUARIAL ACCRUED LIABILITY, which is the amount of cost that has accrued as of the valuation date.

### ACTUARIAL ASSUMPTIONS

The true cost of a member's retirement benefit is not known until he or his beneficiary has received the final benefit payment. Consequently, the exact cost of system benefits for the current employee group will not be determinable for 50 to 75 years. Since provisions for this cost must be made prior to the exact determination, a model is established that will estimate the future cost of system benefits. The model utilizes parameters that require assumptions as to the future occurrences of various events affecting the demographic profile of the employee group and the assets of the system. Such actuarial assumptions include death, retirement, termination, disability, salary increases and investment return. Current and long-term economic factors, the nature of the employer's business and significant features of the system must be considered in the selection of a set of actuarial assumptions to assure the reasonableness of the results predicted by the assumptions.

While care is taken in the selection of actuarial assumptions, actual experience is expected to deviate from these assumptions over the short term. The suitability of actuarial assumptions is measured by how closely the experience of the system, on a long-term basis, conforms to projected results. Deviations from projected results are called actuarial gains and losses. Periodic actuarial valuations measure the extent of these gains and losses as of a valuation date. If either actuarial gains or losses predominate, then it is possible that one or more of the actuarial assumptions is no longer appropriate. Thus, actuarial assumptions must be continually monitored for reasonableness and subsequent cost estimates may be modified accordingly. While individual assumptions are intended to be representative, it is the aggregate effect of all actuarial assumptions working together that determines their appropriateness.

An analysis of the experience of the Retirement System for the five-year period ending December 31, 2000 was performed. On the basis of that analysis, several actuarial assumptions were changed effective with the January 1, 2002 valuation. The next scheduled experience analysis is for the five-year period ending December 31, 2005.

### ACTUARIAL LIABILITIES

Actuarial liabilities include the actuarial present value of all future benefits and expenses. To determine the actuarial present value of all future benefits, the probability of future events that establish benefit payments is forecast utilizing the actuarial assumptions. System provisions and current member data are used to forecast the amount of benefits to be paid. Assumptions for survival among retired members and beneficiaries are used to estimate the duration of these benefit payments. Each probable benefit payment is then discounted to the valuation date using the actuarial assumption for investment return. These discounted payments are then summed to arrive at the total actuarial present value of benefits.

### ACTUARIAL ASSETS

The actuarial assets at any time are equal to the sum of present assets, valued on an actuarial basis, plus future assets. Future assets will result from future contributions and future investment return on all assets.

### ASSET VALUATION METHOD

The actuarial value of other assets is determined using the assumed yield method of valuing assets, less the Expense and Contingency Reserve. Under

**ACTUARIAL METHODOLOGY** (continued)

the assumed yield asset valuation method, the prior year's actuarial value is increased at the assumed rate of return with appropriate adjustments for contributions and disbursements to produce an expected actuarial value of assets at the end of the year. The expected actuarial value is compared to the market value of assets, and 20% of the difference is added to the expected actuarial value. The Expense and Contingency Reserve is excluded from the calculation to produce the actuarial value of assets.

## ACTUARIAL BALANCE SHEET

The actuarial balance sheet of a retirement system displays the fundamental financial status of the system on the valuation date. As stated previously, the system liabilities are the sum of the actuarial present values of all future projected benefit payments to current active and inactive plan members and beneficiaries. Current assets, valued on an actuarial basis, plus the actuarial present value of future employer and employee contributions comprise the total actuarial assets of the system.

The actuarial present value of future employer contributions is the only item on the balance sheet that is not directly determined by the system provisions, current assets, member data and actuarial assumptions. In fact, the actuarial present value of future employer contributions is the balancing item and reflects the future employer funding requirements based on the existing member population.

## ACTUARIAL COST METHOD

To determine the funding requirements of the system, it is necessary to employ an actuarial cost method. The choice of the cost method does not affect the balance sheet financial status, which is a function only of the system provisions, actuarial assumptions, member data and assets. However, the actuarial cost method has a direct impact on the incidence of the funding requirements. The actuarial cost method allocates the actuarial present value of future employer contributions between the past and future, and thus establishes the Unfunded Actuarial Accrued Liability (UFAAL) and the Normal Cost.

The actuarial cost method is the "frozen entry age actuarial cost method." Entry age is determined at the date each member would have entered the system. On the initial actuarial valuation date for which the cost method is used, the annual cost accruals (individual normal costs for each member) are determined as a level percentage of pay for each year from entry age until retirement or termination. The sum of these individual normal costs for all active members whose attained ages are under the assumed retirement age is the normal cost for the initial plan year. The excess of all normal costs falling due prior to the initial actuarial valuation date, accumulated with interest, over the plan assets represents the initial UFAAL.

