

**7: 00 p.m.      BOS PRECINCT MEETING PENSION & OPEB DISCUSSION-OCT. 20, 2014**  
**AGENDA**

<b>7:00</b>	Opening Remarks	<b>Andy Rojas</b> , Chair of the Board of Selectmen
<b>7:05</b>	Benefits Overview	<b>Greg Mennis</b> , Director Public Sector Retirement System, The PEW Charitable Trust and Warrant Committee Member
<b>7:15</b>	Pension Overview	<b>Tom Gibson</b> , Vice Chair Belmont Retirement Board (Summary of Preliminary Results of the January 1, 2014 Actuarial Valuation Included)
<b>7:35</b>	OPEB Overview	<b>Linda Bournival</b> , OPEB Valuation Actuary, KMS Actuarial
<b>7:55</b>	Accounting Requirements	<b>Richard Sullivan</b> , Partner, Powers & Sullivan
<b>8:10</b>	Rating Agency Perspective	<b>Peter Frazier</b> , Senior VP, First Southwest
<b>8:25</b>	Questions to Panel	<b>Andy Rojas</b> , Chair of the Board of Selectmen
<b>9:25</b>	Closing Remarks	<b>Andy Rojas</b> , Chair of the Board of Selectmen

Ground Rules:

- (1) One question per resident and a follow up.
- (2) This meeting will end at 9:30pm.
- (3) Any follow up questions send to [selectmen@belmont-ma.gov](mailto:selectmen@belmont-ma.gov)

Will Brownsberger, State Senator and Dave Rogers, State Representative are part of the panel.

This precinct meeting was broadcast on cable TV on Monday, October 20, 2014.

Please click on the link below to view the broadcast.

<http://www.belmontmedia.org/watch/belmont-precinct-meeting-102014>

# Belmont Retirement System Overview



Board of Selectman Pension/OPEB Forum

October 20, 2014

# The Belmont Retirement Board

Elected Member, Chairman

Roy Sacco

Elected Member

Walter Wellman

*Ex Officio* Member

Chitra Subramanian

Selectmen's Appointee

Jim Sloman

Board Appointed Member

Tom Gibson

*System Administrator*

*Marion Cote'*



# Retirement Plan Overview

- 105 contributory retirement systems within the Commonwealth of Massachusetts
- Massachusetts General Laws Chapter 32 provides the public employee “retirement plan,” and sets forth the statutorily defined benefits, contributions, investment and accounting structure for all systems
- Retirement systems are independent governmental entities managed by retirement boards and overseen and regulated by the Public Employee Retirement Administration Commission (PERAC)

# Retirement Plan Overview

- The Town Treasurer is the statutory custodian of the System's assets
- System's finances are audited annually as part of the Town of Belmont's audit (Powers & Sullivan)
- PERAC conducts an in-depth triennial audit of the System which examines internal controls, cash reconciliation, benefit payments, retirement contributions, expense payments, system valuations and appropriations



# Retirement Plan Overview

- Massachusetts is 1 of 15 “non-Social Security states” – neither public employees nor public employers participate in or contribute to Social Security (6.2%)
- Since 1986, public employees and public employers contribute to the Medicare portion of FICA (1.45%)
- Social Security benefits of Massachusetts public retirees earned from non-public employment are subject to the Windfall Elimination Provision (WEP) and Government Pension Offset (GPO)

# Funding History Overview

- Prior to 1988, retirement appropriations were on a "pay as you go" basis – as employees retired, the employer would begin to contribute towards their retirement
- The 1987 pension reforms required retirement systems to be "fully funded" within 40 years, or by 2028 – this was extended in 2010 by the Legislature to 2040
- Employee contributions were increased and employers were now required to make scheduled payments toward the unfunded liability based upon scheduled valuations of the retirement system



# Funding History Overview

- Employees contribute a percentage of “regular compensation” to the retirement system

<u>Membership Date</u>	<u>Rate</u>
Prior to 1/1/75	5%
After 1/1/75, prior to 1/1/84	7%
After 1/1/84, prior to 7/1/96	8%
After 7/1/96	9%

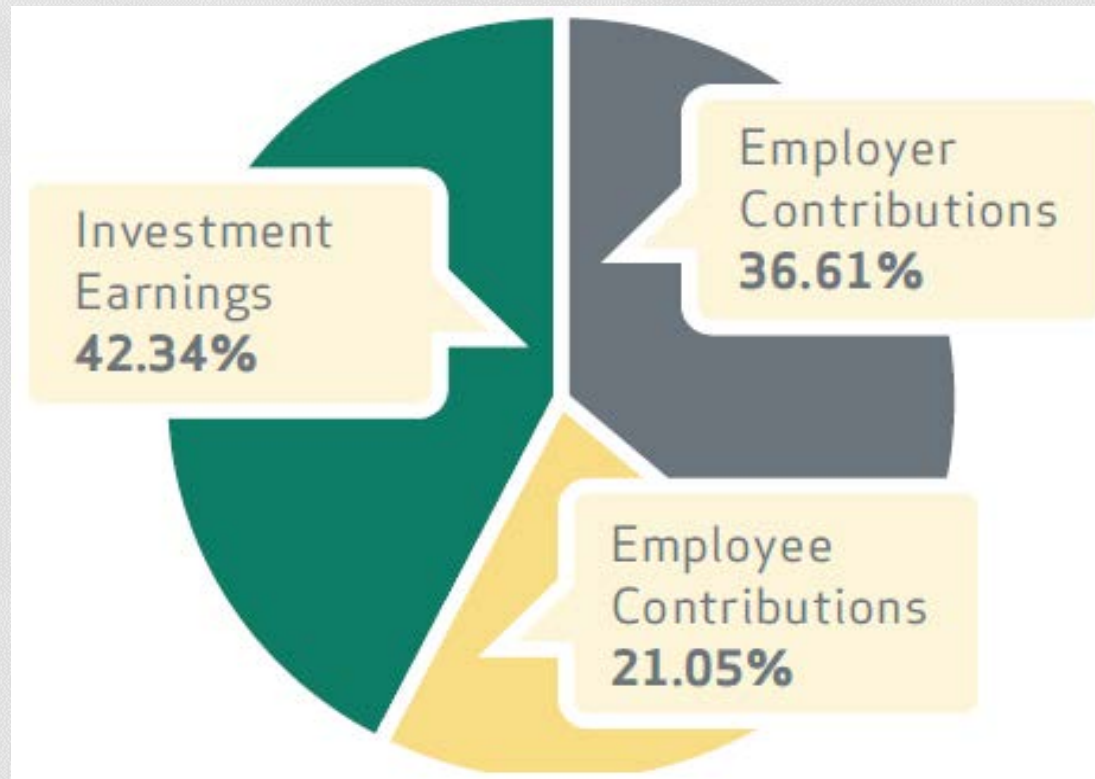
- Employees who established membership after 1/1/79 contribute an additional 2% of compensation in excess of \$30,000

# Funding History Overview

- Concurrent with the mandatory funding requirements, restrictions on the investment of assets were loosened – systems were allowed to seek waivers from the so-called “legal list” of restricted investments and to retain all investment returns in the system
- System valuations, now performed by Segal Consulting, are done every two years – the most recent, as of 01/01/14, was accepted by the Board on October 14th
- The System employs an investment consultant (NEPC) and invests the System’s assets in diverse asset classes

# Assets Derived from 3 Sources

**Total Massachusetts Pension Fund Receipts – 1993 to 2012:**



*Source: National Institute on Retirement Security, "Pensionomics 2014: Measuring the Economic Impact of DB Pension Expenditures " (<http://www.nirsonline.org>)*



