Appendix F

Segal Consulting

City of Hartford and Board of Education

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of July 1, 2013 in accordance with GASB Statements No. 43 and No. 45

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PURPOSE

This report presents the results of our actuarial valuation of The City of Hartford and Board of Education OPEB plan as of July 1, 2013. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes.

HIGHLIGHTS OF THE VALUATION

- The **unfunded actuarial accrued liability (UAAL)** as of July 1, 2013 is $202,778,183, a decrease of $70,547,530, from the prior valuation UAAL of $273,325,713. The difference between current and prior unfunded actuarial accrued liabilities is attributed to several factors:
  - A reduction in net claim amounts.
  - A revision in budget projection from prior service provider resulted in a reduction in the projected claim cost.
  - **Valuation assumption changes** – A change in medical trend rates decreased the liability by an estimated 1.4%.
  - **Reduction in medical plan retirees covered** – The number of retirees and beneficiaries population covered by the medical plan decreased by 5.0%
- The **Annual Required Contribution (ARC)** decreased to $14,669,464 for the year ending June 30, 2014. The ARC was $18,936,871 for the last year.
- The **Net OPEB Obligation (NOO)** Increased to $64,397,902 for the year ending June 30, 2013. The NOO generally increases if the contributions in relation to the ARC are less than the ARC. The contributions in relation to the ARC during the year ending June 30, 2013 were $10,915,658 compared to the ARC of $18,936,871. Contributions in relation to the ARC totaled 57.6% of the ARC in the year ending June 30, 2013. Chart 8 shows the detailed derivation of the NOO as of June 30, 2013.
- The **Annual OPEB Cost (AOC)** decreased to $15,112,025 for the year ending June 30, 2014. The AOC was $19,317,175 last year.
- We have valued the firefighter hired after July 1, 2007 based on the current plan, as the VEBA in the latest agreement has not been established. We have estimated the total VEBA balance and annual VEBA Contribution for this group to be $1,523,000 and $345,000, respectively. The medical liability and the normal cost included in this valuation for the group are $2,305,071 and $610,823.
- The current Policy Funding Contributions are:

  Group 1 – Benefit payments only
  Group 2 – Benefit payments plus normal cost
  Group 3 – Annual required contributions (ARC)

  These policies are subject to future discussion and revision.

The key valuation results for the current and prior years are shown.

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SUMMARY OF VALUATION RESULTS – PLAN TOTAL

	July 1, 2013	July 1, 2012
Actuarial Accrued Liability (AAL)	$202,778,183	$273,325,713
Actuarial Value of Assets	0	0
Unfunded Actuarial Accrued Liability	202,778,183	273,325,713
Funded Ratio	0%	0%
Market Value of Assets	$0	$0
Annual Required Contribution (ARC) for Fiscal Year Ending:	**June 30, 2014**	**June 30, 2013**
Normal cost (end of year)	$4,495,918	$5,269,340
Amortization of the unfunded actuarial accrued liability	10,173,546	13,667,531
Total Annual Required Contribution	$14,669,464	$18,936,871
Total Medical Participants	6,665	6,237
Total Life Participants	5,804	5,408
Annual OPEB Cost (AOC) for Fiscal Year Ending:	**June 30, 2014**	**June 30, 2013**
Annual Required Contributions	$14,669,464	$18,936,871
Interest on Net OPEB Obligations	3,673,454	3,180,378
ARC Adjustments	(3,230,893)	(2,800,074)
Total Annual OPEB Cost	$15,112,025	$19,317,175
AOC as a percent of pay	N/A	N/A

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SUMMARY OF VALUATION RESULTS – BOE

As of July 1, 2013

	Group 1	Group 2	Group 3	Total
Actuarial Accrued Liability (AAL)	$11,628,527	$11,205,648	$94,878	$22,929,053
Actuarial Value of Assets	0	0	0	0
Unfunded Actuarial Accrued Liability	11,628,527	11,205,648	94,878	22,929,053
Funded Ratio	0%	0%	0%	0%
Market Value of Assets	$0	$0	$0	$0

Annual Required Contribution (ARC) for Fiscal Year Ending June 30, 2014:

	Group 1	Group 2	Group 3	Total
Normal cost (end of year)	$0	$438,956	$65,465	$504,421
Amortization of the unfunded actuarial accrued liability	530,515	619,553	6,252	1,156,320
Total Annual Required Contribution	$530,515	$1,058,509	$71,717	$1,660,741
Medical Participants	249	2,446	924	3,619
Life Participants	632	1,162	346	2,140

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SUMMARY OF VALUATION RESULTS – CITY

As of July 1, 2013

	Group 1	Group 2	Group 3	Total
Actuarial Accrued Liability (AAL)	$98,036,885	$79,807,808	$2,004,437	$179,849,130
Actuarial Value of Assets	0	0	0	0
Unfunded Actuarial Accrued Liability	98,036,885	79,807,808	2,004,437	179,849,130
Funded Ratio	0%	0%	0%	0%
Market Value of Assets	$0	$0	$0	$0

