



nyhart

***Town of Cumberland
GASB 45 Financial Report***

***Fiscal Year Ending
June 30, 2012***

(Revised January 4, 2013)

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Certification

This report summarizes the GASB actuarial valuation for Town of Cumberland 2011/12 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 45 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions). The valuation is also based upon our understanding of the plan provisions as summarized within the report.

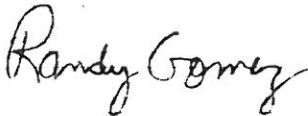
The information presented herein is based on the information furnished to us by the Plan Sponsor that has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census provided by the Plan Sponsor. We have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based.

The actuarial assumptions were selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All computations have been made in accordance with generally accepted actuarial principles and practice.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.

Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report.

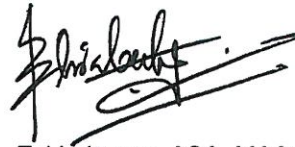
Nyhart



Randy Gomez, FSA, MAAA

December 3, 2012

Revised January 4, 2013



Evi Laksana, ASA, MAAA

There have been changes to the retiree health benefits since the last valuation, which was for the fiscal year ending June 30, 2009.

1. Only police officers and existing police retirees are eligible for retiree health benefits from the Town. Town general and rescue employees are only eligible for COBRA coverage at retirement. In prior valuation, Town general and rescue employees were included in the valuation.
2. For retired police officers who are eligible for Medicare, the Town now offers the following benefits:
 - a. Plan 65 (Part C) that supplements Medicare parts A and B so that the gap items from A and B are picked up by the fully insured program (typically between 10% and 20% of the remaining doctor's visit or hospital stay).
 - b. Blue Medicare Rx that provides a fully-insured 80/20 coverage.
 - c. Medicare Part B premium reimbursement.

In prior valuation, the Town offered self-funded post-65 coverage for retirees who are eligible for Medicare. Nyhart estimates the Town's liability would have increased to \$52 million as of July 1, 2011 if the Medicare changes had not been made.

Several assumptions have been updated since the last valuation, which was for the fiscal year ending June 30, 2009:

1. In current valuation, it is assumed that husbands are three years older than wives for both Town and School active employees. In prior valuation, husbands were assumed to be four years older than wives for Police officers and three years older for all other groups.
2. Percentage of employees electing spousal coverage at retirement has been updated based on current demographic information as follows:

| Groups | Current Valuation | | Prior Valuation | |
|-----------------------------|-------------------|--------|-----------------|--------|
| | Male | Female | Male | Female |
| Police | 70% | 70% | 95% | 95% |
| Teachers and Administrators | 70% | 70% | 55% | 40% |
| BOE Others | 70% | 70% | 55% | 40% |

3. Termination and retirement rates for School participants have been updated based on Rhode Island Employees Retirement System (RI ERS) and Rhode Island Municipal Employees Retirement System (RI MERS) assumptions as of June 30, 2011.
4. Health care trend rates have been updated as follows:
 - a. Medical trend rates start at an initial rate of 10.00% decreasing to an ultimate rate of 5.00% by 0.50% in 10 years. Prior valuation used an initial rate of 6.90% decreasing to an ultimate rate of 4.40% in 50 years.
 - b. Dental trend rates start at an initial rate of 5.00% decreasing to an ultimate rate of 3.00% by 0.25% in 8 years. Prior valuation used an initial rate of 4.00% decreasing to an ultimate rate of 3.00% in 2 years.

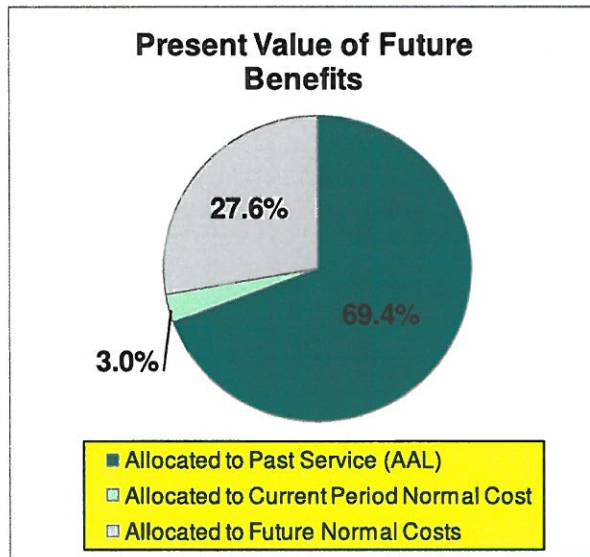
Nyhart has been advised the Town has approved the creation of an OPEB Trust for the purpose of prefunding investments to offset future retiree health liabilities. Other future Trust actions include formulating a contribution policy and long-term investment strategy. If these actions are fully implemented, then the 4.0% discount rate assumption could be increased to 6.5% (contingent on long-term contribution and investment strategy). An increase in the discount rate assumption to 6.5% will reduce the OPEB actuarial liabilities by approximately \$13 million.

Sources of GASB Liabilities and Assets

1. The Town explicitly subsidizes the retiree health care coverage. Refer to Substantive Plan Provisions section for more information on the Town's explicit subsidy.
2. Retiree health coverage is implicitly more expensive than active health coverage. This higher cost of coverage creates a GASB 45 liability assigned to the Town.
3. The Town has historically funded its retiree health benefits on a pay-as-you-go basis.

Below is the breakdown of Present Value of Future Benefits (PVFB) allocated for past, current, and future service. Pages 3 and 4 show the GASB results for the fiscal year beginning July 1, 2011 based on the Projected Unit Credit cost method.

| | <i>Present Value of Future Benefits (PVFB)</i> | <i>Actuarial Accrued Liability (AAL) PVFB allocated to past service</i> | <i>Normal Cost (NC) PVFB allocated to current period service</i> | <i>Future Normal Costs PVFB allocated to future service</i> |
|--------------------|--|---|--|---|
| | A | B | C | D = A - B - C |
| As of July 1, 2011 | \$ 56,748,042 | \$ 39,386,220 | \$ 1,677,159 | \$ 15,684,663 |



PVFB is the amount needed as of July 1, 2011 to fully fund the Town's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

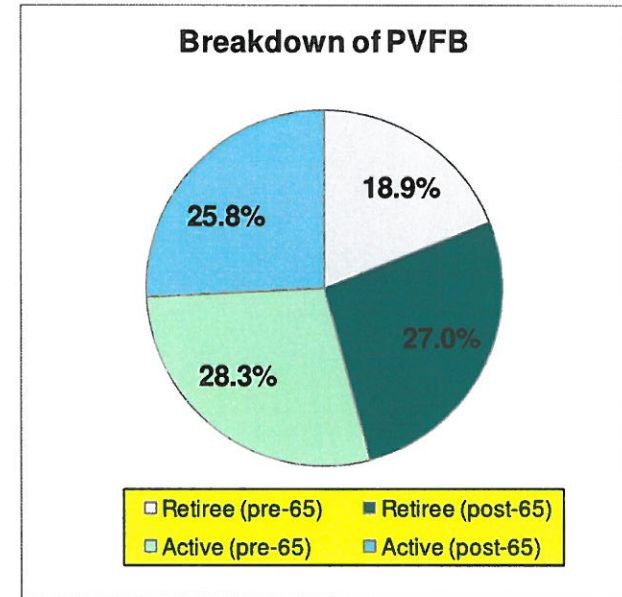
AAL is the portion of PVFB considered to be accrued or earned as of July 1, 2011. This amount is a required disclosure in the Required Supplementary Information section.