In subsequent years, the unfunded actuarial accrued liability is frozen, that is, it increases only because of the accrual of interest and additional normal costs, and decreases only as a result of contributions. Supplements to the UFAAL can occur for plan amendments or actuarial assumption changes. Supplements are determined by computing the change in the actuarial accrued liability as of the valuation date coincident with or next following the change. The UFAAL was originally determined and frozen as of January 1, 1981. Effective January 1, 2002, UFAAL was redetermined and the difference between the new and old UFAAL will be phased in over five years.

Subsequent normal costs are calculated as the level percentage of pay required to fund the excess of the actuarial present value of future benefits over the sum of the actuarial value of assets and the remaining UFAAL.

The funding requirement for each plan year is the sum of the "normal cost contribution" (equal to the normal cost for that year), plus the "actuarial accrued liability contribution." The "actuarial accrued liability contribution" is the payment required to amortize the UFAAL over 30 years.

## ACTUARIAL ASSUMPTIONS

The following actuarial assumptions were used in the valuation:

***Interest*** – 8% per annum, net of expenses.

***Salary Scale*** – Salaries are assumed to increase at the rate of 4.5% per year.

***Mortality*** – The 1983 Group Annuity Mortality Table for males and females is used for active members, retired members and beneficiaries.

***Disability Mortality*** – Disability mortality rates are based on the actual experience of the Retirement System.

***Disability*** – Disabilities are assumed to occur at rates based on the actual experience of the Retirement System.

***Withdrawal*** – Select and ultimate rates based on actual experience of the Retirement System are used.

During the first three years of membership, the rates for members employed by employers other than Charter Schools are:

| Year of | Withdrawal Rate | |
|---|---|---|
| Membership | Males | Females |
| 1 | 17.5% | 15.0% |
| 2 | 15.0% | 12.5% |
| 3 | 10.0% | 10.0% |

During the first three years of membership, the rates for members at Charter Schools are:

| Year of | Withdrawal Rate | |
|---|---|---|
| Membership | Males | Females |
| 1 | 50.0% | 50.0% |
| 2 | 25.0% | 25.0% |
| 3 | 15.0% | 15.0% |

***Retirement*** – Retirements are assumed to occur at rates based on the actual experience of the Retirement System. For those eligible to retire under the Rule of 85, it is assumed that 50% will retire when first eligible for unreduced benefits unless the age-related rate is greater, but not prior to 30 years of Credited Service.

***Family Structure*** – The probability of a member being married and the probable number of children are based on a table constructed by the Social Security Administration, modified to reflect the experience of the Retirement System.

## ACTUARIAL ASSUMPTIONS (continued)

### ACTIVE MEMBER RATES OF DECREMENT

| Attained | Withdrawal Rates | | Disability Rates | | Retirement |
|---|---|---|---|---|---|
| Age | Males | Females | Males | Females | Rate |
| 20 | 15.00% | 15.00% | 0.00% | 0.00% | 0.00% |
| 25 | 12.50% | 12.50% | 0.00% | 0.00% | 0.00% |
| 30 | 9.00% | 9.00% | 0.40% | 0.40% | 0.00% |
| 35 | 7.00% | 7.00% | 0.40% | 0.40% | 0.00% |
| 40 | 6.00% | 6.00% | 0.80% | 0.75% | 0.00% |
| 45 | 3.00% | 3.00% | 0.15% | 0.10% | 0.00% |
| 50 | 2.00% | 2.00% | 0.20% | 0.15% | 0.00% |
| 55 | 1.50% | 1.50% | 0.45% | 0.25% | 5.00% |
| 60 | 1.00% | 1.00% | 0.55% | 0.32% | 7.50% |
| 65 | 0.00% | 0.00% | 0.00% | 0.00% | 35.00% |
| 70 | 0.00% | 0.00% | 0.00% | 0.00% | 100.00% |

### NON-DISABLED LIFE MORTALITY RATES

| | Death Rate | | | Death Rate | |
|---|---|---|---|---|---|
| Male | Age | Female | Male | Age | Female |
| .000860 | 35 | .000476 | .044597 | 75 | .023992 |
| .001238 | 40 | .000665 | .074070 | 80 | .042945 |
| .002183 | 45 | .001010 | .114836 | 85 | .069918 |
| .003909 | 50 | .001647 | .166307 | 90 | .111750 |
| .006131 | 55 | .002541 | .234086 | 95 | .182419 |
| .009158 | 60 | .004241 | .319185 | 100 | .295187 |
| .015592 | 65 | .007064 | .469531 | 105 | .487816 |
| .027530 | 70 | .012385 | 1.000000 | 110 | 1.000000 |

### DISABLED LIFE MORTALITY RATES

(PER 1,000 DISABLED PENSIONERS)

| | Death Rate | | | Death Rate | |
|---|---|---|---|---|---|
| Male | Age | Female | Male | Age | Female |
| 48.7 | 40 | 51.0 | 96.1 | 75 | 73.5 |
| 44.8 | 45 | 48.7 | 131.5 | 80 | 96.1 |
| 43.2 | 50 | 44.8 | 180.9 | 85 | 131.5 |
| 43.1 | 55 | 43.2 | 252.9 | 90 | 180.9 |
| 48.7 | 60 | 43.1 | 348.1 | 95 | 252.9 |
| 59.8 | 65 | 48.7 | 785.7 | 100 | 348.1 |
| 73.5 | 70 | 59.8 | 1000.0 | 101 | 1000.0 |