Annual Required Contribution (ARC) for Fiscal Year Ending June 30, 2014:

	Group 1	Group 2	Group 3	Total
Normal cost (end of year)	$0	$3,491,787	$499,710	$3,991,497
Amortization of the unfunded actuarial accrued liability	4,472,622	4,412,522	132,082	9,017,226
Total Annual Required Contribution	$4,472,622	$7,904,309	$631,792	$13,008,723
Medical Participants	1,160	1,480	406	3,046
Life Participants	1,762	1,502	400	3,664

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ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. has conducted an actuarial valuation of certain benefit obligations of the City of Hartford and Board of Education's other postemployment benefit programs as of July 1, 2013, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the Employer and reliance on participant, premium, claims and expense data provided by the Employer or from vendors employed by the Employer. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Ann D. Gineo, FSA, MAAA
Senior Vice President and Consulting Actuary

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Vice President and Consulting Actuary

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The actuarial accrued liability shows that portion of the liability allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion covered by retiree contributions and the portion covered by accumulated plan assets.

CHART 1

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	July 1, 2013	July 1, 2012
Participant Category		
Current retirees, beneficiaries, and dependents	$139,217,637	N/A
Current active members	63,560,546	N/A
Total	$202,778,183	$273,325,713

	July 1, 2013	July 1, 2012
Development of Unfunded Actuarial Accrued Liability		
Actuarial accrued liability before reduction for retiree contributions	$513,049,286	N/A
Less projected retiree contributions	310,271,103	N/A
Net employer actuarial accrued liability	202,778,183	273,325,713
Actuarial value of assets	0	0
Unfunded actuarial accrued liability	$202,778,183	$273,325,713

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CHART 2

July 1, 2013 Actuarial Accrued Liability (AAL) by Group

July 1, 2013	Group 1	Group 2	Group 3	Total
Participant Category				
BOE				
Current retirees, beneficiaries, and dependents	$11,628,527	$968,380	$0	$12,596,907
Current active members	0	10,237,268	94,878	10,332,146
Subtotal – BOE	11,628,527	11,205,648	94,878	22,929,053
CITY				
Current retirees, beneficiaries, and dependents	$98,036,885	$27,514,648	$1,069,197	$126,620,730
Current active members	0	52,293,160	935,240	53,228,400
Subtotal - City	98,036,885	79,807,808	2,004,437	179,849,130
TOTAL				
Current retirees, beneficiaries, and dependents	$109,665,412	$28,483,028	$1,069,197	$139,217,637
Current active members	0	62,530,428	1,030,118	63,560,546
Total	109,665,412	91,013,456	2,099,315	202,778,183

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CHART 2 (continued)

July 1, 2013 Actuarial Accrued Liability (AAL) – City by Union

Union	Active Liability	Retiree Liability	Total Liability
1716	$3,599,133	$4,775,365	$8,374,498
1716/HMEA/CHPEA	0	889,346	889,346
CHPEA	540,983	1,966,855	2,507,838
EMBERS	0	22,051,049	22,051,049
Fire	36,429,764	53,770,642	90,200,406
HMEA	3,608,554	11,837,854	15,446,408
Library	1,691,465	3,032,067	4,723,532
MLA*	29,251	(43,781)	(14,530)
Non-Union	2,461,111	12,399,626	14,860,737
Other**	50,991	1,469,089	1,520,080
Paraprofessionals	0	39,784	39,784
Police	3,489,775	13,754,996	17,244,771
SCGA	1,147,987	116,931	1,264,918
Special Non-Union	179,386	560,907	740,293
TOTAL	**$53,228,400**	**$126,620,730**	**$179,849,130**

* The negative liability is due to a small population of retirees paying the full cost of the benefit.

** These participants are assumed to pay the full cost of benefits.

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes *as if* the plan were being funded through contributions to a trust fund. The GASB standards cannot require the contributions actually be made to a trust fund. The ARC is simply a device used to measure annual plan costs on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. The resulting sum is then adjusted to the start of the accounting period and adjusted as if the annual cost were to be contributed at the end of the fiscal year.

The amortization payment is based on a 30-year period amortization of the Unfunded Actuarial Accrued Liability.

CHART 3

Determination of Annual Required Contribution (ARC) – Plan Total

Cost Element	Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014 Amount	Fiscal Year Beginning July 1, 2012 and Ending June 30, 2013 Amount
BOE		
Normal Cost (end of year)	$504,421	$1,542,673
Amortization of the unfunded actuarial accrued liability	1,156,320	2,450,526
Total Annual Required Contribution	1,660,741	3,993,199
CITY		
Normal Cost (end of year)	$3,991,497	$3,726,667
Amortization of the unfunded actuarial accrued liability	9,017,226	11,217,005
Total Annual Required Contribution	13,008,723	14,943,672
TOTAL		
Normal Cost (end of year)	$4,495,918	$5,269,340
Amortization of the unfunded actuarial accrued liability	10,173,546	13,667,531
Total Annual Required Contribution	14,669,464	18,936,871