# Investment History Overview

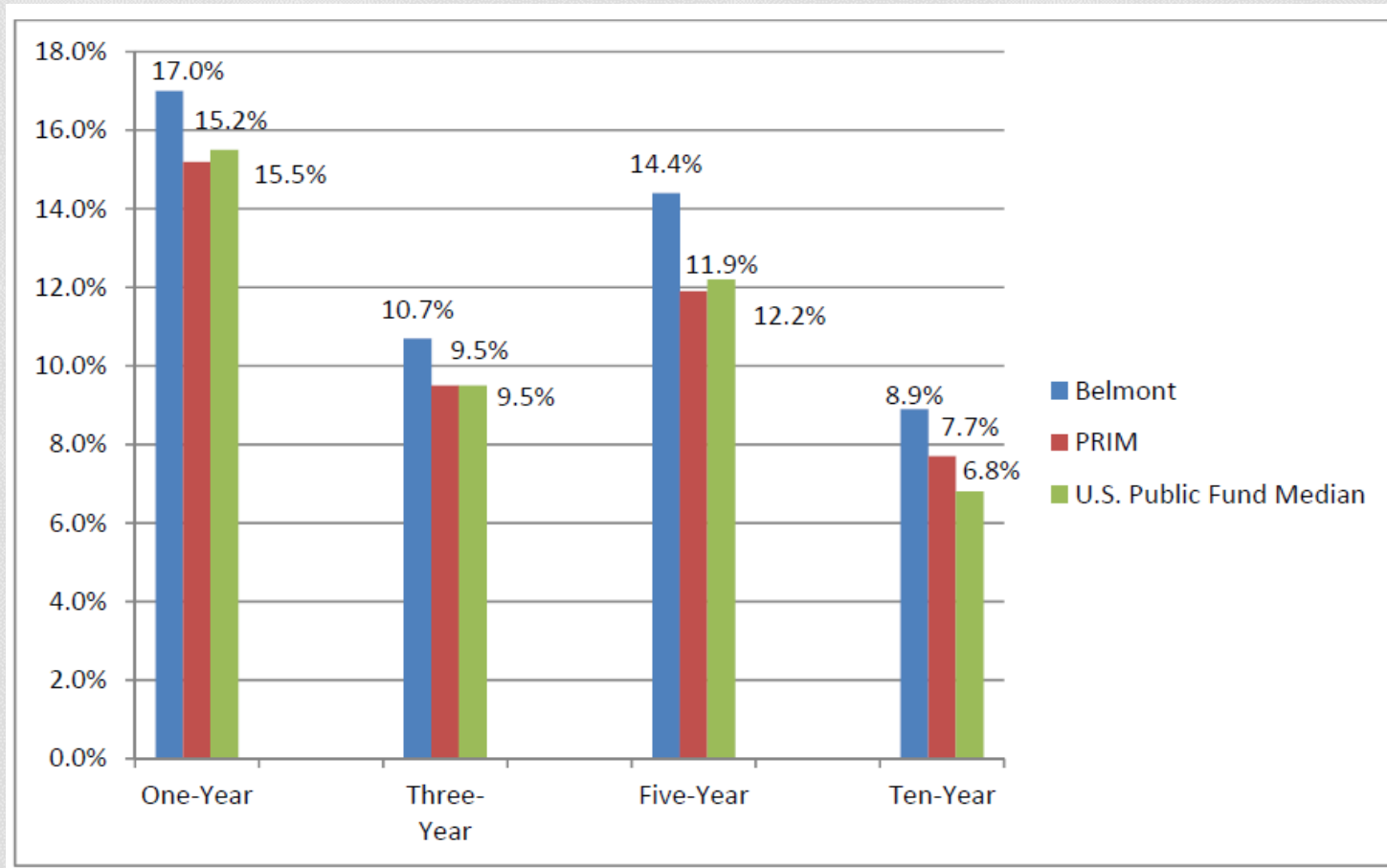
(Note: Rate of Returns Displayed On This Slide and The Following Slides Reflect Gross Rate of Returns)

- Current Actuarial Assumed Rate of Investment Return: 7.75%
- 2013 Investment Return: 17.07%
- Trailing 3 Year Return: 10.7%
- Trailing 5 Year Return: 14.4%
- Trailing 10 Year Return: 8.9%
- Investment Return Since 1985: 9.7%

*Source: NEPC*

# Investment History Overview

- Trailing Performance Comparison: Period ending 12/31/13



# Investment History Overview v. PRIM

As of 12/31/13	One-Year	Three-Years	Five-Years	Seven-Years
Belmont	17.0%	10.7%	14.3%	7.6%
PRIT	15.2%	9.5%	11.9%	4.8%
<i>Over/Under</i>	<i>1.8%</i>	<i>1.2%</i>	<i>2.4%</i>	<i>2.8%</i>

As of 12/31/13	Ten-Years	Twelve-Years	Fifteen-Years	Twenty-Years
Belmont	8.9%	8.4%	7.4%	9.1%
PRIT	7.6%	7.6%	7.0%	8.9%
<i>Over/Under</i>	<i>1.3%</i>	<i>0.8%</i>	<i>0.4%</i>	<i>0.2%</i>



# Investment History Overview v. PRIM

- Growth of \$1.00



# System Valuation Overview

A system valuation is a "snapshot" comparison of the liabilities for current and future retirement payments with the system's assets (i.e., the employer and employee contributions together with investment earnings)

The valuation develops:

1. a "normal cost" - the liability for amounts expected to be earned in the current year
2. an "accrued liability" - the liability associated with employees' past service
3. an "unfunded liability" - the amount by which the accrued liability exceeds the system's assets

# System Valuation Overview

- The valuation results in the establishment of a funding schedule, i.e., the expected annual payments required to fully fund the Belmont Retirement System no later than 2040
- The funding schedule requires that each year a payment is made to reflect the employer's normal cost as well as a portion of the remaining unfunded liability
- The funding schedule is reviewed every two years to update asset and liability amounts for the System



# System Valuation Overview

- The valuation examines, among others, the number of active and retired participants, total payroll, salary increase assumptions and the benefits paid to retirees and beneficiaries
- The valuation considers investment performance and reports the the actuarial value of assets and the market value of assets
- The valuation results in the funding schedule

# 2014 System Valuation

- The Retirement Board works with its actuary and PERAC to set the funding schedule and to ensure that the schedule is in compliance with the law
- Periodic presentations of the valuations are made to the Board of Selectman, Warrant Committee and Town Administrator
- The Retirement Board has maintained a funding schedule which is designed to fully fund the Belmont Retirement System within 13 years, or by 2027



# 2014 System Valuation

- The 2014 valuation summary is available as a separate handout
- Funding schedule adopts a uniform annual increase in the appropriation of 6.97% from 2016 through 2027
- Effective 2028, the appropriation drops by almost 90%, reflecting solely the employer normal cost going forward
- The System's actuarial assumed investment rate of 7.75% has been retained until the 2016 valuation.



# 2014 System Valuation

- As of 01/01/14, the actuarial value of assets totaled \$77.2 million, and the market value totaled \$82.3 million, leaving an unrecognized investment gain of \$5.1 million

BELMONT RETIREMENT SYSTEM FUNDED RATIO AS OF		
	January 1, 2012	January 1, 2014
Market value of assets	48.17%	54.54%
Actuarial value of assets	49.91%	51.16%

# Membership and Benefits

- 432 Active Members – Current Employees
- 141 Inactive Members – Former Employees
- 346 Retirees/Survivors/Beneficiaries
- 2013 Median Retirement Benefit: **\$23,141.76**

*Source: Belmont Retirement System*

# Belmont Retirement Benefits 2013

Benefit Range	# of Recipients	Notes
Less than \$9,999	62	Annual Payroll:
\$10,000 to \$19,999	86	\$9,554,676
\$20,000 to \$29,999	63	
\$30,000 to \$39,999	61	148 Retirees (43%)
\$40,000 to \$ 49,999	39	Receive Under \$20,000
\$50,000 to \$59,999	8	
\$60,000 to \$69,999	13	Average Retirement
\$70,000 to \$ 79,999	7	Benefit: \$27,614.67
\$80,000 to \$89,999	4	
\$90,000 to \$99,999	2	Median Retirement
Greater than \$100,000	1	Benefit: \$23,141.76
	<b>346</b>	



# Expected Impact of Pension Reforms on Benefits and Valuations

# Three Waves of Pension Reform

- Chapter 21 of the Acts of 2009
- Chapter 131 of the Acts of 2010
- Chapter 188 of the Acts of 2010
- Chapter 176 of the Acts of 2011

# Chapter 21 of the Acts of 2009

- Redefined and restricted “regular compensation”
- Prohibited creditable service for employees and officials earning under \$5,000
- Changed the retirement calculation for employees with dual service in separate pension systems
- Eliminated “working out of grade” disability calculations
- Eliminated certain benefits for elected officials



# Chapter 131 of the Acts of 2010

- Capped pensionable earnings at 64% of the federal earnings limitation codified in U.S.C. 401(a)(17)
- The 2014 federal compensation limit of \$260,000 caps pensionable earnings for members entering the system after January 1, 2011 to \$166,400, with a maximum retirement benefit of \$133,120
- Provided a **local option** to increase the minimum allowance paid to certain surviving spouses of disability retirees from \$6,000 to \$9,000

# Chapter 188 of the Acts of 2010

- Provided a **local option** to increase the \$12,000 current base amount of the annual cost-of living adjustment for retirees in increments of \$1,000
- The COLA base has been increased to \$13,000 for all retired state employees and retired teachers, and increased for retirees of over 2/3 of all municipalities (Range: \$13,000 - \$18,000)
- Retirement Board is undertaking an actuarial review of the impact of raising the COLA base



# Chapter 176 of the Acts of 2011

- **Increased Normal Retirement Age (e.g., 65 to 67)**
- **Increased Average Annual Compensation (AAC) factor from 3 to 5 years**
- **Increased early retirement reduction (i.e., reduced age factors for calculation)**
- Increased interest on service purchases
- Eliminated termination retirement allowances
- Enacted anti-spiking provisions



# Actuarial Plan Cost Reduction Estimate

- Increased AAC from 3 to 5 years      3.5% - 4.0%
- Increased Retirement Age      4.0% - 5.0%
- Reduced Age Factors      4.0% - 5.0%
- *Combined Impact*      *11.0% - 14.0%*

