



Ben Rosenfield  
Controller

Monique Zmuda  
Deputy Controller

## MEMORANDUM

**TO:** Mayor Gavin Newsom  
Members of the Board of Supervisors

**FROM:** Ben Rosenfield, Controller 

**DATE:** December 15, 2010

**SUBJECT:** Report on Retiree (Postemployment) Medical Benefit Costs

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I am providing with this letter an updated projection of the City's retiree (or postemployment) medical benefits liability as required by Governmental Accounting Standards Board Statement Number 45 (GASB-45), *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. The actuarial and analytical work was performed by Mercer, the Health Service System's actuary. This letter briefly summarizes the analysis and the attached package includes the Mercer report itself and two slide presentations illustrating the findings.

### Executive Summary

- The City's unfunded liability for other post-employment health benefits (OPEB) reported in the July 1, 2008 valuation report is \$4.36 billion. This number represents the future cost of providing retiree health benefits earned by employees and retirees as of that date. The liability will continue to increase in future years absent significant changes in how the City plans for and funds long-term retiree healthcare costs.
- The number incorporates assumptions about the probability of events far into the future including employment costs and wage rates, mortality rates and healthcare cost trends. Because this number projects healthcare costs over 60 plus years, the result is highly sensitive to future events. For example, a 1% increase in healthcare cost trends will increase the City's liability by 20%, conversely a 1% decrease in healthcare cost trends will decrease the City's liability by 16%.
- Currently, the City pays for retiree medical benefits on a 'pay as you go' basis, which means paying the cost of the benefits as they become due each year. The City's pay-as-you-go expense for the current fiscal year is projected at \$138 million.

- GASB-45 requires local governments to report the unfunded OPEB liability on our financial statements, but does not require funding of these future costs. The City's \$4.36 billion unfunded liability would be reduced to approximately \$2.79 billion if the City were to prefund the liability in the same way that the City funds pension benefits. This approach would require the City to set-aside funds for benefits as they are earned, equal to approximately 15.4% of salary costs over the next 30 years. Over time, pre-funded assets would earn investment income that is used to pay a portion of benefit costs.
- The \$4.36 billion estimate does not include the long-term impact of employee and employer contributions and prefunding requirements adopted by the voters in 2008 under Proposition B. Retiree health benefits for employees hired after January 9, 2009 are funded through employee and employer contributions totaling 3% of payroll. Viewed as a stand-alone plan, the changes mandated by Proposition B are projected to fully cover the cost of providing retiree medical benefits to employees hired after January 2009, with no further accumulation of unfunded liability attributable to those employees.
- These voter-adopted changes will slow the rate of growth of the City's unfunded liability over time. The reduction in the City's unfunded liability will occur very slowly as a growing percentage of the City's employees are covered by the provisions of Proposition B. Mercer estimates that by 2033 the majority of retirees receiving benefits and 83% of the City's estimated \$9.7 billion liability will be attributable to pre-Proposition B employees.
- The City has collectively bargained employee and employer contributions with one bargaining unit to prefund a portion of the liability for current, pre-Proposition B (2008) employees. Negotiation of similar agreements with other bargaining units would further reduce the unfunded OPEB liability in future years and is a sound financial management effort to be undertaken by the City going forward.

If you have any questions, please feel free to contact me at (415) 554-7500.

cc: Department Heads  
Labor Organizations

December 2010

City and County of San Francisco  
Postretirement Benefit Report  
as of July 1, 2008

**MERCER**

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1. Postretirement Benefit Valuation Report Under GASB 45 as of July 1, 2008
2. OPEB Actuarial Valuation Results presentation
3. OPEB Projection Results – Impact of Prop B (2008) presentation

December 13, 2010

# City and County of San Francisco

Postretirement Benefit Valuation Report  
Under GASB 45 as of July 1, 2008

ARC Development for Fiscal Years  
Ending June 30, 2010 and June 30, 2011

## MERCER

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## Section I: Report Highlights

Mercer has prepared this report exclusively for the City and County of San Francisco (the "City"). The only purpose of this report is to present Mercer's actuarial estimates of the Plan's liabilities and expenses for the City to incorporate, as the City deems appropriate, in its financial statements.

### Overview

GASB Statement No. 45: *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* was adopted by the City for the fiscal year beginning July 1, 2007. GASB 45 requires accrual based accounting for other postemployment benefits (OPEB), similar to the accounting requirements in place for governmental pension plans under GASB 27.

The OPEB expense calculated under GASB 45 is known as the annual OPEB cost. While GASB 45 does not require funding of the annual OPEB cost, any differences between the amount funded in a year and the annual OPEB cost is recorded in the employer's financial statement as an increase (or decrease) in the net OPEB obligation.

The annual OPEB cost recognized under GASB 45 consists of the Annual Required Contribution (ARC), one year of interest on the Net OPEB Obligation, and recognition of one year of amortization of the Net OPEB Obligation. For the City, the ARC is equal to the normal cost determined under the Entry Age Normal level percent of payroll actuarial cost method plus a 30-year amortization of the unfunded actuarial accrued liability (UAAL). The amortization of the UAAL using the current amortization method results in a payment less than the "interest only" payment on the UAAL. Payments less than the interest only amount will result in the UAAL increasing.

The City has adopted a policy to have biennial actuarial valuations, which means the results of this valuation can be used for the fiscal year ending June 30, 2010 and the following fiscal year.

## Section I: Report Highlights

### Results

The following table summarizes the primary results of the current valuation as of July 1, 2008, compared with the results from the prior valuation as of July 1, 2006.

	Valuation as of July 1, 2008/ Fiscal Year Ending June 30, 2010	Valuation as of July 1, 2006/ Fiscal Year Ending June 30, 2008
Discount Rate	4.25%	4.50%
Actuarial Accrued Liability	4,364,272,738	\$4,036,324,359
Assets	0	0
Unfunded Actuarial Accrued Liability (UAAL)	4,364,272,738	4,036,324,359
Normal Cost Rate	8.9%	12.3%
UAAL Amortization Rate	6.5%	6.6%
Annual Required Contribution (ARC) Rate	15.4%	18.9%
Annual Required Contribution	368,665,328	409,080,341
	Fiscal Year Ending June 30, 2011	Fiscal Year Ending June 30, 2009
Discount Rate	4.25%	4.50%
Annual Required Contribution (ARC) Rate	15.4%	18.9%
Annual Required Contribution	384,333,604	427,488,956

### Actuarial Methods and Assumptions

In general, the same methods and assumptions used for SFERS have been adopted for this valuation. The assumptions developed by the SFERS actuary, which are indicated in the Actuarial Basis section of this report, were not independently verified. We have used the Entry Age Normal cost method, as is used for SFERS; however, the unfunded actuarial accrued liability is amortized over a period of 30 years as a level percentage of payroll (rather than the 15 years used for SFERS).

According to GASB 45, the discount rate should represent the estimated long-term investment return on the investments that are expected to be used to finance the payment of benefits. For unfunded plans, the discount rate should be determined with reference to the employer's general assets. Since unrestricted general assets are invested in short-term fixed income securities, the City has adopted an assumption of 4.25%.

All actuarial assumptions and plan provisions valued are summarized in the Actuarial Basis section.

### Plan Experience Since Last Valuation

For the two-year period ending June 30, 2008, the City Plan costs and 10-County average (which is used to determine City contributions) increased more slowly than expected, resulting in actuarial gains. Demographic experience over this period also resulted in an actuarial gain. Please see the Effects of Changes section for more information.

## Section I: Report Highlights

### Changes in Actuarial Methods

There were no changes in actuarial methods since the last actuarial valuation as of July 1, 2006.

### Changes in Actuarial Assumptions

There were changes in actuarial assumptions since the last actuarial valuation as of July 1, 2006. Please see the Summary of Long-Term Actuarial Assumptions and the Summary of Healthcare Actuarial Assumptions in the Actuarial Basis section for a description of these changes.

### Changes in Plan Provisions

There were changes in plan provisions since the last actuarial valuation as of July 1, 2006. Please see the Summary of Plan Provisions in the Actuarial Basis section for a description of these changes.

## Section II: Important Notices

Mercer has prepared this report exclusively for the City and County of San Francisco (“the City”); Mercer is not responsible for reliance upon this report by any other party. Subject to this limitation, the City may direct that this report be provided to its auditors.

The only purpose of this report is to present Mercer’s actuarial estimates of the Plan’s liabilities and expenses for the City and County of San Francisco to incorporate, as the City deems appropriate, in its financial statements.

This report may not be used for any other purpose; Mercer is not responsible for the consequences of any unauthorized use.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

The City is solely responsible for selecting the plan’s investment policies, asset allocations and individual investments. Mercer’s actuaries have not provided any investment advice to the City.

A valuation report is only a snapshot of a Plan’s estimated financial condition at a particular point in time; it does not predict the Plan’s future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the Plan. Over time, a plan’s total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

To prepare the valuation report, actuarial assumptions, as described in the Actuarial Basis section of this report, are used in a forward looking financial and demographic model to present a single scenario from a wide range of possibilities; the results based on that single scenario are included in the valuation. The future is uncertain and the plan’s actual experience will differ from those assumptions; these differences may be significant or material because these results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward looking projection over a very long period of time, no one projection is uniquely “correct” and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future. A “sensitivity analysis” shows the degree to which results would be different if you substitute alternative assumptions within the range of possibilities for those utilized in this report. We have been engaged to perform only a very limited sensitivity analysis and thus the sensitivity analysis results included in this report reflect only the sensitivity to the healthcare

## Section II: Important Notices

trend assumption. At the City's request, Mercer is available to perform a more extensive sensitivity analysis.

Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. A change in assumptions is not an indication that prior assumptions were unreasonable when made.

Because valuations are a snapshot in time and are based on estimates and assumptions that are not precise and will differ from actual experience, contribution calculations are inherently imprecise. There is no uniquely "correct" level of contributions for the coming plan year.

Valuations do not affect the ultimate cost of the Plan, only the timing of contributions into the Plan. Plan funding occurs over time. Contributions not made this year, for whatever reason, including errors, remain the responsibility of the Plan sponsor and can be made in later years. If the contribution levels over a period of years are lower or higher than necessary, it is normal and expected practice for adjustments to be made to future contribution levels to take account of this with a view to funding the plan over time.

Data, computer coding and mathematical errors are possible in the preparation of a valuation involving complex computer programming and thousands of calculations and data inputs. Errors in a valuation discovered after its preparation may be corrected by amendment to the valuation or in a subsequent year's valuation.

Certain actuarial assumptions, including discount rates, mortality tables and others identified in this report, are prescribed by the City. The City is responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in the Actuarial Basis section of this report. The City is solely responsible for communicating to Mercer any changes required thereto.

To prepare this report Mercer has used and relied on financial and participant data supplied by the City and summarized in the valuation report in the Participant Data section of this report. The City is responsible for ensuring that such participant data provides an accurate description of all persons who are participants under the terms of the plan or otherwise entitled to benefits as of July 1, 2008 that is sufficiently comprehensive and accurate for the purposes of this report. Although Mercer has reviewed the data in accordance with Actuarial Standards of Practice No. 23, Mercer has not verified or audited any of the data or information provided.