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CHART 3 (continued)

Determination of Annual Required Contribution (ARC) – By Group

Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	Group 1	Group 2	Group 3
BOE	**Amount**	**Amount**	**Amount**
Normal Cost (end of year)	$0	$438,956	$65,465
Amortization of the unfunded actuarial accrued liability	530,515	619,553	6,252
Total Annual Required Contribution	$530,515	$1,058,509	$71,717
CITY			
Normal Cost (end of year)	$0	$3,491,787	$499,710
Amortization of the unfunded actuarial accrued liability	4,472,622	4,412,522	132,082
Total Annual Required Contribution	$4,472,622	$7,904,309	$631,792
TOTAL			
Normal Cost (end of year)	$0	$3,930,743	$565,175
Amortization of the unfunded actuarial accrued liability	5,003,137	5,032,075	138,334
Total Annual Required Contribution	$5,003,137	$8,962,818	$703,509

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The Annual OPEB Cost (AOC) adjusts the ARC for timing differences between the ARC and contributions in relation to the ARC. The AOC is the cost of OPEB actually booked as an expense for the Fiscal Year under GASB 45.

CHART 4

Determination of Annual OPEB Cost (AOC) – By Group

Cost Element	Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	Fiscal Year Beginning July 1, 2012 and Ending June 30, 2013
Group 1	Amount	Amount
Annual Required Contribution	$5,003,137	N/A
Interest on Beginning of Year Net OPEB Obligation (NOO)	1,741,366	N/A
ARC Adjustment	(1,588,886)	N/A
Annual OPEB Cost	$5,155,617	N/A
Group 2		
Annual Required Contribution	$8,962,818	N/A
Interest on Beginning of Year Net OPEB Obligation (NOO)	1,878,752	N/A
ARC Adjustment	(1,598,076)	N/A
Annual OPEB Cost	$9,243,494	N/A
Group 3		
Annual Required Contribution	$703,509	N/A
Interest on Beginning of Year Net OPEB Obligation (NOO)	53,336	N/A
ARC Adjustment	(43,931)	N/A
Annual OPEB Cost	$712,914	N/A
TOTAL		
Annual Required Contribution	$14,669,464	$18,936,871
Interest on Beginning of Year Net OPEB Obligation (NOO)	3,673,454	3,180,378
ARC Adjustment	(3,230,893)	(2,800,074)
Annual OPEB Cost	$15,112,025	$19,317,175

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The Policy Funding Contributions are:

Group 1 – Benefit payments only
Group 2 – Benefit payments plus normal cost
Group 3 – Annual required contribution (ARC)

CHART 5

Determination of Policy Funding Contribution – By Group

Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014	Group 1 Amount	Group 2 Amount	Group 3 Amount
BOE			
Normal Cost (end of year)	$0	$438,956	$65,465
Additional Amount	792,237	252,867	6,252
Total Policy Funding Contribution	$792,237	$691,823	$71,717
CITY			
Normal Cost (end of year)	$0	$3,491,787	$499,710
Additional Amount	5,047,274	970,214	132,082
Total Policy Funding Contribution	$5,047,274	$4,462,001	$631,792
TOTAL			
Normal Cost (end of year)	$0	$3,930,743	$565,175
Additional Amount	5,839,511	1,223,081	138,334
Total Policy Funding Contribution	$5,839,511	$5,153,824	$703,509

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For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For GASB 45 (employer reporting) purposes, the schedule of employer contributions compares actual contributions to the AOC.

CHART 6

Required Supplementary Information – Schedule of Employer Contributions GASB 43

Fiscal Year Ended June 30,	Annual Required Contributions *	Actual Contributions *	Percentage Contributed
2008	$31,600	$15,425	48.8%
2009	$24,500	$12,862	52.5%
2010	$24,744	$10,343	41.8%
2011	$15,759	$11,078	70.3%
2012	$18,322	$10,728	58.6%
2013	$18,937	$10,916	57.6%

Required Supplementary Information – Schedule of Employer Contributions

GASB 45

Fiscal Year Ended June 30,	Annual OPEB Cost *	Actual Contributions *	Percentage Contributed
2008	$31,600	$15,425	48.8%
2009	$24,853	$12,862	51.8%
2010	$25,084	$10,343	41.2%
2011	$16,254	$11,078	68.2%
2012	$18,641	$10,728	57.6%
2013	$19,317	$10,916	56.5%

** Amounts shown in thousands of dollars*

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 7

Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)*	Actuarial Accrued Liability (AAL) (b)*	Unfunded AAL (UAAL) (b) – (a)*	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a) / (c)]
7/1/2007	$0	$373,386	$373,386	0%	N/A	N/A
7/1/2008	0	302,988	302,988	0%	N/A	N/A
7/1/2009	0	309,156	309,156	0%	N/A	N/A
7/1/2010	0	247,852	247,852	0%	N/A	N/A
7/1/2011	0	261,782	261,782	0%	N/A	N/A
7/1/2012	0	273,326	273,326	0%	N/A	N/A
7/1/2013	0	202,778	202,778	0%	N/A	N/A

* *Amounts shown in thousands of dollars*

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The Net OPEB obligation measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC.

