East Providence School Department

GASB 45 Actuarial Valuation

Fiscal Year Ending October 31, 2013

Prepared by:

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nyhart

May 5, 2014

Malcolm Moore
City of East Providence
145 Taunton Avenue
East Providence, RI 02914

This report summarizes the GASB actuarial valuation for the East Providence School Department 2012/13 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.

Should you have any questions please do not hesitate to contact us.

Randy Gomez, FSA, MAAA
Consulting Actuary

Evi Laksana, ASA, MAAA
Valuation Actuary

There have been changes to the plan provisions since the last full valuation, which was for the fiscal year ending October 31, 2011.

1. Retiree health eligibility requirements have changed due to the enactment of Article 7 in 2009 (for Rhode Island Employees Retirement System (RI ERS) members only) and the RIRSA in 2011. For many employees, this change has delayed the earliest date an employee could retire. Refer to Substantive Plan Provisions section for the complete retiree health benefits eligibility requirements. This change reduced the School's liabilities.

2. Effective on November 1, 2012:
    a. All Custodians, Secretaries, Teacher Assistants, and Teachers are eligible for subsidized retiree health benefits for two years of individual coverage and one year of family coverage after retirement under the same contribution requirement as active employees. At the end of the 2-year (for individual coverage) or 1-year (for family coverage) periods, retirees are offered COBRA coverage and once the COBRA coverage ends, retirees are no longer allowed to participate in the School's group health plan.
    b. Custodians who retire with 30 years of service on/before October 31, 2017 will receive free family coverage until Medicare eligibility.

    Active employees are currently required to contribute the following percentage of premium based on base pay:
    - 8% of premium if base pay is less than $23,000 (for all groups except for Teachers)
    - 10% of premium if base pay is less than $30,000
    - 15% of premium if base pay is less than $46,000 but more than $30,000
    - 20% of premium if base pay is less than $95,000 but more than $46,000
    - 25% of premium if base pay is more than $95,000

    This change reduced the School's liabilities.

3. Surviving spouse of employees (except for Administrators and Principals) retiring on/after November 1, 2012 are assumed to be eligible for subsidized coverage until the 1-year period is up. After that, surviving spouse is eligible for COBRA and they are required to contribute the full cost of coverage.

Several actuarial assumptions have been updated since the last valuation:

1. Retirement rates have been updated to be consistent with the most recent assumption used in the RI ERS and Rhode Island Municipal Employees Retirement System (RI MERS) actuarial valuations as of June 30, 2012. This change increased the School's liabilities.

2. Medical trend rates have been reset to the prior valuation's levels. This caused an increase in the School's liabilities.

3. Health care coverage election rate for Custodians, Secretaries, and Teacher Assistants have been reduced from 100% to 50%, which reduced the School's liabilities.

Summary of Results

Presented below is the summary of GASB 45 results for the fiscal year ending October 31, 2013 compared to the prior fiscal years as shown in the City's Notes to Financial Statement.

		As of November 1, 2011[1]		*As of November 1, 2012*
Actuarial Accrued Liability	$	28,331,194	$	18,660,160
Actuarial Value of Assets	$	0	$	0
Unfunded Actuarial Accrued Liability	$	28,331,194	$	18,660,160
Funded Ratio		0.0%		0.0%

		FY 2011/12		*FY 2012/13*
Annual Required Contribution	$	3,810,380	$	2,595,520
Annual OPEB Cost	$	3,940,440	$	2,681,088
Annual Employer Contribution	$	3,157,313	$	2,085,638

		As of October 31, 2012		*As of October 31, 2013*
Net OPEB Obligation / (Asset)	$	(1,297,838)	$	(702,388)

	As of October 31, 2013
Total Active Participants	633
Total Retiree Participants[2]	193

The active participants' number above may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

[1] Interim report was not prepared for FY 2011/12. Results for FY 2011/12 are as shown in the FYE October 31, 2011 GASB 45 actuarial report.
[2] Total retiree participants above include spouses who are covered under the School's group health plan.

Below is a breakdown of total GASB 45 liabilities allocated to past, current, and future service as November 1, 2012 compared to the prior year.

	As of November 1, 2011[3]		As of November 1, 2012	
Present Value of Future Benefits	**$**	**35,445,518**	**$**	**23,397,483**
Active Employees		20,312,932		14,591,431
Retired Employees		15,132,586		8,806,052
Actuarial Accrued Liability	**$**	**28,331,194**	**$**	**18,660,160**
Active Employees		13,198,608		9,854,108
Retired Employees		15,132,586		8,806,052
Normal Cost	**$**	**754,589**	**$**	**450,001**
Future Normal Cost	**$**	**6,359,735**	**$**	**4,287,322**

Present Value of Future Benefits is the amount needed as of November 1, 2011 and 2012 to fully fund the School's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

Actuarial Accrued Liability is the portion of PVFB considered to be accrued or earned as of November 1, 2011 and 2012. This amount is a required disclosure in the Required Supplementary Information section.

