



# Town of North Reading, Massachusetts

## Results of the July 1, 2014 GASB 45 Valuation

Board of Selectmen Meeting  
June 13, 2016

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# Agenda

- What is GASB 45?
- GASB 45 Actuarial Valuation
  - Census Data
  - Plan Provisions
  - Economic Assumptions
  - Demographic Assumptions
- North Reading's OPEB Liability
- Funding Options
- OPEB Liability Sensitivity Analysis
- OPEB Costs
- OPEB Liabilities
- Questions

# What is GASB 45?

- Accrual accounting for **O**ther **P**ost **E**mployment **B**enefits (OPEB)
- Benefits valued are retiree medical, dental, life insurance, Medicare reimbursements, 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 (*UAAL*)
- Disclose information about plan, plan assets and liabilities

# GASB 45 Actuarial Valuation

- Develop a model to calculate liabilities and other costs for GASB 45 expense and disclosure
- Model consists of
  - Census data
  - Plan provisions
  - Economic assumptions
  - Demographic assumptions
  - Actuarial Methods

# Census Data

- 490 Active employees
  - 129 Town
  - 361 School
- 256 Retired members and Survivors and 103 Covered Spouses
  - Pre-Medicare, or “Active”, Health Plans
    - 45 retirees
    - 26 covered spouses
  - Medicare Supplemental Health Plans
    - 162 retirees
    - 77 covered spouses
  - 49 retirees with “life insurance only”
- 200 retirees covered under \$5,000 life insurance policy
- Retirees eligible for Medicare enroll in Medicare supplemental plans at age 65

# Plan Provisions

- Eligibility
  - General Employees and Teachers
    - Age 55 (60 for post-April 1, 2012 hires) with 10+ years of service or 20+ years of service
  - Public Safety
    - Age 55 or 20+ years of service (Age 55 for post-April 1, 2012 hires)
- Benefits provided
  - Health insurance coverage
  - Medicare late enrollment penalty reimbursement (if applicable)
  - \$5,000 life insurance coverage
  - Retirees pay 30% of monthly health insurance premium under HMO Plan, 50% for all others

# Economic Assumptions

- Discount rate – used to calculate present value of expected future benefit payments
  - Long-term investment yield on investments expected to be used to finance payment of benefits
  - Consider nature and mix of investments
  - Investments are employer assets for plans with no assets
  - Currently use a discount rate of 4%
  - Higher discount rate means lower liabilities and ARC
- Health Care Cost Trend Rates (HCCTR)
  - Rate of change in per capita health claims costs over time
    - Medical inflation
    - Utilization of healthcare services
    - Plan design
    - Technological developments
  - Currently use HCCTR of 8% year 1, declining .5% per year to ultimate rate of 5%

# Demographic Assumptions

- Any assumption that isn't economic
- Assumptions other than healthcare-related are consistent with Middlesex County and Massachusetts Teachers Retirement Systems
  - Retirement
  - Death
  - Disability
  - Turnover
- Demographic assumptions vary by employee type
  - General employees
  - Public safety
  - Teachers
- Mortality – includes expected mortality improvement
- Participation rate
  - 70% medical coverage
  - 70% life insurance coverage
- Spouses covered – 60%

# North Reading's OPEB Liability

(\$ in millions)

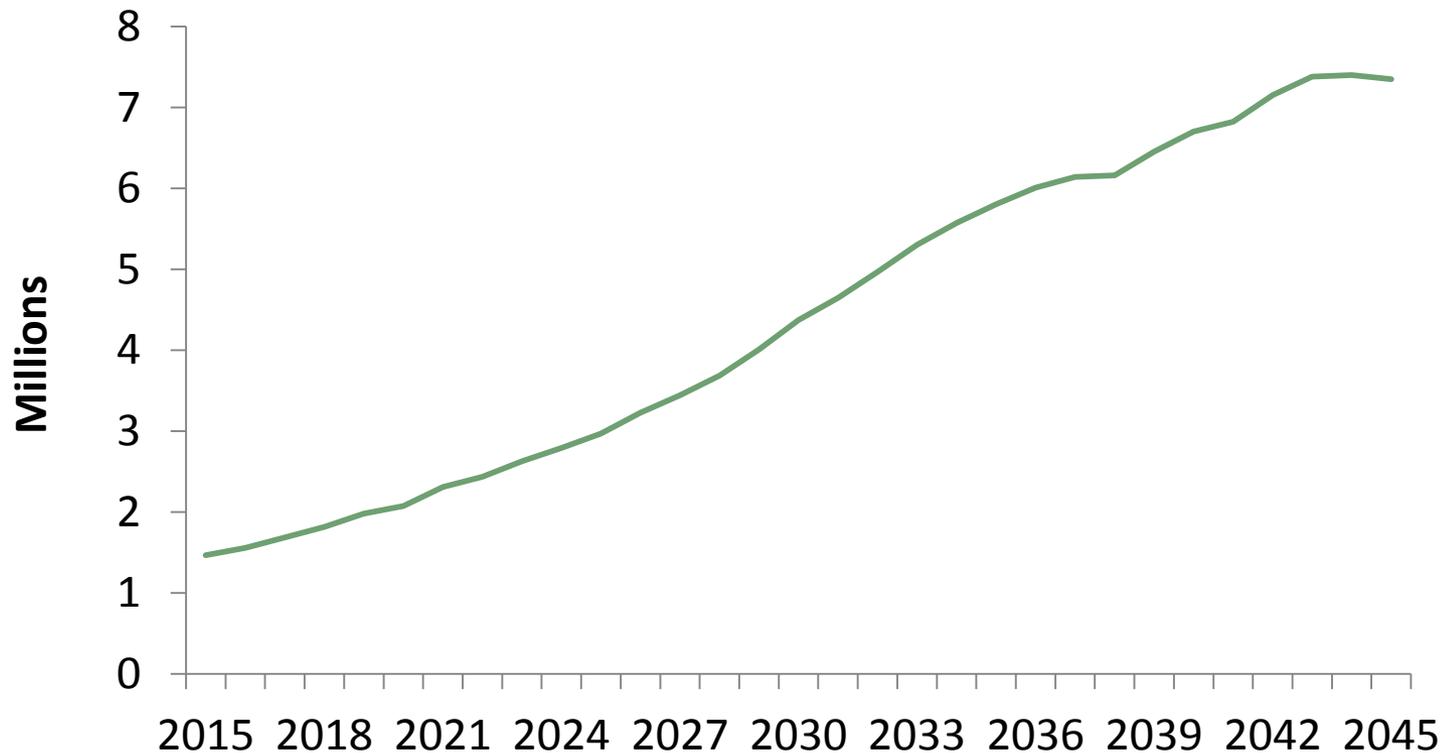
Unfunded Actuarial Accrued Liability, July 1, 2012		\$67.2
Expected Unfunded Actuarial Accrued Liability, July 1, 2014		76.3
Changes for the period July 1, 2012 through June 30, 2014:		
Changes to morbidity tables and premiums less than expected	Gain	(\$8.2)
Changes to pre- and post-retirement mortality	Loss	11.0
Deviation of experience from prior valuation	Loss	2.6
Total (Gain) / Loss		\$5.4
Unfunded Actuarial Accrued Liability, July 1, 2014		\$81.7