## ACTUARIAL BALANCE SHEET

### Actuarial Assets

| | | |
|---|---|---|
| Actuarial value of present assets | | $ 873,260,102 |
| Actuarial present value of future member contributions | | 110,620,240 |
| Actuarial present value of future employer contributions for: | | |
| Normal Costs | | 14,686,521 |
| Actuarial Accrued Liability | | 189,949,103 |
| Total present and future assets | | $ 1,188,515,966 |

### Actuarial Liabilities

| | | |
|---|---|---|
| Actuarial present value of benefits now payable | | $ 479,157,887 |
| Actuarial present value of benefits payable in the future | | |
| Active members – New Plan | 577,036,737 | |
| Active members -- Old Plan | 98,759 | |
| Active members -- DROP | 118,747,088 | |
| Members on leave of absence without pay | 1,363,389 | |
| Terminated members | 12,112,106 | |
| Total payable in the future | | 709,358,079 |
| Total liabilities for benefits | | $ 1,188,515,966 |

## PROJECTED BENEFIT OBLIGATION FUNDING STATUS

### Projected Benefit Obligation at January 1, 2003:

| | |
|---|---|
| Retired members and beneficiaries currently receiving benefits and terminated members not yet receiving benefits | $ 492,633,382 |
| Current active members: | |
| Accumulated member contributions, including interest | 115,570,837 |
| Employer-financed vested benefits | 359,131,518 |
| Employer-financed non-vested benefits | 2,687,454 |
| Total Projected Benefit Obligation | $ 970,023,191 |

### At January 1, 2003, the Projected Benefit Obligation was funded as follows:

| | |
|---|---|
| Net assets available for benefits at actuarial value | $ 873,260,102 |
| Unfunded Projected Benefit Obligation | 96,763,089 |
| Actuarial value funding ratio | 90.0% |
| Net assets available for benefits at market value | $ 790,898,408 |
| Unfunded Projected Benefit Obligation | 179,124,783 |
| Market value funding ratio | 81.5% |

## PRIORITIZED SOLVENCY TEST

The funding objective of the Retirement System is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percentage of covered Compensation. If the contributions are level in concept and realistically determined, the System will pay all benefits when due -- the ultimate test of financial soundness. Testing for level contribution rates is the long-term solvency test.

A prioritized solvency test is an additional means of checking a system's progress under its funding program. In a prioritized solvency test, the plan's present assets (cash and investments) are compared with:
-- active member contributions, accumulated with interest;
-- the liabilities for future benefits to present inactive members and beneficiaries; and
-- the liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member accumulated contributions (liability 1) and the liabilities for future benefits to inactive members and beneficiaries (liability 2) will be fully covered by assets (except in unusual circumstances). In addition, the liabilities for service already rendered by active members (liability 3) are normally partially covered by the remainder of the present assets. Generally, if the system has been using level cost financing, the funded portion of liability 3 will increase over time. Liability 3 being fully funded does not necessarily result from level percent of payroll funding methods.

The schedule below illustrates the history of the liabilities of the system and is indicative of the system following the discipline of level percent of compensation funding.

| | Actuarial Present Value of Credited Projected Benefits | | | | | | |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | | | | |
| Valuation Date January 1 | Active Members' Accumulated Contributions | Retirants, Inactive Members & Beneficiaries | Active Members (Employer-Financed) | Actuarial Value of Assets | Percent of Present Value Covered by Valuation Assets (1) | (2) | (3) |
| 1993 | 96,350,532 | 176,391,424 | 216,680,909 | 458,279,727 | 100 | 100 | 86 |
| 1994 | 104,202,541 | 189,651,537 | 222,503,913 | 487,385,302 | 100 | 100 | 87 |
| 1995 | 108,933,074 | 204,234,143 | 226,947,717 | 519,088,399 | 100 | 100 | 91 |
| 1996 | 114,061,708 | 236,007,330 | 250,659,986 | 562,177,274 | 100 | 100 | 85 |
| 1997 | 118,041,749 | 272,393,748 | 251,827,653 | 598,638,356 | 100 | 100 | 83 |
| 1998 | 122,227,173 | 296,455,647 | 252,445,749 | 644,429,672 | 100 | 100 | 90 |
| 1999 | 130,705,014 | 276,290,128 | 303,953,494 | 694,250,672 | 100 | 100 | 95 |
| 2000 | 129,398,364 | 353,852,977 | 288,213,016 | 770,090,498 | 100 | 100 | 100 |
| 2001 | 127,086,325 | 414,052,293 | 269,590,438 | 828,097,298 | 100 | 100 | 100 |
| 2002 | 116,506,785 | 476,104,516 | 372,221,726 | 861,128,076 | 100 | 100 | 72 |
| 2003 | 115,570,837 | 492,633,382 | 361,818,972 | 873,260,102 | 100 | 100 | 73 |

## ACTUARIAL VALUE OF ASSETS

This section of the report shows the development of the actuarial value of the assets of the System and provides information regarding the Expense and Contingency Reserve, investment results and the various assets of the System.