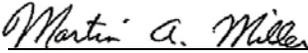
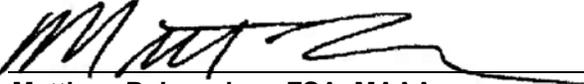
Mercer has also used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by the City as summarized in the valuation report in the Actuarial Basis section and on plan provisions stipulated by statute. We have assumed for purposes of this valuation that copies of any official plan document including all amendments and collective bargaining agreements as well as any interpretations of any such document have been provided to Mercer along with a written summary of any other substantive commitments. The City is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and that the different interpretations could lead to different valuation results.

## Section II: Important Notices

The City should notify Mercer promptly after receipt of the valuation report if the City disagrees with anything contained in the valuation report or is aware of any information that would affect the results of the valuation report that has not been communicated to Mercer or incorporated therein. The valuation report will be deemed final and acceptable to the City unless the City promptly provides such notice to Mercer.

### Professional Qualifications

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. Collectively, the undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

 Martin A. Miller, FSA, MAAA	December 13, 2010 Date
 Matthew R. Larrabee, FSA, MAAA	December 13, 2010 Date
 Bethany Axtman, FSA, MAAA	December 13, 2010 Date
Mercer (US) Inc. Four Embarcadero Center, Suite 400 San Francisco, CA 94111-4015 415 743 8700	

**The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.**

## Section III: Valuation Results

## Calculation of Annual Required Contribution (ARC)

	Valuation as of	
	July 1, 2008	July 1, 2006
<b>Benefit Obligations and Amortization Payment</b>		
1. Discount Rate	4.25%	4.50%
2. Actuarial Accrued Liability		
a. Retirees (including Disabled Retirees and Surviving Spouses)	\$ 1,984,275,165	\$ 1,833,101,094
b. Vested Separated Participants	531,275,441	475,097,356
c. Active Employees	1,848,722,132	1,728,125,909
d. Total	\$ 4,364,272,738	\$ 4,036,324,359
3. Assets	0	0
4. Unfunded actuarial accrued liability (UAAL) (2.d. – 3.)	4,364,272,738	4,036,324,359
5. Amortization factor (level percent of pay)	30.000	30.000
6. Amortization payment at beginning of year (4. ÷ 5.)	145,475,758	134,544,145

	Valuation as of	
	July 1, 2008	July 1, 2006
<b>Calculation of ARC as a percent of payroll</b>		
1. Amortization payment at beginning of year	\$ 145,475,758	\$ 134,544,145
2. Normal cost at beginning of year	200,719,994	248,231,153
3. Interest on 1. and 2. to middle of year	7,356,660	8,612,444
4. Annual Required Contribution (middle of year) (1. + 2. + 3.)	353,552,412	391,387,742
5. Annual covered payroll (adjusted to middle of year)	2,296,336,404	2,066,866,108
6. ARC as a percent of covered payroll (middle of year) (4. ÷ 5.)	15.40%	18.94%

	Fiscal Year Ending	
	June 30, 2010	June 30, 2008
<b>Calculation of ARC</b>		
1. ARC as a percent of covered payroll (middle of year)	15.40%	18.94%
2. Annual covered payroll (adjusted to middle of year)	\$ 2,393,930,701	\$ 2,159,875,083
3. Annual Required Contribution (middle of year) (1. × 2.)	368,665,328	409,080,341

	Fiscal Year Ending	
	June 30, 2011	June 30, 2009
<b>Calculation of ARC</b>		
1. ARC as a percent of covered payroll (middle of year)	15.40%	18.94%
2. Annual covered payroll (adjusted to middle of year)	\$ 2,495,672,756	\$ 2,257,069,462
3. Annual Required Contribution (middle of year) (1. × 2.)	384,333,604	427,488,956

## Section III: Valuation Results

### Effects of changes

	<b>Accrued Liability (\$ millions)</b>	
Accrued liability at July 1, 2006	<b>\$</b>	<b>4,036</b>
Increase/(decrease) due to:		
▪ Expected changes (benefits earned, benefits paid, and interest)		668
▪ Plan experience – costs and contributions		(394)
▪ Plan experience – demographic and other changes		(204)
▪ Assumption change – health care cost trend rates		293
▪ Assumption change – retirement and refund assumptions		31
▪ Assumption change – discount rate and payroll growth rate		195
▪ Assumption change – all other changes		(261)
Total increase/(decrease):		328
Accrued liability at July 1, 2008	<b>\$</b>	<b>4,364</b>

## Section III: Valuation Results

### Sensitivity Results

<b>Summary of Key Valuation Results</b>		
Actuarial Accrued Liability (AAL) at beginning of year	\$	4,364,272,737
Normal Cost (NC) at beginning of year		200,719,994
Annual Required Contribution (ARC) at middle of valuation year <sup>1</sup>		353,552,412
<b>Valuation Results with +1% Trend</b>		
Actuarial Accrued Liability (AAL) at beginning of year	\$	5,247,130,216
Normal Cost (NC) at beginning of year		252,906,839
Annual Required Contribution (ARC) at middle of valuation year		436,902,168
AAL Percent Difference		20.2%
NC Percent Difference		26.0%
ARC Percent Difference		23.6%
<b>Valuation Results with -1% Trend</b>		
Actuarial Accrued Liability (AAL) at beginning of year	\$	3,675,350,588
Normal Cost (NC) at beginning of year		161,647,255
Annual Required Contribution (ARC) at middle of valuation year		290,197,318
AAL Percent Difference		(15.8)%
NC Percent Difference		(19.5)%
ARC Percent Difference		(17.9)%

<sup>1</sup> ARC shown as if this valuation had applied to the fiscal year ending June 30, 2008 and does not reflect the increase in the ARC due to payroll growth for the fiscal years ending June 30, 2009 and June 30, 2010.

## Section III: Valuation Results

### Projected Benefit Payments

The table below shows the projected benefit payments assuming no new entrants and all valuation assumptions are realized.

Fiscal Year Ending June 30	Projected Benefit Payments
2009	113,509,491
2010	122,909,170
2011	138,322,595
2012	153,545,468
2013	169,226,277
2014	184,766,975
2015	200,916,024
2016	217,025,114
2017	233,727,103
2018	250,825,991
2019	267,417,787
2020	285,413,361
2021	302,821,462
2022	319,226,054
2023	335,465,809
2024	353,436,102
2025	371,509,904
2026	389,070,564
2027	406,816,018
2028	423,294,211
2029	439,125,823
2030	453,532,032
2031	466,276,281
2032	478,991,166
2033	490,185,622
2034	499,002,500
2035	505,705,876
2036	510,268,604
2037	512,803,248
2038	514,560,288

## Section III: Valuation Results

### Net OPEB Obligation as of June 30, 2009

	July 2008 to June 2009	July 2007 to June 2008
Annual Required Contribution (ARC) <sup>2</sup>	\$ 427,488,956	\$ 409,080,341
Interest on Net OPEB Obligation	13,249,833	0
ARC Adjustment	(9,814,691)	0
<b>Annual OPEB Cost</b>	<b>430,924,098</b>	<b>409,080,341</b>
Contributions Made	(119,967,000)	(114,639,604)
Increase in Net OPEB Obligation	310,957,098	294,440,737
<b>Net OPEB Obligation – beginning of year</b>	<b>\$ 294,440,737</b>	<b>\$ 0</b>
<b>Net OPEB Obligation – end of year</b>	<b>\$ 605,397,835</b>	<b>\$ 294,440,737</b>

### Annual OPEB Cost for Fiscal Year Ending June 30, 2010

1. Annual Required Contribution (ARC) for Fiscal Year Ending June 30, 2010	\$ 368,665,328
2. Net OPEB Obligation at June 30, 2009	605,397,835
3. Interest on Net OPEB Obligation	25,729,408
4. Amortization Factor	30
5. ARC Adjustment: (-2. / 4.)	(20,179,928)
6. Annual OPEB Cost for Fiscal Year Ending June 30, 2010: (1. + 3. + 5.)	\$ 374,214,808

### Net OPEB Obligation as of June 30, 2010

1. Net OPEB Obligation at June 30, 2009	\$ 605,397,835
2. Annual OPEB Cost for Fiscal Year Ending June 30, 2010	374,214,808
3. Contributions Made for Fiscal Year Ending June 30, 2010	126,829,429
4. Net OPEB Obligation at June 30, 2010: (1. + 2. - 3.)	\$ 852,783,214

### Annual OPEB Cost for Fiscal Year Ending June 30, 2011

1. Annual Required Contribution (ARC) for Fiscal Year Ending June 30, 2011	\$ 384,333,604
2. Net OPEB Obligation at June 30, 2010	852,783,214
3. Interest on Net OPEB Obligation	36,243,287
4. Amortization Factor	30
5. ARC Adjustment: (-2. ÷ 4.)	(28,426,107)
6. Annual OPEB Cost for Fiscal Year Ending June 30, 2011: (1. + 3. + 5.)	\$ 392,150,784

<sup>2</sup> Based on projected payroll.

## Section III: Valuation Results

### Annual OPEB Cost and Net OPEB Obligation

	July 2010 to June 2011	July 2009 to June 2010
Annual Required Contribution (ARC) <sup>3</sup>	\$ 384,333,604	\$ 368,665,328
Interest on Net OPEB Obligation	36,243,287	25,729,408
ARC Adjustment	(28,426,107)	(20,179,928)
<b>Annual OPEB Cost</b>	<b>392,150,784</b>	<b>374,214,808</b>
Contributions Made	122,909,170 <sup>4</sup>	126,829,429
Increase in Net OPEB Obligation	269,241,614	247,383,379
<b>Net OPEB Obligation – beginning of year</b>	<b>\$ 852,783,214</b>	<b>\$ 605,397,835</b>
<b>Net OPEB Obligation – end of year</b>	<b>\$ 1,122,024,828</b>	<b>\$ 852,783,214</b>

Year Ended June 30	Annual OPEB Cost	Percentage of Annual OPEB Cost	
		Contributed	Net OPEB Obligation
2008	\$ 409,080,341	28.0%	\$ 294,440,737
2009	430,924,098	27.8%	605,397,835
2010	374,214,808	33.9%	852,783,214
2011	392,150,784	31.3%	1,122,024,828

### Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	Unfunded AAL as a Percentage of Covered Payroll ((b - a) ÷ c)
July 1, 2006	\$0	\$4,036,324	\$4,036,324	0.0%	\$2,066,866	195.3%
July 1, 2008	0	4,364,273	4,364,273	0.0%	2,296,336	190.1%

Amounts in thousands

<sup>3</sup> Based on projected payroll.

<sup>4</sup> Estimated contributions shown here based on valuation results. Final calculations will be based on actual contributions.

## Section IV: Plan Assets

### Summary of Assets

There are no assets as of the valuation date.