CHART 8

Required Supplementary Information – Net OPEB Obligation (NOO)

Actuarial Valuation Date	Fiscal Year End	Annual Required Contribution (a)*	Interest on Existing NOO (b)*	ARC Adjustment (c)*	Annual OPEB Cost (a) + (b) + (c) (d)*	Actual Contribution Amount (e)*	Net Increase in NOO (d) – (e) (f)*	NOO as of Fiscal Year (g)*
7/1/2007	6/30/2008	$31,600	N/A	N/A	$31,600	$15,425	$16,175	$16,175
7/1/2008	6/30/2009	24,500	N/A	N/A	24,853	12,862	11,991	28,166
7/1/2009	6/30/2010	24,744	N/A	N/A	25,084	10,343	14,741	42,907
7/1/2010	6/30/2011	15,759	$2,390	($1,895)	16,254	11,078	5,176	48,083
7/1/2011	6/30/2012	18,322	2,710	(2,391)	18,641	10,728	7,914	55,996
7/1/2012	6/30/2013	18,937	3,180	(2,800)	19,317	10,916	8,402	64,398
7/1/2013	6/30/2014	14,669	3,673	(3,231)	15,112	--	--	--

** Amounts shown in thousands of dollars*

This exhibit summarizes the participant data used for the current and prior valuations.

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EXHIBIT A

Summary of Participant Data

	July 1, 2013		July 1, 2011	
	BOE	City	BOE	City
Retirees with Medical Coverage				
Number of retirees*	351	1,391	482	1,731
Average age of retirees	65.2	68.3	65.4	67.7
Number of spouses	50	307		
Average age of spouses	62.0	61.1		
Active Participants				
Number	3,268	1,655	2,637	1,362
Average age	45.3	43.4	46.9	43.3
Participant counts for life insurance				
Actives	1,360	1,586	1,097	1,362
Retirees	780	2,078	854	2,122
Total	2,140	3,664	1,951	3,484

*Aon showed combined retiree and spouse counts.

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EXHIBIT I

Summary of Required Supplementary Information

Valuation date	July 1, 2013
Actuarial cost method	Projected Unit Credit
Amortization method	Level percentage of pay
Remaining amortization period	Open 30-year period
Asset valuation method	N/A

Actuarial assumptions:	
Investment rate of return	N/A
Projected salary increases	3.00%
Administrative fee trend rate	4.00%
Inflation increases	3.50%
Dental cost trend rate	5.00%
Drug and Medical cost trend rate	7.00% graded to 5.00% over 9 years

BOE Plan membership:	Group 1	Group 2	Group 3
Total Medical	249	2,446	924
Total Life	632	1,162	346
City Plan membership:	Group 1	Group 2	Group 3
Total Medical	1,160	1,480	406
Total Life	1,762	1,502	400

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EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data, premium data and/or claim experience, and summary plan descriptions for OPEB were provided by the employer.
Actuarial Cost Method:	Projected Unit Credit
Asset Valuation Method:	N/A
Measurement Date:	July 1, 2013
Discount Rate:	Group 1 (Retired before 7/1/2009): 5.00%
	Group 2 (Hired before 7/1/2009 and retired after 6/30/2009): 6.50%
	Group 3 (Hired after 6/30/2009): 8.00%
Salary Increases:	3.00%
Mortality Rates:	
Healthy:	RP2000 separate annuitant and non-annuitant tables with static projection using Scale AA to the valuation date plus 8 and 17 years, respectively.

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Termination Rates before Retirement:

Age	Uniformed	Non-Uniformed
20	5.00%	10.00%
25	2.00%	7.00%
30	2.00%	5.00%
35	2.00%	4.00%
40	0.00%	0.00%

Actives' Retirement Rates (BOE):

Age	Rate (%)
55	15%
56	10%
57-59	5%
60	30%
61	5%
62	20%
63-64	10%
65	100%

Actives' Retirement Rates (City):

Years of Service	Police	Fire	Municipal Services & Library
20	20%	5%	10%
21	15%	1%	5%
22	5%	1%	5%
23	5%	1%	10%
24	20%	10%	15%
25	30%	30%	15%
26-27	5%	5%	10%
28	10%	5%	15%
29	25%	20%	15%
30	100%	20%	100%
31-34	N/A	5%	N/A
35	N/A	100%	N/A

Missing Participant Data:	A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.
Participation and Coverage Election:	95% of employees eligible to retire and receive subsidized postretirement welfare coverage were assumed to elect medical, dental, and prescription drug coverage. 100% of employees eligible to retire and receive subsidized postretirement welfare coverage were assumed to elect life insurance coverage.
Future Post-65 Coverage for BOE:	20% of the actives hired before 4/1/1986 are assumed to be ineligible for Medicare and remain enrolled in the BOE non-Medicare health plan
Dependents:	Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. 80% of future male retirees and 60% of future female retirees who elect to continue their health coverage at retirement were assumed to have an eligible spouse who also opts for health coverage at that time.