The amount of assets used in the actuarial valuation is known as the "actuarial value of assets". The method is discussed on pages 26 and 27 of this Report and the development of the actuarial value of assets is shown in the table below. An important element in the development of the actuarial value of assets is the Expense and Contingency Reserve (called the Expense Fund prior to 1988). The amount of the Reserve is determined pursuant to a policy adopted by the Board of Trustees. The history of the Reserve is presented on page 33 of this Report.

As shown on page 34 of this Report, the fund had a rate of return of 7.00% on an actuarial value basis. This was 1.00% below the assumed rate of return of 8.0% for 2002. In accordance with Rule XI, the investment contingency portion of the Reserve was decreased by $12,243,767 because the preliminary actuarial rate of return was below the assumed rate of return by more than 2%.

The rate of return on an actuarial value basis is intended to be a stable rate of return and fluctuate less than rates of return on book or market value basis. Thus, the rate of return on an actuarial basis is not always a fair measure of the investment performance of the fund. Another indicator of actual performance during the year is the rate of return on a market value basis of -5.91%, also presented on page 34 of this Report.

### DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

| | | |
|---|---|---|
| (1) | Actuarial value of assets as of January 1, 2002 | $ 861,128,076 |
| (2) | Member contributions | 13,171,337 |
| (3) | Employer contributions | 21,213,347 |
| (4) | Benefit payments and expenses | 68,345,513 |
| (5) | Investment increment at 8.0% | 66,683,279 |
| (6) | Expected actuarial value on January 1, 2003: | |
| | (1) + (2) + (3) - (4) + (5) | 893,850,526 |
| (7) | Market value of assets on January 1, 2003 | 853,610,639 |
| (8) | Expense and Contingency Reserve on December 31, 2002 | 74,955,998 |
| (9) | Adjustment to the Contingency Reserve on January 1, 2003 | (12,243,767) |
| (9) | Excess of market value over expected actuarial value: (7) – (8) – (6) | (102,952,118) |
| (10) | Market value adjustment: 20% x (9) | (20,590,424) |
| (11) | Actuarial Value of Assets as of January 1, 2003: (6) + (10) | 873,260,102 |

## EXPENSE AND CONTINGENCY RESERVE

Effective January 1, 1996 the Board of Trustees revised Rule XI, which governs the determination of the amount of the Expense and Contingency Reserve. The expense portion of the Reserve is the sum of:

(1) The estimated annual operating expenses for the ensuing year:

(2) An amount equal to the liability for non-insurance supplements;

(3) An amount equal to the liability for insurance supplements for those members participating in the program on January 1; and

(4) The estimated amount of insurance supplements to be paid for members expected to retire and participate in the program during the ensuing year.

The contingency portion of the Reserve is intended to cover significant shortfall in the rate of return. When a significant shortfall occurs, the Reserve is used to reduce the amount of the shortfall. When the rate of return exceeds the assumed rate of return by more than 1%, an addition is made to the Reserve according to a formula in Rule XI.

Below is a history of the Expense and Contingency Reserve:

| January 1 | Expense Reserve | Investment Contingency Reserve | Total Expense and Contingency Reserve |
|---|---|---|---|
| 1996 | $ 33,702,346 | $ 0 | $ 33,702,346 |
| 1997 | 25,403,190 | 5,220,821 | 30,624,011 |
| 1998 | 30,891,555 | 24,100,041 | 54,991,596 |
| 1999 | 22,142,759 | 45,972,067 | 68,114,826 |
| 2000 | 27,992,032 | 50,003,862 | 77,995,894 |
| 2001 | 29,837,776 | 50,003,743 | 79,841,519 |
| 2002 | 23,527,529 | 50,003,743 | 73,531,272 |
| 2003 | 24,952,255 | 37,759,976 | 62,712,231 |

## INVESTMENT PERFORMANCE

There are several different methods of approximating the rates of return on investments of the Trust Fund. Following is a brief comparison of the actuarial assumed rate of return as compared with rates of return on Market and Actuarial Value bases:

### (a) Market Value Basis

The rate of return on a Market Value Basis is the ratio of the appreciation (or depreciation) of assets less contributions plus disbursements to the Market Value at the beginning of the year plus the average of the receipts and disbursements made during the year. This may be approximated as follows:

| | | |
|---|---|---|
| (i) | A = Market Value of Assets as of January 1, 2002 | $ 942,246,250 |
| (ii) | B = Market Value of Assets as of January 1, 2003 | 853,610,639 |
| (iii) | C = Contributions during the period | 34,384,684 |
| (iv) | D = Disbursements during the period | 68,345,513 |
| (v) | Rate of Return: $\frac{B - A + D - C}{A + \frac{1}{2}(C - D)}$ | -5.91% |
| (vi) | Actuarial Assumed Rate of Return for 2002 | 8.00% |
| (vii) | Difference between actual and assumed rates of return: (v) – (vi) | -13.91% |

### (b) Actuarial Value Basis

The rate of return on an Actuarial Value Basis is approximated using the same method as the Market Value Basis:

| | | |
|---|---|---|
| (i) | A = Actuarial Value of Assets as of January 1, 2002 | $861,128,076 |
| (ii) | I = Income Allocated as of January 1, 2003 | 58,336,622 |
| (iii) | C = Contributions during the period, time-weighted | 6,915,889 |
| (iv) | D = Disbursements during the period, time-weighted | 34,172,756 |
| (v) | Rate of Return: $\frac{I}{A + C - D}$ 7.00% | |
| (vi) | Actuarial Assumed Rate of Return for 2002 | 8.00% |
| (vii) | Difference between actual and assumed rates of return: (v) – (vi) | -1.00% |

## MEMBERSHIP AND BENEFITS PAID AS OF JANUARY 1, 2003

| | Males | Females | Total |
|---|---|---|---|
| **ACTIVE MEMBERS** | | | |
| Old Plan | 1 | 1 | 2 |
| New Plan | 1,938 | 4,604 | 6,542 |
| DROP | 93 | 291 | 384 |
| Total Active | 2,032 | 4,896 | 6,928 |
| **INACTIVE MEMBERS** | | | |
| Terminated or Leave of Absence Without Pay | 165 | 329 | 494 |
| Total Members Not Retired | 2,197 | 5,225 | 7,422 |
| **RETIRED MEMBERS AND BENEFICIARIES** | | | |
| Retired Members and Contingent Annuitants | 850 | 2,209 | 3,059 |
| Survivors | 39 | 214 | 253 |
| Disabled Members | 84 | 182 | 266 |
| Total Retired Members and Beneficiaries | 973 | 2,605 | 3,578 |
| **TOTAL MEMBERSHIP** | 3,170 | 7,830 | 11,000 |

### NUMBER OF RETIRED MEMBERS AND BENEFICIARIES

| Option | Service Benefit | Disability Benefit | Survivor Benefit | TSA Benefit |
|---|---|---|---|---|
| 0 | 2,662 | 240 | 253 | 41 |
| 1 | 96 | 15 | 0 | 2 |
| 2 | 69 | 0 | 0 | 2 |
| 3 | 116 | 4 | 0 | 0 |
| 4 | 115 | 5 | 0 | 0 |
| 5 | 1 | 1 | 0 | 0 |
| 6 | 0 | 1 | 0 | 0 |
| **Total** | **3,059** | **266** | **253** | **45** |

### AMOUNT OF ANNUAL BENEFIT

| Option | Service Benefit | Disability Benefit | Survivor Benefit | TSA Benefit |
|---|---|---|---|---|
| 0 | $43,643,436 | $2,083,697 | $1,942,678 | $39,976 |
| 1 | 1,374,841 | 199,408 | 0 | 4,611 |
| 2 | 1,262,670 | 0 | 0 | 1,524 |
| 3 | 1,859,562 | 30,758 | 0 | 0 |
| 4 | 2,336,177 | 59,039 | 0 | 0 |
| 5 | 20,623 | 14,854 | 0 | 0 |
| 6 | 0 | 10,279 | 0 | 0 |
| **Total** | **$50,497,309** | **$2,398,035** | **$1,942,678** | **$46,111** |

## Background

The Public School Retirement System of the City of St. Louis (PSRSSTL) was established and became effective January 1, 1944. It provides retirement, disability, death, and survivor benefits for eligible employees of the St. Louis Public School District, employees of Charter Schools located in St. Louis, employees of the Retirement System, and certain employees of Harris-Stowe State College.

Members of PSRSSTL are also covered by Social Security, and are eligible for full Social Security benefits in addition to their benefits from PSRSSTL.

PSRSSTL benefits are funded by a combination of member contributions, employer contributions, and investment earnings on PSRSSTL assets. Eligible employees of the School District, Charter Schools and the Retirement System are required to participate.

A summary of the primary benefit provisions of PSRSSTL as of December 31, 2003 follows. These provisions apply for all but a few active members who elected to remain under provisions of the law as of October 13, 1961.

Actual benefits and eligibility for benefits are described in detail in statutes of the State of Missouri and PSRSSTL Rules and Regulations. In any circumstance where there appears to be a discrepancy between this summary and actual statutes or PSRSSTL Rules and Regulations, the law and the Rules and Regulations will govern.

