

***PUBLIC  
SCHOOL  
RETIREMENT  
SYSTEM OF THE CITY OF  
ST. LOUIS, MISSOURI***

A Pension Trust Fund for  
Public School Employees

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

***COMPREHENSIVE  
ANNUAL  
FINANCIAL  
REPORT***

***FISCAL YEAR ENDED  
DECEMBER 31, 2012***







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

**A Pension Trust Fund for Public School Employees**

**3641 Olive Street, Suite 300  
St. Louis, Missouri 63108-3601  
(314) 534-7444  
[www.psrstl.org](http://www.psrstl.org)**

## **COMPREHENSIVE ANNUAL FINANCIAL REPORT FISCAL YEAR ENDED DECEMBER 31, 2012**

**Prepared by:**

**Andrew Clark  
Executive Director**



## Mission Statement

The mission of the Public School Retirement System of the City of St. Louis is to enhance the well-being and financial security of its members, retirees and beneficiaries through benefit programs and services which are soundly financed and prudently administered in an effective and efficient manner.

### Mission Statement Principles

The Retirement System adopts the following principles advocated by the National Council on Teacher Retirement, and with respect to such principles hereby pledges as follows:

1. ***Courteous Service.*** To give members prompt and courteous service and provide complete and accurate information.
2. ***Member Statements.*** To provide each active member with an annual statement that includes the member's accrued service credit, employee contributions, and other related information.
3. ***Information.*** To provide new participants in the system a summary plan description that clearly and simply summarizes the benefit provisions of the plan. The System will make available information on changes made in benefits.
4. ***Annual Reports.*** Full disclosure of financial, actuarial, and investment information in a detailed annual report that will be available for members, elected officials, and the public.
5. ***Financial Audits.*** To prepare or cause to be prepared an annual financial statement in accordance with generally accepted accounting principles and have an annual audit of the System's financial statement in accordance with generally accepted auditing standards.
6. ***Actuarial Studies.*** To have an annual or biennial actuarial valuation performed by an enrolled actuary in accordance with actuarial standards and an actuarial experience study at least every five years.
7. ***Adequate Funding.*** To work or obtain adequate funding of all promised benefits and to ensure the financial integrity of this System.
8. ***Independence of Retirement Systems.*** To work for a retirement system which functions as an independent trust, separate from state and local government. Such independence includes the power of trustees to set actuarial assumptions, appoint professionals such as actuaries and attorneys on whom they must rely to carry out their responsibilities, and to establish a budget for the System which ensures the delivery of high quality, cost-effective service to their members.
9. ***Exclusive Benefit.*** To act for the exclusive benefit of the members as fiduciaries entrusted with the management and payment of retirement benefits.
10. ***Prudent Investments.*** To adopt comprehensive objectives, methods for evaluation of performance, and policies which ensure both the prudent investment of plan assets and the achievement of the highest possible investment return.
11. ***Ethical Conduct.*** To adhere to the highest standards of conduct set out in the terms of the trust, state statute or other law.
12. ***State and Local Government Authority.*** To support the continuation of state and local pension plan oversight by the respective state or local government to ensure that decisions are made at the appropriate level of government.

**PUBLIC SCHOOL RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
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***“The mission of the Public School Retirement System of the City of St. Louis is...***



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## **INTRODUCTORY SECTION**

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# Certificate of Achievement for Excellence in Financial Reporting

Presented to

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

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

December 31, 2011

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



*Christopher P. Moynell*

President

*Jeffrey R. Emer*

Executive Director

**PUBLIC SCHOOL RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
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**Board of Trustees**

An eleven-member Board of Trustees is responsible for general administration of the Retirement System as well as the investment of the System's assets. Active Retirement System 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. The St. Louis Public School ("SLPS") Board of Education appoints four trustees. Length of term of office is four years. The following individuals serve on the Public School Retirement System of the City of St. Louis Board of Trustees.

<b><u>Elected by Active Members</u></b>	<b><u>Term Ends</u></b>	<b><u>Trustee Representation</u></b>
Thaha Menkara	12-31-2013	Active Non-teacher
Eural R. Thomas	12-31-2014	Active Non-teacher
Yvette A. Levy	12-31-2015	Active Teacher
Angela Banks	12-31-2015	Active Administrator
Sheila P. Goodwin	12-31-2016	Active Teacher

<b><u>Elected by Retired Members</u></b>	<b><u>Term Ends</u></b>	<b><u>Trustee Representation</u></b>
Joseph Clark	09-30-2013	Retired Non-Teacher
Charles L. Shelton, Jr.	09-30-2015	Retired Teacher

<b><u>SLPS Board Appointed</u></b>	<b><u>Term Ends</u></b>	<b><u>Trustee Representation</u></b>
Mona E. Lawton	12-31-2013	SLPS Board of Education
Christina C. Bennett	12-31-2014	SLPS Board of Education
Richard Sullivan	12-31-2015	SLPS Board of Education
Vacant	12-31-2016	SLPS Board of Education

## TRANSMITTAL LETTER

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**PUBLIC SCHOOL RETIREMENT SYSTEM  
OF THE CITY OF ST. LOUIS  
3641 OLIVE STREET, SUITE 300  
ST. LOUIS, MO 63108-3601**

OFFICE OF THE  
EXECUTIVE DIRECTOR

PHONE: (314) 534-7444  
FAX: (314) 533-0531

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June 1, 2013

***To the Board of Trustees and Members of the Retirement System:***

I am pleased to present the *Comprehensive Annual Financial Report (CAFR)* of the Public School Retirement System of the City of St. Louis (“the System” or “the plan”) for the year ended December 31, 2012. Management of the System is responsible for the contents and presentation of material in this report. To the best of my knowledge, I believe the information in this report is accurate in all material respects and presented in a manner that is a fair portrayal of the financial position and operations of the plan as of December 31, 2012.

***Overview of the Retirement System***

The Public School Retirement System of the City of St. Louis was established January 1, 1944. Through acts of the Missouri Legislature, the System provides retirement benefits to employees of the St. Louis Public School District, the System, a number of Charter Schools located in the St. Louis Public School District, and certain past employees of Harris-Stowe State College. The System’s members are covered by Social Security and eligible for Social Security benefits in addition to retirement benefits provided by the plan.

***Financial Information***

An independent certified accounting firm performs a financial audit each year. The financial statements of the System are prepared in conformity with accounting principles generally accepted in the U.S.A. (GAAP) within guidelines established by the Governmental Accounting Standards Board (GASB). A system of internal controls is in place to help management with safeguarding and monitoring assets while promoting efficient operations. These internal controls are designed to protect the System’s assets from loss due to unauthorized use or disposition and provide a reasonable assurance that the System executes its financial transactions in accordance with proper authorization.

Please refer to the Management Discussion and Analysis in the Financial Section for an overview of additions and deductions from the plan during 2012.

***Investment Activities***

The overall investment return for the plan during 2012 was 12.4%. This investment return was above both the asset allocation policy objective of 8.6% and the actuarial assumed rate of return of 8.0%. Thus, the investment managers added much needed value to the fund for the year. In comparison to other similar public plans, the System’s investment return for year 2012 ranked in the top 51% of this universe of public funds while maintaining similar risk as the peer group.

## TRANSMITTAL LETTER

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The Board of Trustees governs investments of the System through the adoption of investment policies and guidelines, amended as needed, that define the plan's objectives, monitoring procedures and performance measures. The Investment Policies and Operating Guidelines lay out specific parameters for performance expectations, eligible investments and portfolio characteristics. Key to the success of this governance is the determination of an Asset Allocation Policy. The policy is reviewed by the Board of Trustees at least annually and modified as needed to maximize returns while minimizing risk within the accepted investment guidelines of the System. Through advice from the Investment Consultant, management and staff are primarily responsible for implementing and monitoring the Asset Allocation Policy adopted by the Board of Trustees.

Detailed information regarding investments can be found in the Investment Section.

### ***Funding Status and Valuation Results***

The System is a defined benefit plan, which means that certain benefit provisions are used in a formula to determine each member's retirement benefit. The formula to calculate retirement benefits is credited service (years of service) multiplied by average compensation (final average salary for three consecutive years) multiplied by 2% (pension multiplier).

Each year, the System has an actuarial valuation conducted by an independent Actuary. The actuarial valuation has two primary purposes: (1) to measure the relative financial health of the System and (2) to determine the annual required contribution (ARC), the portion of covered payroll, that employers must pay during a given year to ensure assets are available for benefit obligations into the future.

To determine the relative financial health of the System, the Actuary calculates the plan's actuarial accrued liability using the System's benefit provisions and actuarial assumptions in effect at the time of the calculation. The actuarial accrued liability is then compared to the actuarial value of assets to arrive at a percentage or Funded Ratio. The Funded Ratio measures the ability of the System to pay retirement benefits over the course of the next 30 years. For the plan year 2012, the Funded Ratio was 84.9%, which falls in the middle between the highest and lowest Funded Ratio's for the System over the past 20 years.

The Actuary calculates an ARC that is adequate to fund the normal costs of the plan plus the unfunded actuarial accrued liability amortized over a 30-year period. The Actuary presents the annual Actuarial Valuation Report to the Board of Trustees for consideration. Once the Board of Trustees accepts the actuarial valuation for the year, the employers are notified of the ARC as governed by state statute.

The historic ARC percentage rates of covered compensation and corresponding dollar amounts determined by the Actuary, and accepted by the Board of Trustees, for the past three fiscal years are summarized as follows:

<b><u>Fiscal Year</u></b>	<b><u>ARC (%)</u></b>	<b><u>ARC (\$)</u></b>
2010	8.27%	\$19,407,727
2011	10.03%	\$24,264,182
2012	11.88%	\$25,928,658

Detailed actuarial information can be found in the Actuarial Section.

## TRANSMITTAL LETTER

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### ***Legislative Information***

There were no major legislative changes in 2012 that directly affected the System. The last change to the System's plan provisions occurred in 2002.

A complete summary of the System's legislative history can be found in the Statistical Section.

### ***Professional Services***

Certain professional services are provided to the System by retained consultants. The required opinion letters from the Actuary, Buck Consultants, and independent Certified Public Accountants, Anders, Minkler, Huber & Helm, LLC, are contained in the appropriate sections of this report.

The firms that provide professional services to the System appear in this section.

### ***Certificate of Achievement***

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the System for its comprehensive annual financial report for the fiscal year ended December 31, 2011. This was the first year the System has achieved this prestigious award. In order to be awarded a Certificate of Achievement, the System must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The System believes the current comprehensive annual financial report will again meet the Certificate of Achievement Program's requirements and it is being submitted to the GFOA to determine its eligibility for another certificate.

### ***Acknowledgements***

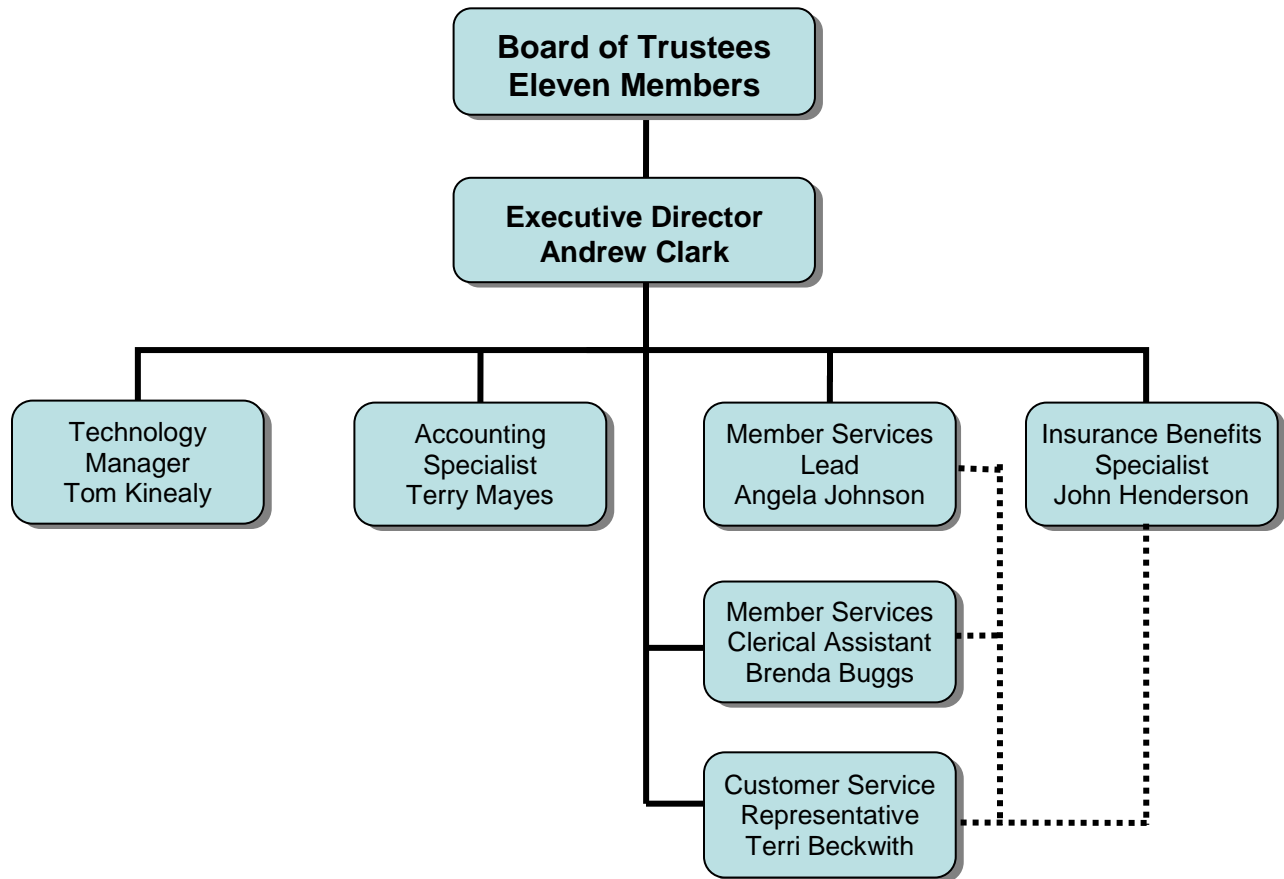
I would like to thank the Board of Trustees, staff and consultants whose work contributed to this report and helps to guarantee the continued success of the System.

Sincerely,



Andrew Clark  
Executive Director

### Organizational Chart



..... Denotes work-flow supervision only

**PUBLIC SCHOOL RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
*YEAR ENDED DECEMBER 31, 2012*

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**PROVIDERS OF PROFESSIONAL SERVICES**

**ACTUARIAL SERVICES**

***Buck Consultants***  
Stephen Siepman  
St. Louis, MO

**LEGAL COUNCIL**

***Hartnett Gladney Hetterman LLC***  
Jeffrey E. Hartnett  
St. Louis, MO

**AUDITOR**

***Anders Minkler Huber & Helm LLP***  
Thomas S. Helm, CPA  
St. Louis, MO

**PROPERTY MANAGEMENT**

***CB Richard Ellis***  
St. Louis, MO

**INSURANCE CONSULTANT**

***Longfellow Benefits***  
Patrick Haraden  
Boston, MA

**TECHNOLOGY CONSULTING**

***Jupiter Consulting***  
St. Louis, MO

***Blade Technology***  
St. Louis, MO

**INVESTMENT CONSULTANT**

***NEPC, LLC***  
Kristin Finney-Cooke  
Chicago, IL

**buckconsultants**



**CBRE**  
CB RICHARD ELLIS





**PUBLIC SCHOOL RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS**  
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**FINANCIAL SECTION**

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## **MANAGEMENT DISCUSSION AND ANALYSIS**

*Year Ended December 31, 2012*

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The Management Discussion and Analysis (“MD&A”) for the Public School Retirement System of the City of St. Louis (“PSRSSTL”) is provided to comply with Governmental Accounting Standard No. 34. The purpose of the MD&A is to provide an overview of PSRSSTL financial activities for the fiscal year ended December 31, 2012. This MD&A should be read in conjunction with the PSRSSTL financial statements and supplemental information.

### **FINANCIAL HIGHLIGHTS**

PSRSSTL net assets were \$896,542,173 on December 31, 2012, which represents an increase of \$28,456,155 from December 31, 2011. This increase is due to the appreciation of the fair market value of investments and indicative that extreme volatility seen in the financial markets during the latter half of 2011 began to stabilize during the fiscal year ended December 31, 2012.

The overall investment return for PSRSSTL investments was 12.4% for fiscal year 2012 and (0.1)% for fiscal year 2011. The positive investment return in fiscal year 2012 compared to the flat investment return in fiscal year 2011 reflects a continued positive recovery from the recession that in retrospect began as long ago as 2007. While predicting conditions in the marketplace remains challenging for financial experts, the Board of Trustees stands behind a sound Asset Allocation Policy by staying focused on active monitoring of its money managers and long-term investment objectives. The actuarially assumed rate of return remained at 8% during fiscal year 2012.

Additions to net assets were \$140 million and \$35 million for each of the fiscal years 2012 and 2011, respectively. The primary addition to net assets was investment income of \$98 million in fiscal year 2012 compared to employer contributions of \$29 million in fiscal year 2011. The secondary addition to net assets came from employer contributions of \$30 million in fiscal year 2012 compared to member contributions of \$11.9 million in fiscal year 2011.

Deductions from net assets were \$111 million and \$109 million in fiscal years 2012 and 2011, respectively. The nearly \$2 million variance in deductions from net assets between fiscal years 2012 and 2011 is mostly due to the increase in refunds to members during fiscal year 2012.

During 2012, the Board of Trustees maintained the Asset Allocation Policy adopted in 2010 but replaced a couple of money managers in the Large Cap Growth Equity asset class with two new managers. The Board of Trustees hired Holland Capital Management and TCW Asset Management Company to manage Large Cap Growth Equity portfolios and invested \$28 million with each manager for a total of \$56 million. The investments were funded by re-allocating funds within Large Cap Growth Equities.

