Worcester Retirement System

Worcester, Massachusetts

(A Component Unit of the City of Worcester, Massachusetts)

Comprehensive Annual Financial Report

Fiscal Year Ended December 31, 2012

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(A Component Unit of the City of Worcester, Massachusetts)

Comprehensive Annual Financial Report
For the Fiscal Year Ended December 31, 2012

Prepared by the Staff of the
Worcester Retirement System

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Introductory Section

Worcester Retirement System

Room 103 City Hall Worcester Massachusetts 01608 Phone (508) 799 1062

Chairman's Letter

June 11, 2013

Dear Members of the Worcester Retirement System:

On behalf of the Worcester Retirement Board (Board), I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the Worcester Retirement System (WRS) for the year ended December 31, 2012. The report is designed to provide a detailed look at the financial, investment and actuarial aspects of the WRS.

A comprehensive report is being issued in the interest of full disclosure to WRS members and to demonstrate the diligent stewardship and internal controls that are in place to protect assets and maintain financial integrity. The last nine consecutive CAFRs have been awarded the Certificate of Achievement for Excellence in Financial Reporting making WRS one of only four retirement systems in New England to receive this prestigious award, a fact of which we are all very proud.

The Board typically meets at least twice a month. There is one meeting to discuss benefit issues and at least one other to discuss investment issues and conduct due diligence on those investments. It is the fiduciary responsibility of the Board to insure that current and future pensions will be paid. Therefore, safeguarding the WRS investment portfolio is a top priority. In that regard, the WRS has a policy that incorporates an asset allocation with a 20-year time horizon consistent with participant demographics containing asset classes that involve investment risk to reap the rewards of potential stellar returns and but to also diversify those assets to mitigate risks during the inevitable times when certain asset classes experience sub-par returns.

The investment climate became much more favorable in 2012 than it was in 2011 as an improving economy and stimulus from central banks helped to propel the markets. All asset classes in the retirement system's portfolio had positive returns during the year with emerging market equities and high yield bonds producing the biggest gains followed closely by international equities and then domestic equities, tactical asset allocation, alternative investments and real estate. Hedge funds and core fixed income strategies provided downside protection and had positive if not best in class returns during the year. The time weighted investment return was 14.10%, beating the actuarial benchmark of 8.00%.

Total investment income was $91.3 million but the unfunded actuarial accrued liability increased from $339.1 million to $410.5 million on an actuarial basis and decreased by $7.2 million to $388.0 million on a market value basis. The funded ratio decreased from 67.7% to 63.3% on an actuarial basis and increased from 62.4% to 65.3% on a market value basis. There was an actuarial experience loss of $43.6 million with investment experience accounting for most of that as the final year of deferred losses from 2008 ($55.1 million) were recognized and since the board employs 5-year asset smoothing 80% of the $39.5 million actuarial investment gain in 2012 was deferred. Net deferred investment gains were $22.5 million at the end of 2012 compared with $56.2 million in net deferred investment losses at the end of 2011.

In addition to the above experience loss, the system's liabilities increased by $27.0 because of a change in assumptions. Because of persistent low interest rates the assumed investment rate of return was reduced from 8.0% to 7.75% and accounted for a $28.0 million increase, which was increased to a small degree by increased mortality rates and reduced by a change in the salary increase assumption and pension reform. There was also an anticipated loss of $.8 million in the previous valuation.

The current schedule sets an employer funding requirement of $38.1 million up from $35.3 million in the prior year. The funding schedule has been shortened by three years from the prior valuation now maturing in 2032 and is scheduled to increase by 8% in fiscal 2015 with 4% annual increases in the amortization of the unfunded liability starting in fiscal 2016 until maturity.

I would like to thank the other members of the Board for their diligence on retirement matters and the Board's investment consultant, actuary and independent auditors for their assistance with the preparation of this report and advice on other matters. I would also like to thank the Board's legal representatives for their counsel and the Public Employee Retirement Administration Commission for their oversight of our actions.

Finally, I would like to commend the staff of WRS for their diligent work in preparing this report and their commitment to continually improving administrative operations. I encourage members to carefully review this report as it contains a wealth of information about your retirement system.

Sincerely,

James DelSignore, CPA
Chairman

Worcester Retirement System

Room 103 City Hall Worcester Massachusetts 01608 Phone (508) 799 1062

June 11, 2013

Worcester Retirement Board
City Hall Room 103
455 Main Street
Worcester, MA 01608

Dear Mr. Chairman and Members of the Board:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Worcester Retirement System (WRS) for the year ended December 31, 2012. The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the WRS for its CAFR for the year ended December 31, 2011. This was the ninth consecutive year that the WRS has achieved this prestigious award. In order to be awarded a Certificate of Achievement, the WRS must publish an easily readable and efficiently organized CAFR. This report must satisfy both accounting principles generally accepted in the United States of America and applicable legal requirements. Management accepts responsibility for the contents of the report.

A Certificate of Achievement is valid for a period of one year. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

GASB Statement No. 34 requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to compliment the MD&A and should be read in conjunction with it. The WRS's MD&A can be found immediately following the report of the independent auditor.

History of the WRS

The WRS became operative as of January 1, 1945. The WRS is a contributory defined benefit plan that covers eligible employees of the City of Worcester (except Worcester Public School teachers) and the Worcester Housing Authority (WHA). The WRS is administered by a five member Board consisting of the City Auditor, two representatives elected from the membership, a City Manager representative and a fifth member chosen by the other four who cannot be an employee, retiree or official of the City. One Board member is elected from the group to serve as Chairman.

Investment Results

The WRS has an Investment Policy Statement which establishes investment objectives and policies providing the framework for investments. This Policy is reviewed on an annual basis. A summary of the Investment Policy is included in the Investment Section. The System uses a custodian bank to safeguard the assets and ensure proper settlement and recording of transactions.

An integral part of the overall investment policy is the asset allocation policy. This is designed to provide an optimal mix of asset classes to both preserve principal and provide adequate funds to pay pension benefits. Both traditional assets (cash, bonds, domestic stocks, domestic fixed income and mortgages) and nontraditional assets (real estate, international stock and fixed income, venture capital, mezzanine financing, hedge funds, timber, natural resources, infrastructure and leveraged buyouts) are part of the mix. The investment market results have demonstrated the importance of a diversified asset allocation.

WRS dollar-weighted investment return of 13.6% for 2012 was more than both the actuarial expected rate of return and the Investment policy benchmark. Please refer to the Investment Section of this CAFR for more information on investment results.

Chapter 68 of the Acts of 2007, An Act to Reduce the Stress on Local Property Taxes Through Enhanced Pension Fund Investment, was signed into law July 25, 2007. This Act amends MGL chapter 32 section 22 and directs the Public Employee Retirement Administration Commission (PERAC) to conduct an annual analysis of all Massachusetts public pension plans. The assessment includes the investment performance and funded ratio of each system every January 1st in accordance with the established methodology and standard. Systems failing to meet the standard are mandated to transfer the systems assets to the Massachusetts Pension Reserve Investment Management (PRIM) Board. The WRS met these mandated standards for each year since 2007 and are not subject to the mandatory transfer of system assets.

Major Initiatives

Benefits

A cost of living adjustment (COLA) was granted to eligible retirees and survivors effective July 1, 2012. The Board and Worcester City Council voted to increase the COLA base by $1,000. The 3% COLA was paid on a base of $13,000 (maximum $390). The WRS has granted the maximum 3% allowed by law since enactment of the legislation in 1997 in all but one year (2011- 2.5%).

Signed into law on November 18, 2011, Chapter 176 of the Acts of 2011 became effective February 16, 2012 and is thought to reform and modernize the pension laws for Public employees in Massachusetts. The law creates a new benefit structure for employees hired on or after April 2, 2012. The new age factors established will increase the minimum age for retirement. Calculation of the pension will use a 5 year average and contains anti-spiking provisions for both new members and current employees.

Administration

We are pleased to report that in January 2012 John F. Mahan was re-elected by the membership and Thomas M. Wade was reappointed to the Board as the Fifth member for 3-year terms.

Chapter 176 of the Acts of 2011 has a number of corporate governance provisions that require the WRS adhere to specific procurement procedures for investment management and related services. The Act also mandates training and financial disclosures of all Board members.

The WRS strives to provide quality service and information to active and retired members and their beneficiaries. To assist in this effort, we maintain and continually update our Internet site through the City web page, which includes our CAFR, at www.worcesterma.gov/retirement-board.

Internal and Budgetary Controls

The WRS management is responsible for maintaining a system of internal controls designed to provide reasonable, but not absolute, assurance that the financial statements are fairly stated in accordance with accounting principles generally accepted in the United States of America while adequately safeguarding the assets. We believe the current internal controls accomplish this goal. The concept of reasonable assurance recognizes that the cost of internal controls should not exceed their anticipated benefits (also, the evaluation of costs and benefits requires estimates and judgments by management).

The WRS budget is presented to and approved by the Board each year. All the expenditures are reviewed by the Board at its monthly meeting.

Accounting

This report has been prepared in accordance with accounting principals generally accepted in the United States of America. The basic financial statements are presented in accordance with the principles of the Government Accounting Standards Board (GASB), including guidelines established by GASB Statements No. 25, *Financial reporting for defined benefit plans*; No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*; No. 37, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments: Omnibus*, No. 38, *Certain Financial Statement Note Disclosures*; No. 40 *Deposit and Investment Risk Disclosures (an amendment of GASB No. 3)* and No. 63 *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*.

Sullivan, Rogers & Company, LLC, a firm of licensed certified public accountants, performed the audit for the WRS. The goal of the independent audit is to provide reasonable assurance that the financial statements for the year ended December 31, 2012 are free of material misstatements. The report of the independent auditors is included in the Financial Section of this report. Sullivan, Rogers & Company, LLC has issued an unqualified opinion on the WRS's basic financial statements for the year ended December 31, 2012.

Actuarial Funding

The WRS has retained the services of The Segal Company, an independent actuarial firm, to conduct an annual actuarial valuation of the WRS. The funded ratio is one measure of the financial condition of the WRS. The funded ratio is calculated by dividing the net assets of the WRS by the projected pension liability. The projected pension liability is a measure of the present value of total pension benefits estimated to be payable in the future to both current and future retirees and/or beneficiaries. A higher funding ratio gives the members a greater degree of assurance that their pension benefits are secure. As of January 1, 2013, the funded ratio of the WRS was calculated at 63.27%, a 4.47% decrease on an actuarial basis from the prior year. On a market value basis the funded ratio has increased from 62.41% to 65.28%.

Acknowledgements

We are pleased to have once again completed this report in accordance with the GFOA Certificate of Achievement guidelines. We are proud to provide an annual report to our members that is both easy to read and comprehensive. We feel it is important to provide a CAFR for our members and other interested parties to follow the progress of the WRS. The publication of this report represents the combined efforts of the WRS staff, auditor, actuary, and investment consultants. We would like to acknowledge and thank them for their hard work and collaboration.

Respectfully submitted,

Elizabeth A. Early
Executive Secretary

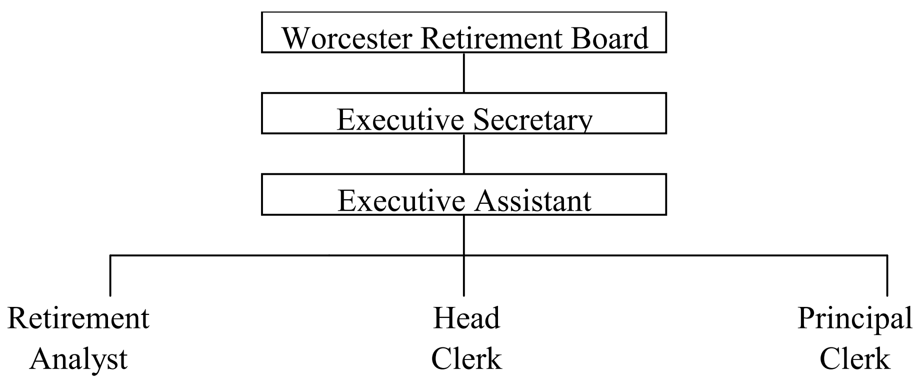
Retirement Board Members

		Terms
James DelSignore	Ex-Officio Member	N/A
Stephen F. Wentzell	City Manager Appointee	At the discretion of the City Manager
Elizabeth A. Early	Elected Member	11/01/2010 - 10/31/2013
John F. Mahan	Elected Member	01/01/2012 - 12/31/2014
Thomas Wade	Appointed Member	01/09/2012 - 01/08/2015

Administrative Staff

Elizabeth A. Early	Executive Secretary
Judith McMillen	Executive Assistant
Donna McCaffrey	Retirement Analyst
Barbara Zecco	Head Clerk
Eileen Powers	Principal Clerk

Organizational Chart*



* Does not include investment professionals who provide services to the WRS. A list of these investment professionals is located on the following page.