## Eligibility for Benefits

*Normal Pension*

Members become eligible for Normal Pension when they attain age 65 or when the sum of their years of Credited Service plus their age equals at least 85 (known as the Rule of 85).

*Early Pension*

Members at least age 60 with five or more years Credited Service who do not satisfy the eligibility requirements for a Normal Pension may elect a reduced Early Pension.

*Disability Pension*

Members unable to perform their job duties due to physical or mental incapacity who are not eligible for Normal Pension will qualify for Disability Pension if: (a) they have at least five years Credited Service, and (b) they are recommended for Disability Pension by the Medical Board, and (c) their Disability Pension is approved by the Board of Trustees.

## Benefit Amounts

Benefit calculations require determining a member's:

*Average Final Compensation* – defined as the average of a member's Compensation for the highest consecutive three years out of the last ten years of service,

*Compensation* – includes a member's "regular" pay and employer contributions for a member's fringe benefits, but does not include overtime pay or pay for such services as extracurricular activities and summer school, and

*Credited Service* – defined as membership service plus any service credit that a member has purchased pursuant to state statutes. In addition, unused sick leave at the time of retirement is added to a member's age and years of Credited Service.

*Normal Pension*

A Normal Pension is a lifetime monthly benefit equal to 2.0% of a member's Average Final Compensation multiplied by the member's years of Credited Service; however, the monthly benefit will not exceed 60% of the member's Average Final Compensation. In addition, members retiring at or after attaining age 65 with at least five years of Credited Service will be entitled to a minimum monthly benefit equal to $10 for each year of Credited Service up to $150.

*Early Pension*

An Early Pension is a lifetime monthly benefit calculated in the same manner as a Normal Pension; however, an Early Pension is reduced by 5/9 of 1% for each month by which a member's Early Pension date precedes the date on which the member would become eligible for a Normal Pension.

*Disability Pension*

A Disability Pension is a lifetime monthly benefit (subject to verification of continued disability and certain earnings limitations) that is the greater of (a) a benefit calculated in the same manner as a Normal Pension as if the member were age 65, or (b) one-fourth (1/4) of a member's Average Final Compensation; however, a Disability Pension cannot exceed what a member's Normal Pension would have been if the member had continued to work until he/she became eligible for Normal Pension.

### *Benefit Payment Options*

Members may elect an optional form of payment that will coordinate their monthly pension benefits with estimated Social Security benefits and/or that will pay them reduced monthly pension benefits so that payments can continue to an Option Beneficiary after their death. The amount of the reduction is determined by the difference in age between a member and his/her Option Beneficiary.

Seven Benefit Payment Options are available.

- *Option 1* provides that upon a member's death, the member's reduced monthly benefit will continue to the member's Option Beneficiary for the Option Beneficiary's lifetime.
- *Option 2* provides that upon a member's death, one-half (1/2) of the member's reduced monthly benefit will continue to the member's Option Beneficiary for the Option Beneficiary's lifetime.
- *Option 3* is like Option 1, except that if the Option Beneficiary predeceases the member, the member's monthly benefit increases to what it would have been if the member had not elected a Benefit Payment Option.
- *Option 4* is like Option 2, except that if the Option Beneficiary predeceases the member, the member's monthly benefit increases to what it would have been if the member had not elected a Benefit Payment Option.
- *Option 5* provides that a member's monthly pension benefit prior to age 62 will be increased to an amount such that his/her monthly pension benefit prior to age 62 will be approximately equal to the sum of his/her monthly pension benefit after age 62 plus estimated Social Security benefits.
- *Option 6* is a combination of Options 1 and 5. Option 6 provides a monthly pension benefit that adjusts for a member's estimated Social Security benefits based on the date the member will attain age 62, or would have attained age 62, and provides that upon the member's death, the amount of the member's adjusted monthly pension benefit will continue to the member's Option Beneficiary for the Option Beneficiary's lifetime.
- *Option 7* is a combination of Options 2 and 5. Option 7 provides a monthly pension benefit that adjusts for the member's estimated Social Security benefits based on the date the member will attain age 62, or would have attained age 62, and provides that upon the member's death, one-half of the amount of the member's adjusted monthly pension benefit will continue to the member's Option Beneficiary for the Option Beneficiary's lifetime.

### *Death and Survivor Benefits*

*Upon the death of an active member,* the member's beneficiary(ies) is entitled to a refund of the member's accumulated contributions plus interest thereon.

*Upon the death of an active member with at least 18 months of Credited Service, or upon the death of a member on Disability Pension,* an eligible beneficiary(ies), (or if there is no surviving beneficiary, the unmarried dependent child(ren) of the member who are under age 22) may elect one of the survivor benefits set forth below in lieu of a refund of the member's accumulated contributions.

In the context of discussing survivor benefits:

An "eligible beneficiary" is the surviving spouse, an unmarried dependent child(ren) under age 22, or a dependent parent(s) of the member, if designated as beneficiary.

A "dependent" is an individual(s) who was receiving at least one-half of his/her support from the member at the member's death.