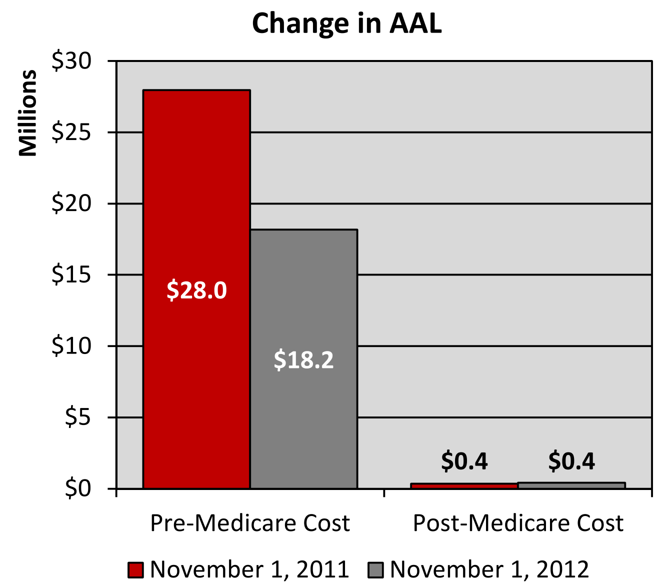
Normal Cost is the portion of the total liability amount that is attributed and accrued for current year's active employee service by the actuarial cost method.

Future Normal Cost is the portion of the total liability amount that is attributed to the future employee service by the current year's valuation by the actuarial cost method.

[3] Interim report was not prepared for FY 2011/12. Results for FY 2011/12 are as shown in the FYE October 31, 2011 GASB 45 actuarial report.

Below is a breakdown of total GASB 45 Actuarial Accrued Liability (AAL) allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Plan Sponsor's GASB subsidies.

Actuarial Accrued Liability (AAL)		*As of November 1, 2011*[4]		*As of November 1, 2012*
Active Pre-Medicare	$	12,998,000	$	9,648,284
Active Post-Medicare		200,608		205,824
Total Active AAL	$	13,198,608	$	9,854,108
Retirees Pre-Medicare	$	14,970,575	$	8,601,351
Retirees Post-Medicare		162,011		204,701
Total Retirees AAL	$	15,132,586	$	8,806,052
Total AAL	**$**	**28,331,194**	**$**	**18,660,160**

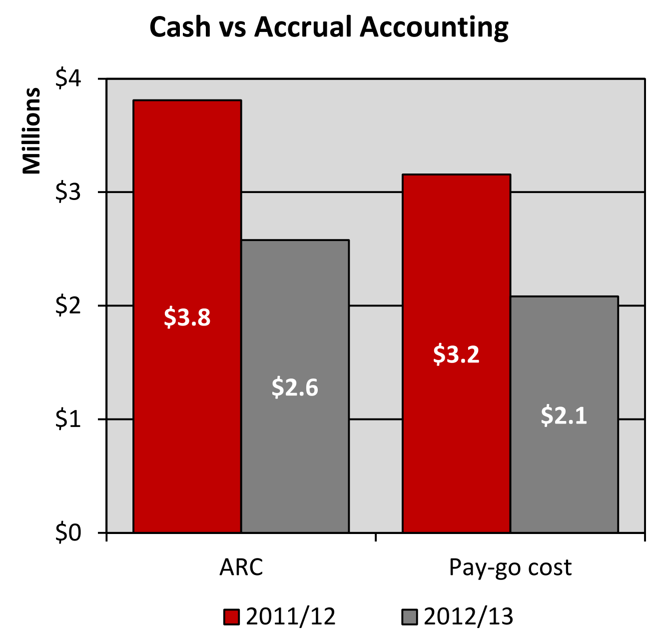


[4] Interim report was not prepared for FY 2011/12. Results for FY 2011/12 are as shown in the FYE October 31, 2011 GASB 45 actuarial report.

Development of Annual Required Contribution (ARC)

Required Supplementary Information		FY 2011/12[5]		FY 2012/13
Actuarial Accrued Liability as of beginning of year	$	28,331,194	$	18,660,160
Actuarial Value of Assets as of beginning of year		0		0
Unfunded Actuarial Accrued Liability (UAAL)	**$**	**28,331,194**	**$**	**18,660,160**
Covered payroll	$	38,107,684	$	35,323,248
UAAL as a % of covered payroll		74.3%		52.8%

Annual Required Contribution		FY 2011/12		FY 2012/13
Normal cost as of beginning of year	$	N/A	$	N/A
Amortization of the UAAL		N/A		N/A
Total normal cost and amortization payment	$	3,646,297	$	2,483,751
Interest to end of year		164,083		111,769
Total Annual Required Contribution (ARC)	**$**	**3,810,380**	**$**	**2,595,520**



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.

[5] Interim report was not prepared for FY 2011/12. Results for FY 2011/12 is as shown in the FYE October 31, 2011 GASB 45 actuarial report.

Development of Annual OPEB Cost and Net OPEB Obligation

Annual employer contribution for pay-go costs are estimated for 2011/12 and 2012/13.

Net OPEB Obligation		*FY 2011/12*		*FY 2012/13*
ARC as of end of year	$	3,810,380	$	2,595,520
Interest on Net OPEB Obligation (NOO) to end of year		(93,643)		(58,403)
NOO amortization adjustment to the ARC		223,703		143,971
Annual OPEB cost	$	3,940,440	$	2,681,088
Annual employer contribution for pay-go cost		(3,157,313)		(2,085,638)
Annual employer contribution for pre-funding		0		0
Change in NOO	$	783,127	$	595,450
NOO as of beginning of year		(2,080,965)		(1,297,838)
NOO as of end of year	**$**	**(1,297,838)**	**$**	**(702,388)**

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.

Summary of GASB 45 Financial Results

Presented below is the summary of GASB 45 results for the fiscal year ending October 31, 2013 and prior fiscal years as shown in the City's Notes to Financial Statements.

