



nyhart

***City of East Providence
GASB 45 Financial Report***

***Fiscal Year Ending
October 31, 2011***

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Certification

This report summarizes the GASB actuarial valuation for the City of East Providence 2010/11 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.

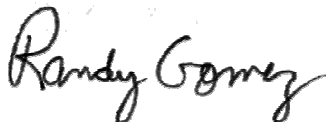
The information presented herein is based on the information furnished to us by the Plan Sponsor that has been reconciled and reviewed for reasonableness. We are not aware of any material inadequacy in employee census provided by the Plan Sponsor. We have not audited the information at the source, and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

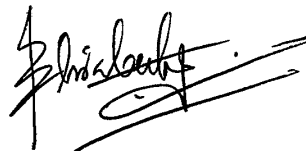
Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report.

Nyhart



Randy Gomez, FSA, MAAA

March 30, 2012



Evi Laksana, ASA, MAAA

Clarification on substantive plan provisions:

1. Disability benefit: For all employees the spouse's disability benefit will terminate when the retiree turns 65 or upon death of the retiree, whichever is earlier.
2. Current valuation: all surviving spouses receive COBRA coverage upon death of the retiree.
3. Current valuation: all surviving spouses receive free coverage for three years upon death of the employee.

Several assumptions have been changed since the last valuation, which was for the fiscal year ending October 31, 2009:

1. Per capita costs for post-65 coverage reduced for Medicare primary payments. The assumed Medicare reduction is 37.5% for current retirees and 50% for future retirees. The prior valuation did not assume reduction in costs after Medicare eligibility.
2. The discount rate has been reduced from 5.00% to 4.50% which is more appropriate for benefit plans funded on a pay-as-you-go basis.
3. Mortality, retirement, and termination assumptions for general employees were updated to be consistent with Municipal Employees Retirement System actuarial valuation for fiscal year ending June 30, 2010. The same assumptions for police and fire employees were updated to follow the 2012 City of East Providence Police and Fire experience study.
4. All future retirees are assumed to have life insurance benefits at retirement. Only 75% were assumed to elect this benefit at retirement in the prior valuation.
5. Payroll growth assumption, which is used only for amortization purposes, has been reduced from 4.50% to 4.25%.
6. Healthcare trend rates have been updated to an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.0%. Side-by-side comparison of prior and current trend rates are as shown below:

| Year | Prior | Current | Year | Prior | Current |
|------|-------|---------|----------|-------|---------|
| 1 | 9.00% | 0.00%* | 6 | 5.25% | 6.50% |
| 2 | 8.25% | 8.50% | 7 | 5.00% | 6.00% |
| 3 | 7.50% | 8.00% | 8 | 5.00% | 5.50% |
| 4 | 6.75% | 7.50% | Ultimate | 5.00% | 5.00% |
| 5 | 6.00% | 7.00% | | | |

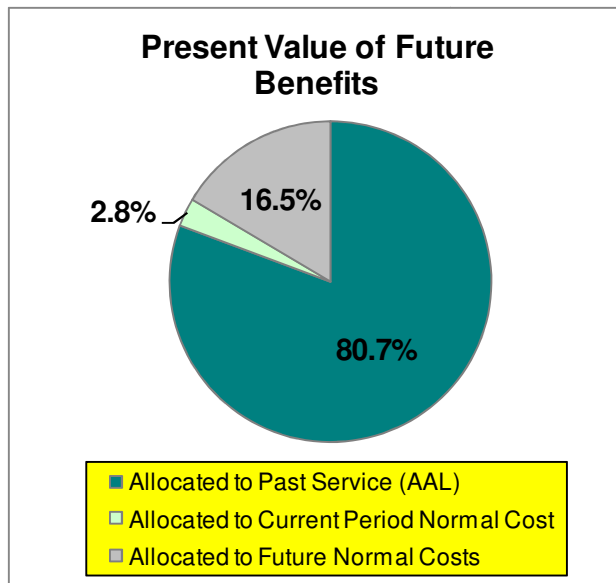
* Based on actual rate increase from July 1, 2011 to July 1, 2012.

Sources of GASB Liabilities and Assets

1. The City explicitly subsidizes retiree health care coverage. Refer to the Substantive Plan Provisions section for more information on the City's explicit subsidy.
2. Retiree health coverage is implicitly more expensive than active health coverage. This higher cost of coverage creates an additional GASB 45 liability assigned to the City.
3. The City 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 into past, current, and future service components. Pages 2 and 3 show the GASB results for the fiscal year beginning November 1, 2010 based on the Projected Unit Credit cost method.

| | Present Value of Future Benefits (PVFB) <i>A</i> | Actuarial Accrued Liability (AAL) <i>PVFB allocated to past service</i> B | Normal Cost (NC) <i>PVFB allocated to current period service</i> C | Future Normal Costs <i>PVFB allocated to future service</i> D = A - B - C |
|-----------------|--|---|--|---|
| As of 11/1/2010 | \$ 94,480,377 | \$ 76,217,756 | \$ 2,678,961 | \$ 15,583,660 |



PVFB is the amount needed as of November 1, 2010 to fully fund the City'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 November 1, 2010. This amount is a required disclosure in the Required Supplementary Information section.