CONSULTANTS AND PROFESSIONAL SERVICES

DOMESTIC EQUITY MANAGERS

Lee Munder Capital Group
Boston, MA
PENN Capital Management Co, Inc
Philadelphia, PA
State Street Global Advisors
Boston, MA

DOMESTIC FIXED MANAGERS

OPUS Investment Management, Inc.
Worcester, MA
Loomis Sayles & Company, L.P.
Boston, MA

INTERNATIONAL EQUITY MANAGERS

Acadian Asset Management
Boston, MA
State Street Global Advisors
Boston, MA
Lazard Asset Management
New York, NY

ALTERNATIVE CAPITAL INVESTMENT MANAGERS

American Securities Partners
New York, NY
Ascent Venture Management
Boston, MA
Benchmark Plus Management
Tacoma, WA
Boston Capital Ventures
Boston, MA
Boston Millennia Partners
Boston, MA
Capital International Private Equity Fund
Irvine, CA
Charlesbank Capital Partners
Boston, MA
Concord Partners L.P.
Waltham, MA
Global Infrastructure Partners
New York, NY
Harvest Partners, LLC
New York, NY
INVESCO Private Capital, Inc.
Atlanta, GA
New England Partners Capital L.P.
Boston, MA
Newstone Capital Partners, L.P.
Los Angeles, CA
Northstar Capital, LLC
Minneapolis, MN
PIMCO Funds
New York, NY
Standard Life Investments Limited
Edinburgh, UK
The Riverside Company
New York, NY
Vitruvian Partners
London, England
White Deer Energy TE L.P.
Houston, TX

REAL ESTATE MANAGERS

AEW Capital Management, L.P.
Boston, MA
Bailard Fund Services, Inc.
Foster City, CA
Heitman Investment Management
Chicago, IL
Intercontinental Real Estate Corp.
Boston, MA
INVESCO Core Real Estate
Dallas, TX
RMK Timberland a div. of Regions Bank
Atlanta, GA
Mass PRIM
Boston, MA
Apollo Real Estate Advisors
Atlanta, GA
Hancock Timber Resource Group
Boston, MA

HEDGE FUNDS

Aetos Alternatives Management, LLC
New York, NY
Blackstone Alternative Asset Management
New York, NY

LEGAL ADVISORS

The Law Offices of Michael Sacco
Southampton, MA

DISABILITY INSURANCE CONSULTANTS

Disability Management Services, Inc.
Springfield, MA

INDEPENDENT AUDITORS

Sullivan, Rogers & Company, LLC
Burlington, MA

INVESTMENT ADVISORS

Meketa Investment Group
Westwood, MA

ACTUARIAL CONSULTANT

The Segal Company
Boston, MA

CUSTODIAN

State Street Corporation
Boston, MA

COMMISSION RECAPTURE BROKERS

BNY ConvergEx Group
New York, NY

SECURITIES LENDING

State Street Corporation
Boston, MA

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Worcester Retirement System Massachusetts

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.

GOVERNMENT FINANCE OFFICERS ASSOCIATION OF THE UNITED STATES AND CANADA CORPORATION SEAL CHICAGO

President

Executive Director

Financial Section

SULLIVAN ROGERS COMPANY

Certified Public Accountants

SULLIVAN, ROGERS & COMPANY, LLC
Corporate Place I, Suite 204 • 99 South Bedford Street
Burlington, Massachusetts 01803
P • 781-229-5600 F • 781-229-5610 www.sullivan-rogers.com

Independent Auditors' Report

To the Honorable Retirement Board
Worcester Retirement System

We have audited the accompanying financial statements of the Worcester Retirement System (WRS), a component unit of the City of Worcester, Massachusetts, as of and for the year ended December 31, 2012, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the WRS as of December 31, 2012, and the respective change in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (located on pages 15 through 19) and historical pension information (located on page 32) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the WRS's financial statements. The supplementary information, introductory section, investment section, actuarial section and statistical section are presented for purposes of additional analysis and are not a required part of the financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory section, investment section, actuarial section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 11, 2013 on our consideration of the WRS' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering WRS' internal control over financial reporting and compliance.

Bollin, Ray & Company, LLC

June 11, 2013

Management's Discussion & Analysis

Our discussion and analysis of the Worcester Retirement System's (WRS) financial performance provides an overview of the WRS's financial activities for the fiscal year ended December 31, 2012. Please read it in conjunction with the transmittal letter in the Introductory Section, at the front of this report, and the financial statements that follow this discussion. The Management's Discussion and Analysis (MD&A) is intended to serve as an introduction to the WRS's financial statements, as well as to offer readers of the WRS's financial statements a narrative view and analysis of the WRS's financial activities.

Financial Highlights

The WRS's funding objective is to meet long-term benefit obligations through contributions and investment income. As of December 31, 2012, the funded ratio was 63.27% based on the actuarial value of assets at that date.

Net position increased during the year by $73.5 million or 11.2%, because of strong investment returns. Net position is the residual of the WRS's assets in excess of the WRS's liabilities as of the statement date. The WRS's assets are held in trust to meet future benefit payments.

Total investment gains were $91.3 million. The time weighted investment return was 14.10%, beating the actuarial benchmark of 8.00%, and significantly more favorable in comparison to the return of -0.84% in the previous year.

Overview of the Financial Statements

The financial statements are comprised of a Statement of Plan Net Position, Statement of Changes in Plan Net Position, Notes to the Financial Statements and Required Supplementary Information.

The ***Statement of Plan Net Position*** presents information on the WRS's assets and liabilities and the resulting net assets held in trust for pension benefits. This is calculated using the following formula: Assets – Liabilities = Net Assets held in trust for pension benefits. This statement reflects the WRS's investments at fair value, as well as cash, receivables and other assets and liabilities. The Statement of Plan Net Position reports the financial position of the WRS at December 31, 2012. Over time, the increase or decrease in net position serves as a useful indicator of the WRS's financial health.

The ***Statement of Changes in Plan Net Position*** presents information showing how the WRS's net assets held in trust for pension benefits changed during the year ended December 31, 2012. It reflects contributions by members and participating employers along with deductions for retirement benefits, refunds, withdrawals, and administrative expenses. Investment income during the period is also presented showing income from investing and securities lending activities.

Management's Discussion & Analysis

The ***Notes to the Financial Statements*** provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

The ***Required Supplementary Information*** includes this MD&A and schedules of funding progress and employers' contributions.

Financial Analysis

The WRS's total assets as of December 31, 2012 were $766.2 million and were primarily comprised of cash and cash equivalents, receivables, and investments. Total assets increased $72.3 million, or 10.4%, from the prior year primarily due to investment gains.

Total liabilities as of December 31, 2012 were $36.8 million and were primarily comprised of collateral held under securities lending arrangements and amounts due to the Commonwealth of Massachusetts and other systems. Total liabilities decreased by $1.2 million.

The following tables present current and prior year data on the WRS's financial statements.

Plan Net Position

Net assets of the WRS were $729.5 million at the close of the fiscal year, summarized as follows:

Statement of Plan Net Position
(In thousands of dollars)

Assets	**2012**	**2011**
Cash and cash equivalents	$ 3,826	$ 1,882
Investments	726,534	654,228
Securities lending short-term collateral investment pool	34,050	35,442
Receivables:		
Interest due and accrued	955	1,005
Due from Commonwealth of Massachusetts and other systems	511	494
Receivable for securities sold	210	21
Other	135	875
Total assets	766,221	693,947
Liabilities		
Accounts payable and accrued expenses	378	290
Due to Commonwealth of Massachusetts and other systems	2,187	2,121
Payable for securities purchased	139	93
Collateral held on securities lending transactions	34,050	35,442
Total liabilities	36,754	37,946
Net assets held in trust for pension benefits	$ 729,467	$ 656,001

Changes in Plan Net Position

The WRS's total net position increased by $73.5 million during the current fiscal year and is summarized as follows:

Statement of Changes in Plan Net Position
(In thousands of dollars)

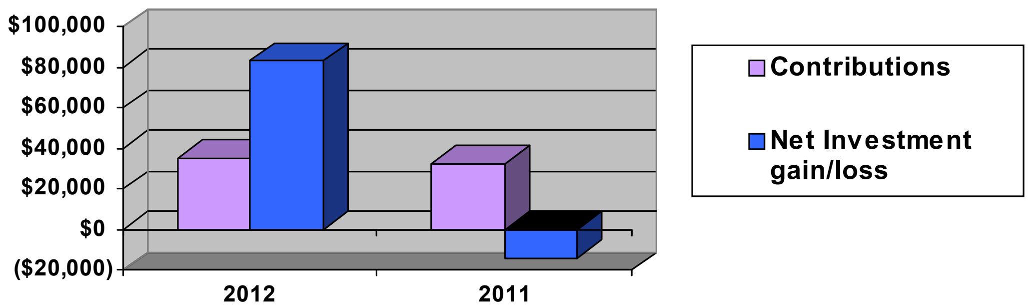
	2012	2011
Additions		
Contributions:		
Employers	$ 35,409	$ 32,706
Plan members	15,358	14,527
Reimbursements from Commonwealth of Massachusetts	1,529	1,597
Reimbursements from other Systems	511	488
Net investment income:		
Interest and dividends	12,343	11,322
Securities lending income	124	152
Net realized and unrealized gains (losses)	83,257	(13,612)
Less: management fees	(4,425)	(3,434)
Less: borrower rebates & fees	(46)	(60)
Total additions	144,060	43,686
Deductions		
Benefits payments to plan members and beneficiaries	66,303	64,478
Reimbursements to other systems	2,195	2,128
Refunds and transfers of plan member accounts to other systems	1,567	2,411
Administrative expenses	529	569
Total deductions	70,594	69,586
Change in plan net position	73,466	(25,900)
Net assets held in trust for pension benefits:		
Beginning of year	656,001	681,901
End of year	$ 729,467	$ 656,001

Management's Discussion & Analysis

Additions to Plan Net Position

The amount needed to finance benefits is accumulated through the collection of employers' and plan members' contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA's and through earnings on investments. Contributions and net investment gains for calendar year 2012 resulted in total gains to net position of $144.1 million. Employers' contributions increased by $2.7 million in 2012. The WRS had a net investment gain of $91.3 million in 2012 versus a loss of $5.6 million in 2011.

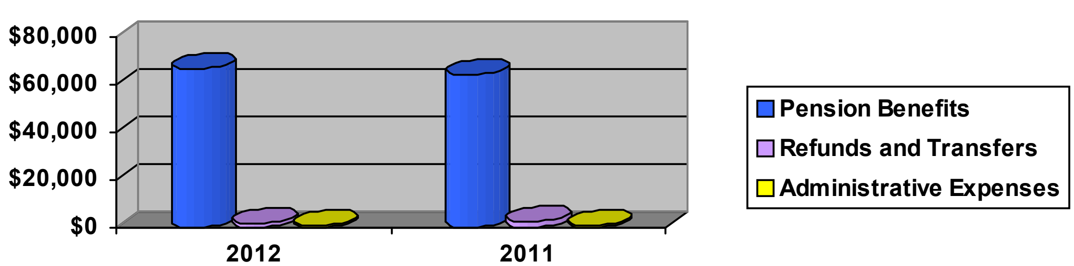
Additions to Plan Net Assets
(in thousands of dollars)



Deductions from Plan Net Position

The primary deductions of the WRS include the payment of pension benefits to participants and beneficiaries, refunds of contributions, and the costs of administering the WRS. Total deductions from net position for 2012 were $70.6 million, which represents an increase of 1.4% over deductions of $69.6 million in 2011. The payment of pension benefits increased by $1.8 million, or 2.8%, over the previous year. The increase in these expenses resulted from an increase in benefit payments to newer retirees with higher average compensation and a small decrease in the number of pensioners and beneficiaries.

Deductions from Plan Net Assets
(in thousands of dollars)



Management's Discussion & Analysis

Overall Financial Position of WRS

Due to a continuous improvement in the financial markets, the WRS has experienced an increase in its investment portfolio for the fiscal year ending December 31, 2012. Management believes the WRS is in a solid financial position and will be able to meet its obligations.

Contacting WRS's Financial Management

This financial report is designed to provide the Board, our membership, taxpayers, investors, and creditors with a general overview of the WRS's financial results and to demonstrate WRS's accountability for the funding it receives. If you have any questions about this report or need additional financial information, contact the Worcester Retirement System, City Hall Room 103, 455 Main Street, Worcester, Massachusetts 01608.

WORCESTER RETIREMENT SYSTEM
(A Component Unit of the City of Worcester, Massachusetts)
Statement of Plan Net Position
December 31, 2012

Assets		
Cash & Cash Equivalents	$	3,825,931
Investments:		
Equities		17,543,695
Fixed Income		118,731,173
Pooled Equities		322,813,794
Pooled Fixed Income		28,877,214
Real Estate		93,087,796
Alternative Investments		145,480,967
Total investments		726,534,639
Securities lending short-term collateral investment pool		34,049,827
Receivables:		
Accrued interest and dividends		954,780
Due from Commonwealth of Massachusetts and other systems		510,959
Receivable for securities sold		210,266
Other		134,509
Total receivables		1,810,514
Total plan assets		766,220,911
Liabilities		
Accounts payable and accrued expenses		378,208
Due to Commonwealth of Massachusetts and other systems		2,186,281
Payable for securities purchased		139,260
Collateral held on securities lending transactions		34,049,827
Total plan liabilities		36,753,576
Net assets held in trust for pension benefits	$	729,467,335

See accompanying notes to financial statements.