NC is the portion of actuarial present value of retiree health care benefits and expenses allocated to 2011/12 by the actuarial cost method (Projected Unit Credit).

Summary of Results

1. Present Value of Future Benefits (PVFB)

| | <i>As of July 1, 2011</i> |
|-------------------------|---------------------------|
| Current retirees | |
| Explicit (Pre-Medicare) | \$ 8,594,804 |
| Implicit (Pre-Medicare) | 2,154,990 |
| Post-Medicare | 15,301,271 |
| Total | \$ 26,051,065 |
| Future retirees | |
| Explicit (Pre-Medicare) | \$ 13,103,891 |
| Implicit (Pre-Medicare) | 2,967,676 |
| Post-Medicare | 14,625,410 |
| Total | \$ 30,696,977 |
| Total PVFB | \$ 56,748,042 |
| Discount Rate | 4.00% |



Summary of Results – Continued

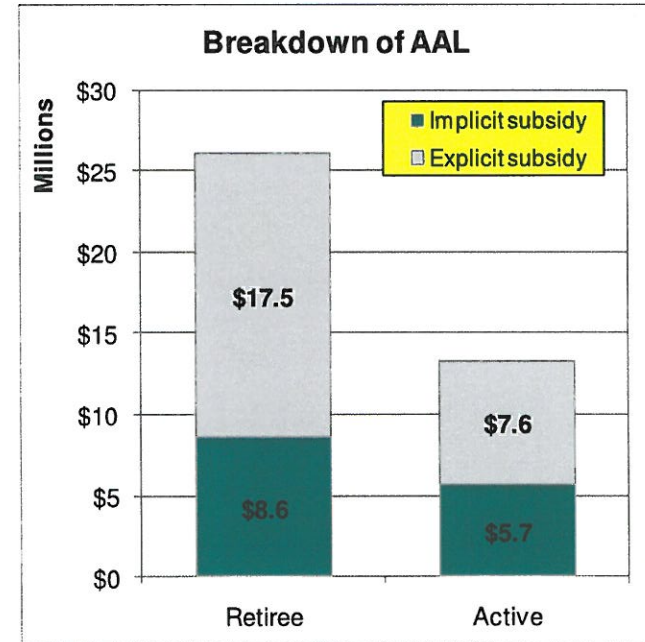
2. Actuarial Accrued Liabilities (AAL)

As of July 1, 2011

| | | |
|---------------------------------|----|------------|
| Current retirees | | |
| Explicit (Pre-Medicare) | \$ | 8,594,804 |
| Implicit (Pre-Medicare) | | 2,154,990 |
| Post-Medicare | | 15,301,271 |
| Total | \$ | 26,051,065 |
| Future retirees | | |
| Explicit subsidy (Pre-Medicare) | \$ | 5,700,825 |
| Implicit subsidy (Pre-Medicare) | | 1,280,868 |
| Post-Medicare | | 6,353,463 |
| Total | \$ | 13,335,156 |
| Total liabilities | \$ | 39,386,221 |
| Discount Rate | | 4.00% |

3. Income Statement and Balance Sheet Impact

| | <i>2010/11¹</i> | <i>2011/12</i> |
|--|----------------------------|---------------------------|
| Annual OPEB Cost | \$ 4,366,134 | \$ 3,467,580 |
| Total Employer Contributions (Affects Income Statement) | \$ 857,393 | \$ 1,565,322 ² |
| Net OPEB Obligation at year-end (Affects Balance Sheet Liability) | \$ 8,669,010 | \$ 10,571,268 |



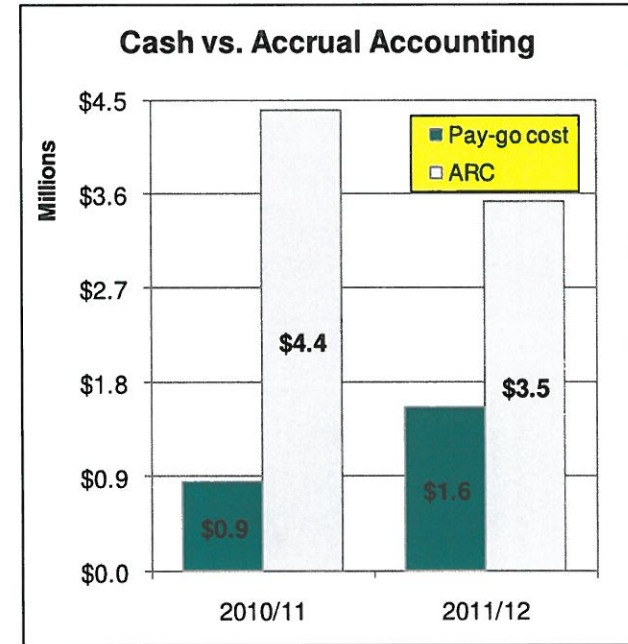
Explicit Subsidies are created when retirees are not charged the full cost of health care as measured by the premium or premium equivalent rates determined annually by the employer.

Implicit Subsidies are additional employer liabilities when the inherently higher health care costs for retired employees are not directly reflected in the determination of the premium or premium equivalent rates.

¹ Fiscal year 2010/11 information is as shown in the Town of Cumberland's Notes to Financial Statements as of June 30, 2011.