## Section V: Participant Data

### Distribution of Active Participants as of July 1, 2008

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Under 20	6								<b>6</b>
20-24	253	21							<b>274</b>
25-29	980	300	10						<b>1,290</b>
30-34	1,014	882	191	7					<b>2,094</b>
35-39	990	1,435	760	183	20				<b>3,388</b>
40-44	766	1,431	994	683	195	16			<b>4,085</b>
45-49	620	1,266	899	944	638	429	18		<b>4,814</b>
50-54	456	1,143	731	816	873	846	249	20	<b>5,134</b>
55-59	329	774	575	631	713	690	451	127	<b>4,290</b>
60-64	134	408	286	299	334	281	226	119	<b>2,087</b>
65-69	35	127	88	104	82	51	43	50	<b>580</b>
70+	18	43	31	51	41	38	12	22	<b>256</b>
<b>Total</b>	<b>5,601</b>	<b>7,830</b>	<b>4,565</b>	<b>3,718</b>	<b>2,896</b>	<b>2,351</b>	<b>999</b>	<b>338</b>	<b>28,298</b>

## Section V: Participant Data *(continued)*

### Statistics for Active Participants

#### ***As of July 1, 2006***

	Police	Fire	Muni	Craft	Misc.	Total
Fully eligible	1,923	1,391	1,776	3,132	15,350	23,572
Not fully eligible	243	218	290	550	3,379	4,680
Total	2,166	1,609	2,066	3,682	18,729	28,252
Average age	43.3	43.5	48.8	49.2	47.5	47.2
Average service	16.7	14.5	12.7	14.5	13.8	14.1

#### ***As of July 1, 2008***

	Police	Fire	Muni	Craft	Misc.	Total
Fully eligible	1,878	1,308	1,806	2,849	14,856	22,697
Not fully eligible	536	207	282	458	4,118	5,601
Total	2,414	1,515	2,088	3,307	18,974	28,298
Average age	42.1	43.5	49.0	50.5	47.8	47.5
Average service	14.8	13.7	12.1	14.6	12.5	13.0

Section V: Participant Data (*continued*)

## Distribution of Inactive Participants as of July 1, 2008

Age	Healthy Retiree	Disabled Retiree	Spouse of Retiree	Surviving Spouses	Vested Separated	Total
Under 40		11	42	10	619	<b>682</b>
40 – 44		35	56	12	514	<b>617</b>
45 – 49		86	182	24	505	<b>797</b>
50 – 54	496	175	449	50	296	<b>1,466</b>
55 – 59	1,549	166	803	119	188	<b>2,825</b>
60 – 64	2,546	176	1,083	170	64	<b>4,039</b>
65 – 69	2,737	22	897	226	7	<b>3,889</b>
70 – 74	2,015	96	645	251	4	<b>3,011</b>
75 – 79	1,523	63	459	388	4	<b>2,437</b>
80 – 84	1,224	36	308	453	2	<b>2,023</b>
85 – 89	707	6	134	410	1	<b>1,258</b>
90 – 94	245		20	156		<b>421</b>
95+	39		4	47		<b>90</b>
<b>Total</b>	<b>13,081</b>	<b>872</b>	<b>5,082</b>	<b>2,316</b>	<b>2,204</b>	<b>23,555</b>

## Statistics for Inactive Participants Receiving Benefits

	Number			Average Age		
	Not Eligible for Medicare	Eligible for Medicare <sup>5</sup>	Total	Not Eligible for Medicare	Eligible for Medicare	Total
<b>As of July 1, 2006</b>						
Retirees	226	10,842	11,068	71.1	69.6	69.6
Disabled retirees	46	2,133	2,179	72.7	65.4	65.5
Spouses of retirees	188	4,752	4,940	69.5	64.8	64.9
Surviving spouses	32	2,257	2,289	76.3	76.3	76.3
<b>Total</b>	<b>492</b>	<b>19,984</b>	<b>20,476</b>	<b>71.0</b>	<b>68.7</b>	<b>68.8</b>
<b>As of July 1, 2008</b>						
Retirees	57	13,024	13,081	75.4	69.7	69.7
Disabled retirees	2	870	872	75.4	60.3	60.4
Spouses of retirees	19	5,063	5,082	71.8	65.3	65.4
Surviving spouses	22	2,294	2,316	67.9	76.9	76.8
<b>Total</b>	<b>100</b>	<b>21,251</b>	<b>21,351</b>	<b>73.1</b>	<b>69.0</b>	<b>69.1</b>

<sup>5</sup> Includes all participants under age 65.

## Section VI: Actuarial Basis

### Accounting Actuarial Cost Method and Policies

**Actuarial cost method:** Liabilities shown in this report are computed using the Entry Age Normal Cost method allocated as a level percent of pay from the date of hire to decrement age.

**Unfunded Actuarial Accrued Liability amortization method:** UAAL is amortized as a 30-year open amortization as a level percent of payroll. Because the UAAL is being amortized by an open or rolling amortization period (with re-amortization of the UAAL in each valuation), even if the amortization payments are made, absent actuarial gains, the UAAL amount will never be fully eliminated. The amortization of the UAAL using the current amortization method results in a payment less than the "interest only" payment on the UAAL. Payments less than the interest only amount will result in the UAAL increasing.

**Census data:** We have used participant data as supplied by the City. Although Mercer has reviewed the data in accordance with Actuarial Standard of Practice No. 23, Mercer has not verified or audited any of the data provided. Assumptions and estimates were made for incomplete or missing data in consultation with the City.

**Participants included:** Only those employees in an eligible group are included in the valuation of liabilities.

**Funding policy:** The postretirement medical plan's benefits are currently funded on a pay-as-you-go basis. The City funds on a cash basis as benefits are paid. No assets have been segregated and restricted to provide postretirement benefits.

## Section VI: Actuarial Basis

### Summary of Long-Term Actuarial Assumptions

The following assumptions were used in valuing the liabilities and benefits under the plan.

<i>Discount rate</i>	4.25% per annum, as selected by the City						
<i>Payroll growth</i>	4.25% per annum, as selected by the City						
<i>Salary merit increase</i>	Rates follow SFERS assumptions as developed by the SFERS actuary. Merit increase rates, which are in addition to the payroll growth rate, are shown below:						
	<b>Years of Service</b>	<b>Police</b>	<b>Fire</b>	<b>Muni</b>	<b>Craft</b>	<b>Misc. Females</b>	<b>Misc. Males</b>
	1	13.50%	21.00%	13.00%	5.00%	5.00%	5.25%
	2	5.00	5.00	8.00	2.00	4.00	4.25
	3	5.00	5.00	1.00	2.00	4.00	3.50
	4	1.00	1.00	0.00	2.00	3.50	3.50
	5	1.00	1.00	0.00	1.50	2.50	3.25
	6	1.00	1.00	0.00	1.00	2.25	2.75
	7	1.00	1.00	0.00	1.00	2.25	2.50
	8	1.00	1.00	0.00	0.80	2.00	2.25
	9	1.00	1.00	0.00	0.70	1.75	2.25
	10	1.00	1.00	0.00	0.70	1.50	2.25
	11	1.00	1.00	0.00	0.70	1.00	2.25
	12	1.00	1.00	0.00	0.70	1.00	1.75
	13	1.00	1.00	0.00	0.70	1.00	1.75
	14	1.00	1.00	0.00	0.70	1.00	1.75
	15 & Over	1.00	1.00	0.00	0.70	0.90	1.00
<i>Mortality, healthy lives</i>	Rates follow SFERS assumption as developed by the SFERS actuary. Mortality rates for healthy lives are based on the 1994 Group Annuity Mortality Table. Rates at sample ages are shown below:						
	<b>Age</b>	<b>Male</b>			<b>Female</b>		
	25	0.00066			0.00029		
	30	0.00080			0.00035		
	35	0.00085			0.00048		
	40	0.00107			0.00071		
	45	0.00158			0.00097		
	50	0.00258			0.00143		
	55	0.00443			0.00229		
	60	0.00798			0.00444		
	65	0.01454			0.00864		
	70	0.02373			0.01373		
	75	0.03721			0.02269		
	80	0.06203			0.03940		
	85	0.09724			0.06774		
	90	0.15293			0.11627		
	95	0.23361			0.18621		
	100	0.31724			0.27643		

## Section VI: Actuarial Basis

### Summary of Long-Term Actuarial Assumptions *(continued)*

*Disabled mortality* Rates follow SFERS assumption as developed by the SFERS actuary. Rates at sample ages are shown below:

Age	Miscellaneous		Police and Fire	
	Male	Female	Male	Female
25	0.00752	0.00536	0.00050	0.00070
30	0.00773	0.00566	0.00070	0.00100
35	0.00796	0.00595	0.00110	0.00150
40	0.00865	0.00625	0.00170	0.00260
45	0.01059	0.00757	0.00280	0.00380
50	0.01459	0.01004	0.00400	0.00540
55	0.02115	0.01337	0.00590	0.00890
60	0.02870	0.01713	0.00980	0.01450
65	0.03617	0.02157	0.01630	0.02400
70	0.04673	0.02709	0.02610	0.03610
75	0.06552	0.03687	0.03890	0.05310
80	0.09481	0.05517	0.05770	0.08090
85	0.14041	0.08560	0.08620	0.11070
90	0.20793	0.13494	0.11790	0.16000
95	0.30792	0.21273	0.17520	0.25150
100	0.45599	0.33538	0.27510	0.39500

*Withdrawal* Rates follow SFERS assumption as developed by the SFERS actuary. Rates at sample ages are shown below:

Service	Fire	Police	Craft	Muni
0	0.0400	0.1000	0.0700	0.1000
1	0.0150	0.0400	0.0300	0.0250
2	0.0100	0.0200	0.0300	0.0250
3	0.0100	0.0200	0.0300	0.0250
4	0.0100	0.0200	0.0300	0.0250
5	0.0100	0.0100	0.0300	0.0400
10	0.0100	0.0100	0.0200	0.0250
15	0.0050	0.0100	0.0100	0.0250
20	0.0005	0.0050	0.0100	0.0250
25	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000

## Section VI: Actuarial Basis

### Summary of Long-Term Actuarial Assumptions *(continued)*

*Withdrawal (continued)* Rates follow SFERS assumption as developed by the SFERS actuary. Rates of termination for Miscellaneous employees vary by age and service. Rates at sample ages are shown below:

Age	Male			Female		
	< 1 Year of Service	3 Years of Service	5 + Years of Service	< 1 Year of Service	3 Years of Service	5 + Years of Service
25	0.1500	0.1000	0.0650	0.1500	0.0750	0.0500
30	0.1500	0.0700	0.0650	0.1250	0.0750	0.0500
35	0.1000	0.0700	0.0250	0.1250	0.0750	0.0300
40	0.1000	0.0500	0.0250	0.1000	0.0500	0.0300
45	0.1000	0.0500	0.0250	0.1000	0.0250	0.0250
50	0.1000	0.0500	0.0250	0.1500	0.0250	0.0250
55	0.1000	0.0250	0.0250	0.1500	0.0250	0.0250
60	0.2000	0.0250	0.0250	0.0750	0.0250	0.0250
65	0.2000	0.0250	0.0250	0.0750	0.0250	0.0250