1. A surviving spouse who was married to the member for at least one year, and who is at least age 62 (or upon attaining age 62), may elect to receive $60 per month.
2. A surviving spouse who cares for an unmarried dependent child(ren) of the deceased member who is under the age of 22 may elect to receive $60 per month plus $60 per month per dependent child up to a maximum of $240 per month.

   If the surviving spouse is under age 62 when the youngest eligible child reaches the age of 22, the benefit will cease, but will resume when the surviving spouse attains age 62.
3. If no benefits are payable under 2 above, an unmarried, dependent child(ren) under age 22 may receive $60 per month. If there are more than three eligible children, $180 per month will be shared equally.
4. If no benefits are payable at any time under 1, 2, or 3 above, upon attaining age 62, a dependent parent who has not remarried may receive $60 per month, or if two dependent parents are eligible, $60 per month will be shared between them.

*Upon the death of an active member with at least five years of Credited Service,* if the member designated a dependent beneficiary, the beneficiary may elect to receive the member's pension benefit under Benefit Payment Option 1 in lieu of receiving a refund of the member's accumulated contributions and interest thereon.

If the deceased member was less than age 60 at the time of death, the Option 1 payment due the dependent beneficiary will be computed as if the deceased member had attained age 60 and retired under Option 1 as of the date of his/her death.

In addition, if a beneficiary who is eligible for Option 1 benefit payments is the surviving spouse of the deceased member, such surviving spouse shall receive $60 per month for each unmarried dependent child of the deceased member who is under age 22 and is under the care of the surviving spouse. If there are more than three eligible children, $180 per month will be shared equally.

### *Termination of Employment*

*Refund*

Upon employment separation, members are entitled to a refund of their accumulated contributions with interest thereon.

*Rollover*

At a member's election, that portion of a refund that is eligible for rollover treatment may be transferred to a member's IRA or to another qualified plan to preserve its tax-deferred status. Rollovers are subject to applicable provisions of the Internal Revenue Code at the time of the distribution.

*Pension Benefit*

In lieu of a refund or rollover, members with five or more years of Credited Service may elect to leave their contributions with the Retirement System and receive a Normal or Early Pension upon becoming eligible. The benefit paid to a terminated, vested member is based on the member's Credited Service, Average Final Compensation, and benefit provisions in effect at the time of the member's employment termination.

### *PSRSSTL Funding*

PSRSSTL is funded by:

*Member Contributions*

Except members employed by Harris-Stowe State College, active members are required to contribute 5.0% of their Compensation. Member contributions are withheld from members' pay on a tax-deferred basis.

*Employer Contributions*

An actuarial valuation of PSRSSTL that determines the required contribution is conducted annually. Based on the valuation, employer contributions are equal to the actuarially required contribution less the portion that members contribute.

*Investment Income*

The assets of the Retirement System are invested and generate income that is used to fund benefits and pay expenses.

### *Health Insurance*

PSRSSTL makes a variety of medical, dental, and vision insurance plans available to retired members, their spouses, and eligible dependent children. PSRSSTL pays a portion of the premiums for retired members. Retired members pay the remainder of the cost for their own coverage, if any, and all the cost of any dependent coverage they elect. On an annual basis, retired members are permitted to make changes to their medical, dental, and vision insurance.

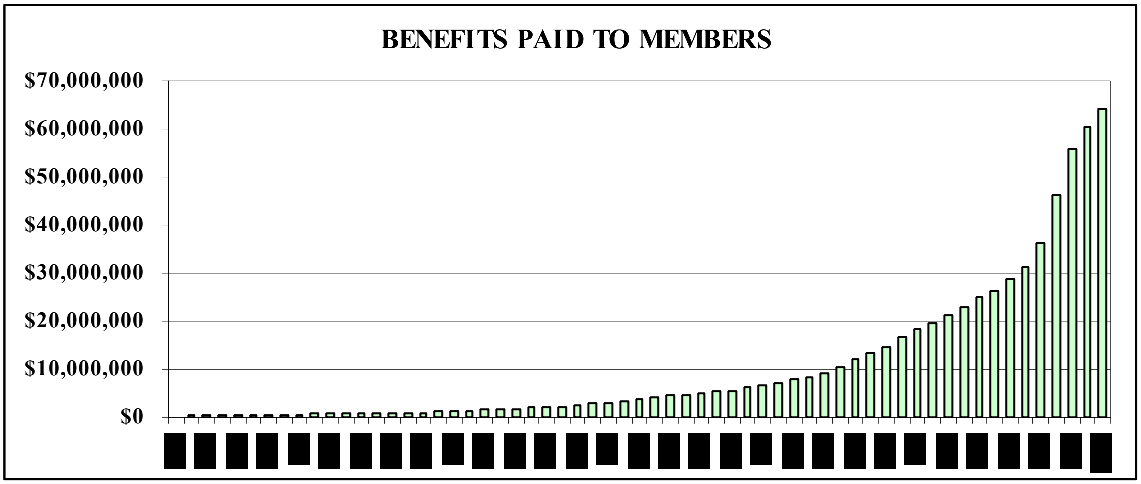
Surviving spouses of deceased retired members are eligible to retain health care insurance after the death of the member.