² Actual annual pay-go cost provided by the auditor is shown for fiscal year 2011/12.

| Required Supplementary Information | 2010/11 ³ | 2011/12 |
|---|----------------------------|----------------------|
| Actuarial Accrued Liability as of beginning of year | \$ 46,872,000 | \$ 39,386,221 |
| Actuarial Value of Assets as of beginning of year | 0 | 0 |
| Unfunded Actuarial Accrued Liability (UAAL) | \$ 46,872,000 | \$ 39,386,221 |
| Covered payroll ⁴ | N/A | \$ 32,459,010 |
| UAAL as a % of covered payroll | N/A | 121.3% |
| Annual Required Contribution | 2010/11³ | 2011/12 |
| Normal cost as of beginning of year | N/A | \$ 1,677,159 |
| Amortization of the UAAL | N/A | 1,708,737 |
| Total normal cost and amortization payment | N/A | \$ 3,385,896 |
| Interest to end of year | N/A | 135,436 |
| Total Annual Required Contribution (ARC) | \$ 4,393,000 | \$ 3,521,332 |



Annual Required Contribution (ARC) is the annual expense recorded in the income statement under GASB 45 accrual accounting. It replaces the cash basis method of accounting recognition with an accrual method. The GASB 45 ARC is higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

³ Fiscal year 2010/11 information is as shown in the Town of Cumberland's Notes to Financial Statements as of June 30, 2011.

⁴ 2011/12 covered payroll excludes Town general and rescue employees.

| Net OPEB Obligation | 2010/11⁵ | 2011/12 |
|--|----------------------------|----------------------|
| ARC as of end of year | \$ 4,393,000 | \$ 3,521,332 |
| Interest on Net OPEB Obligation (NOO) to end of year | 206,411 | 346,760 |
| NOO amortization adjustment to the ARC | (233,277) | (400,512) |
| Annual OPEB cost | \$ 4,366,134 | \$ 3,467,580 |
| Actual annual employer contribution for pay-go cost | (857,393) | (1,565,322) |
| Estimated annual employer contribution for pre-funding | 0 | 0 |
| Change in NOO | \$ 3,508,741 | \$ 1,902,258 |
| NOO as of beginning of year | 5,160,269 | 8,669,010 |
| NOO as of end of year | \$ 8,669,010 | \$ 10,571,268 |

| Breakdown of Actual Pay-Go Costs | 2011/12 |
|--|---------------------|
| School paid claims ⁶ | \$ 1,194,483 |
| School BC Medicare plans and dental payments | 301,038 |
| School retiree contributions | (881,434) |
| Town paid claims | 887,131 |
| Town administrative costs | 64,104 |
| Total pay-go costs | \$ 1,565,322 |

Pay-as-you-go Cost is the expected total employer cash cost for the coming period based on all explicit and implicit subsidies. It is also the amount recognized as expense on the Income Statement under pay-as-you-go accounting.

Net OPEB Obligation is the cumulative difference between the annual OPEB cost and employer contributions. This obligation will be created if cash contributions are less than the current year expense under GASB 45 accrual rules.

The net obligation is recorded as a liability on the employer's balance sheet which will reduce the net fund balance.

The value of implicit subsidies is considered as part of cash contributions for the current period. Other cash expenditures that meet certain conditions are also considered as contributions for GASB 45 purposes.

⁵ Fiscal year 2010/11 information is as shown in the Town of Cumberland's Notes to Financial Statements as of June 30, 2011.

⁶ School paid claims include \$9,763 variance found between the School's ledger and BCBS claims records.

Schedule of Funding Progress

| <i>As of</i> | <i>Actuarial Value of Assets (AVA)</i> | <i>Actuarial Accrued Liability (AAL)</i> | <i>Unfunded Actuarial Accrued Liability (UAAL)</i> | <i>AVA as a % of AAL</i> | <i>Covered Payroll</i> | <i>UAAL as a % of Covered Payroll</i> |
|--------------|--|--|--|--------------------------|------------------------|---------------------------------------|
| | <i>A</i> | <i>B</i> | <i>C = B - A</i> | <i>D = A / B</i> | <i>E</i> | <i>F = C / E</i> |
| July 1, 2011 | \$ - | \$ 39,386,221 | \$ 39,386,221 | 0.0% | \$ 32,459,010 | 121.3% |
| July 1, 2010 | \$ - | \$ 46,872,000 | \$ 46,872,000 | 0.0% | N/A | N/A |
| July 1, 2009 | \$ - | \$ 46,872,000 | \$ 46,872,000 | 0.0% | N/A | N/A |

Schedule of Employer Contributions

| <i>FYE</i> | <i>Employer Contributions</i> | <i>Annual Required Contribution (ARC)</i> | <i>% of ARC Contributed</i> |
|---------------|-------------------------------|---|-----------------------------|
| | <i>A</i> | <i>B</i> | <i>C = A / B</i> |
| June 30, 2012 | \$ 1,565,322 | \$ 3,521,332 | 44.5% |
| June 30, 2011 | \$ 857,393 | \$ 4,393,000 | 19.5% |
| June 30, 2010 | \$ 1,166,224 | \$ 3,973,000 | 29.4% |

Historical Annual OPEB Cost

| <i>As of</i> | <i>Annual OPEB Cost</i> | <i>% of Annual OPEB Cost Contributed</i> | <i>Net OPEB Obligation</i> |
|---------------|-------------------------|--|----------------------------|
| June 30, 2012 | \$ 3,467,580 | 45.1% | \$ 10,571,268 |
| June 30, 2011 | \$ 4,366,134 | 19.6% | \$ 8,669,010 |
| June 30, 2010 | \$ 3,971,324 | 29.4% | \$ 5,160,269 |

The Actuarial Accrued Liability (AAL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the AAL and whether they increase or decrease the liability.

Expected Events

- Increases in AAL due to additional benefit accruals as employees continue to earn service each year
- Increases in AAL due to interest as the employees and retirees age
- Decreases in AAL due to benefit payments

Unexpected Events

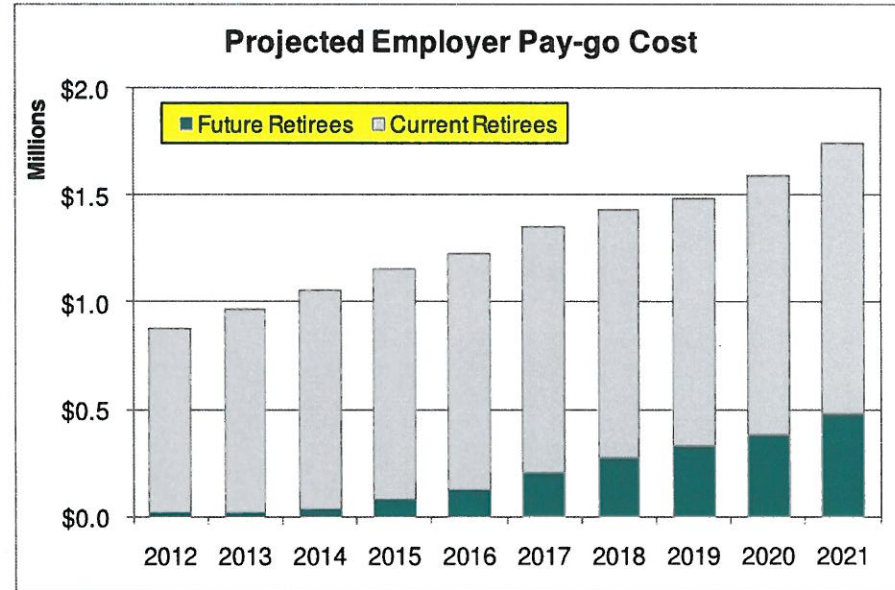
- Increases in AAL when actual premium rates increase more than expected. A liability decrease occurs when premium rates increase less than expected.
- Increases in AAL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in AAL depending on whether benefit provisions are improved or reduced.