*Refund of contributions* Rates follow SFERS assumption as developed by the SFERS actuary. Percentage of participants who withdraw and elect a refund of contributions in lieu of a deferred pension. Rates at sample ages are shown below:

Age	Police & Fire	Miscellaneous (including Craft and Muni)
Under 25	100%	100%
25	80	95
30	80	65
35	65	60
40	50	50
45	40	40
50 and over	0	0

*Disability incidence* Rates follow SFERS assumption as developed by the SFERS actuary. Rates at sample ages are shown below:

Age	Fire	Police	Craft	Muni	Miscellaneous	
					Male	Female
25	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000
30	0.0006	0.0005	0.0001	0.0001	0.0001	0.0002
35	0.0015	0.0009	0.0006	0.0006	0.0012	0.0015
40	0.0070	0.0012	0.0012	0.0011	0.0023	0.0025
45	0.0050	0.0010	0.0024	0.0017	0.0032	0.0060
50	0.0100	0.0160	0.0060	0.0080	0.0037	0.0060
55	0.0500	0.0300	0.0200	0.0180	0.0055	0.0100
60	0.1300	0.0008	0.0000	0.0000	0.0000	0.0000

## Section VI: Actuarial Basis

### Summary of Long-Term Actuarial Assumptions *(continued)*

<i>Retirement</i>	Rates follow SFERS assumption as developed by the SFERS actuary. Rates are as follows:						
					<b>Miscellaneous</b>		
	<b>Age</b>	<b>Fire</b>	<b>Police</b>	<b>Craft</b>	<b>Muni</b>	<b>Male</b>	<b>Female</b>
	50	0.0200	0.0300	0.0300	0.0700	0.0200	0.0300
	51	0.0200	0.0300	0.0200	0.0250	0.0200	0.0200
	52	0.0200	0.0300	0.0200	0.0250	0.0200	0.0200
	53	0.0200	0.0300	0.0300	0.0250	0.0200	0.0200
	54	0.0200	0.0300	0.0300	0.0250	0.0450	0.0300
	55	0.1000	0.1000	0.0400	0.0600	0.0450	0.0300
	56	0.1000	0.1000	0.0400	0.0250	0.0450	0.0500
	57	0.2000	0.1200	0.0400	0.0250	0.0450	0.0600
	58	0.2000	0.1200	0.0275	0.1000	0.0225	0.0300
	59	0.2000	0.1200	0.0275	0.1500	0.0500	0.0300
	60	0.2000	0.3500	0.1000	0.2000	0.0700	0.1100
	61	0.4000	0.2500	0.1300	0.1000	0.0900	0.1100
	62	0.3500	0.2500	0.2500	0.3500	0.2300	0.1500
	63	0.3000	0.2500	0.1300	0.0750	0.1500	0.1300
	64	0.3000	0.2500	0.1300	0.1500	0.1500	0.1500
	65	1.0000	1.0000	0.1500	0.2500	0.1500	0.1500
	66	1.0000	1.0000	0.1500	0.2500	0.1500	0.1500
	67	1.0000	1.0000	0.1500	0.2500	0.1500	0.1500
	68	1.0000	1.0000	0.1500	0.2500	0.1500	0.1500
	69	1.0000	1.0000	0.1500	0.2500	0.1500	0.1500
	70	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
<i>Benefit commencement age</i>	Current and future terminated vested participants are assumed to commence benefits at age 55 or current age, if later.						
<i>Changes since prior valuation</i>	<ul style="list-style-type: none"> <li>▪ The discount rate has changed from 4.50% to 4.25%.</li> <li>▪ The payroll growth rate has changed from 4.50% to 4.25%.</li> <li>▪ A refund of contribution assumption was introduced to better reflect anticipated experience.</li> <li>▪ Rates of retirement for miscellaneous, craft, and municipal members have been updated, in line with the SFERS rates.</li> <li>▪ The benefit commencement age for current and future terminated vested participants has changed from 50 to 55.</li> </ul>						

## Section VI: Actuarial Basis

### Summary of Healthcare Actuarial Assumptions

<i>Health care cost trend rates</i>	The trend rates of incurred claims represent the rate of increase in employer claim payments:					HCR <sup>6</sup> Add-on to Non-Medicare only
	<b>Fiscal year ending</b>	<b>Non-Medicare (Medical and Rx)</b>	<b>Medicare (Medical and Rx)</b>	<b>Medicare Part B</b>	<b>10-County Amount</b>	
	2009	Actual	Actual	Actual	Actual	--
	2010	Actual	Actual	Actual	Actual	--
	2011	9.00%	9.00%	9.00%	7.00%	1.00%
	2012	8.50%	8.50%	8.50%	6.50%	--
	2013	8.00%	8.00%	8.00%	6.00%	--
	2014	7.50%	7.50%	7.50%	5.50%	--
	2015	7.00%	7.00%	7.00%	5.00%	--
	2016	6.50%	6.50%	6.50%	5.00%	--
	2017	6.00%	6.00%	6.00%	5.00%	--
	2018	5.50%	5.50%	5.50%	5.00%	--
	2019	5.00%	5.00%	5.00%	5.00%	2.50%
	2020+	5.00%	5.00%	5.00%	5.00%	0.50%
	Vision: Actual rates for 2009 and 2010, 3% per year thereafter					
	Expenses: Actual rates for 2009 and 2010, 3% per year thereafter					
<i>Base year per capita plan costs</i>	Base year per capita plan costs for 2008-2009 were developed by Mercer. Costs were developed at age 65 as shown below:					
	<b>Plan</b>	<b>Medical</b>	<b>Pharmacy</b>	<b>Expense</b>		
	City Health Plan (Non-Medicare)	9,374	1,782	427		
	City Health Plan (Medicare)	1,522	1,975	271		
	Kaiser (Non-Medicare)	9,488	NA	12		
	Kaiser (Medicare)	3,446	NA	12		
	Blue Shield (Non-Medicare)	10,332	NA	12		
	Blue Shield (Medicare)	3,072	NA	12		
	Vision (All plans)	43	NA	NA		

<sup>6</sup> Health Care Reform

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## Section VI: Actuarial Basis

### Summary of Healthcare Actuarial Assumptions (*continued*)

<i>Aging</i>	<i>For medical and Rx annual increases</i>		
	<b>Age of Employee/Retiree/Dependent</b>	<b>Annual Cost Increment in One Year</b>	
	40-44	2.10% per year	
	45-49	3.80% per year	
	50-54	4.00% per year	
	55-59	3.80% per year	
	60-64	4.10% per year	
	65-69	2.50% per year	
	70-74	2.00% per year	
	75-79	1.30% per year	
	80-84	0.60% per year	
	85-89	0.30% per year	
	90 and above	0.00% per year	
<i>Per capita retiree contributions</i>	Contributions are determined in accordance with formulae set out in the Plan Provisions subsection. Actual information was used for the period July 1, 2008 to July 1, 2010. The following table shows the starting values that served as a basis for projecting contributions into the future. <b>As of July 1, 2010:</b>		
	<b>Cost</b>	<b>City Plan</b>	<b>Kaiser</b>
	Total active employee cost	11,268	5,770
	10-County average	5,673	5,673
	Dependent cost	10,766	5,758
<i>Spouse/partner coverage</i>	Percentage assumed to elect spouse or partner coverage at retirement: 35% Actual spouse/partner data is used for current retirees.		
<i>Age difference of spouses</i>	Males are assumed to be 3 years older than females.		
<i>Plan participation</i>	94% of future retirees are assumed to elect a medical plan at retirement with the following frequencies:		
	<b>Plan</b>	<b>Percent electing</b>	
	City Health Plan	10%	
	Blue Shield	40	
	Kaiser	50	
<i>Administrative expenses</i>	Administrative expense is included in the claims cost.		
<i>Stop Loss</i>	N/A		
<i>Medicare Eligibility</i>	All participants currently under age 65 are assumed to become eligible for Medicare upon attainment of age 65. Actual data is used for those currently over age 65.		
<i>Federal Part D subsidy</i>	Federal subsidy of qualified Part D Plans (PDPs) is reflected in the per capita cost of these plans. This subsidy is shared between the City and retirees. Anticipated federal RDS subsidy payments are also shared with retirees in the form of reductions in contributions. RDS subsidy payments are not reflected as offsets against City costs or liabilities for purposes of the valuation.		

## Section VI: Actuarial Basis

### Summary of Healthcare Actuarial Assumptions (*continued*)

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*Changes since prior valuation*

Health care cost trend rates, plan costs and retiree contributions have been updated to better reflect anticipated future experience.  
 The spouse coverage assumption was updated from 50% for males and 20% for females to 35% for both genders.  
 The Medicare eligibility assumption was updated from 95% to 100%.  
 The plan election rates were updated to reflect the elimination of PacifiCare as a plan option.

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## Section VI: Actuarial Basis

### Claims Cost Development

#### **Costs Applicable to 2010/11 and Later**

Claims costs for the City Plan and the HMOs were developed differently. 2009/10 incurred claims experience of the City plan was converted into per capita claims costs and projected into 2010/11. Actual HMO premiums for 2010/11 were used as the basis for developing the HMO per capita claims costs. Only the per capita costs for medical and pharmacy benefits are further discussed, as the costs for vision benefits were taken directly from the 2010/11 rates for the vision plan. The per capita claims costs for the City Plan do not include plan expenses.

**City Plan per capita claims costs:** Medical and pharmacy costs incurred in 2009/10 and paid through March 2010 were included. These calculations were made as part of the basis for establishing City Plan rates, the claims component, in the 2010/11 rate book. These claims costs pertained to the entire City Plan, including claims costs for the San Francisco Unified School District and the Community College District.

As part of the development of the rate book, these claims costs were related to counts of retirees and dependents to develop an average per capita incurred claims cost for an adult retiree/dependent. The counts pertained to the entire City Plan, including San Francisco Unified School District and the Community College District. This process was applied to non-Medicare claims cost experience and Medicare claims cost experience, with the retiree/dependent counts related to their corresponding costs. The resulting per capita claims costs were then age-graded using counts taken from the censuses pertaining to this valuation.

The resulting per capita costs pertained to 2010/11 and were used in the valuation.

**HMO per capita claims costs:** For all of the HMOs in place in 2010/11, medical and pharmacy costs are aggregated in the premium rates. As such, they were treated as a single cost. To develop per capita claims costs for non-Medicare adults, the 2010/11 premiums for active employee only, first dependent of active employee, retiree without Medicare, and first dependent of retiree without Medicare were blended based upon the counts taken from the censuses pertaining to this valuation. The resulting costs were deemed to apply to active and non-Medicare adults (i.e., employees, retirees, and dependents). These costs were age-graded, again using the censuses pertaining to this valuation. The process was replicated for the Medicare adult, except only retirees with Medicare and the first dependent of the retiree with Medicare were included.

The resulting per capita costs pertained to 2010/11 and were used in the valuation.

**Projection of 2010/11 costs into future years:** The claims cost elements for 2010/11 were projected into future plan years using the trend assumptions listed in the **Summary of Healthcare Actuarial Assumptions**.