Schedule of Funding Progress

As of	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
	A	B	C = A - B	D = B / A	E	F = C / E
November 1, 2012	$ 18,660,160	$ -	$ 18,660,160	0.0%	$ 35,323,248	52.8%
November 1, 2011	$ 28,331,194	$ -	$ 28,331,194	0.0%	$ 38,107,684	74.3%
November 1, 2010	$ 28,331,194	$ -	$ 28,331,194	0.0%	$ 38,107,684	74.3%

Schedule of Employer Contributions

FYE	Employer Contributions	Annual Required Contribution (ARC)	% of ARC Contributed
	A	B	C = A / B
October 31, 2013	$ 2,085,638	$ 2,595,520	80.4%
October 31, 2012	$ 3,157,313	$ 3,810,380	82.9%
October 31, 2011	$ 2,896,617	$ 3,810,380	76.0%

Historical Annual OPEB Cost

As of	Annual OPEB Cost	% of Annual OPEB Cost Contributed	Net OPEB Obligation
October 31, 2013	$ 2,681,088	77.8%	$ (702,388)
October 31, 2012	$ 3,940,440	80.1%	$ (1,297,838)
October 31, 2011	$ 4,010,027	72.2%	$ (2,080,965)

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.

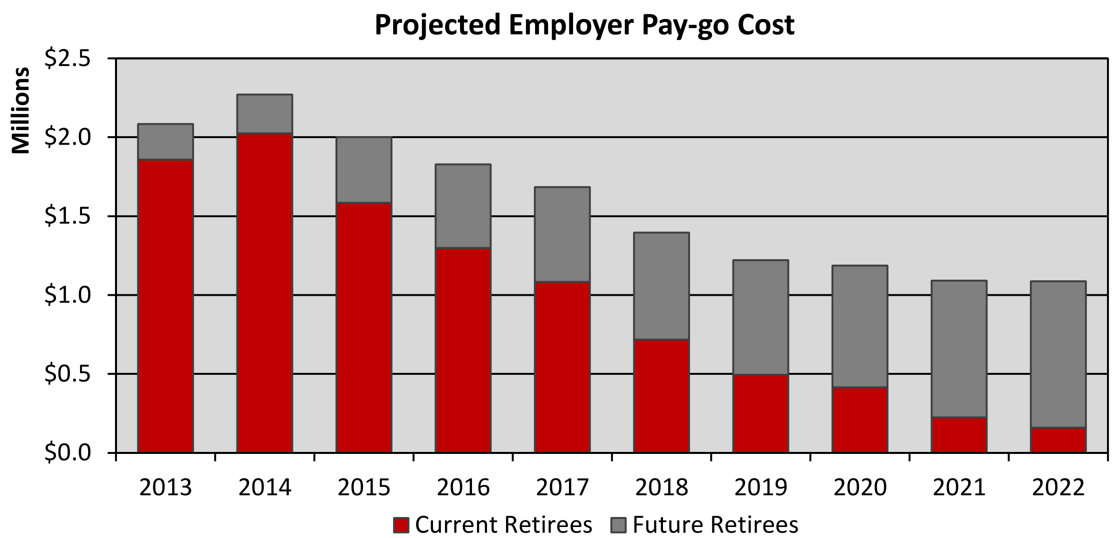
		2012/13[6]
Actuarial Accrued Liability as of beginning of year	$	18,660,160
Normal cost as of beginning of year		450,001
Expected benefit payments during the year		(2,085,638)
Interest adjustment to end of year		813,547
Expected Actuarial Accrued Liability as of end of year	$	17,838,070
Actuarial (gain) / loss due to experience		0
Actuarial (gain) / loss due to provisions / assumptions changes		0
Actual Actuarial Accrued Liability as of end of year	$	17,838,070

Reconciliation of AAL shows what the actuary expects the actuarial accrued liability to be at the beginning of the following fiscal year based on current assumptions and plan provisions. The expected end of year AAL will change as actual plan experience varies from assumptions. Generally, the AAL is expected to have a net increate each year.

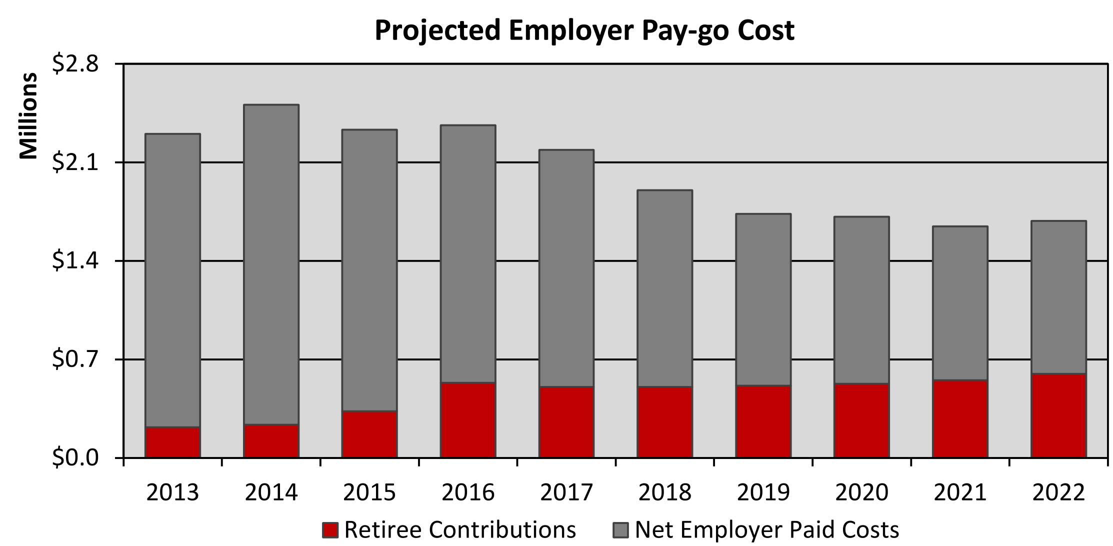
[6] Actuarial Accrued Liability (AAL) as of beginning of year was actuarially rolled-back from end of year AAL on a “no gain/loss” basis.

