

**Worcester Retirement System  
Worcester, Massachusetts  
(A Component Unit of the  
City of Worcester, Massachusetts)**

**Comprehensive Annual Financial Report**

**Fiscal Year Ended December 31, 2009**



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

**Comprehensive Annual Financial Report  
For the Fiscal Year Ended December 31, 2009**

**Prepared by the Staff of the  
Worcester Retirement System**

## Table of Contents

### Introductory Section:

2. Chairman's Letter
4. Letter of Transmittal
8. Retirement Board Members
8. Administrative Staff
8. Organizational Chart
9. Consultants and Professional Services
10. Certificate of Achievement for Excellence in Financial Reporting

### Financial Section:

12. Independent Auditors' Report
14. Management's Discussion & Analysis
- Basic Financial Statements:**
20. Statement of Plan Net Assets
21. Statement of Changes in Plan Net Assets
22. Notes to Financial Statements
- Required Supplementary Information:**
32. Schedule of Funding Progress
32. Schedule of Employer Contributions
- Supplementary Information:**
33. Schedule of Administrative Expenses
34. Schedule of Investment and Consultants' Expenses

### Investment Section:

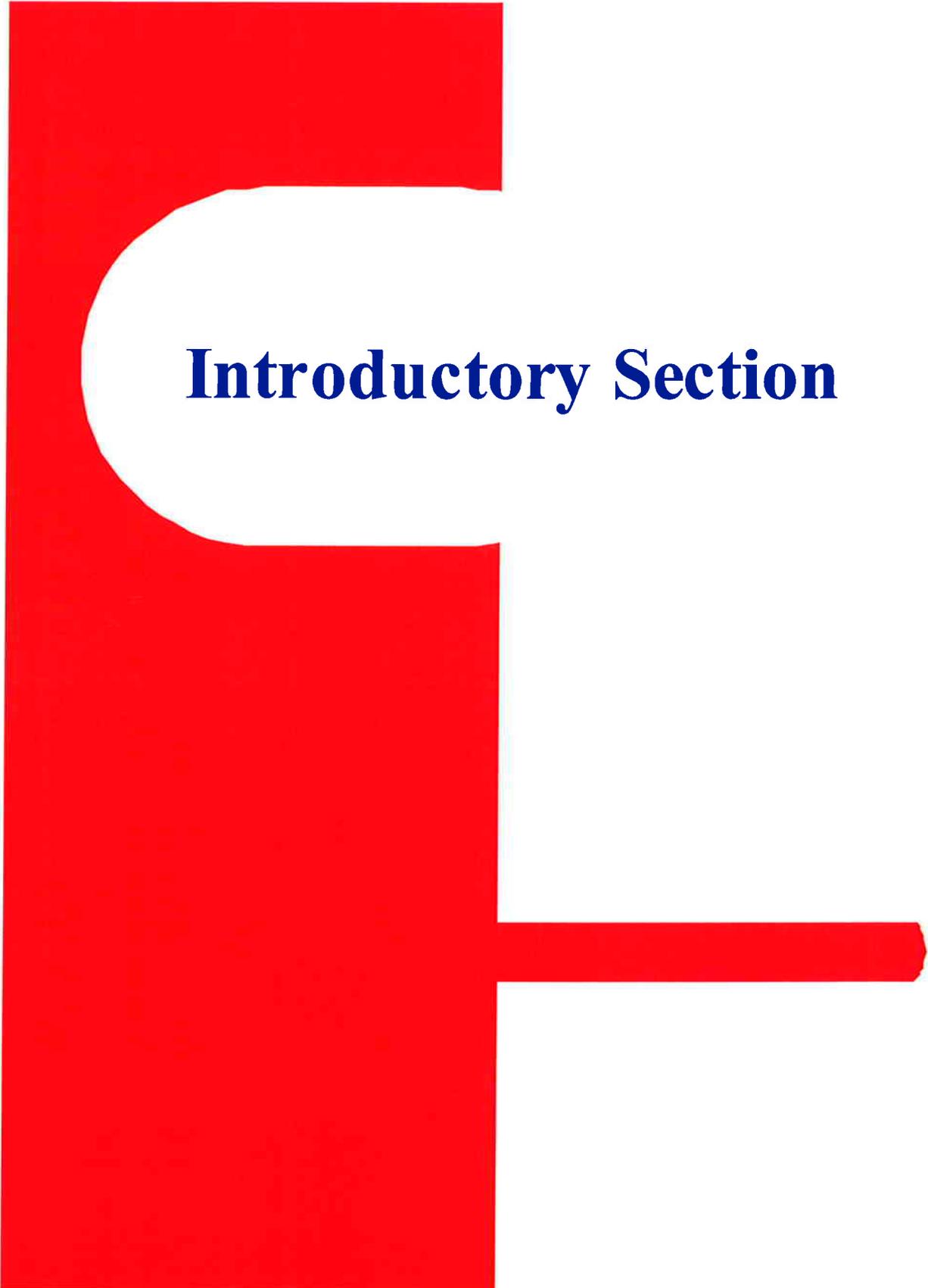
36. Report on Investment Activity
36. Outline of Investment Policies
44. Investment Results
45. Asset Allocation
47. Ten Largest Stock Holdings by Fair Value
48. Ten Largest Fixed Income Holdings by Fair Value
49. Schedule of Fees and Commissions
50. Commissions to Brokers
53. Investment Summary
54. Liquidity Profile

### Actuarial Section:

56. Actuarial Certification Letter (The Segal Company)
58. Summary of Actuarial Assumptions and Actuarial Cost Method
61. Schedule of Active Member Valuation Data
61. Schedule of Retirants and Beneficiaries added to and removed from Rolls
62. Solvency Test
62. Analysis of Financial Experience
63. Summary of Plan Provisions

### Statistical Section:

67. Narrative and Table of Contents
68. Schedule of Additions to Plan Net Assets by Source
68. Schedule of Deductions from Plan Net Assets by Type
69. Schedule of Total Change in Net Assets
69. Schedule of Benefit Expenses by Type
70. Schedule of Retired Members by Type of Benefit
70. Schedule of Average Benefit Payments
71. Schedule of Participating Employers



# **Introductory Section**

# **Worcester Retirement System**

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

## **Chairman's Letter**

June 4, 2010

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, 2009. 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 six 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 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.

On the whole markets rebounded last year after a very difficult 2008 and helped produce a time weighted investment return of 21.12% for our fund, which was well in excess of our actuarial benchmark of 8.25%. Many asset classes that suffered heavy losses in 2008 such as emerging market equities and high yield bonds produced stellar returns in 2009. Treasury bonds, which were one of the few assets classes that produced positive returns in 2008, experienced losses in 2009. Equity REITS rebounded from a difficult 2008 to produce positive returns while private REITS experienced large losses in 2009 after a flat 2008.

Last year the WRS unfunded actuarial accrued liability increased from \$297.7 million to \$308.2 million on an actuarial basis but decreased by \$33 million to \$370.0 million on a market basis as previously deferred investment losses were recognized on the actuarial basis. There was an experience gain of \$43.2 million with an investment gain of \$55.5 million being partially offset by a \$12.3 million loss because of greater than expected salary increases and fewer deaths than expected. The current actuarial valuation has been changed to reflect increased mortality going forward.

The current funding schedule sets an employer funding requirement of \$29.8 million up from \$28.5 million in the prior year. The funding schedule takes advantage of recently passed legislation and has been extended to mature in 2040. Prior to this legislative change the funding schedule matured in 2030, the legal maximum and if there were no changes to this the employer funding requirement would have been \$33.5 million using the same assumptions employed in the latest valuation.

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,

A handwritten signature in cursive script that reads "James DelSignore".

James DelSignore, CPA  
Chairman

## Worcester Retirement System

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

June 4, 2010

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, 2009. 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, 2008. This was the sixth 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 only. 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 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 and leveraged buyouts) are part of the mix. The investment market results have demonstrated the importance of a diversified asset allocation.

WRS investment return of 20% for 2009 exceeded both the actuarial expected rate of return and the Investment Policy benchmark. This gain follows last year's significant losses as a result of a global recession. Please refer to the Investment Section of this CAFR for more information on investment results.

## **Major Initiatives**

### **Benefits**

A cost of living adjustment (COLA) was provided for retirees and survivors effective July 1, 2009. The 3% COLA was paid on a base of \$12,000 (maximum \$360), the most allowed by law. The WRS has granted the maximum increase every year since enactment of the legislation in 1997.

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 ownership and control of 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 mandatory transfer of system assets.

## **Administration**

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](http://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 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 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*; and No. 40 *Deposit and Investment Risk Disclosures (an amendment of GASB No. 3)*.

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, 2009 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, 2009.

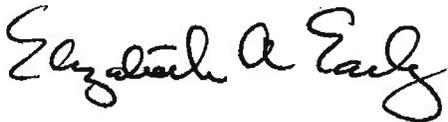
### **Actuarial Funding**

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, 2010, the funded ratio of the WRS was calculated at 68.80%, a .82% increase from the prior year.

### **Acknowledgements**

The publication of this report represents the combined efforts of the WRS Board, staff, Sullivan, Rogers & Company, LLC and consultants. We are proud to present this report to our members. We feel it is important to provide a CAFR for our members and other interested parties to follow the progress of the WRS.

Respectfully submitted,



Elizabeth A. Early  
Executive Secretary

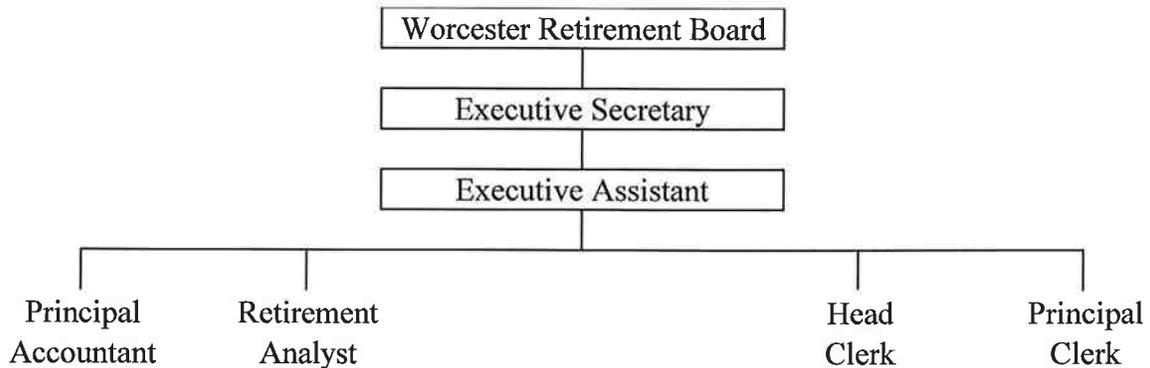
**Retirement Board Members**

		<u>Terms</u>
James DeSignore	Ex-Officio Member	N/A
Stephen F. Wentzell	City Manager Appointee	At the discretion of the City Manager
Elizabeth A. Early	Elected Member	11/01/2007 - 10/31/2010
John F. Mahan	Elected Member	01/01/2009 - 12/31/2011
Thomas Wade	Appointed Member	01/09/2009 - 01/08/2012