*Source: PERAC*

# Cost Implications of 2011 Benefit Reforms

- Changes are prospective for members entering the retirement system on or after April 2, 2012
- Cost savings will be gradual – no immediate relief in retirement appropriations
- In estimating long term impact, actuaries will assume entire membership is impacted by prospective provisions
- Long term savings have been estimated at between \$5 – 6 Billion



# Current Retirement Benefit Assumptions

If:

- Group 1 member
- Hired after 7/1/96
- Long-term employee
- Retires under superannuation
- Investment return assumption met

Then:

- Employee paying most, if not all, of benefit

*Source: PERAC*



# Example 1

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases: 4% per year
- Employee Contributions accumulate at 8% per year

# Example 1

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	40,500	475,000	566,000	YES
60	76,700	806,000	901,000	YES
65	106,600	1,007,000	1,410,000	YES

## Example 2

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases: 5% per year
- Employee Contributions accumulate at 8% per year



## Example 2

<b>Retirement Age</b>	<b>Benefit</b>	<b>Present Value</b>	<b>Accumulated Value of Employee Contributions</b>	<b>Member Paying for Benefit?</b>
55	53,000	611,000	647,000	YES
60	105,200	1,095,000	1,047,000	NO
65	153,400	1,439,000	1,663,000	YES

# Example 3

- Job Group: 1
- Age at Hire: 35
- Pay at Hire: \$50,000
- Pay increases: 4% per year
- Employee Contributions accumulate at 8% per year

# Example 3

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	30,400	365,000	362,500	MAYBE
60	61,600	654,000	611,000	NO
65	112,500	1,062,000	995,000	NO



# Example 4

- Job Group: 1
- Age at Hire: 25
- Pay at Hire: \$30,000
- Pay increases: 4% per year
- Employee Contributions accumulate at 7% per year

# Example 4

Retirement Age	Benefit	Present Value	Accumulated Value of Employee Contributions	Member Paying for Benefit?
55	40,500	521,000	480,000	NO
60	76,700	875,000	741,000	NO
65	106,600	1,083,000	1,122,000	YES

# Thank you

Please contact the  
Belmont Retirement Board for further information

617-484-8560  
[mcote@belmont-ma.gov](mailto:mcote@belmont-ma.gov)



# **Town of Belmont, Massachusetts**

## **Postemployment Benefits Other Than Pensions**

October 20, 2014

Linda L. Bournival, FSA  
Consulting Actuary  
KMS Actuaries, LLC



# Agenda

- What is GASB 45?
- Census Data
- Plan Provisions
- Economic Assumptions
- Demographic Assumptions
- Belmont's OPEB Liability
- Belmont's OPEB Trust
- Funding Options
- OPEB Liability Sensitivity Analysis
- Comparison of Nearby Communities
- Belmont Addresses OPEB

# What is GASB 45?

- Accrual accounting for Other Post Employment Benefits (OPEB)
- Benefits valued are retiree medical, dental, life insurance, etc.
- Establishes standards for measurement, recognition and display of OPEB expense and liabilities in the financial statements of governmental employers
- GASB 45 ***does not*** require funding OPEB liabilities, just reporting them



# What is GASB 45?

- Perform actuarial valuation *every other year*
- Develop expense called Annual Required Contribution (*ARC*)
  - Value of benefits earned by active employees in current year (*Normal Cost*)
  - Amortization of existing unfunded actuarial accrued liability (*AAL*)
- Disclose information about plan, plan assets and liabilities

# Census Data

- 670 Employees
  - 258 Teachers (39%)
  - 294 General Employees (44%)
  - 118 Public Safety (17%)
- 238 Town Retirees (48%)
  - 64 enrolled in Pre-Medicare\* Health Plans and life insurance
  - 159 enrolled in Medicare Health Plans and life insurance
  - 14 enrolled in life insurance only
- 255 School Retirees (52%)
  - 74 enrolled in Pre-Medicare\* Health Plans and life insurance
  - 155 enrolled in Medicare Health Plans and life insurance
  - 26 covered by life insurance only

\* Retirees age 65 who are eligible for Medicare enroll in Medicare supplemental plans at age 65

# Plan Provisions

- General Employees (Group 1)
  - Age 55 (60 for post-April 1, 2012 hires) with 10+ years of service or 20+ years of service
- Public Safety (Group 4)
  - Age 55 or 20+ years of service (Age 55 for post-April 1, 2012 hires)
- Retiree cost sharing
  - Retirees pay up to 50% (it's the law), depending on plan elected
  - 20% toward Harvard Pilgrim HMO, 50% toward Harvard Pilgrim PPO
  - Medicare-eligible retirees enroll in Medicare supplement plans at 65
  - 50% toward Medicare Enhance Value and Tufts Medicare Preferred
- Town contributes 50% of premium for \$2,000 life insurance coverage
- Town reimburses 50% of Medicare Part B premium



# Economic Assumptions

- Discount rate – used to calculate present value of expected future benefit payments
  - 4.5% (previously, 5%)
- Health Care Cost Trend Rates (HCCTR)
  - 10% year 1, declining 1% per year to ultimate rate of 5%
  - Belmont's 2014 health plan rates are 15% lower than expected from prior valuation
  - Recommended assumption change for 2014
    - reduction of 2-3% per year to ultimate rate of 5%

# Demographic Assumptions

- Assumptions other than health care related are consistent with Belmont and Mass Teachers Retirement Systems
- Retirement, disability and turnover depend on employee type
  - General employees, Public Safety and Teachers
- Mortality – includes mortality improvement
- Participation rate – 100%
  - Will revisit assumption in 2014
- Spouses covered – 50%

# Belmont's OPEB Liability

- Accrued Liability as of July 1, 2012 = \$195.9m
  - Based on census data, plan provisions and assumptions utilized in 2012 valuation
- Changes in 2012
  - Plan changes decrease liability (\$26.3m)
  - Discount rate change increases liability \$17.3m
  - Assumption changes increase liability \$4.5m
  - Total changes (\$4.5m)



# Belmont's OPEB Trust

- Belmont has established an irrevocable trust
  - Current balance is \$1.9 million
  - Belmont makes annual contributions to the Trust
    - In addition to benefits for current retirees and beneficiaries (PAYG)
- Employer contributions are irrevocable
- Plan assets are dedicated to providing benefits to retirees and their beneficiaries
- Plan assets are legally protected from creditors

# Funding Options

- Pay-as-you-go (PAYG)
  - Must use discount rate close to return on cash (4.5%)
  - Potential ramification on bond rating
  - Many municipalities finance OPEB on a PAYG basis
  - FY14 = \$5.1m
- Fully Pre-Fund the Annual Required Contribution (ARC)
  - Requires irrevocable OPEB trust
  - Allows use of higher discount rate (e.g., 7.5%)
  - FY14 = \$13.3m
  - Net OPEB contribution FY14 = \$8.2m
- Partially Pre-Fund
  - Requires irrevocable OPEB trust
  - Blended discount rate

# OPEB Liability Sensitivity Analysis

## Discount Rate

(\$ in millions)

	-1%	Baseline	+1%
Discount Rate	3.5%	4.5%	5.5%
Actuarial Liability	\$239.1	\$195.9	\$163.5
Absolute Change	+43.2	-	-32.4
Percentage Change	+22.1%	-	-16.5%

Source: July 1, 2012 Actuarial Report.

**Town of Belmont – OPEB Presentation**



# OPEB Liability Sensitivity Analysis

## Health Care Cost Trend Rates

(\$ in millions)

	-1%	Baseline	+1%
Health Care Trend	9%-4%	10%-5%	11%-6%
Actuarial Liability	\$164.4	\$195.9	\$236.9
Absolute Change	-31.5	-	+41.0
Percentage Change	-16.1%	-	+20.9%

Source: July 1, 2012 Actuarial Report.

**Town of Belmont – OPEB Presentation**

# Comparison of Nearby Communities

Community	OPEB Trust Balance	Discount Rate	Unfunded OPEB Liability/Funded Status
Belmont	\$1,400,000	4.50%	\$194,700,000 / 0.71%
Belmont*	\$1,400,000	7.50%	\$117,900,000 / 1.17%
Acton	310,000	6.25%	31,187,000 / 0.98%
Brookline	16,492,000	7.25%	189,300,000 / 8.01%
Concord	3,978,000	6.50%	28,100,000 / 12.40%
Dover	Not Available		
Hingham	5,597,000	8.00%	55,102,000 / 9.22%
Lexington	3,069,000	4.50%	128,337,000 / 2.34%
Newton	539,000	2.00%	601,771,000 / .09%
Wayland	10,607,000	7.00%	28,313,000 / 27.25%
Wellesley	27,039,000	7.50%	106,298,000 / 20.28%
Weston	5,186,000	4.50%	76,379,000 / 6.36%
Winchester	0	4.00%	60,106,000 / 0.00%

Source: 2013 Financial Statements. \* from Belmont's July 1, 2012 GASB 45 Valuation Report.