| | <i>2011/12</i> |
|--|----------------|
| Actuarial Accrued Liability as of beginning of year ⁷ | \$ 39,386,221 |
| Normal cost as of beginning of year | 1,677,159 |
| Expected benefit payments during the year | (881,736) |
| Interest adjustment to end of year | 1,625,073 |
| Expected Actuarial Accrued Liability as of end of year | \$ 41,806,717 |
| Actuarial (gain) / loss | 0 |
| Actual Actuarial Accrued Liability as of end of year | \$ 41,806,717 |

⁷ Actuarial Accrued Liability (AAL) as of beginning of year was actuarially rolled-back from end of year AAL on a "no gain/loss" basis.

The projection below shows the anticipated pay-as-you-go cost for employer subsidized benefits for the next 10 years. Results are shown separately for current and future retirees. The projections include explicit and implicit subsidies.

| <i>FYE</i> | <i>Future Retirees</i> | <i>Current Retirees</i> | <i>Total</i> |
|------------|------------------------|-------------------------|--------------|
| 2012 | \$ 17,492 | \$ 864,244 | \$ 881,736 |
| 2013 | \$ 19,241 | \$ 950,668 | \$ 969,909 |
| 2014 | \$ 28,551 | \$ 1,032,241 | \$ 1,060,792 |
| 2015 | \$ 81,109 | \$ 1,077,233 | \$ 1,158,342 |
| 2016 | \$ 120,947 | \$ 1,103,315 | \$ 1,224,262 |
| 2017 | \$ 203,850 | \$ 1,144,779 | \$ 1,348,629 |
| 2018 | \$ 271,945 | \$ 1,156,379 | \$ 1,428,324 |
| 2019 | \$ 327,999 | \$ 1,153,291 | \$ 1,481,290 |
| 2020 | \$ 381,797 | \$ 1,214,830 | \$ 1,596,627 |
| 2021 | \$ 477,055 | \$ 1,264,599 | \$ 1,741,654 |



Eligibility

Police officers are eligible for lifetime retiree health coverage (medical and dental) from the Town once they attain 15 years of service. All other Town employees are only eligible for COBRA coverage at retirement.

Teachers and Administrators are eligible for lifetime retiree health coverage upon meeting Rhode Island Employees Retirement System eligibility requirements, which are as follows:

1. Schedule A (10 years of service as of July 1, 2005 and eligible to retire by September 30, 2009) – earlier of:
 - a. Age 60 with 10 years of service
 - b. 28 years of service
2. Schedule AB (10 years of service as of July 1, 2005 and not eligible to retire by September 30, 2009) – earlier of:
 - a. Age 62 with 10 years of service
 - b. Age 62 with 28 years of service
3. Schedule B (less than 10 years of service as of July 1, 2005 and eligible to retire by September 30, 2009) – earlier of:
 - a. Age 55 with 20 years of service (reduced pension)
 - b. Age 59 with 29 years of service
 - c. Age 65 with 10 years of service
4. Schedules B1 (less than 10 years of service as of July 1, 2005 and not eligible to retire by September 30, 2009) and B2 (hired after September 30, 2009):
 - a. Age 55 with 20 years of service (reduced pension)
 - b. Age 62 with 29 years of service
 - c. Age 65 with 10 years of service

All other School employees are eligible for lifetime retiree health coverage upon meeting Rhode Island Municipal Employees Retirement System eligibility requirements, which is the earlier of:

1. Age 58 with 10 years of service
2. 30 years of service

Disability Pension

Police officers are eligible for duty disability pension without any age or years of service requirement. They will receive the same health benefits as regular retirees.

No disability benefits are valued for School employees.

Spouse Benefit

Surviving spouse can continue coverage after the death of the retiree or active employees eligible to retire. Town subsidy continues to surviving spouse upon death of the retiree or active employee eligible to retire.

Retiree Cost Sharing

Police officers who retire with less than 20 years of service will be required to contribute the full cost of coverage until they would have had 20 years of service, at which time they will receive free coverage.

All School employees are required to contribute the full cost of coverage.

Town Subsidy

The Town will pay the full cost of coverage for Police officers once they have (or would have had) 20 years of service at retirement.

There is no Town subsidy for all School employees.

Medical Benefit

Same benefit options are available to retirees as active employees. All pre Medicare health plans are self-insured.

The monthly premiums by plan effective on July 1, 2012 are as shown below.

| | Single | Family |
|-------------------------|-----------|-------------|
| Police Plan A* | \$ 597.44 | \$ 1,541.76 |
| Police Deductible Plan* | \$ 581.66 | \$ 1,501.05 |
| Police Plan 65 | \$ 185.88 | \$ 371.60 |
| Police Medicare Rx | \$ 167.00 | \$ 334.00 |
| School Non Certified | \$ 619.35 | \$ 1,598.31 |
| School Certified | \$ 514.86 | \$ 1,328.65 |

* Premiums shown above are without WRI fee.

Part B Reimbursement

The Town reimburses Medicare Part B premium for retired police officers and their spouses. The monthly Part B premium effective on January 1, 2012 is \$99.90 per person.

The actuarial assumptions used in this report represent a reasonable long-term expectation of future OPEB outcomes. As national economic and Town experience change over time, the assumptions will be tested for ongoing reasonableness and, if necessary, updated.