**Administrative Staff**

Elizabeth A. Early	Executive Secretary
Judith McMillen	Executive Assistant
Donna Tyndall	Principal Accountant
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**

Columbia Management Advisors, LLC  
Hartford, CT  
Enhanced Investment Technologies, LLC  
West Palm Beach, FL  
Lee Munder Capital Group  
Boston, MA  
Loomis Sayles & Company, L.P.  
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  
The Boston Company Asset Management, LLC  
Boston, MA  
State Street Global Advisors  
Boston, MA  
Lazard Asset Management  
New York, NY

**ALTERNATIVE CAPITAL  
INVESTMENT MANAGERS**

Ascent Venture Management  
Boston, MA  
Benchmark Plus Management  
Tacoma, WA  
Boston Capital Ventures  
Boston, MA  
Boston Millennia Partners  
Boston, MA  
Charlesbank Capital Partners  
Boston, MA  
Concord Partners L.P.  
Wellesley, 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

**REAL ESTATE MANAGERS**

Bailard Fund Services, Inc.  
Foster City, CA  
Heitman Investment Management  
Chicago, IL  
Intercontinental Real Estate Corp.  
Boston, MA  
INVESCO Core Real Estate  
New York, NY  
RREEF America, LLC  
Chicago, IL  
RMK Timberland a div. of Regions Bank  
Winston-Salem, NC  
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  
Mass PRIM  
Boston, MA

**LEGAL ADVISORS**

The Law Offices of Michael Sacco  
Southampton, 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, 2008

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.

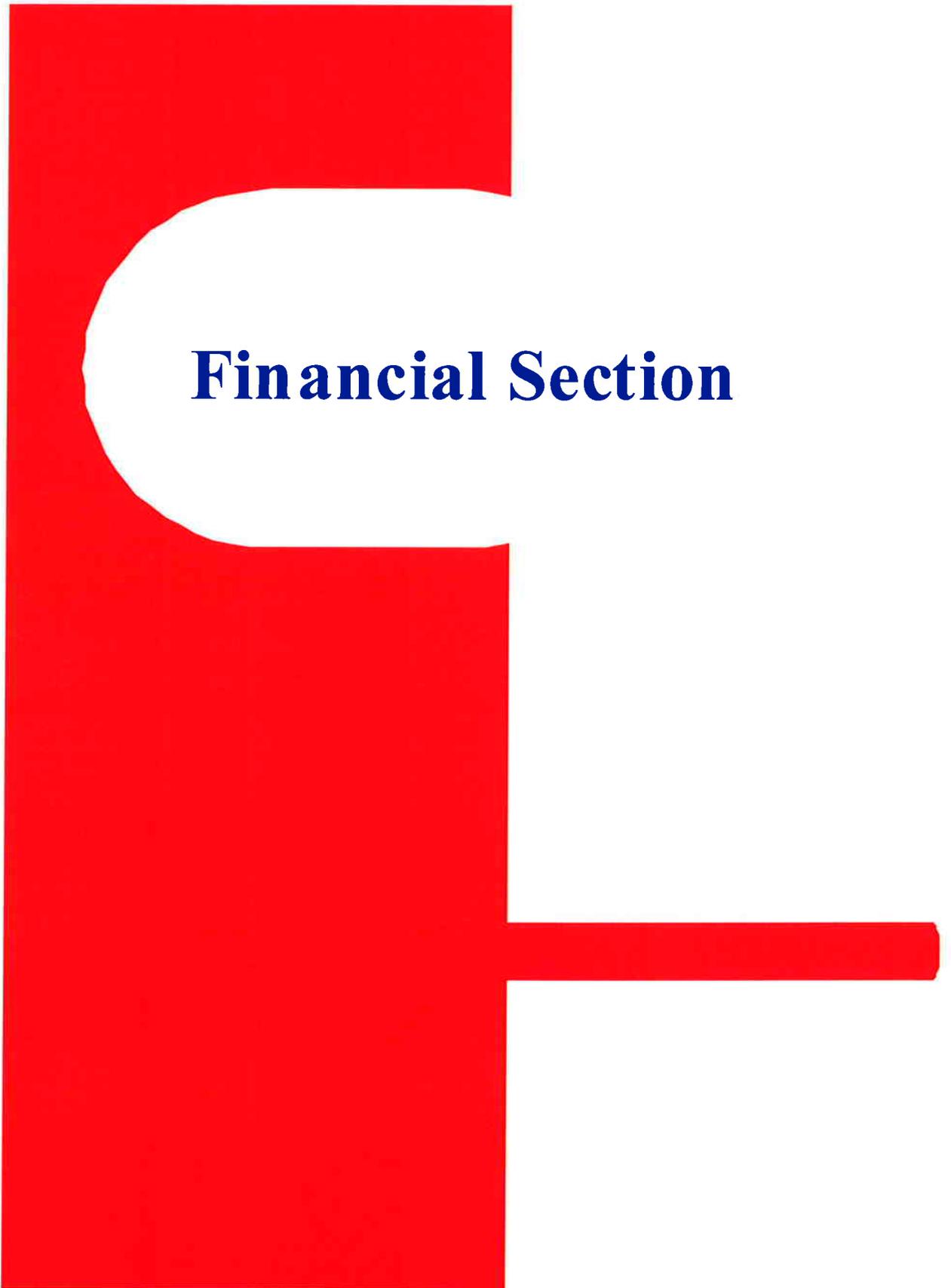


A large, stylized handwritten signature in black ink, appearing to read "JEFFREY R. EGAN".

President

A smaller, more legible handwritten signature in black ink, appearing to read "Jeffrey R. Egan".

Executive Director



# **Financial Section**



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 basic 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, 2009, as listed in the table of contents. These financial statements are the responsibility of the WRS's management. 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 of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the WRS as of December 31, 2009, and the respective change in financial position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with Government Auditing Standards, we have also issued our report dated June 4, 2010, on our consideration of the WRS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in conjunction with this report in considering the results of our audit.

The management's discussion and analysis (located on pages 14 through 19) and historical pension information (located on page 32) are not a required part of the basic financial statements but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the WRS's basic 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 basic financial statements. The supplementary information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole. The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

*Sullivan, Day & Company, LLC*

June 4, 2010

## 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, 2009. Please read it in conjunction with the transmittal letter in the Introductory Section, at the front of this report, and the basic 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 basic 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, 2009, the funded ratio was 68.80% based on the actuarial value of assets at that date.

Net assets increased during the year by \$91.2 million, or 17.3%, because of improved investment returns. Net assets are 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 \$109.3 million. The dollar-weighted investment rate of return was 20.0% compared with a negative return of 27.1% in the previous year (refer to the "Investment Results" table in the Investment Section).

### Overview of the Financial Statements

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

The *Statement of Plan Net Assets* 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:  $\text{Assets} - \text{Liabilities} = \text{Net Assets held in trust for pension benefits}$ . 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 Assets reports the financial position of the WRS at December 31, 2009. Over time, the increase or decrease in net assets serves as a useful indicator of the WRS's financial health.

The *Statement of Changes in Plan Net Assets* presents information showing how the WRS's net assets held in trust for pension benefits changed during the year ended December 31, 2009. 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, 2009 were \$687.6 million and were primarily comprised of cash and cash equivalents, receivables, and investments. Total assets increased \$90.9 million, or 15.2%, from the prior year primarily due to investment gains.

Total liabilities as of December 31, 2009 were \$69.8 million and were primarily comprised of payables for securities purchased as well as payables to other state retirement plans and collateral held under securities lending arrangements. Total liabilities decreased by \$281 thousand.

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

## Management's Discussion & Analysis

### Net Assets

Net assets of the WRS totaled \$617.7 million at the close of the fiscal year and are summarized as follows:

	<b>Plan Net Assets</b> (In thousands of dollars)	
<b>Assets</b>	<b>2009</b>	<b>2008</b>
Cash and cash equivalents	\$ 5,329	\$ 4,540
Investments	613,478	523,221
Securities lending short-term collateral investment pool	67,088	66,281
Receivables:		
Interest due and accrued	1,062	950
Due from Commonwealth of Massachusetts and other systems	470	356
Receivable for securities sold	59	1,192
Other	88	157
<b>Total assets</b>	<b>687,574</b>	<b>596,697</b>
<b>Liabilities</b>		
Accounts payable and accrued expenses	297	263
Due to Commonwealth of Massachusetts and other systems	2,323	2,421
Payable for securities purchased	130	1,154
Collateral held on securities lending transactions	67,088	66,281
<b>Total liabilities</b>	<b>69,838</b>	<b>70,119</b>
<b>Net assets held in trust for pension benefits</b>	<b>\$ 617,736</b>	<b>\$ 526,578</b>

## Management's Discussion & Analysis

### Changes in Net Assets

The WRS's total net assets increased by \$91.2 million during the current fiscal year and are summarized as follows:

### Changes in Net Assets

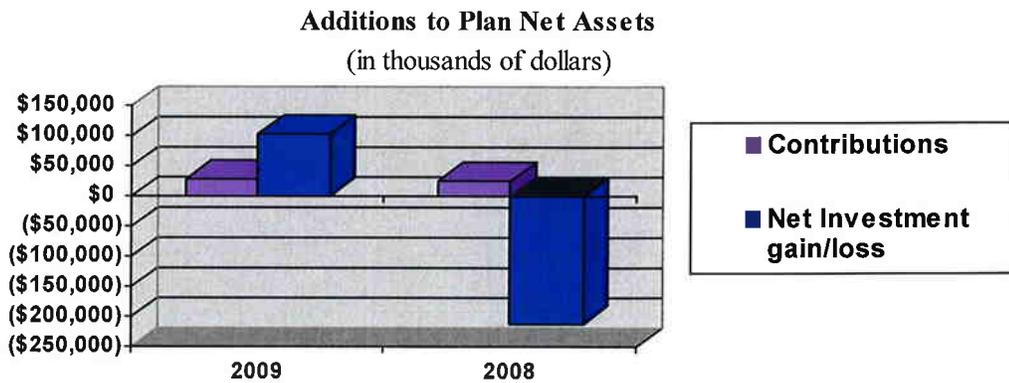
(in thousands of dollars)

	<u>2009</u>	<u>2008</u>
<b>Additions</b>		
Contributions:		
Employers	\$ 28,505	\$ 24,947
Plan members	14,786	14,695
Reimbursements from Commonwealth of Massachusetts	1,926	1,198
Reimbursements from other Systems	382	356
Net investment income:		
Interest and dividends	9,887	9,328
Securities lending income	627	601
Net realized and unrealized gains (losses)	102,243	(219,967)
Less: management fees	(3,158)	(3,197)
Less: borrower rebates & fees	(292)	(420)
	<u>154,906</u>	<u>(172,459)</u>
<b>Deductions</b>		
Benefits payments to plan members and beneficiaries	58,698	56,516
Reimbursements to other systems	2,741	2,002
Refunds and transfers of plan member accounts to other systems	1,770	1,302
Administrative expenses	539	554
	<u>63,748</u>	<u>60,374</u>
	<u>91,158</u>	<u>(232,833)</u>
Net assets held in trust for pension benefits:		
Beginning of year	<u>526,578</u>	<u>759,411</u>
End of year	<u>\$ 617,736</u>	<u>\$ 526,578</u>