**Town of Belmont – OPEB Presentation**

# Comparison of Nearby Communities

- Every valuation is sensitive to census data
  - How many employees are working?
  - How many retirees and beneficiaries are receiving benefits?
  - How old are active employees and retirees?
  - When will employees retire?



# Comparison of Nearby Communities

- Every valuation is sensitive to plan provisions
  - What are the benefits promised?
  - How long will benefits continue after retirement?
  - What health plans are offered?
  - What are the costs of the plans?
  - What are the retiree cost sharing provisions?

# Comparison of Nearby Communities

- Every valuation is sensitive to assumptions
  - Assumptions can have a significant impact on size of liability
  - Assumptions are used to project *estimated* future benefit payments
  - Assumptions are used to calculate Present Values (OPEB Liability)
- Health Care Cost Trend Rates can vary
  - 7%-10% initially, 5% ultimate
- Discount rate depends on assets used to pay benefits
  - Lower discount rate means higher liabilities
- Implicit Subsidy is required by GASB 45
  - Included if “experience-rated” (Belmont)
  - Not included if “community-rated”

# Belmont Addresses OPEB Costs

- Established OPEB Policy
- Established Irrevocable OPEB Trust
  - Current balance = \$1.9 million
- Implemented health plan design changes
- Requires Medicare-eligible retirees to enroll in Medicare supplemental plans at age 65
- Performs biennial OPEB Actuarial Valuation
  - Most recent valuation as of July 1, 2012
  - Next valuation will be prepared as of July 1, 2014



# Town of Belmont Financial Statement Impact of Pensions and OPEB Obligations

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Presented By:

Richard Sullivan





# Reporting on Pensions

- Current model - Full Disclosure in Notes
  - Plan description
  - Funding policy
  - Annual costs
  - Schedule of Funding Progress
  - *As long as Town meets its ARC – no liability on Statement of Net Position*
- FY2015 and Future – GASB 68
  - Requires governments that participate in defined benefit pension plans to report in their statement of net position a *net pension liability*
  - The *net pension liability* is the difference between the total pension liability (the present value of projected benefit payments to employees based on their past service) and the assets (mostly investments reported at fair value) set aside in a trust and restricted to paying benefits to current employees, retirees, and their beneficiaries.



# Reporting on OPEB

- GASB 45
  - Reports annual OPEB cost and the unfunded actuarial accrued liabilities for past service costs.
  - Reports the estimated cost of the benefits as expense each year *during the years that employees are providing services* to the government and its constituents in exchange for those benefits.
  - Requires the *disclosure* of information about the *funded status* of the plan, including the UAAL, in the notes to the financial statements—and the presentation of multi-year funding progress trend information as a required supplementary schedule.
- Unfunded Annual OPEB Expense
  - Liability on Statement of Net Position
  - Expense in Statement of Activities



# Other Audit Matters Related to Pension and OPEB

- Use of Actuaries
  - Governed by AU Section 336 – Using the Work of a Specialist
  - We consider:
    - Professional Certification
    - Reputation and standing of the Actuary
    - The Actuaries Experience in the Type of Work Provided
- Moody's and S&P
  - They pay attention to Peer communities
  - Already have the numbers imbedded in Rating
  - Want to see a plan in place

# Belmont, Massachusetts

## Pension and OPEB Discussion

### Rating Agency Perspective



October 20, 2014

Presented by

Peter Frazier, Senior Vice President



# Bond Ratings

- Opinion on the creditworthiness of the issuer
- Used by market participants to determine prices of securities (interest rates)

# Bond Ratings

Moody's

Standard & Poor's

**Aaa - Belmont**

AAA

Aa1

AA+

Aa2

AA

Aa3

AA-

A1

A+

A2

A

A3

A-

Baa1

BBB+

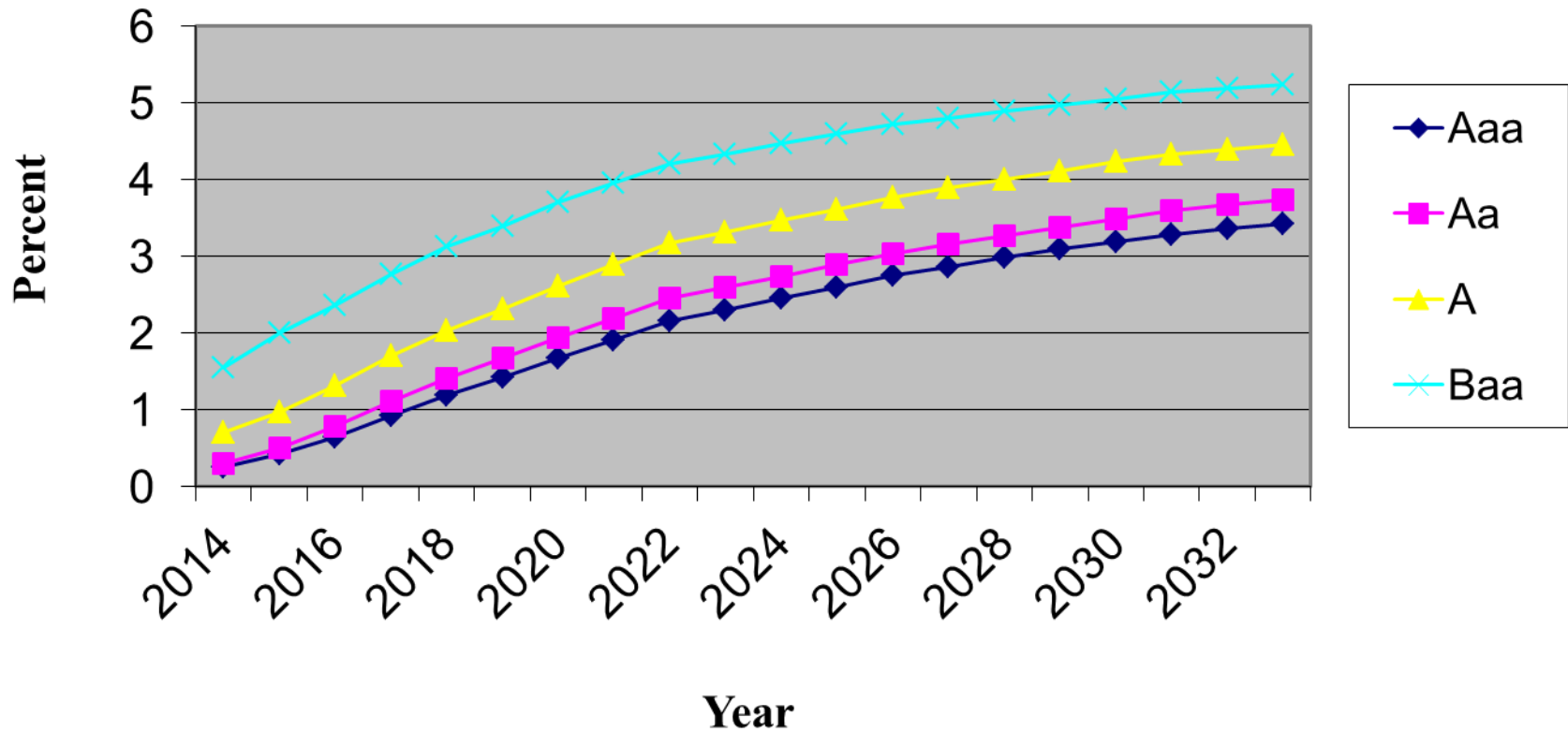
Baa2

BBB

Baa3

BBB-

# Yield Curves By Rating



# Value of Credit Rating

- Higher Ratings = Lower Borrowing Costs
  - Greater market access
  - Quality spreads - \$ impact of downgrades
  - Hypothetical \$100 million, 25 year Issue
    - \$2,540,000 additional cost - AAA to AA
- Unbiased, Expert Assessment of the Town's Wellbeing



# Major Credit Factors

- **Economy**
  - Local, Regional & National, Tax Base, Employment, Wealth, etc.
- **Management**
  - Experience, Policies & Procedures, Planning & Forecasting, performance monitoring, budgeting practices, etc.
- **Finances**
  - Reserve levels, structural balance, historical stability, etc.
- **Debt and Contingent Liabilities (Pension & OPEB)**

# Rating Agency Considerations

- Debt vs. Unfunded Pension and OPEB Liabilities
  - Moody's views OPEB and Pension obligations as less binding than bonded debt, reflecting flexibility to:
    - alter terms of benefits
    - adjust actuarial assumptions
    - adjust amortization schedule