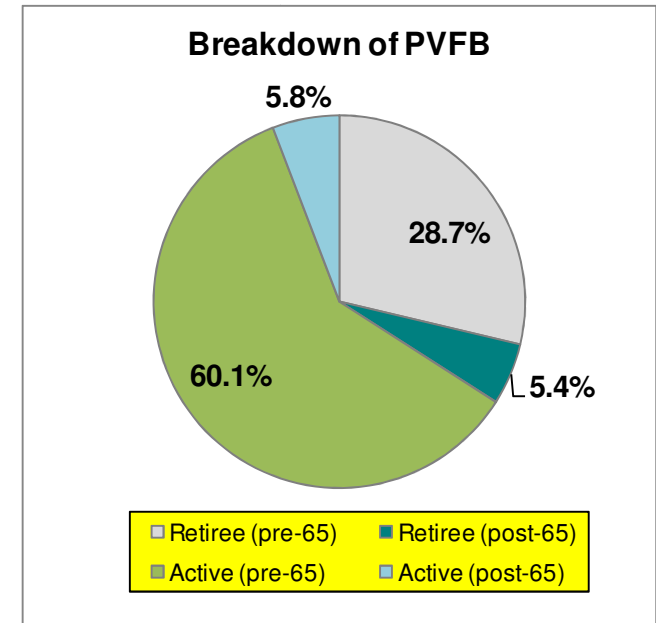
NC is the portion of actuarial present value of retiree health care benefits and expenses allocated to 2010/11 by the actuarial cost method (Projected Unit Credit).

Summary of Results

1. Present Value of Future Benefits (PVFB)

As of November 1, 2010

| | |
|-------------------------|---------------|
| Current retirees | |
| Explicit (Pre-Medicare) | \$ 23,274,052 |
| Implicit (Pre-Medicare) | 3,838,092 |
| Post-Medicare | 5,058,055 |
| Total | \$ 32,170,199 |
| Future retirees | |
| Explicit (Pre-Medicare) | \$ 48,594,943 |
| Implicit (Pre-Medicare) | 8,197,919 |
| Post-Medicare | 5,517,316 |
| Total | \$ 62,310,178 |
| Total PVFB | \$ 94,480,377 |
| Discount Rate | 4.50% |



Summary of Results – Continued

2. Actuarial Accrued Liabilities (AAL)

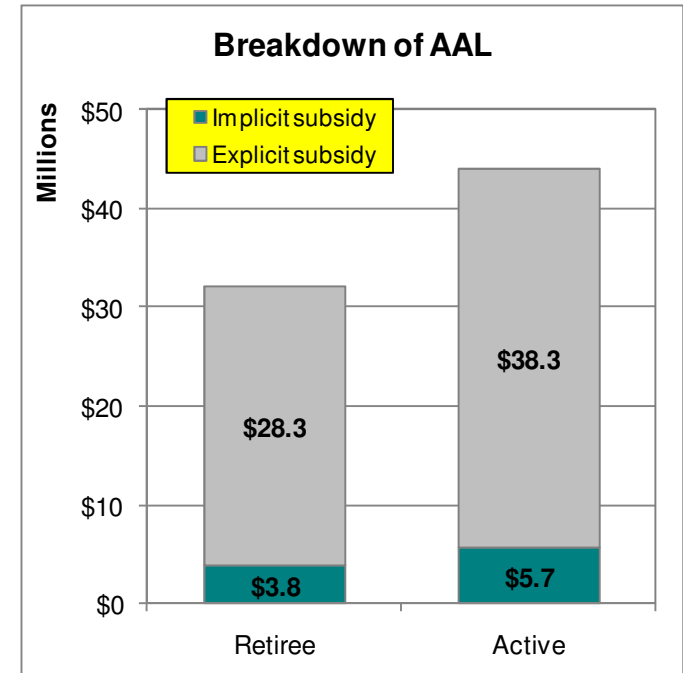
As of November 1, 2010

| | | |
|---------------------------|----|------------|
| Current retirees | | |
| Explicit subsidy (pre-65) | \$ | 23,274,052 |
| Implicit subsidy (pre-65) | | 3,838,092 |
| Post-Medicare | | 5,058,055 |
| Total | \$ | 32,170,199 |
| Future retirees | | |
| Explicit subsidy (pre-65) | \$ | 34,408,733 |
| Implicit subsidy (pre-65) | | 5,738,590 |
| Post-Medicare | | 3,900,234 |
| Total | \$ | 44,047,557 |
| Total liabilities | \$ | 76,217,756 |

Discount Rate 4.50%

3. Income Statement and Balance Sheet Impact

| | <i>2009/10</i> | <i>2010/11</i> |
|--|----------------|----------------|
| Annual OPEB Cost | \$ 5,171,038 | \$ 5,590,701 |
| Total Employer Contributions (Affects Income Statement) | \$ 2,755,302 | \$ 3,728,228 |
| Net OPEB Obligation at year-end (Affects Balance Sheet Liability) | \$ 4,811,626 | \$ 6,674,099 |



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.