## Management's Discussion & Analysis

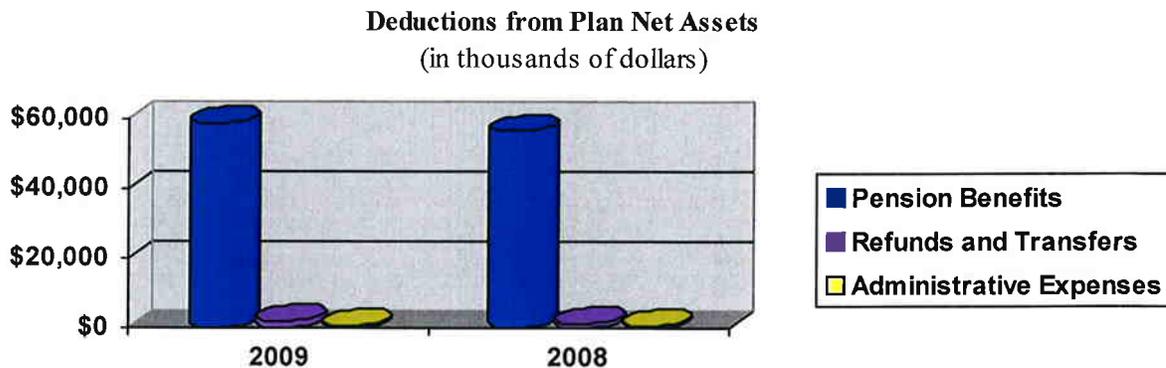
### Additions to Plan Net Assets

The amount needed to finance benefits is accumulated through the collection of employers' and employees' 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 2009 resulted in total additions to net assets of \$154.9 million. Employers' contributions increased by \$3.6 million in 2009. The WRS had a net investment gain of \$109.3 million in 2009 versus a loss of \$213.7 million in 2008.



### Deductions from Plan Net Assets

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 assets for 2009 were \$63.7 million, which represents an increase of 5.6% over deductions of \$60.4 million in 2008. The payment of pension benefits increased by \$2.2 million, or 3.9%, over the previous year. The increase in these expenses resulted from an increase in benefit payments to newer retirees with higher average compensation offset by a small decrease in the number of pensioners and beneficiaries.



## **Management's Discussion & Analysis**

### **Overall Financial Position of WRS**

Due to the recovery in the financial markets, the WRS has experienced an increase in its investment portfolio for the fiscal year ending December 31, 2009. 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 Assets**  
December 31, 2009

<b>Assets</b>	
Cash & Cash Equivalents	\$ <u>5,328,370</u>
Investments:	
Equities	163,884,508
Fixed Income	97,249,298
Pooled Equities	153,977,582
Pooled Fixed Income	30,627,508
Real Estate	62,541,276
Alternative Investments	<u>105,197,318</u>
Total investments	<u>613,477,490</u>
Securities lending short-term collateral investment pool	<u>67,088,488</u>
Receivables:	
Accrued interest and dividends	1,062,423
Due from Commonwealth of Massachusetts and other systems	469,904
Receivable for securities sold	59,260
Other	<u>87,820</u>
Total receivables	<u>1,679,407</u>
Total plan assets	<u>687,573,755</u>
<b>Liabilities</b>	
Accounts payable and accrued expenses	296,591
Due to Commonwealth of Massachusetts and other systems	2,322,685
Payable for securities purchased	129,650
Collateral held on securities lending transactions	<u>67,088,488</u>
Total plan liabilities	<u>69,837,414</u>
<b>Net assets held in trust for pension benefits</b>	<b>\$ <u><u>617,736,341</u></u></b>

See accompanying notes to financial statements.

**WORCESTER RETIREMENT SYSTEM**  
(A Component Unit of the City of Worcester, Massachusetts)  
**Statement of Changes in Plan Net Assets**  
Year ended December 31, 2009

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**Additions:**

Contributions:

Employers	\$	28,505,066
Plan members		14,785,935
Reimbursements from Commonwealth of Massachusetts		1,925,710
Reimbursements from other systems		382,427
		382,427

Total contributions 45,599,138

Investment income (loss):

Interest and dividends		9,887,014
Securities lending income		627,400
Net realized and unrealized gains (losses)		102,243,361
Less: management fees		(3,157,662)
Less: borrower rebates and fees under securities lending program		(292,318)
		(292,318)

Net investment income 109,307,795

Total additions 154,906,933

**Deductions:**

Benefit payments to plan members and beneficiaries		58,698,242
Reimbursements to other systems		2,741,372
Refunds and transfers of plan member accounts to other systems		1,770,254
Administrative expenses		538,983
		538,983

Total deductions 63,748,851

Change in plan net assets 91,158,082

Net assets held in trust for pension benefits:

Beginning of year 526,578,259

**End of year** \$ 617,736,341

See accompanying notes to financial statements.

**Notes to Financial Statements  
December 31, 2009**

**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) Deposits and Investments**

Cash and cash equivalents are 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, the structure, risk profile, return potential and marketability of those investments differ from traditional equity and fixed income investments. Determination of the value of these investments involves subjective judgment because the actual market value can be determined only by negotiation between the parties to a sales transaction. As a result, the 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 (WHA). For the year ended December 31, 2009, the City's payroll for employees covered by WRS was approximately \$166,400,000; the City's total payroll was approximately \$320,400,000.

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, 2009:

Active employees	3,287
Pensioners and beneficiaries	2,774
Inactive employees	<u>759</u>
Total members	<u><u>6,820</u></u>
Number of participating employers	<u><u>2</u></u>

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 except for employees of the City's Police and Fire departments, whose normal retirement age is 55. Retired employees receive an allowance based upon the average of their three highest average salary years of service 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.

Employees may elect early retirement after 20 years of service or at any time after attaining age 55 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), for members leaving the City's employment to work for other Massachusetts governmental units, 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 for the City or the WHA. Liability for the service transfer is not calculated until the member's actual retirement date. 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, 2009, the WRS's bank balance of \$514,460 was not exposed to custodial credit risk.

Investments Summary

The WRS's investments at December 31, 2009 are presented below. All investments are presented by investment type, with debt securities presented by maturity.

Investment Type	Fair Value	Investment Maturities (in Years)			
		Less Than 1	1 - 5	6 - 10	More Than 10
<u>Debt Securities:</u>					
U.S. Treasuries.....	\$ 61,594,295	\$ 31,289,218	\$ 13,170,366	\$ 8,978,297	\$ 8,156,414
U.S. Agencies.....	19,584,682	297,323	2,940,520	2,627,245	13,719,594
Corporate bonds.....	46,658,085	6,660,566	10,523,984	15,750,782	13,722,753
Money market mutual funds..	2,336,758	2,336,758	-	-	-
Debt security mutual funds....	37,750,464	30,627,508	408,660	361,836	6,352,460
Total debt securities.....	167,924,284	\$ 39,922,155	\$ 13,873,164	\$ 18,739,863	\$ 33,794,807
<u>Other Investments:</u>					
Equity securities.....	62,206,454				
Equity mutual funds.....	285,033,404				
Real estate investments.....	62,541,276				
Alternative investments.....	105,197,318				
Total other investments.....	514,978,452				
Total investments.....	\$ 682,902,736				

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, 2009, 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, 2009, the credit quality ratings of the WRS's debt securities are as follows:

Quality Ratings *	Investment Type			Fair Value
	Corporate Bonds	Money Market Mutual Funds	Debt Security Mutual Funds	
AAA.....	\$ 221,664	\$ -	\$ 2,248,228	\$ 2,469,892
AA+.....	440,063	-	-	440,063
AA.....	361,836	-	361,836	723,672
AA-.....	939,791	-	-	939,791
A+.....	-	-	898,014	898,014
A.....	3,699,224	-	240,591	3,939,815
A-.....	668,940	-	300,629	969,569
BBB+.....	2,755,571	-	657,060	3,412,631
BBB.....	3,468,313	-	80,656	3,548,969
BBB-.....	2,864,720	-	-	2,864,720
BB+.....	2,060,615	-	74,562	2,135,177
BB.....	5,193,844	-	97,277	5,291,121
BB-.....	3,188,602	-	-	3,188,602
B+.....	3,245,612	-	-	3,245,612
B.....	2,409,581	-	-	2,409,581
B-.....	3,792,510	-	82,927	3,875,437
CCC+.....	1,169,945	-	-	1,169,945
CCC.....	2,701,740	-	864,352	3,566,092
D.....	149,091	-	-	149,091
Unrated.....	7,326,423	2,336,758	31,844,332	41,507,513
Total.....	\$ <u>46,658,085</u>	\$ <u>2,336,758</u>	\$ <u>37,750,464</u>	\$ <u>86,745,307</u>

\* 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, 2009, the WRS's exposure to foreign currency risk is as follows:

Deposit/Investment Type	U.S. Dollar Balances	Currency
U.S. Agencies.....	\$ 717,867	Canadian dollar
U.S. Agencies.....	684,004	Mexican peso
Corporate bonds.....	227,545	Australian dollar
U.S. Agencies.....	197,483	Australian dollar
Corporate bonds.....	75,874	Indonesian rupiah
Corporate bonds.....	61,617	Canadian dollar
Total.....	\$ 1,964,390	

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, 2009, 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 transactions 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, 2009. 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, 2009, 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, 2009 and 2008 was \$67,088,488 and \$66,610,941 and \$66,280,770 and \$66,105,108, respectively. Borrower rebates and fees paid to the broker were \$292,318 for the year ended December 31, 2009.

### **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 5%, 7%, 8% or 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. 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% on the first \$12,000 of a retirement allowance. The WRS has granted the maximum increase every year since June 30, 1998.

The funded status of the WRS at January 1, 2010, 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
1/1/2010	\$ 679,509,973	987,692,295	308,182,322	68.80	\$ 166,392,075	185.21

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, 2010
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level payments on the 2002 and 2003 ERI liability and the Section 90 ACD liability and 4.0% increasing payments on the remaining unfunded liability
Remaining amortized period (period is closed)	8 years for the 2002 ERI liability 2 years for the 2003 ERI liability 4 years for the Section 90 ACD liability and 30 years for the remaining unfunded liability
Asset valuation method	The difference between the expected return and the actual investment return on a market value basis recognized over a five-year period

#### Actuarial assumptions:

Investment rate of return	8.25%
Projected salary increases	5.00%
Rate of inflation	4.00%
Cost of living adjustments	3.00% of the first \$12,000 of retirement income

**6. Legally Required Reserve Accounts**

The balances in the WRS' legally required reserves as of December 31, 2009 are as follows:

<u>Description</u>	<u>Amount</u>	<u>Purpose</u>
Annuity Savings Fund	\$ 158,217,390	Active members' contribution balance
Annuity Reserve Fund	51,189,383	Retired members' contribution account
Military Service Fund	15,673	Members' contribution account while on military leave
Pension Reserve Fund	376,643,013	Amounts appropriated to fund future retirement
Pension Fund	<u>31,670,882</u>	Remaining net assets
 Total	 \$ <u>617,736,341</u>	

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

**7. Implementation of GASB Pronouncements**

During fiscal year 2009, the WRS implemented the following GASB pronouncements:

- Statement #52, Land and Other Real Estate Held as Investments by Endowments. The implementation of this Statement had no impact on the financial statements.