# Rating Agency Considerations

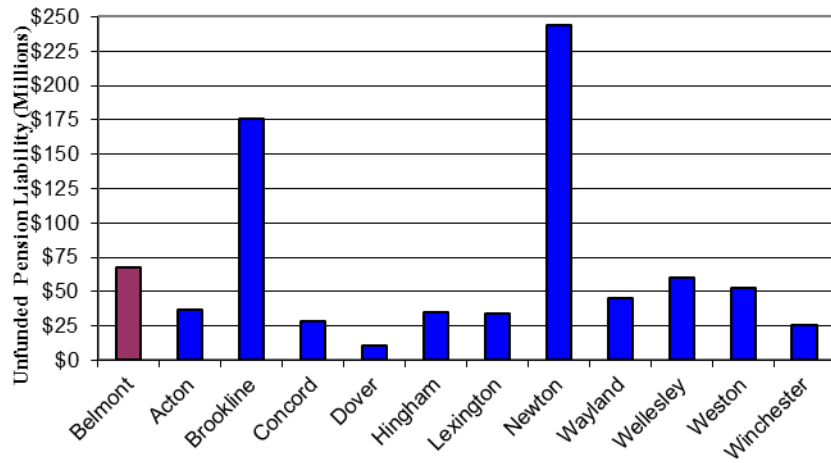
- Unfunded Pension and OPEB Liabilities
  - Amount of Liabilities
  - Funded Ratio
  - Amortization Schedule
  - OPEB Trust

# Rating Agency Considerations

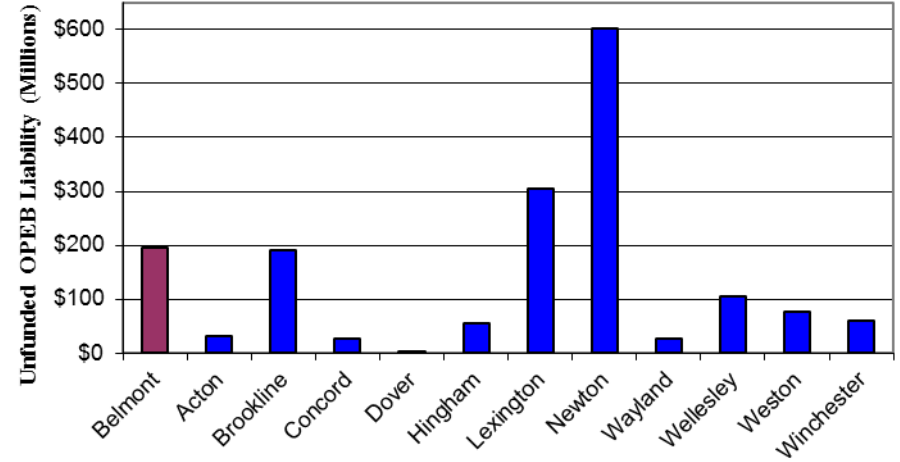
- 14 Massachusetts (Moody's) Aaa Cities & Towns
  - Pension
    - Most Aggressive Pension Funding Schedule (FY2027)
    - 11<sup>th</sup> Lowest Funded Ratio (49.9%)
      - Range from 43.7% to 78.3%
  - OPEB
    - 12<sup>th</sup> Lowest Funded Ratio



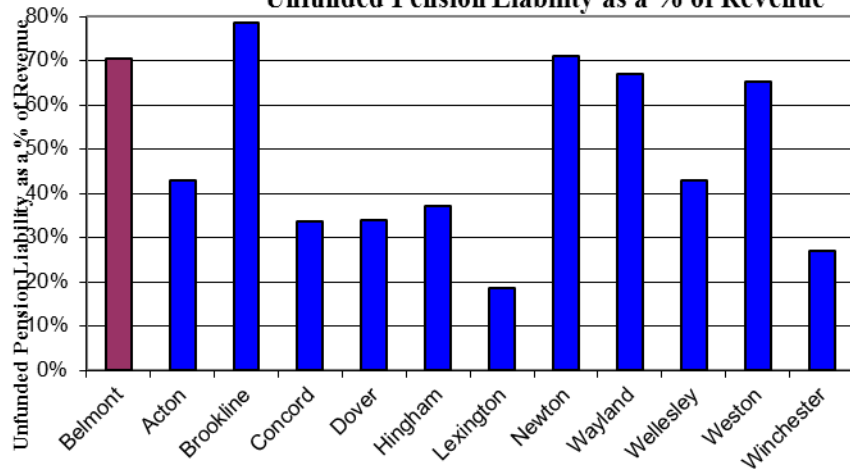
**Belmont vs. MA Aaa Rated Communities**  
**Unfunded Pension Liability**



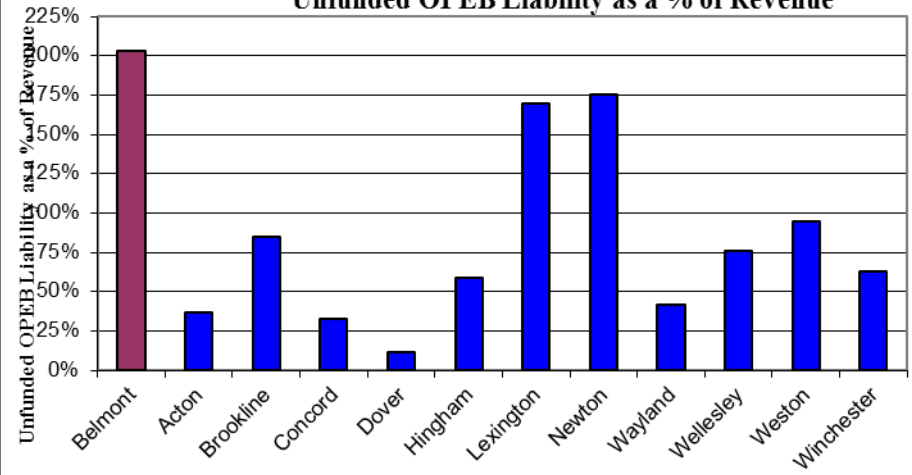
**Belmont vs. MA Aaa Rated Communities**  
**Unfunded OPEB Liability**



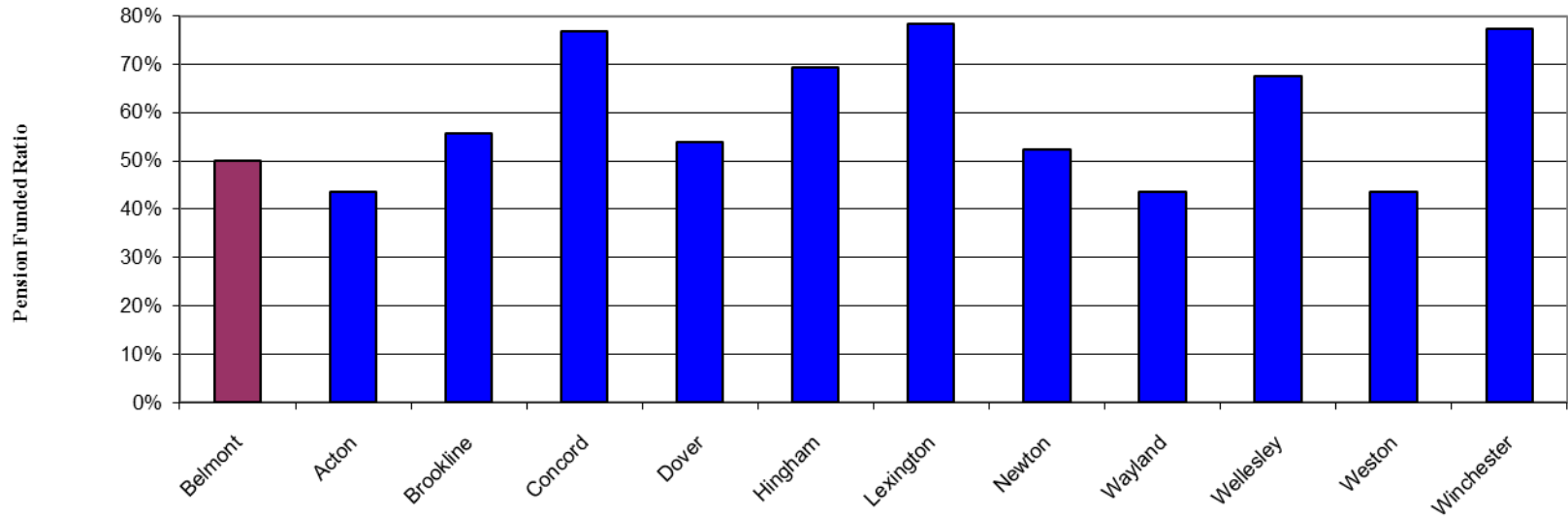
**Belmont vs. MA Aaa Rated Communities**  
**Unfunded Pension Liability as a % of Revenue**