There have been changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending June 30, 2009. Refer to the Actuary's Notes on page 1 for complete information on the changes. For the current year GASB valuation, we have also updated the per capita costs. We expect to update health care trend rates and per capita costs again for the next full GASB valuation, which will be for the fiscal year ending June 30, 2014.

| | |
|---|---|
| Measurement Date | June 30, 2012 with results actuarially rolled-back to July 1, 2011 on a "no gain/loss" basis |
| Discount Rate | 4.0% unfunded |
| Payroll Growth | 3.0% for School and 4.5% for Police (used for amortization purposes only) |
| Inflation Rate | 3.0% |
| Cost Method | Projected Unit Credit with linear proration to decrement |
| Amortization | Level percentage of pay based on a closed group. The remaining amortization period as of July 1, 2011 is 22 years. |
| Census Data | Census data was provided by the Town and School and they were collected as of October 2012. We have reviewed it for reasonableness and no material modifications were made to the census data. |
| Employer Funding Policy | Pay-as-you-go cash basis |
| Health Care Coverage Election Rate | 100% of active Police officers with current coverage are assumed to continue coverage at retirement. 60% of active Certified / Admin employees with current coverage are assumed to continue coverage at retirement. 5% of active Non-Certified employees with current coverage are assumed to continue coverage at retirement. 0% of active employees without current coverage are assumed to elect coverage at retirement. 100% of retirees with current coverage are assumed to continue coverage. 0% of retirees without current coverage are assumed to elect coverage in the future. |
| Spousal Coverage | 70% of employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives. Spousal coverage and ages for current retirees is based on actual data. |

Mortality

RP-2000 Combined Mortality Table fully generational projected using scale AA

Disability

No disability benefits are valued for School employees. For Police, rates are based on MERS accidental disability rates used in June 30, 2011 actuarial valuation. Sample annual disability rates are as shown below.

| Age | Rates |
|-----|-------|
| 25 | 0.26% |
| 30 | 0.33% |
| 35 | 0.44% |
| 40 | 0.66% |
| 45 | 1.08% |

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health coverage.

No terminations are assumed for Police officers.

Termination rates for School employees are based on ERS / MERS rates used in the June 30, 2011 actuarial valuation. Annual sample rates are shown below.

| YOS | Certified / Admin | | Non-Certified | |
|-----|-------------------|--------|---------------|--------|
| | Male | Female | Male | Female |
| 0 | 17.0% | 8.9% | 17.5% | 18.0% |
| 5 | 2.9% | 4.6% | 5.5% | 5.8% |
| 10 | 1.2% | 2.3% | 2.6% | 2.6% |
| 15 | 1.2% | 1.2% | 2.0% | 1.6% |
| 20 | 0.9% | 0.6% | 1.8% | 1.1% |
| 25 | 0.9% | 0.4% | 0.0% | 0.0% |

Retirement Rate

Annual retirement rates for Police are as shown below.

| YOS | Rates |
|---------|-------|
| 20 | 70% |
| 21 – 24 | 10% |
| 25 | 70% |
| 26+ | 100% |

For School Non-Certified employees, annual rates of retirement are based on MERS rates used in the June 30, 2011 actuarial valuation. For members who reach 30 years of service prior to age 58, service-based rates are used. For all other members, age-based rates are used.

| YOS | Service-based rates (00/30) | | Age | Age-based rates (58/10) | |
|---------|--------------------------------|--------|---------|----------------------------|--------|
| | Male | Female | | Male | Female |
| 30 | 30% | 30% | 58 | 12% | 12% |
| 31 | 30% | 25% | 59 – 61 | 10% | 10% |
| 32 – 34 | 25% | 10% | 62 | 30% | 20% |
| 35 | 25% | 15% | 63 – 64 | 20% | 15% |
| 36 | 25% | 20% | 65 | 20% | 20% |
| 37 | 25% | 25% | 66 – 68 | 25% | 25% |
| 38 | 35% | 25% | 69 | 30% | 25% |
| 39 | 50% | 25% | 70 – 74 | 30% | 20% |
| 40+ | 100% | 100% | 75+ | 100% | 100% |

* Retirement rates are increased by a 15% load in the first year of eligibility for 80-point retirement.

Retirement Rates (continued)

The following rates apply to Certified/Admin Schedule A who are eligible to retire as of September 30, 2009. For members who reach 28 years of service prior to age 60, service-based rates are used. For members who reach age 60 before 28 years of service, age-based rates are used.

| YOS | Service-based rates (00/28) | | Age | Age-based rates (60/10) | |
|---------|--------------------------------|--------|---------|----------------------------|--------|
| | Male | Female | | Male | Female |
| 28 | 25% | 20% | 60 | 20% | 20% |
| 29 | 15% | 15% | 61 | 15% | 15% |
| 30 – 31 | 20% | 20% | 62 | 30% | 25% |
| 32 – 33 | 30% | 30% | 63 | 25% | 20% |
| 34 | 40% | 35% | 64 | 10% | 20% |
| 35 | 55% | 50% | 65 | 25% | 35% |
| 36 – 39 | 40% | 40% | 66 – 74 | 25% | 25% |
| 40+ | 100% | 100% | 75+ | 100% | 100% |

For Schedule A members who are not eligible to retire as of September 30, 2009, members who would have been assumed to retire prior to age 62 under the above schedule are assumed to retire when first eligible for an unreduced benefit at age 62.

For Schedule B members, 75% of members who reach age 59 with 29 years of service before age 65 are assumed to retire when first eligible, at age 59 with 29 years of service. 75% of other members are expected to retire when first eligible, at age 65 with 10 years of service. The rates in the table above are applied after first eligibility. Schedule B members who retire under provisions other than age 59 with 29 years of service are assumed to retire at the rates shown below.

| Age | Unisex |
|---------|--------|
| 55 – 58 | 0% |
| 59 | 1% |
| 60 – 62 | 2% |
| 63 | 3% |
| 64 | 4% |

Health Care Trend Rates

| FYE | Rates | FYE | Rates |
|------|-------|-------|-------|
| 2012 | 10.0% | 2018 | 7.0% |
| 2013 | 9.5% | 2019 | 6.5% |
| 2014 | 9.0% | 2020 | 6.0% |
| 2015 | 8.5% | 2021 | 5.5% |
| 2016 | 8.0% | 2022+ | 5.0% |
| 2017 | 7.5% | | |

The initial trend rate was based on the plan's actual experience. The subsequent year trend rates were selected based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Retiree Contributions

Retiree contributions are assumed to increase with health care trend rates.