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next ten years. Results are shown separately for current /future retirees and gross claim costs/retiree contributions. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees[7]	Total
2013	$ 1,859,329	$ 226,309	$ 2,085,638
2014	$ 2,026,669	$ 246,677	$ 2,273,346
2015	$ 1,585,950	$ 414,711	$ 2,000,661
2016	$ 1,299,737	$ 529,336	$ 1,829,073
2017	$ 1,083,635	$ 606,047	$ 1,689,682
2018	$ 718,379	$ 687,973	$ 1,406,352
2019	$ 494,509	$ 731,896	$ 1,226,405
2020	$ 416,261	$ 776,808	$ 1,193,069
2021	$ 226,061	$ 876,570	$ 1,102,631
2022	$ 159,557	$ 938,936	$ 1,098,493



FYE	Estimated Claims Costs	Retiree Contributions	Net Employer-Paid Costs
2013	$ 2,303,510	$ 217,872	$ 2,085,638
2014	$ 2,510,827	$ 237,481	$ 2,273,346
2015	$ 2,332,799	$ 332,138	$ 2,000,661
2016	$ 2,364,162	$ 535,089	$ 1,829,073
2017	$ 2,195,000	$ 505,318	$ 1,689,682
2018	$ 1,915,685	$ 509,333	$ 1,406,352
2019	$ 1,746,663	$ 520,258	$ 1,226,405
2020	$ 1,723,667	$ 530,598	$ 1,193,069
2021	$ 1,661,367	$ 558,736	$ 1,102,631
2022	$ 1,704,129	$ 605,636	$ 1,098,493



[7] Projections for future retirees do not take into account future new hires.

Eligibility

Non-Teachers* are eligible for retiree health benefits until Medicare eligibility once they meet Rhode Island Municipal Employees Retirement System (MERS) pension eligibility requirements.

Teachers* eligible for retiree health benefits until Medicare eligibility once they meet the Rhode Island Employees Retirement System (ERS) pension eligibility requirements.

* The following employee groups follow Teachers eligibility requirements: Teachers and Principals. All other employee groups follow non-Teachers eligibility requirements.

Spouse Benefit

<u>For employees retiring prior to November 1, 2012</u>
Upon death of the retiree, surviving spouse coverage is as follows:

- Custodians/Secretaries: coverage continues until the retiree would've been eligible for Medicare. Coverage is free for surviving spouse.
- Teachers: coverage continues until the retiree's 2-year period is up. After that, surviving spouse is eligible for COBRA. Surviving spouse is required to contribute the full cost of coverage.
- Administrators/Principals: coverage continues until the retiree's period of coverage is up. After that, surviving spouse is eligible for COBRA. Prior to COBRA period, surviving spouse is required to contribute 20% of premium.
- Teachers Assistants: coverage continues until the retiree's 1-year period is up. After that, surviving spouse is eligible for COBRA. Prior to COBRA period, surviving spouse receives free coverage.

Upon death of active employees, surviving spouse coverage is as follows:

- Custodians/Secretaries/Teachers: coverage continues to surviving spouse for 2 years. Surviving spouse's contributions are 3% of member's pay prior to death for Custodians, 2.5% of member's pay prior to death for Secretaries, and 20% of premium for Teachers.
- Administrators/Principals: coverage continues to surviving spouse for 3 years. Surviving spouse's contribution is 20% of premium.
- Teachers Assistants: coverage continues to surviving spouse for 3 years. Surviving spouse's contribution is 2.5% of premium.

<u>For employees retiring on/after November 1, 2012</u>
There are no changes to the surviving spouse benefits for Administrators and Principals.
For all other employee groups, upon death of the retiree or active employees, surviving spouse is eligible for subsidized coverage until the 1-year period is up. After that, surviving spouse is eligible for COBRA and they are required to contribute the full cost of coverage.

RI ERS Eligibility Requirements

RI ERS eligibility requirements is the earlier of each employee's (a) Article 7 or (b) RIRSA eligibility dates which vary by Schedules summarized below:

Schedules	Vested with 10 years of contributing service credit as of 7/1/2005	Eligible to retire as of 9/30/2009
A	Y	Y*
B	N	Y**
AB	Y	N
B1	N	N
B2	Employees that became a member of RI ERS after 9/30/2009	

* Schedule A members were eligible to retire as of 9/30/2009 if they had (i) 28 years of service as of 9/30/2009 or (ii) had 10 years of contributing service and were age 60 as of 9/30/2009.
** Schedule B members were eligible to retire as of 9/30/2009 if they had 10 years of contributing service and were age 65 as of 9/30/2009.