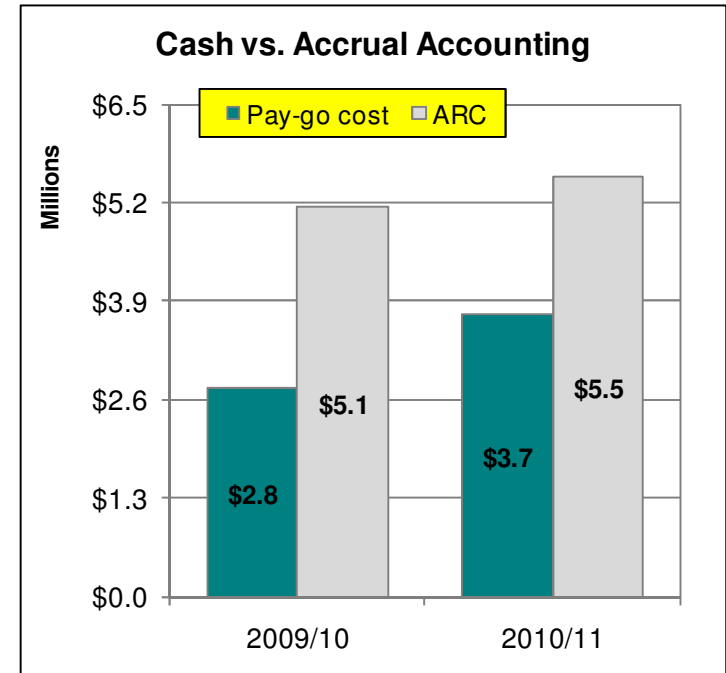
Discount Rate 5.00% 4.50%

Required Supplementary Information

| | 2009/10 | 2010/11 |
|---|----------------------|----------------------|
| Actuarial Accrued Liability as of beginning of year | \$ 78,291,702 | \$ 76,217,757 |
| Actuarial Value of Assets as of beginning of year | 0 | 0 |
| Unfunded Actuarial Accrued Liability (UAAL) | \$ 78,291,702 | \$ 76,217,757 |
| Covered payroll | N/A | \$ 22,886,101 |
| UAAL as a % of covered payroll | N/A | 333.0% |

Annual Required Contribution

| | 2009/10 | 2010/11 |
|---|---------------------|---------------------|
| Normal cost as of beginning of year | N/A | \$ 2,678,961 |
| Amortization of the UAAL for 30 years | N/A | 2,629,813 |
| Total normal cost and amortization payment | N/A | \$ 5,308,774 |
| Interest to end of year | N/A | 238,895 |
| Total Annual Required Contribution (ARC) | \$ 5,138,868 | \$ 5,547,669 |



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.

| Net OPEB Obligation | 2009/10 | 2010/11 |
|--|---------------------|---------------------|
| ARC as of end of year | \$ 5,138,868 | \$ 5,547,669 |
| Interest on Net OPEB Obligation (NOO) to end of year | 119,795 | 216,523 |
| NOO amortization adjustment to the ARC | (87,625) | (173,491) |
| Annual OPEB cost | \$ 5,171,038 | \$ 5,590,701 |
| Estimated annual employer contribution for pay-go cost | (2,755,302) | (3,728,228) |
| Estimated annual employer contribution for pre-funding | 0 | 0 |
| Change in NOO | \$ 2,415,736 | \$ 1,862,473 |
| NOO as of beginning of year | 2,395,890 | 4,811,626 |
| NOO as of end of year | \$ 4,811,626 | \$ 6,674,099 |

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.

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> |
|-------------------------------|--|--|--|--------------------------|------------------------|---------------------------------------|
| | A | B | C = B - A | D = A / B | E | F = C / E |
| November 1, 2011 | \$ - | \$ 76,217,757 | \$ 76,217,757 | 0.0% | \$ 22,886,101 | 333.0% |
| November 1, 2010 ¹ | \$ - | \$ 78,291,702 | \$ 78,291,702 | 0.0% | N/A | N/A |
| November 1, 2009 | \$ - | \$ 78,291,702 | \$ 78,291,702 | 0.0% | N/A | N/A |

Schedule of Employer Contributions

| <i>FYE</i> | <i>Employer Contributions²</i> | <i>Annual Required Contribution (ARC)</i> | <i>% of ARC Contributed</i> |
|------------------|---|---|-----------------------------|
| | A | B | C = A / B |
| October 31, 2011 | \$ 3,728,228 | \$ 5,547,669 | 67.2% |
| October 31, 2010 | \$ 2,755,302 | \$ 5,138,868 | 53.6% |
| October 31, 2009 | \$ 2,510,526 | \$ 4,906,416 | 51.2% |

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> |
|------------------|-------------------------|--|----------------------------|
| October 31, 2011 | \$ 5,590,701 | 66.7% | \$ 6,674,099 |
| October 31, 2010 | \$ 5,171,038 | 53.3% | \$ 4,811,626 |
| October 31, 2009 | \$ 4,906,416 | 51.2% | \$ 2,395,890 |

¹ No interim GASB update was done for FYE October 31, 2010. The Actuarial Accrued Liability (AAL) as of November 1, 2010 is the same as that shown in the FYE October 31, 2009 GASB valuation report.

² The amounts shown as employer contributions represent estimates of the annual paygo cost as measured by the actuarial assumptions and underlying data.