## MANAGEMENT DISCUSSION AND ANALYSIS

Year Ended December 31, 2012

### FINANCIAL STATEMENTS

The PSRSSTL financial report consists of two financial statements, (1) the Statement of Plan Net Assets and (2) the Statement of Changes in Plan Net Assets. The Statement of Plan Net Assets provides details concerning PSRSSTL assets and related liabilities other than benefit obligations. PSRSSTL net assets reflect the resources available for future benefit payments. The Statement of Changes in Plan Net Assets provides details concerning PSRSSTL financial activity during fiscal year 2012 that lead to the change in Plan Net Assets from fiscal year 2011 to fiscal year 2012.

In addition to the financial statements, the financial report contains notes to the financial statements and supplemental information that provide further information for use in analyzing the financial statements as well as actuarial information related to the funded status of PSRSSTL.

### FINANCIAL ANALYSIS

On December 31, 2012, total assets for PSRSSTL were \$897,380,844 and comprised of cash, an office building, receivables and investments. During fiscal year 2012, the increase in Total Assets for PSRSSTL was 3.3% or \$28,452,398, over fiscal year 2011 due to a higher market value appraisal of PSRSSTL investments.

On December 31, 2012, total liabilities for PSRSSTL were \$838,671 and consisted of accounts payable and accrued expenses. Total liabilities in fiscal year 2012 decreased by 0.4%, or \$3,757, over fiscal year 2011.

On December 31, 2012, net assets held in trust to pay pension benefits were \$896,542,173, an increase of 3.3%, or \$28,456,155, over fiscal year 2011.

#### Condensed Statements of Plan Net Assets

	FY 2012	FY 2011	Total Change	
			Amount	Percentage
<b>ASSETS</b>				
Cash	\$ 9,931,619	\$ 10,605,614	\$ (673,995)	-6.4%
Receivables	1,999,802	2,095,857	(96,055)	-4.6%
Investments	883,364,528	854,074,641	29,289,887	3.4%
Property and building	2,084,895	2,152,334	(67,439)	-3.1%
Total assets	897,380,844	868,928,446	28,452,398	3.3%
<b>LIABILITIES</b>				
Accounts payable	838,671	842,428	(3,757)	-0.4%
Total current liabilities	838,671	842,428	(3,757)	-0.4%
<b>NET ASSETS</b>	<u>\$ 896,542,173</u>	<u>\$ 868,086,018</u>	<u>\$ 28,456,155</u>	3.3%

## MANAGEMENT DISCUSSION AND ANALYSIS

Year Ended December 31, 2012

### REVENUES – ADDITIONS TO PLAN NET ASSETS

The assets that are required to finance PSRSSTL retirement benefits are accumulated through receipt of employer and member contributions as well as through earnings on investments. For fiscal year 2012, employer contributions were \$30 million; member contributions were \$12.1 million; and net investment income was \$98 million.

Employer and member contributions combined increased by \$1.1 million in fiscal year 2012 as compared to fiscal year 2011 primarily because of the increase in the required employer contributions from 10.03% of covered compensation in fiscal year 2011 to 11.88% in fiscal year 2012. The PSRSSTL Actuary determines the amount of employer contributions as part of the Annual Actuarial Valuation Report. The active member contribution rate of 5% of normal compensation has been in effect since July 1, 1999.

Net investment income was \$103 million more in fiscal year 2012 than in fiscal year 2011 because investment earnings were 12.4% for fiscal year 2012 as compared with (0.1)% for fiscal year 2011. Net investment income (loss) of \$98,065,562 and \$(5,550,568) in fiscal years 2012 and 2011, respectively, reflect gross investment income less investment related expenses, such as investment manager and custodial fees.

### EXPENSES – DEDUCTIONS FROM PLAN NET ASSETS

The primary deductions from plan net assets were retirement and death benefits paid to retired members and their beneficiaries, retiree healthcare subsidies and refunds to members who retired or terminated employment. PSRSSTL administrative expenses in fiscal year 2012 were approximately 0.16% of assets.

	Condensed Statements of Changes in Plan Net Assets			
	FY 2012	FY 2011	Total Change	
			Amount	Percentage
<b>ADDITIONS</b>				
Employer contributions	\$ 29,551,964	\$ 28,720,193	\$ 831,771	2.9 %
Member contributions	12,147,663	11,879,052	268,611	2.3 %
Net investment income (loss)	98,065,562	(5,550,568)	103,616,130	1,866.8 %
Rental income	134,813	131,119	3,694	2.8 %
Total additions	139,900,002	35,179,796	104,720,206	297.7 %
<b>DEDUCTIONS</b>				
Retirement/death benefits	101,915,867	101,993,058	(77,191)	(0.1) %
Health care subsidies	2,752,751	2,825,430	(72,679)	(2.6) %
Administrative expenses	1,450,265	1,432,914	17,351	1.2 %
Refunds to members	4,773,609	3,242,200	1,531,409	47.2 %
Total deductions	110,892,492	109,493,602	1,398,890	1.3 %
Other Income (expenses)	(551,355)	230,717	(782,072)	(339.0) %
<b>CHANGE IN NET ASSETS</b>	<b>\$ 28,456,155</b>	<b>\$ (74,083,089)</b>	<b>\$ 102,539,244</b>	<b>138.4 %</b>

## **MANAGEMENT DISCUSSION AND ANALYSIS**

*Year Ended December 31, 2012*

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### **FINANCIAL SUMMARY**

For more than a decade, the PSRSSTL Investment Consultant has consistently calculated the fund's investment performance; thereby, providing a valid basis on which performance can be compared with other public pension funds. For instance, PSRSSTL investment returns have performed consistently when compared to other public pension funds with the cumulative PSRSSTL returns ranking in the top 10% of public plans for the ten-year period ended December 31, 2012.

Net plan assets over this same timeframe have fluctuated all the way from a high of \$1.15 billion in fiscal year 2007 to a low of \$810 million in fiscal year 2008. At the end of fiscal year 2012, net plan assets were \$897 million, ending up between the ten-year high and low. This fluctuation in the value of net plan assets from year-to-year can be attributed to financial market conditions that have caused several large spikes followed by big losses of investment returns throughout the past ten-year period.

Over the same period, the funded status of the PSRSSTL plan, using the Government Accounting Standards Board (GASB) calculation method, has remained stable, fluctuating within the range of 80.5% in 2002 to 88.6% in 2011. The funded ratio of a plan compares its assets to its liabilities, which, on an actuarial basis, measures a plan's ability to fulfill the obligations it has to its members. The funded ratio of the PSRSSTL plan for fiscal year 2012 was 84.9%, which falls in the middle between the highest and lowest funded ratio for PSRSSTL since the system began tracking the ratio under the GASB method in 1992.

The Board of Trustees and the PSRSSTL Actuary believe the PSRSSTL plan will continue to be funded on a sound actuarial basis provided required member and employer contributions are made as recommended, a prudent and well-diversified Asset Allocation Policy remains in place, quality investment managers continue to be selected, and the financial markets continue to stabilize in the aftermath of the last recession.

### **REQUESTS FOR INFORMATION**

This report is intended to provide the Board of Trustees, PSRSSTL members, and other interested parties a general overview of PSRSSTL financial matters. If any reader has questions about this report or needs additional financial information, contact the Public School Retirement System of the City of St. Louis.

## Independent Auditors' Report

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

We have audited the accompanying financial statements of the Public School Retirement System of the City of St. Louis (the "System") which comprise the statements of plan net assets as of December 31, 2012 and 2011 and the related statements of changes in plan net assets for the years then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

The Plan's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## INDEPENDENT AUDITORS' REPORT

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### Opinion

In our opinion, 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, 2012 and 2011 and the changes in plan net assets for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### Other Matter

As discussed in Note 2 to the financial statements, the financial statements include investments that are not listed on national exchanges or for which quoted market prices are not available. These investments include limited partnerships, venture capital partnerships and real estate partnerships. Such investments totaled \$70,272,039 and \$73,292,125 (8% in 2012 and 2011 of total assets) at December 31, 2012 and 2011, respectively. Where a publicly listed price is not available, the management of the System uses alternative sources of information including audited financial statements, unaudited interim reports, independent appraisals, and similar evidence to determine the fair value of the investments.

### Report on Additional Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The preceding supplemental management discussion and analysis, and the supplemental schedules of funding progress and employer contributions in this Financial Section are not a required part of the basic financial statements of the System, but are supplemental information required by the Governmental Accounting Standards Board. Such information is the responsibility of the System's management and was derived from and relates directly to the underlying accounting, and other records used to prepare the financial statements. For the supplemental management discussion and analysis, we have applied certain limited procedures, which consisted principally of inquires of management regarding the methods of measuring and presentation. The schedules of funding progress and employer contributions, and the schedules of operating expenses found in this Financial Section have been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying and other accounting records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America in our opinion, the information's fairly stated in all material respects in relation to the financial statements as a whole. The management's discussion and analysis has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

*Anders Munkler Hulver & Helm LLP*

April 12, 2013

**FINANCIAL STATEMENTS****PUBLIC SCHOOL RETIREMENT SYSTEM  
OF THE CITY OF ST. LOUIS****STATEMENTS OF PLAN NET ASSETS****DECEMBER 31, 2012 AND 2011****ASSETS**

	<u>2012</u>	<u>2011</u>
<b>CASH</b>	\$ 9,931,619	\$ 10,605,614
<b>RECEIVABLES</b>		
Accrued interest and dividends	1,999,802	2,095,857
<b>INVESTMENTS, at fair value</b>		
Cash equivalents	33,492,721	37,627,622
Bonds		
U.S. Government and agency issues	43,778,548	50,200,578
Corporate	56,771,927	51,286,089
Foreign investments (bonds and stocks)	106,939,798	95,408,493
Common and preferred stocks	233,243,085	224,917,277
Mutual funds	322,018,950	301,124,937
Real estate partnerships	45,034,321	46,725,649
Credit opportunity investments	16,877,460	20,217,520
Limited partnerships	23,352,373	24,660,720
Venture capital partnerships	1,855,345	1,905,756
Total investments	<u>883,364,528</u>	<u>854,074,641</u>
<b>PROPERTY and BUILDING, net</b>	<u>2,084,895</u>	<u>2,152,334</u>
Total assets	897,380,844	868,928,446

**LIABILITIES**

<b>CURRENT LIABILITIES</b>		
Accounts payable and accrued expenses	<u>838,671</u>	<u>842,428</u>
<b>NET ASSETS (HELD IN TRUST FOR PENSION BENEFITS)</b>	<u>\$ 896,542,173</u>	<u>\$ 868,086,018</u>

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



## FINANCIAL STATEMENTS

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

#### STATEMENTS OF CHANGES IN PLAN NET ASSETS

YEARS ENDED DECEMBER 31, 2012 AND 2011

ADDITIONS	2012	2011
Employer contributions		
St. Louis Public Schools	\$ 20,786,075	\$ 19,933,761
Charter Schools	5,533,481	4,521,680
Retirement System	73,902	57,964
Sick leave conversion	3,158,506	4,206,788
Employee contributions		
St. Louis Public Schools	9,623,366	9,480,801
Charter Schools	2,499,279	2,369,287
Retirement System	25,018	28,964
	<u>41,699,627</u>	<u>40,599,245</u>
Net appreciation (depreciation) in fair value of investments		
Cash equivalents	195,643	173,183
Bonds		
U.S. Government and agency issues	2,282,446	4,839,701
Corporate	9,198,965	318,726
Foreign investments	13,497,532	(2,869,585)
Common and preferred stock	33,226,079	6,327,330
Mutual funds	36,144,028	(20,035,929)
Limited partnerships	334,087	2,511,653
Real estate partnerships	4,777,693	6,309,362
Venture capital partnerships	(50,411)	(61,874)
Credit opportunity investments	2,751,590	908,948
	<u>102,357,652</u>	<u>(1,578,485)</u>
Less investment expense	4,292,090	3,972,083
Net investment income (loss)	<u>98,065,562</u>	<u>(5,550,568)</u>
Rental income	134,813	131,119
Other miscellaneous income (expense)	<u>(551,355)</u>	<u>230,717</u>
Net additions	139,348,647	35,410,513

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

**FINANCIAL STATEMENTS****PUBLIC SCHOOL RETIREMENT SYSTEM  
OF THE CITY OF ST. LOUIS****STATEMENTS OF CHANGES IN PLAN NET ASSETS (CONTINUED)****YEARS ENDED DECEMBER 31, 2012 AND 2011**

	<u>2012</u>	<u>2011</u>
<b>DEDUCTIONS</b>		
Benefits paid		
Retirement and death benefits	\$ 101,915,867	\$ 101,993,058
Health care subsidies and supplemental payments	<u>2,752,751</u>	<u>2,825,430</u>
	104,668,618	104,818,488
Operating expenses	1,450,265	1,432,914
Contribution refunds due to death or resignation	<u>4,773,609</u>	<u>3,242,200</u>
Total deductions	<u>110,892,492</u>	<u>109,493,602</u>
<b>INCREASE (DECREASE) IN PLAN NET ASSETS</b>	28,456,155	(74,083,089)
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS BEGINNING OF YEAR</b>		
As previously reported		937,594,203
Adjustment for change in method of reporting for certain investments		<u>4,574,904</u>
Balance at beginning of year, as restated	<u>868,086,018</u>	<u>942,169,107</u>
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS END OF YEAR</b>	<u>\$ 896,542,173</u>	<u>\$ 868,086,018</u>

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

## NOTES TO FINANCIAL STATEMENTS

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

#### 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, and of all employees of the Public School Retirement System of the City 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 and Eligibility

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

	January 1, <u>2012</u>	January 1, <u>2011</u>
Active members	4,784	4,336
Inactive members	<u>1,958</u>	<u>1,935</u>
Total members not retired	<u>6,742</u>	<u>6,271</u>
Retired members		
Service and survivors	4,265	4,312
Disability	<u>275</u>	<u>275</u>
	<u>4,540</u>	<u>4,587</u>
Total membership	<u><u>11,282</u></u>	<u><u>10,858</u></u>

###### Vesting

Full vesting on termination of employment after at least five years of service is provided if contributions are left with the System. The full benefit is payable at age 65 or at a reduced early retirement benefit prior to age 65.

## **NOTES TO FINANCIAL STATEMENTS**

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### **NOTE 1 – DESCRIPTION OF SYSTEM (CONTINUED)**

#### **Funding Policy**

The funding objective of the System is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percentage of covered compensation.

#### **Benefits**

Upon retirement at age 65, or at any age if age plus years of credited service equals or exceeds 85 (Rule of 85), 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. Early retirement can occur at age 60 with 5 years of service. The service retirement allowance is reduced five ninths of one percent for each month of commencement prior to age 65 or the age at which the Rule of 85 would have been satisfied had the employee continued working until that age, if earlier.

In lieu of the benefit paid over the lifetime of the participant, reduced benefit options are available for survivor and beneficiary payments.

Members are eligible, after accumulation of five years of credited service, for disability benefits prior to eligibility of normal retirement. 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.

Benefits are recorded when paid.

#### **Return of Contributions Upon Death**

If, after the death of a participant, no further monthly amounts are payable to a beneficiary under an optional form of payment or under the survivor benefit provisions, the participant's beneficiary shall be paid the excess, if any, of the participant's accumulated contributions over all payments made to, or on behalf of, the deceased participant.

#### **Contributions by Participants**

Participants contribute 5% of compensation. Accumulated contributions are credited at the rate of interest established by the Board of Trustees. The current crediting rate is 5%.

#### **Contributions by Employers**

The employer contribution rate is set each year by the Board of Trustees upon recommendation of the independent actuary.

#### **Expenses**

Administrative expenses are paid out of investment income.

## **NOTES TO FINANCIAL STATEMENTS**

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### **NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

#### **Basis of Accounting**

Plan member contributions 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.

#### **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.

#### **Receivables**

Receivables consist of pending interest and dividends payable on investments held at the end of the year.

#### **Tax Status**

The Internal Revenue Service has determined and informed the System by a letter dated June 15, 2012, that the Plan and related trust and amendments to date are designed in accordance with the applicable sections of the IRC. The System believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC Section 413(c) and therefore believes that the Plan is qualified and the related trust is tax-exempt.

#### **Method Used to Value Investments**

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 7 for discussion of fair value measurements. 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.

#### **Limited partnerships**

Fair values of the limited partnership investments are based on valuations of the underlying companies of the limited partnerships as reported by the general partner. Certain limited partnerships reflect values on a quarter lag basis due to the nature of those investments and the time it takes to value them.

#### **Alternative investments**

For alternative investments (venture capital partnerships) where no readily ascertainable market value exists, management, in consultation with their investment advisors, values these investments in good faith based upon audited financials, cash flow analysis, purchase and sales of similar investments, other practices used within the industry, or other information provided by the underlying investment advisors. The estimated fair value of these investments may differ significantly from values that would have been used had a ready market existed.

## **NOTES TO FINANCIAL STATEMENTS**

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### **NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

#### **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. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

#### **Furniture and Equipment**

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

#### **Property and Building**

The System records property, building, and related improvements at cost while expenditures for normal repairs and maintenance, which do not extend the useful life of the assets, are charged to operations as incurred. The System elected the straight-line method for the depreciation of the building over the estimated life of 40 years.

#### **Prior Period Adjustment**

The accompanying financial statements for 2011 reflect the change in valuing limited partnerships and venture capital partnerships from the cost basis to fair market value at January 1, 2011. Accounts that were adjusted during this conversion include limited partnerships, venture capital partnerships, their respective appreciation (depreciation) in fair value of investments and net assets held in trust for pension benefits. The correction increased beginning net assets as of January 1, 2011 \$4,574,904.