Article 7 Eligibility Date
There are no changes to Schedule A and Schedule B members retirement eligibility dates. These employees may retire at any time once they met the prior RI ERS eligibility rules. The prior RI ERS eligibility rules are:

- Schedule A – earlier of (i) 28 years of service or (ii) age 60 with 10 years of contributing service.
- Schedule B – earlier of (i) age 65 with 10 years of contributing service or (ii) age 59 with 29 years of contributing service.

Minimum retirement age under Article 7 for Schedule AB and B1 members is 62 with "proportional downward adjustment" toward an earlier retirement age based on years of service as of 9/30/2009 (referred to as "frozen service credit").

Schedule B2 members minimum retirement age under Article 7 is age 62 without "proportional downward adjustment" toward an earlier retirement age.

RI ERS Eligibility Requirements (Continued)

RIRSA Eligibility Date

Employees with less than five years of contributing service credit on 6/30/2012 may retire at the Social Security normal retirement age (not higher than 67).

For employees with at least five years of contributing service credit on 6/30/2012, minimum retirement age is 62 with "proportional downward adjustment" toward an earlier retirement date based on years of service prior to 7/1/2012, but not earlier than 59.

Employees with at least 10 years of contributing service credit on 6/30/2012 may retire at their Article 7 eligibility date if they continue to work and contribute until that date. If they are within five years of reaching RIRSA retirement eligibility date and have at least 20 years of service, they may retire at any time.

MERS Eligibility Requirements

Employees eligible to retire as of 7/1/2012 are not impacted by the new eligibility requirements described below. Prior to 7/1/2012, employees were eligible to retire at the earlier of: (i) age 58 with 10 years of service credit or (ii) 30 years of service (no age requirement).

For employees who are not eligible to retire as of 7/1/2012:

a) Members with less than five years of contributing service credit on 6/30/2012 may retire at their Social Security normal retirement age.
b) Members with at least five years of contributing service credit on 6/30/2012 may retire at an individually determined age, which is the result of interpolating the member's prior Retirement Date (described in previous paragraph) and the retirement age applicable to members hired after 6/30/2012 (described in item (a) above).
c) Members with at least ten years of contributing service credit on 6/30/2012 may retire at their prior Retirement Date (described in previous paragraph) if they continue to work and contribute until that date.

All members who are within five years of reaching their retirement eligibility date (described in the paragraphs above) may retire at any time if they have at least 20 years of service.

Retiree Cost Sharing

For employees who retired prior to November 1, 2012

Retiree / spouse contributions applicable to medical and dental benefits vary by group as shown below:

Employee Group	Retiree Contribution	Spouse Contribution
Teachers who retired prior to 1999	Free coverage until Medicare eligibility	Difference between single and family working rates
Teachers who retired on/after 1999 but prior to 4/2009	Free coverage until Medicare eligibility	1.3 x single working rate
Teachers who retired after 4/2009	20% of premium for 2 years	Difference between single and family working rates
Secretaries and Custodians	Free coverage until Medicare eligibility	Free coverage until retiree is eligible for Medicare
Teachers Assistant	Free coverage until Medicare eligibility	Free coverage for 1 year then pay the difference between single and family working rates
Administrators and Principals	20% of premium for specified number of years of coverage	20% of premium for specified number of years of coverage

For employees retiring on/after November 1, 2012

Retiree / spouse contributions applicable to medical and dental benefits vary by group as shown below:

Employee Group	Retiree Contribution	Spouse Contribution
Teachers Secretaries Custodians* Teachers Assistant	Same contribution as actives for 2 years followed by COBRA (no subsidy during COBRA)	Same contribution as actives for 1 year followed by COBRA (no subsidy during COBRA); spouse contributes the difference between single and family working rates
Administrators and Principals	20% of premium for specified number of years of coverage	20% of premium for specified number of years of coverage

***** Custodians who retire on/prior to October 31, 2017 with 30 years of service are eligible for free family coverage until Medicare eligibility.

Disability Benefit

None

Life Insurance

Employees are eligible for $25,000 life insurance benefit that is fully paid by the School until the following ages:

- Age 70 for Teachers, Teachers Assistants, Principals, and Administrators
- Age 75 for Custodians
- Age 80 for Secretaries

Dental

Monthly dental premiums effective on July 1, 2014 are as shown below.

	Single	Family
Dental	$ 29.51	$ 94.77

Medical Benefit

Same benefit options are available to retirees as active employees. East Providence School Department is a member of WB Community Health and all health plans in this group are considered self-insured. The table below shows what health plan active employees are mapped to when they change to retirement status.

Employee group	Active plans	Retiree plans
Teachers	0003	HM $500 (0009, 0015)
Secretaries	0005	HM $500 (0012, 0015)
Teachers Assistant	0004	HM $500 (0011, 0015)
Custodian	0002	HM $500 (0015), HM $250 (0008)
Administrators	0013	HM $500 (0010, 0015)

The monthly premiums by plan effective on November 1, 2013 are as shown below.

New Suffix	Old Suffix	Plan Name	Single	Family
0009	124R	HMC2C Coins 100/80 D$500	$ 556.65	$ 1,465.33
0008	101R	HM $250	$ 577.06	$ 1,519.06
0007	100592	Classic	$ 669.43	$ 1,739.59
0007	100592	HMC2C Coins 100/80 D$250	$ 598.89	$ 1,578.61
0001	102419	HM $200	$ 572.43	$ 1,508.85
0010/0011/0012	N/A	HM C2C Coins Plan 8	$ 517.59	$ 1,364.30
0015	N/A	HM C2C Coins Plan 8	$ 521.46	$ 1,380.64

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

There are changes to the actuarial methods and assumptions since the last GASB valuation, which was for the fiscal year ending October 31, 2011. Refer to Actuary's Notes section for complete information on these 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 in the next full GASB valuation, which will be for the fiscal year ending October 31, 2014.