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

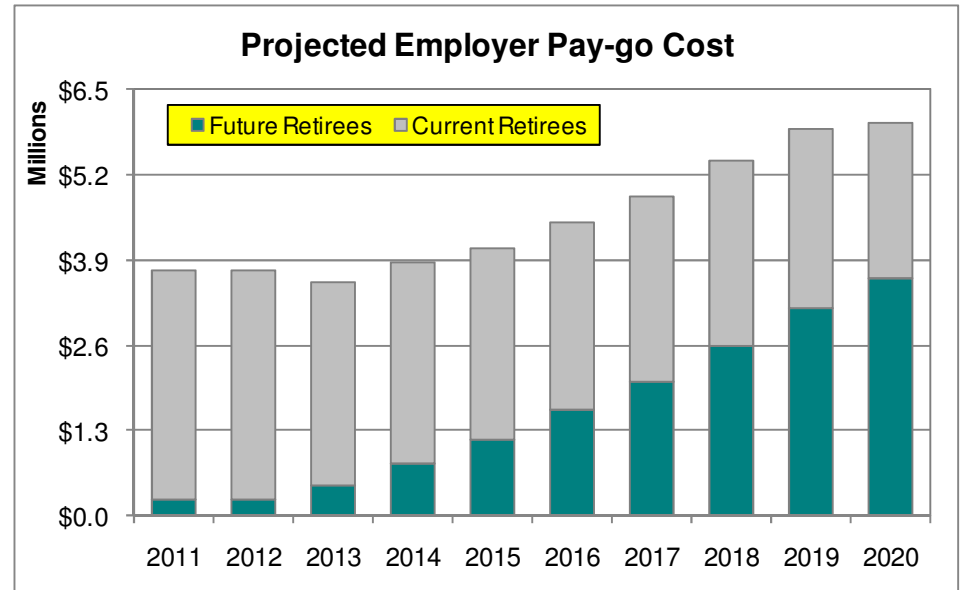
- Increases in AAL when actual premium rates increase more than expected. A liability decrease occurs when premium rates increase less than expected.
- Increases in AAL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite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

| | 2010/11 |
|--|----------------|
| Actuarial Accrued Liability as of beginning of year ³ | \$ 76,217,757 |
| Normal cost as of beginning of year | 2,678,961 |
| Expected benefit payments during the year | (3,728,228) |
| Interest adjustment to end of year | 3,467,390 |
| Expected Actuarial Accrued Liability as of end of year | \$ 78,635,880 |
| Actuarial (gain) / loss | 0 |
| Actual Actuarial Accrued Liability as of end of year | \$ 78,635,880 |

³ The beginning of year Actuarial Accrued Liability was actuarially rolled-back from the end of the year on a “no loss/gain” 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> |
|------------|------------------------|-------------------------|--------------|
| 2011 | \$ 234,691 | \$ 3,493,538 | \$ 3,728,229 |
| 2012 | \$ 234,691 | \$ 3,493,538 | \$ 3,728,229 |
| 2013 | \$ 458,337 | \$ 3,101,953 | \$ 3,560,290 |
| 2014 | \$ 778,009 | \$ 3,092,961 | \$ 3,870,970 |
| 2015 | \$ 1,152,199 | \$ 2,909,139 | \$ 4,061,338 |
| 2016 | \$ 1,599,128 | \$ 2,861,305 | \$ 4,460,433 |
| 2017 | \$ 2,048,392 | \$ 2,828,949 | \$ 4,877,341 |
| 2018 | \$ 2,598,252 | \$ 2,810,911 | \$ 5,409,163 |
| 2019 | \$ 3,174,360 | \$ 2,732,446 | \$ 5,906,806 |



Eligibility

General Employees are eligible for retiree health benefits once they meet Municipal Employees Retirement System (MERS) pension eligibility requirements:

1. Age 58 with 10 years of service
2. Age 50 with 20 years of service (reduced pension)
3. 30 years of service (no age requirement)

Police and Fire employees are eligible for retiree health benefits once they meet the City of East Providence Police and Fire Retirement System pension eligibility requirements:

1. Age 60 with 10 years of service
2. 20 years of service (no age requirement)

Benefit Duration

Retiree health benefits cease at the later of: (a) the retiree attaining age 65 or (b) 3 years after retirement. Police and fire employees who retired due to disability have lifetime benefits.

Spouse Benefit

The surviving spouse receives COBRA coverage upon death of the retiree and must pay the required COBRA rate. Upon death of an active employee, the surviving spouses receives three years of free coverage paid by the City and then must elect COBRA coverage and pay the required COBRA rate.

Disability Benefit

General employees are eligible for a disability health benefit from their date of hire. The disabled employee will be treated as a regular retiree. The City will pay for the full cost of coverage for both retiree and spouse until the retiree is eligible for Medicare. Spouse's disability health benefit coverage will terminate upon death of the retiree.

Police and Fire employees are eligible for non-line of duty disability health benefit after ten years of service. There is no age or service requirement for line of duty disability health benefit. Upon retirement, disabled employees will be enrolled in specific plans as designated by the City (3A69 for disabled firefighters and 100699 for disabled police officers). The City will subsidize the full cost of coverage for the disabled retiree for their lifetime (subject to annual medical documentation) while spouse coverage will be paid for by the City until the retiree is eligible for Medicare. Spouse's disability health benefit coverage will terminate upon death of the retiree.

Life Insurance

The City provides group life insurance of \$7,500.

Dental

Retirees may elect dental coverage at their own cost.

Retiree Cost Sharing

None; except for the following groups of grandfathered retirees:

1. Those enrolled in 8W555 plan must pay the full cost of coverage until eligible for Medicare.
2. Medicare retirees enrolled in Plan 65 (2H79) pay the full cost of coverage.