#### **Costs Applicable to 2008/09 and 2009/10**

The methods used to develop both the City Plan per capita claims costs and the HMO per capita claims costs for the years 2008/09 and 2009/10 were identical to the methods used to determine the 2010/11 costs. The amounts were developed, respectively, for the 2008/09 and 2009/10 rate books.

## Section VI: Actuarial Basis

### Development of Healthcare Cost Trend Rates

The trend assumptions selected for this valuation comply with Mercer's guidelines on retiree medical trend assumptions (Actuarial and Finance Steering Committee Guideline Standard of Practice #2A).

The trend assumptions are comprised of three elements: the initial trend rate, the ultimate trend rate, and the grade-down period. Trend rates exclude the expected impact of aging since this impact is explicitly reflected elsewhere in the valuation. As with any assumption, each trend rate assumption reflects a single scenario chosen from a wide range of possibilities. The Plan's actual experience will differ from these assumptions since the future is uncertain and nobody can predict with any measure of certainty how much health care costs will rise next year or in the future.

The initial trend rate is the expected increase in health care costs into the second year of the valuation (i.e., the first assumed annual increase in starting per capita rates). Initial rates are established separately for pre-Medicare medical claims, Medicare-eligible medical claims, prescription drug claims, and administrative expenses. These expected trend rates are based on market assessments and surveys and take into account actual historical experience, expected unit cost information, changes in utilization, plan design leveraging, cost shifting, and new technology. For valuation purposes, these trend rates are blended together based on a cost-weighted average basis.

The assumed ultimate trend rate and grade-down period are based on macroeconomic principles. These assumptions reflect assumed long term general information, nominal gross domestic product growth rates, and the excess of national health expenditures over other goods and services, and an adjustment for an assumed impact of population growth.

For pre-Medicare medical benefits, additional components are added to trend to account for cost increases from health care reform (i.e., the Patient Protection and Affordable Care Act (PPACA), its regulations and interpretations).

## Section VI: Actuarial Basis

### Plan Provisions

The following summary of plan provisions represents our understanding of the substantive plan:

<i>Covered groups</i>	Fire, police, and miscellaneous employees covered under the San Francisco Employees Retirement System (SFERS) and CalPERS retirement plans. Employees of the San Francisco Unified School District and the San Francisco Community College District are not included. Employees of the Superior Court of the County of San Francisco, except those who began receiving benefits prior to January 1, 2001, are also excluded.
<i>Eligibility</i>	Retired employees are eligible for benefits after commencing any type of pension benefit from SFERS <sup>7</sup> or CalPERS. There is no requirement for an employee to retire directly from active status. For employees hired on or after January 10, 2009, however, there is an added eligibility requirement that the employee must retire within 180 days of leaving City employment.
<i>Plans available</i>	PPO – City Health Plan (self-insured) HMO – Kaiser and Blue Shield (fully-insured)
<i>Coverage for dependents</i>	Spouses and children of the retiree are eligible for the plan. Domestic partners of the retiree and their children are also eligible on the same basis as spouses and children.
<i>Coverage following retiree's death</i>	Upon the death of a covered retiree, coverage can continue for life to a spouse or domestic partner. The surviving spouse or domestic partner is treated as a single retiree in determining the continuing member contributions.
<i>Coverage following active employee's death</i>	None

<sup>7</sup> Membership and eligibility under SFERS is as follows:

- Service Retirement:
  - Age 50 with 20 years of service, or age 60 with 10 years of service.
- Disability Retirement:
  - Disability with 10 years of service.
- Vested Terminated Retirement:
  - Age 50 with 5 years of service

## Section VI: Actuarial Basis

### Plan Provisions

<i>Member contributions</i>	<p>Members are required to pay the difference between the cost of coverage and the City contribution.</p> <p><b>For employees hired before January 10, 2009</b>, the City contribution is determined as follows:</p> <p><u>When retiree is not eligible or enrolled in Medicare:</u></p> <ul style="list-style-type: none"> <li>▪ City contribution for retiree: Equal to the retiree only premium, less 50% the contributions required for an active in the same plan with employee only coverage. Active contributions are equal to the active premium less the “10-county survey amount”. The “10-county survey amount” is a survey of the ten most populous counties in California to determine the average employer contribution made toward employee medical coverage.</li> <li>▪ City contribution for spouse: Equal to the incremental premium required to add spouse coverage (retiree plus spouse premium, less retiree only premium), less 50% the incremental contribution required for an active in the same plan to add spouse coverage. Actives currently contribute 100% of the incremental premium to add spouse coverage, so currently this provision effectively means that the spouse subsidy is equal to 50% of the incremental premium required to add a spouse.</li> </ul> <p><u>When retiree is enrolled in Medicare:</u></p> <ul style="list-style-type: none"> <li>▪ City contribution for retiree: Equal to the “10-county survey amount”.</li> <li>▪ City contribution for spouse: 50% of the incremental premium required to add spouse coverage (retiree plus spouse premium, less retiree only premium).</li> </ul> <p>In determining the retiree and active premiums to follow the above formulas, the premiums referenced are the total medical, vision, and administrative expense premiums. The City’s contribution is limited to the total premium.</p> <p><b>For employees hired on or after January 10, 2009</b>, the City’s contribution is determined as described above and then multiplied by the following percentages based on service:</p> <ul style="list-style-type: none"> <li>▪ Less than 10 years of service: 0%</li> <li>▪ 10 but less than 15 years of service: 50%</li> <li>▪ 15 but less than 20 years of service: 75%</li> <li>▪ 20 or more years of service: 100%</li> </ul> <p>Employees retiring through disability retirement receive the full explicit subsidy, regardless of service.</p>
<i>Vision benefits</i>	<p>All retirees covered under a City-sponsored medical plan receive vision benefits. The contributions calculated as described above take into account the cost of the vision benefits. Vision benefits for all retirees are administered by Vision Service Plan.</p>
<i>Dental benefits</i>	<p>Retirees pay the full cost of dental coverage offered by the City for themselves and their dependents. Dental benefits have been excluded from the actuarial valuation.</p>
<i>Other benefits not included In the valuation</i>	None.
<i>Changes since prior valuation</i>	PacifiCare was eliminated as a medical plan option.

**MERCER**

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**Consulting. Outsourcing. Investments.**

December 13, 2010

## **OPEB Actuarial Valuation Results** City and County of San Francisco

Bethany Axtman, FSA, EA, MAAA  
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Matthew R. Larrabee, FSA, EA, MAAA

# Contents

- Executive summary
- Refresher on GASB 45 and implicit subsidy
- Valuation results summary
- Next steps
- Appendix
  - Key valuation assumptions and methods
  - Certification
  - Glossary

## Overview

- Mercer has completed an actuarial valuation of the retiree medical program
  - Actuarial valuations are required biennially
  - The valuation date is July 1, 2008. The prior (initial) valuation used a July 1, 2006 valuation date
- The valuation develops the GASB 45 Annual Required Contribution (ARC) that can be used for FYE 2010 & 2011 financial reporting
  - Despite its name, the ARC is an accounting entry item rather than a required contribution
  - Anticipated that contributions will be less than the ARC, developing a Net OPEB Obligation over time
- Since valuation census data is as of 2008, the valuation covers only the program available to those hired prior to January 10, 2009
  - Even when the Proposition B changes for more recent hires are reflected in later valuations, this group will represent a small portion of overall liability for several years

## Executive Summary

	Prior Valuation (July 2006)	Current Valuation (July 2008)
Discount rate Rate-setting approach	4.50% Unfunded plan	4.25% Unfunded plan
Cost allocation method Shortfall amortization approach	Entry age normal 30-year open, level %	Entry age normal 30-year open, level %
ARC (\$)	\$409M for FYE2008	\$369M for FYE2010
ARC (% of pay)	18.94%	15.40%
Actuarial Accrued Liability (AAL)	\$4,036M	\$4,364M

- The ARC decrease was caused by a normal cost decrease stemming from:
  - Introduction of a “refund of contributions” assumption for employees terminating prior to age 50
  - Assumption change anticipating later expected retirement age
- AAL increased 4% on an annualized, non-inflation-adjusted basis

# Refresher on GASB 45 & Implicit Subsidy

## Overview of GASB 45 Accounting

### GASB 45 - Accounting for Other Post-Employment Benefits (OPEB)

- Concepts behind GASB 45
  - Recognize the cost of projected retirement benefits during an employee's working career
    - Replaced the pay-as-you-go reporting standard
    - GASB 45 considers future cash flows
  - Provide information about current past service liabilities
    - Liability for retirees and inactives eligible for benefits (i.e., vested terminated employees)
    - Liability for actives

## Overview of GASB 45 Accounting

### What Is the 'Annual Required Contribution' (ARC)?

- Not a required contribution by the employer, but the amount that would be made if the plan were intended to be fully funded
- Equal to normal cost plus an amount to amortize the unfunded actuarial accrued liability
- In the near-term, ARC is greater than “pay-as-you-go” contribution costs
- Difference between ARC and amounts actually contributed are accumulated in the Net OPEB Obligation
  - Employer contributions include payments made toward current retiree claims plus additional amounts, if any, set aside in a “funded plan”

## Overview of GASB 45 Accounting

### How Can the Unfunded Accrued Liability (UAL) Be Amortized?

- Up to a 30-year period
- Level dollar or level percent of pay
- Open or closed period
- Methodology is the same as GASB 27 for pension plans

- *Use of a level percent of payroll method with an amortization period of 20 years or more will lead to initial amortization payments that are equal to or less than “interest only” amortization payments*
- *If an open period method is used for amortization, this pattern will persist over time and lead to an accumulation of UAL and associated increases in the ARC over time*

## Overview of GASB 45 Accounting

### GASB 45 - Accounting for Other Post-Employment Benefits (OPEB)

- Benefits covered by GASB 45 include:
  - Postemployment health benefits (including retiree and disabled benefits)
    - Includes medical, dental, vision, hearing, and related benefits
    - **Liability for health benefits includes any “implicit employer subsidies”**
      - If actives and retirees are charged equal premiums, an implicit subsidy exists
      - Retirees are more expensive than actives (older, less healthy), so an equal premium means retirees are subsidized
  - Postemployment disability income and life insurance benefits
  - Legal benefits
  - Other benefits (for example, long-term care)

## Overview of GASB 45 Accounting

### GASB 45 - Accounting for Other Post-Employment Benefits (OPEB)

- Under GASB 45, the level of liability reported depends on the funding structure for the OPEB benefits
  - Pre-funded plans use the expected long-term asset return rate to discount, or “net present value”, projected benefits back to the valuation date
  - Unfunded (pay-as-you-go) plans use the expected long-term return on general employer assets to do the net present value calculation
- All else being equal, the higher the discount rate, the lower the liability
- Sponsors have been slow to adopt pre-funding structures due to both budgeting challenges and the high bar for what constitutes a “funded plan” under GASB 45
  - A “funded plan” must be in an irrevocable, retiree-dedicated trust

## Overview of GASB 45 Accounting

### Implicit Employer Subsidy

- Cost of health care increases with increasing age
- Cost of health care is higher on average for retirees than employees of the same age
- If retired participants pay same premium rate as active employees, there is an implicit employer subsidy
  - Only exception - if the employer pays none of the premium, in which case the active employees would be subsidizing the retirees
- Implicit subsidy must be included in postretirement health-care liability even if participants pay 100% of the blended premium rate (GASB 45, par. 12 b.)