#### **Reclassifications**

Certain reclassifications have been made to the prior year's amounts to make them consistent with the December 31, 2012 presentations.

## NOTES TO FINANCIAL STATEMENTS

### NOTE 3 – INVESTMENTS

At December 31, 2012 and 2011, investments consisted of the following:

	2012	
	Fair Value	Cost
Cash equivalents	\$ 33,492,721	\$ 33,492,721
Bonds		
U.S. Government and agency issues	43,778,548	42,524,621
Corporate	56,771,927	51,118,928
Foreign investments	106,939,798	101,925,873
Common and preferred stocks	233,243,085	207,134,202
Mutual funds	322,018,950	261,654,366
Real estate partnerships	45,034,321	41,551,122
Credit opportunity investments	16,877,460	12,085,692
Limited partnerships	23,352,373	22,115,266
Venture capital partnerships	1,855,345	642,352
	<u>\$ 883,364,528</u>	<u>\$ 774,245,143</u>

	2011	
	Fair Value	Cost
Cash equivalents	\$ 37,627,622	\$ 37,627,622
Bonds		
U.S. Government and agency issues	50,200,578	48,410,588
Corporate	51,286,089	50,679,825
Foreign investments	95,408,493	100,001,462
Common and preferred stocks	224,917,277	204,874,313
Mutual funds	301,124,937	261,413,802
Real estate partnerships	46,725,649	45,752,389
Credit opportunity investments	20,217,520	16,574,127
Limited partnerships	24,660,720	22,148,598
Venture capital partnerships	1,905,756	566,740
	<u>\$ 854,074,641</u>	<u>\$ 788,049,466</u>

## NOTES TO FINANCIAL STATEMENTS

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### NOTE 4 – OCCUPANCY

The System occupies offices in a building it owns. Occupancy expenses for the years ended December 31, 2012 and 2011 were \$27,005 and \$27,917, respectively.

On May 7, 2009, the System entered into an agreement to lease a portion of its building to an unrelated party. The initial lease term is five years with annual rent ranging from \$125,579 to \$140,353. There are also five one-year renewal options. Rental income received for the years ended December 31, 2012 and 2011 totaled \$134,813 and \$131,119, respectively.

### NOTE 5 – RISKS AND UNCERTAINTIES

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, 2012 and 2011, the System had approximately \$10,453,000 and \$11,063,000, respectively, in cash on deposit at US Bank. These balances were insured by the Federal Deposit Insurance Corporation (“FDIC”) for \$250,000 per account. The remaining balances are collateralized by US Bank’s assets held jointly in the name of US Bank, N.A. and the System, held by the Federal Home Loan 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 \$250,000. The market value of the collateralized securities at December 31, 2012 and 2011 was \$11,000,000 and \$12,094,530, respectively. A significant portion of the System’s investments is held in trust by US Bank of St. Louis, N.A.

On December 28, 2012 and December 30, 2011, the System received \$23,893,293 and \$24,084,882, respectively from the St. Louis Board of Education for the 2012 and 2011 St. Louis Public Schools’ annual regular pension contribution and sick leave conversion contribution and held it in a cash equivalents account until investment allocations were implemented.

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.

#### Concentration of Credit Risk

At December 31, 2012, 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 represent 5% or more of net assets held in trust for pension benefits.

<u>Mutual Funds</u>	<u>Fair Value</u>	<u>Percentage of Total Investments</u>
The Bank of New York Mellon	\$ 44,501,975	5.0%
<u>Real Estate Investments</u>		
UBS Global Asset Management	\$ 45,034,321	5.1%



## NOTES TO FINANCIAL STATEMENTS

### NOTE 5 – RISKS AND UNCERTAINTIES (CONTINUED)

#### Credit Risk of Debt Securities

The System's rated debt investments as of December 31, 2012 were rated by Moody's Investor Services (Moody's) and the ratings are presented using the Moody's rating scale. The System's policy to limit credit risk is that the overall average quality of each high-grade domestic fixed income portfolio shall be AA or better and the average quality rating of securities held in a domestic high-yield portfolio shall be B or better. The overall average quality of each global fixed income portfolio shall be A or better. Non-rated issues are allowed as long as the quality is sufficient to maintain the overall average rating noted.

Rate Debt Instrument Value	Fair Quality Ratings		
	AAA	AA1	AA2
Corporate bonds and debentures	\$ 3,488,115	\$ 657,016	\$ 729,465
Foreign government and corporate obligations	15,665,645		1,565,275
US government and agency issues	10,039,456		
	<u>\$ 29,193,216</u>	<u>\$ 657,016</u>	<u>\$ 2,294,740</u>
	AA3	A1	A2
Corporate bonds and debentures	\$ 782,013	\$ 1,522,677	\$ 2,558,281
Foreign government and corporate obligations	17,357,661	49,490	4,127,733
US government and agency issues		36,549	
	<u>\$ 18,139,674</u>	<u>\$ 1,608,716</u>	<u>\$ 6,686,014</u>
	A3	BAA1	BAA2
Corporate bonds and debentures	\$ 1,412,670	\$ 1,785,203	\$ 4,781,597
Foreign government and corporate obligations	552,436	5,643,406	1,666,393
	<u>\$ 1,965,106</u>	<u>\$ 7,428,609</u>	<u>\$ 6,447,990</u>
	BAA3	BA1	BA2
Corporate bonds and debentures	\$ 5,643,752	\$ 2,555,678	\$ 1,747,204
Foreign government and corporate obligations	878,738	1,240,489	839,622
	<u>\$ 6,522,490</u>	<u>\$ 3,796,167</u>	<u>\$ 2,586,826</u>

## NOTES TO FINANCIAL STATEMENTS

### NOTE 5 – RISKS AND UNCERTAINTIES (CONTINUED)

#### Credit Risk of Debt Securities (Continued)

Rate Debt Instrument Value	Fair Quality Ratings		
	BA3	B1	B2
Corporate bonds and debentures	\$ 2,254,117	\$ 3,573,605	\$ 1,842,517
Foreign government and corporate obligations	2,574,776	847,675	120,175
	<u>\$ 4,828,893</u>	<u>\$ 4,421,280</u>	<u>\$ 1,962,692</u>
	B3	CAA1	CAA2
Corporate bonds and debentures	\$ 7,389,146	\$ 3,327,750	\$ 1,161,270
Foreign government and corporate obligations	111,700		203,645
	<u>\$ 7,500,846</u>	<u>\$ 3,327,750</u>	<u>\$ 1,364,915</u>
	CAA3	CA	C
Corporate bonds and debentures	\$ 494,665	\$ 279,750	\$ 4,851
Foreign government and corporate obligations	549,900	116,600	
	<u>\$ 1,044,565</u>	<u>\$ 396,350</u>	<u>\$ 4,851</u>
	Unrated		
Corporate bonds and debentures	\$ 8,780,582		
Foreign government and corporate obligations	1,062,417		
US government and agency issues	33,702,544		
	<u>\$ 43,545,543</u>		

## NOTES TO FINANCIAL STATEMENTS

### NOTE 5 – RISKS AND UNCERTAINTIES (CONTINUED)

#### Foreign Currency Risk

The System does not have a formal policy to limit foreign currency risk. Risk of loss arises from changes in currency exchange rates. The System's exposure to foreign currency risk as of December 31, 2012 is presented in the following table:

Currency	Cash Equivalents	Debt	Equity	Total
Euros		\$ 7,227,539	\$ 20,984,089	\$ 28,211,628
Japanese Yen	\$ 62,719	19,372,360	5,900,573	25,335,652
British Pound Sterling		1,435,450	6,375,625	7,811,075
Australian Dollar	16,274	5,115,519		5,131,793
Polish Zloty		3,919,287		3,919,287
Mexican Peso	79,750	3,407,032		3,486,782
Swiss Franc			2,752,911	2,752,911
Hong Kong Dollar			2,530,057	2,530,057
South African Rand	14,851	1,449,334		1,464,185
Swedish Krona		1,445,259		1,445,259
Korean Won			1,119,272	1,119,272
Singapore Dollar			772,166	772,166
Canadian Dollar		193,320		193,320
New Zealand Dollar	17			17
	<u>\$ 173,611</u>	<u>\$ 43,565,100</u>	<u>\$ 40,434,693</u>	<u>\$ 84,173,404</u>

Foreign investment denominated in US Dollars

22,766,394

\$ 106,939,798

## NOTES TO FINANCIAL STATEMENTS

### NOTE 5 – RISKS AND UNCERTAINTIES (CONTINUED)

#### Interest Rate Risk

The System does not have a formal policy to limit interest rate risk on debt securities. Risk of loss arises from changes in interest rates which have significant effects on the fair values of investments.

Investment Type	Fair Value	Maturity < 1 year	Maturity 1 - 5 years
Corporate bonds and debentures	\$ 56,771,927	\$ 508,080	\$ 15,659,466
Foreign government and corporate obligations	55,173,776	1,637,514	25,981,485
US government and agency issues	43,778,548		3,236,989
	\$ 155,724,251	\$ 2,145,594	\$ 44,877,940
Investment Type		6 - 10 years	10+ years
Corporate bonds and debentures		\$ 17,357,659	\$ 23,246,722
Foreign government and corporate obligations		19,564,934	7,989,843
US government and agency issues		7,744,413	32,797,146
		\$ 44,667,006	\$ 64,033,711

### NOTE 6 – PROPERTY AND BUILDING

Property and Building as of December 31, 2012 and 2011 consists of:

	2012	2011
Land	\$ 229,451	\$ 229,451
Building	2,065,061	2,065,061
Tenant improvements	158,120	158,120
	2,452,632	2,452,632
Less accumulated depreciation	367,737	300,298
Total Property and Building	\$ 2,084,895	\$ 2,152,334

## NOTES TO FINANCIAL STATEMENTS

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### NOTE 7 –FAIR VALUE MEASUREMENTS

The System follows Financial Accounting Standards Board Accounting Standards Codification 820 (“FASB ASC 820”), “Fair Value Measurements and Disclosures” which establishes a framework for measuring fair value and expands disclosures about fair value measurements. FASB ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels explained below:

- Level 1 Valuations based on unadjusted quoted prices available for identical assets in active markets that the plan has the ability to access.
- Level 2 Valuations based on quoted prices in markets which are not active, or for which all significant inputs are observable, either directly or indirectly, or derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 Valuations based on inputs that are unobservable.

Fair value is an exit price that represents the amount that would be received upon sale of an asset or paid to transfer a liability in an orderly transaction between market participants.

Non-financial assets such as property and equipment are measured at fair value when there is an indicator of impairment and adjusted to fair value only when impairment is recognized.

The carrying amounts of cash, cash equivalents, accrued interest and dividends, accounts payable and accrued expenses approximate fair value because of the short-term maturity of these items.

The assets’ fair value measurement levels within the fair value hierarchy are based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used should maximize the use of observable inputs and minimize the use of unobservable inputs. The inputs or methodology used for valuing securities are not necessarily an indication of the risks associated with investing in those securities.

The following are descriptions of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2012 and 2011.

*U.S. Treasury obligations, other government obligations, common stocks, corporate and foreign bonds:* Valued based upon the quoted market value as of the last business day of the year as determined by the System’s independent investment custodians.

*Mutual funds:* Valued at quoted market prices based on the net asset value of shares held by the System at year end.

*Money market accounts:* (Cash equivalents) Valued based on yields currently available on comparable securities of issuers with similar credit rating.

*Limited partnerships:* Valued based on valuations of the underlying companies of the limited partnerships as reported by the general partner.

*Real estate partnerships – Insurance Contracts:* Valued at fair value as determined by the insurance companies.

## NOTES TO FINANCIAL STATEMENTS

### NOTE 7 – FAIR VALUE MEASUREMENTS (CONTINUED)

*Venture capital partnerships:* Valued by investment advisors based upon audited financials, other practices, and other information provided by the underlying investment advisor.

*Credit opportunity investments:* Valued at quoted market prices based on the net asset value of shares held by the System at year end.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the System believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies or assumptions to determine fair values of certain instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level, within the fair value hierarchy, the System's assets that are measured at fair value as of December 31, 2012:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Credit opportunity investments	\$ 16,877,460		
U.S. Government and other agency issues		\$ 43,778,548	
Corporate bonds		56,771,927	
Foreign investments		106,939,798	
Common stocks	233,243,085		
Mutual funds	322,018,950		
Money market accounts		33,492,721	
Real estate partnerships			\$ 45,034,321
Limited partnerships			23,352,373
Venture capital partnerships			1,855,345
	<u>\$ 572,139,495</u>	<u>\$ 240,982,994</u>	<u>\$ 70,242,039</u>

The following table sets forth by level, within the fair value hierarchy, the System's assets that are measured at fair value as of December 31, 2011:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Credit opportunity investments	\$ 20,217,520		
U.S. Government and other agency issues		\$ 50,200,578	
Corporate bonds		51,286,089	
Foreign investments		95,408,493	
Common stocks	224,917,277		
Mutual funds	301,124,937		
Money market accounts		37,627,622	
Real estate partnerships			\$ 46,725,649
Limited partnerships			24,660,720
Venture capital partnerships			1,905,756
	<u>\$ 546,259,734</u>	<u>\$ 234,522,782</u>	<u>\$ 73,292,125</u>

## NOTES TO FINANCIAL STATEMENTS

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### NOTE 7 – FAIR VALUE MEASUREMENTS (CONTINUED)

The following table sets forth a summary of changes in the fair value or cost value of the System's Level 3 assets for the year ended December 31, 2012:

	<u>Venture Capital Partnerships</u>	<u>Limited Partnerships</u>
Balance, beginning of the year	\$ 1,905,756	\$ 24,660,720
Purchases, sales, issuances, and settlements (net)		(1,579,754)
Investment income (net)	90,087	
Realized gains (losses)	(1,475)	1,546,463
Unrealized losses	(139,023)	(1,275,056)
Balance, end of year	<u>\$ 1,855,345</u>	<u>\$ 23,352,373</u>

	<u>Real Estate Partnerships</u>
Balance, beginning of the year	\$ 46,725,649
Purchases, sales, issuances, and settlements (net)	(6,000,000)
Investment income (net)	2,251,036
Realized gains	16,718
Unrealized gains	2,509,939
Management fees	(469,021)
Balance, end of year	<u>\$ 45,034,321</u>

## NOTES TO FINANCIAL STATEMENTS

### NOTE 7 – FAIR VALUE MEASUREMENTS (CONTINUED)

The following table sets forth a summary of changes in the fair value or cost value of the System's Level 3 assets for the year ended December 31, 2011:

	<u>Venture Capital Partnerships</u>	<u>Limited Partnerships</u>
Balance, beginning of the year as previously reported	\$ -	\$ 21,702,478
Adjustment for change in reporting method	<u>2,076,207</u>	<u>2,498,697</u>
Balance, beginning of the year as restated	2,076,207	24,201,175
Purchases, sales, issuances, and settlements (net)	108,577	(2,048,628)
Investment income (net)	171,903	
Realized gains	139,776	2,204,987
Unrealized gains (losses)	<u>(590,707)</u>	<u>303,186</u>
Balance, end of year	<u>\$ 1,905,756</u>	<u>\$ 24,660,720</u>
	<u>Real Estate Partnerships</u>	
Balance, beginning of the year	\$ 47,890,147	
Purchases, sales, issuances, and settlements (net)	(7,000,000)	
Investment income (net)	2,488,949	
Realized losses	(5,564)	
Unrealized gains	3,825,976	
Management fees	<u>(473,859)</u>	
Balance, end of year	<u>\$ 46,725,649</u>	



## NOTES TO FINANCIAL STATEMENTS

### NOTE 7 – FAIR VALUE MEASUREMENTS (CONTINUED)

All assets have been valued using a market approach, except for Level 3 assets. Fair values in Level 2 are calculated using quoted market prices for similar assets in markets that are not active. The following table describes the valuation technique used to calculate fair values for assets in Level 3. Annually, management determines if the current valuation techniques used in the fair value measurements are still appropriate and evaluates and adjusts the unobservable inputs used in the fair value measurements based on third-party information. There were no changes in the valuation techniques during the current year.

	<u>Fair Value</u>	<u>Valuation Techniques</u>	<u>Unobservable Input</u>
<u>December 31, 2012</u>			
Limited Partnerships	\$ 23,352,373	Basis in LLC	Undistributed Income
Real Estate Partnerships	45,034,321	Basis in LLC	Undistributed Income
Venture Capital Partnerships	1,855,345	Basis in LLC	Undistributed Income
<u>December 31, 2011</u>			
Limited Partnerships	\$ 24,660,720	Basis in LLC	Undistributed Income
Real Estate Partnerships	46,725,649	Basis in LLC	Undistributed Income
Venture Capital Partnerships	1,905,756	Basis in LLC	Undistributed Income

The significant unobservable inputs used in the fair value measurement of the System's investments in Limited Partnerships are the original cost of the investment in the partnership plus the cumulative net income of the partnership through the end of the most recent fiscal year. Significant increases or decreases in the partnership's cumulative net income through December 31, 2012 could result in a significantly higher or lower fair value measurement.

### NOTE 9 – PENSION

The funded ratio of a plan compares its assets to its liabilities, on an actuarial basis, measuring a plan's ability to fulfill the obligations it has to its members. The funded ratio of the System's plan for fiscal year 2012 and 2011 was 84.9% and 88.6%, respectively with 2011 as the highest funded ratio for the System since the system began tracking the ratio under the GASB method in 1992.

The schedule of funding progress that is immediately following the notes to the financial statements presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing relative to the actuarial accrued liability for benefits over time.

### NOTE 10 – REQUIRED ANNUAL CONTRIBUTION

As determined by the actuary, the required annual contribution is as follows at January 1, 2012.