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Per Capita Cost Development:

Insured plans

Per capita costs for the experience rated plans were based on the fully-insured premium rates effective July 1, 2013. Actuarial factors were applied to the premium to estimate individual retiree and spouse costs by age and by gender.

Per capita costs for the community rated plans were based on the pooled premium rates effective January 1, 2013 and January 1, 2014, weighted based on the valuation year.

Self-Funded plans

Per capita claims costs were based on the monthly paid claims experience by participant group and by coverage (medical, prescription drug, and dental) for the period December 1, 2011 through November 30, 2013 (July 1, 2012 through November 30, 2013 for prescription drug coverage for the 65-and-over participant age group). Prescription drug claims were adjusted to include a reduction for rebates. Claims were separated by plan year, then adjusted as follows:

- paid claims were multiplied by a factor to yield an estimate of incurred claims,
- total claims were divided by the number of adult members to yield a per capita claim cost,
- the per capita claim cost was trended to the midpoint of the valuation year at the assumed trend rates, and
- the per capita claim cost was adjusted for the effect of any plan changes.

Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

Administrative expenses based on contracted vendor fees were also included in per capita costs.

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Per Capita Health Costs: 2013 medical and prescription drug claims costs, excluding assumed expenses, are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Board of Education:

	Medical				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	$6,073	$6,918	$4,242	$5,554	$1,587	$1,807	$1,108	$1,451
55	7,213	7,447	5,677	6,429	1,885	1,946	1,483	1,680
60	8,566	8,026	7,599	7,457	2,238	2,097	1,986	1,948
64	9,827	8,515	9,593	8,393	2,568	2,225	2,506	2,193
65	10,173	8,647	10,173	8,647	2,658	2,259	2,658	2,259
70	11,791	9,318	11,791	9,318	3,081	2,435	3,081	2,435
75	12,706	10,031	12,706	10,031	3,320	2,621	3,320	2,621

Administrative Expense: $453 per person

City:
Self-Funded Benefits

	Medical				Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
50	$6,018	$6,855	$4,204	$5,504	$1,680	$1,914	$1,173	$1,536
55	7,147	7,379	5,625	6,371	1,995	2,060	1,570	1,778
60	8,488	7,954	7,531	7,389	2,369	2,220	2,102	2,063
64	9,738	8,438	9,506	8,317	2,718	2,355	2,654	2,322
65	1,397	1,187	1,397	1,187	2,814	2,392	2,814	2,392
70	1,619	1,280	1,619	1,280	3,261	2,578	3,261	2,578
75	1,745	1,377	1,745	1,377	3,515	2,775	3,515	2,775

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City *(continued):*
Fully-Insured Benefits

	Medical			
	Retiree		Spouse	
Age	Male	Female	Male	Female
50	$8,731	$9,945	$6,099	$7,985
55	10,369	10,706	8,161	9,243
60	12,314	11,539	10,925	10,720
64	14,128	12,241	13,791	12,066

Fully Pooled Plan Post-65:	$2,356 per person
Dental:	$488 per person
Pre-65 Administrative Expense:	$391 per person
Post-65 Administrative Expense:	$42 per person

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Health Care Cost Trend Rates: Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year's cost to yield the next year's projected cost.

	Rate (%)			
Year Ending June 30,	Medical	Prescription Drug	Dental	Administrative Expenses
2014	7.00	7.00	5.00	4.00
2015	6.75	6.75	5.00	4.00
2016	6.50	6.50	5.00	4.00
2017	6.25	6.25	5.00	4.00
2018	6.00	6.00	5.00	4.00
2019	5.75	5.75	5.00	4.00
2020	5.50	5.50	5.00	4.00
2021	5.25	5.25	5.00	4.00
2022 & later	5.00	5.00	5.00	4.00

Medicare Part D Subsidy Assumption: GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the City of Hartford and Board of Education may be eligible to receive for plan years beginning in 2013.

Retiree Contribution Increase Rate: We assume no change in the current cost sharing arrangement.

Administrative Expenses: Administrative expenses are shown in the *Per Capita Costs* section.

Plan Design: Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Annual Maximum Benefits: No increase in the annual maximum benefit levels was assumed.

Lifetime Maximum Benefits: No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed.