WORCESTER RETIREMENT SYSTEM
(A Component Unit of the City of Worcester, Massachusetts)
Statement of Changes in Plan Net Position
Year ended December 31, 2012

Additions:		
Contributions:		
Employers	$	35,409,140
Plan members		15,358,457
Reimbursements from Commonwealth of Massachusetts		1,529,380
Reimbursements from other systems		510,959
Total contributions		52,807,936
Investment income (loss):		
Interest and dividends		12,342,704
Securities lending income		123,856
Net realized and unrealized gains		83,257,253
Less: management fees		(4,424,978)
Less: borrower rebates and fees under securities lending program		(46,572)
Net investment income		91,252,263
Total additions		144,060,199
Deductions:		
Benefit payments to plan members and beneficiaries		66,303,041
Reimbursements to other systems		2,195,373
Refunds and transfers of plan member accounts to other systems		1,567,371
Administrative expenses		528,845
Total deductions		70,594,630
Change in plan net position		73,465,569
Net assets held in trust for pension benefits:		
Beginning of year		656,001,766
End of year	$	729,467,335

See accompanying notes to financial statements.

Notes to Financial Statements
December 31, 2012

1. Summary of Significant Accounting Policies

(a) Financial Reporting Entity

Because of the significance of its operational and financial relationship with the City of Worcester, Massachusetts (City), the Worcester Retirement System (WRS) is included as a blended component unit in the City's financial statements.

(b) Basis of Accounting

The accompanying financial statements are presented on the accrual basis of accounting.

(c) Revenue Recognition

Contributions are recognized as additions in the period when they become due pursuant to formal commitments, statutory or contractual requirements. Investment income is recognized when earned.

(d) Benefits and Refunds

Benefits and refunds to WRS members and beneficiaries are recognized as deductions when due and payable in accordance with the terms of the WRS.

(e) Cash and Investments

Cash is considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition.

Investments are reported at fair value. Fair values of investments are based on quotations from a national securities exchange except for pooled funds, venture capital and real estate, for which fair values are estimated as detailed below.

Pooled Funds

The fair value of shares in managed investment pools is based on unit values reported by the funds.

Venture Capital and Alternative Investments

Venture capital investments are recorded at fair value as determined in good faith by the general partners of the venture capital firms after consideration of pertinent information, including current financial position and operating results, price-earnings multiples and available market prices of similar companies' securities, the nature of securities, marketability, restrictions on disposition and other appropriation and do not necessarily represent amounts which might ultimately be realized, since such amounts depend on future circumstances and cannot reasonably be determined until individual securities are liquidated.

Real Estate

The fair value of real estate funds is based on independent third-party appraisals. The investment managers of the funds are responsible for the reported value of those investments. However, because of the inherent uncertainty of valuation, those estimated values may differ significantly from the values that would have been used had a ready market for the real estate existed, and the differences could be material.

(f) Basis of Investment Transactions

Purchases and sales of investments are recorded on the trade date. Transactions remaining unsettled as of year-end are recorded as payables for securities purchased and as a receivable for securities sold.

(g) Use of 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 assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Fair values of real estate funds and venture capital funds have been estimated in the absence of readily available market values, and these estimates may be materially different than values that would have been used had a ready market existed.

(h) Administrative Expenses

Administrative expenses are financed by investment income.

2. Plan Description

(a) General

The WRS is a cost-sharing multiple-employer public employee retirement system established by the City on June 12, 1944, under Massachusetts General Laws (MGL), Chapter 32, and is regulated by the Massachusetts Public Employee Retirement Administration Commission (PERAC). The WRS is a defined benefit pension plan that covers certain eligible employees of the City and the Worcester Housing Authority.

Membership in the WRS is mandatory immediately upon the commencement of employment for all permanent full-time employees working at least 20 hours weekly, except for City school teachers, who participate in the Massachusetts Teachers' Retirement System.

Membership in the WRS was as follows at December 31, 2012:

Active employees	3,260
Pensioners and beneficiaries	2,754
Inactive employees	720
Total members	6,734
Number of participating employers	2

The WRS is administered by a five-person Retirement Board (the Board) consisting of the City Auditor, who serves *ex-officio*; two members who are elected by the participants in or retired from the service of the WRS; a fourth member appointed by the City Manager; and a fifth member appointed by the other members.

(b) Significant Plan Provisions and Requirements

Benefit provisions and state law establishes contribution requirements of the WRS. Members of the WRS become vested after 10 years of creditable service. Normal retirement occurs at age 65 (age 67 if hired on or after April 2, 2012), except for employees of the City's Police and Fire departments, whose normal retirement age is 55.

For employees hired prior to April 2, 2012, the annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by (1) the number of years and full months of creditable service at the time of retirement and (2) a percentage based on age at retirement in accordance with a schedule provided by state law. Assuming normal retirement at age 65, this percentage is 2.5%, which is reduced for individuals who retire prior to age 65 to reflect the longer pay out period.

For employees hired on or after April 2, 2012, the annual amount of the retirement allowance is based on the member's final five-year average salary multiplied by (1) the number of years and full months of creditable service at the time of retirement and (2) a percentage based on age at retirement in accordance with a schedule provided by state law. Assuming normal retirement at age 67, this percentage is 2.5%.

Employees may elect early retirement after 20 years of service or at any time after attaining age 55 (age 60 if hired on or after April 2, 2012) with 10 years of eligible service. Plan members who become permanently and totally disabled may be eligible to receive a disability retirement allowance. The amount of benefits to be received depends on several factors, including the member's age, compensation, veteran status, years of service and whether or not the disability is work-related. In addition, certain death benefits exist for beneficiaries of employees who die in active service.

Under MGL, c.32 Section 3(8)(c), members leaving the City's employment to work for other Massachusetts governmental units requires the WRS transfers their accumulated account balances and creditable service to the retirement system of their new employer. Other such retirement systems are in turn required to make comparable transfers to the WRS for employees coming to work at the City or the Worcester Housing Authority. Per statute, the PERAC actuary shall consider length of service as well as acceptance of military service credit and salary cap provisions if applicable in calculating the liability.

3. Deposits and Investments

Deposits and investments made by the WRS are governed by the MGL c.32. The WRS has the ability to invest in equity securities, corporate bonds, annuities and other specified investments in accordance with state laws and regulations.

Deposits - Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of a bank failure, the WRS's deposits may not be recovered. The WRS's policy for custodial credit risk of deposits is to rely on FDIC insurance coverage for the first $250,000 of deposits held at each financial institution. As of December 31, 2012, the WRS's bank balance of $1,678,138 was not exposed to custodial credit risk.

Investments Summary

The WRS's investments at December 31, 2012 are presented below. All investments are presented by investment type, with debt securities presented by maturity.

		Investment Maturities (in Years)			
Investment Type	Fair Value	Less Than 1	1 - 5	6 - 10	More Than 10
Debt Securities:					
U.S. Treasuries	$ 52,514,222	$ 326,224	$ 21,697,632	$ 15,676,434	$ 14,813,932
U.S. Agencies	17,395,296	-	3,223,612	468,952	13,702,732
Corporate bonds	38,022,582	679,821	12,434,952	13,803,650	11,104,159
Money market mutual funds	3,625,762	3,625,762	-	-	-
Securities lending short-term collateral investment pool	34,049,827	34,049,827	-	-	-
Other fixed income	39,676,288	28,877,214	1,216,464	-	9,582,610
Total debt securities	185,283,977	$ 67,558,848	$ 38,572,660	$ 29,949,036	$ 49,203,433
Other Investments:					
Equity securities	17,543,695				
Equity mutual funds	322,813,794				
Real estate investments	93,087,796				
Alternative investments	145,480,967				
Total other investments	578,926,252				
Total investments	$ 764,210,229				

Investments - Interest Rate Risk of Debt Securities

Interest rate risk for debt securities is the risk that changes in interest rates of debt securities will adversely affect the fair value of an investment. The WRS's policies for interest rate risk intend that the average duration of investments remain fairly stable over time and be focused in the intermediate range. The WRS's debt security managers are not permitted to make large-scale changes in portfolio duration in an attempt to anticipate interest rate changes. However, they are permitted to shift portfolio duration within a limited range (defined by their guidelines) in an effort to enhance performance.

Investments - Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the WRS will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The WRS's policy for custodial credit risk of investments intends that all investments are either insured and/or registered in the name of the WRS. As of December 31, 2012, the WRS was not exposed to custodial credit risk.

Investments - Credit Risk of Debt Securities

Credit risk for debt securities is the risk that an issuer or other counterparty to a debt security will not fulfill its obligations. The WRS's policies for credit risk of debt securities includes a policy of an 80%/20% split between investment grade (BBB/Baa and above) and below investment grade (BB/Ba and lower) debt securities. In monitoring credit risk, the WRS relies on credit ratings assigned by Moody's and Standard & Poor's. As of December 31, 2012, the credit quality ratings of the WRS's debt securities are summarized on the following page:

Quality Ratings *	Corporate Bonds	Money Market Mutual Funds	Securities Lending Pool	Other Fixed Income	Fair Value
	Investment Type				
AAA	$ -	$ -	$ -	$ 1,304,432	$ 1,304,432
AA+	1,296,408	-	-	419,433	1,715,841
AA-	500,695	-	-	-	500,695
A+	1,470,584	-	-	-	1,470,584
A	681,511	-	-	38,276	719,787
A-	3,965,020	-	-	462,933	4,427,953
BBB+	4,021,164	-	-	76,555	4,097,719
BBB	2,924,032	-	-	-	2,924,032
BBB-	3,879,367	-	-	-	3,879,367
BB+	1,721,278	-	-	79,766	1,801,044
BB	1,844,661	-	-	136,644	1,981,305
BB-	2,187,047	-	-	-	2,187,047
B+	2,814,497	-	-	67,761	2,882,258
B	2,594,543	-	-	-	2,594,543
B-	2,177,882	-	-	79,293	2,257,175
CCC+	2,126,922	-	-	-	2,126,922
CCC	1,595,519	-	-	329,797	1,925,316
CCC-	585,238	-	-	-	585,238
CC	-	-	-	410,838	410,838
D	71,850	-	-	618,195	690,045
Unrated	1,564,364	3,625,762	34,049,827	35,652,365	74,892,318
Total	$ 38,022,582	$ 3,625,762	$ 34,049,827	$ 39,676,288	$ 115,374,459

* Per the rating scale of Standard & Poors, a national credit rating organization

Deposits and Investments – Foreign Currency Risk

Foreign currency risk is the risk that fluctuations in exchange rates will adversely affect the fair value of an investment or a deposit. The WRS's policy is to limit investments in non-U.S. dollar-denominated securities to not exceed 10% of the total market value of investments at all times. As of December 31, 2012, the WRS's exposure to foreign currency risk is as follows:

Deposit/Investment Type		U.S. Dollar Balances	Currency
U.S. Agencies................	$	655,525	Mexican peso
Corporate bonds.............		572,050	Philippine peso
U.S.Agencies.................		208,855	Chilean peso
Corporate bonds.............		249,267	Austalian dollar
Corporate bonds.............		371,684	Euro
U.S. Agencies................		1,012,507	Euro
Corporate bonds.............		465,200	Brazilian real
U.S. Agencies................		160,867	Brazilian real
U.S. Agencies................		164,372	Uruguayan peso
Total..........................	$	3,860,327	

Investments – Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the WRS's investment in a single issuer. The WRS's policy for concentration of credit risk instructs investment managers not to invest more than 5% of their portfolio at market value in a single security, or in the securities of a single issuer or its subsidiaries. U.S. Treasury, U.S. government agency, mutual fund and pooled fund investments are exempted from this restriction. As of December 31, 2012, the WRS was not exposed to concentration of credit risk.

4. Securities Lending Transactions

PERAC has issued supplemental regulations that permit the WRS to engage in securities lending transactions. These transactions are conducted by the WRS's custodian, who lends certain securities owned by the WRS to other broker-dealers and banks pursuant to a form of loan agreement. The WRS and the borrowers maintain the right to terminate all securities lending transaction on demand.

The custodian lends, at the direction of the lending agent, the WRS's securities and cash received (including both U.S. and foreign currency), U.S. government securities, sovereign debt of foreign countries, and irrevocable bank letters of credit as collateral. The custodian does not have the ability to pledge or sell collateral unless the borrower defaults. Borrowers are required to deliver cash collateral in amounts equal to not less than 105% of the market value of foreign securities on loan and 102% of the market value of domestic securities on loan (Required Collateral Level). If at any time the market value of the collateral for any loan decreases to 100% or less of the market value of the loaned securities, borrowers are required to provide additional collateral sufficient to increase the market value of the collateral to at least the Required Collateral Level.

The WRS does not impose any restrictions on the amount of securities lent on its behalf by the custodian. There were no failures by any borrowers to return loaned securities or pay distributions thereon, nor were there any losses from default of the borrowers or the custodian for the year ended December 31, 2012. The cash collateral received on each loan was invested; together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment pool. The relationship between the average maturities of the investment pool and loans was affected by the maturities of the loans made by other plans that invested cash collateral in the collective investment pool, which the WRS could not determine. At December 31, 2012, the WRS had no credit risk exposure to borrowers because the amounts the WRS owed the borrowers exceeded the amounts owed the WRS. The cash collateral held and the fair value of the securities on loan for the WRS at December 31, 2012 and 2011 was $34,049,827 and $19,097,602 and $35,442,360 and $25,200,131, respectively. Borrower rebates and fees paid to the broker were $46,572 for the year ended December 31, 2012.