Per Capita Costs

Annual per capita costs were calculated based on the 2012/13 premium rates by plan actuarially increased using health index factors and current enrollment. The costs are assumed to increase with health care trend rates. Annual per capita costs by plan are as shown below:

| Age | Police Plan A | | Police Deductible Plan | |
|---------|---------------|-----------|------------------------|-----------|
| | Male | Female | Male | Female |
| < 55 | \$ 7,200 | \$ 8,200 | \$ 7,000 | \$ 8,000 |
| 55 – 59 | \$ 9,400 | \$ 9,200 | \$ 9,200 | \$ 8,900 |
| 60 – 64 | \$ 12,100 | \$ 10,800 | \$ 11,700 | \$ 10,500 |
| 65+ | \$ 4,235 | \$ 4,235 | \$ 4,235 | \$ 4,235 |

| Age | Certified / Admin | | Non-Certified | |
|---------|-------------------|----------|---------------|-----------|
| | Male | Female | Male | Female |
| < 55 | \$ 6,200 | \$ 7,100 | \$ 7,400 | \$ 8,500 |
| 55 – 59 | \$ 8,100 | \$ 7,900 | \$ 9,800 | \$ 9,500 |
| 60 – 64 | \$ 10,400 | \$ 9,300 | \$ 12,500 | \$ 11,200 |
| 65+ | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Annual Part B per capita cost is \$1,199, increasing with health care trend rates.

Explicit Subsidy

The difference between (a) the premium rates and (b) retiree contribution. Below is an example of the monthly explicit subsidies for a future Police retiree under 65 enrolled in the Deductible plan with 20 years of service at retirement.

| | Premium Rate | Retiree Contribution | Explicit Subsidy |
|---------|--------------|----------------------|------------------|
| | A | B | C = A - B |
| Retiree | \$ 581.66 | \$ 0.00 | \$ 581.66 |
| Spouse | \$ 919.39 | \$ 0.00 | \$ 919.39 |

Implicit Subsidy

The difference between (a) the per capita cost and (b) premium rates. Below is an example of the monthly implicit subsidies for a male 60 – 64 Police retiree enrolled in the Deductible plan.

| | Per Capita Cost | Premium Rate | Implicit Subsidy |
|---------|-----------------|--------------|------------------|
| | A | B | C = A - B |
| Retiree | \$ 975.00 | \$ 581.66 | \$ 393.34 |
| Spouse | \$ 875.00 | \$ 875.00* | \$ 0.00 |

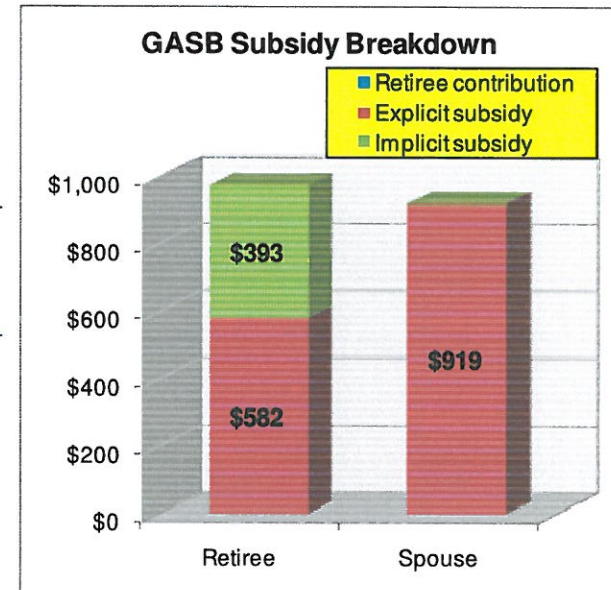
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for plans using a true community-rated premium rate.

* Spouse incremental premium rate is set at no higher than the per capita cost.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male 60 – 64 Police retiree and his spouse enrolled in the Deductible plan with 20 years of service at retirement.

| | Retiree | Spouse |
|---------------------------|------------------|------------------|
| Retiree contribution | \$ 0.00 | \$ 0.00 |
| Explicit subsidy | \$ 581.66 | \$ 919.39 |
| Implicit subsidy | \$ 393.34 | \$ 0.00 |
| Total monthly cost | \$ 975.00 | \$ 919.39 |



Summary of Plan Participants

Town of Cumberland GASB Valuation
For Fiscal Year Ending June 30, 2012

| <i>Actives with coverage⁸</i> | <i>Single</i> | <i>Family</i> | <i>Total</i> | <i>Avg. Age</i> | <i>Avg. Svc</i> | <i>Salary</i> |
|--|---------------|---------------|--------------|-----------------|-----------------|----------------------|
| Police Plan A | 2 | 34 | 36 | 40.8 | 11.8 | \$ 2,016,726 |
| Police Deductible Plan | 8 | 2 | 10 | 30.0 | 1.0 | \$ 420,202 |
| School Certified / Admin | 12 | 86 | 98 | 54.0 | 12.4 | \$ 2,954,895 |
| School Non-Certified | 75 | 224 | 299 | 44.5 | 12.2 | \$ 20,340,005 |
| Total actives with coverage | 97 | 346 | 443 | 46.0 | 11.9 | \$ 25,731,828 |

| | | | | | | |
|---|--|--|------------|-------------|------------|---------------------|
| <i>Actives without coverage^{6,9}</i> | | | 118 | 45.0 | 9.3 | \$ 6,727,182 |
|---|--|--|------------|-------------|------------|---------------------|

| <i>Retirees with coverage</i> | <i>Single</i> | <i>Family</i> | <i>Total</i> | <i>Avg. Age</i> |
|-------------------------------------|---------------|---------------|--------------|-----------------|
| Police Plan A | 5 | 32 | 37 | 54.2 |
| Police Plan 65 | 9 | 12 | 21 | 73.3 |
| School Certified / Admin | | 3 | 3 | 67.5 |
| School Non-Certified | 53 | 12 | 65 | 63.5 |
| School Plan 65 ¹⁰ | 29 | | 29 | 70.4 |
| Total retirees with coverage | 96 | 59 | 155 | 64.0 |

⁸ Actives enrollment above (with and without coverage) excludes Town general and rescue employees who are not eligible for retiree health benefits.

⁹ Active employees who currently have no coverage are assumed not to elect coverage at retirement. They have been excluded in the GASB valuation.

¹⁰ There is no GASB liability for School retirees enrolled in Plan 65 as they pay the full cost of coverage.