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EXHIBIT III

Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

I. Medical Benefits

Medical Eligibility:

Board of Education:

Group	Retirement Eligibility
Teachers, Principals/Administrators, Certified Administrators	Age 60 and 20 years of service or 35 years of service
Local 566	Age 55 and 5 years of service
Building/Ground Supervisors – hired prior to 03/2007	Age 60 and 10 years of service or 20 years of service
Building/Ground Supervisors – hired after 03/2007	Age 60 and 10 years of service or age 55 and 25 years of service
HESP	Age 60 and 5 years of service or age 55 and 25 years of service
All Others	Age 60 and 10 years of service or age 55 and 25 years of service

City:

Group	Retirement Eligibility
Local 1716	Age 55 and 25 years of service
Firefighters	20 years of service
CHPEA – hired prior to 10/01/1997	20 years of service
CHPEA – hired on or after 10/01/1997	25 years of service
Non-union	Age 60 and 5 years of service or 20 years of service
HMEA – hired prior to 07/01/2003	20 years of service
HMEA – hired on or after 07/01/2003	Age 55 and 25 years of service
Library	Age 60 and 10 years of service or 25 years of service
MLA	Age 55 and 25 years of service
Police – hired prior to 07/01/1999	20 years of service
Police – hired on or after 07/01/1999	25 years of service

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Duration of Coverage: Lifetime.

Dependent Benefits: Medical

Dependent Coverage After Participant Death: Eligible dependents can continue coverage provided the applicable premiums are paid No coverage if the participant is not eligible to retire.

Retiree Contributions:

Board of Education: Pre-Medicare: 100% of the active/retiree blended plan rate. Medicare eligible: Full cost of coverage.

Note: legacy retirees exist who are over 65 and not eligible for Medicare; these retirees pay the blended pre-Medicare rate.

City: Basic contributions: historical rates projected forward with average trend. City subsidy varies according to the employee's union affiliation and the retirement date. Exceptions to full rates are listed below:

Group	Retiree Contributions
EMBERS Retirees	Free coverage
Firefighters – Age 50 and over after retirement	Pay 11% of active premium rate fixed at retirement for retiree and spouse; pay extra cost for family coverage (not fixed) for children
Firefighters – Before age 50 after retirement	Receive a stipend of $125 per month up to age 50.
CHPEA	Receive stipend of $50 per month from age 55 to age 62; free coverage from age 62 to age 65.
Non-union	Pay 100% of cost of coverage to age 55, then pay 25%.

HMEA	Receive stipend of $50 per month from age 55 to age 62; free coverage from age 62 to age 65.
Library	Free coverage from age 62 to age 65.
Police	Receive stipend of $500 per month until age 65 under the pre July 1, 2012 plan. In the post July 1, 2012 plan, retirees pay at the rate used to determine the equivalent monthly premium for active employees at the time of their retirement minus the employee's health insurance contribution. This rate remains unchanged after retirement. Employees retired after approval of 2010-2016 Agreement are not allowed to purchase or otherwise remain on City's plan once reaching age 65.

Benefit Descriptions:

Non-Medicare Retiree Plans

Board of Education (plan summary represents the plan with the majority of the BOE's enrollment):

Medical – Century Preferred	**In-Network**	**Out-of-Network**
Annual Deductible	none	$250 individual / $500 family
Coinsurance	100%	80%
Primary Care Physician Office Visit	$20 copayment	deductible & coinsurance
Specialist Office Visit	$20 copayment	deductible & coinsurance
Annual Out-of-Pocket Maximum	N/A	$1,250 individual / $2,500 family

Prescription Drugs	**Retail**	**Mail**
Generic	$10 copayment	$20 copayment
Preferred Brand	$25 copayment	$50 copayment
Non-Preferred Brand	$40 copayment	$80 copayment

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City (plan summary represents the plan with the majority of the City's enrollment):

Medical – Century Preferred	**In-Network**	**Out-of-Network**
Annual Deductible	none	$250 individual / $500 family
Coinsurance	100%	80%
Primary Care Physician Office Visit	$10 copayment	deductible & coinsurance
Specialist Office Visit	$10 copayment	deductible & coinsurance
Annual Out-of-Pocket Maximum	N/A	$1,250 individual / $2,500 family

Prescription Drugs	**Retail**	**Mail**
Generic	$3 copayment	$0 copayment
Brand	$6 copayment	$0 copayment

Medicare Retiree Plans

City of Hartford –Medicare retirees are provided a Major Medical plan with the medical component covered under the Anthem self-funded plan and a pharmacy component covered under the self-funded CVS/Caremark plan. The EMBERs retirees receive fully-insured Anthem Medicare Supplemental plans. The BC 65 High Option supplements Medicare's hospital benefit and BS 65 Plan 82 supplements Medicare's physician benefit.

II. Dental Benefits

Dental Eligibility:	Employees and their dependents are eligible for coverage if they have retired from their employer. Employees who have been awarded full disability benefits from either Social Security or City and Board of Education's Long Term Disability carrier are eligible.
Duration of Coverage:	Coverage continues for the lifetime of the retiree, provided the applicable premiums are paid.
Dependent Coverage After Participant Death:	Eligible dependents can continue coverage provided the applicable premiums are paid. No coverage if the participant is not eligible to retire.
Retiree Contributions:	
Board of Education:	Pre-Medicare: 100% of the active/retiree blended plan rate. Medicare eligible: separately rated.
City	Active/retiree blended rates.