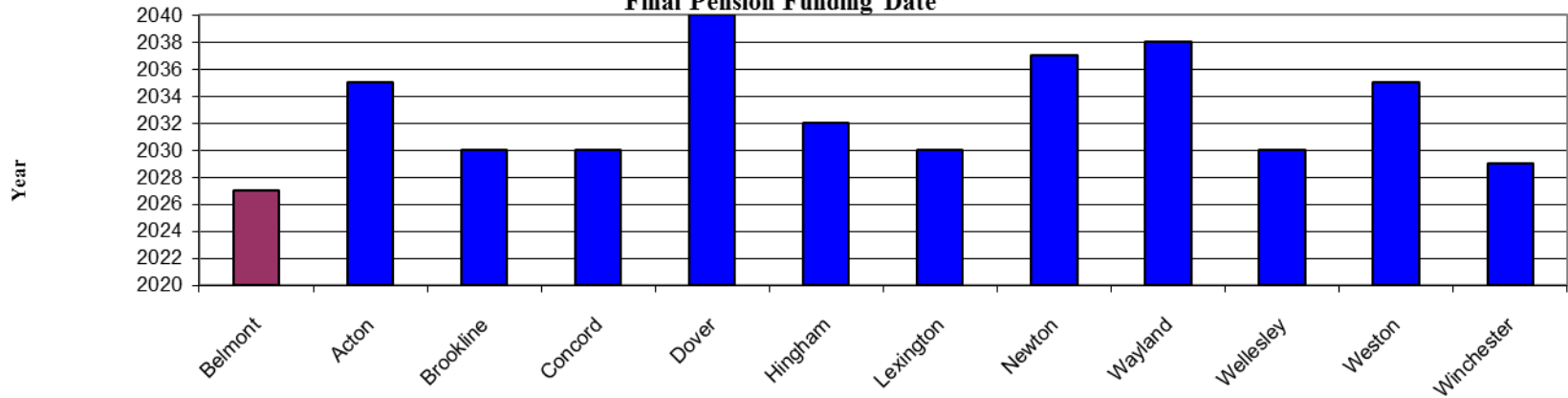
**Belmont vs. MA Aaa Rated Communities**  
**Unfunded OPEB Liability as a % of Revenue**



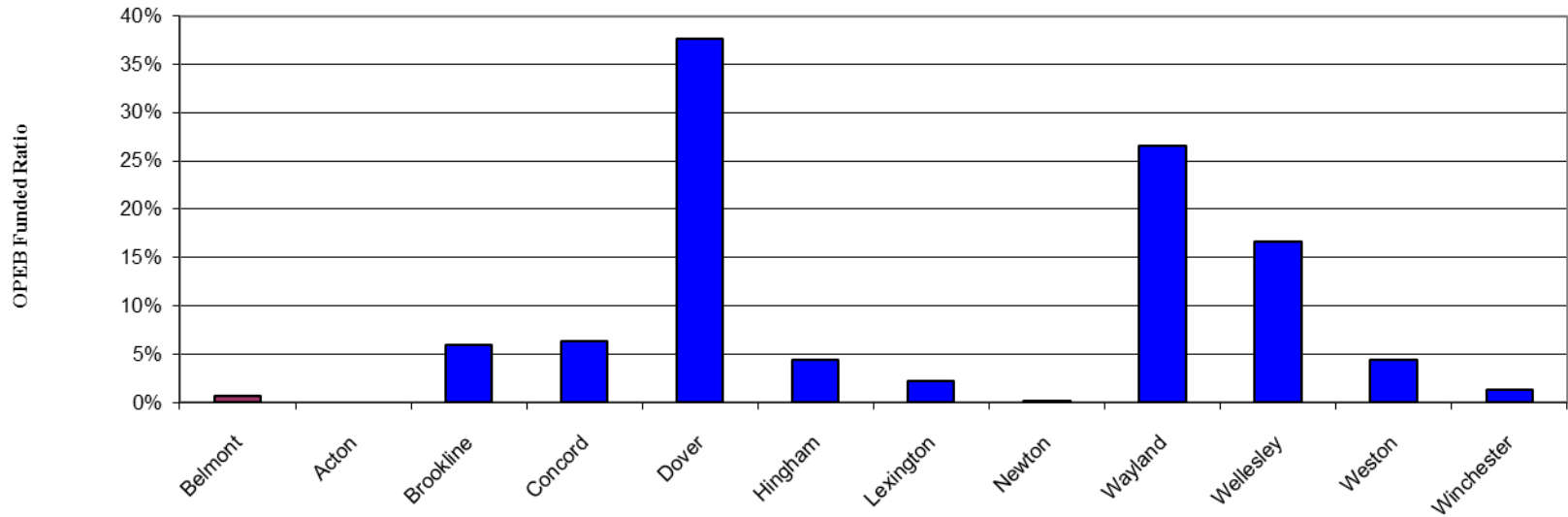
**Belmont vs. MA Aaa Rated Communities**  
**Pension Funded Ratio**



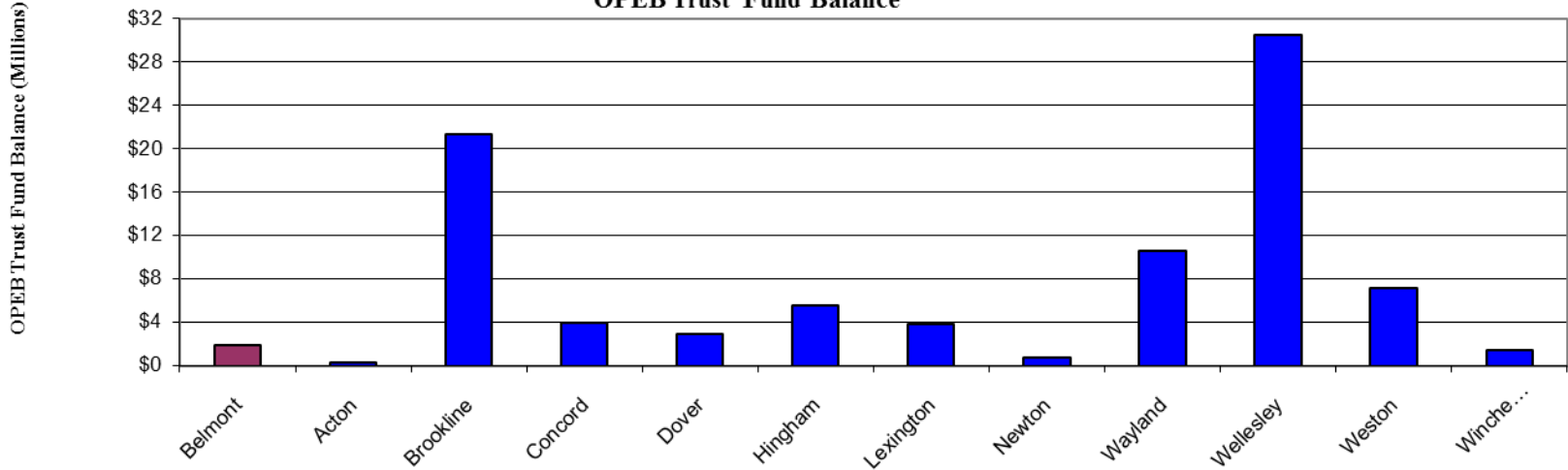
**Belmont vs. MA Aaa Rated Communities**  
**Final Pension Funding Date**



**Belmont vs. MA Aaa Rated Communities**  
**OPEB Funded Ratio**



**Belmont vs. MA Aaa Rated Communities**  
**OPEB Trust Fund Balance**



# Rating Agency Considerations

- Credit Standards are Evolving
- Rating agencies are currently looking for
  - Periodic actuarial valuation reports
  - An irrevocable trust (OPEB)
  - A funding plan
  - Historical and future commitment to funding

# Alternate Funding Approaches

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- Pension Obligation Bonds (POBs) are bonds issued by states and local municipalities (Plan Sponsors) to refund, in the capital markets, all or a portion of their Unfunded Actuarially Accrued Liabilities (UAAL)
- POBs are not issued by pension systems nor are the pension systems liable for the bonds
- Plan Sponsors use bond proceeds to retire all or a portion of the UAAL, with savings resulting from the lower taxable bond market rates vs. the pension system's actual earnings rate which is effectively the Plan Sponsor's interest cost



# Benefits of POBs

- Pension Plan is fully funded
- Substantial Savings realized vs. existing amortization schedule if actuarial investment return is achieved
- Neutral (to positive) credit rating impact
- City invests all bond proceeds at once (see Risks)

# Risks of POBs

- Reduced flexibility – POB Debt Service vs. flexible amortization schedule (inclusion of POB debt in debt ratios)
- If the retirement portfolio under performs – additional unfunded liability
- Municipality invests all bond proceeds at once (see Benefits)

# Obstacles

- Borrowing Authorization Requires a Special Act of the State Legislature
- The Commonwealth may impose restrictions on the structure of the bonds
- PERAC and the Department of Revenue may oppose the effort to issue POBs
  - Worcester & Brockton experience was generally unfavorable

# Handout

- Summary of Preliminary Results of the January 1, 2014 Actuarial Valuation by Segal Consulting after the BOS Precinct Meeting Pension and OPEB Discussion October 20, 2014 presentation



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Senior Vice President and Actuary  
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October 14, 2014

Retirement Board  
Belmont Contributory Retirement System  
P.O. Box 56  
455 Concord Avenue, Town Hall  
Belmont, MA 02478-0900

Subject: Summary of Preliminary Results of the January 1, 2014 Actuarial Valuation

Dear Board Members:

The following is a summary of the preliminary results of our January 1, 2014 actuarial valuation for the Belmont Contributory Retirement System.