	Board of Education	Retirement System	Charter School	Total
Normal Cost contribution	\$ 15,577,622	\$ 50,896	\$ 4,074,427	\$ 19,702,945
Actuarial accrued liability contribution	<u>12,384,850</u>	<u>40,465</u>	<u>3,239,338</u>	<u>\$ 15,664,653</u>
Annual required contribution (ARC)	27,962,472	91,361	7,313,765	\$ 35,367,598
Covered compensation	185,606,968	606,427	48,546,696	\$ 234,760,091
ARC as % of covered compensation	15.07%	15.07%	15.07%	15.07%

### NOTE 11 – SUBSEQUENT EVENTS

The System has evaluated subsequent events through April 12, 2013, the date on which the financial statements were available to be issued.

**REQUIRED SUPPLEMENTARY INFORMATION**

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

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

**DECEMBER 31, 2012**

Actuarial Valuation Date January 1,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Frozen Entry Age (b)	Unfunded AAL (UAAL) (b-a)
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
2004	902.0	1,074.3	172.3
2005	935.3	1,084.4	149.1
2006	983.8	1,122.6	138.8
2007	1,003.4	1,150.2	146.8
2008	1,014.9	1,158.9	144.0
2009	963.9	1,099.9	136.0
2010	950.7	1,076.0	125.3
2011	944.4	1,066.3	121.9
2012	925.4	1,090.3	164.9

Actuarial Valuation Date January 1,	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
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
2004	84.0	255.3	67.5
2005	86.3	240.2	62.1
2006	87.6	227.0	61.1
2007	87.2	222.4	66.0
2008	87.6	225.2	63.9
2009	87.6	234.5	58.0
2010	88.4	242.0	51.8
2011	88.6	218.3	55.8
2012	84.9	234.8	70.3

See independent auditor's report.

## REQUIRED SUPPLEMENTARY INFORMATION

### PUBLIC SCHOOL RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS SCHEDULE OF EMPLOYER CONTRIBUTIONS DECEMBER 31, 2012

Employer Contributions		
Year Ended December 31,	Annual Required Contribution	Percent Contributed
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	112.3
2001	18,168,580	100.2
2002	19,076,442	100.6
2003	19,517,288	101.2
2004	19,210,506	132.0
2005	19,364,705	121.4
2006	14,414,133	114.9
2007	17,311,658	129.7
2008	21,021,316	132.5
2009	21,406,949	133.6
2010	19,407,722	134.4
2011	24,264,182	118.4
2012	25,928,658	*

\* 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 Buck Consultants at January 1, 2012. Additional information related to the above actuarial valuation follows:

Actuarial cost method:	Frozen entry age.
Rate of investment return:	8.00% for 2012 and 2011, net of expenses.
Turnover or withdrawal rates:	Various by age and year of membership based on actual
Mortality or death rates:	RP-2000 Combined Healthy Lives
Disability rates:	RP-2000 Combined Healthy Lives
Rates of retirement between the 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

The Unfunded Actuarial Accrued Liability (UFAAL) was originally determined and frozen as of January 1, 1981. Effective January 1, 2006, the UFAAL was re-determined. The UFAAL is being amortized over thirty (30) years.

See independent auditor's report.

**OTHER SUPPLEMENTARY INFORMATION**

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

**SCHEDULES OF OPERATING EXPENSES**

**YEARS ENDED DECEMBER 31, 2012 AND 2011**

	<u>2012</u>	<u>2011</u>
Actuarial services	\$ 146,077	\$ 126,165
Accounting and auditing fees	55,552	52,657
Computer programming and consultation	125,590	49,150
Conventions, conferences, seminars		
Executive Director	1,790	447
Trustees	18,979	17,660
Depreciation expense	67,438	67,438
Dues and subscriptions		4,179
Employee benefits	3,455	2,711
Furniture and equipment	566	4,371
Insurance - group health	62,069	68,755
Insurance - casualty and bonding	80,875	75,766
Legal fees and expenses	47,342	70,104
Medical fees	1,300	700
Office repairs and maintenance	40,271	41,902
Office supplies and expenses	10,330	13,140
Postage	89,933	77,121
Pension contribution	73,902	57,964
Printing and publishing	23,749	31,540
Occupancy expense	27,005	27,917
Salaries - administrative and clerical	446,297	513,845
Health insurance consultation	39,843	37,944
Payroll taxes	33,653	39,309
Telephone	16,780	13,354
Utilities	29,654	27,482
Miscellaneous expenses	7,815	11,293
	<u>\$ 1,450,265</u>	<u>\$ 1,432,914</u>

See independent auditor's report.

**OTHER SUPPLEMENTARY INFORMATION**

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

**SCHEDULES OF OPERATING EXPENSES (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2012 AND 2011**

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:

	<u>2012</u>	<u>2011</u>
Transportation and registration	\$ 8,137	\$ 5,068
Lodging, meals, and miscellaneous	<u>10,842</u>	<u>12,592</u>
Total	<u>\$ 18,979</u>	<u>\$ 17,660</u>

See independent auditor's report.

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

**SCHEDULE OF PROFESSIONAL/CONSULTANT FEES**

**YEARS ENDED DECEMBER 31, 2012 AND 2011**

	<u>2012</u>	<u>2011</u>
Actuarial services	\$ 146,077	\$ 126,165
Accounting and auditing fees	55,552	52,657
Technology consulting	125,590	49,150
Legal expenses	47,342	70,104
Building property management	27,005	27,917
Health insurance consulting	<u>39,843</u>	<u>37,944</u>
Total fees	<u>\$ 441,409</u>	<u>\$ 363,937</u>

Note: All supplementary information regarding investment fees and expenses can be found in the Investment Section.

***“to enhance the well-being and financial security of our members, retirees and beneficiaries....***

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# **INVESTMENT SECTION**

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**KRISTIN FINNEY-COOKE, CAIA**  
SENIOR CONSULTANT

May 27, 2013

The Board of Trustees  
**Public School Retirement System of the City of St. Louis**  
3641 Olive Street, Suite 300  
St. Louis, MO 63108

Dear Board Members,

NEPC LLC currently serves as the pension consultant for the Public School Retirement System of the City of St. Louis. In our role as the pension consultant, we assist the Board in several manners: determining and executing the overall asset allocation strategy of the Plan, drafting of the investment policy of the Plan (and amendment of when necessary), conducting investment manager searches (both traditional and alternative asset classes); conducting custodial services searches, providing ongoing performance evaluation to each individual investment manager, to each asset class composite, and for the overall investment portfolio as a whole, and providing pertinent education to the Board.

The overall objective of the Public School Retirement System of the City of St. Louis is to provide service, disability, death and vested retirement benefits, and other postemployment benefits to members and their beneficiaries. To ensure a solid foundation for the future of the System, the Public School Retirement System of the City of St. Louis has implemented an investment program designed to achieve the actuarial assumed rate of return of the long term, while prudently managing the risk of the portfolio.

Although investment manager performance is key in the future “success” of the Plan, the overall asset allocation policy will be the primary determinant of such “success”. Modern portfolio theory maintains that long term investors, who assume prudent levels of risk, will be rewarded with incremental returns above lower returning and risk free assets (i.e. T-Bills). The pension fund, in its asset allocation policy, is required to satisfy the need to pay accumulated/earned retirement benefits today, while at the same time be prepared for “uncertain” future benefits. This balancing of short-term needs versus long-term needs is a key tenant in the overall construction of the portfolio known as the generation of income versus appreciation of assets. To facilitate this demand balance of short term versus long term, the Board has adopted a diversified asset allocation structure that is primarily weighted in equity asset classes, such as US equities and Non-US equities, with offsetting investments in fixed income which provide current income and stability.

The Board continues to work diligently on expanding the alternative investment program, which will further assist in the diversification of the portfolio. Asset classes such as hedge funds and global asset allocation are designed to lower the overall volatility of the program, while private equity is designed to provide higher long term performance above what is expected from traditional equity markets. As the allocation strategy evolves year after year, diversification and risk mitigation will continue to be the pillars of the asset allocation structure.

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Return data for the Fund was reconciled from manager provided time-weighted returns that were calculated in accordance with the CFA Institute’s Global Investment Performance Standards (GIPS). Valuations, where available, are based on published national securities exchange prices, as provided by PSRS’s custodian, US Bank.

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CAMBRIDGE | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO





This letter summarizes the structure and performance of the Public School Retirement System of the City of St. Louis Fund through the Fiscal Year ending December 31, 2012.

### **Asset Allocation and Investment Performance**

As of the December 31<sup>st</sup> fiscal year end, the Fund was in compliance with the asset allocation policy with 45.1% equities, 20.7% fixed income and credit opportunities, 12.0% global asset allocation strategies, 4.8% hedge funds, 3.9% market neutral, 5.1% real estate, 2.9% private equity, 2.6% real assets, and 2.9% cash.

During the year ending December 31, 2012, the Fund earned 12.4%, which ranked it in the 51<sup>st</sup> percentile of public funds with assets between \$500 million and \$1.0 billion within the InvestorForce Public Fund Defined Benefit Universe. Over the 12 month period ending December 31, 2012, PSRS performance surpassed its assumed actuarial return target of 8.0%. Assets increased from \$855.5 million at the end of fiscal year 2011 to approximately \$885.8 million as of year end 2012. The investment earnings for the year more than covered the outflow for benefit payments. Over the trailing 5 year period ending December 31, 2012, the Fund earned an annualized rate of return of 3.2%, ranking in the 45<sup>th</sup> percentile of the comparative universe. Over the trailing 10 year period ending December 31, 2012, the Fund earned an annualized rate of return of 7.9%, ranking in the 10<sup>th</sup> percentile.

### **Market Commentary**

The global equity markets experienced yet another volatile year in 2012, with the market reacting to events such as the prolonged European Debt Crisis, slowing Chinese growth, the US election, the sluggish US economy, and uncertainty surrounding the "fiscal cliff". Despite the negativity in the headlines, the broad markets ended the year in positive territory.

During the year, risk was generally rewarded, as stocks outperformed bonds, international stocks did better than US stocks, and emerging market equities did better than both their International and US counterparts. Corporate bonds did better than government bonds and high yield outperformed investment grade. In general, all sectors generated a positive return in 2012, with cyclical sectors such as Financial Services and Consumer Discretionary leading the pack, while more defensive sectors such as Health Care and Consumer Staples lagged.

### **Global Equity Markets**

The first quarter of 2012 was the best quarter for US stocks since 1998. Global equity markets delivered strong gains as macro fears continued to subside and attention turned to improving fundamentals. In both dollar and local currency terms, US markets outperformed international markets and emerging markets outperformed developed international markets. US equity markets delivered the strongest first quarter gains in more than 10 years.

US equity markets reversed in the second quarter of 2012 as global economic fears mounted and ended the quarter in negative territory. Globally, the second quarter saw growth equity indices struggle on the back of greater political concerns in Europe and



slowing GDP in China. Political events again triggered a sell-off starting with the election of the Socialist party in France and further fears that the Greek political parties would not be able to support the country's austerity measures. Bad news appeared beyond the Eurozone during the quarter, as China announced an official lowering of GDP growth targets. Nevertheless, the quarter ended on a positive note as the European Union announced its willingness to start a process to unify bank oversight in order to shore up confidence in the financial system. All international markets were down for the quarter, with Greece presenting the weakest return of all.

Global equities did well in the third quarter, thanks to the collective monetary easing by central banks in the US and Europe. While returns were positive across all sectors, the financial sector led the pack and the information technology sector trailed behind with flat to modest returns for the quarter. Among countries, Japan was the only region with negative returns.

US equities posted mixed results for the fourth quarter amid uncertainties around the outcomes of the presidential election and the fiscal cliff. Macroeconomic concerns also took a toll. International equity markets, buoyed by positive news flow within the Eurozone, Japanese export-driven stocks, and stronger economic data from China, beat domestic and emerging markets during the quarter.

Equity Index Returns as of 12/31/2012				
Global Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI World	2.1%	13.2%	4.9%	-3.2%
US Equity	Quarter	1 Year	3 Yrs	5 Yrs
S&P 500	-0.4%	16.0%	10.9%	1.7%
Dow Jones Industrial Average	-2.5%	7.3%	8.6%	-0.2%
NASDAQ Composite	-3.1%	15.9%	11.0%	2.8%
Russell 1000 Growth	-1.3%	15.3%	11.4%	3.1%
Russell 1000 Value	1.5%	17.5%	10.9%	0.6%
Russell 2000	1.9%	16.3%	11.8%	3.6%
Russell 2000 Growth	0.4%	14.6%	12.4%	3.5%
Russell 2000 Value	3.2%	18.1%	11.0%	3.5%
International Equity	Quarter	1 Year	3 Yrs	5 Yrs
MSCI EAFE	6.6%	17.3%	3.6%	-3.7%
MSCI Emerging Markets	5.6%	18.2%	4.7%	-0.9%
MSCI Europe	7.0%	19.1%	3.5%	-4.3%
MSCI UK	3.4%	10.8%	3.1%	-5.1%
MSCI Japan	5.8%	8.2%	2.1%	-4.3%
MSCI Far East	5.4%	9.1%	1.2%	-4.8%

### Global Fixed Income Markets

In the first quarter of 2012, corporate credit and emerging markets led fixed income returns, with the riskiest sectors – among them US high yield bonds – performing the best. US Treasuries and other high-quality developed market sovereign bond markets posted the weakest results in the quarter as investors favored riskier assets and shunned the relative safety of government bonds. Fears over the solvency of the European banking sector ebbed with the apparent early success of the European Central Banks' Long-Term Recovery Operation liquidity window for European banks, which was launched in December.



Long-term US Treasury bonds led fixed-income returns during the second quarter as yields touched all-time lows in response to slowing growth in both the US and China. Economic weakness in Europe continued to weigh on the markets as concerns escalated about that continent's banking and sovereign debt crisis. Credit market indices performed reasonably well, largely due to their interest-rate sensitivity. Credit spreads rose modestly during the quarter, with the largest increases occurring across non-investment-grade issues.

In the third quarter, all fixed income sectors experienced gains, with debt issued by emerging markets and high-yield companies leading the way. Spreads on high-yield debt continued to tighten to end the quarter hovering near record lows. Debt issued by emerging markets rallied. Dollar-denominated issues got a boost as investors sought solace in the emerging market's higher returns and healthier economic fundamentals relative to their developed market counterparts.

In the fourth quarter, emerging markets debt and high yields experienced the highest returns as yield hungry investors sought higher returns in the low interest rate environment. Even as massive government stimulus poured into Treasuries, the yield curve shifted upwards in the quarter, retreating from all-time lows in the summer.

Fixed Income Index Returns as of 12/31/2012				
Global Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
Citi WGBI	-1.7%	1.6%	4.4%	5.3%
JPM EMBI Plus	3.2%	18.0%	14.7%	12.8%
Domestic Fixed Income	Quarter	1 Year	3 Yrs	5 Yrs
BC Aggregate	0.2%	4.2%	6.2%	5.9%
BC US Agg. Treasury	-0.1%	3.0%	5.7%	5.4%
BC US Credit	1.1%	9.4%	8.7%	7.7%
BC Mortgage Backed	-0.2%	2.6%	4.7%	5.7%
BC Interm. Gov't/Credit	0.3%	3.9%	5.5%	5.7%
BC 1-10 Yr TIPS	0.5%	5.0%	6.3%	5.6%
BC High Yield	3.3%	15.8%	11.9%	10.3%
S&P LSTA Lev. Loan	1.4%	9.7%	7.1%	5.7%
3 Month T-Bills	-0.1%	0.0%	0.0%	-0.6%
10-Year Bond Yields	Dec-12	Sep-12	Jun-12	Dec-11
US	1.8%	1.6%	1.6%	1.9%
Germany	1.3%	1.4%	1.6%	1.8%
UK	1.8%	1.7%	1.7%	2.0%
Japan	0.8%	0.8%	0.8%	1.0%

**2012 Summary**

During the fiscal year, manager changes took place in the Domestic Large Cap Growth Equity category as Holland Capital and TCW were hired to replace under-performing managers. No new asset classes or managers were funded during the year.

After the challenging year of 2011, 2012 saw a broad market rally, which the Public School Retirement System of the City of St. Louis fully participated in with a strong 12.4% absolute return. The Fund is well diversified and positioned for the future. Longer term performance continues to uphold our goals and objectives, outperforming the Fund's investment policy and comparative Public Fund peer group.

Diversification aims to reduce volatility and mitigate overall plan risk across a range of asset classes with varied return pattern streams. Our goal is to increase the diversification, when prudent to do so, of the System's assets more broadly within the traditional and non-traditional asset classes for the purpose of reducing volatility, while simultaneously enhancing the Fund's ability to generate superior returns throughout all market conditions.

Sincerely,

## **INVESTMENT POLICIES AND OPERATING GUIDELINES**

### **Fiscal Year Ended December 31, 2012**

#### **Investment Policies**

The System's assets are invested under the provisions of Rule XIV. – Investment Policies of the Fund's Rules & Regulations established by the Board of Trustees. The following is a summary of the System's Investment Goals under Rule XIV., Section 3:

*Assets of the System shall be invested in a manner designed to preserve and enhance principal over the long term, both in real and nominal terms. Total return, consistent with prudent investment management, is the primary goal of the System. Total return, as used herein, includes income less expenses plus realized and unrealized gains and losses in the System's assets. The Trustees will establish, in the Investment and Operating Guidelines, both real and nominal long-term target rates of return for the Fund that are projected to provide a high probability of achieving the System's long-term investment objectives within acceptable risk levels. The Trustees shall establish, in the Investment and Operating Guidelines, additional performance expectations for the Fund as a whole and for each asset classification within the Fund. Total Fund risk exposure and risk adjusted returns will be regularly evaluated and compared to such peer group or groups that the Trustees and investment consultant may from time to time select.*

#### **Investment and Operating Guidelines**

The Investment and Operating Guidelines are issued for the guidance of fiduciaries, including staff, investment consultants, investment professionals and investment managers in the course of investing and administering the funds of the retirement system, and to assist in measuring the performance of the investment managers and the Fund. Included in the guidelines are specific details for the following items:

Performance Objectives by Asset Class	Asset Allocation Policy
Operating Guidelines by Asset Class	Liquidity Assumption for Benefit Payments
Standards of Investment Performance	Watch List / Probation Process
Reporting Requirements	Use of Guidelines by Investment Managers

#### **Code of Ethics Policy**

The Board of Trustees has adopted a Code of Ethics Policy that prohibits conflicts of interest and requires representatives of the Fund to act with the highest level of ethical responsibility in the performance of their duties. All Trustees, employees, professionals and vendors are required to acknowledge their understanding of the policy on an annual basis.