Medical Benefit

Same benefit options are available to retirees as active employees. City of East Providence is a member of Rhode Island Trust. All health plans in this Trust are considered self-insured. Health plan options mapping for current active employees to retirees health plan options are as follows:

| Employee group | Active plans | Retiree plans |
|-------------------------|---------------------|----------------------|
| Public works | 6784 | 8V212 |
| Managerial / Dept heads | 9785 | 8V212 |
| Municipal employees | 257 | 8V212 |
| Police | 5578, H5578 | 8V210 |
| Fire | 5694 | 8V211 |

The monthly premiums by plan effective on July 1, 2011 are as shown below.

| Employee group | Retiree plans | Single | Family |
|-----------------------|-----------------------|---------------|---------------|
| General | 8V212 | \$ 566.67 | \$ 1,396.10 |
| | 2H68 | \$ 696.50 | \$ 1,716.29 |
| | 4R17 Classic | \$ 689.83 | \$ 1,699.83 |
| | 4R17 Healthmate | \$ 593.58 | \$ 1,462.71 |
| Police | 8V210 | \$ 566.67 | \$ 1,396.10 |
| | 5E14 Classic | \$ 675.12 | \$ 1,663.62 |
| | 5E14 Healthmate | \$ 593.58 | \$ 1,462.71 |
| Disabled Police | 100699 Classic | \$ 803.46 | \$ 1,838.51 |
| | 100699 Healthmate | \$ 689.52 | \$ 1,557.84 |
| Fire | 8V211 | \$ 566.67 | \$ 1,396.10 |
| | 4P21 Classic | \$ 689.83 | \$ 1,699.83 |
| | 4P21 Healthmate | \$ 593.58 | \$ 1,462.71 |
| Disabled Fire | 3A69 Classic | \$ 858.48 | \$ 1,893.53 |
| | 3A69 Healthmate | \$ 745.10 | \$ 1,614.23 |
| Special | 8W555 | \$ 566.57 | \$ 1,396.10 |
| | 4P66 (no rx) | \$ 697.97 | \$ 1,719.88 |
| | 2H79 (post 65; no rx) | \$ 157.58 | N/A |

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

Refer to Actuary's Notes section for changes in actuarial methods and assumptions. We expect to update health care trend rates and per capita costs in the next full valuation, which will be for the fiscal year ending October 31, 2013.

| | |
|--------------------------------|---|
| Measurement Date | October 31, 2011; results are actuarially rolled-back to November 1, 2010 on a "no loss/gain" basis |
| Discount Rate | 4.50% unfunded |
| Payroll Growth | 4.25% (used for amortization purposes only) |
| Cost Method | Projected Unit Credit (linear proration to full eligibility) |
| Amortization | Level percentage of pay over thirty years based on an open group |
| Census Data | Census data was provided by the City and it was collected as of March 2012. We have reviewed it for reasonableness and no material modifications were made to the census data. Retirees and spouses receiving coverage through Fire Benevolent Association and Police Benefit Association have been excluded from the City's liabilities. The City does not subsidize their premium coverage and the associations are separate entities from the City. |
| Employer Funding Policy | Pay-as-you-go cash basis |
| Mortality | |
| Pre-retirement | General Employees: 75% of RP-2000 Combined Healthy Table with White Collar adjustments Police and Fire: RP-2000 Combined Health Table with Blue Collar adjustments fully generational using Scale AA |
| Post-retirement | General Employees: <ul style="list-style-type: none"> • Male: 115% of RP-2000 Combined Healthy Table with White Collar adjustments fully generational using Scale AA • Female: 95% of RP-2000 Combined Healthy Table with White Collar adjustments fully generational using Scale AA Police and Fire: RP-2000 Combined Health Table with Blue Collar adjustments fully generational using Scale AA |
| Post-disablement | All groups: 60% of PBGC Table for disabled males (Va) /females (VIa) eligible for Social Security disability benefits. |

Withdrawal Rate

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

Sample annual rates shown below are based on Municipal Employees Retirement System actuarial valuation for fiscal year ending June 30, 2010 for general employees.

| YOS | Male | Female | YOS | Male | Female |
|------------|-------------|---------------|------------|-------------|---------------|
| 0 | 17.50% | 18.00% | 13 | 2.09% | 1.81% |
| 1 | 10.87% | 11.43% | 14 | 2.04% | 1.69% |
| 2 | 9.22% | 9.73% | 15 | 2.01% | 1.59% |
| 3 | 7.78% | 8.24% | 16 | 2.00% | 1.52% |
| 4 | 6.55% | 6.95% | 17 | 1.98% | 1.45% |
| 5 | 5.52% | 5.84% | 18 | 1.95% | 1.37% |
| 6 | 4.65% | 4.91% | 19 | 1.87% | 1.27% |
| 7 | 3.94% | 4.12% | 20 | 1.75% | 1.12% |
| 8 | 3.37% | 3.48% | 21 | 1.56% | 0.92% |
| 9 | 2.93% | 2.96% | 22 | 1.29% | 0.65% |
| 10 | 2.60% | 2.55% | 23 | 0.92% | 0.30% |
| 11 | 2.36% | 2.23% | 24 | 0.44% | 0.00% |
| 12 | 2.20% | 1.99% | | | |

Sample annual rates shown below are based on City of East Providence Police and Firefighters Retirement System 2012 experience study.

| YOS | Unisex |
|------------|---------------|
| 1 | 4.00% |
| 15 | 1.00% |
| 20+ | 0.00% |

Retirement Rate

Police and Fire: annual rates of retirement are based on the 2012 City of East Providence Police and Firefighters Retirement System experience study. The rates below are applicable after age 40. 100% retirement is assumed at age 60.