**Required Supplementary Information  
December 31, 2009**

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 funded status of the WRS.

**Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Plan Assets *	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio (%)	Covered Payroll	UAAL as a Percent of Covered Payroll (%)
	(a)	(b)	(b - a)	(a/b)	(c)	(b - a)/c
1/1/2005	\$ 606,099,616	771,948,311	165,848,695	78.52	\$ 147,126,606	112.73
1/1/2006	644,016,504	806,957,464	162,940,960	79.81	145,830,593	111.73
1/1/2007	716,796,770	837,608,233	120,811,463	85.58	152,838,201	79.05
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

\* The 1/1/2005 through 1/1/2008 actuarial valuations valued plan assets at market value. The 1/1/2009 and 1/1/2010 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	Percentage of Annual Required Contributed (%)
2004	\$ 20,150,377	100
2005	23,579,478	106
2006	23,354,603	100
2007	24,166,318	100
2008	24,947,158	100
2009	28,505,066	100

**Supplementary Information**  
**December 31, 2009**

**Schedule of Administrative Expenses**

The composition of administrative expenses for the year ended December 31, 2009 is as follows:

Personal Services:	
Staff Salaries	\$ 347,559
Board Member Compensation	15,000
Insurance	<u>36,991</u>
Total Personal Services	<u>399,550</u>
Professional Services:	
Legal Expenses	66,814
Actuarial Fees	27,500
Audit Fees	20,000
Medical Fees	<u>852</u>
Total Professional Services	<u>115,166</u>
Miscellaneous:	
Travel	1,766
Printing	363
Other	<u>22,138</u>
Total Miscellaneous	<u>24,267</u>
Total Administrative Expenses	<u>\$ 538,983</u>

### Schedule of Investment and Consultants' Expenses

#### Investment Expenses

##### Management Fees:

Domestic & Equity Managers	\$ 384,533
Venture Capital Funds	1,159,263
Domestic Fixed Income Managers	346,091
International Investments Managers	374,737
Real Estate Investments Managers	520,374
Consultant Fees	170,000
Custodial Fees	<u>202,664</u>
Total Management Fees	<u>3,157,662</u>

##### Securities Lending Fees:

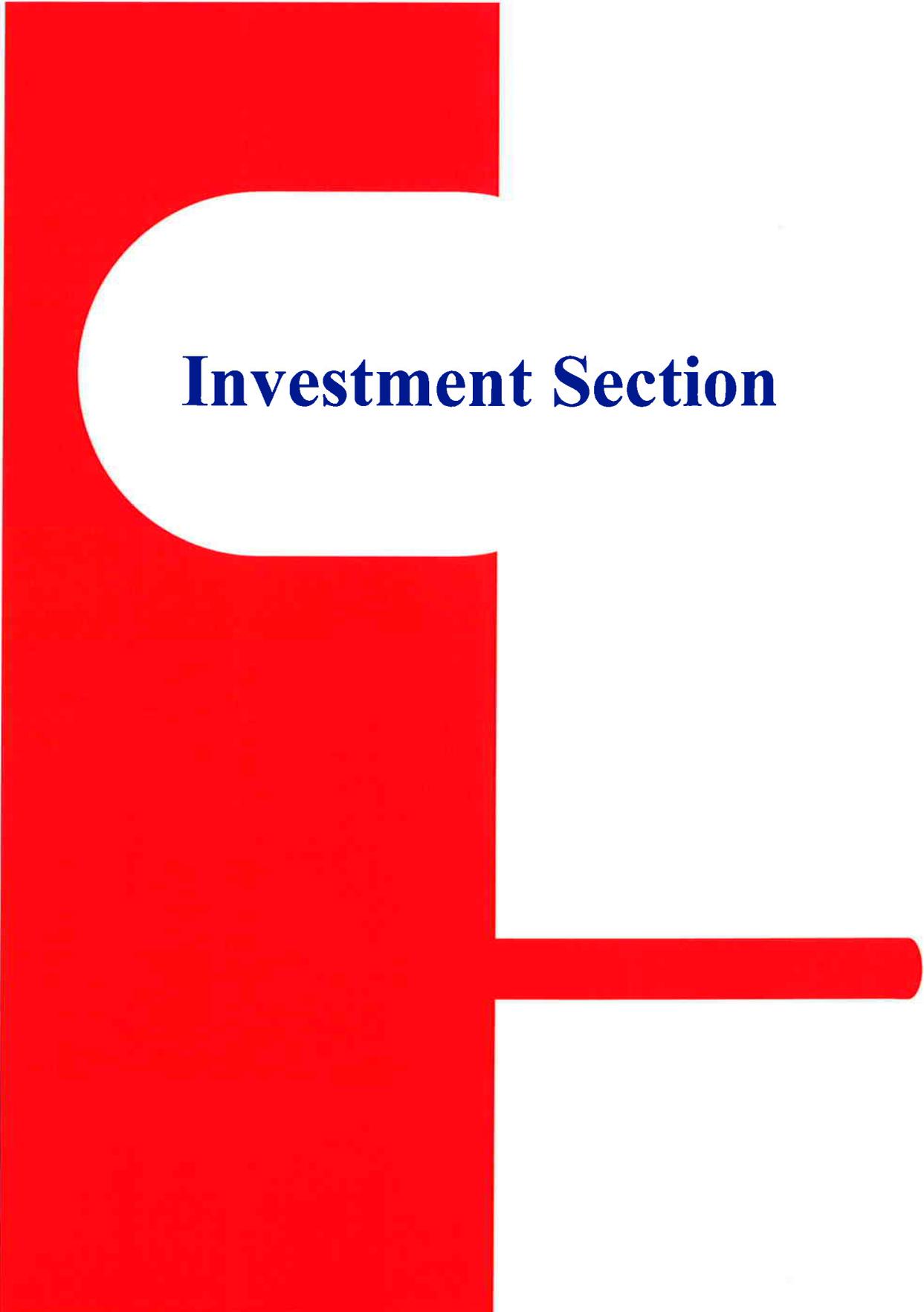
Borrowers Rebates	148,426
Fees	<u>143,892</u>
Total Securities Lending Fees	<u>292,318</u>

Total Investment Expenses	<u><u>\$ 3,449,980</u></u>
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#### Consultant Expenses:

Independent Audit Fees	\$ 20,000
Actuarial Fees	27,500
Legal Fees	<u>66,814</u>

Total Consultant Expenses	<u><u>\$ 114,314</u></u>
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# **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, 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 8.25%.

## **III. Investment Constraints**

### **Legal and Regulatory**

The WRS is a qualified defined benefit pension plan governed by the Massachusetts General Laws, Chapter 32. 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 \$58.7 million to \$96.3 million over the next ten years, while cash flows are expected to rise from approximately \$45.6 million to \$65.7 million (covering normal costs and expenses) over the same period. This pattern results in a net negative cash flow of up to 4.9% of WRS assets, based on the WRS's year-end asset value and the actuarial assumed rate of return of 8.25% 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:

<b>Asset Type</b>	<b>Asset Class</b>	<b>Purpose</b>
Equity	U.S. Common Stocks	Total Return Potential
Equity	Non-U.S. Common Stocks	Total Return Potential Diversification
Equity	Private Markets	Total Return Potential Diversification
Fixed Income	Investment Grade Bonds	Return Stability Income
Fixed Income	TIPS	Return Stability Income
Fixed Income	High Yield Bonds	Total Return Potential Diversification Income
Fixed Income	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
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**

	<b>Target (%)</b>	<b>Range (%)</b>
<b>Domestic Equity</b>	<b>31%</b>	<b>21-41%</b>
Domestic Equity: Large Cap	19%	14%-24%
Domestic Equity: Mid Cap	5%	3%-7%
Domestic Equity: Small Cap	5%	3%-7%
Portable Alpha: Large Cap	2%	1%-3%
<b>Foreign Equity</b>	<b>20%</b>	<b>15-25%</b>
Developed: Large Cap	14%	11%-17%
Developed: Small Cap	3%	2%-4%
Emerging Markets	3%	2%-4%
<b>Investment Grade Bonds</b>	<b>7%</b>	<b>5-9</b>
<b>Treasury Inflation-Protected Securities (TIPS)</b>	<b>4%</b>	<b>3-5</b>
<b>High yield Bonds / Bank Loans</b>	<b>10%</b>	<b>7-13</b>
<b>Real Estate<sup>1</sup></b>	<b>10%</b>	<b>7-13</b>
<b>Timber</b>	<b>3%</b>	<b>2-4</b>
<b>Private Equity</b>	<b>6%</b>	<b>4-8</b>
<b>Absolute Return</b>	<b>5%</b>	<b>3-7</b>
<b>Total Global Tactical Asset Allocation Assets</b>	<b>2%</b>	<b>1-3</b>
<b>Infrastructure Assets</b>	<b>2%</b>	<b>1-3</b>
<b>Cash<sup>2</sup></b>	<b>0%</b>	<b>&lt;5%</b>

<sup>1</sup> The Retirement System is restricted by PERAC to target allocations of 10% for real estate, 10% for private equity, and 7.5% for absolute return 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.

<sup>2</sup> 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.