5. Funding Policy

Chapter 32 of MGL governs the contributions of plan members and the City. Depending on their employment date, active System members must contribute anywhere between 5%-9% of their gross regular compensation. Members hired after December 31, 1978 must contribute an additional 2% of regular compensation in excess of $30,000. Employees in Group 1 hired on or after April 2, 2012 with 30 years of creditable service or greater will pay a base contribution rate of 6%. These deductions earn interest at a rate determined by PERAC that vests based upon years of service. Employers are required to pay into the WRS its share of the system-wide actuarial determined contribution that is apportioned among the employers based on annual covered payroll.

Contributions are recognized as additions in the period when they become due pursuant to formal commitments, statutory or contractual requirements. Benefits and refunds are recognized as deductions when incurred and administrative expenses are funded through investment earnings.

Except for a portion of benefits owed due to cost-of-living adjustments granted through June 30, 1998, member employers are required to contribute the remaining amounts necessary to finance benefits. Member employer contributions are determined by the annual actuarial valuation.

COLA's granted through June 30, 1998 are reimbursed by the Commonwealth of Massachusetts (the Commonwealth). COLA's granted subsequent to June 30, 1998 must be granted by the Board and are the responsibility of the WRS. COLA may be approved in excess of the Consumer Price Index but not to exceed 3% of the base retirement allowance.

A 2.5% COLA was provided for retirees and survivors for the period of January 1, 2012 through June 30, 2012 on a base of $12,000. Chapter 188 of the Acts of 2010 of the Commonwealth enabled retirement system boards to increase the maximum base retirement allowance in multiples of $1,000. The Board of the WRS adopted an increase to the base from $12,000 to $13,000 effective July 1, 2012. In addition, the Board of the WRS adopted an increase to the COLA percentage from 2.5% to 3.0% effective July 1, 2012.

The funded status of the WRS at January 1, 2013, the most recent actuarial valuation date, is as follows:

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b - a)	Funded Ratio (%) (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll (%) (b - a)/c
1/1/2013	$ 706,950,694	1,117,438,564	410,487,870	63.27	$ 166,094,906	247.14

The schedules of funding progress, presented as required supplementary information (RSI) following the notes to the financial statements, present multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the AAL for benefits.

The significant methods and assumptions of the latest actuarial valuation are as follows:

Valuation Date	January 1, 2013
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level payments on the 2002 and 2010 ERI liability and the Section 90 ACD liability; payment on the remaining unfunded liability increases 4% per year beginning with fiscal 2016 payment. Prior to fiscal 2016, the appropriation for fiscal 2014 and 2015 are 8% higher than the prior fiscal year; the payment on the remaining unfunded liability for fiscal 2015 is 14.99% higher than the prior year.
Remaining amortized period (period is closed)	5 years for the 2002 ERI liability 8 years for the 2010 ERI liability 1 year for the Section 90 ACD liablity and 19 years for the remaining unfunded liability 18 years is the equivalent single amortization period (ESAP)

Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected return on a market value basis, and is recognized over a five-year period, further adjusted, if necessary, to be within 10% of the market value.

Actuarial assumptions:

Investment rate of return	7.75%
Projected salary increases	4.50%
Rate of inflation	3.50%
Cost of living adjustments	3.00% of the first $13,000 of retirement income

6. Legally Required Reserve Accounts

The balances in the WRS' legally required reserves as of December 31, 2012 are as follows:

Description	Amount	Purpose
Annuity Savings Fund	$ 172,550,795	Active members' contribution balance
Annuity Reserve Fund	55,270,478	Retired members' contribution account
Military Service Fund	15,767	Members' contribution account while on military leave
Pension Reserve Fund	495,698,772	Amounts appropriated to fund future retirement
Pension Fund	5,931,523	Remaining net assets
Total	$ 729,467,335	

All reserve accounts are funded at levels required by state law.

7. Implementation of GASB Pronouncements

During fiscal year 2012, the WRS implemented the following GASB pronouncements:

- Statement No. 60, *Accounting and Financial Reporting for Service Concession Arrangements*.
- Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.
- Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*.
- Statement No. 64, *Derivative Instruments: Application of Hedge Accounting Termination Provisions—an amendment of GASB Statement No. 53*.

The implementation of these pronouncements had no material reporting impact for the WRS.

Required Supplementary Information
December 31, 2012

The following reflects the Schedule of Funding Progress under the Entry-Age-Normal Actuarial Cost Method, which is the required method for all retirement systems governed by MGL, c.32. The WRS believes that this method of valuation more clearly reflects the actual funding status of the WRS.

Schedules of Funding Progress

Actuarial Valuation Date	Actuarial Value of Plan Assets * (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b - a)	Funded Ratio (%) (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll (%) (b - a)/c
1/1/2008	$ 759,410,332	889,924,310	130,513,978	85.33	$ 156,585,326	83.35
1/1/2009	631,893,995	929,569,464	297,675,469	67.98	166,050,095	179.27
1/1/2010	679,509,973	987,692,295	308,182,322	68.80	166,392,075	185.21
1/1/2011	724,997,822	1,025,075,423	300,077,601	70.73	157,720,871	190.26
1/1/2012	712,110,360	1,051,190,790	339,080,430	67.74	159,669,859	212.36
1/1/2013	706,950,694	1,117,438,564	410,487,870	63.27	166,094,906	247.14

* The 1/1/2008 actuarial valuation valued plan assets at market value. The 1/1/2009 through 1/1/2013 actuarial valuations valued plan assets at the difference between the expected return and the actual investment return on a market value basis, recognized over a five-year period.

Schedule of Employer Contributions

Year Ended December 31	Annual Required Contributions (ARC)	Percentage of ARC Contributed (%)
2007	$ 24,166,318	100
2008	24,947,158	100
2009	28,505,066	100
2010	29,770,499	101
2011	32,706,347	100
2012	35,409,140	100

Supplementary Information
December 31, 2012

Schedule of Administrative Expenses

The composition of administrative expenses for the year ended December 31, 2012 is as follows:

Personal services:	
Staff salaries	$ 308,223
Board Member compensation	20,625
Insurance	43,088
Total personal services	371,936
Professional services:	
Legal expenses	55,136
Actuarial fees	28,000
Audit fees	21,000
Medical fees	7,297
Total professional services	111,433
Miscellaneous:	
Travel	5,400
Other	40,076
Total miscellaneous	45,476
Total administrative expenses	$ 528,845

Schedule of Investment and Consultants' Expenses

Investment expenses		
Management fees:		
Domestic equity managers	$	228,456
Private equity capital fund managers		2,048,882
Domestic fixed income managers		341,171
International equity managers		728,534
Real estate investments managers		722,536
Consultant fees		179,167
Custodial fees		176,232
Total management fees		4,424,978
Securities lending fees:		
Borrowers rebates		13,355
Fees		33,217
Total securities lending fees		46,572
Total investment expenses	$	4,471,550
Consultant expenses:		
Independent audit fees	$	21,000
Actuarial fees		28,000
Legal fees		55,136
Medical fees		7,297
Total consultant expenses	$	111,433

Investment Section

REPORT ON INVESTMENT ACTIVITY

The information contained in the Investment Section of the Comprehensive Annual Financial Report (CAFR) has been prepared by Meketa Investment Group, acting as the investment consultant for the Worcester Retirement System (WRS). All investment information herein has been reconciled between the WRS, the investment managers hired by the WRS, WRS 'custodian, and Meketa Investment Group. The investment returns presented herein were calculated in a manner consistent with that specified in the Global Investment Performance Standards (GIPS®), as developed by the CFA Institute.

OUTLINE OF INVESTMENT POLICIES

The purpose of this document is to set forth the goals and objectives of the WRS, and to establish guidelines for the implementation of investment strategy.

The Board of the WRS recognizes that a stable, well-articulated investment policy is crucial to the long-term success of the WRS. As such, the Board has developed this Investment Policy Statement with the following goals in mind:

- To clearly and explicitly establish the objectives and constraints that govern the investment of the WRS's assets,
- To establish a long-term target asset allocation with a high likelihood of meeting the WRS's objectives given the explicit constraints, and
- To protect the financial health of the WRS through the implementation of this stable long-term investment policy.

I. Worcester Retirement System Goals

The WRS was established to provide retirement income for the City of Worcester and WHA employees and their families. The WRS's assets are structured to provide real growth from capital gains and income, while maintaining sufficient liquidity to meet the WRS's benefit payments.

II. Investment Objectives

The investment strategy of the WRS is designed to ensure the prudent investment of funds in such a manner as to provide real growth of assets over time while protecting the value of the assets from undue volatility or risk of loss.

Risk Objectives

- To accept a level of market risk consistent with moderate interim volatility without sacrificing the potential for long-term real growth of assets.

- To use extensive diversification to minimize or eliminate completely exposure to company and industry-specific risks in the aggregate investment portfolio.

- To avoid extreme levels of volatility that could adversely affect WRS's portfolio.

- To limit the likelihood of investment return patterns that could negatively impact the funded status of the WRS.

Return objective

- Within the risk constraints outlined above, to achieve the highest real return possible.

- To achieve, over long time periods, investment returns consistent with the actuarial return on assets of 7.75%.

III. Investment Constraints

Legal and Regulatory

The WRS is a qualified defined benefit pension plan governed by the Massachusetts General Laws, Chapter 32 and recently amended by Chapter 176 of the Acts of 2011. Investment procedures and restrictions stipulated under these regulations must be followed.

The Board intends to manage the assets of the WRS at all times in accordance with the provisions of the Public Employee Retirement Administration Commission (PERAC) and the Massachusetts General Laws, Chapter 32. The Board will retain legal counsel when appropriate to review contracts and provide advice with respect to applicable statutes and regulations.

Time Horizon

The WRS will be managed on a going-concern basis. The assets of the WRS will be invested with long-term time horizon (twenty years or more), consistent with the participant demographics and the purpose of the WRS.

Liquidity

The WRS exhibits a moderate need for interim liquidity. Cash outflows for benefit payments are expected to grow from approximately $66.3 million to close to $101.1 million over the next ten years, while cash flows are expected to rise from approximately $52.7 million to $73.1 million (covering normal costs and amortization payments) over the same period. This pattern results in a net negative cash flow of up to 3.7% of WRS assets, based on the WRS's year-end asset value and the actuarial assumed rate of return of 7.75% per year.

Tax Considerations

The WRS is a tax-exempt entity. Therefore, investments and strategies will be evaluated only on the basis of expected risks and potential returns.

IV. Risk and Return Considerations

The WRS's Board recognizes that a persistent positive relationship exists between risk and return, whether risk is described as possibility of loss or as interim volatility. The Board also recognizes that investors are rarely compensated for risks that can be eliminated through diversification. Within the risk and return parameters discussed above, the Board accepts the risks associated with investing in the capital markets (market risks), but will minimize wherever possible those risks for which the WRS is unlikely to be compensated (non-market or diversifiable risks).

V. Diversification

The WRS's Board recognizes that a primary element of risk control is diversification. Therefore, investments will be allocated across multiple classes of assets, chosen in part for their low correlation of returns. Within each asset type, investments will be distributed across many individual holdings, thus further reducing volatility. In addition, each investment manager's guidelines will specify the largest permissible investment in any one asset, and the largest permissible investment in any group of related assets.

The WRS's aggregate equity portfolio will be diversified by individual issue, capitalization, and industry (international equity portfolios will also be diversified by country). The WRS's aggregate fixed income portfolio will, at a minimum, be diversified by individual issue, by issuer, by maturity, and by industry. Residual cash will be swept by the custody bank into a short-term fixed income investment pool that is broadly diversified across individual issue and issuer. The WRS's aggregate real estate portfolio will be invested across a spectrum of geographic regions and property types.

The specific degrees of diversification within the above asset classes will be addressed in each manager's investment guidelines.

VI. Asset Allocation

The Board recognizes that the allocation of monies to various asset classes will be the major determinant of the WRS return and risk experience over time. Therefore, the WRS will allocate investments across those asset classes that, based on historical and expected returns and risks, provide the highest likelihood of meeting the WRS's investment objectives.