# Overview of GASB 45 Accounting

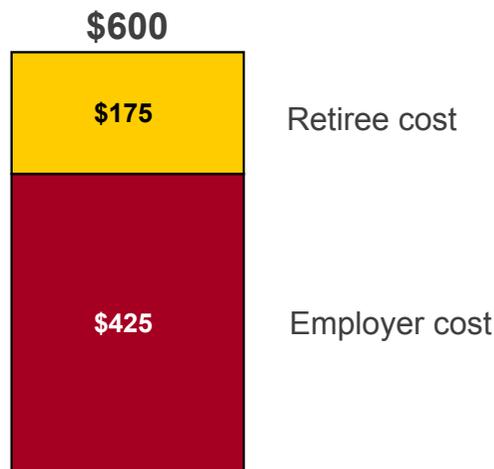
## Example of Implicit Subsidy – Sample Employer

- Plan covers 5,000 active employees and 1,000 retirees under age 65
- Average monthly premium



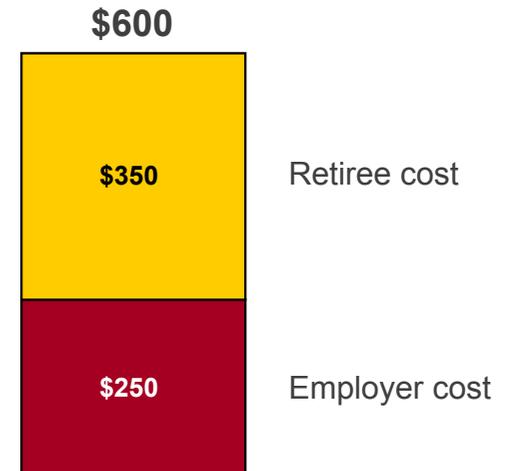
Retiree pays 50% of \$350 blended rate

► GASB liability is based on \$425



Retiree pays 100% of \$350 blended rate

► GASB liability is based on \$250

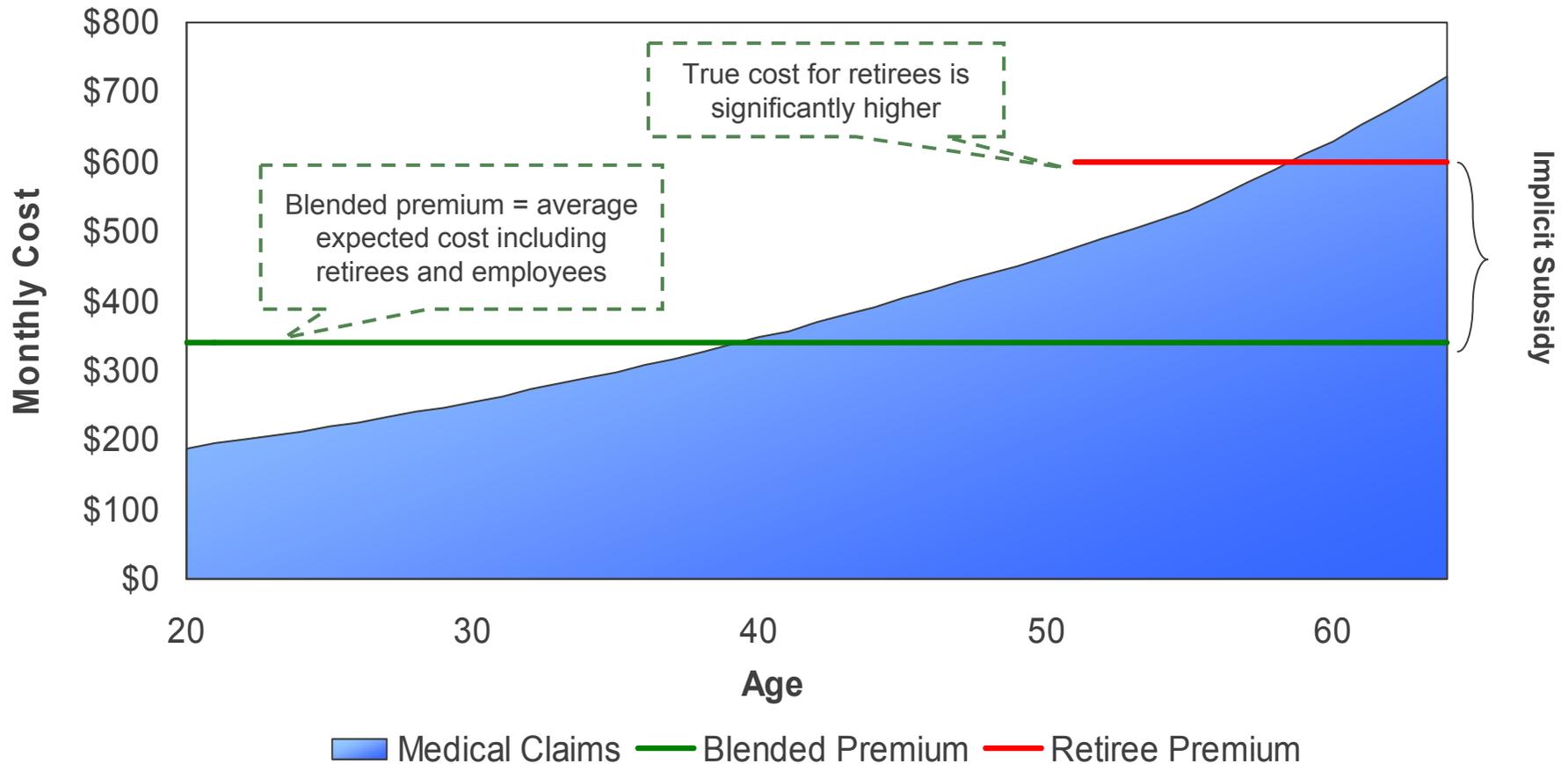


***If retiree pays anything less than \$600 – then employer has liability***

# Overview of GASB 45 Accounting

## Calculation of Implicit Subsidy

### Illustration of Implicit Subsidy



# Valuation Results Summary

## Valuation Results Summary

### Key Assumption/Method Changes Since Prior (2006) Valuation

- Medical trend / Healthcare inflation

Medical trend	2006			2008	
	Medicare (all plans)	Non-Med (all plans)	10-County Avg	Medical	10-County Avg
Select rate – 2006/2007	9.5%	8.5%	7.5%	NA	NA
Select rate – 2010/2011	7.5%	6.5%	5.5%	9.0%	7.0%
Ultimate rate	5.0%			5.0%	
Ultimate rate year	2015/2016			2018/2019	
Discount rate vs ultimate rate gap	(0.5)%			(0.75)%	

- Other
  - Discount rate lowered from 4.5% to 4.25%
  - Introduction of a “refund of contributions” assumption for employees terminating prior to age 50
  - Assumption change anticipating later expected retirement age

# Valuation Results Summary

## Actuarial Gains and Losses

	AL change (\$M)	AL change %	NC change %	Comment
Demographic changes	\$(204)	(4.3)%	1.3%	Active population flat; inactive count up 5%
Updated first year costs and contributions	(394)	(9.3)%	(11.5)%	Actual City Plan trends and actual 10-county average trend lower than assumed in prior valuation
Change in expected increases in cost of care (trend)	293	7.6%	10.2%	Also includes effect of 2009-2010 costs because actual trend used for first 2 years
Changes to retirement and refund assumptions	31	0.7%	(23.3)%	Includes revised retirement rates in line with SFERS, commencement at age 55 for VTs, and refund rates
Change to discount rate and payroll growth rate	195	4.7%	5.9%	
Other short-term assumption changes	(261)	(5.9)%	(7.6)%	Revised assumptions for Medicare eligibility, spousal coverage, and plan elections. Also includes the effect of eliminating PacifiCare option, which is a small part of the change
<b>Total</b>	<b>(340)</b>	<b>(7.5)%</b>	<b>(26.0)%</b>	

## Valuation Results Summary

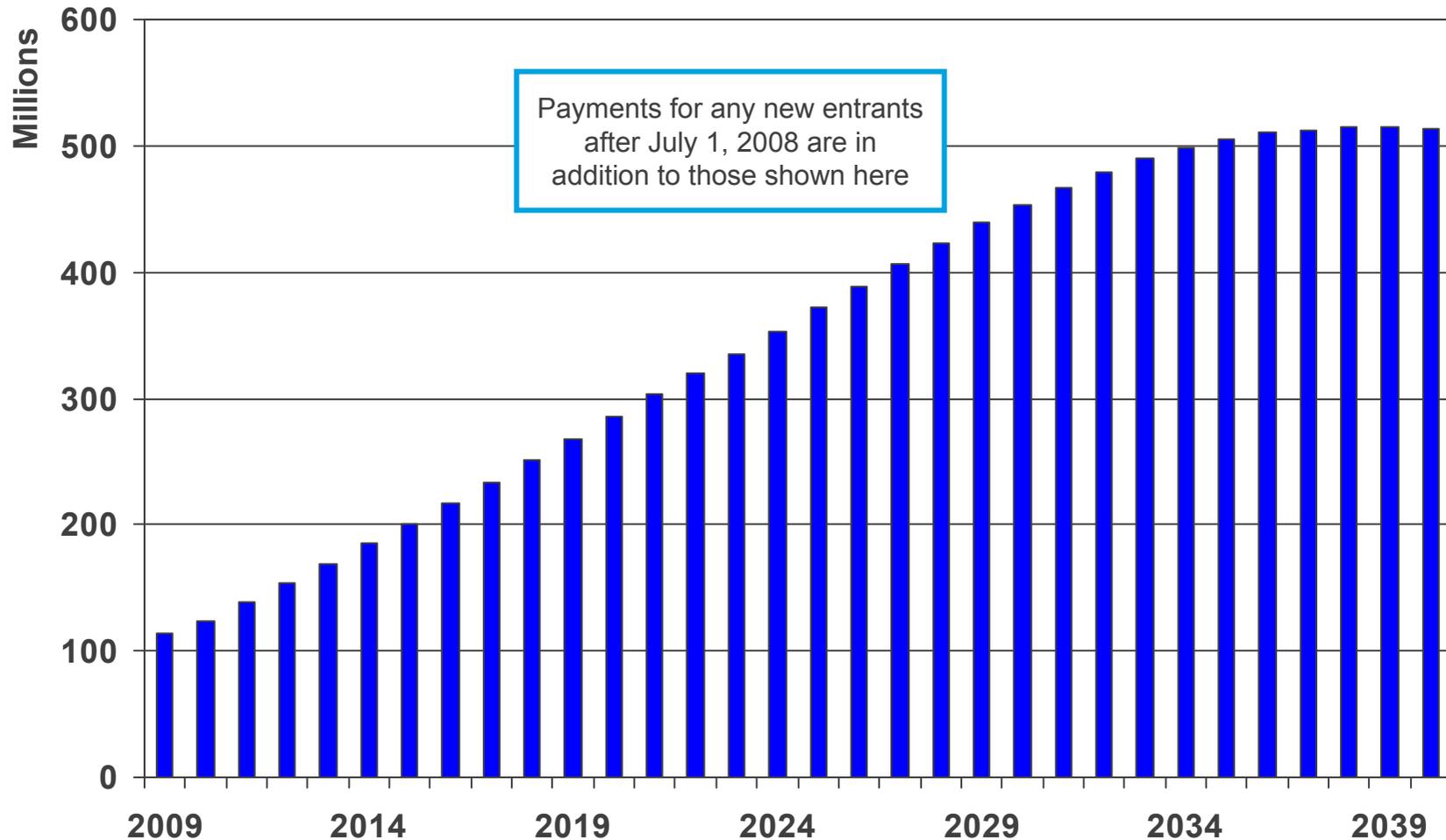
### Development of the Annual Required Contribution (ARC)