| YOS | Unisex |
|---------|--------|
| 20 | 12% |
| 21 – 23 | 14% |
| 24 – 26 | 16% |
| 27 – 29 | 18% |
| 30+ | 20% |

General Employees: Annual rates of retirement are based on Municipal Employees Retirement System actuarial valuation for fiscal year ending June 30, 2010. For members who reach 30 years of service before age 58, service-based rates are used. For other members, age-based rates are used.

| YOS | Service (00/30) | | Age | Age (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% |

Disability

Police and Fire: 100% of disabilities are assumed to be a line of duty disability. Sample annual disability rates below are based on the 2012 City of East Providence Police and Firefighters Retirement System experience study.

| Age | Unisex | Age | Unisex |
|-----|--------|-----|--------|
| 25 | 0.50% | 45 | 1.73% |
| 30 | 0.70% | 50 | 2.37% |
| 35 | 0.90% | 55 | 3.00% |
| 40 | 1.10% | 60 | 3.00% |

General Employees: sample annual rates shown below are based on Municipal Employees Retirement System actuarial valuation for fiscal year ending June 30, 2010.

| Age | Male | Female |
|-----|-------|--------|
| 25 | 0.06% | 0.03% |
| 35 | 0.11% | 0.05% |
| 45 | 0.25% | 0.11% |
| 55 | 0.71% | 0.3% |

Health Coverage Election at Retirement

Active employees who currently have coverage: 100%
Active employees who currently have no coverage are assumed to elect coverage at retirement (100%).

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.

Life Insurance

100% of future retirees with medical coverage are assumed to have life insurance coverage at retirement.

Spousal Coverage

85% of employees are assumed to be married at retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.

Per Capita Costs

Annual per capita costs were calculated based on the premium rates effective on July 1, 2011 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 | 8V210, 8V211, 8V212 | | 5E14, 4P21, 4R17 (Healthmate) | |
|-----|---------------------|-----------|----------------------------------|-----------|
| | Male | Female | Male | Female |
| 45 | \$ 7,038 | \$ 8,828 | \$ 7,372 | \$ 9,247 |
| 50 | \$ 8,359 | \$ 9,510 | \$ 8,756 | \$ 9,962 |
| 55 | \$ 9,928 | \$ 10,245 | \$ 10,399 | \$ 10,731 |
| 60 | \$ 11,791 | \$ 11,037 | \$ 12,351 | \$ 11,561 |
| 65 | \$ 14,004 | \$ 11,890 | \$ 14,669 | \$ 12,454 |
| 70 | \$ 16,235 | \$ 12,809 | \$ 17,006 | \$ 13,417 |
| 75 | \$ 17,489 | \$ 13,798 | \$ 18,320 | \$ 14,454 |
| 80 | \$ 18,841 | \$ 14,865 | \$ 19,736 | \$ 15,571 |

| Age | 3A69 (Classic & Healthmate) | | All others | |
|-----|-----------------------------|-----------|------------|-----------|
| | Male | Female | Male | Female |
| 45 | \$ 7,372 | \$ 9,247 | \$ 8,571 | \$ 10,751 |
| 50 | \$ 8,756 | \$ 9,962 | \$ 10,180 | \$ 11,582 |
| 55 | \$ 10,399 | \$ 10,731 | \$ 12,090 | \$ 12,477 |
| 60 | \$ 12,351 | \$ 11,561 | \$ 14,360 | \$ 13,441 |
| 65 | \$ 14,669 | \$ 12,454 | \$ 17,055 | \$ 14,480 |
| 70 | \$ 17,006 | \$ 13,417 | \$ 19,771 | \$ 15,599 |
| 75 | \$ 18,320 | \$ 14,454 | \$ 21,299 | \$ 16,804 |
| 80 | \$ 19,736 | \$ 15,571 | \$ 22,945 | \$ 18,103 |

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.

Upon Medicare eligibility, the above per capita costs are reduced by 37.5% for current retirees and by 50.0% for future retirees.

Health Care Trend Rates

| FYE | Rates | FYE | Rates |
|------|--------|------|-------|
| 2012 | 0.00%* | 2017 | 6.50% |
| 2013 | 8.50% | 2018 | 6.00% |
| 2014 | 8.00% | 2019 | 5.50% |
| 2015 | 7.50% | 2020 | 5.00% |
| 2016 | 7.00% | | |

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.

* Based on actual rate increase from July 1, 2011 to 2012.

Retiree Contributions

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

Explicit Subsidy

The difference between (a) the premium rate and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a future retiree age-60 enrolled in 8V210 plan.

| | Premium Rate | Retiree Contribution | Explicit Subsidy |
|---------|--------------|----------------------|------------------|
| | A | B | C = A - B |
| Retiree | \$ 566.67 | \$ 0.00 | \$ 566.67 |
| Spouse | \$ 829.43 | \$ 0.00 | \$ 829.43 |

Implicit Subsidy

The difference between (a) the per capita cost and (b) the premium rate. Below is an example of the monthly implicit subsidies for a male age-60 retiree enrolled in 8V210 plan.