Chart 1 summarizes the data used in this year's valuation, compared to the data used in the January 1, 2012 valuation. The number of active participants has increased 6.0% since the prior valuation. Total payroll has increased 16.2% and average pay has increased by 9.6% over the past two years. The salary increase assumption in the prior valuation was service-based with ultimate rates of 3.75% for Groups 1 and 2 and 4.25% for Group 4. The overall number of retirees and beneficiaries has increased by 1.5%.

The actuarial value of assets as of December 31, 2013 was \$77.2 million, or 93.8% of the market value of assets of \$82.3 million (as reported in the Annual Statement). As of December 31, 2011, the actuarial value of assets was 103.6% of market value. During the plan years ended December 31, 2012 and December 31, 2013, the market value rates of return were 11.9% and 15.8%, respectively. Because the actuarial value of assets gradually recognizes market value fluctuations, the actuarial rates of return for the plan years ended December 31, 2012 and December 31, 2013 were 4.5% and 12.4%, respectively.

The total unrecognized investment gain as of December 31, 2013 was \$5.1 million. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment losses derived from future experience. This implies that earning the assumed rate of investment return (net of expenses) on a market value basis will result in investment gains on the actuarial value of assets in the next few years. The unrecognized investment gains are not reflected in the attached funding schedules.



The following plan change is included in this valuation:

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

This valuation reflects the following changes in actuarial assumptions:

- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years to the RP-2000 Healthy Annuitant Mortality Table set forward three years projected 19 years with Scale AA.
- The liability for vested members in inactive status was changed from the employee's annuity savings fund to the greater of the employee's annuity savings fund or the present value of a deferred annuity.
- The percentage of accidental disability retirees that are assumed to die from the same cause of the disability was changed from 0% for all participants to 20% for Groups 1 and 2 and 60% for Group 4.
- The percentage of disabilities assumed to be accidental was changed from 60% to 90% for Groups 1 and 2.
- The percentage of deaths assumed to be accidental was changed from 20% for all participants to 55% for Groups 1 and 2 and 90% for Group 4.
- The administrative expense assumption was increased from \$100,000 for 2012, increasing 3% annually, to \$175,000 for 2014, increasing 4% annually.
- The assumed net 3(8)c disbursements were increased from \$75,000 to \$200,000, increasing 4% annually.

The changes in assumptions and methods increased the unfunded liability by \$2.2 million and increased the normal cost by approximately \$400,000.

Chart 2 shows the cost factors and unfunded liability as of January 1, 2014 and January 1, 2012. The unfunded liability was expected to decrease from \$67.4 million as of January 1, 2012 to \$66.0 million as of January 1, 2014. The actual unfunded liability as of January 1, 2014 of \$73.7 million is \$7.7 million higher than expected as detailed on the next page.

	<b>(Amounts Expressed in Millions)</b>
January 1, 2012 unfunded actuarial accrued liability	\$67.4
January 1, 2014 expected unfunded actuarial accrued liability	66.0
Change due to:	
Investment gain	\$(0.8)
Loss due to data changes and other miscellaneous experience, including salaries increasing more than expected	5.8
Net 3(8)(c) reimbursements out of System and administrative expenses greater than expected	0.5
Changes in actuarial assumptions	<u>2.2</u>
Net change	7.7
January 1, 2014 unfunded actuarial accrued liability	\$73.7

The funding schedule in Chart 3 fully funds the System by fiscal 2027, the same as the prior funding schedule. The recommended contribution for fiscal 2015 is set to the previously budgeted amount of \$7,364,523. The appropriation is calculated to increase 6.97% per year through fiscal 2027. This will result in a total fiscal 2016 appropriation of \$7,877,958 and a total fiscal 2017 appropriation of \$8,427,189. These amounts reflect payment of the appropriation in two equal amounts on July 1 and December 31. If the appropriation is made in one payment on January 1, the amount will be lower.

The following table shows the change in the funded ratio from January 1, 2012 to January 1, 2014, using both the market value of assets and the actuarial value of assets:

	<b>Funded Ratio as of</b>	
	<b>January 1, 2012</b>	<b>January 1, 2014</b>
Market value of assets	48.17%	54.54%
Actuarial value of assets	49.91%	51.16%

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which this actuarial valuation was based was prepared by the staff of the Belmont Contributory Retirement System.

The actuarial assumptions used for this valuation and a summary of the plan of benefits are attached. The financial information used in this valuation is as of January 1, 2014.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented

in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate. In my opinion, each assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

We look forward to reviewing these results with you.

Sincerely,



Kathleen A. Riley, FSA, MAAA, EA

KCR/jpb

Enclosures

cc: Ms. Marion Cote (w/enclosures)

## Chart 1

## Table of Plan Coverage

Category	Year Ended December 31		Change From Prior Year
	2013	2011	
Active participants in valuation:			
Number	458	432	6.0%
Average age	46.1	46.7	N/A
Average years of service	11.6	10.3	N/A
Total payroll	\$24,186,238	\$20,823,251	16.2%
Average payroll	52,808	48,202	9.6%
Member contributions	22,005,538	19,282,753	14.1%
Inactive participants entitled to a return of their employee contributions	155	141	N/A
Inactive participants with a vested right to a deferred or immediate benefit	9	- *	N/A
Retired participants:			
Number in pay status	254	249	2.0%
Average age	74.7	N/A	N/A
Average monthly benefit	\$2,400	\$2,336	2.7%
Disabled participants:			
Number in pay status	45	45	0.0%
Average age	68.3	N/A	N/A
Average monthly benefit	\$2,428	\$2,421	0.3%
Beneficiaries in pay status:			
Number in pay status	47	47	0.0%
Average age	74.2	N/A	N/A
Average monthly benefit	\$1,283	\$1,449	-11.5%

\* Included with inactive participants entitled to a return of their employee contributions.

Note: Year end 2011 results are based on the January 1, 2012 valuation report prepared by Buck Consultants, LLC.

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**CHART 2**  
**Recommended Contribution**


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	Year Beginning January 1			
	2014		2012	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$3,290,948	13.09%	\$3,019,016	14.50%
2. Administrative expenses and net 3(8)c reimbursements	375,000	1.49%	175,000	0.84%
3. Expected employee contributions	<u>-2,417,389</u>	<u>-9.61%</u>	<u>-1,805,339</u>	<u>-8.67%</u>
4. Employer normal cost: (1) + (2) + (3)	\$1,248,559	4.97%	\$1,388,677	6.67%
5. Actuarial accrued liability	150,911,920		134,522,071	
6. Actuarial value of assets	<u>77,213,290</u>		<u>67,144,549</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$73,698,630		\$67,377,522	
8. Projected payroll as of January 1	\$25,142,886		\$20,823,251	

*\*Recommended contributions are assumed to be paid in two equal installments on July 1 and December 31.*



## Chart 3

## Funding Schedule – Uniform increases in the appropriation through 2027

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of 2002 ERI Liability	(4) Amortization of 2003 ERI Liability	(5) Amortization of Remaining Unfunded Liability	(6) Total Plan Cost: (2) + (3) + (4) + (5)	(7) Total Unfunded Actuarial Liability at Beginning of Fiscal Year	(8) Percent Increase in Total Cost
2015	\$1,297,269	\$23,098	\$70,989	\$5,973,166	\$7,364,523	\$76,501,166	--
2016	1,349,160	23,098	74,183	6,431,517	7,877,958	76,013,403	6.97%
2017	1,403,126	23,098	77,522	6,923,443	8,427,189	74,999,719	6.97%
2018	1,459,251	23,098	81,011	7,451,351	9,014,711	73,383,694	6.97%
2019	1,517,621	--	84,656	8,040,915	9,643,193	71,080,433	6.97%
2020	1,578,326	--	88,466	8,648,699	10,315,491	67,995,730	6.97%
2021	1,641,459	--	92,446	9,300,755	11,034,660	64,025,154	6.97%
2022	1,707,118	--	96,607	10,000,243	11,803,968	59,053,048	6.97%
2023	1,775,402	--	100,954	10,750,553	12,626,910	52,951,438	6.97%
2024	1,846,418	--	105,497	11,555,309	13,507,225	45,578,845	6.97%
2025	1,920,275	--	110,244	12,418,394	14,448,914	36,778,977	6.97%
2026	1,997,086	--	--	13,459,168	15,456,254	26,379,319	6.97%
2027	2,076,970	--	--	14,456,854	16,533,824	14,189,578	6.97%
2028	2,160,048	--	--	--	2,160,048	--	-86.94%
2029	2,246,450	--	--	--	2,246,450	--	4.00%
2030	2,336,308	--	--	--	2,336,308	--	4.00%
2031	2,429,761	--	--	--	2,429,761	--	4.00%
2032	2,526,951	--	--	--	2,526,951	--	4.00%
2033	2,628,029	--	--	--	2,628,029	--	4.00%
2034	2,733,150	--	--	--	2,733,150	--	4.00%
2035	2,842,476	--	--	--	2,842,476	--	4.00%
2036	2,956,175	--	--	--	2,956,175	--	4.00%
2037	3,074,422	--	--	--	3,074,422	--	4.00%
2038	3,197,399	--	--	--	3,197,399	--	4.00%
2039	3,325,295	--	--	--	3,325,295	--	4.00%
2040	3,458,307	--	--	--	3,458,307	--	4.00%

Notes: Recommended contributions are assumed to be paid in two equal installments on July 1 and December 31.