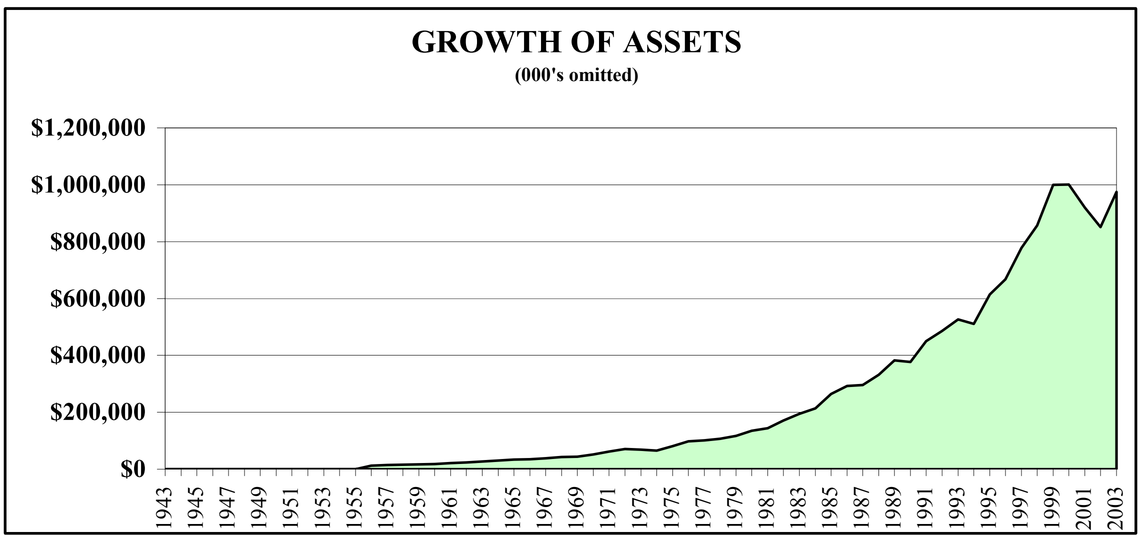
Surviving spouses of deceased active members who elect to receive monthly benefit payments under Option 1 may also be eligible for health insurance coverage for themselves and for otherwise eligible children of deceased active members.

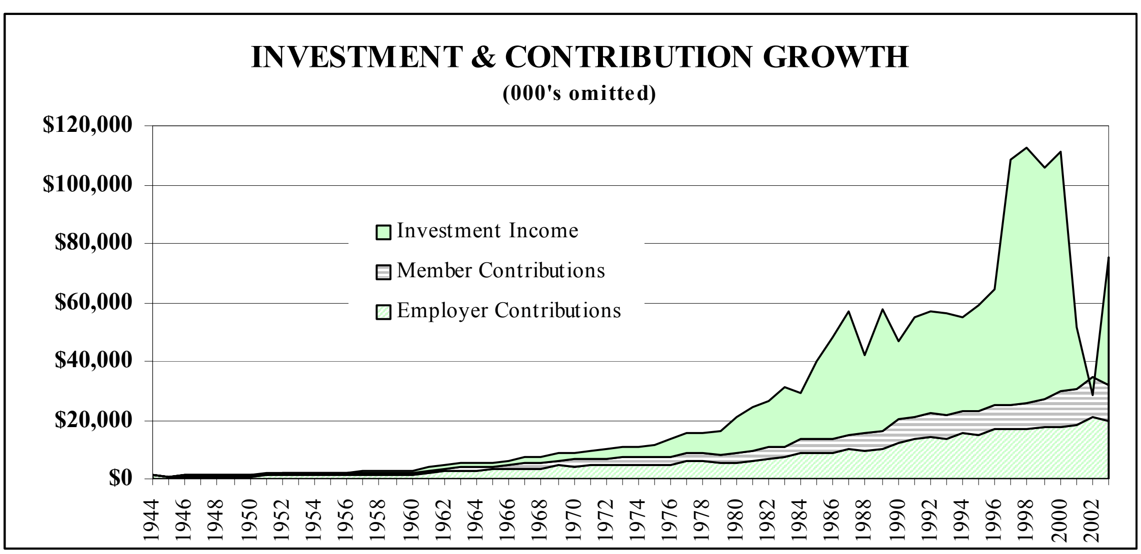
### *COLAs*

Cost of Living Adjustments (COLAs) are paid to retired members and surviving beneficiaries when such COLAs are approved by both the Board of Education and the Board of Trustees.

The information presented below shows how member benefit payments have increased and how the assets of the Retirement System have grown since the Retirement System was established in 1944.



*Celebrating 60 Years of Service!*