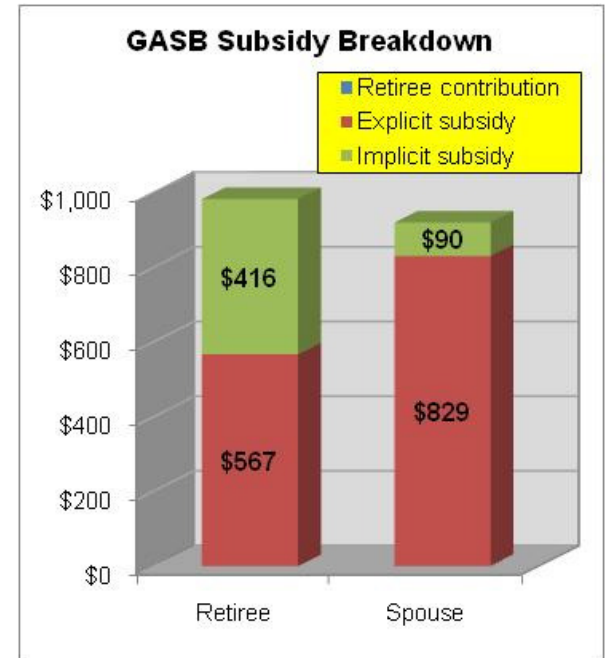
| | Per Capita Cost | Premium Rate | Implicit Subsidy |
|---------|-----------------|--------------|------------------|
| | A | B | C = A - B |
| Retiree | \$ 982.58 | \$ 566.67 | \$ 415.91 |
| Spouse | \$ 919.75 | \$ 829.43 | \$ 90.32 |

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.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a male age-60 retiree and his spouse enrolled in 8V210 plan.

| | Retiree | Spouse |
|---------------------------|------------------|------------------|
| Retiree contribution | \$ 0.00 | \$ 0.00 |
| Explicit subsidy | \$ 566.67 | \$ 829.43 |
| Implicit subsidy | \$ 415.91 | \$ 90.32 |
| Total monthly cost | \$ 982.75 | \$ 919.75 |



Summary of Plan Participants

| <i>Actives with coverage</i> | <i>Single</i> | <i>Family</i> | <i>Total</i> | <i>Avg. Age</i> | <i>Avg. Svc</i> | <i>Salary</i> |
|---|---------------|---------------|--------------|-----------------|-----------------|----------------------|
| Actives with coverage | | | | | | |
| 8V210 | 14 | 80 | 94 | 44.6 | 15.5 | \$ 6,038,320 |
| 8V211 | 20 | 66 | 86 | 40.2 | 13.1 | \$ 5,674,228 |
| 8V212 | 30 | 155 | 185 | 49.2 | 14.0 | \$ 9,867,510 |
| Total actives with coverage | 64 | 301 | 365 | 45.9 | 14.1 | \$ 21,580,058 |
| Actives without coverage⁴ | | | 24 | 47.1 | 10.6 | \$ 1,306,043 |

| <i>Disabled with coverage</i> | <i>Single</i> | <i>Family</i> | <i>Total</i> | <i>Avg. Age</i> |
|-------------------------------------|---------------|---------------|--------------|-----------------|
| 100699 | 1 | | 1 | 78.5 |
| 100699 Healthmate | 5 | | 5 | 68.9 |
| 3A69 | 2 | | 2 | 71.8 |
| 3A69 Healthmate | 8 | | 8 | 70.5 |
| Total disabled with coverage | 16 | 0 | 16 | 70.6 |

⁴ Active employees who currently have no coverage are assumed not to elect coverage at retirement. They have been excluded from the GASB valuation.

Summary of Plan Participants

| <i>Retirees with coverage</i> | <i>Single</i> | <i>Family</i> | <i>Total</i> | <i>Avg. Age</i> |
|-------------------------------------|---------------|---------------|--------------|-----------------|
| 2H66 | 1 | 2 | 3 | 60.6 |
| 2H68 | 1 | 1 | 2 | 54.9 |
| 4P21 Healthmate | 2 | 7 | 9 | 59.2 |
| 4P66 | | 2 | 2 | 57.9 |
| 4R17 | 1 | 3 | 4 | 61.8 |
| 4R17 Healthmate | 1 | 10 | 11 | 58.8 |
| 5E14 | | 3 | 3 | 55.7 |
| 5E14 Healthmate | 1 | 16 | 17 | 58.3 |
| 8V210 | 1 | 26 | 27 | 53.3 |
| 8V211 | 4 | 22 | 26 | 56.2 |
| 8V212 | 9 | 35 | 44 | 60.9 |
| 8W555 | 6 | | 6 | 60.6 |
| 2H79 | 14 | | 14 | 79.9 |
| Total retirees with coverage | 41 | 127 | 168 | 59.8 |

Active Age-Service Distribution

| Age | Years of Service | | | | | | | | | | Total | |
|--------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|-------|------------|
| | < 1 | 1 to 4 | 5 to 9 | 10 to 14 | 15 to 19 | 20 to 24 | 25 to 29 | 30 to 34 | 35 to 39 | 40 & up | | |
| Under 25 | 2 | | | | | | | | | | | 2 |
| 25 to 29 | 4 | 10 | 5 | 2 | | | | | | | | 21 |
| 30 to 34 | 1 | 2 | 13 | 3 | | | | | | | | 19 |
| 35 to 39 | 1 | 8 | 15 | 21 | 7 | 3 | | | | | | 55 |
| 40 to 44 | 2 | 2 | 19 | 25 | 20 | 20 | 2 | | | | | 90 |
| 45 to 49 | 2 | 4 | 11 | 9 | 16 | 20 | 3 | | | | | 65 |
| 50 to 54 | 2 | 4 | 14 | 12 | 15 | 16 | 12 | 2 | | | | 77 |
| 55 to 59 | 1 | | 5 | 13 | 5 | 8 | 5 | 2 | 1 | | | 40 |
| 60 to 64 | 1 | 1 | 5 | | 2 | 4 | | 1 | | | | 14 |
| 65 to 69 | | | 2 | | | 1 | 1 | | | | | 4 |
| 70 & up | 1 | | | | | 1 | | | | | | 2 |
| Total | 17 | 31 | 89 | 85 | 65 | 73 | 23 | 5 | 1 | 0 | | 389 |

Definitions

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.