#### **Investment Policies and Operating Guidelines Review**

The Investment Policies and Operating Guidelines may be amended or modified from time to time by the Trustees, in the manner provided in the Fund's Rules and Regulations, upon consideration of the advice and recommendations of retained professionals, including the Fund's actuary, accountant, investment managers, investment consultant, and attorney. The Investment Policies and Operating Guidelines are usually reviewed at least once a year to insure their relevance to the Fund's needs and to communicate any material changes thereto to the investment managers.

To view or print the Investment Policies and Guidelines in their entirety, please visit  
<http://www.psrstl.org/about-us/rules-regulations-statutes.aspx>

## INVESTMENT SUMMARY

### Schedule of Investments - December 31, 2012

Investment Category	% of MV	Market Value (MV)	Cost	MV Over (Under) Cost
Cash Equivalents	3.8%	\$33,492,721	\$33,492,721	\$0
U.S. Government and Agency Issues	5.0%	43,778,548	42,524,621	1,253,927
Corporate Bonds	6.4%	56,771,927	51,118,928	5,652,999
Foreign Corporate & Government Bonds	12.1%	106,939,798	101,925,873	5,013,925
Common Stocks	26.4%	233,243,085	207,134,202	26,108,883
Mutual Funds	36.5%	322,018,950	261,654,366	60,364,584
Real Estate - Insurance Contracts	5.1%	45,034,321	41,551,122	3,483,199
Credit opportunity Investments	1.9%	16,877,460	12,085,692	4,791,768
Alternative Investments	2.9%	25,207,718	22,757,618	2,450,100
<b>Total</b>	<b>100.0%</b>	<b>\$883,364,528</b>	<b>\$774,245,143</b>	<b>\$109,119,385</b>

### Market Value of Assets by Asset Class – Last Three Fiscal-Years

Investment Category	December 31, 2010		December 31, 2011		December 31, 2012	
	Market Value	% of Total	Market Value	% of Total	Market Value	% of Total
Cash, Receivables, Cash Equivalents	\$48,008,324	5.1%	\$50,329,093	5.8%	\$45,424,142	5.1%
Property and Building	2,219,772	0.2%	2,152,334	0.2%	2,084,895	0.2%
U.S. Government & Agency Issued Bonds	48,690,369	5.2%	50,200,578	5.8%	43,778,548	4.9%
Corporate Bonds	68,563,470	7.3%	51,286,089	5.9%	56,771,927	6.3%
Foreign Investments (bonds and stocks)	109,773,594	11.6%	95,408,493	11.0%	106,939,798	11.9%
Common and Preferred Stocks	265,038,827	28.1%	224,917,277	25.9%	233,243,085	26.0%
Mutual Funds	303,286,315	32.2%	301,124,937	34.7%	322,018,950	35.9%
Real Estate - Insurance Contracts	47,890,147	5.1%	46,725,649	5.4%	45,034,321	5.0%
Credit opportunity Investments	23,406,472	2.5%	20,217,520	2.3%	16,877,460	1.9%
Alternative Investments	26,277,382	2.8%	26,566,476	3.1%	25,207,718	2.8%
<b>Total</b>	<b>\$943,154,672</b>	<b>100.0%</b>	<b>\$868,928,446</b>	<b>100.0%</b>	<b>\$897,380,844</b>	<b>100.0%</b>

## INVESTMENT RETURNS

For the year ending December 31, 2012, the total PSRSSTL portfolio posted a gain of 12.4%, ranking 51<sup>st</sup> within the Investor Force Universe (IFU) of Public Funds. For the three-year and five-year periods ending December 31, 2012, the total PSRSSTL portfolio ranked 35<sup>th</sup> and 45<sup>th</sup> with 8.9% and 3.2% returns, respectively.

Investment returns for the retirement system's portfolio, stocks and bonds for the one-year, three-year and five-year periods ending December 31, 2012 are set forth below.

<u>Investment Category</u>	<b>Annualized Returns for Periods Ended<sup>1</sup></b>		
	<b>December 31, 2012, net of fees</b>		
	<b>One Year</b>	<b>Three Years</b>	<b>Five Years</b>
PSRS Total Portfolio	12.4%	8.9%	3.2%
Allocation Index <sup>2</sup>	12.4%	8.6%	2.9%
PSRS Domestic Equities	15.3%	12.2%	2.9%
Russell 3000 Index	16.4%	11.2%	2.0%
PSRS Domestic Bonds	13.3%	9.7%	7.7%
Barclays Capital Aggregate	4.2%	6.2%	5.9%
Barclays Capital High Yield	15.8%	11.9%	10.3%
PSRS International Equities	22.4%	6.9%	-1.2%
MSCI EAFE Index	17.3%	3.6%	-3.7%
PSRS Emerging Market Equities	16.5%	2.7%	-3.1%
MSCI Emerging Markets Index	18.2%	4.7%	-0.9%
PSRS Global Bonds	1.8%	5.3%	6.9%
Citigroup World Government	1.6%	4.4%	5.3%

<sup>1</sup>The investment returns in the schedule are annualized by calculating the average market rate of return for the time period.

<sup>2</sup>The Allocation Index is comprised of various equity, fixed income, hedge fund, real estate and Treasury bill indices in proportion to the asset weights within the pension fund.

## ASSET ALLOCATION AND INVESTMENT MANAGERS AS OF DECEMBER 31, 2012 (in thousands)

	MANAGEMENT STYLE	RELATIVE TO TOTAL PORTFOLIO						MARKET VALUE	
		MARKET VALUE		TARGET VALUE		VARIANCE		Value	%
		Value	%	Value	%	Value	%	Value	%
<b>LARGE CAP GROWTH DOMESTIC EQUITIES</b>		81,698	9.2%	79,720	9.0%	1,978	0.2%		
Holland Capital Management	Large Cap Growth							29,478	36.1%
Intech	Large Cap Growth							21,914	26.8%
TCW Asset Management Company	Large Cap Growth							30,306	37.1%
<b>LARGE CAP CORE DOMESTIC EQUITIES</b>		24,049	2.7%	26,573	3.0%	(2,524)	-0.3%		
Batterymarch Financial	Large Cap Core							15,108	62.8%
Mellon Equity Index	Large Cap Core							8,941	37.2%
<b>LARGE CAP VALUE DOMESTIC EQUITIES</b>		80,939	9.1%	79,720	9.0%	1,219	0.1%		
Chicago Equity Partners	Large Cap Value							49,528	61.2%
The Edgar Lomax Company	Large Cap Value							31,411	38.8%
<b>MID CAP GROWTH DOMESTIC EQUITIES</b>		25,299	2.9%	26,573	3.0%	(1,274)	-0.1%		
New Amsterdam Partners	Mid Cap Growth							25,299	100.0%
<b>SMALL/MICRO CAP DOMESTIC EQUITIES</b>		64,214	7.2%	62,004	7.0%	2,210	0.2%		
Westfield Capital Management	Small Cap Growth							20,970	32.7%
Systematic Financial Management	Small Cap Value							23,327	36.3%
Dimensional Fund Advisors	Small Cap Core							19,917	31.0%
<b>GLOBAL TACTICAL ASSET ALLOCATION (GTAA)</b>		106,217	12.0%	106,293	12.0%	(76)	0.0%		
GMO Global Balanced Asset Allocation	Balanced Fund							35,050	33.0%
Mellon Expanded Global Alpha I	Balanced Fund							34,918	32.9%
PIMCO All Asset Fund	Balanced Fund							36,249	
<b>INTERNATIONAL EQUITIES</b>		123,249	13.9%	124,008	14.0%	(759)	-0.1%		
Batterymarch GL Emerging	Emerging Markets							25,019	20.3%
Causeway	International Equities							41,572	33.7%
Dimensional Fund Advisors	Emerging Markets							15,118	12.3%
Pyramis	International Equities							41,540	33.7%
<b>DOMESTIC BONDS</b>		74,588	8.4%	88,577	10.0%	(13,989)	-1.6%		
Earnest	Core Domestic Bonds							21,081	28.3%
Mellon Index Bond	Core Domestic Bonds							643	0.9%
MFC	Core Domestic Bonds							52,864	70.9%
<b>HIGH YIELD DOMESTIC BONDS</b>		45,014	5.1%	44,289	5.0%	725	0.1%		
Loomis Sayles	High Yield Bonds							45,014	100.0%
<b>CREDIT OPPORTUNITIES</b>		16,877	1.9%	17,715	2.0%	(838)	-0.1%		
Loomis Sayles	Credit Asset Trust							16,877	100.0%
<b>GLOBAL BONDS</b>		47,064	5.3%	53,146	6.0%	(6,082)	-0.7%		
Mondrian	Global Bonds							47,064	100.0%
<b>MARKET NEUTRAL STRATEGY</b>		34,366	3.9%	35,431	4.0%	(1,065)	-0.1%		
Blue Rock	Market Neutral							34,366	100.0%
<b>HEDGED STRATEGIES</b>		43,165	4.9%	44,289	5.0%	(1,124)	-0.1%		
Mariner	Cash							273	0.6%
Entrust	Hedge Funds							20,636	47.8%
Permal	Hedge Funds							22,256	51.6%
<b>REAL ASSETS</b>		23,025	2.6%	26,573	3.0%	(3,548)	-0.4%		
Wellington	Commodities							23,025	100.0%
<b>REAL ESTATE</b>		45,034	5.1%	44,289	5.0%	745	0.1%		
UBS Trumbull Property Funds	Real Estate							45,034	100.0%
<b>ALTERNATIVE INVESTMENTS</b>		25,653	2.9%	26,573	3.0%	(920)	-0.1%		
Private Equity	Alternative Investments							25,653	100.0%
<b>CASH (Does Not Include Managers' Residual Cash)</b>		25,322	2.9%	0	0.0%	25,322	2.9%		
PSRSSTL	Cash Accounts							25,322	100.0%
<b>TOTAL (in thousands)</b>		<b>\$885,773</b>	<b>100.0%</b>	<b>\$885,773</b>	<b>100.0%</b>				

*The target values shown above represent the current Asset Allocation Policy adopted by the Board of Trustees in 2010. In 2012, the Board of Trustees restructured the Large Cap Growth Equity asset class by replacing two money managers with two others. The Board of Trustees hired Holland Capital Management & TCW Asset Management Company to manage Large Cap Growth Equity portfolios and invested \$28 million with each manager. Funding was provided by re-allocating within the asset class.*

## DOMESTIC EQUITY INVESTMENTS

Domestic Equity Performance & Characteristics	
2012 Return	15.3%
Average Market Capitalization	\$52.2 Billion
P/E Ratio	16.9
Price/Book Ratio	3.4
Five-Year Annualized Return	2.9%

Ten Largest Domestic Equity Holdings			
<u>Company</u>	<u>Percent of Domestic Equity</u>	<u>Company</u>	<u>Percent of Domestic Equity</u>
HOLLYFRONTIER	2.3%	INGREDION	1.6%
APPLE	2.0%	EXPEDIA	1.6%
WESCO INTERNATIONAL	1.7%	IPG PHOTONICS	1.5%
IAC/INTERACTIVE CORP	1.7%	VALMONT INDUSTRIES	1.4%
POLARIS INDUSTRIES	1.7%	TRW	1.4%

Ten Best Performing Domestic Equity Holdings			
<u>Company</u>	<u>Return</u>	<u>Company</u>	<u>Return</u>
ICAD	122.8%	MAUI LAND & PINE	80.4%
SECURITY NAT. FINANCIAL	110.6%	CONSUMER PRFT. SVS.	78.7%
MEMSIC	110.1%	STEREOTAXIS	78.3%
MISONIX	87.6%	FLAGSTAR BANCORP	76.4%
ANADIGICS	81.3%	BIOMIMETIC THERAPEUTICS	76.2%

Ten Worst Performing Domestic Equity Holdings			
<u>Company</u>	<u>Return</u>	<u>Company</u>	<u>Return</u>
FIRST PL. FINANCIAL	-99.3%	THQ	-91.7%
DYNACQ HEALTHCARE	-99.1%	DIAL GLOBAL	-91.0%
HERE MEDIA SPECIAL	-99.0%	PRINCETON NAT. BANC.	-90.5%
SATCON TECHNOLOGY	-96.3%	HERE MEDIA	-90.0%
LODGENET	-91.9%	OVERSEAS SHIP HOLDINGS	-87.12%

A complete list of portfolio holdings is available for a fee based on preparation time and the cost of materials. The information shown reflects securities held as of December 31, 2012, excluding pooled or mutual funds.



## DOMESTIC BOND INVESTMENTS

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<b>Domestic Bond Performance &amp; Characteristics</b>	
2012 Return	13.3%
Average Yield to Maturity	3.8%
Average Maturity	8.7 Years
Average Duration	5.9 Years
Average Quality Rating	BBB
Five-Year Annualized Return	7.7%

<b>Bond Portfolio Yield to Maturity</b>	<b>Percent of Portfolio</b>
0.0 – 5.0	40.3%
5.0 – 7.0	19.5%
7.0 – 10.0	18.8%
10.0 – 15.0	7.1%
15 – 20.0	3.7%
20+	10.6%

<b>Bond Portfolio Quality Rating</b>	<b>Percent of Portfolio</b>
AAA	3.3%
AA	29.0%
A	14.4%
BBB	11.9%
BB and Below	26.8%
Not Rated	14.7%

A complete list of portfolio holdings is available for a fee based on preparation time and the cost of materials. The information shown reflects securities held as of December 31, 2012, excluding pooled or mutual funds.



## INVESTMENT FEES AND EXPENSES

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

#### SCHEDULE OF INVESTMENT EXPENSES

YEARS ENDED DECEMBER 31, 2012 AND 2011

	<u>2012</u>	<u>2011</u>
Investment management fees		
Batterymarch	\$ 108,819	\$ 109,484
BDH	54,823	95,800
Causeway	260,649	256,835
Chicago Equity	172,437	178,622
Earnest Partners	52,936	52,777
Entrust	270,759	
Fidelity	239,138	251,781
GMO	2,002	11,010
Holland Capital	77,258	
Intech	124,978	135,377
John Hancock	155,372	159,319
Lomax	161,912	161,242
Loomis Sayles	217,197	210,828
Loomis Credit Asset	91,650	97,899
Mellon	298,281	337,160
Mondrian	209,408	221,682
Monetary	148,365	265,244
New Amsterdam	92,548	104,309
Systematic	225,856	229,073
TCW Asset	77,477	
UBS	469,021	473,859
US Bank	143,714	152,055
Wellington	204,464	33,693
Westfield	210,401	209,060
Total investment management fees	4,069,465	3,747,109
Consultant fees	188,999	190,306
Banking services	33,629	33,102
Foreign taxes paid	0	1,564
Total investment expenses	<u>\$ 4,292,093</u>	<u>\$ 3,972,081</u>

***“through benefit programs and services which are....***

## **ACTUARIAL SECTION**

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## REPORT OF THE ACTUARY

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A Xerox Company

June 25, 2012

Mr. Andrew Clark  
Executive Director  
PSRS of the City of St. Louis  
3641 Olive Street, Suite 300  
St. Louis, MO 63108-3601

Dear Members of The Public School Retirement System of the City of St. Louis Board:

### **Actuarial Certification**

The annual actuarial valuation required for the Public School Retirement System of the City of St. Louis has been prepared as of January 1, 2012 by Buck Consultants. The purposes of the report are to:

- (1) determine the required annual contributions from the board of education, the retirement system, and the charter schools;
- (2) present the valuation results of the System as of January 1, 2012;
- (3) develop information used for reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

This report is submitted in accordance with Section 169.450-16 Revised Statutes of Missouri (R.S. Mo.). The required contribution to the System from the board of education, the retirement system, and the charter schools is computed in accordance with Section 169.490 R.S. Mo. The amount of the required contribution is stated on page 58.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data and financial information provided to us by the System, to determine a sound value for the System liability. The employee data has not been audited, but it has been reviewed and found to be consistent, both internally and with prior years' data.

This actuarial valuation is based on the same actuarial assumptions and methods as those used in the prior actuarial valuation, except for those noted under Changes from the Prior Valuation. All assumption changes that were recommended from the 2011 Experience Study were adopted for this valuation. A summary of all assumptions and methods is presented beginning on page 70. All assumptions used in this valuation are as adopted by the Board. The assumptions fairly represent past and anticipated future experience of the System.

231 South Bemiston, Suite 400 • St. Louis, MO 63105  
314.725.0114 • 314.725.2724 fax

## REPORT OF THE ACTUARY

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Mr. Andrew Clark  
PSRS of the City of St. Louis  
June 25, 2012

Future contribution requirements may differ from those determined in the valuation because of:

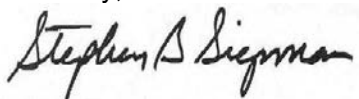
- (1) differences between actual experience and anticipated experience based on the assumptions;
- (2) changes in actuarial assumptions or methods;
- (3) changes in statutory provisions;
- (4) differences between actuarially required contributions and actual contributions.