A. Permissible Asset Classes

Because investment in any particular asset class may or may not be consistent with the objectives of the WRS, the Board has specifically indicated those asset classes that may be utilized when investing the WRS's assets, and are summarized as follows:

Asset Type	Asset Class	Purpose
Equity	U.S. Common Stocks	Total Return Potential
Equity	Non-U.S. Common Stocks	Total Return Potential Diversification
Equity	Private Equity	Total Return Potential Diversification
Fixed Income	Investment Grade Bonds	Return Stability Income
Fixed Income	TIPS	Return Stability Income
Fixed Income	High Yield Bonds/ Bank Loans	Total Return Potential Diversification Income
Real Estate	Real Estate	Total Return Potential Diversification Income
Real Estate	Timber	Total Return Potential Diversification Income
Hedge Funds	Absolute Return Strategies	Return Stability Diversification
Infrastructure	Private Infrastructure	Total Return Potential Diversification Income
Natural Resources	Public/Private Natural Resources	Total Return Potential Diversification
Fixed Income / Equity	Global Tactical Asset Allocation	Total Return Potential Diversification
Cash	Cash Equivalents	Liquidity Return Stability

B. Expected Returns, Risks, and Correlations for Permissible Asset Classes

The risk and return behavior of the WRS will be driven primarily by the allocation of investments across asset classes. In determining the appropriate allocation, the expected return and risk behavior of each asset class and the likely interaction of various asset classes in a portfolio must be examined.

C. Long-Term Target Allocations

Based on the investment objectives and constraints of the WRS, and on the expected behavior of the permissible asset classes, the Board will specify a long-term target allocation for each class of permissible assets. These targets will be expressed as a percentage of the WRS's overall market value, surrounded by a band of permissible variation resulting from market forces.

The long-term target allocations are intended as strategic goals, not short-term imperatives. Thus, it is permissible for the overall System's asset allocation to deviate from the long-term target, as would likely occur during manager transitions, asset class restructurings, and other temporary changes in the WRS. Deviations from targets that occur due to capital market changes are discussed after the following table:

Asset Allocation Targets

	Target (%)	Range (%)
Domestic Equity	**23%**	**18-28%**
Foreign Equity[1]	**22%**	**17-27%**
Investment Grade Bonds	**7%**	**5-9%**
Treasury Inflation-Protected Securities (TIPS)	**6%**	**4-8%**
High Yield Bonds / Bank Loans	**8%**	**6-10%**
Real Estate[1]	**10%**	**7-11%**
Timber	**3%**	**2-4%**
Private Equity[1]	**8%**	**6-10%**
Hedge Funds[1]	**2%**	**1-3%**
Global Tactical Asset Allocation	**7%**	**5-9%**
Infrastructure	**2%**	**1-3%**
Natural Resources	**2%**	**1-3%**
Cash[2]	**0%**	**< 5%**

[1] The Retirement System is restricted by PERAC to target allocations of 10% for real estate, 10% for private equity, and 10% for hedge fund strategies. The System will make reasonable attempts to maintain those allocations, recognizing that market fluctuations and the funding requirements of alternative investments may result in short-term deviations from the targets.

[2] The cash target of zero defines the System's objective of keeping cash balances as low as possible, at least below 5% at all times. The Retirement Board is aware, however, that a certain cash balance is needed for the efficient operation of the System and its various portfolios.

D. Rebalancing

In general, cash flows to and from the WRS will be allocated in such a manner as to move each asset class toward its target allocation.

The Board recognizes that, periodically, market forces may move the WRS's allocations outside the target ranges. The Board also recognizes that failing to rebalance the allocations would unintentionally change the WRS's structure and risk posture. However, the Board understands that constant rebalancing would result in a significant increase in explicit and implicit trading costs to the WRS. Consequently, the Board has established a process to rebalance the allocations periodically.

On at least an annual basis, if any strategic allocation is outside the specified target range, assets will be shifted to return the strategy to the target range. The specific plan for rebalancing will identify those assets that can be shifted at the lowest possible risk and cost, if the rebalancing cannot be accomplished solely by allocating contributions and withdrawals.

E. Changes to Asset Allocation

Once established, permanent changes in the WRS's target asset allocation will take place only in response to significant changes in the objectives and constraints of the WRS, or in response to material changes in the fundamental nature or appropriateness of the asset classes themselves.

VII. Review of Investment Policy, Asset Allocation, and Performance

The Investment Policy Statement will be reviewed at least annually, and specifically upon each actuarial valuation, to ensure that the objectives and constraints remain relevant. However, the Board recognizes the need for a stable long-term policy for the WRS, and major changes to this policy statement will be made only when significant developments in the circumstances of the WRS occur. The Board will notify PERAC of any changes to this document within ten days of the effective date of those changes.

The asset allocation of the WRS will be reviewed on an on-going basis, and at least annually. When necessary, such reviews may result in a rebalancing of asset allocations. In general, the Board intends that the WRS will adhere to its long-term target allocations, and that major changes to these targets will be made rarely and only in response to significant developments in the circumstances of the WRS.

The Board will specifically evaluate the performance of the WRS relative to its objectives and to the returns available from the capital markets during the period under review. In general, the Board will utilize relative, rather than absolute, benchmarks in evaluating performance.

VIII. Trading and Proxy Voting by Investment Managers

In accordance with the fiduciary and other obligations imposed on investment managers by their agreements with the Board, all trades executed by managers must be for the exclusive benefit of the WRS's participants and beneficiaries. Managers are expected to seek best execution on all trades. This is addressed in the individual manager guidelines.

The Board recognizes that the right to vote proxies for securities held represents an asset of the WRS.

As such, the Board has specifically delegated the responsibility for voting all security proxies to the individual managers. The Board believes that the voting of proxies constitutes an investment decision by the managers, and that prudent voting of proxies is important to the overall performance of the WRS. Investment managers are expected to execute all proxy votes in a timely fashion and to provide a full written accounting of proxy votes on an annual basis.

IX. Management Structure

To diversify the WRS's assets so as to minimize the risk associated with dependence on the success of one enterprise, the Board Members have decided to employ a multi-manager team approach to investing System assets.

A consultant will be employed whose responsibilities will be to: 1) provide risk and return assumptions for various asset classes, 2) to diversify WRS so as to minimize risk, while enhancing the probability of achieving the WRS's return objectives, and 3) to evaluate the performance and compliance of investment managers.

Investment managers will be employed to utilize individual expertise within their assigned area of responsibility. Each manager will be governed by individual investment guidelines.

X. Implementation

All monies invested for the WRS after the adoption of this investment policy statement shall conform to this statement.

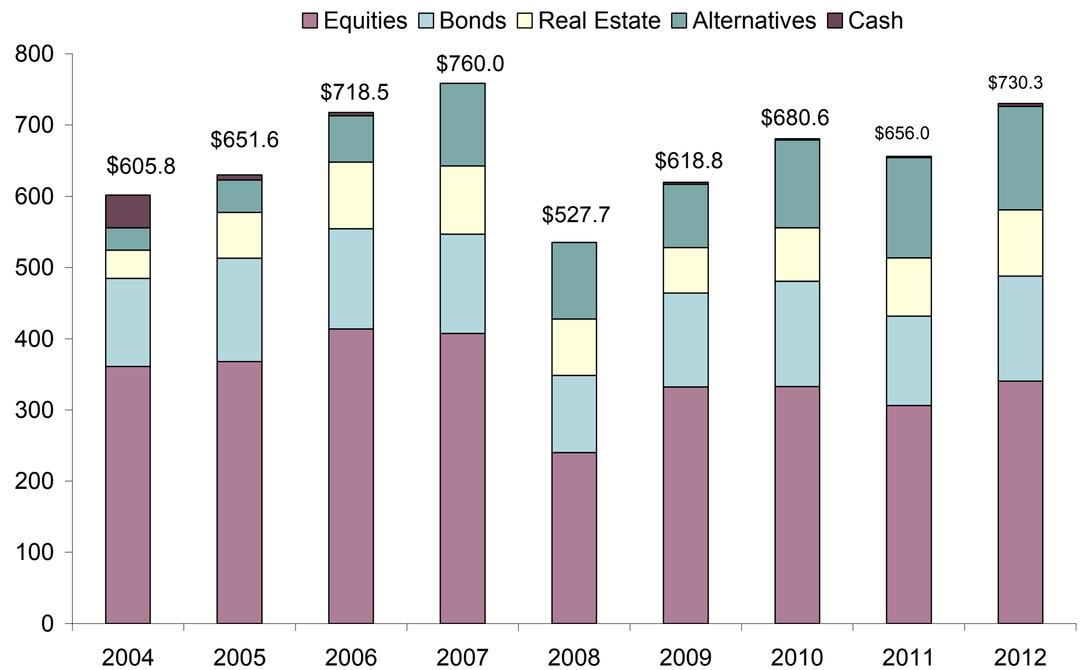
INVESTMENT RESULTS[1]

	4Q12	1 YR	3 YR	5 YR	10 YR	Since Inception	Inception Date
Total System	**2.8**	**13.6**	**8.7**	**2.4**	**8.0**	**7.6**	**10/1/1995**
CPI (inflation)	-0.8	1.7	2.1	1.8	2.4	2.4	
Total Equity	**3.3**	**18.3**	**9.1**	**0.5**	**8.7**	**5.2**	**4/1/1998**
Russell 3000	0.2	16.4	11.2	2.0	7.7	4.0	
MSCI ACWI Free (ex. U.S.) IMI	5.7	17.0	4.2	-2.6	10.2	4.8	
Total Fixed Income	**1.6**	**9.7**	**8.4**	**7.8**	**7.1**	**6.8**	**1/1/1998**
Barclays Universal	0.6	5.5	6.7	6.2	5.6	6.1	
Total Open-End Real Estate	**3.1**	**11.0**	**11.9**	**-1.5**	**5.3**	**6.2**	**1/1/1999**
NCREIF ODCE	2.4	10.9	14.4	-1.1	6.7	7.5	
Total Absolute Return[2]	**1.4**	**7.1**	**3.9**	**0.9**	**NA**	**3.8**	**7/1/2005**
HFRI Fund of Funds Composite	1.8	5.2	1.6	-1.7	3.7	2.4	
Total Global Tactical Asset Allocation	**2.8**	**15.4**	**10.4**	**4.0**	**NA**	**4.0**	**8/1/2007**
60% S&P 500 / 40% Barclays Aggregate	0.6	9.8	9.2	3.2	6.3	3.5	

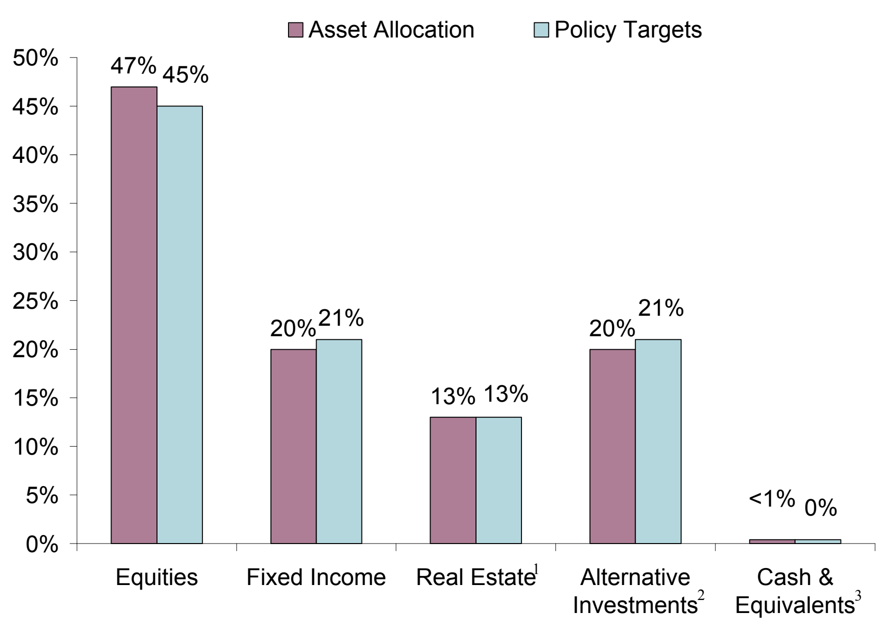
1 The WRS's policy is a time weighted average of the representative asset class benchmarks.

2 Other alternative investments include private equity, infrastructure, and natural resources limited partnerships that are measured by dollar-weighted, rather than time-weighted returns. There is a quarterly time-lag on the measurement of returns for these investments. For the calendar year period covered by this report, the WRS's private equity investments increased by $3.9 million, including approximately $8.0 million in capital called and $9.8 million in distributions. The WRS's private infrastructure investments decreased by $1.2 million, there was $0.4 million in capital calls in 2012 and $2.2 million distributed. The WRS's private natural resources investments increased by $2.0 million, including $1.9 million called and $1.9 million distributed.

ASSET ALLOCATION - ASSET SIZE (ROUNDED TO NEAREST MILLION)



AGGREGATE ASSET ALLOCATION VS. POLICY TARGETS



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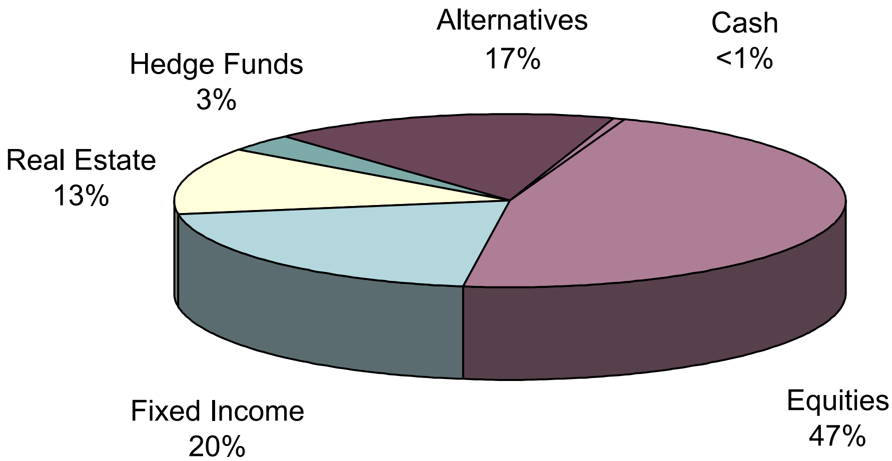
1 The Real Estate policy target includes a strategic allocation to Timber of 3%.