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III. Life Insurance Benefits

Eligibility: Employees are eligible for coverage if they have retired from their employer and are in the groups identified below with coverage amounts.

Employees who have been awarded full disability benefits from either Social Security or City and Board of Education's Long Term Disability carrier are eligible.

Duration of Coverage: Lifetime

Retiree Contributions: None

Benefits: The benefits will vary according to the retiree's former union/group:

Board of Education:

Union/Group	Coverage Amount
Teachers, Principals/Administrators, Certified Administrators	$0
School Secretaries, Paraprofessionals, School Special Police Officers, Health Professionals, Local 566, Building/Grounds Supervisors, Non-Administrative/Non-Bargaining	$5,000
HESP – Salary Grid 514-	$5,000
HESP – Salary Grid 515+	$15,000
HSSSA Supervisors – Salary Grid 710-	$5,000
HSSSA Supervisors – Salary Grid 710+	$15,000
Certified Administrators, Administrators (Non-Certified, Non-Bargaining)	$15,000

City:

Union/Group	Coverage Amount
Firefighters, CHPEA	$5,000
Police	$6,000
Local 1716, Certain Library Union Retirees	$7,500
Non-Union, Unclassified, MLA, Non-Union Library, Certain Library Union Retirees	$15,000
HMEA Retired Prior to 6/1/2008	$9,000
HMEA Retired on or After 6/1/2008	$12,000

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EXHIBIT IV
Definitions of Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial Present Value of Total Projected Benefits (APB): Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees: The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

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Actuarial Value of Assets (AVA):	The value of assets used by the actuary in the valuation. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio:	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return (discount rate):	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Covered Payroll:	Annual reported salaries for all active participants on the valuation date.
ARC as a Percentage of Covered Payroll:	The ratio of the annual required contribution to covered payroll.
Health Care Cost Trend Rates:	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC):	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Net OPEB Obligation (NOO): The NOO is the cumulative difference between the ARC and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions. There are additional adjustments in the NOO calculations to adjust for timing differences between cash and accrual accounting, and to prevent double counting of OPEB plan costs.

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EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 – *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under these statements, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards introduce an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the Net OPEB Obligation (NOO). In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan. Exhibits IV and VI of Section

4 contain a definition of terms as well as more information about GASB 43/45 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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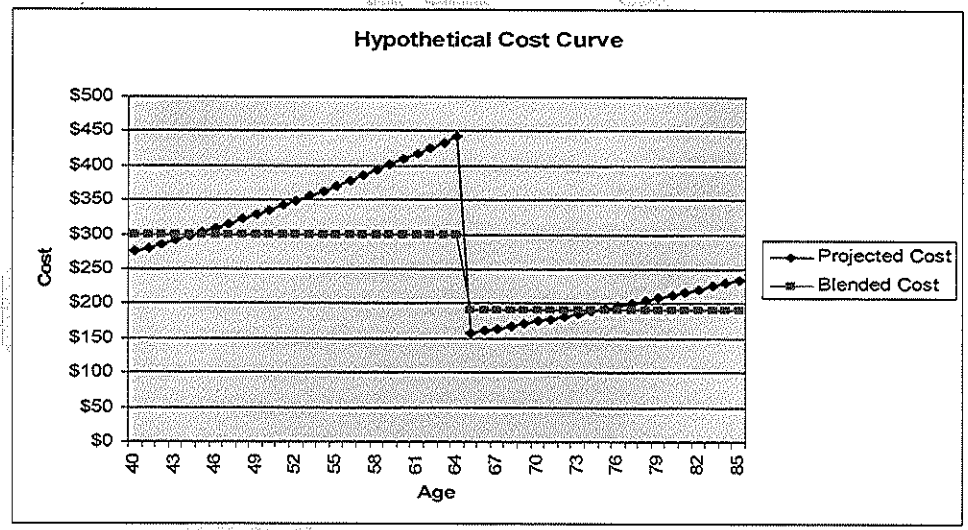
EXHIBIT VI

