

Town of Plymouth, Massachusetts

Results of the January 1, 2015 GASB 45 Valuation

September 22, 2015

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Agenda

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- GASB 45 Actuarial Valuation
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- OPEB Liabilities
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What is GASB 45?

- Accrual accounting for **O**ther **P**ost **E**mployment **B**enefits (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 (*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

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Census Data

- 1,498 Active employees
 - 438 Town
 - 1,024 School
 - 36 Other Departments (Water, Sewer, Solid Waste and Airport)
- 1,158 Retired members and Survivors and 681 Covered Spouses
 - Pre-Medicare, or “Active”, Health Plans
 - 357 retirees
 - 261 covered spouses
 - Medicare Supplemental Health Plans
 - 747 retirees
 - 403 covered spouses
- 1,095 retirees covered under dental plan
- 155 retirees receive reimbursement for Medicare late-enrollment penalty
 - Approximately \$11,500 total reimbursement per month
- 1,113 retirees reimbursed for Medicare Part B premium
- 956 retirees covered under \$2,000 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 and dental insurance coverage
 - Medicare late enrollment penalty reimbursement
 - Medicare Part B premium reimbursement
 - \$2,000 life insurance coverage
 - Retirees pay 1, 10 or 20% of monthly health insurance premium
 - Retirees pay 1, 10 or 20% of monthly dental insurance premium
 - Town Retirees pay 1% and School Retirees pay 10% of monthly life insurance premium

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 7% year 1, declining 1% per year to ultimate rate of 5%

Demographic Assumptions

- Any assumption that isn't economic
- Assumptions other than healthcare-related are consistent with Plymouth 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
 - 95% medical coverage
 - 95% life insurance coverage
 - 75% dental coverage
- Spouses covered – 65%

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Plymouth's OPEB Liability

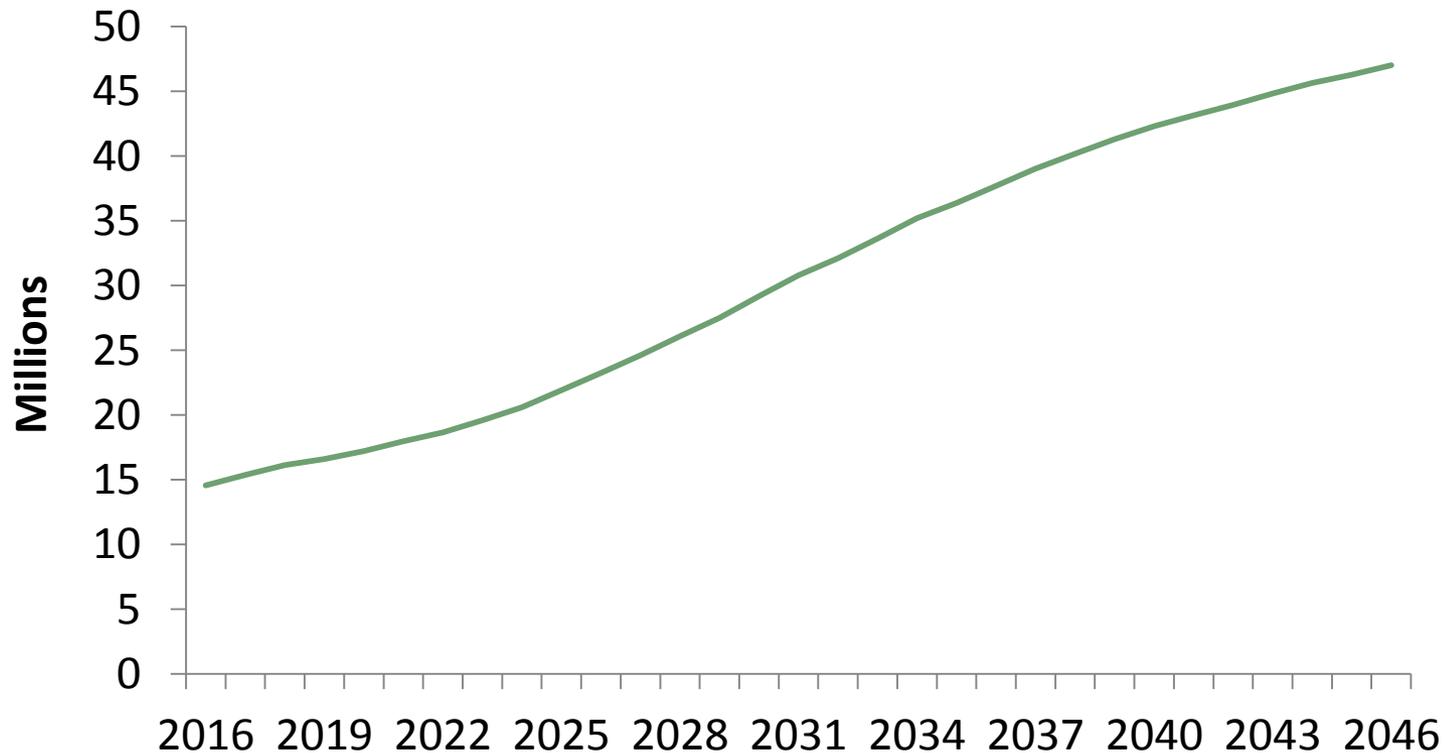
(\$ in millions)

Unfunded Actuarial Accrued Liability, January 1, 2013		\$492.2
Changes for the period January 1, 2013 through December 31, 2014:		
Pre-retirement decrement changes	Gain	\$(5.7)
Changes to morbidity tables and premiums less than expected	Gain	(23.8)
Changes to pre- and post-retirement mortality	Loss	54.1
Deviation of experience from prior valuation	Loss	5.0
Total (Gain) / Loss		\$29.6
Unfunded Actuarial Accrued Liability, January 1, 2015		\$566.8

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Plymouth'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

- Plymouth 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

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OPEB Sensitivity Analysis

Health Care Cost Trend Rates

(\$ in millions)

	-1%	Baseline	+1%
Health Care Trend	6%-4%	7%-5%	8%-6%
Actuarial Liability	\$470.2	\$567.8	\$697.1
Percentage Change	-17.2%	-	+22.8%
Annual Required Contribution (ARC)	\$30.9	\$39.4	\$51.4
Percentage Change	-21.7%	-	+30.3%

Source: January 1, 2015 Actuarial Report.

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OPEB Sensitivity Analysis

Discount Rate Assumption

(\$ in millions)

	-1%	Baseline	+1%
Health Care Trend	3%	4%	5%
Actuarial Liability	\$703.9	\$567.8	\$467.7
Percentage Change	+24.0%	-	-17.6%
Annual Required Contribution (ARC)	\$48.1	\$39.4	\$33.5
Percentage Change	+21.9%	-	-15.2%

Source: January 1, 2015 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

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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 January 1, 2015
 - Next valuation required as of January 1, 2017
- GASB 45 has undergone a significant overhaul
 - Net OPEB liability will be recognized on the balance sheet
 - Effective date - fiscal years beginning after June 15, 2017
 - For Plymouth, this is FY2018

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Questions?



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