Active Age-Service Distribution

Excluding Town general and rescue employees who are not eligible for retiree health benefits.

| <i>Age</i> | <i>Years of Service</i> | | | | | | | | | | <i>Total</i> | |
|--------------|-------------------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|--------------|------------|
| | <i>< 1</i> | <i>1 to 4</i> | <i>5 to 9</i> | <i>10 to 14</i> | <i>15 to 19</i> | <i>20 to 24</i> | <i>25 to 29</i> | <i>30 to 34</i> | <i>35 to 39</i> | <i>40 & up</i> | | |
| Under 25 | 4 | 2 | | | | | | | | | | 6 |
| 25 to 29 | 6 | 27 | 11 | | | | | | | | | 44 |
| 30 to 34 | 2 | 21 | 41 | 4 | | | | | | | | 68 |
| 35 to 39 | | 12 | 17 | 27 | 3 | | | | | | | 59 |
| 40 to 44 | 3 | 10 | 18 | 30 | 22 | 5 | | | | | | 88 |
| 45 to 49 | 3 | 11 | 21 | 26 | 14 | 13 | | | | | | 88 |
| 50 to 54 | 3 | 3 | 13 | 23 | 19 | 16 | 3 | | | | | 80 |
| 55 to 59 | 1 | 4 | 10 | 18 | 18 | 12 | 1 | 3 | | | | 67 |
| 60 to 64 | 2 | 4 | 5 | 9 | 7 | 13 | 2 | 1 | | 1 | | 44 |
| 65 to 69 | 1 | | 4 | 3 | 4 | 2 | | | | | | 14 |
| 70 & up | | | | 2 | | 1 | | | | | | 3 |
| Total | 25 | 94 | 140 | 142 | 87 | 62 | 6 | 4 | 0 | 1 | | 561 |

GASB 45 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Accrued Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of plan benefits and expenses which is not provided for by the future Normal Costs.
2. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
3. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of future benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
4. **Actuarial Present Value** – The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
 - a) adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
 - b) multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
 - c) discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Annual OPEB Cost** – An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.
6. **Annual Required Contribution (ARC)** – The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
7. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
8. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the actuarial accrued liability.
9. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

10. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
11. **Net OPEB Obligation** – The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.
12. **Normal Cost** – The portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.
13. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
14. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
15. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.

APPENDIX

Appendix A – GASB Results by Group

Below is the summary of the GASB results for fiscal year ending June 30, 2012 based on the Projected Unit Credit cost method and level % of pay amortization method with an unfunded discount rate of 4.0%.

| Group | Actuarial Accrued Liability (AAL) As of July 1, 2011 | Annual Required Contribution (ARC) For 2011/12 | Net OPEB Obligation (NOO) As of June 30, 2012 |
|---------------|---|---|--|
| Town – Police | \$ 38,363,860 | \$ 3,439,165 | \$ 9,611,522 |
| School | \$ 1,022,361 | \$ 82,167 | \$ 959,746 |
| Total | \$ 39,386,221 | \$ 3,521,332 | \$ 10,571,268 |

Appendix B – Comparison of Participant Demographic Information

| | <u>As of July 1, 2008</u> | <u>As of July 1, 2012</u> |
|------------------------------------|---------------------------|---------------------------|
| Active Participants ¹¹ | 477 | 561 |
| Retired Participants ¹² | 174 | 155 |
| Averages for Active | | |
| Age | 44.9 | 45.8 |
| Service | N/A | 11.4 |
| Averages for Inactive | | |
| Age | 63.6 | 64.0 |

¹¹ Active enrollment above excludes Town general and rescue employees who are not eligible for retiree health benefits. Enrollment as of July 1, 2012 includes active employees who currently have no coverage.

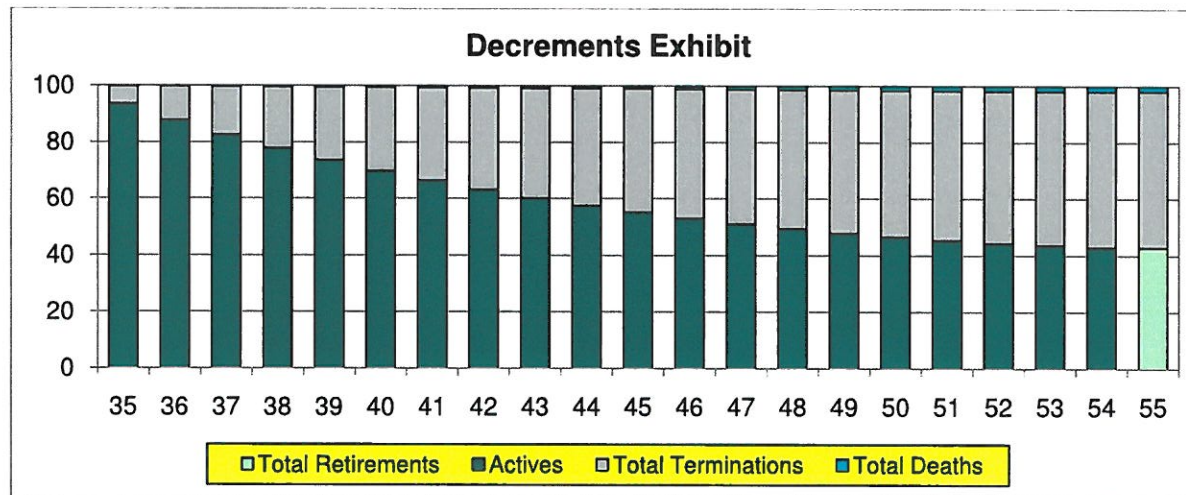
¹² The retired participant's enrollment figures does not include spouses who are covered under the Town's and School's group health plan.

Appendix C – Decrements Exhibit (Turnover and Mortality Rates)

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 42.949 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

| Age | # Remaining Employees | # Deaths per year* | # of Terminations per year* | # of Retirements per year* | Total Decrements |
|-----|-----------------------|--------------------|-----------------------------|----------------------------|------------------|
| 35 | 100.000 | 0.077 | 6.276 | 0.000 | 6.353 |
| 36 | 93.647 | 0.079 | 5.672 | 0.000 | 5.751 |
| 37 | 87.896 | 0.079 | 5.127 | 0.000 | 5.206 |
| 38 | 82.690 | 0.080 | 4.636 | 0.000 | 4.716 |
| 39 | 77.974 | 0.080 | 4.194 | 0.000 | 4.274 |
| 40 | 73.700 | 0.080 | 3.796 | 0.000 | 3.876 |
| 41 | 69.824 | 0.080 | 3.436 | 0.000 | 3.516 |
| 42 | 66.308 | 0.081 | 3.109 | 0.000 | 3.190 |
| 43 | 63.118 | 0.082 | 2.811 | 0.000 | 2.893 |
| 44 | 60.225 | 0.084 | 2.539 | 0.000 | 2.623 |
| 45 | 57.602 | 0.087 | 2.290 | 0.000 | 2.377 |

| Age | # Remaining Employees | # Deaths per year* | # of Terminations per year* | # of Retirements per year* | Total Decrements |
|-----|-----------------------|--------------------|-----------------------------|----------------------------|------------------|
| 46 | 55.225 | 0.089 | 2.058 | 0.000 | 2.147 |
| 47 | 53.078 | 0.092 | 1.839 | 0.000 | 1.931 |
| 48 | 51.147 | 0.095 | 1.629 | 0.000 | 1.724 |
| 49 | 49.423 | 0.099 | 1.425 | 0.000 | 1.524 |
| 50 | 47.899 | 0.102 | 1.227 | 0.000 | 1.329 |
| 51 | 46.570 | 0.114 | 1.037 | 0.000 | 1.151 |
| 52 | 45.419 | 0.121 | 0.856 | 0.000 | 0.977 |
| 53 | 44.442 | 0.130 | 0.688 | 0.000 | 0.818 |
| 54 | 43.624 | 0.139 | 0.536 | 0.000 | 0.675 |
| 55 | 42.949 | 0.000 | 0.000 | 42.949 | 42.949 |