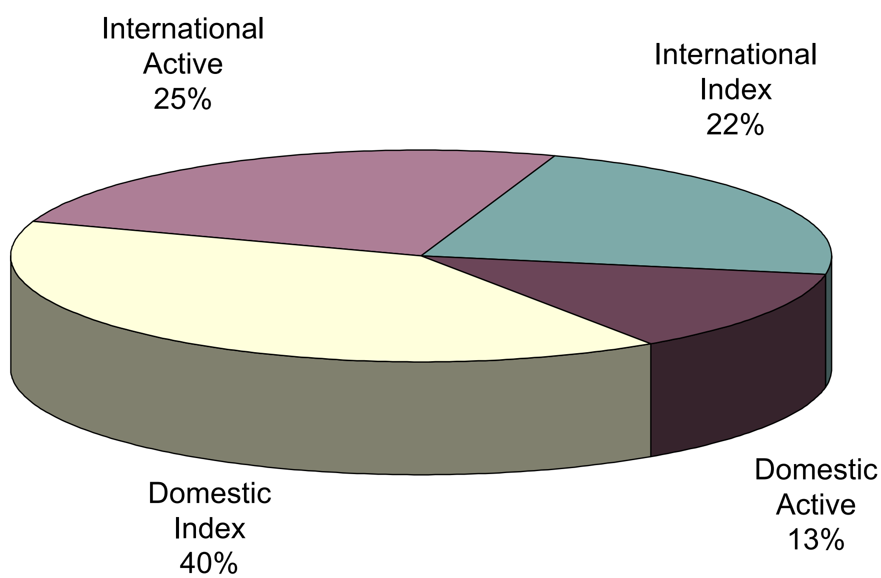
2 The Alternative Investments allocation includes Private Equity, Absolute Return, Global Tactical Asset Allocation, Infrastructure and Natural Resources assets.

3 Includes cash and cash held by managers within separate accounts.

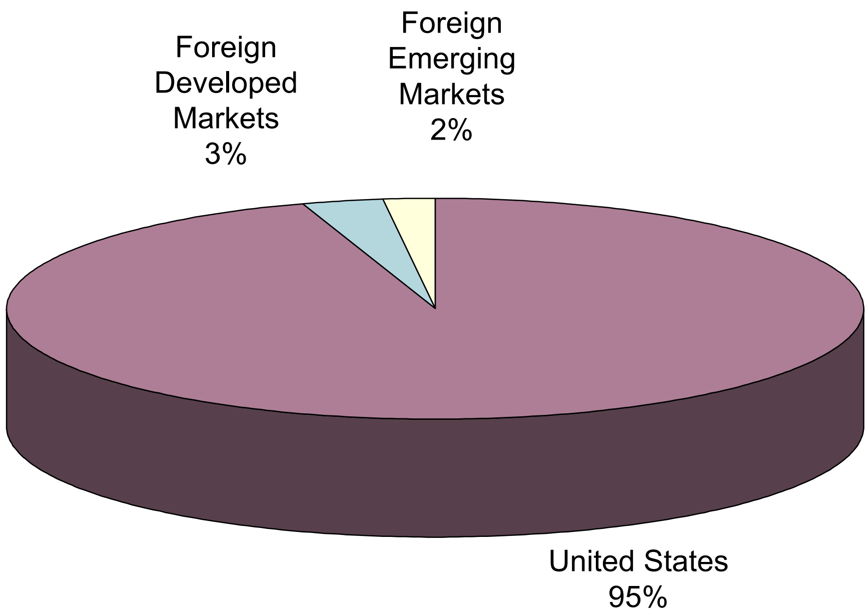
AGGREGATE ASSET ALLOCATION



EQUITY ALLOCATION



FIXED INCOME ALLOCATION



TEN LARGEST STOCK HOLDINGS BY FAIR VALUE

Company	Number of Shares	Fair Value ($mm)	% of Domestic Stock	Industry
Apple	8,819	4.6	2.9%	Computer Hardware
Exxon Mobil	42,642	3.7	2.3%	Oil & Gas
General Electric	97,194	2.0	1.3%	Industrial Conglomerate
Chevron Corp	18,131	2.0	1.2%	Oil & Gas
Int'l Business Machines	10,173	1.9	1.2%	IT Consulting & Other Services
Microsoft	70,959	1.9	1.2%	Systems Software
AT&T	53,379	1.8	1.1%	Telecommunication Services
Johnson & Johnson	25,512	1.8	1.1%	Pharmaceuticals
Google	2,464	1.7	1.1%	Internet Software & Services
Pfizer	68,590	1.7	1.1%	Pharmaceuticals

A complete portfolio is available upon request.

TEN LARGEST FIXED INCOME HOLDINGS BY FAIR VALUE

	Security	Coupon (%)	Maturity Date	Number of Shares	Market Value	% of Bonds
1.	Treasury Infl. Idx	1.1	1/15/2021	1,892,836	2,223,192	1.9
2.	Treasury Infl. Idx	0.6	7/15/2021	1,852,544	2,105,823	1.8
3.	Treasury Infl. Idx	3.9	4/15/2029	1,174,937	1,947,458	1.6
4.	Treasury Infl. Idx	0.1	1/15/2022	1,778,332	1,931,162	1.6
5.	Treasury Infl. Idx	0.1	4/15/2016	1,818,245	1,914,558	1.6
6.	Treasury Infl. Idx	1.3	7/15/2020	1,543,304	1,830,744	1.5
7.	Treasury Infl. Idx	3.6	4/15/2028	1,115,556	1,768,335	1.5
8.	Treasury Infl. Idx	2.0	7/15/2014	1,607,606	1,696,394	1.4
9.	Treasury Infl. Idx	2.5	1/15/2029	1,163,603	1,659,588	1.4
10.	Treasury Infl. Idx	2.4	1/15/2025	1,221,044	1,647,164	1.4

A complete portfolio is available upon request.

SCHEDULE OF FEES & COMMISSIONS

Investment Manager Fees: December 31, 2012	
Acadian Asset Management	$ 154,732
Aetos Alternatives Management	154,829
AEW Capital Management	50,000
American Securities Partners	10,382
Ascent Venture Management IV	180,882
Ascent Venture Management V	128,309
Bailard Fund Services	112,658
Benchmark Plus Management	161,800
Boston Millennia Partners II	40,281
Blackstone Alternative Asset Management	144,000
Capital International Private Equity Fund	112,320
Charlesbank Capital Partners V	10,315
Charlesbank Capital Partners VI	30,936
Global Infrastructure Partners	146,035
Hancock Timber Resource Group	62,342
Heitman Investment Management	30,539
Intercontinental Real Estate Corp	32,416
Invesco Private Capital	5,787
Invesco Core Real Estate	167,093
Lazard Asset Management	443,382
Lee Munder Capital Group	67,386
Loomis Sayles & Company	261,029
Newstone Capital Partners I	18,612
Newstone Capital Partners II	58,481
Northstar Capital III	7,750
Northstar Capital IV	41,427
Northstar Capital V	80,788
OPUS Investment Management	44,860
OPUS Investment Management TIPS	35,282
Penn Capital Management	66,253
PIMCO Funds	419,580
Mass PRIM	120,072
The Riverside Company 2003	7,411
The Riverside Company Europe III	52,311
The Riverside Company V	23,375
RMK Balanced Timberland B	57,919
RMK Fund I	31,152
RMK Select Timberland Fund II	47,473
SSgA Daily EAFE Index	90,366
SSgA EAFE Index	31,694
SSgA Flagship Index	22,849
SSgA Global Natural Resources	8,360
SSgA Russell 1000 Value Index	30,285
SSgA Russell 1000 Growth Index	30,105
SSgA S&P Midcap Index	11,578
Standard Life Investments Limited	14,383

(continued)

SCHEDULE OF FEES & COMMISSIONS

(continued from previous page)

VEF Advisors II	3,538
VEF Advisors IV	7,334
Vitruvian Partners	98,888
White Deer Energy TE	100,000
Total Investment Manager Fees	**$4,069,579**
State Street Bank (Custodian Bank Fee)	176,232
Meketa Investment Group (Consultant Fee)	179,167
Security Lending Rebates and Fees	46,572
Total Other Fees	**$ 401,971**
Total Fees	**$4,471,550**

(concluded)

COMMISSIONS TO BROKERS

Broker Name	Tota1 Commissions ($)	Total Shares	$/Share
BARCLAYS CAPITAL LE	642.48	15,603	0.04
BLOOMBERGTRADEBOOK LLC	365.61	36,561	0.01
BNY CONVERGEX LJR	5,325.78	145,004	0.04
BTIG, LLC	179.90	8,995	0.02
CANACCORDGENUITY INC	77.64	1,941	0.04
CANTOR FITZGERALD + CO.	1,418.09	41,790	0.03
CITIGROUPGLOBAL MARKETS INC	27.40	548	0.05
COWEN ANDCOMPANY, LLC	48.12	1,203	0.04
CREDIT SUISSE SECURITIES (USA) LLC	817.26	26,579	0.04
DAVENPORT& CO. OF VIRGINIA, INC.	132.68	3,317	0.04
DEUTSCHE BANK SECURITIES INC	269.65	6,576	0.04
GOLDMAN SACHS + CO	2.00	50	0.04
GOLDMAN SACHS INTERNATIONAL	387.14	19,357	0.02
GREENTREEBROKERAGE SERVICES INC	200.68	6,297	0.03
HIBERNIA SOUTHCOAST CAPITAL INC	427.21	13,893	0.03
HOWARD WEIL DIVISION LEGG MASON	581.48	14,537	0.04
INSTINET	4,058.19	102,989	0.04
INVESTMENT TECHNOLOGY GROUP INC.	1,039.18	34,958	0.03
ISI GROUPINC	8.80	220	0.04
J.P. MORGAN SECURITIES INC.	1,608.64	40,909	0.04
JANNEY MONTGOMERY, SCOTT INC	89.44	2,236	0.04
JEFFERIES+ COMPANY INC	432.45	10,245	0.04
JMP SECURITIES	66.65	1,333	0.05
JOHNSON RICE + CO	387.04	9,676	0.04
JONESTRADING INSTITUTIONAL SERVICES LLC	5,133.98	143,679	0.04
KEEFE BRUYETTE + WOODS INC	178.65	3,573	0.05
KEYBANC CAPITAL MARKETS INC	666.64	16,666	0.04

(continued)

Broker Name	Tota1 Commissions ($)	Total Shares	$/Share
KEYBANC CAPITAL MARKETS INC	200.40	4,008	0.05
KING, CL,& ASSOCIATES, INC	31.40	785	0.04
KNIGHT EQUITY MARKETS L.P.	981.68	49,159	0.02
LAZARD CAPITAL MARKETS LLC	175.08	4,377	0.04
LEERINK SWANN AND COMPANY	40.25	805	0.05
LIQUIDNETINC	1,217.00	41,000	0.03
LONGBOW SECURITIES LLC	288.92	7,223	0.04
MACQUARIESECURITIES (USA) INC	239.16	5,979	0.04
MERRILL LYNCH PIERCE FENNER + SMITH INC	200.04	5,001	0.04
MIZUHO SECURITIES USA INC.	29.76	744	0.04
MKM PARTNERS LLC	243.76	6,094	0.04
MORGAN STANLEY CO INCORPORATED	432.58	10,572	0.04
NEEDHAM +COMPANY	74.48	1,862	0.04
OPPENHEIMER + CO. INC.	369.03	8,710	0.04
PULSE TRADING LLC	29.06	1,453	0.02
RAYMOND JAMES AND ASSOCIATES INC	1,029.01	27,385	0.04
RBC CAPITAL MARKETS	1,955.30	75,038	0.03
ROBERT W.BAIRD CO.INCORPORATE	365.85	7,410	0.05
ROTH CAPITAL PARTNERS LLC	82.40	2,060	0.04
SANDLER ONEILL + PART LP	208.56	4,893	0.04
SANFORD CBERNSTEIN CO LLC	256.44	13,161	0.03
SCOTIA CAPITAL (USA) INC	199.19	5,368	0.04
SCOTT & STRINGFELLOW, INC	245.08	6,127	0.04
SIDOTI + COMPANY LLC	75.92	1,898	0.04
SIMMONS +COMPANY INTERNATIONAL	36.00	900	0.04
STATE STREET GLOBAL MARKETS, LLC	131.52	3,288	0.04
STEPHENS,INC.	413.81	9,641	0.04
STERNE AGEE & LEACH INC.	423.67	10,368	0.04
STIFEL NICOLAUS + CO INC	566.64	13,698	0.04
SUNGARD BROKERAGE & SECURITIES SVCS LLC	110.72	2,768	0.04
SUNTRUST CAPITAL MARKETS, INC.	647.60	16,115	0.04
UBS SECURITIES LLC	332.51	11,611	0.03
WELLS FARGO SECURITIES, LLC	600.40	14,597	0.04
WILLIAM BLAIR & COMPANY L.L.C	160.90	3,218	0.05
WUNDERLICH SECURITIES INC.	282.80	7,070	0.04

(concluded)

Investment Summary *

Type of Investment	Fair Value ($ mm)	% of Total Fair Value
Total Equity Assets	340.3	46.7
Equity securities	17.5	2.4
Equity mutual funds	322.8	44.3
Total Fixed Income Assets	147.6	20.2
U.S. Treasuries	52.5	7.2
U.S. Agencies	17.4	2.4
Corporate bonds	38.0	5.2
Debt security mutual funds	39.7	5.4
Total Alternative Assets	238.6	32.6
Real estate investments	93.1	12.7
Alternative investments	122.9	16.8
Hedge funds	22.6	3.1
Cash and Cash Equivalents	3.8	0.5
Total System	730.3	100.0

* This table does not include the securities lending short-term collateral investment pool

Liquidity Profile

Benefits payments totaled approximately $66.3 million during the year and along with other payments of $4.3 million resulted in total cash outflows of $70.6 million in 2012. These payments were partially offset by a contribution of approximately $35.4 million from employers and other cash receipts of $17.3 million for a total of $52.7 million in 2012. This resulted in a negative cash flow of approximately $17.9 million for the fiscal year. Note that these figures do not incorporate expected income and asset gains from the WRS's investments. The WRS's portfolio is structured with a long-term expected return of 7.75%.