Measurement Date

October 31, 2013 with results actuarially rolled-back to November 1, 2012 on a "no loss/no gain" basis.

Discount Rate

4.50%

Payroll Growth

3.00% per year

Inflation Rate

3.00% per year

Cost Method

Entry Age Normal Level Dollar

Amortization

Aggregate Cost Level Dollar

Census Data

Census information was provided by the School and it was collected as of April 2014. 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

Active employees (regardless of current health coverage election):

- Administrators, Principals, and Teachers: 100%
- Custodians, Secretaries, and Teachers Assistants: 50%

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	Spousal coverage for current retirees is based on actual data. 70% of employees are assumed to be married at retirement. Husbands are assumed to be four years older than wives for male employees and two years younger for female employees.
Mortality	
Pre-retirement	Non-Teachers: 75% of RP-2000 Combined Healthy Table with White Collar adjustments Teachers: 50% of RP-2000 Combined Health Table with White Collar adjustments
Post-retirement	Non-Teachers: • 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 Teachers: • Male: 97% of GRS table fully generational using Scale AA • Female: 92% of GRS table fully generational using Scale AA
Disability	None

Turnover 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 ERS (for Teachers) and MERS (for non-Teachers) actuarial valuation for fiscal year ending June 30, 2010.

	Non-Teachers		Teachers	
YOS	Male	Female	Male	Female
0	17.50%	18.00%	17.00%	8.90%
1	10.87%	11.43%	9.00%	7.78%
2	9.22%	9.73%	5.62%	6.81%
3	7.78%	8.24%	4.55%	5.95%
4	6.55%	6.95%	3.64%	5.21%
5	5.52%	5.84%	2.89%	4.55%
6	4.65%	4.91%	2.29%	3.98%
7	3.94%	4.12%	1.81%	3.48%
8	3.37%	3.48%	1.45%	3.05%
9	2.93%	2.96%	1.20%	2.66%
10	2.60%	2.55%	1.04%	2.33%
11	2.36%	2.23%	0.95%	2.04%
12	2.20%	1.99%	0.94%	1.78%
13	2.09%	1.81%	0.94%	1.56%
14	2.04%	1.69%	0.94%	1.36%
15	2.01%	1.59%	0.94%	1.19%
16	2.00%	1.52%	0.94%	1.04%
17	1.98%	1.45%	0.94%	0.91%
18	1.95%	1.37%	0.94%	0.80%
19	1.87%	1.27%	0.94%	0.70%
20	1.75%	1.12%	0.94%	0.61%
21	1.56%	0.92%	0.94%	0.53%
22	1.29%	0.65%	0.94%	0.47%
23	0.92%	0.30%	0.94%	0.41%
24	0.44%	0.00%	0.94%	0.36%

Retirement Rate

Annual retirement rates are based on the rates used in RI ERS and RI MERS actuarial valuation as of June 30, 2012.

RI ERS Members

- For schedule A members who reach 28 years of service before age 60, service-based rates are used. For members who reach age 60 before reaching 28 years of service, age-based rates are used instead.
- For schedule B members who reach 29 years of service before age 65, service-based rates are used. For members who reach age 65 before reaching 29 years of service, age-based rates are used instead.

Because of the enactment of Article 7 in 2009 and the RIRSA in 2011, the retirement assumption was modified for members whose retirement ages were delayed. Members who would have been assumed to retire under the rules in effect before the enactment of the provision changes are assumed to retire when first eligible for an unreduced benefit. This demand is recognized by adding a 10% probability for every year the member has been deferred.

Male				Female			
Service-based		Age-based		Service-based		Age-based	
Service	Rate	Age	Rate	Service	Rate	Age	Rate
28	25.0%	60	20.0%	28	20.0%	60	20.0%
29	15.0%	61	15.0%	29	15.0%	61	15.0%
30 – 31	20.0%	62	30.0%	30 – 31	20.0%	62	25.0%
32 – 33	30.0%	63	25.0%	32 – 33	30.0%	63 – 64	20.0%
34	40.0%	64	10.0%	34	35.0%	65	35.0%
35	55.0%	65 – 74	25.0%	35	50.0%	66 – 74	25.0%
36 – 39	40.0%	75	100.0%	36 – 39	40.0%	75	100.0%
40	100.0%			40	100.0%		

The assumed reduced retirement rates for Schedule B members prior to normal retirement are as follows. The 10% additional probability for every year the member has been deferred is also applied to the rates below.

YOS	Male
59	1%
60 – 62	2%
63	3%
64	4%

Retirement Rate (Continued)

RI MERS Members

For members who reach 30 years of service before age 58, service-based rates are used. For other members, age-based rates are used instead.

Because of the enactment of RIRSA in 2011, the retirement assumption was modified for members not eligible to retire by July 1, 2012. Members who would have been assumed to retire at an earlier age under the rules in effect before the enactment of the provision changes are assumed to retire when first eligible for an unreduced benefit. This demand is recognized by adding a 10% probability for every year the member has been deferred.