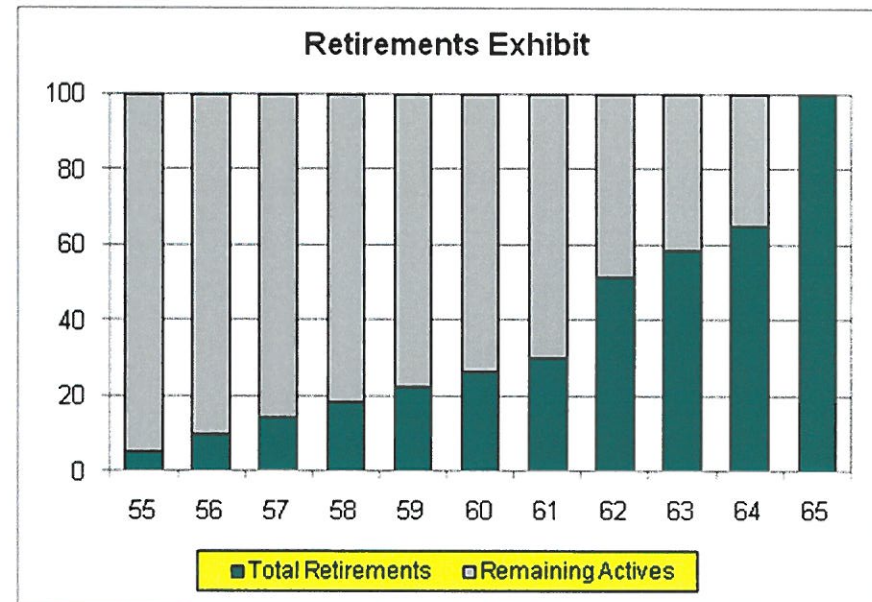


* The above rates are illustrative rates and are not used in our GASB calculations.

Appendix D – Retirement Rates Exhibit

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

| Age | Active Employees BOY | Annual Retirement Rates* | # Retirements per year | Active Employees EOY |
|-----|----------------------|--------------------------|------------------------|----------------------|
| 55 | 100.000 | 5% | 5.000 | 95.000 |
| 56 | 95.000 | 5% | 4.750 | 90.250 |
| 57 | 90.250 | 5% | 4.513 | 85.738 |
| 58 | 85.738 | 5% | 4.287 | 81.451 |
| 59 | 81.451 | 5% | 4.073 | 77.378 |
| 60 | 77.378 | 5% | 3.869 | 73.509 |
| 61 | 73.509 | 5% | 3.675 | 69.834 |
| 62 | 69.834 | 30% | 20.950 | 48.884 |
| 63 | 48.884 | 15% | 7.333 | 41.551 |
| 64 | 41.551 | 15% | 6.233 | 35.318 |
| 65 | 35.318 | 100% | 35.318 | 0.000 |



* The above rates are illustrative rates and are not used in our GASB calculations.

Appendix E – Illustration of GASB Calculations

The purpose of the illustration is to familiarize non-actuaries with the GASB 45 actuarial calculation process.

I. Facts

1. The employer provides subsidized retiree health coverage worth \$100,000 to employees retiring at age 55 with 25 years of service. The employer funds for retiree health coverage on a pay-as-you-go basis.
2. Employee X is age 50 and has worked 20 years with the employer.
3. Retiree health subsidies are paid from the general fund assets which are expected to earn 4.5% per year on a long-term basis.
4. Based on Employee X's age and sex he has a 98.0% probability of living to age 55 and a 95.0% probability of continuing to work to age 55.

II. Calculation of Present Value of Future Benefits

Present Value of Future Benefits represents the cost to finance benefits payable in the future to current and future retirees and beneficiaries, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

| | Value | Description |
|----|-----------|---|
| A. | \$100,000 | Projected benefit at retirement |
| B. | 80.2% | Interest discount for five years = $(1 / 1.045)^5$ |
| C. | 98.0% | Probability of living to retirement age |
| D. | 95.0% | Probability of continuing to work to retirement age |
| E. | \$74,666 | Present value of projected retirement benefit measured at employee's current age = $A \times B \times C \times D$ |

Appendix E – Continued**III. Calculation of Actuarial Accrued Liability**

Actuarial Accrued Liability represents the portion of the Present Value of Future Benefits which has been accrued recognizing the employee's past service with the employer. The Actuarial Accrued Liability is a required disclosure in the Required Supplementary Information section of the employer's financial statement.

| | Value | Description |
|----|----------|---|
| A. | \$74,666 | Present value of projected retirement benefit measured at employee's current age |
| B. | 20 | Current years of service with employer |
| C. | 25 | Projected years of service with employer at retirement |
| D. | \$59,733 | Actuarial accrued liability measured at employee's current age = $A \times B / C$ |

IV. Calculation of Normal Cost

Normal Cost represents the portion of the Present Value of Future Benefits allocated to the current year.

| | Value | Description |
|----|----------|--|
| A. | \$74,666 | Present value of projected retirement benefit measured at employee's current age |
| B. | 25 | Projected years of service with employer at retirement |
| C. | \$2,987 | Normal cost measured at employee's current age = A / B |

V. Calculation of Annual Required Contribution

Annual Required Contribution is the total expense for the current year to be shown in the employer's income statement.

| | Value | Description |
|----|---------|---|
| A. | \$2,987 | Normal Cost for the current year |
| B. | \$3,509 | 30-year amortization (level dollar method) of Unfunded Actuarial Accrued Liability using a 4.5% interest rate discount factor |
| C. | \$292 | Interest adjustment = $4.5\% \times (A + B)$ |
| D. | \$6,788 | Annual Required Contribution = $A + B + C$ |