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# North Reading's OPEB Liability

Town's retiree health insurance payments expected to increase significantly over next several years



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# Funding Options

- Pay-as-you-go (PAYG)
  - Must use discount rate close to return on cash (4%)
  - Potential ramification on bond rating
  - Many municipalities finance OPEB on a PAYG basis
- Fund the Annual Required Contribution (ARC)
  - Requires irrevocable OPEB trust
  - Allows use of higher discount rate (e.g., 7.5%)
- Partially Pre-Fund
  - Requires irrevocable OPEB trust
  - Blended discount rate

# Funding Options

- North Reading has established an irrevocable OPEB trust
  - Plan assets are segregated and restricted
  - Dedicated to providing plan benefits to retirees and beneficiaries
  - Legally protected from creditors
  - Employer contributions to trust must be irrevocable

# OPEB Liability Sensitivity Analysis

- 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?

# OPEB Liability Sensitivity Analysis

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

# OPEB Liability Sensitivity Analysis

- Every valuation is sensitive to *Valuation 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, 4%-5% ultimate
- Discount rate depends on assets used to finance benefits
  - Lower discount rate means higher liabilities
- Implicit Subsidy is required by GASB 45 and ASOPS
  - ASOP = Actuarial Standards of Practice
  - Blended premium rates based on age and experience of covered actives and retirees
  - Cost of retiree medical is generally higher for retirees than actives
  - GASB 45 requires projected benefits based on claims cost or age-adjusted premiums

# OPEB Sensitivity Analysis

## Health Care Cost Trend Rates

(\$ in millions)

	-1%	Baseline	+1%
Health Care Trend	7%-4%	8%-5%	9%-6%
<b>Actuarial Liability</b>	<b>\$62.2</b>	<b>\$81.9</b>	<b>\$110.3</b>
Percentage Change	-24.0%	-	+34.7%
<b>Annual Required Contribution (ARC)</b>	<b>\$6.1</b>	<b>\$8.5</b>	<b>\$12.0</b>
Percentage Change	-28.1%	-	+41.8%

Source: July 1, 2014 Actuarial Report.

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# OPEB Sensitivity Analysis

## Discount Rate Assumption

(\$ in millions)

	-1%	Baseline	+1%
Discount Rate	3%	4%	5%
<b>Actuarial Liability</b>	<b>\$105.0</b>	<b>\$81.9</b>	<b>\$65.5</b>
Percentage Change	+28.2%	-	-20.0%
<b>Annual Required Contribution (ARC)</b>	<b>\$10.6</b>	<b>\$8.5</b>	<b>\$7.0</b>
Percentage Change	+25.0%	-	-17.5%

Source: July 1, 2014 Actuarial Report.

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# OPEB Costs

- Plan offerings and cost-sharing provisions drive the **COSTS**
- Periodically review health plan choices
- Medicare-eligible retirees
  - Medicare-eligible retirees are required to transfer to a Medicare health plan at age 65
- Pension Reform
  - Increases minimum retirement age
    - from age 55 to age 60 for post-April 1, 2012 hires
  - Delayed retirements generally reduce costs
    - Fewer years to provide retiree medical coverage while covering replacement employee
    - Takes many years for any savings to be realized

# OPEB Liabilities

- Costs and Assumptions drive the **LIABILITY**
- Establish OPEB Policy
- Establish Irrevocable OPEB Trust
  - Pre-fund retiree medical benefits
  - Contribute based on adopted contribution policy or ad hoc
  - Use of slightly higher blended discount rate in the future
- Perform biennial OPEB Actuarial Valuation
  - Most recent valuation as of July 1, 2014
  - Next valuation required as of July 1, 2016
- GASB 43/45 have undergone a significant overhaul
  - GASB 74/75 effective for FY2018
  - Net OPEB liability will be recognized on the balance sheet
  - Similar to Pension accounting standards under GASB 67/68

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# Questions?



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