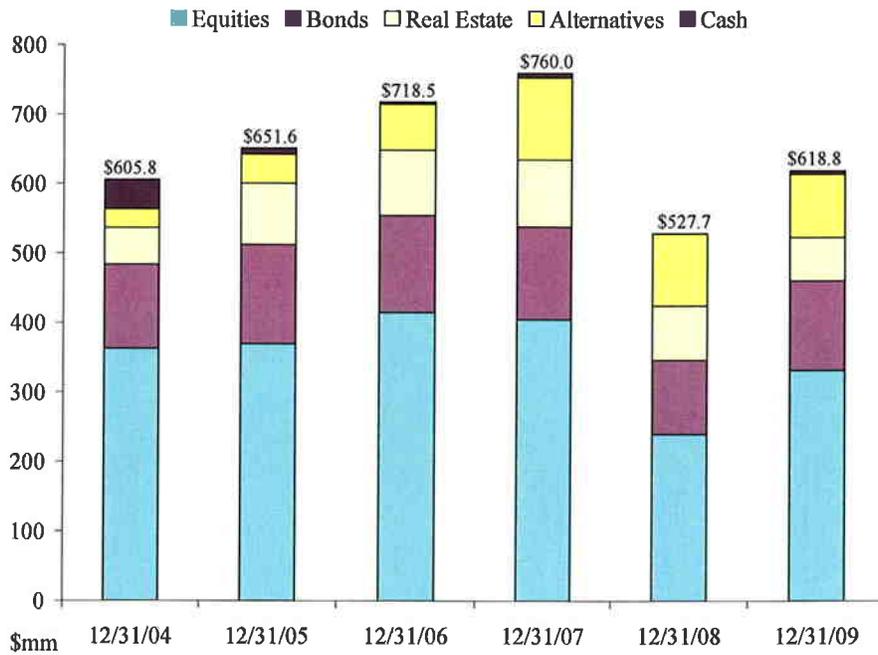
**Investment Results\***

	4Q09	1 YR	3 YR	5 YR	10 YR	Since Inception	Inception Date
<b>Total System</b>	<b>3.4</b>	<b>20.0</b>	<b>-1.6</b>	<b>3.7</b>	<b>3.7</b>	<b>7.4</b>	<b>10/1/1995</b>
CPI (inflation)	0.0	2.7	2.3	2.6	2.5	2.4	
<b>Total Equity</b>	<b>4.5</b>	<b>35.0</b>	<b>-5.2</b>	<b>2.3</b>	<b>1.7</b>	<b>4.3</b>	
Russell 3000	5.9	28.3	-5.4	0.8	-0.2	-0.1	
MSCI ACWI Free (ex. U.S.)	3.7	41.4	-3.5	5.8	2.7	3.7	
<b>Total Fixed Income</b>	<b>2.9</b>	<b>25.3</b>	<b>6.3</b>	<b>5.6</b>	<b>6.9</b>	<b>6.4</b>	<b>1/1/1998</b>
Barclay's Universal	0.6	8.6	5.8	5.0	6.4	6.0	
<b>Total Open-End Real Estate</b>	<b>-1.3</b>	<b>-22.5</b>	<b>-10.5</b>	<b>-0.4</b>	<b>4.4</b>	<b>4.7</b>	<b>1/1/1999</b>
NCREIF ODCE(was NCREIF Property)	-3.4	-29.8	-9.9	0.7	5.0	5.7	
<b>Total Absolute Return **</b>	<b>2.5</b>	<b>13.0</b>	<b>0.7</b>	<b>NA</b>	<b>NA</b>	<b>4.4</b>	<b>8/1/2007</b>
HFRI Fund of Funds Composite	1.2	11.1	-1.2	2.7	4.0	2.8	

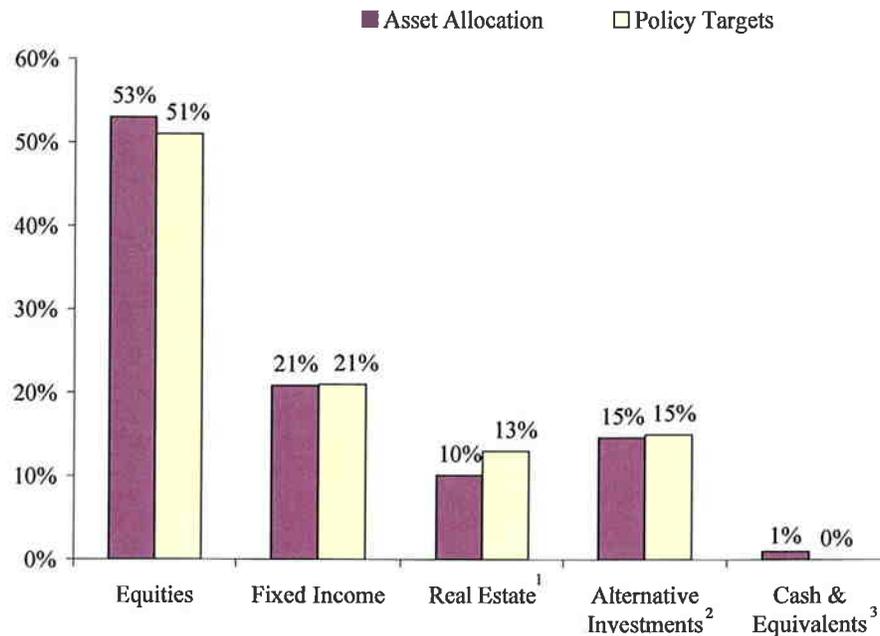
\* The WRS's policy is a time weighted average of the representative asset class benchmarks.

\*\* Other alternative investments include private equity and infrastructure limited partnerships that are measured by dollar-weighted, rather than time-weighted returns. For the calendar year period covered by this report, the WRS's private equity investments increased by \$1.2 million, including \$5.5 million in capital called and \$5.3 million in distributions. The WRS's private infrastructure investments increased by \$3.4 million, including \$3.1 million in capital called during the period.

### Asset Allocation



### Aggregate Asset Allocation vs. Policy Targets

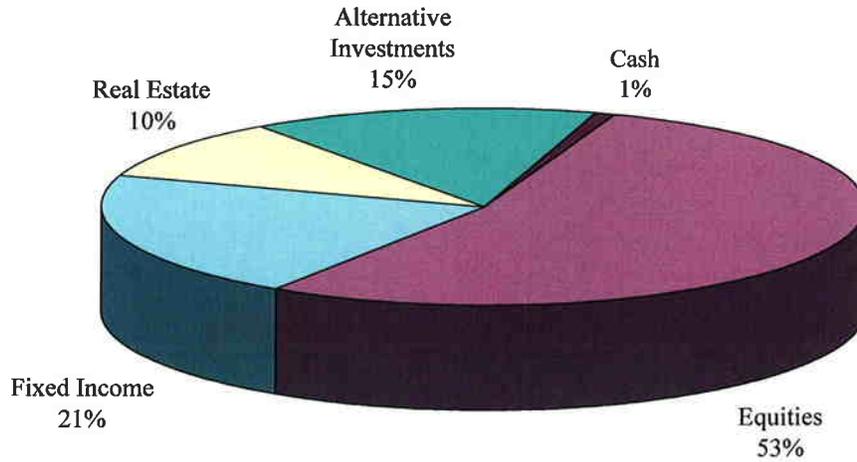


<sup>1</sup> The Real Estate policy target includes a strategic allocation to Timber of 3%.

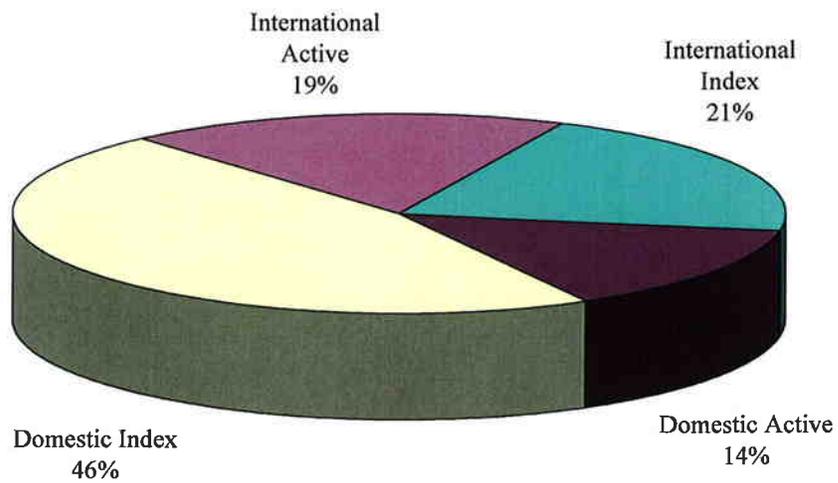
<sup>2</sup> The Alternative Investments allocation includes Private Equity, Absolute Return, Global Tactical Asset Allocation, and Infrastructure assets.

<sup>3</sup> Includes cash and cash held by managers within separate accounts.

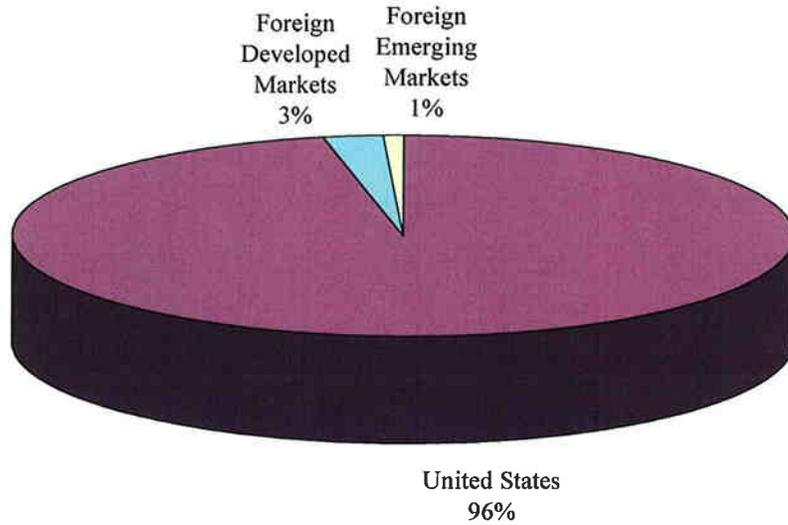
### Aggregated Asset Allocation



### Equity Allocation



**Fixed Income Allocation**



**Ten Largest Stock Holdings by Fair Value**

Company	Number of Shares	Fair Value (\$mm)	% of Domestic Stock	Industry
1 Exxon Mobil Corp	59,393	4.15	2.2	Energy
2 Apple Inc	103,468	2.38	1.6	Technology Hardware & Equipment
3 Microsoft Corp	39,165	2.30	1.3	Software & Services
4 Intl Business Machines Corp	22,478	2.28	1.2	Technology Hardware & Equipment
5 Johnson & Johnson	118,966	2.24	1.2	Pharmaceuticals Biotechnology & Life Sciences
6 Procter & Gamble Co	66,959	2.23	1.2	Household & Personal Products
7 At&T Inc	31,093	2.08	1.1	Telecommunication Services
8 General Electric Co	23,240	2.02	1.1	Capital Goods
9 Jpmorgan Chase & Co	34,502	2.00	1.1	Diversified Financials
10 Chevron Corp	24,987	1.94	1.0	Energy

A complete portfolio is available upon request.

**Ten Largest Fixed Income Holdings by Fair Value**

<b>Security</b>	<b>Coupon (%)</b>	<b>Maturity Date</b>	<b>Number of Shares</b>	<b>Market Value (\$)</b>	<b>% of Bonds</b>
1. TIPS	2.4%	01/15/25	1,500,880	1,575,684	1.19%
2. TIPS	3.9%	04/15/29	1,169,184	1,488,149	1.12%
3. TIPS	3.0%	07/15/12	1,351,271	1,462,332	1.10%
4. TIPS	4.5%	03/01/39	1,342,688	1,361,915	1.02%
5. TIPS	2.0%	01/15/14	1,273,981	1,359,682	1.02%
6. TIPS	1.9%	07/15/13	1,269,918	1,350,774	1.02%
7. TIPS	2.0%	07/15/14	1,202,996	1,287,205	0.97%
8. TIPS	3.6%	04/15/28	1,014,790	1,242,326	0.93%
9. TIPS	1.6%	01/15/15	1,159,296	1,217,353	0.92%
10. TIPS	1.9%	06/15/12	1,180,000	1,204,709	0.91%

A complete portfolio is available upon request.