<i>(millions)</i>	2006	2008
Discount Rate	4.50%	4.25%
Payroll	\$ 2,021	\$2,249
PV of all Future Benefits	7,233	6,962
Actuarial Accrued Liability (EAN)	4,036	4,364
Assets (for GASB 45 purposes)	0	0
Unfunded Accrued Liability (UAL)	4,036	4,364
Amortization Factor (30 year, level % of payroll, open amortization period)	30	30
<b>Amortization Payment</b>	<b>\$ 138</b>	<b>\$ 149</b>
<b>Normal Cost</b>	<b><u>254</u></b>	<b><u>205</u></b>
<b>Annual Required Contribution (\$)</b>	<b>\$ 391</b>	<b>\$ 354</b>
<b>Annual Required Contribution (% of payroll)</b>	<b>18.94%</b>	<b>15.40%</b>

- Pay-as-you-go costs for direct subsidy OPEB benefits for the fiscal year-ending 2009 for this group were \$117 million

# Valuation Results Summary

## Projected Benefit Payments (Participants in Program as of July 2008)



## Next Steps

- Fiscal year-end 2010 CAFR entries by City & County of San Francisco
  - Assistance from Mercer as needed
- Completion of forward-looking financial projections by Mercer
  - Including projected effect of program for more recent hires and projected future new hires
- Monitoring of GASB project to modify pension financial reporting
  - The current GASB project only addresses pension reporting
    - That said, it is reasonable to assume that any revised reporting framework would then be proposed for OPEB benefits

# Appendix

## Overview of Key Valuation Assumptions and Methods

<b>Discount Rate</b>	4.25% (based on unfunded plan)	<b>Expected Claims</b>	<b>Reset for all coverages; starting values at 7/1/2008:</b>
<b>Payroll Growth</b>	4.25% annual growth in aggregate payroll for eligible employees		(Medicare/Non-Medicare)
<b>Medical Trends</b>	Medical – 9.0% beginning in 2010/11 decreasing to 5.0% over the next 8 years		City Plan Medical: 9,374/1,522
	10-County average – 7.0% beginning in 2010/11 decreasing to 5.0% over the next 4 years		City Plan Rx: 1,782/1,975
	Vision/Expenses – 3.0% per year	City Plan Expenses: 427/271	
	HCR add-on – 1% in FYE2011, 2.5% in FYE2019, 0.5% in FYE2020 (non-Medicare only)	Kaiser: 9,488/3,446	
	<b>Actual rates used for first two years after valuation date</b>	Blue Shield: 10,332/3,072	
		HMO expenses: 12	
<b>Increase in Contributions</b>	Determined based on formula and component trend rates	Vision: 43	
		<b>Participation</b>	94% elect a medical plan at retirement
			Plan elections :
			▪ City Plan: 10%
			▪ Kaiser: 50%
			▪ Blue Shield: 40%

Please refer to the forthcoming full valuation report as of July 1, 2008 for more information.

# Appendix

## Overview of Key Valuation Assumptions and Methods

<b>Spousal coverage</b>	<b>35% of all retirees will elect to cover a spouse or domestic partner</b>	<b>Actuarial Cost Method</b>	Entry age normal, level percentage of pay
<b>Medicare eligibility</b>	<b>All participants under age 65 (and all participants who have not yet commenced benefits, if over 65) will be eligible for Medicare</b>	<b>Amortization Method</b>	30-year open amortization as a level percentage of pay
<b>Retirement</b>	Rates follow SFERS valuation. Updated rates for non-police/fire members.  <b>Current and future vested terminated members are assumed to commence benefits at age 55</b>	<b>Mortality</b>	Healthy – 1994 Group Annuity Mortality, follows SFERS valuation
<b>Turnover</b>	No change to rates of withdrawal; rates follow SFERS valuation.  <b>Refund of contribution rates</b> reflecting portion of those participants who leave prior to retirement eligibility and elect a refund of contributions from pension plan were introduced. Rates per SFERS valuation.		

Please refer to the forthcoming full valuation report as of July 1, 2008 for more information.

# Actuarial Certification

Mercer has prepared this presentation exclusively for the City and County of San Francisco to:

- Summarize results of a valuation report of the City & County's OPEB program as of July 1, 2008
- Provide reporting and disclosure information for financial statements for governmental agencies pursuant to GASB Statement Number 45

This presentation and the associated valuation report may not be relied upon for any other purpose or by any party other than the City & County of San Francisco or the program's auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

A valuation report is a snapshot of a program's estimated financial condition at a particular point in time; it does not predict a program's future financial condition or its ability to pay benefits in the future.

Over time, a program's total cost will depend on a number of factors, including the amount of benefits the program pays, the number of people paid benefits, program expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, various *actuarial assumptions*, as described in the our forthcoming actuarial valuation report as of July 1, 2008, are used to select a single scenario from a range of possibilities. However, the future is uncertain, and the program's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, program experience, changes in expectations about the future and other factors. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios.

Because actual program experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios and not solely on the basis of a valuation report or reports.

## Data and plan provisions

To prepare this report, Mercer has used and relied on participant and cost data supplied by the City & County of San Francisco. We have reviewed the participant and cost data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the plan description supplied by the City & County of San Francisco. A summary of the data and program provisions as described in our forthcoming actuarial valuation report as of July 1, 2008. The City & County of San Francisco is solely responsible for the validity, accuracy and comprehensiveness of this information. If the data or program provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

# Actuarial Certification

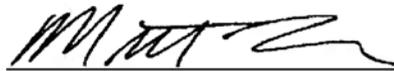
## *Actuarial Calculations, Methods and Assumptions*

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the program were determined in accordance with generally accepted actuarial principles and procedures using an actuarial cost method approved by the City & County of San Francisco. Certain actuarial assumptions, including discount rates and payroll increase assumptions, were selected by the City & County of San Francisco. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in our forthcoming actuarial valuation report as of July 1, 2008. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Board directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report fully and fairly discloses the actuarial position of the program on an ongoing basis.

## *Professional Qualifications*

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. Collectively, the undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.



December 13, 2010

Matthew R. Larrabee, FSA, EA, MAAA

Date



December 13, 2010

Martin A. Miller, FSA, MAAA

Date



December 13, 2010

Bethany Axtman, FSA, EA, MAAA

Date

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***The information contained in this document is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.***

## Appendix

### GASB OPEB Statement Definitions

- **Normal Cost (NC)** – The annual cost assigned to the current year under the actuarial cost method
- **Pay As You Go** – Plan benefits are not pre-funded but paid by the plan sponsor as they become due
- **Net OPEB Obligation** – The cumulative difference since the effective date of GASB 45 between annual OPEB cost and the employer's contributions to the plan
- **Actuarial Accrued Liability (AAL)** – The portion of the present value of future benefits allocated to service before the valuation date
- **Unfunded Actuarial Accrued Liability (UAAL)** – The excess of the Actuarial Accrued Liability over plan assets
- **Annual Required Contribution (ARC)** – GASB 45 term referring to required annual accrual

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December 13, 2010

## **OPEB Projection Results – Impact of Prop B (2008) City and County of San Francisco**

Bethany Axtman, FSA, EA, MAAA  
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Martin A. Miller, FSA, MAAA  
Gerry Murphy, FIA, ASA, MAAA

# OPEB Projection Results – Impact of Prop B (2008)

## Projections

- Projections compare two benefit programs:
  - No changes (as in effect in 2008)
  - Reflecting changes enacted by Proposition B in 2008 for employees hired on or after January 10, 2009:
    - Tiered employer contribution levels based on service at retirement
    - Must begin benefits within 180 days of termination of employment
    - 3% of Prop B payroll contribution is assumed made to the Retiree Health Care Trust Fund (2% from employees; 1% from employers)
- Project two different measures:
  - Unfunded accrued liability (UAL)
    - Measure of projected future program benefits allocated to service already completed as of the valuation date
  - Annual Required Contribution (ARC) as defined by GASB 45
    - Reminder: the ARC is an accounting entry, not a funding requirement

Note that this report addresses only the impact of changes passed by Proposition B in 2008. Any effect of the changes proposed by the 2010 Proposition B is outside the scope of this analysis.

## OPEB Projection Results – Impact of Prop B (2008)

### Key projection methods

- Actuarial methods and assumptions are the same as those used for the July 1, 2008 actuarial valuation, unless noted otherwise
- Plan experience is assumed to follow the valuation assumptions
- Total payroll is assumed to grow 4.25% annually, with constant headcount
- It is assumed a pre-funding contribution of 3% of Prop B payroll is made annually to the Retiree Health Care Trust Fund established by Prop B
  - For illustrative purposes, invested pre-funding contributions are assumed to earn 7.00% annually
- Beginning in 2015, the forecast model assumes the projected net costs for Prop B retirees are paid from trust assets
- Projected results are shown on both a nominal dollar and percent of payroll basis; nominal dollar results shown are not inflation-adjusted

Actual experience will vary from expected. These projections should be used as a tool to understand the estimated impact of the changes and should not be used for financial budgeting purposes.