Actuarial Section

THE SEGAL COMPANY
116 Huntington Avenue, 8th Floor Boston, MA 02116
T 617.424.7336 F 617.424.7390 www.segalco.com

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President & Actuary
kriley@Segalco.com

May 30, 2013

City of Worcester Retirement Board
City Hall, Room 103
455 Main Street
Worcester, MA 01608

Dear Board Members:

The Segal Company has performed a January 1, 2013 actuarial valuation of the City of Worcester Retirement System. This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Retirement Board are reasonably related to the experience of and the expectations for the Plan.

As part of performing the valuation, The Segal Company was furnished member data by the City of Worcester Retirement System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary. In addition, the administrative staff furnished financial statements that were not audited by the actuary.

The funding objective of the plan is to provide for the current cost of benefits (*i.e.,* normal cost) and to reduce the unfunded liability to zero by June 30, 2032. The normal cost is expected to remain at a level percentage of payroll. The remaining liability of the 2002 ERI is amortized over a 5-year period (by June 30, 2018) with level payments. The 2010 ERI liability is amortized over an 8-year period (by June 30, 2021) with level payments. The Section 90 ACD liability is amortized over a 1-year period (by June 30, 2014). The remaining unfunded liability is amortized over a 19-year period. The fiscal 2014 appropriation of $38,148,683 is calculated to be 8.0% greater than the fiscal 2013 appropriation. The fiscal 2015 appropriation is calculated to be 8% greater than fiscal 2014. Beginning in fiscal 2016, the payment on the remaining unfunded liability is 4% greater than the prior year's payment. In the prior valuation, the System was fully funded by June 30, 2035.

Actuarial valuations have been performed annually. This is consistent with the guidelines promulgated by PERAC and GASB. The previous valuation was performed as of January 1, 2012.

The assumptions and methods used for funding purposes met the parameters set for the disclosures presented in the financial section by GASB Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans.*

The Segal Company has prepared, and included as part of this report, all the supporting schedules for the Actuarial Section and Statistical Section of the CAFR. In addition, we have prepared the Schedules of Funding Progress and the Schedule of Employer Contributions found in the Financial Section of the CAFR.

Please let us know if you have any questions on this material.

Sincerely,

THE SEGAL COMPANY

By: Kathleen A. Riley

Kathleen A. Riley, FSA, MAAA
Senior Vice President and Actuary

I. Summary of Actuarial Assumptions and Actuarial Cost Method

The actuarial assumptions, as set forth in the accompanying supporting schedules, were selected by the Worcester Retirement Board and actuary. Unless stated otherwise, the actuarial assumptions are based upon the actuarial valuation as of January 1, 2013, which was adopted by the WRS on May 8, 2013.

Mortality Rates

Pre-retirement: RP-2000 Employee Mortality Table projected 20 years using Scale AA

Healthy Retiree: RP-2000 Healthy Annuitant Mortality Table projected 15 years using Scale AA

Disabled Retiree: RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males projected 9 years using Scale AA

The RP-2000 Employee Mortality Table projected 20 years using Scale AA and the RP-2000 Healthy Annuitant Mortality Table projected 15 years using Scale AA were determined to contain provisions appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

Termination Rates before Retirement

	Rate (%)			
	Mortality		Group 1 and 2	
Age	**Male**	**Female**	**Disability**	**Withdrawal**
20	0.02	0.01	0.01	12.00
25	0.03	0.02	0.03	8.78
30	0.04	0.02	0.04	5.55
35	0.07	0.04	0.07	3.93
40	0.09	0.05	0.13	2.31
45	0.12	0.08	0.18	1.89
50	0.15	0.12	0.24	1.46
55	0.21	0.22	0.30	0.00
60	0.35	0.36	0.35	0.00

Notes: *55% of the disability rates shown represent accidental disability.*
20% of the accidental disabilities will die from the same cause as the disability.
55% of the death rates shown represent accidental death.

	Mortality		Group 4	
Age	**Male**	**Female**	**Disability**	**Withdrawal**
20	0.02	0.01	0.13	2.10
25	0.03	0.02	0.25	1.88
30	0.04	0.02	0.38	1.65
35	0.07	0.04	0.38	1.11
40	0.09	0.05	0.38	0.56
45	0.12	0.08	1.25	0.28
50	0.15	0.12	1.56	0.00
55	0.21	0.22	1.50	0.00
60	0.35	0.36	1.06	0.00

Notes: *90% of the disability rates shown represent accidental disability.*
60% of the accidental disabilities will die from the same cause as the disability.
90% of the death rates shown represent accidental death.

Retirement Rates

Rate (%)			
Age	**Groups 1 and 2**	**Age**	**Group 4**
50	3.0	50	5.0
51-54	1.0	51-54	1.0
55	2.0	55	16.0
56	2.0	56	9.0
57	3.0	57	9.0
58	3.0	58	12.0
59	3.0	59	11.0
60	8.0	60	24.0
61	7.0	61	14.0
62	15.0	62	20.0
63	11.0	63	13.0
64	10.0	64	19.0
65	36.0	65	100.0
66	22.0		
67	22.0		
68	22.0		
69	25.0		
70	100.0		

Unknown Data for Participants

Same as those exhibited by participants with similar known characteristics.

Age of Spouse
Females 3 years younger than their spouses.

Percent-Married
80%

Benefit Election
All participants are assumed to elect option A.

Net Investment Return
7.75%

Salary Increases
4.50% (includes allowance for inflation of 3.50%)

Interest on Employee Contributions
3.50%

Administrative Expenses
$575,000 for calendar year 2013, increasing 3.50% per year

2012 Salary
2012 salary equal to salaries provided in the data, except for new hires where salaries were calculated from annualized contributions divided by the contribution rate(s) reported.

Total Service
Total creditable service based on adjusted date of hire.

Net 3(8)(c) Liability
Estimated liability of $15.0 million based on average amount net 3(8)(c) benefits of prior two years.

Actuarial Value of Assets
Market value of assets as reported in the System's Annual Statement less unrecognized return in each of the last five years. Unrecognized return is equal to the difference between the actual market value return and the expected market value return and is recognized over a five-year period, further adjusted, if necessary, to be within 10% of the market value.

Actuarial Cost Method
Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less Total Service as defined above. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. Normal cost is determined using the plan of benefits applicable to each participant.

Recent Changes
The investment return assumption was lowered from 8.50% to 8.25% as of January 1, 2006. As of January 1, 2011, it was further lowered to 8.00%. As of January 1, 2013, it was lowered to 7.75%.

The salary increase assumption was lowered as of January 1, 2003 from 5.50% to 5.00%. As of January 1, 2011, it was further lowered to 4.75%. As of January 1, 2013, it was lowered to 4.5%.

An asset smoothing method was first applied with the January 1, 2000 valuation and modified as of January 1, 2004. As of December 31, 2004, the actuarial value of assets was set equal to market value. As of January 1, 2009, the actuarial value of assets was changed from market value of assets to a five-year smoothing method. As of January 1, 2010, the actuarial value of assets was changed from being within 20% of the market value of assets to being within 10% of the market value of assets.

The mortality assumption for healthy participants was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table projected 12 years using Scale AA as of January 1, 2012. As of January 1, 2013, the pre-retirement mortality assumption was changed to the RP-2000 Employee Mortality Table projected 20 years using Scale AA.

The mortality assumption for healthy retirees was changed from the RP-2000 Combined Healthy Mortality Table projected 12 years using Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected 15 years using Scale AA as of January 1, 2013.

The mortality assumption for disabled participants was changed from the 1994 Group Annuity Mortality Table set forward 10 years to the 1994 Group Annuity Mortality Table set forward 7 years, as of January 1, 2010. As of January 1, 2011, the table was changed to the 1994 Group Annuity Mortality Table set forward 5 years. As of January 1, 2012, the assumption was changed to the RP-2000 Combined Healthy Mortality Table set forward 5 years projected 12 years using Scale AA. As of January 1, 2013, the assumption was changed to the RP-2000 Healthy Annuitant Mortality Table projected 5 years using Scale AA with a 3-year set forward for males.

The estimated liability for future 3(8)(c) payments was lowered from $20.1 million based on estimated net annual benefits of $2.4 million to $15.7 million based on estimated net annual benefits of $1.8 million as of January 1, 2011 and to an estimated liability of $15.3 million based on net annual benefits of $1.7 million as of January 1, 2012. As of January 1, 2013, it was changed to an estimated liability of $15.0 million based on the average amount net 3(8)(c) benefits of prior two years.

As of January 1, 2012, the annual rates of retirement and disability were changed.

The administrative expense assumption was changed from $625,000 to $600,000 as of January 1, 2012 and to $575,000 as of January 1, 2013.

II. Schedule of Active Member Valuation Data

Valuation date	Number	Projected annual payroll ($)	Annual average pay ($)	% Increase in average pay
1/1/2008	3,299	$ 156,585,326	$ 47,464	5.49
1/1/2009	3,352	166,050,095	49,538	4.37
1/1/2010	3,287	166,392,075	50,621	2.19
1/1/2011	3,208	157,720,871	49,165	-2.88
1/1/2012	3,178	159,669,859	50,242	2.19
1/1/2013	3,260	166,094,906	50,949	1.41

III. Schedule of Retirants and Beneficiaries Added to and Removed from Rolls

Year ended	Added to Rolls: Number	Added to Rolls: Annual allowances[1]	Removed from Rolls: Number	Removed from Rolls: Annual allowances	Rolls - end of year: Number	Rolls - end of year: Annual allowances[1]	% Increase in annual allowances	Average annual allowances
2007	105	$ 2,719,667	120	$ 1,728,323	2,849	$ 55,329,380	3.28	$ 19,421
2008	93	2,867,851	150	2,034,502	2,792	56,905,570	2.85	20,382
2009	97	3,476,053	115	1,643,865	2,774	59,512,448	4.58	21,454
2010	182	5,534,863	158	2,487,548	2,798	63,008,939	5.88	22,519
2011	88	2,550,597	109	1,683,482	2,776	64,470,827	2.32	23,216
2012	120	3,501,290	142	2,564,860	2,754	66,738,274	3.52	24,242

[1] Annual allowances are shown for retirees in pay status at the end of the year.