## Schedule of Fees & Commissions

<b>Investment Fees December 31, 2009</b>	
Acadian Asset Management	\$ 99,792
Aetos Capital	111,086
Ascent Venture Management, Inc. II	4,254
Ascent Venture Management, Inc. III	32,525
Ascent Venture Management Inc IV	148,742
Ascent Venture Management, Inc. V	93,806
Bailard	135,013
BOI	(28,255)
Boston Co EAFE	116,630
Boston Millennium Partners	52,854
BPIF Blackstone	166,898
Charlesbank Capital Partners V	48,228
Charlesbank Capital Partners VI	56,050
Columbia	93,784
Concord Partners III	852
Global Infrastructure Partners	158,526
Hancock	71,993
Heitman Investment Management	51,529
INTECH	150,943
Intercontinental Real Estate Corp.	37,500
Invesco	25,260
Lazard	150,858
Lee Munder	28,756
Loomis Sayles	284,990
Mellon	34,746
New England Partners Capital II	15,144
Newstone	62,110
Northstar V	79,309
OPUS	38,984
OPUS TIPS	22,120
Penn Capital	89,178
PRIT Hedge Fund	68,871
RMK Balanced Timberland	75,688
RMK Fund I	31,286
RMK Select Timberland Fund II	44,721
RREEF	48,745
SSgA Daily EAFE Index	16,202
SSgA Daily EAFE - NL	10,612
SSgA EAFE Index - NL	304
SSgA EAFE Index	8,594
SSgA Flagship Index	4,003
SSgA Flagship - NL	1,390
SSgA Russell 1000 Value Index	5,474
SSgA Russell 1000 Value - NL	2,963
SSgA Russell 1000 Growth - NL	7,100
SSgA S&P Midcap - NL	443
SSgA S&P Midcap Index	499
VEF Advisors II	10,250
VEF Advisors IV	13,648
<b>Total Investment Managers Fees</b>	<b><u>2,784,998</u></b>
State Street Bank (Custodian Bank Fee)	202,664
Meketa Investment Group (Consultant Fee)	170,000
Security Lending Fees	292,318
<b>Total Other Fees</b>	<b><u>664,982</u></b>
<b>Total Investment Fees</b>	<b><u>\$ 3,449,980</u></b>

## Commissions to Brokers

Broker	Total Commissions (\$)	Total Shares	Commission Per Share (\$)
AQUA SECURITIES LP	6	313	0.02
AVONDALE PARTNERS LLC	127	3,180	0.04
BAIRD ROBERT W. & COMPANY INCORPORATED	203	4,567	0.04
BARCLAYS CAPITAL INC./LE	745	21,105	0.04
BARCLAYS CAPITAL LE	2,703	72,754	0.04
BEAR STEARNS SECURITIES CORP	486	13,337	0.04
BLOOMBERGTRADEBOOK LLC	2,797	279,736	0.01
BNY CONVERGEX	675	18,831	0.04
BNY CONVERGEX IJR	8,115	564,846	0.01
BREAN MURRAY	341	8,533	0.04
BROADCORTCAPITAL (THRU ML)	4	140	0.03
BUCKINGHAM RESEARCH GROUP INC	22	540	0.04
CANACCORDADAMS INC.	15	10,300	0.00
CANTOR FITZGERALD + CO.	1,191	29,781	0.04
CAPITAL INSTITUTIONAL SVCS INC EQUITIES	2,197	154,800	0.01
CITIGROUPGLOBAL MARKETS INC	152	3,614	0.04
COLIN HOCHSTIN	40	990	0.04
COLLINS STEWART LLC	142	3,540	0.04
COWEN ANDCOMPANY, LLC	862	21,554	0.04
CRAIG - HALLUM	708	17,649	0.04
CREDIT SUISSE SECURITIES (USA) LLC	1,999	111,174	0.02
DAVENPORT& CO. OF VIRGINIA, INC.	207	5,165	0.04
DEUTSCHE BANK SECURITIES INC	6,499	538,781	0.01
DOMINICK + DOMINICK	83	2,085	0.04
FIRST CLEARING, LLC	139	6,379	0.02
FOX PITT KELTON INC	23	4,350	0.01
FRIEDMAN BILLINGS + RAMSEY	1,029	25,729	0.04
GOLDMAN SACHS + CO	8,893	605,164	0.01
GOLDMAN SACHS INTERNATIONAL	2,904	145,181	0.02
GUZMAN + CO	713	48,000	0.01
HIBERNIA SOUTHCOAST CAPITAL INC	522	13,055	0.04
HOWARD WEIL DIVISION LEGG MASON	1,082	27,060	0.04
INSTINET	24,713	805,437	0.03
INSTINET LLC	167	4,165	0.04
INVESTMENT TECHNOLOGY GROUP INC.	1,980	79,193	0.03
ISI GROUPINC	220	5,510	0.04
J P MORGAN SECURITIES INC	326	8,160	0.04
J.P. MORGAN CLEARING CORP.	211	5,515	0.04
J.P. MORGAN SECURITIES INC.	522	12,769	0.04
JANNEY MONTGOMERY, SCOTT INC	199	14,136	0.01
JEFFERIES+ COMPANY INC	718	68,314	0.01

(continued)

Worcester Retirement System

Broker	Total Commissions (\$)	Total Shares	Commission Per Share (\$)
JMP SECURITIES	812	20,236	0.04
JNK SECURITIES INC	252	6,300	0.04
JOHNSON RICE + CO	150	3,758	0.04
JONES & ASSOCIATES INC	14	350	0.04
JONESTRADING INSTITUTIONAL SERVICES LLC	19,504	547,004	0.04
KEEFE BRUYETTE + WOODS INC	107	15,223	0.01
KEYBANC CAPITAL MARKETS INC	1,541	38,585	0.04
KING, CL,& ASSOCIATES, INC	54	2,168	0.02
KNIGHT SECURITIES	10,476	557,603	0.02
LAZARD CAPITAL MARKETS LLC	323	11,635	0.03
LIQUIDNETINC	1,229	40,969	0.03
LONGBOW SECURITIES LLC	1,023	25,568	0.04
MACQUARIESECURITIES (USA) INC	701	17,534	0.04
MERIDIAN EQUITY PARTNERS	108	2,695	0.04
MERRILL LYNCH PIERCE FENNER + SMITH INC	2,800	387,775	0.01
MERRILL LYNCH PROFESSIONAL CLEARING CORP	66	1,660	0.04
MERRIMAN CURHAN FORD + CO	161	24,661	0.01
MORGAN JOSEPH + CO INC	38	960	0.04
MORGAN KEEGAN & CO INC	813	20,333	0.04
MORGAN STANLEY CO INCORPORATED	216	2,390,356	0.00
NATIONAL FINANCIAL SERVICES CORP.	99	2,480	0.04
OPPENHEIMER + CO. INC.	65	7,018	0.01
PALI CAPITAL INC	135	3,375	0.04
PERSHING LLC	2,664	74,839	0.04
PICKERINGENERGY PARTNERS, INC	809	20,214	0.04
PRITCHARDCAPITAL PARTNERS LLC	115	2,870	0.04
PULSE TRADING LLC	51	2,567	0.02
RAYMOND JAMES AND ASSOCIATES INC	3,259	91,548	0.04
RBC CAPITAL MARKETS	1,240	30,997	0.04
RIDGE CLEARING + OUTSOURCING SOLUTIONS	51	1,285	0.04
ROSENBLATT SECURITIES LLC	2,112	147,701	0.01
ROTH CAPITAL PARTNERS LLC	149	16,938	0.01
SANDERS MORRIS HARRIS	209	5,220	0.04
SANDLER ONEILL + PART LP	144	16,228	0.01
SANFORD CBERNSTEIN CO LLC	619	19,263	0.03
SIDOTI + COMPANY LLC	174	4,343	0.04
SIMMONS +COMPANY INTERNATIONAL	207	5,176	0.04
SOLEIL SECURITIES	17	17,016	0.00
STATE STREET GLOBAL MARKETS	3,541	434,402	0.01
STEPHENS,INC.	237	5,710	0.04
STERNE, AGEE & LEACH, INC.	764	21,726	0.04
STIFEL NICOLAUS + CO INC	1,056	26,814	0.04
SUNTRUST CAPITAL MARKETS, INC.	968	22,109	0.04

(continued)

Worcester Retirement System

Broker	Total Commissions (\$)	Total Shares	Commission Per Share (\$)
THINKEQUITY PARTNERS LLC	100	2,005	0.05
UBS SECURITIES LLC	2,419	894,193	0.00
W.J. BONFANTI INC	188	4,698	0.04
WACHOVIACAPITAL MARKETS, LLC	955	23,871	0.04
WEEDEN + CO.	1,733	114,900	0.02
WILLIAM BLAIR & COMPANY L.L.C	145	2,909	0.05
<b>TOTALS</b>	<u>233,582</u>	<u>14,257,852</u>	<u>0.02</u>