Definitions

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 – Comparison of Participant Demographic Information

| | <u>As of October 31, 2009</u> | <u>As of October 31, 2011</u> |
|-----------------------------------|-------------------------------|-------------------------------|
| Active Participants ⁵ | 436 | 389 |
| Retired Participants ⁶ | 283 | 267 |
| Averages for Active | | |
| Age | 45.1 | 46.0 |
| Service | 13.0 | 13.9 |
| Averages for Inactive | | |
| Age | 57.6 | 58.1 |

⁵ Figures shown above include active employees who currently have no health coverage.

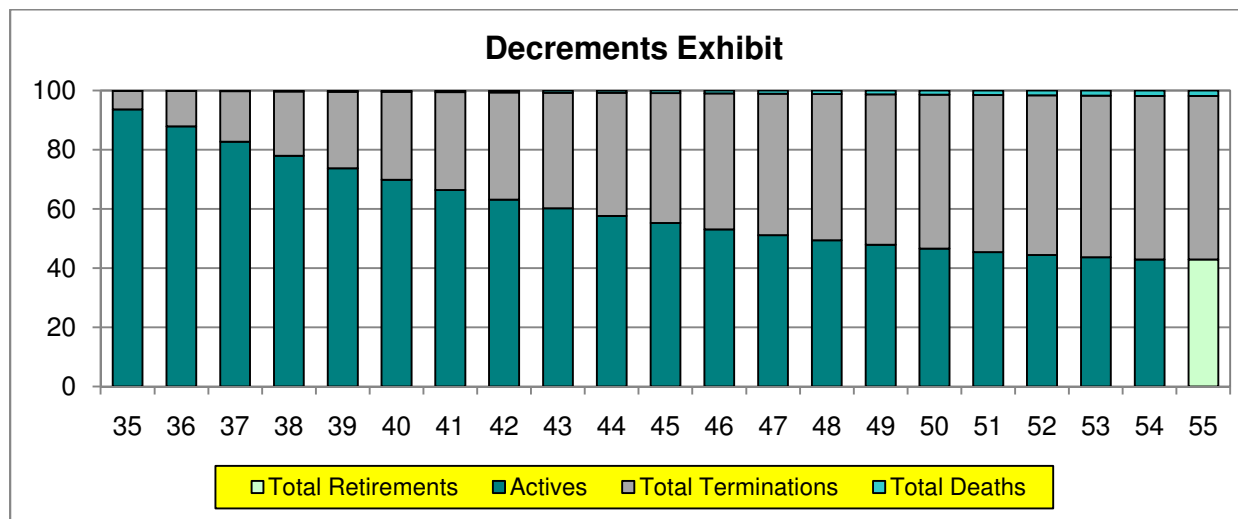
⁶ The retired participant's enrollment figures include spouses who are covered under the City's group health plan.

Appendix B – 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 |

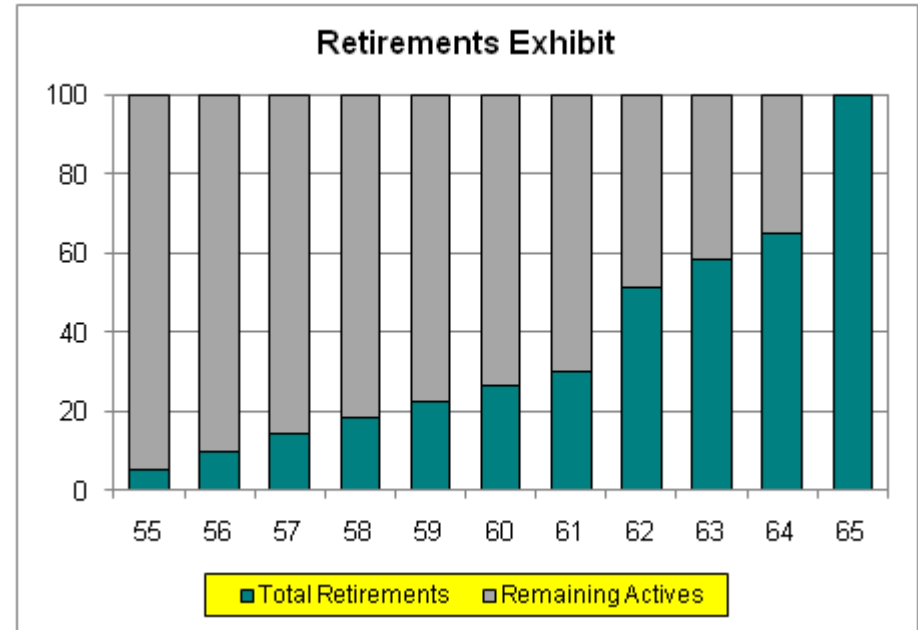


* The above rates are illustrative rates and are not used in our GASB calculations.

Appendix C – 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 D – 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 x B x C x D |

Appendix D – 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 = $A + B + C$ |