YOS	Male	Female
30	30%	30%
31	30%	25%
32 – 34	25%	10%
35	25%	15%
36	25%	20%
37	25%	25%
38	35%	25%
39	50%	25%
40	100%	100%

Age	Male	Female
58	12%	12%
59 – 61	10%	10%
62	30%	20%
63 – 64	20%	15%
65	20%	20%
66 – 68	25%	25%
69	30%	25%
70 – 74	30%	20%
75+	100%	100%

Health Care Trend Rates

FYE	Medical	FYE	Medical
2014	9.0%	2019	6.5%
2015	8.5%	2020	6.0%
2016	8.0%	2021	5.5%
2017	7.5%	2022+	5.0%
2018	7.0%		

The initial trend rate was 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 according to health care trend rates.

Per Capita Costs

Annual per capita costs were calculated based on the School's monthly working rates effective on November 1, 2013 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:

	HM $200/ HM $250		Classic	
Age	**Male**	**Female**	**Male**	**Female**
45	$ 7,699	$ 9,625	$ 8,605	$ 10,759
50	$ 9,143	$ 10,369	$ 10,220	$ 11,590
55	$ 10,860	$ 11,170	$ 12,139	$ 12,486
60	$ 12,898	$ 12,034	$ 14,417	$ 13,451
64	$ 14,800	$ 12,772	$ 16,544	$ 14,276

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.

	HM $500		HM Coins Plan 8	
Age	**Male**	**Female**	**Male**	**Female**
45	$ 7,156	$ 8,946	$ 6,703	$ 8,381
50	$ 8,499	$ 9,638	$ 7,961	$ 9,028
55	$ 10,094	$ 10,382	$ 9,456	$ 9,726
60	$ 11,988	$ 11,185	$ 11,230	$ 10,478
64	$ 13,757	$ 11,871	$ 12,887	$ 11,121

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 retired Teacher and her spouse enrolled in HM Coinsurance Plan 8.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B = 20% x A	C = A – B
Retiree	$ 521.46	$ 104.29	$ 417.17
Spouse	$ 859.18	$ 171.84	$ 687.34

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 female retired Teacher with spouse of the same age enrolled in HM Coinsurance Plan 8.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A – B
Retiree	$ 873.17	$ 521.46	$ 351.71
Spouse	$ 935.83	$ 859.18	$ 76.65

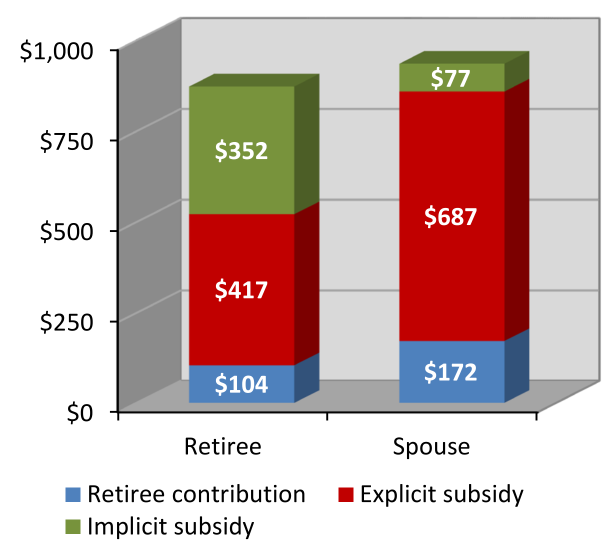
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for plans using a true community-rated premium rate.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 45 monthly total cost for a female future retired Teacher and her spouse of the same age enrolled in HM Coinsurance Plan 8.

	Retiree	Spouse
Retiree contribution	$ 104.29	$ 171.84
Explicit subsidy	$ 417.17	$ 687.34
Implicit subsidy	$ 351.71	$ 76.65
Total monthly cost	$ 873.17	$ 935.83

GASB Subsidy Breakdown



Actives with coverage	*Single*	*Family*	*Total*	*Avg. Age*	*Avg. Svc*	*Salary*
HM Coinsurance 100/80 D $500		1	1	63.2	24.9	$ 23,076
HM Coinsurance 100/80 D $250		1	1	63.5	21.7	$ 41,811
HM Coinsurance Plan 8	119	328	447	47.6	13.3	$ 24,880,215
Total actives with coverage	**119**	**330**	**449**	**47.7**	**13.4**	**$ 24,945,102**

Actives without coverage	*Total*	*Avg. Age*	*Avg. Svc*	*Salary*
Total actives without coverage	**184**	**46.9**	**12.0**	**$ 10,378,146**

Active employees who currently have no coverage are assumed to elect coverage at retirement based on the health care coverage election assumption shown in the Actuarial Methods and Assumptions section. They have been included in the GASB valuation.

Retirees with coverage	*Single*	*Family*	*Total*	*Avg. Age*
Classic Blue	12	3	15	60.7
HM Coinsurance 100/80 D $500	95	32	127	62.0
HM Coinsurance 100/80 D $250	1	2	3	55.6
HM Coinsurance Plan 8	1	2	3	60.8
HM ER$25/OV$10	4	1	5	63.8
Total retirees with coverage	**113**	**40**	**153**	**61.8**

In addition to the above retirees with health coverage, there are 108 retirees without health coverage who are receiving life insurance benefits. They have been included in the GASB valuation.