Buck Consultants prepared the Required Annual Contribution schedule, Schedule of Funding Progress and Schedule of Employer Contributions found in the Financial Section of this report. Buck Consultants prepared all schedules and provided all information found in the Actuarial Section.

The undersigned are members of the American Academy of Actuaries and the Society of Actuaries, are fully qualified to provide actuarial services to the System, and are available to answer questions regarding this report.

We believe that the assumptions and methods used for funding purposes and for the disclosures presented in this report satisfy the parameter requirements set forth in the Government Accounting Standards Board (GASB) Statement No. 25. We believe that this report conforms with the requirements of the Missouri statutes, and where applicable, other federal and accounting laws, regulations and rules, as well as generally accepted actuarial principles and practices.

Sincerely,



Stephen B. Siepman, FSA, EA, MAAA  
Principal, Consulting Actuary



Michael D. Mills, FSA, EA, MAAA  
Director, Consulting Actuary

### Report Highlights

This report has been prepared by Buck Consultants to:

- Present the results of a valuation of the Public School Retirement System of the City of St. Louis as of January 1, 2012;
- Determine the required contribution rate for 2013;
- Provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

After the summary and analysis of the valuation results, this report is divided into sections. One section contains the results of the valuation and includes the experience of the System during the 2011 plan year and information on funded levels.

Another section contains asset information. It includes market value of assets, the calculation of actuarial value of assets, the contingency reserve, and asset returns.

The final section of this report describes the basis of the valuation. It summarizes the System provisions, provides information relating to the System members, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

### Experience Gains and losses

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 based upon the actuarial assumptions. Annual gains (or losses) should be expected because short-term deviations from expected long-term average experience are common.

For 2012, actuarial losses due to plan experience were \$29.8 million. \$24.4 million of the loss is attributable to the System's actuarial rate of return on assets which was 5.5%, 2.5% less than the assumed rate of return of 8.00%. By comparison, the rate of return on the market value of assets was -0.1%. The difference in these returns is because the actuarial value of assets has not yet fully recognized the asset losses that occurred during recent years. At January 1, 2012, the actuarial value of assets at \$925 million remains above market value of assets (excluding the expense and contingency reserve) by approximately \$87 million. About \$5.4 million of the loss is attributable to demographic changes.

### Assumption Changes

For the 2012 valuation, several assumption changes were adopted by the Board based on the experience study conducted in late 2011. A detailed description of the changes appears in the Summary of Methods and Assumptions. In total, the assumption changes increased actuarial liability by almost \$47 million. The majority of this increase is due to longer expected future lifetimes, resulting from anticipating future mortality improvements



## **REPORT OF THE ACTUARY**

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### **Normal cost rate**

The normal cost is determined annually and equals the product of the normal cost rate times covered payroll. For 2012, the annual normal cost is \$19,702,945, as compared to \$14,507,892 for 2011, primarily due to the aforementioned actuarial loss and change of assumptions. The annual normal cost rate increased from 6.39% to 8.07% due to the experience losses and the changes in the actuarial assumptions. Covered payroll increased from \$218.3 million to \$234.8 million.

### **Accrued liability amortization**

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 from January 1, 2006, when the Board of Trustees acted to redetermine the UFAAL. This portion of the contribution only changes to reflect changes in benefits, changes in actuarial assumptions and methods, and variations in the remaining UFAAL due to deviations between actual and expected contributions. Employer contributions for 2011 were \$4.5 million more than the annual required contribution, which reduced the UFAAL more than expected. However, the changes in actuarial assumptions from the previous valuation increased the UFAAL by \$47 million. As a result, the amortization payment is increased from \$11,420,766 to \$15,664,653. The amortization payment component of the contribution rate increased from 5.3% to 6.7% of covered payroll.

### **Required contribution and timing**

In 2001, the Board of Education agreed to institute a one-year lag for future years. Therefore, this actuarial valuation is used to determine the actual contribution rate for 2013. The dollar amount of the actual contribution increased to \$35,367,598 for 2013 from \$25,928,658 for 2012. As a percentage of covered compensation, the contribution rate for 2013 increased to 15.07% from 11.88% for 2012.

## SUMMARY AND COMPARISON OF PRINCIPAL VALUATION RESULTS

<b>Annual Required Contribution</b>				
	Board of Education	Retirement System	Charter Schools	Total
<b>2012</b>				
Normal cost contribution	\$ 15,577,622	\$ 50,896	\$ 4,074,427	\$ 19,702,945
Actuarial accrued liability contribution	<u>12,384,850</u>	<u>40,465</u>	<u>3,239,338</u>	<u>\$ 15,664,653</u>
Annual required contribution	27,962,472	91,361	7,313,765	\$ 35,367,598
Covered payroll	185,606,968	606,427	48,546,696	\$ 234,760,091
ARC as % of covered payroll	15.07%	15.07%	15.07%	15.07%
<b>2011</b>				
Normal cost contribution	\$ 11,630,457	\$ 41,350	\$ 2,836,085	\$ 14,507,892
Actuarial accrued liability contribution	<u>9,155,618</u>	<u>32,552</u>	<u>2,232,596</u>	<u>\$ 11,420,766</u>
Annual required contribution	20,786,075	73,902	5,068,681	\$ 25,928,658
Covered payroll	175,009,885	622,220	42,676,134	\$ 218,308,239
ARC as % of covered payroll	11.88%	11.88%	11.88%	11.88%

	January 1, 2012	January 1, 2011
<b>System Assets</b>		
Expense and contingency reserve	\$ 29,564,563	\$ 29,480,465
Market value, excluding expense & contingency reserve	838,521,455	908,113,738
Actuarial value	925,389,359	944,356,735
<b>System liabilities</b>		
Unfunded actuarial accrued liability	\$ 164,929,347	\$ 121,914,117
Projected benefit obligation	\$ 1,155,851,532	\$ 1,115,338,412
<b>PBO Funding Ratio</b>		
Actuarial value funding ratio	80.1%	84.7%
Market value funding ratio	72.5%	81.4%

## **ANALYSIS OF THE VALUATION**

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### **(1) Investment Experience**

Our actuarial calculations were based upon the assumption that the System's assets earn 8.00%. The approximate market value rate of return during 2011 was -0.1%. The approximate actuarial value rate of return was 5.5%.

### **(2) Demographic Experience**

The number of active members increased from 4,336 to 4,784 for the period. The average age of active members increased by .03 years, the average service decreased by 0.14 years, and the average annual salary decreased \$1,288. There were small changes in the inactive statistics as well. The membership statistics are found under the Member Census Information.

### **(3) Salary Increases**

The average annual salary decreased 2.6% between January 1, 2011 and January 1, 2012. Total annual covered compensation increased 7.5% between January 1, 2011 and January 1, 2012, due to the increase in active membership.

### **(4) Changes in Methods from the Prior Valuation**

There have been no changes in methods since the prior valuation.

### **(5) Changes in Assumptions from the Prior Valuation**

All of the assumption changes that were recommended from the 2011 Experience Study were adopted. Assumptions that were changed were the mortality tables, retirement rates, and termination rates. Details of these assumption changes can be found in the Summary of Methods and Assumptions. The net effect of changes was to increase the actuarially required employer contribution by 2.36% of covered payroll.

### **(6) Changes in Benefit Provisions from the Prior Valuation**

There have been no changes in benefit provisions since the prior valuation.

### **(7) Other Changes**

There have been no other changes since the prior valuation.

### **(8) Summary**

The overall effect of experience during the period, along with the changes in assumptions, resulted in a decrease in the funding ratio from 84.7% to 80.1%. The total contribution rate increased from 11.88% to 15.07% of covered payroll.

## VALUATION RESULTS

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### Actuarial Balance Sheet as of January 1, 2012

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#### Actuarial assets

Actuarial value of present assets	\$ 925,389,359
Actuarial present value of future participant contributions	84,830,244
Actuarial present value of future employer contributions for:	
Normal costs	136,993,673
Actuarial accrued liability	<u>164,929,347</u>
Total present and future assets	\$1,312,142,623

#### Actuarial liabilities

Actuarial present value of benefits now payable	\$ 827,678,101
Actuarial present value of benefits payable in the future:	
Active participants	\$ 461,644,096
Terminated vested participants	17,855,259
Terminated nonvested participants	<u>4,965,167</u>
Total payable in the future	<u>484,464,522</u>
Total liabilities for benefits	\$1,312,142,623
Surplus / (deficit)	0

## VALUATION RESULTS

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### Projected Benefit Obligation Funding Ratios

The funding objective of the System is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percentage of covered compensation.

Funding ratios provide a measure of how much progress has been made towards achieving this objective. For this purpose, the System's liabilities are determined using the projected benefit obligation cost method. Under this method, liabilities are determined for each participant using only service already performed, but anticipating the impact of future salary growth on the benefits attributable to current active participants.

Here is a comparison of this liability measure to the value of assets to produce a snapshot measure of the System's funding ratios.

### Projected Benefit Obligation Funded Status

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As of January 1, 2012 the projected benefit obligation was:

1. Retired members and beneficiaries currently receiving benefits and terminated members not yet receiving benefits	\$ 850,498,527
a. Current active participants	
i. Accumulated member contributions, including interest	116,268,566
ii. Employer-financed benefits	<u>189,084,439</u>
Total projected benefit obligation	\$1,155,851,532

As of January 1, 2012 the projected benefit obligation was funded as follows:

2. Net assets available for benefits at actuarial value	\$ 925,389,359
3. Unfunded projected benefit obligation	230,462,173
4. Actuarial value funding ratio, (2) / (1)	80.1%
5. Net assets available for benefits at market value	\$ 838,521,455
6. Unfunded projected benefit obligation	317,330,077
7. Market value funding ratio, (5) / (1)	72.5%

## VALUATION RESULTS

### Projected Benefit Obligation Funding Ratios (continued)

Another way to check the funding progress of the System is through a prioritized solvency test. In a prioritized solvency test, the plan's present assets (cash and investments) are sequentially allocated and compared three priorities of liabilities as follows:

- Liability 1: Active participant contributions, accumulated with interest;
- Liability 2: The liabilities for future benefits to current inactive participants and beneficiaries; and
- Liability 3: The liabilities for future benefits to current active participants for prior service.

Ideally, progress in funding of these liability groups will normally be exhibited with Liability 1 attaining 100% coverage first, then Liability 2, and finally Liability 3. Note that 100% funding of Liability 3 does not mean that the System has completed its funding of benefits since additional benefits typically are expected to be earned in the future. Here is a history of the System's funding progress under this test.

### Prioritized Solvency Test

Valuation date	Active participants' accumulated contributions	Retirees, beneficiaries and inactive participants	Active participants (employer-financed)	Valuation assets	Percent covered by valuation assets		
January 1	(1)	(2)	(3)		(1)	(2)	(3)
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%	89%
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%
2004	106,021,476	528,287,121	364,459,284	901,996,455	100%	100%	73%
2005	89,710,662	518,880,414	368,306,240	935,328,638	100%	100%	89%
2006	90,001,111	661,353,685	319,920,373	983,828,243	100%	100%	73%
2007	96,223,413	712,467,372	305,409,824	1,003,428,983	100%	100%	64%
2008	98,112,123	781,006,957	249,244,208	1,014,923,381	100%	100%	54%
2009	104,576,264	801,995,237	187,035,147	963,851,408	100%	100%	31%
2010	110,054,510	805,831,292	195,185,151	950,709,944	100%	100%	18%
2011	103,178,297	842,643,351	169,510,764	944,356,735	100%	100%	0%
2012	116,268,566	850,498,527	189,084,439	925,389,359	100%	95%	0%

## RETIREMENT SYSTEM ASSETS

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### Valuation of the System's Assets

The amount of assets used in the actuarial valuation is known as the "actuarial value of assets." The method is discussed under the Summary of Methods and Assumptions. The development of the actuarial value of assets is shown here.

### Development of the Actuarial Value of Assets

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1. Actuarial value of assets as of January 1, 2011	\$ 944,356,735
2. Participant contributions	11,879,052
3. Employer contributions	28,720,193
4. Benefit payments and expenses	109,493,602
5. Investment increment at 8.0%, $8\% \times \{(1) + .5 \times [(2) - (4)]\}$	71,643,957
6. Expected actuarial value on January 1, 2012, (1) + (2) + (3) - (4) + (5)	947,106,335
7. Market value of assets on January 1, 2012	868,086,018
8. Expense and contingency reserve on January 1, 2012, prior to adjustment	29,564,563
9. Adjustment to the investment contingency reserve	0
10. Excess of market value over expected actuarial value, (7) - (6) - (8) - (9)	(108,584,880)
11. Market value adjustment, $20\% \times (10)$	(21,716,976)
12. Actuarial value of assets as of January 1, 2012, (6) + (11)	925,389,359

## RETIREMENT SYSTEM ASSETS

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### Valuation of the System's Assets (continued)

An important element in the development of the actuarial value of assets is the expense and contingency reserve. The amount of the reserve is determined pursuant to a policy adopted by the Board of Trustees.

Effective January 1, 1996, the Board of Trustees revised Rule X, 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 participants participating in the program on January 1; and
- (4) The estimated amount of insurance supplements to be paid for participants expected to retire and participate in the program during the ensuing year.

The investment contingency portion of the reserve is intended to help cover significant shortfalls in the actuarial rate of return. When a shortfall of more than 1% occurs, a portion of the reserve is released equal to one half of the amount of the shortfall up to 2% plus any remaining shortfall. When the rate of return exceeds the assumed rate of return by more than 1%, the reserve is increased subject to a maximum reserve of 5% of the market value of the Retirement Fund. The addition equals one half of the amount of the excess up to 2% plus any remaining excess.

Since the actuarial return on assets was less than 7% during 2011, a portion of the reserve would normally be released. However, since the entire contingency reserve was released in 2009, nothing further is available to be released. Here is the history of the expense and contingency reserve:

### 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
2004	26,028,780	37,759,976	63,788,756
2005	27,170,188	45,115,876	72,286,064
2006	32,534,770	45,115,876	77,650,646
2007	29,864,946	50,732,410	80,597,356
2008	31,987,370	57,234,574	89,221,944
2009	30,555,388	0	30,555,388
2010	29,903,107	0	29,903,107
2011	29,480,465	0	29,480,465
2012	29,564,563	0	29,564,563



## RETIREMENT SYSTEM ASSETS

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### Valuation of the System's Assets (continued)

The fund had a rate of return of 5.49% on an actuarial value basis, which is 2.51% below the assumed rate of return of 8.00%. Normally, in accordance with Rule X, amounts would have been transferred from the investment contingency portion of the reserve, because the preliminary actuarial rate of return would have been less than the assumed rate of return by more than 1%. However, the contingency reserve was exhausted at January 1, 2009, so no additional amounts are available.

The rate of return on an actuarial value basis is intended to be a more stable rate of return and fluctuate less than rates of return on a market value basis. Thus, the rate of return on an actuarial basis is not always a fair measure of the annual investment performance of the fund. Another indicator of actual performance during the year is the rate of return on a market value basis.

There are several different methods of approximating the rates of return on investments of the trust fund. Here is a brief comparison of the actuarial assumed rate of return as compared with rates of return on market and actuarial value bases:

### Investment Performance

#### 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, 2011	\$937,594,203
ii.	B = Market value of assets as of January 1, 2012	868,086,018
iii.	C = Contributions during the period	40,599,245
iv.	D = Disbursements during the period	109,493,602
v.	Rate of return: $\frac{B - A + D - C}{A + \frac{1}{2}(C - D)}$	-0.07%
vi.	Actuarial assumed rate of return for 2011	8.00%
vii.	Difference between actual and assumed rates of return, (v) - (vi)	-8.07%

#### b. Actuarial Value Basis

The rate of return on an actuarial value basis is approximated using the same method:

i.	A = Actuarial value of assets as of January 1, 2011	\$944,356,735
ii.	B = Actuarial value of assets as of January 1, 2012	925,389,359
iii.	C = Contributions during the period	40,599,245
iv.	D = Disbursements during the period	109,493,602
v.	Rate of return: $\frac{B - A + D - C}{A + \frac{1}{2}(C - D)}$	5.49%
vi.	Actuarial assumed rate of return for 2011	8.00%
vii.	Difference between actual and assumed rates of return, (v) - (vi)	-2.51%

## **BASIS OF THE VALUATION**

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### **Plan Provisions and Members Census**

The plan provisions of the System and the census of members are the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

### **Summary of Plan Provisions**

#### **Participants**

All persons regularly employed by the board of education, charter schools, and employees of the board of trustees are in the System.

#### **Retirement age**

##### **Normal**

Age 65 or any age if age plus the years of credited service equals or exceeds 85 (Rule of 85)

##### **Early**

Age 60 with 5 years of service

#### **Service retirement allowance**

- a. 2% (1-1/4% if terminated prior to July 1, 1999) times years of credited service, subject to a maximum of 60%
- b. Times average final compensation (AFC)
- c. Subject to a maximum of 60% of AFC.
  - i. AFC is the highest average compensation for any three consecutive years of the last 10 years of service.
  - ii. Compensation is the regular wages plus what your employer pays towards your health and welfare benefits.
  - iii. Minimum monthly benefit is \$10.00 for each year of credited service, up to 15 years, retirement age 65 and over.
  - iv. Unused sick leave is added to a participant's credited service and age.

#### **Early retirement benefit**

Service retirement allowance reduced five-ninths of one percent for each month of commencement prior to age 65 or the age at which the Rule of 85 would have been satisfied had the employee continued working until that age, if earlier.

#### **Disability benefit**

Service retirement allowance using actual service, or 25% of AFC if larger, provided that in no case will the benefit exceed that payable if service had continued to age 65.

- a. Disability must be incurred while an employee as determined by the medical board and approved by the board of trustees.
- b. The participant must have a minimum of five years of credited service and not be eligible for normal retirement.