IV. Solvency Test

Valuation Date	Actuarial Accrued Liability: (1) Active member contributions	(2) Retirees and beneficiaries	(3) Active/Inactive members (Employer financed)	Actuarial value of assets	Portion of Actuarial Accrued Liability Covered by Assets: (1)	(2)	(3)
1/1/2008	144,175,273	476,412,539	269,336,498	759,410,332	100	100	52
1/1/2009	152,780,052	488,818,808	287,970,604	631,893,995	100	98	0
1/1/2010	158,217,390	524,211,594	305,263,311	679,509,973	100	99	0
1/1/2011	158,761,215	573,267,875	293,046,333	724,997,822	100	99	0
1/1/2012	165,908,395	586,490,665	298,791,730	712,110,360	100	93	0
1/1/2013	172,550,795	620,756,055	324,131,714	706,950,694	100	86	0

V. Analysis of Financial Experience

	Year Ended December 31, 2012	2011	2010	2009	2008
1. Unfunded actuarial accrued liability as of January 1	$ 339,080,430	$ 300,077,601	$ 308,182,322	$ 297,675,469	$ 130,513,978
2. Normal cost as of January 1	23,720,313	23,414,464	24,074,576	23,936,084	22,574,842
3. Employer and employee contributions during year	(50,129,615)	(46,308,754)	(44,157,370)	(42,695,664)	(39,375,618)
4. Interest					
(a) For whole year on (1)+(2)	29,024,059	25,879,365	27,411,194	26,532,953	12,629,827
(b) For half year on (3)	(1,812,547)	(1,674,395)	(1,645,804)	(1,591,325)	(1,467,582)
(c) Total interest	27,211,512	24,204,970	25,765,390	24,941,628	11,162,245
5. Expected unfunded actuarial liability	339,882,640	301,388,281	313,864,918	303,857,517	124,875,447
6. Actual unfunded actuarial accrued liability	410,487,870	339,080,430	300,077,601	308,182,322	297,675,469
7. (Gain) or loss for the year: (6)-(5)	$ 70,605,230	$ 37,692,149	$ (13,787,317)	$ 4,324,805	$ 172,800,022
8. Investment (gain) or loss	$ 43,630,333	$ 49,817,777	$ (9,317,263)	$ (55,454,843)	$ 275,514,085
9. (Gains) or losses from sources other than investments	(45,863)	(14,469,293)	(32,351,823)	12,290,038	2,601,602
10. Plan changes	-	5,186,817	3,879,584	-	-
11. Assumption changes	27,020,760	(2,843,152)	24,002,185	47,489,610	(105,315,665)

VI. Summary of Plan Provisions

The following summarizes the major provisions of Chapter 32 of the Massachusetts General Laws.

Plan Year

January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

For employees hired prior to April 2, 2012, the annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

Age Last Birthday at Date of Retirement

Percent	Group 1	Group 2	Group 4
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	--	49
1.8	58	--	48
1.7	57	--	47
1.6	56	--	46
1.5	55	--	45

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last three years of creditable service prior to retirement.

For employees hired on April 2, 2012 or later, the annual amount of the retirement allowance is based on the member's final five-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following tables based on the age and years of creditable service of the member at retirement:

Age Last Birthday at Date of Retirement
Employees Hired After April 2, 2012
Members With Less Than 30 Years of Service

Percent	Group 1	Group 2	Group 4
2.50	67 or over	62 or over	57 or over
2.35	66	61	56
2.20	65	60	55
2.05	64	59	54
1.90	63	58	53
1.75	62	57	52
1.60	61	56	51
1.45	60	55	50

Age Last Birthday at Date of Retirement
Employees Hired After April 2, 2012
Members With at Least 30 Years of Service

Percent	Group 1	Group 2	Group 4
2.500	67 or over	62 or over	57 or over
2.375	66	61	56
2.250	65	60	55
2.125	64	59	54
2.000	63	58	53
1.875	62	57	52
1.750	61	56	51
1.625	60	55	50

A member's final five-year average salary is defined as the greater of the highest consecutive five-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last five years of creditable service prior to retirement.

For employees who became members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation for members who retire after April 2, 2012 will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

For all employees, the maximum annual amount of the retirement allowance is 80 percent of the member's final three-year average salary. Any member who is a veteran also receives an additional yearly retirement allowance of $15 per year of creditable service, not exceeding $300. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Employees hired before January 1, 1975 contribute 5 percent of their salary; employees hired after January 1, 1975 and before December 31, 1983 contribute 7 percent; employees hired after January 1, 1984 contribute 8 percent; employees hired after July 1, 1996 contribute 9 percent.

In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of $30,000.

Employees hired after 1983 who leave with less than five years of credited service receive no interest on their contributions, and employees who leave with five but less than ten years receive one-half the rate of regular interest otherwise payable. Commencing July 1, 2010, employees who voluntarily terminate employment, who have less than 10 years of service and request a refund, receive 3% interest on their contributions.

Employees in Group 1 hired on or after April 2, 2012 with 30 years of creditable service or greater will pay a base contribution rate of 6%.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 hired prior to April 2, 2012 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

Members hired prior to April 2, 2012 who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System).

Members of Group 1 hired April 2, 2012 or later may retire upon the attainment of age 60. Members of Group 2 or 4 hired April 2, 2012 or later may retire upon the attainment of age 55. Members of Group 4 may retire upon attainment of age 50 with ten years of creditable service.

Members hired April 2, 2012 or later who terminate before age 55 (60 for members of Group 1) with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (60 for members of Group 1) provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System.

Ordinary Disability Benefits

A member who is unable to perform his job due to a non-occupational disability will receive a retirement allowance if he has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55 (age 60 for Group 1 members hired on or after April 2, 2012), based on the amount of creditable service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his or her own contributions.

Accidental Disability Benefit

For a job-connected disability the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of his or her death, a spouse's benefit will be paid equal to the amount the employee would have received under Option C.

The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. The allowance provided for under this option shall not be less than $250 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held by the member at the time of death, and will be eligible for pay increases that would have been awarded to the officer if they were still living.

Upon the death of a job-connected disability retiree who retired prior to November 7, 1996 and could not elect an Option C benefit, a surviving spouse will receive an allowance of $9,000 per year if the member dies for a reason unrelated to cause of disability.

"Heart and Lung Law" and Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman or permanent member of a police department, or certain employees of a county correctional facility is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed fireman is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. There is an additional presumption for uniformed firemen that certain types of cancer are job-related if onset occurs while actively employed or within five years of retirement.

Options

Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at the time of death contributions not expended for annuity payments will be refunded to his beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing a survivor with two-thirds of the lesser amount. Option C pensioners will have their benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.

Post-Retirement Benefits

The Board has adopted the provisions of Section 51 Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first $12,000 of a retirement allowance. As of July 1, 2012, this increased to an annual COLA in excess of the CPI, but not to exceed 3% of the first $13,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and are not reflected in this report.

Changes in Plan Provisions

Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.

Statistical Section

STATISTICAL SECTION

This part of the WRS' Comprehensive Annual Financial Report presents information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the WRS' overall financial health.

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Schedule of Additions to Plan Net Position by Source

Fiscal Year	Plan Member Contributions	Employer Contributions	Employer Contributions as % of Covered Payroll	Investment Income(a)	Other(b)	Total
2003	$ 11,691,887	18,928,252	13.25	$ 115,602,944	2,783,268	149,006,351
2004	12,187,208	20,150,377	14.52	66,454,940	3,530,693	102,323,218
2005	12,509,613	23,579,478	16.03	55,470,779	3,015,645	94,575,515
2006	13,448,309	23,354,603	16.01	91,535,233	2,982,027	131,320,172
2007	13,922,938	24,166,318	15.81	61,690,401	2,800,696	102,580,353
2008	14,695,126	24,947,158	15.93	(213,653,903)	1,553,980	(172,457,639)
2009	14,785,935	28,505,066	17.17	109,307,795	2,308,137	154,906,933
2010	14,731,633	30,196,904	18.15	83,274,908	2,148,586	130,352,031
2011	14,526,760	32,706,347	20.74	(5,631,768)	2,084,878	43,686,217
2012	15,358,457	35,409,140	21.32	91,252,263	2,040,339	144,060,199

(a) Net of Investment expenses
(b) Includes state pension reimbursements and transfer of employees' contributions from other public pension plans as defined by Massachusetts General Law, Chapter 32.

Schedule of Deductions from Plan Net Position by Type

Fiscal Year	Benefits	Administrative Expenses	Withdrawals(a)	Total
2003	$ 47,848,502	$ 440,294	$ 3,866,838	$ 52,155,634
2004	50,517,094	518,078	3,704,908	54,740,080
2005	52,105,583	556,781	3,996,263	56,658,627
2006	53,350,080	621,648	4,568,178	58,539,906
2007	55,033,466	555,774	4,377,551	59,966,791
2008	56,516,348	554,276	3,303,810	60,374,434
2009	58,698,242	538,983	4,511,626	63,748,851
2010	61,274,343	557,170	4,355,679	66,187,192
2011	64,477,915	569,245	4,538,471	69,585,631
2012	66,303,041	528,845	3,762,744	70,594,630

(a) Includes amounts for employee withrawals and employee transfers to other governmental units.

Schedule of Total Change in Net Position

Fiscal Year	Total Change in Net Assets
2003	$ 96,862,717
2004	47,583,138
2005	37,916,888
2006	72,780,266
2007	42,613,562
2008	(232,832,073)
2009	91,158,082
2010	64,164,839
2011	(25,899,414)
2012	73,465,569

Schedule of Benefit Expenses by Type

Year ended December 31	Regular	Disability	Beneficiary	COLA	Annuities	Total
2003	$ 21,186,242	$ 8,706,365	$ 5,105,775	$ 7,422,192	$ 5,427,928	$ 47,848,502
2004	22,505,296	9,192,940	5,145,320	7,795,981	5,877,557	50,517,094
2005	22,855,516	9,796,237	4,830,540	8,581,377	6,041,913	52,105,583
2006	23,016,975	10,282,032	4,999,986	8,846,248	6,204,839	53,350,080
2007	23,437,804	10,890,179	5,081,340	9,147,566	6,476,577	55,033,466
2008	23,937,559	11,123,001	5,285,744	9,355,548	6,814,496	56,516,348
2009	24,711,047	11,798,651	5,331,443	9,522,992	7,334,109	58,698,242
2010	26,885,194	11,404,371	5,621,282	9,695,254	7,668,242	61,274,343
2011	28,911,453	11,616,006	5,677,792	9,878,255	8,394,409	64,477,915
2012	29,865,177	11,478,657	5,846,990	10,036,821	9,075,396	66,303,041

Schedule of Retired Members by Type of Benefit

	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005	12/31/2004	12/31/2003
Superannuation										
Group 1	1,471	1,499	1,524	1,482	1,493	1,545	1,560	1,577	1,622	1,653
Group 2&4	322	306	302	289	276	270	263	269	270	262
Total	1,793	1,805	1,826	1,771	1,769	1,815	1,823	1,846	1,892	1,915
Ordinary Disability										
Group 1	35	34	33	36	39	43	42	44	41	42
Group 2&4	8	8	7	6	6	7	7	6	5	7
Total	43	42	40	42	45	50	49	50	46	49
Accidental Disability										
Group 1	119	124	117	124	130	128	125	139	139	140
Group 2&4	281	296	301	315	317	319	318	323	321	315
Total	400	420	418	439	447	447	443	462	460	455
Benficiaries										
Group 1	310	304	311	340	349	361	373	389	395	408
Group 2&4	208	205	203	182	182	176	176	172	174	169
Total	518	509	514	522	531	537	549	561	569	577
Total Retired Members										
Group 1	1,935	1,961	1,985	1,982	2,011	2,077	2,100	2,149	2,197	2,243
Group 2&4	819	815	813	792	781	772	764	770	770	753
Total	2,754	2,776	2,798	2,774	2,792	2,849	2,864	2,919	2,967	2,996

Source: Actuarial valuation as of January 1, 2012

Schedule of Average Benefit Payments (2011 and 2012)

	2011 (a)			2012 (a)		
Years of Credited Service	Average Monthly Benefit ($)	Average Final Average Salary ($)	Number of Retired Members (b)	Average Monthly Benefit ($)	Average Final Average Salary ($)	Number of Retired Members (b)
0	706	4,320	1	1,154	20,974	2
1 - 5	1,365	18,653	34	1,513	20,504	32
6 - 10	952	22,003	175	1,029	22,961	164
11 - 15	1,018	23,755	350	1,054	24,561	328
16 - 20	1,329	26,953	405	1,354	27,431	404
21 - 25	1,819	33,984	376	1,874	34,923	370
26 - 30	2,626	40,393	312	2,674	41,175	313
31 - 35	3,402	50,416	395	3,496	52,036	403
36 - 40	3,497	52,215	187	3,588	53,742	185
41 - 45	3,003	43,288	30	3,083	44,075	32
46 - 50	2,381	43,069	2	2,413	43,069	2
51 - 55	3,334	51,857	1	3,367	51,857	1

(a) Data in the format presented in this table is provided beginning in calendar year 2011, which is the first year data in this format is available. Please see the "Schedule of Average Benefit Payments (2003-2010)" for average benefit payment data for calendar years 2003-2010.

(b) Since the data in this table is organized by creditable service, it does not include "Beneficiaries"

Schedule of Average Benefit Payments (2003-2010) (a)

Year ended December 31	Number	Annual benefits ($)	Monthly average ($)	Annual average ($)	% Increase
2003	2,996	47,848,502	1,331	15,971	10.08
2004	2,967	50,517,094	1,419	17,026	6.61
2005	2,919	52,105,583	1,488	17,850	4.84
2006	2,864	53,350,080	1,552	18,628	4.36
2007	2,849	55,033,466	1,610	19,317	3.70
2008	2,792	56,516,348	1,687	20,242	4.79
2009	2,774	58,698,242	1,763	21,160	4.54
2010	2,798	61,274,343	1,825	21,899	3.49

(a) Data in the format presented in this table is provided for calendar years 2003-2010. The table provides for the most comprehensive average benefit payment data available for this time period.

Schedule of Participating Employers

Fiscal Year	Employer Name	Number of Covered Employees	Percentage of Total Covered Employees
2003	City of Worcester	3,447	95.0%
2003	Worcester Housing Authority	181	5.0%
2012	City of Worcester	3,067	94.1%
2012	Worcester Housing Authority	193	5.9%

Source: The WRS administrative staff