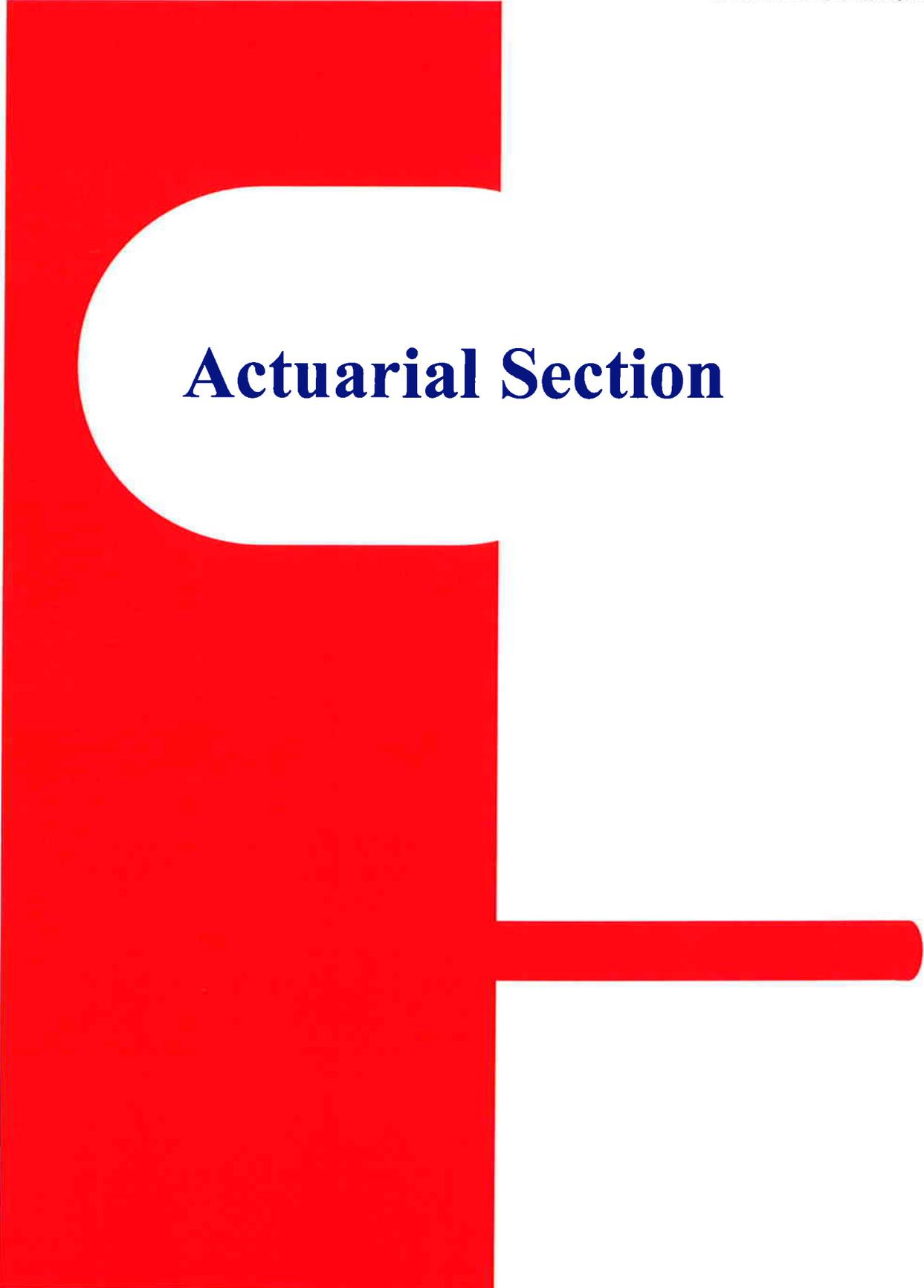
(concluded)

## INVESTMENT SUMMARY

	Assets (mm)	% of Aggregate	% of System
<b>Total System</b>	<b>\$618.8</b>	<b>100%</b>	<b>100%</b>
<b>Total Domestic Equities</b>	<b>\$186.8</b>	<b>100%</b>	<b>31%</b>
Information Technology	29.8	16%	6%
Financials	24.3	13%	4%
Health Care	26.1	14%	4%
Consumer Discretionary	18.7	10%	3%
Industrials	26.2	14%	4%
Energy	22.4	12%	4%
Consumer Staples	18.7	10%	3%
Materials	7.5	4%	1%
Utilities	7.5	4%	1%
Telecommunications Services	5.6	3%	1%
<b>Total Fixed Income</b>	<b>\$127.9</b>	<b>100%</b>	<b>20%</b>
Credit	70.2	55%	11%
U.S. Treasury	31.5	25%	5%
Mortgage Backed	14.5	11%	2%
U.S. Agency	5.2	4%	1%
Commercial Mortgage Backed	3.9	3%	1%
Asset Backed	1.3	1%	0%
Cash Equivalent	1.3	1%	0%
<b>Total International Equities</b>	<b>\$131.1</b>	<b>100%</b>	<b>21%</b>
Europe - Developed	69.1	52%	11%
Pacific Rim/Australia - Developed	38.9	30%	6%
Emerging Markets	16.9	13%	3%
Other (Non-EAFE)	6.2	5%	1%
<b>Total Alternative Investments</b>	<b>\$167.7</b>	<b>100%</b>	<b>27%</b>
Real Estate	62.5	37%	10%
Private Markets	62.0	37%	10%
Absolute Return	29.8	18%	5%
Global Tactical Assets	13.4	8%	2%
<b>Cash &amp; Equivalents</b>	<b>\$5.3</b>	<b>100%</b>	<b>1%</b>

**LIQUIDITY PROFILE**

Benefits payments totaled approximately \$58.7 million during the year and along with other payments of approximately \$5.1 million resulted in total cash outflows of approximately \$63.8 million in 2009. These payments were partially offset by a contribution of approximately \$28.5 million from employers and other cash receipts of approximately \$17.1 million for a total of approximately \$45.6 million in 2009. This resulted in a negative cash flow of approximately \$18.2 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 8.25%.



# **Actuarial Section**

THE SEGAL COMPANY

116 Huntington Avenue, 8<sup>th</sup> Floor Boston, MA 02116  
T 617.424.7336 F 617.424.7390 [www.segalco.com](http://www.segalco.com)**Kathleen A. Riley, FSA, MAAA, EA**  
Senior Vice President & Actuary  
[kriley@Segalco.com](mailto:kriley@Segalco.com)

May 25, 2010

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, 2010 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, 2040. The normal cost is expected to remain at a level percentage of payroll. The remaining liability of the 2002 ERI is amortized over a 8-year period (by June 30, 2018) with level payments. The 2003 ERI liability is amortized over a 2-year period (by June 30, 2012) with level payments. The Section 90 ACD liability is amortized over a 4-year period (by June 30, 2014) with level payments. The remaining unfunded liability is amortized over a 30-year period with payments increasing at the rate of 4.0% per year. The fiscal year 2011 appropriation of \$29,770,499 is 4.4% greater than the fiscal year 2010 appropriation. In the prior valuation, the remaining unfunded liability was amortized over a period ending June 30, 2030 with payments increasing at the rate of 4.5% per year.

Actuarial valuations have been performed annually. This is consistent with the guidelines promulgated by PERAC and GASB. The last valuation was performed as of January 1, 2010.

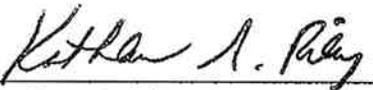
The assumptions and methods used for funding purposes met the parameters set for the disclosures presented in the financial section by GASB Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.

The Segal Company has prepared, and included as part of this report, all of 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, 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, 2010, which was adopted by the WRS on June 17, 2010.

### Mortality Rates

<i>Healthy</i>	1994 Group Annuity Mortality Table
<i>Disabled</i>	1994 Group Annuity Mortality Table set forward 7 years

### Termination Rates before Retirement

Age	Rate (%)			
	Mortality		Group 1 and 2	
	Male	Female	Disability	Withdrawal
20	0.05	0.03	0.02	12.00
25	0.07	0.03	0.03	8.78
30	0.08	0.04	0.04	5.55
35	0.09	0.05	0.05	3.93
40	0.11	0.07	0.07	2.31
45	0.16	0.10	0.13	1.89
50	0.26	0.14	0.19	1.46
55	0.44	0.23	0.29	0.00
60	0.80	0.44	0.38	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.

Age	Rate (%)			
	Mortality		Group 4	
	Male	Female	Disability	Withdrawal
20	0.05	0.03	0.08	2.10
25	0.07	0.03	0.12	1.88
30	0.08	0.04	0.17	1.65
35	0.09	0.05	0.41	1.11
40	0.11	0.07	0.65	0.56
45	0.16	0.10	0.89	0.28
50	0.26	0.14	1.13	0.00
55	0.44	0.23	1.33	0.00
60	0.80	0.44	1.53	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**

<b>Rate (%)</b>			
<b>Age</b>	<b>Groups 1 and 2</b>	<b>Age</b>	<b>Group 4</b>
55	12.55	50	32.00
56	3.21	51	7.21
57	3.10	52	5.90
58	3.34	53	8.00
59	3.48	54	7.71
60	7.84	55	15.51
61	6.92	56	9.11
62	15.11	57	9.09
63	10.71	58	11.90
64	10.37	59	11.42
65	35.68	60	23.95
66	22.14	61	13.60
67	21.59	62	19.50
68	21.64	63	12.53
69	25.36	64	18.73
70	100.00	65	100.00

**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%

**Net Investment Return**

8.25%

## Salary Increases

Age	Present salary as a percent of salary at 65 (%)	Annual increase rate (%)
20	11.13	5.00
25	14.20	5.00
30	18.13	5.00
35	23.14	5.00
40	29.53	5.00
45	37.69	5.00
50	48.10	5.00
55	61.39	5.00
60	78.35	5.00

*Includes allowance for inflation of 4.00%.*

## Administrative Expenses

\$625,000 for calendar 2010.

## 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.

## 2009 Salary

2009 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. The salaries of police officials were increased by 4% to reflect unsettled bargaining contracts.

## Total Service

Total creditable service reported in the data.

## Actuarial Cost Method

Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less total service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary.

## Recent Changes

The investment return assumption was lowered from 8.50% to 8.25% as of January 1, 2006.

The salary increase assumption was lowered January 1, 2003 from 5.50% to 5.00%.

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 were changed from the 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 disabled life mortality table was changed from the 1994 Group Annuity Mortality Table set forward 10 years to the 1994 Group Annuity Mortality Table set forward 7 years.

## II. Schedule of Active Member Valuation Data

<u>Valuation date</u>	<u>Number</u>	<u>Projected annual payroll (\$)</u>	<u>Annual average pay (\$)</u>	<u>% Increase in average pay</u>
1/1/2005	3,498	147,126,606	42,060	3.30
1/1/2006	3,430	145,830,593	42,516	1.08
1/1/2007	3,397	152,838,201	44,992	5.82
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

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

<u>Year ended</u>	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>Rolls - end of year</u>		<u>% Increase in annual allowances</u>	<u>Average annual allowances</u>
	<u>Number</u>	<u>Annual allowances<sup>1</sup></u>	<u>Number</u>	<u>Annual allowances</u>	<u>Number</u>	<u>Annual allowances<sup>1</sup></u>		
2004	77	2,031,304	106	1,186,904	2,967	51,566,334	3.95	17,380
2005	76	1,890,735	124	1,544,809	2,919	52,623,545	2.05	18,028
2006	78	1,891,430	133	1,760,235	2,864	53,571,242	1.80	18,705
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

<sup>1</sup> Annual allowances are shown for retirees in pay status at the end of the year.