Continued disability is subject to routine verification.

#### **Withdrawal benefit**

Accumulated contributions of participant with interest credited to the participant's account.

## **BASIS OF THE VALUATION**

---

### **Summary of Plan Provisions (continued)**

#### **Vested benefit**

Full vesting on termination of employment after at least five years of service is provided if contributions are left with the System. The full accrued benefit is payable at age 65 or a reduced early retirement benefit prior to age 65.

#### **Retirement options**

In lieu of the benefit paid only over the lifetime of the participant, a reduced benefit payable for life of participant with:

- Option 1 Same retirement allowance continued after death to the beneficiary.
- Option 2 One-half of the retirement allowance continued after death to the beneficiary.
- Option 3 Same retirement allowance continued after death to the beneficiary. If the beneficiary predeceases the participant, the retirement allowance is adjusted back to the unreduced allowance.
- Option 4 One-half of retirement allowance continued after death to the beneficiary. If the beneficiary predeceases the participant, the retirement allowance is adjusted back to the unreduced allowance.
- Option 5 Increased retirement allowance is provided up to age 62, such that benefit provided prior to age 62 is approximately equal to the sum of the reduced retirement allowance paid after age 62 and Social Security.
- Option 6 Options 1 and 5 combined.
- Option 7 Options 2 and 5 combined.

#### **Survivor benefits**

If an active participant dies after completing 18 months of service, leaving a surviving spouse or other dependent beneficiaries, survivor benefits are payable. The widow or dependent beneficiary may elect to receive either a refund of accumulated contributions, or:

- a. A survivor who is the widow at least age 62 and married to a participant for at least one year receives \$60 a month.
- b. A widow with dependent, unmarried children under age 22 receives \$60 a month plus \$60 per dependent child, not to exceed \$180 per month. The benefit ceases when youngest child is age 22 and resumes again under (a) at age 62.
- c. If no benefits are payable under (a) or (b), minor children may receive a benefit of \$60 per child or \$180 divided among them if more than three children.
- d. If no benefits are payable under (a), (b) or (c), a dependent parent or parents may receive or share \$60 per month upon attaining age 62.

If an active participant dies after completing 5 years of service, the widow or dependent beneficiary may elect to receive either a refund of accumulated contributions or:

- a. If the survivor is the widow, a survivor benefit calculated as if the participant had been age 60 at death and elected Option 1, plus \$60 per dependent child not to exceed \$180 per month.
- b. If there is no widow, a survivor benefit calculated as if the participant had been age 60 at death and elected Option 1.

## **BASIS OF THE VALUATION**

---

### **Summary of Plan Provisions (continued)**

#### **Return of contributions upon death**

If after the death of a participant, no further monthly are payable to a beneficiary under an optional form of payment, or under the survivor benefit provisions, the participant's beneficiary shall be paid the excess, if any, of the participant's accumulated contributions over all payments made to or on behalf of the deceased participant.

#### **DROP**

Effective July 1, 2001, active participants may elect to enter the deferred retirement option plan (DROP) for up to four years. Upon entering the DROP, the participant's retirement benefit is frozen and credited to the participant's DROP account. At the end of the DROP, or upon earlier termination of employment, the DROP account is paid in a lump sum or installments, at the participant's option. During the DROP, the participant continues as an active participant, but does not pay contributions. To enter the DROP the participant must be age 65 or meet the Rule of 85. The DROP program is no longer available, ending June 30, 2008.

#### **Contributions by participants**

Participants contribute 5% of compensation. Accumulated contributions are credited at the rate of interest established by the board of trustees. The current crediting rate is 5%.

#### **Contributions by employers**

As needed to keep the System actuarially sound.

#### **Expenses**

Administrative expenses paid out of investment income.

## BASIS OF THE VALUATION

### Member Census Information

As of January 1	<u>2011</u>	<u>2012</u>
<b>Active Members</b>		
Number	4,336	4,784
Average Age	44.58	44.61
Average Service	9.04	8.90
Average Annual Base Pay	\$ 50,348	\$ 49,060
<b>Vested Terminated Members</b>		
Number	606	438
Average Account Balance	\$ 29,113	\$ 27,287
<b>Non-vested Terminated Members</b>		
Number	1,329	1,520
Average Account Balance	\$ 3,336	\$ 3,267
<b>Benefit Recipients</b>		
Number	4,587	4,540
Average Age	72.45	72.82
Average Monthly Benefit	\$ 1,797	\$ 1,813

Please see the Statistical Section for a ten year history of the System's membership census.

### Retired Members and Beneficiaries (as of January 1, 2012)

Option	Service benefit	Disability benefit	Survivor benefit	All
0	3,352	226	299	3,877
1	153	15	0	168
2	85	5	0	90
3	178	13	0	191
4	172	8	0	180
5	15	4	0	19
6	10	4	0	14
7	1	0	0	1
Total	3,966	275	299	4,540

### Annual Benefit Amounts (as of January 1, 2012)

Option	Service benefit	Disability benefit	Survivor benefit	All
0	\$78,906,301	\$2,772,236	\$3,122,057	\$84,800,594
1	2,733,784	204,944	0	2,938,728
2	1,958,959	124,270	0	2,083,229
3	3,609,499	142,305	0	3,751,804
4	4,394,413	155,353	0	4,549,766
5	344,414	42,869	0	387,283
6	210,093	16,587	0	226,680
7	30,849	0	0	30,849
Total	\$92,188,312	\$3,458,564	\$3,122,057	\$98,768,933

## **BASIS OF THE VALUATION**

---

### **Summary of Methods and Assumptions**

The valuation is based upon the premise that the System will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund; the number of members who will retire, die or terminate their services; their ages at such termination and their expected benefits.

#### **Interest**

8.0% per annum.

#### **Participant account interest crediting rate**

5.0% per annum.

#### **Expenses**

The rate of interest assumed is net of expenses.

#### **Mortality**

Mortality tables mandated by the Pension Protection Act as specified in IRS Regulation 1.430(h) (3)-1, applied on a static basis, projected 7 years from the valuation date for annuitants and 15 years for non-annuitants.

#### **Disability Mortality**

The RP-2000 Disability Mortality Table is used for disabled participants.

#### **Withdrawal**

Withdrawals are assumed to occur at rates based on actual experience of the retirement system. During the first five years of membership, withdrawals are assumed to occur at the following rates:

<u>Year of Membership</u>	<u>Non-charter school employees</u>	<u>Charter school employees</u>
1 <sup>st</sup>	25.0%	30.0%
2 <sup>nd</sup>	20.0%	25.0%
3 <sup>rd</sup>	15.0%	20.0%
4 <sup>th</sup>	12.5%	15.0%
5 <sup>th</sup>	10.0%	10.0%

#### **Salary scale**

Salaries are assumed to increase at the rate of 4.5% per year.

#### **Disability**

Disabilities are assumed to occur at rates based on the actual experience of the retirement system.

#### **Retirement**

Retirements occur at rates based on the actual experience of the retirement system. Unless the age-related rate is greater, for those eligible to retire under the Rule of 85, it is assumed that 25% will retire when first eligible for unreduced benefits with at least 30 years of credited service.

## **BASIS OF THE VALUATION**

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### **Summary of Methods and Assumptions** (continued)

#### **Family Structure**

The probability of a participant 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. For married participants, husbands are assumed to be 3 years older than their wives.

#### **Usage of Cash-out Option**

Participants terminating in vested status are given the option of taking a refund of their accumulated participant contributions instead of a deferred retirement benefit. Active members who terminate in the future with a vested benefit are assumed to take a deferred vested annuity, unless a refund of contributions and interest is greater than the actuarial present value of their vested deferred benefit.

#### **Future Benefit Increases or Additional Benefits**

When funding is adequate, the Board may authorize cost of living adjustments (COLAs), as noted in the summary of plan provisions. In the past, the Board has also sometimes granted an additional monthly payment to retirees (13<sup>th</sup> check.) This valuation assumes that no future COLAs and no future 13<sup>th</sup> checks will be awarded.

#### **Actuarial Method – Frozen Entry Age**

The actuarial cost method used by the System is the "frozen entry age actuarial cost method." Under this method, on the initial actuarial valuation date for which the cost method is used, the annual cost accruals (individual normal costs for each participant) are determined as a level percentage of pay for each year from entry age until retirement or termination. The UFAAL was originally determined as of January 1, 1981. Entry age is determined at the date each participant would have entered the System. The sum of these individual normal costs for all active participants 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 establishes the initial Unfunded Frozen Actuarial Accrued Liability (UFAAL).

The UFAAL is only frozen in that it is not adjusted due to experience gains and losses. Instead, gains and losses are reflected through changes in the normal cost accrual rate. The UFAAL does change, increasing due to interest and additional normal costs, and decreasing due to contributions. Any changes to plan provisions or actuarial assumptions results in a change to the UFAAL. The amount of the change is determined by computing the impact in the actuarial accrued liability as of the valuation date coincident with or next following the change.

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 current assets and the remaining UFAAL.

Effective January 1, 2006, UFAAL was reestablished to better reflect an appropriate relationship between the normal cost and the actuarial accrued liability.

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, from January 1, 2006, the date that it was reestablished.

## **BASIS OF THE VALUATION**

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### **Summary of Methods and Assumptions** (continued)

#### **Valuation of Assets**

The actuarial value of assets is determined using the assumed yield method of valuing assets. Under 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 less the expense and contingency reserve, and 20% of the difference is added to the expected actuarial value. The actuarial value of assets was "fresh-started" as of January 1, 2006 and set equal to the market value of assets as of that date.

#### **Changes from the Prior Valuation**

The mortality table for non-disabled members was changed from the RP-2000 Combined Healthy Lives Mortality Table to the IRS Static Mortality Table mandated for use by private pension plans. This uses a separate table for pre-commencement and post-commencement.

The mortality table for disabled members was changed from the RP-2000 Combined Healthy Lives Mortality Table set forward five years to the RP-2000 Disability Mortality Table.

The withdrawal rates were changed to better reflect Plan experience.

The retirement rates were changed to better reflect Plan experience.



## **BASIS OF THE VALUATION**

### **Summary of Methods and Assumptions (continued)**

#### **Active Member Rates of Withdrawal**

Attained Age	<u>Withdrawal Rates</u>		<u>Disability Rates</u>		Retirement Rate*
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>	
20	18.50%	18.50%	.000%	.000%	0.00%
25	15.50%	15.50%	.000%	.000%	0.00%
30	11.00%	11.00%	.040%	.040%	0.00%
35	9.00%	9.00%	.040%	.040%	0.00%
40	7.50%	7.50%	.080%	.075%	0.00%
45	4.00%	4.00%	.150%	.100%	0.00%
50	2.50%	2.50%	.200%	.150%	0.00%
55	2.00%	2.00%	.450%	.250%	0.00%
60	1.50%	1.50%	.550%	.325%	15.00%
65	0.00%	0.00%	.000%	.000%	35.00%
70	0.00%	0.00%	.000%	.000%	30.00%
72	0.00%	0.00%	.000%	.000%	100.00%

\*The retirement rate for all members under 60 is 20% under the "Rule of 85."

#### **Non-Disabled Life Mortality Rates**

<u>Death Rate</u>			<u>Death Rate</u>		
<u>Male</u>	<u>Age</u>	<u>Female</u>	<u>Male</u>	<u>Age</u>	<u>Female</u>
.000388	30	.000201	.028943	75	.024128
.000675	35	.000352	.053179	80	.040147
.000869	40	.000469	.096919	85	.069078
.001059	45	.000727	.169960	90	.124375
.001309	50	.001055	.257507	95	.187249
.001805	55	.002034	.273309	96	.197713
.006033	60	.005637	.288660	97	.211187
.010266	65	.009422	.309359	98	.219730
.016663	70	.015221	.323989	99	.227030

#### **Disabled Life Mortality Rates**

<u>Death Rate</u>			<u>Death Rate</u>		
<u>Male</u>	<u>Age</u>	<u>Female</u>	<u>Male</u>	<u>Age</u>	<u>Female</u>
.022571	30	.007450	.082067	75	.052230
.022571	35	.007450	.109372	80	.072312
.022571	40	.007450	.141603	85	.100203
.022571	45	.007450	.183408	90	.140049
.028975	50	.011535	.267491	95	.194509
.035442	55	.016544	.283905	96	.205379
.042042	60	.021839	.299852	97	.215240
.050174	65	.028026	.315296	98	.223941
.062583	70	.037635	.330207	99	.231387

***“soundly financed and prudently administered...”***

## **STATISTICAL SECTION**

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# SCHEDULE OF CHANGES IN PLAN NET ASSETS LAST 10 FISCAL YEARS

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

### SCHEDULE OF CHANGES IN PLAN NET ASSETS, LAST 10 FISCAL YEARS

	Fiscal Year									
	2003	2004	2005	2006	2007	2008	2009	2010 (as restated)	2011	2012
<b>Additions by source</b>										
Employer contributions	\$ 19,742,779	\$ 26,406,806	\$ 23,514,266	\$ 19,887,885	\$ 22,445,608	\$ 27,853,996	\$ 28,598,502	\$ 26,075,146	\$ 28,720,193	\$ 29,551,964
Employee contributions	12,186,084	10,825,664	10,515,674	10,511,284	10,791,580	11,537,258	12,131,979	11,188,919	11,879,052	12,147,663
Investment income (loss)	176,197,590	119,511,676	63,349,054	128,774,730	103,030,906	(259,438,857)	146,071,959	115,925,274	(5,319,851)	97,514,207
Other income							71,391	127,426	131,119	134,813
<b>Total additions(depreciation)</b>	208,126,453	156,744,146	97,378,994	159,173,899	136,268,094	(220,047,603)	186,873,831	153,316,765	35,410,513	139,348,647
<b>Deductions by type</b>										
Retirement and death benefits	61,652,472	68,008,801	73,994,518	80,638,120	86,928,394	93,852,021	97,129,242	99,277,919	101,993,058	101,915,867
Health care subsidies and supplemental payments	2,490,924	2,593,142	2,658,573	2,712,541	2,726,258	2,781,111	2,794,544	2,808,370	2,825,430	2,752,751
Operating expenses	1,401,994	1,391,243	1,756,223	1,583,964	1,558,874	1,576,882	1,415,026	1,499,302	1,432,914	1,450,265
Contribution refunds due to death or resignation	7,090,729	13,274,756	18,067,968	11,252,780	18,559,040	22,910,310	3,765,085	3,203,714	3,242,200	4,773,609
<b>Total deductions by type</b>	72,636,119	85,267,942	96,477,282	96,187,405	109,772,566	121,120,324	105,103,897	106,789,305	109,493,602	110,892,492
<b>Changes in plan net assets</b>	\$ 135,490,334	\$ 71,476,204	\$ 901,712	\$ 62,986,494	\$ 26,495,528	\$ (341,167,927)	\$ 81,769,934	\$ 46,527,460	\$ (74,083,089)	\$ 28,456,155

**RETIREMENT BENEFIT SCHEDULES****Public School Retirement System  
of the City of St. Louis****Retired Members and Beneficiaries By Payment Option & Type  
On January 1, 2012**

<b>Option</b>	<b>Service Benefit</b>	<b>Disability Benefit</b>	<b>Survivor Benefit</b>	<b>Total</b>
0	3,352	226	299	3,877
1	153	15	0	168
2	85	5	0	90
3	178	13	0	191
4	172	8	0	180
5	15	4	0	19
6	10	4	0	14
7	1	0	0	1
<b>Total</b>	<b>3,966</b>	<b>275</b>	<b>299</b>	<b>4,540</b>

**Amount of Annual Benefits By Payment Option & Type  
On January 1, 2012**

<b>Option</b>	<b>Service Benefit</b>	<b>Disability Benefit</b>	<b>Survivor Benefit</b>	<b>Total</b>
0	\$ 78,906,301	\$ 2,772,236	\$ 3,122,057	\$ 84,800,594
1	2,733,784	204,944	-	2,938,728
2	1,958,959	124,270	-	2,083,229
3	3,609,499	142,305	-	3,751,804
4	4,394,413	155,353	-	4,549,766
5	344,414	42,869	-	387,283
6	210,093	16,587	-	226,680
7	30,849	-	-	30,849
<b>Total</b>	<b>\$ 92,188,312</b>	<b>\$ 3,458,564</b>	<b>\$ 3,122,057</b>	<b>\$ 98,768,933</b>

**RETIREMENT BENEFIT SCHEDULES****Public School Retirement System  
of the City of St. Louis****Average Annual Benefit Payments By Payment Option & Type  
On January 1, 2012**

<b>Option</b>	<b>Service Benefit</b>	<b>Disability Benefit</b>	<b>Survivor Benefit</b>	<b>All</b>
0	\$ 23,540	\$ 12,267	\$ 10,442	\$ 21,873
1	17,868	13,663	-	17,492
2	23,047	24,854	-	23,147
3	20,278	10,947	-	19,643
4	25,549	19,419	-	25,276
5	22,961	10,717	-	20,383
6	21,009	4,147	-	16,191
7	30,849	-	-	30,849
<b>All</b>	<b>\$ 23,245</b>	<b>\$ 12,577</b>	<b>\$ 10,442</b>	<b>\$ 21,755</b>

**Average Monthly Benefit Payments By Payment Option & Type  
On January 1, 2012**

<b>Option</b>	<b>Service Benefit</b>	<b>Disability Benefit</b>	<b>Survivor Benefit</b>	<b>All</b>
0	\$ 1,962	\$ 1,022	\$ 870	\$ 1,823
1	1,489	1,139	-	1,458
2	1,921	2,071	-	1,929
3	1,690	912	-	1,637
4	2,129	1,618	-	2,106
5	1,913	893	-	1,699
6	1,751	346	-	1,349
7	2,571	-	-	2,571
<b>All</b>	<b>\$ 1,937</b>	<b>\$ 1,048</b>	<b>\$ 870</b>	<b>\$ 1,813</b>

## RETIREMENT BENEFIT SCHEDULES

### Public School Retirement System of the City of St. Louis

#### Schedule of Average Benefit Payments (Last Five Years)

Retirement Year	Years of Service						
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
<b>2008</b>							
Average Monthly Benefit	\$379	\$514	\$913	\$1,443	\$1,993	\$2,735	\$3,049
Number of Retirees	11	22	19	14	20	46	133
<b>2009</b>							
Average Monthly Benefit	\$275	\$469	\$725	\$1,001	\$2,286	\$2,545	\$3,303
Number of Retirees	5	23	14	14	25	24	22
<b>2010</b>							
Average Monthly Benefit	\$569	\$724	\$919	\$1,522	\$2,415	\$3,039	\$3,189
Number of Retirees	8	36	40	31	55	59	84
<b>2011</b>							
Average Monthly Benefit	\$694	\$647	\$1,029	\$1,613	\$2,292	\$2,855	\$2,881
Number of Retirees	6	25	18	17	20	15	13
<b>2012</b>							
Average Monthly Benefit	\$399	\$620	\$1,143	\$1,457	\$2,171	\$3,234	\$3,767
Average Monthly Salary*	\$3,809	\$4,025	\$4,642	\$4,856	\$4,977	\$5,901	\$6,162
Number of Retirees	5	32	23	19	25	34	15
<b>2008 - 2012</b>							
<b>Average Monthly Benefit</b>	<b>\$464</b>	<b>\$610</b>	<b>\$957</b>	<b>\$1,437</b>	<b>\$2,276</b>	<b>\$2,916</b>	<b>\$3,146</b>
<b>Average Monthly Salary*</b>	<b>\$3,809</b>	<b>\$4,025</b>	<b>\$4,642</b>	<b>\$4,856</b>	<b>\$4,977</b>	<b>\$5,901</b>	<b>\$6,162</b>
<b>Number of Retirees</b>	<b>35</b>	<b>138</b>	<b>114</b>	<b>95</b>	<b>145</b>	<b>178</b>	<b>267</b>

\*Note: The retirement system began tracking the average monthly salary beginning with fiscal year 2012 which appears here. The average monthly salary for each fiscal year will appear in this schedule of average benefit payments in the future as they accrue.