Item (2) increases at 4.00% and Item (4) increases at 4.50%.

Assumes contribution of budgeted amount for fiscal year 2015.

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**Actuarial Assumptions and Actuarial Cost Method**


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**Mortality Rates:**

<i>Pre-Retirement:</i>	RP-2000 Employee Mortality Table projected 27 years with Scale AA
<i>Healthy Retiree:</i>	RP-2000 Healthy Annuitant Mortality Table projected 19 years with Scale AA
<i>Disabled Retiree:</i>	RP-2000 Healthy Annuitant Mortality Table set forward 3 years projected 19 years with Scale AA (Previously, set forward 2 years and no projection)
	The RP-2000 Combined Healthy Mortality Table projected 19 years with Scale AA was determined to contain provisions appropriate to reasonably reflect future mortality improvement.

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**Termination Rates before Retirement:****Groups 1 and 2 - Rate (%)**

<b>Age</b>	<b>Mortality</b>		<b>Disability</b>
	<b>Male</b>	<b>Female</b>	
20	0.02	0.01	0.01
25	0.03	0.01	0.02
30	0.04	0.02	0.03
35	0.07	0.04	0.06
40	0.09	0.05	0.10
45	0.11	0.07	0.15
50	0.13	0.11	0.19
55	0.18	0.20	0.24
60	0.32	0.34	0.28

*Notes: 90% of the disability rates shown represent accidental disability. (Previously, 60%)*

*20% of the accidental disabilities will die from the same cause as the disability. (Previously, 0%)*

*55% of the death rates shown represent accidental death. (Previously, 20%)*

**Termination Rates before Retirement (continued):**

d):

Age	Group 4 – Rate (%)		Disability
	Mortality		
	Male	Female	
20	0.02	0.01	0.10
25	0.03	0.01	0.20
30	0.04	0.02	0.30
35	0.07	0.04	0.30
40	0.09	0.05	0.30
45	0.11	0.07	1.00
50	0.13	0.11	1.25
55	0.18	0.20	1.20
60	0.32	0.34	0.85

*Notes: 90% of the disability rates shown represent accidental disability.*

*60% of the accidental disabilities will die from the same cause as the disability. (Previously, 0%)*

*90% of the death rates shown represent accidental death. (Previously, 20%)*

**Withdrawal Rates:**

Years of Service	Rate per year (%)	
	Groups 1 and 2	Group 4
0	15.0	0 – 10
1	12.0	11+
2	10.0	
3	9.0	
4	8.0	
5	7.6	
6	7.5	
7	6.7	
8	6.3	
9	5.9	
10	5.4	
11	5.0	
12	4.6	
13	4.1	
14	3.7	
15	3.3	
16 – 20	2.0	
21 - 29	1.0	
30+	0.0	

**Retirement Rates:**

Age	Rate per year (%)		
	Groups 1 and 2		Group 4
	Male	Female	
45 – 49	0.0	0.0	1.0
50 – 51	1.0	1.5	2.0
52	1.0	2.0	2.0
53	1.0	2.5	5.0
54	2.0	2.5	7.5
55	2.0	5.5	15.0
56 – 57	2.5	6.5	10.0
58	5.0	6.5	10.0
59	6.5	6.5	15.0
60	12.0	5.0	20.0
61	20.0	13.0	20.0
62	30.0	15.0	25.0
63	25.0	12.5	25.0
64	22.0	18.0	30.0
65	40.0	15.0	100.0
66 - 67	25.0	20.0	--
68	30.0	25.0	--
69	30.0	20.0	--
70	100.0	100.0	--

**Retirement Age for Inactive Vested Participants:**

Age 60 for Group 1 and Group 2 members and age 55 for Group 4 members hired prior to April 2, 2012. For members hired April 2, 2012 or later, age 60 for Group 1 members, age 55 for Group 2 members and age 50 for Group 4 members. (Previously, all inactive participants were assumed to take a refund of their annuity savings fund at termination.)

**Unknown Data for Participants:**

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.



**Family Composition:** 80% of participants are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their spouses.

**Benefit Election:** All participants are assumed to elect Option A.

**Net Investment Return:** 7.75%

**Interest on Employee Contributions:** 3.5%

**Salary Increases:**

Years of Service	Group 1	Group 2	Group 4
0	6.00%	6.00%	7.00%
1	5.50%	5.50%	6.50%
2	5.50%	5.50%	6.00%
3	5.00%	5.00%	5.50%
4	5.00%	5.00%	5.00%
5	4.50%	4.50%	5.00%
6	4.50%	4.50%	4.50%
7	4.00%	4.00%	4.50%
8	4.00%	4.00%	4.25%
9+	3.75%	3.75%	4.25%

*Note: Total payroll is projected to increase at 4% per year.*

**Administrative Expenses:** \$175,000 for calendar year 2014, increasing 4.0% per year (Previously, \$100,000 for calendar year 2012, increasing 3.0% per year)

**2013 Salary:** 2013 salaries are equal to salaries provided in the data, except for actives missing salary and employees with less than one year of service, where salaries are calculated from annualized contributions divided by the contribution rates provided.

**Total Service:** Total creditable service reported in the data.

**Net 3(8)c Liability:** \$200,000 for calendar year 2014, increasing 4.0% per year (Previously, \$75,000 for calendar year 2012).

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<b>Actuarial Value of Assets:</b>	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 at 20% per year over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
<b>Actuarial Cost Method:</b>	Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less total creditable service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. Normal Cost is determined by using the plan of benefits applicable to each participant.

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<b>Changes in Assumptions:</b>	<p>This valuation reflects the following:</p> <ul style="list-style-type: none"><li>➤ The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years to the RP-2000 Healthy Annuity Mortality Table set forward three years projected 19 years with Scale AA.</li><li>➤ The liability for vested members in inactive status was changed from the employee's annuity savings fund to the greater of the employee's annuity savings fund or the present value of a deferred annuity.</li><li>➤ The percentage of accidental disability retirees that are assumed to die from the same cause of the disability was changed from 0% for all participants to 20% for Groups 1 and 2 and 60% for Group 4.</li><li>➤ The percentage of disabilities assumed to be accidental was changed from 60% to 90% for Groups 1 and 2.</li><li>➤ The percentage of deaths assumed to be accidental was changed from 20% for all participants to 55% for Groups 1 and 2 and 90% for Group 4.</li><li>➤ The administrative expense assumption was increased from \$100,000 for 2012, increasing 3% annually, to \$175,000 for 2014, increasing 4% annually.</li><li>➤ The assumed net 3(8)c disbursements were increased from \$75,000 to \$200,000, increasing 4% annually.</li></ul>
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**Summary of Plan Provisions**


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This exhibit summarizes the major provisions of Chapter 32 of the Laws of Massachusetts.

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**Plan Year:** January 1 – December 31

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**Retirement Benefits**

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

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

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

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

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

**For members with less than 30 years of creditable service:**

**Age Last Birthday at Date of Retirement**

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

**For members with 30 years of creditable service or greater:**

**Age Last Birthday at Date of Retirement**

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

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

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

For all employees, the maximum annual amount of the retirement allowance is 80 percent of the member’s final 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.

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#### Employee Contributions

<u>Date of Hire</u>	<u>Contribution Rate</u>
Prior to January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 onward	9%

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 voluntarily withdraw their contributions with less than 10 ten years of credited service receive 3% interest on their contributions.

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

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#### Retirement Benefits (Superannuation)

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

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

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

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

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#### **Ordinary Disability Benefits**

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

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#### **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 or her 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.

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#### **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 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 is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held by the member at the time of death.

Upon the death of a job-connected disability retiree who retired prior to November 7, 1996 and could not elect an Option C benefit, a surviving spouse will receive an allowance of \$6,000 per year if the member dies for a reason unrelated to cause of disability.

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**"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.

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**Options**

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

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**Post-Retirement Benefits**

The Board has adopted the provisions of Section 51 of 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 not reflected in this report.

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**Changes in Plan Provisions**

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

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