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	1	2									3
25 to 29	7	19	10								36
30 to 34	8	8	30	9							55
35 to 39	5	20	11	45	2						83
40 to 44	3	9	6	21	25	1					65
45 to 49	7	19	10	23	6	33	4				102
50 to 54	1	8	11	32	17	16	17	1			103
55 to 59	3	5	7	36	18	22	14	5	1		111
60 to 64	1	6	11	12	9	13	10	1	3		66
65 to 69			1	2	1	2	1				7
70 & up							2				2
Total	**36**	**96**	**97**	**180**	**78**	**87**	**48**	**7**	**4**	**0**	**633**

APPENDIX

Comparison of Participant Demographic Information

The active participants' number below may include active employees who currently have no health care coverage. Refer to Summary of Participants section for an accurate breakdown of active employees with and without coverage.

	As of October 31, 2011	*As of October 31, 2013*
Active Participants	706	633
Retired Participants[8]	299	193
Averages for Active		
Age	46.3	47.5
Service	11.8	13.0
Averages for Inactive		
Age	61.2	63.1

[8] The retired participant's enrollment figures include spouses who are covered under the School's group health plans and exclude those who are currently receiving life insurance benefits only.

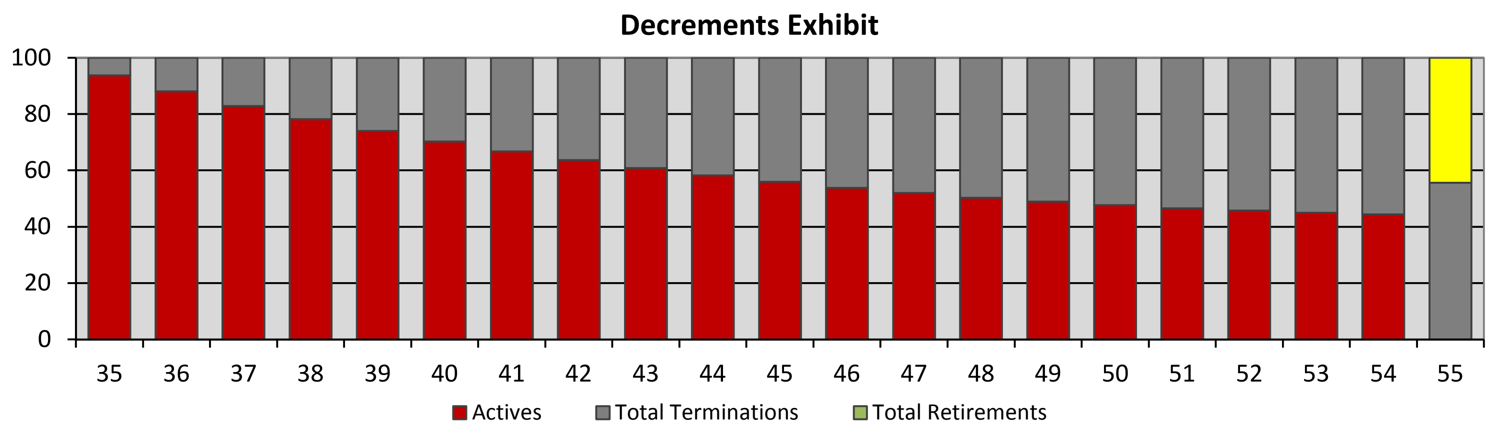
Glossary

Decrements Exhibit

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 44.430 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year*	# of Retirements per Year*	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430

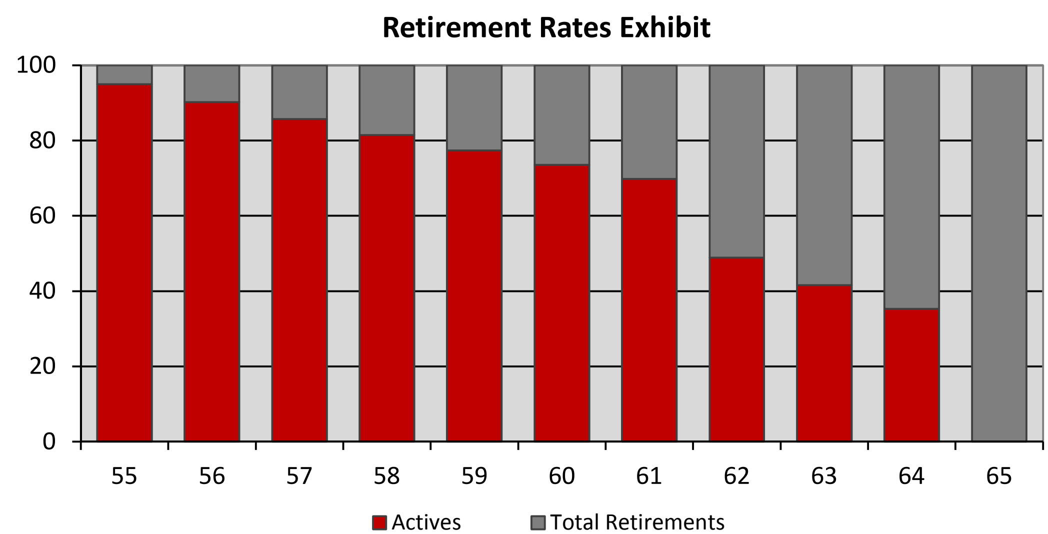


* The above rates are illustrative rates and are not used in our GASB calculations.

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	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



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

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

Illustration of GASB Calculations (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 x 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% x (A + B)
D.	$6,788	Annual Required Contribution = A + B + C

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 (continued)

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.