**SCHEDULE OF COVERED MEMBERS**

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

**Schedule of Covered Members  
(Last Ten Years)**

Member Type	2012		2011		2010		2009		2008	
	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total
Active	4,784	42.4%	4,336	40.0%	4,825	43.5%	5,085	45.4%	5,021	45.2%
Inactive	1,958	17.4%	1,935	17.8%	1,896	17.1%	1,543	13.8%	1,635	14.7%
Retired (includes Beneficiaries)	4,540	40.2%	4,587	42.2%	4,370	39.4%	4,570	40.8%	4,456	40.1%
<b>Total</b>	<b>11,282</b>	<b>100%</b>	<b>10,858</b>	<b>100%</b>	<b>11,091</b>	<b>100%</b>	<b>11,198</b>	<b>100%</b>	<b>11,112</b>	<b>100%</b>

Member Type	2007		2006		2005		2004		2003	
	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total	Covered Members	Percentage of Total
Active	5,010	47.3%	5,156	50.9%	5,549	57.2%	6,074	59.1%	6,928	63.0%
Inactive	1,488	14.1%	952	9.4%	548	5.6%	509	4.9%	494	4.5%
Retired (includes Beneficiaries)	4,084	38.6%	4,026	39.7%	3,606	37.2%	3,700	36.0%	3,578	32.5%
<b>Total</b>	<b>10,582</b>	<b>100%</b>	<b>10,134</b>	<b>100%</b>	<b>9,703</b>	<b>100%</b>	<b>10,283</b>	<b>100%</b>	<b>11,000</b>	<b>100%</b>

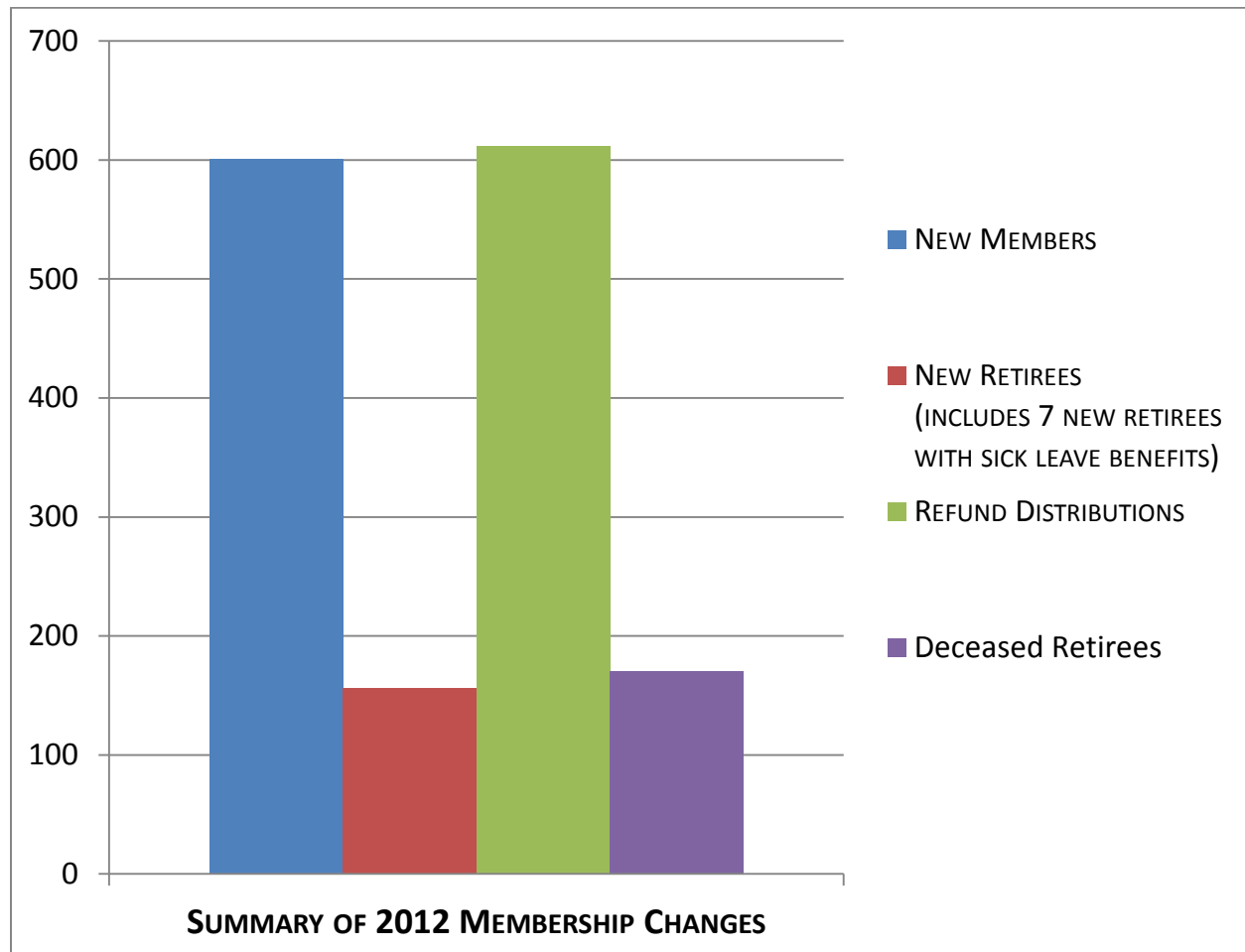


## SCHEDULE OF 2012 MEMBERSHIP CHANGES

### *The Year in Review*

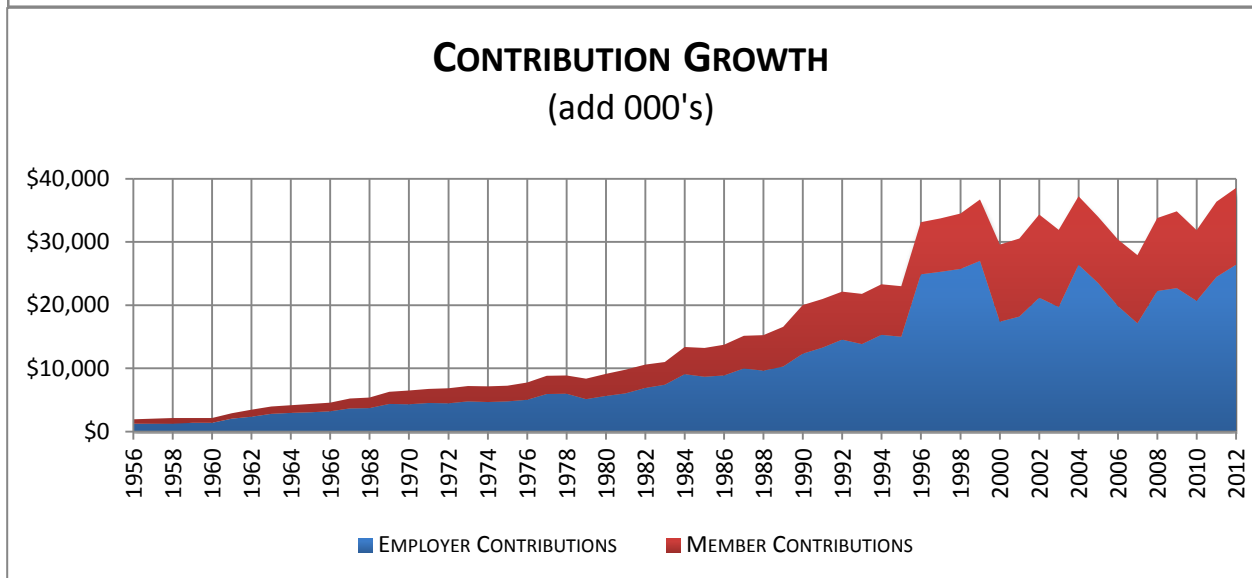
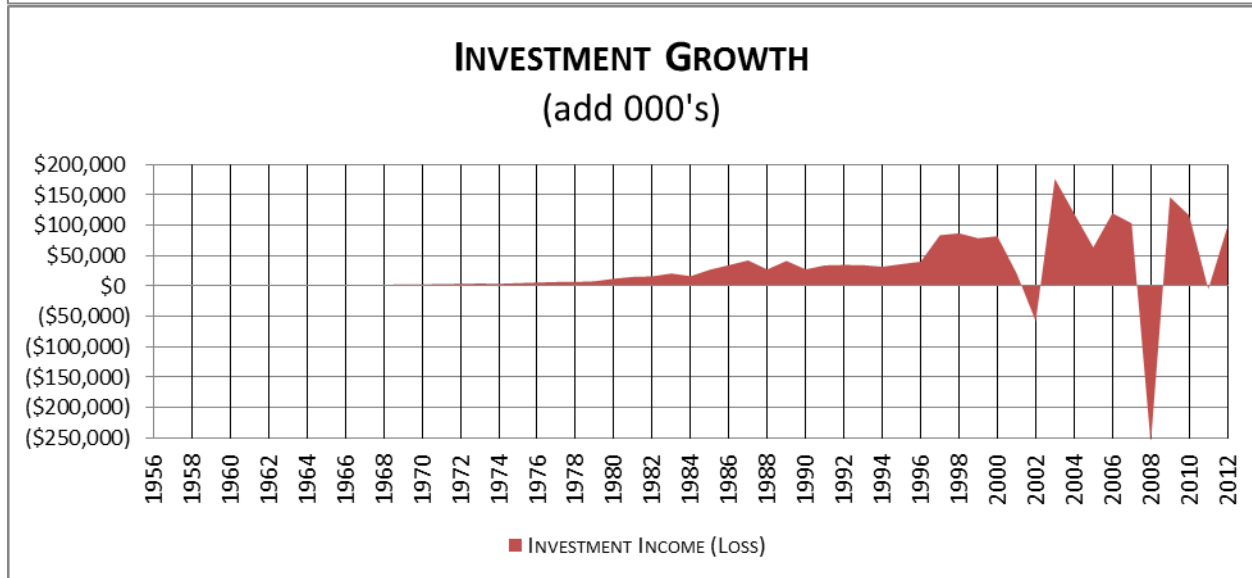
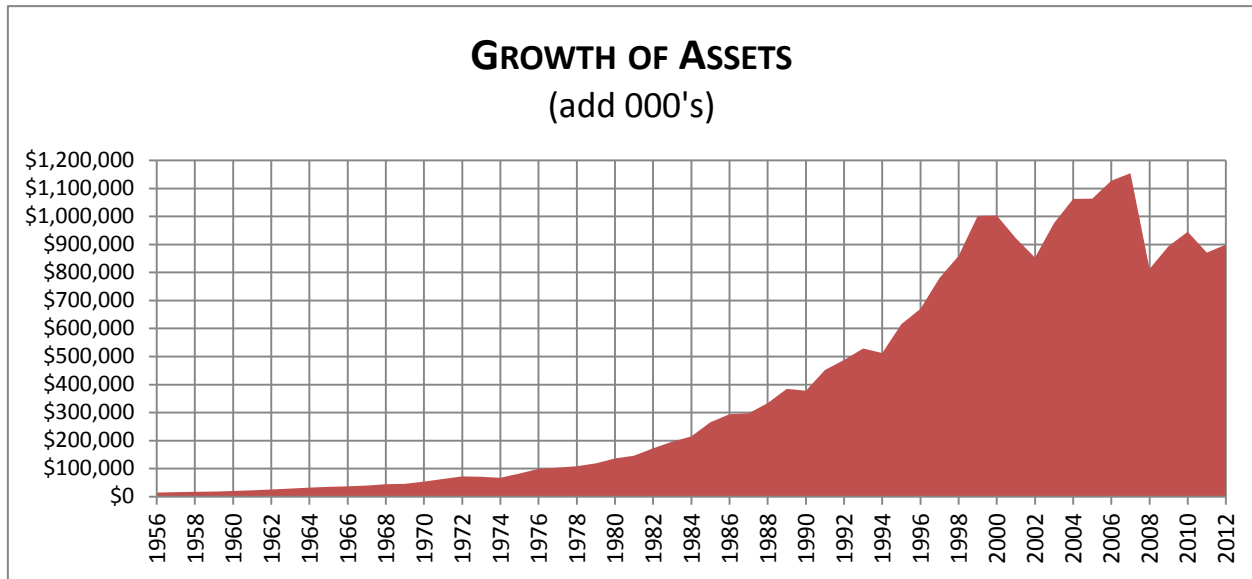
During 2012, PSRSSTL added 601 new members and 156 new retirees to payroll, including 7 retirees who earned Supplemental Pension Benefits under the Sick Leave Conversion Program sponsored by St. Louis Public Schools. The retirement system processed more than 600 refund distributions for members who left the System and bid farewell to 170 retirees due to death.

### Summary of 2012 Membership Changes



## CHARTS AND GRAPHS

These charts and graphs show the progression of the value of assets, investments and contributions since the mid-1950's when substantial growth first began for the System.



**Legislative History of the Public School Retirement System  
of the City of St. Louis**

- 1944 - Missouri General Assembly formed the retirement system for all full-time employees of the St. Louis Board of Education
- 1961 - Plan provisions revised for all future employees, active participants given option to remain in the "old plan" or upgrade to the "new plan"
- 1969 - Credited Service allowed for time lost from 1944 - 1947
- 1972 - Various Credited Service options added, "old plan" participants granted another opportunity to upgrade to the "new plan," introduction of survivor, disability and minimum benefits
- 1975 - First increase in benefits granted to certain teacher retirees
- 1978 - Plan provisions upgraded and revised, credited service limits removed, survivor benefits revised, employee contribution rate set at 3% of compensation, Trustees granted rule-making authority, first back-to-work provision for certain retirees
- 1979 - Plan provisions revised to allow sick leave balances to be added to credited service and age requirements for retirement, early retirement and survivor benefits revised
- 1981 - Plan provisions upgraded, insurance benefits improved, actuarial cost method changed to the "frozen entry age cost method," several administrative changes were made that included the broadening of investment authority for the Board of Trustees
- 1984 - Survivor and disability benefits upgraded, second back-to-work provision added for certain retirees
- 1985 - First supplemental early retirement benefit added for certain retirees
- 1987 - "Old plan" participants granted another opportunity to join "new plan," increased the minimum retirement benefit, several administrative changes made
- 1988 - Survivor and supplemental benefits enhanced
- 1989 - Certain plan provisions were improved
- 1990 - Supplemental benefits extended for certain retirees
- 1993 - Supplemental benefits enhanced for certain retirees
- 1996 - Credited service purchase allowed for certain periods of lay-offs, investment trustee position replaced with school administrator trustee position, COLA provisions added
- 1997 - COLA provision added for certain retirees
- 1998 - Employee Contribution rate increased to 4.5%, pension factor set at 2%, catch-up COLA for certain retirees, Board of Education agreed to 8.3% employer contribution rate for three years
- 1999 - Employee contribution rate set at 5%
- 2001 - COLA provisions added for certain retirees, DROP added until 2005, employer contribution rate set at 8%, actuary to determine annual employer contribution rate beginning in 2002 and future years
- 2002 - Credited service rules revised, pre-tax transfers allowed between certain retirement plans, Charter School provisions added and clarified, social security leveling pension benefit options introduced, actuarial provisions revised to allow the Board of Trustees more flexibility, amortization limit set at 30 years
- 2007 - Several administrative changes were made, including to allow the Board of Trustees to grant an increase in pension benefits provided certain conditions are met, Board of Trustees annual educational requirements expanded, actuarial cost reporting revised for all Missouri retirement plans
- 2009 - State reporting requirements revised for all Missouri retirement plans

***“in an effective and efficient manner.”***



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