## IV. Solvency Test

Valuation Date	Actuarial Accrued Liability			Actuarial value of assets	Portion of Actuarial Accrued Liability Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Active member contributions	Retirees and beneficiaries	Active/Inactive members (Employer financed)				
1/1/2005	122,748,771	425,655,839	223,543,701	606,099,616	100	100	26
1/1/2006	130,292,926	438,740,267	237,924,271	644,016,504	100	100	32
1/1/2007	138,456,863	444,678,593	254,472,777	716,796,770	100	100	53
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

## V. Analysis of Financial Experience

	Year Ended December 31,				
	2009	2008	2007	2006	2005
1. Unfunded actuarial accrued liability as of January 1	\$ 297,675,469	\$ 130,513,978	\$ 120,811,463	\$ 162,940,960	\$ 165,848,695
2. Normal cost as of January 1	23,936,084	22,574,842	22,122,545	21,159,434	20,362,054
3. Employer and employee contributions during year	(42,695,664)	(39,375,618)	(36,995,766)	(35,961,906)	(35,484,556)
4. Interest					
(a) For whole year on (1)+(2)	26,532,953	12,629,827	11,792,055	15,188,283	15,827,913
(b) For half year on (3)	(1,591,325)	(1,467,582)	(1,378,882)	(1,340,348)	(1,362,059)
(c) Total interest	24,941,628	11,162,245	10,413,173	13,847,935	14,465,854
5. Expected unfunded actuarial liability	303,857,517	124,875,447	116,351,415	161,986,423	165,192,047
6. Actual unfunded actuarial accrued liability	308,182,322	297,675,469	130,513,978	120,811,463	162,940,960
7. (Gain) or loss for the year: (6)-(5)	\$ 4,324,805	\$ 172,800,022	\$ 14,162,563	\$ (41,174,960)	\$ (2,251,087)
8. Investment (gain) or loss	\$ (55,454,843)	\$ 275,514,085	\$ (3,341,587)	\$ (39,177,515)	\$ (4,698,351)
9. (Gains) or losses from sources other than investments	12,290,038	2,601,602	1,694,376	(1,997,445)	(14,912,389)
10. Plan changes	-	-	-	-	370,567
11. Assumption changes	47,489,610	(105,315,665)	15,809,774	-	16,989,086

## 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 Benefit

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.)

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. The \$30,000 cap on salary used in a benefit determination for any employee hired after January 1, 1979 has been removed.

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 December 31, 1983 and before January 1, 1975 contribute 7 percent; employees hired after January 1, 1984 and before June 30, 1996 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.

## **Retirement Benefits (Superannuation)**

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

Members 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).

## **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, 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 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 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. There is also a minimum widow's pension of \$500 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 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.

### **"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, 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**

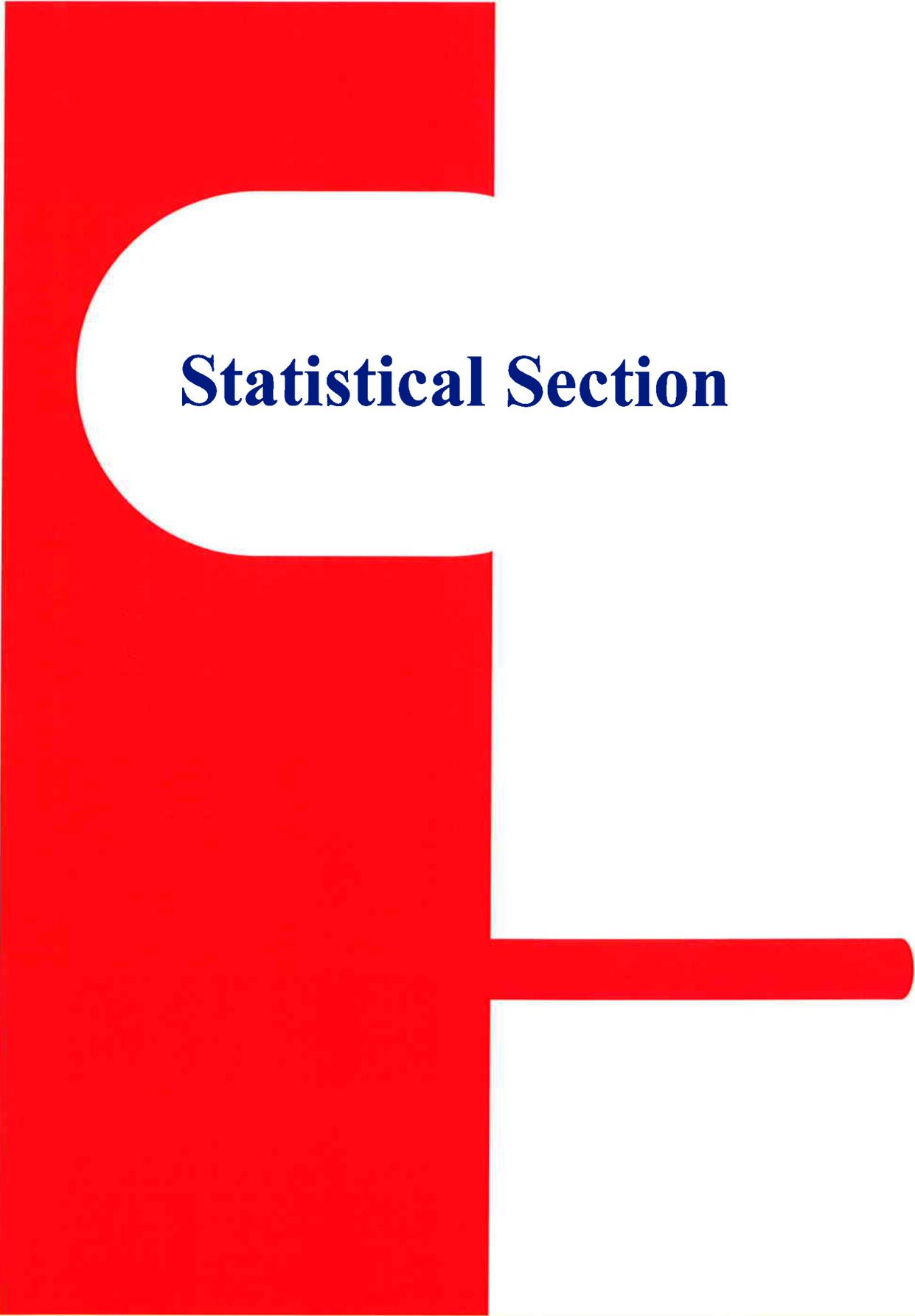
Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at his death any of his contributions not expended for annuity payments will be refunded to his beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing his 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. 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**

There have been no changes in plan provisions since the last valuation.



# 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.

### Table of Contents

	<b>Page</b>
<b>Financial Trends</b>	68-69
These schedules contain trend information to help the reader understand how the WRS' financial performance and well-being have changed over time.	
<b>Schedule of Retired Members by Type of Benefit</b>	70
This schedule presents trend data about retired members by type of benefit.	
<b>Schedule of Average Benefit Payments</b>	70
This schedule presents trend data about average benefit payments.	
<b>Schedule of Participating Employers</b>	71
This schedule shows each participating employer's number of covered employees and percentage of total covered employees.	

**Schedule of Additions to Plan Net Assets by Source**

<u>Fiscal Year</u>	<u>Plan Member Contributions</u>	<u>Employer Contributions</u>	<u>Employer Contributions as % of Covered Payroll</u>	<u>Investment Income(a)</u>	<u>Other(b)</u>	<u>Total</u>
2000	\$ 10,641,408	8,343,309	6.70	\$ 3,874,421	4,517,210	27,376,348
2001	11,875,466	9,480,000	6.52	(29,629,122)	3,442,841	(4,830,815)
2002	12,393,094	12,956,778	8.71	(67,805,128)	3,615,546	(38,839,710)
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

(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 Assets by Type**

<u>Fiscal Year</u>	<u>Benefits</u>	<u>Administrative Expenses</u>	<u>Withdrawals(a)</u>	<u>Total</u>
2000	\$ 39,696,596	\$ 1,428,037	\$ 2,659,748	\$ 43,784,381
2001	41,095,678	811,315	3,129,455	45,036,448
2002	43,540,572	561,697	3,802,339	47,904,608
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

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

**Schedule of Total Change in Net Assets**

<u>Fiscal Year</u>		<u>Total Change in Net Assets</u>
2000	\$	(16,408,033)
2001		(49,867,263)
2002		(86,744,318)
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

**Schedule of Benefit Expenses by Type**

<u>Year ended December 31</u>	<u>Regular</u>	<u>Disability</u>	<u>Beneficiary</u>	<u>COLA</u>	<u>Annuities</u>	<u>Total</u>
2000	\$ 16,423,542	7,785,392	4,621,538	6,217,596	4,648,528	39,696,596
2001	17,082,481	7,872,843	4,737,758	6,771,240	4,631,355	41,095,677
2002	18,332,032	8,532,815	4,771,934	7,056,425	4,847,366	43,540,572
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

**Schedule of Retired Members by Type of Benefit**

	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005	12/31/2004	12/31/2003	12/31/2002	12/31/2001
<b>Superannuation</b>									
Group 1	1,482	1,493	1,545	1,560	1,577	1,622	1,653	1,653	1,589
Group 2&4	289	276	270	263	269	270	262	254	220
<b>Total</b>	<b>1,771</b>	<b>1,769</b>	<b>1,815</b>	<b>1,823</b>	<b>1,846</b>	<b>1,892</b>	<b>1,915</b>	<b>1,907</b>	<b>1,809</b>
<b>Ordinary Disability</b>									
Group 1	36	39	43	42	44	41	42	42	41
Group 2&4	6	6	7	7	6	5	7	6	6
<b>Total</b>	<b>42</b>	<b>45</b>	<b>50</b>	<b>49</b>	<b>50</b>	<b>46</b>	<b>49</b>	<b>48</b>	<b>47</b>
<b>Accidental Disability</b>									
Group 1	124	130	128	125	139	139	140	147	147
Group 2&4	315	317	319	318	323	321	315	319	316
<b>Total</b>	<b>439</b>	<b>447</b>	<b>447</b>	<b>443</b>	<b>462</b>	<b>460</b>	<b>455</b>	<b>466</b>	<b>463</b>
<b>Beneficiaries</b>									
Group 1	340	349	361	373	389	395	408	417	427
Group 2&4	182	182	176	176	172	174	169	163	159
<b>Total</b>	<b>522</b>	<b>531</b>	<b>537</b>	<b>549</b>	<b>561</b>	<b>569</b>	<b>577</b>	<b>580</b>	<b>586</b>
<b>Total Retired Members</b>									
Group 1	1,982	2,011	2,077	2,100	2,149	2,197	2,243	2,259	2,204
Group 2&4	792	781	772	764	770	770	753	742	701
<b>Total</b>	<b>2,774</b>	<b>2,792</b>	<b>2,849</b>	<b>2,864</b>	<b>2,919</b>	<b>2,967</b>	<b>2,996</b>	<b>3,001</b>	<b>2,905</b>

Source: Actuarial valuation as of January 1, 2010

**Schedule of Average Benefit Payments**

<u>Year ended December 31</u>	<u>Number</u>	<u>Annual benefits (\$)</u>	<u>Monthly average (\$)</u>	<u>Annual average (\$)</u>	<u>% Increase</u>
2000	2,950	39,696,596	1,121	13,456	8.47
2001	2,905	41,095,677	1,179	14,147	5.14
2002	3,001	43,540,572	1,209	14,509	2.56
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

**Schedule of Participating Employers**

<u>Fiscal Year</u>	<u>Employer Name</u>	<u>Number of Covered Employees</u>	<u>Percentage of Total Covered Employees</u>
2000	City of Worcester	3,631	94.0%
2000	Worcester Housing Authority	231	6.0%
2009	City of Worcester	3,102	94.4%
2009	Worcester Housing Authority	185	5.6%

Source: The WRS administrative staff