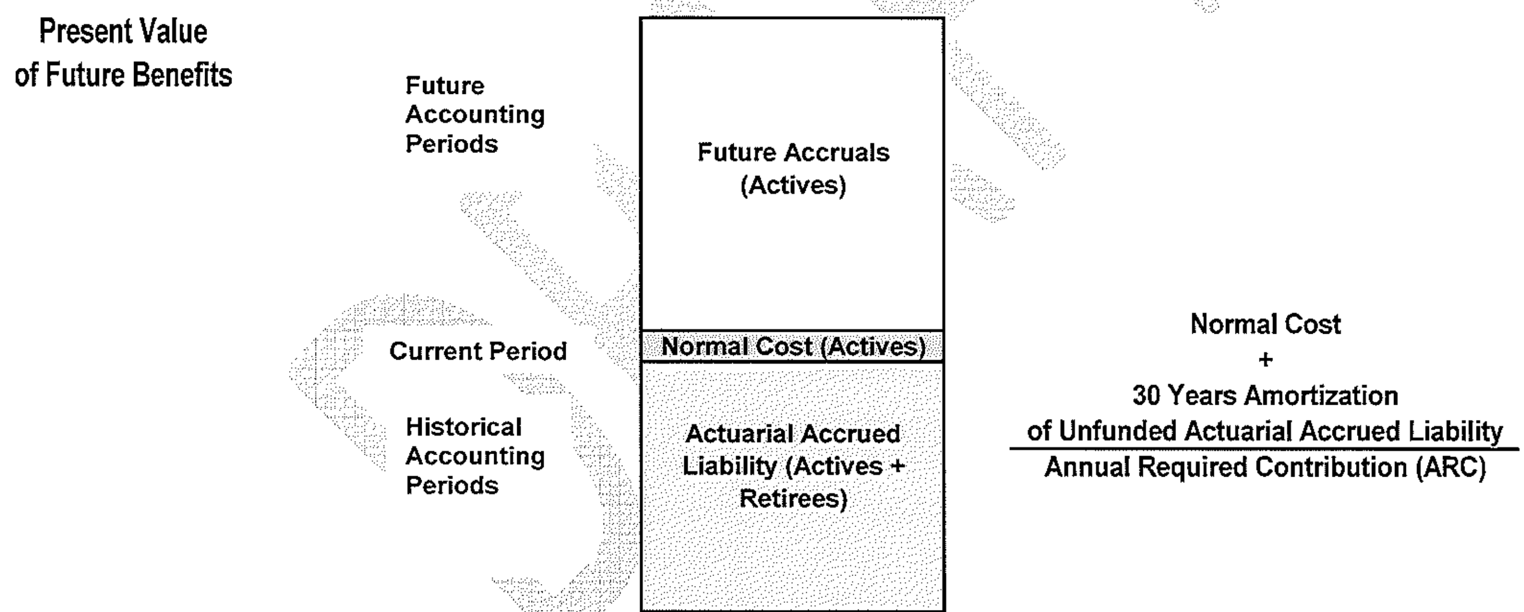
GASB 43/45 Concepts

The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods. The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

GASB 43/45 Measurement
Elements Using Actuarial Cost Methods



$$\text{Net OPEB Obligation} = ARC_1 + ARC_2 + ARC_3 + \ldots\ldots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \ldots\ldots$$

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Government Accounting Standards Board (GASB)

The Government Accounting Standards Board - GASB - is the source of generally accepted accounting principles (GAAP) used by State and Local governments in the United States. Financial reports must be in accordance with GASB rules. The City's Financial Report – the Comprehensive Annual Financial Report – CAFR – is in accordance with GASB.

GASB issues accounting rules with which financial reports must comply. There are 3 GASB rules that are cited in this Task Force report – 45, 67 and 68.

GASB 45 was issued in June 2004 and addresses accounting for Other Post Employment Benefits (OPEB). It was effective for the City financial reporting beginning FY 2007-08.

GASB 45 requires the City to report its "Net OPEB Obligation" in its financial statements. The City reports this in its "Business Type Activities" section of the financial report - which is not part of the General Fund. GASB 45 reporting only requires that new obligations after the effective date of the rule be reported. Therefore the City's Net OPEB Obligation represents the cumulative underfunding of these obligations since July 1, 2007, rather than the entire unfunded OPEB liability. The City's "Net OPEB Obligation" as of June 30, 2013 is $64.4 million - while the total unfunded OPEB liability is $273 million.

GASB 67 and 68 were issued in June 2012 and address financial reporting for Pension plans. GASB 67 was effective for FY 2013-14, and GASB 68 will be effective for FY 2014-15.

GASB 67 and 68 replace GASB 25 and 27. GASB 67 addresses financial reporting for pension plans (the City's MERF) and GASB 68 addresses financial reporting for employers (the City - as reported in the CAFR).

These rules are very detailed, and complex for the layman. Because they are intended to address the financial reporting of all state and local governments, they include changes that will impact some cities and states and not others.

The significant issues for Hartford policy makers are:

- The new rules separate accounting from funding. That is, these accounting rules do not set rules for how the pension fund is funded - only how the assets and liabilities are reported.
- City financial reports will be required to report any unfunded pension liability on the City's balance sheet - rather than in a footnote.
- For financial reporting purposes, the new rules address the discount rate - that is, the assumed annual rate of return on assets in the pension fund - used to value the pension plan liabilities.
- There is a requirement that if the assets of the pension fund fall below a certain level (using a complex calculation) - a "crossover point" occurs, and the City would need to use a lower expected rate of return to calculate its unfunded liability. This would only impact financial reporting - not the calculation of the amount the City would need to pay into the fund in any year.
- The City's actuary has stated to the Task Force that a blended rate would be required by GASB 68 only if the trust fund is expected to be unable to pay its benefits. A municipality having a funding policy, following that policy, and having a funding level above 70% should not need to use a blended rate. Accordingly, the actuary did not believe that the City of Hartford, under current circumstances, would be subject to a lower or "blended" rate.