## OPEB Projection Results – Impact of Prop B (2008)

### GASB 45 Discount Rate Selection

- GASB 45 liabilities are very sensitive to the valuation discount rate
  - The discount rate is used to develop a “net present value” of an estimated benefit payment stream that runs for 60+ years
- The GASB 45 discount rate does not affect the ultimate cost of the plan
  - Ultimate cost = benefits paid less earnings on pre-funding contributions
- Under GASB 45, pay-as-you-go plans and pre-funded plans receive different discount rate treatment
  - Pay-as-you-go plans: discount rate is based on expected long-term return on general employer assets (set at 4.25% for this analysis)
  - Fully pre-funded plans: discount rate based on expected long-term annual return on trust assets (illustrated at 7.00% for this analysis)
- If a plan is somewhere between pay-as-you-go and fully pre-funded, a blended discount rate reflecting the level of pre-funding is used

## OPEB Projection Results – Impact of Prop B (2008)

### GASB 45 Discount Rate Selection

- GASB 45 liabilities for Prop B employees depend on accounting treatment
  - If all employees are treated as being in a single combined plan, a blended discount rate is used
    - Since pre-Prop B liabilities dominate in the near-term, the combined plan is viewed as being mostly pay-as-you-go during the projection period and the discount rate remains close to 4.25%
  - If Prop B is viewed as a separate plan, then Prop B employees are viewed as being in a pre-funded plan and Prop B liabilities would be valued using a funded plan discount rate (7.00% illustrated here for a fully pre-funded plan)
- These projections show results on a combined plan basis
- For the Prop B participants, Prop B liabilities results are also projected on a fully pre-funded stand-alone basis with a 7.00% discount rate assumption

## OPEB Projection Results – Impact of Prop B (2008)

### Effect of Prop B (2008) on Normal Cost

- The “normal cost rate” is the estimated present-day economic value of projected retirement benefits allocated to a specific plan year
  - Normal cost is highly sensitive to the discount rate used to calculate net present values of benefits projected to be paid many years from now
- Normal cost rate for the July 2008 employee population before reflecting Prop B is **8.9% of pay** using a pay-as-you-go 4.25% discount rate
- Theoretically, if Prop B was applied to that employee group, normal cost would decrease to **5.8% of pay** on the same discount rate basis
  - This decrease represents Prop B’s change in benefit levels
- When assessed at an illustrative 7.00% pre-funded plan discount rate, the Prop B normal cost decreases to **2.9% of pay** based on the July 2008 employee population
  - The 2.9% of pay normal cost would be pre-funded via a combination of 2% employee and 1% employer contributions

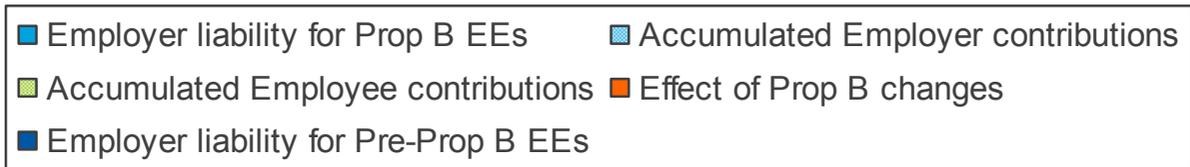
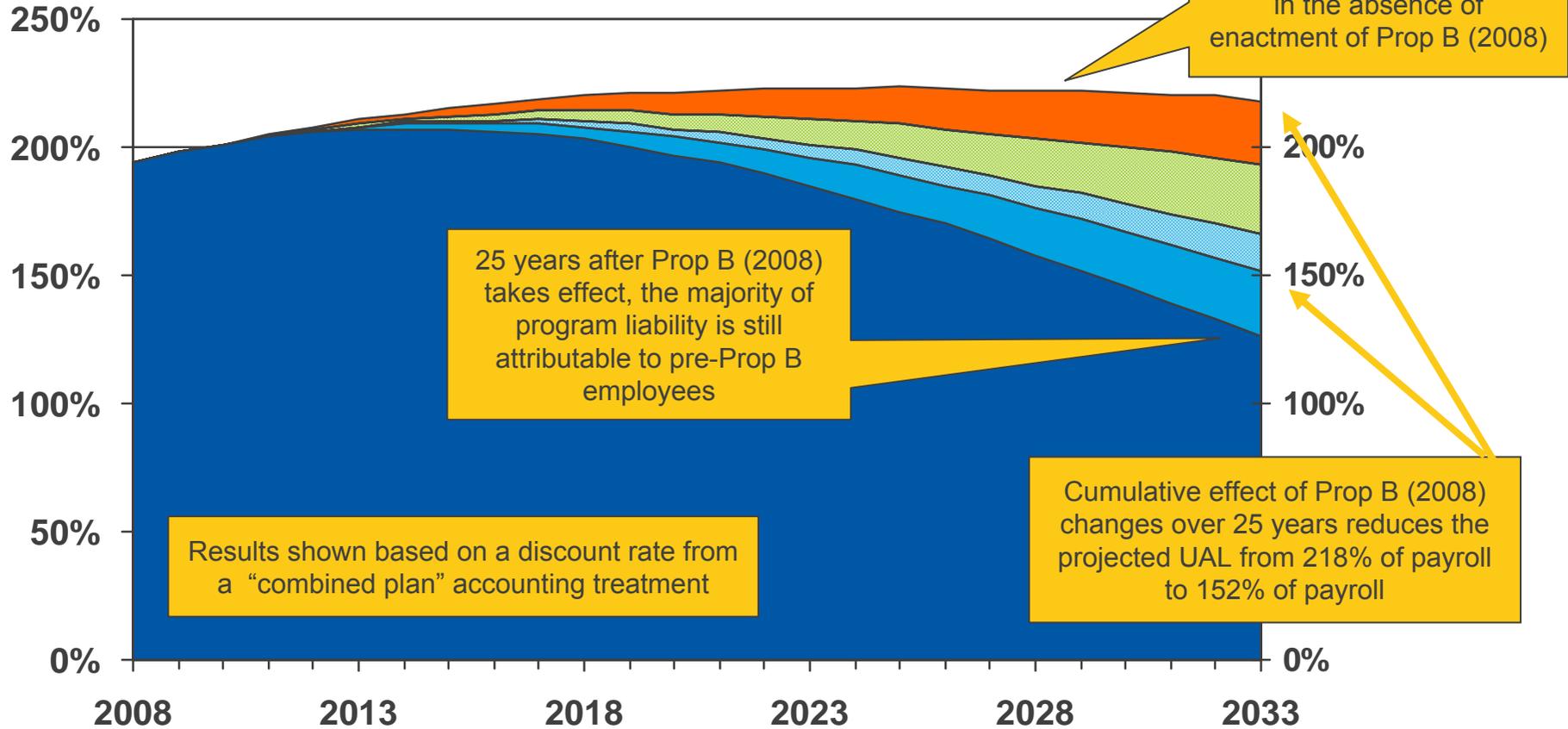
## OPEB Projection Results – Impact of Prop B (2008)

### Executive Summary

- Effects of Prop B changes on overall results emerge slowly as the portion of the active population that is subject to Prop B grows
- On a combined plan reporting basis, over the 25-year projection period, Prop B reduces Unfunded Actuarial Liability (UAL) growth by 2/3rds on a non-inflation-adjusted dollars basis
  - UAL is 194% of payroll as of July 2008
    - Without Prop B, it would be estimated to grow to 218% in 25 years
    - With Prop B, it is estimated to decrease to 152% in 25 years on a combined plan reporting basis
- ARC (Annual Required Contribution under GASB 45) decreases steadily as the Prop B employee population grows over the projection period
  - After 25 years, projected ARC is reduced from 16.2% of payroll to 9.4% of payroll on a combined plan reporting basis
- Assuming 7.00% annual returns, contributions plus earnings are estimated to be about equal to Prop B liability measured on a stand-alone basis

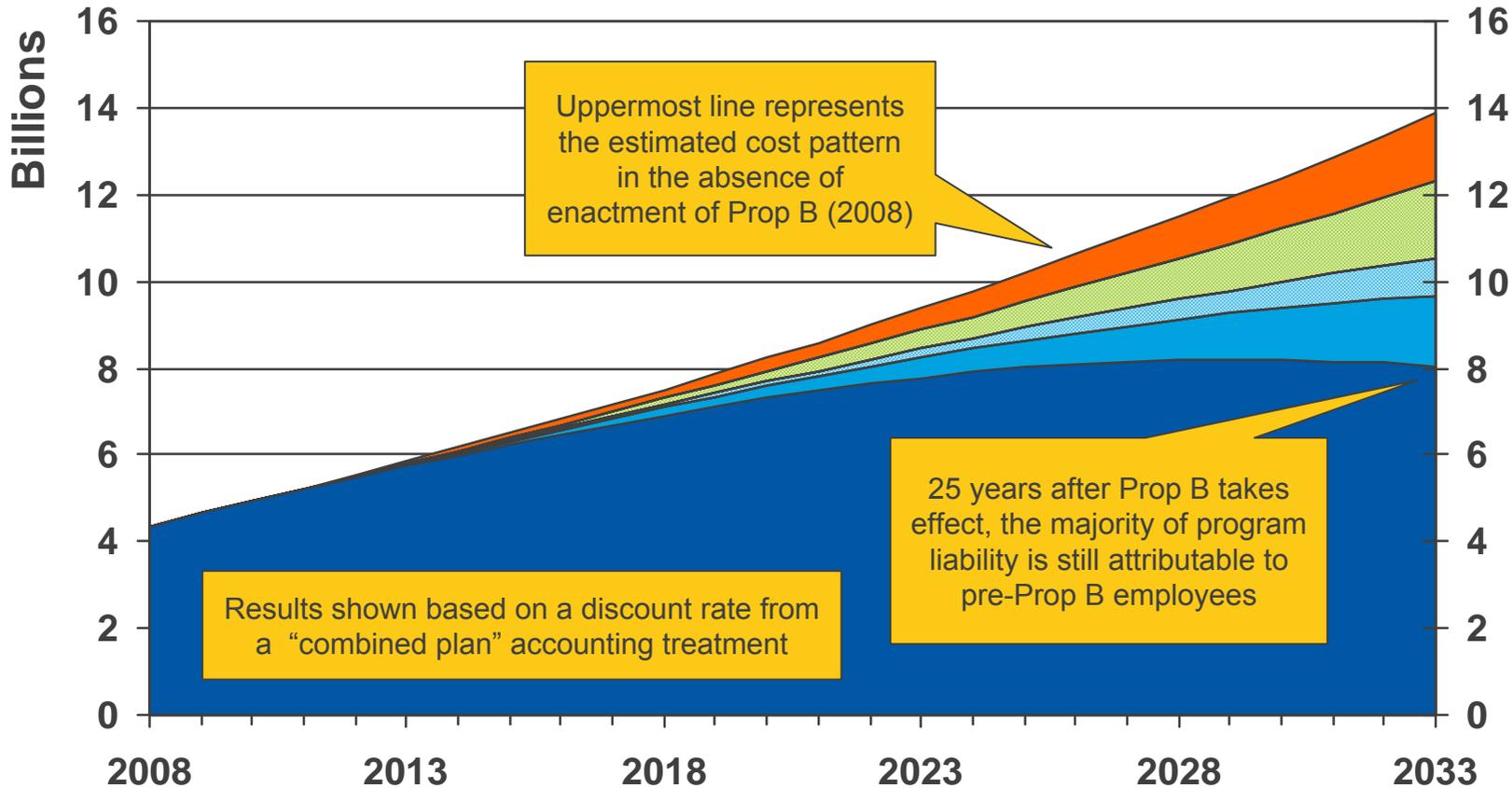
# OPEB Projection Results – Impact of Prop B (2008)

Impact on UAL as percent of payroll



# OPEB Projection Results – Impact of Prop B (2008)

## Impact on UAL



At 2033, the projected AL in the absence of Prop B changes is 13.9B while the AL including Prop B changes is 12.3B

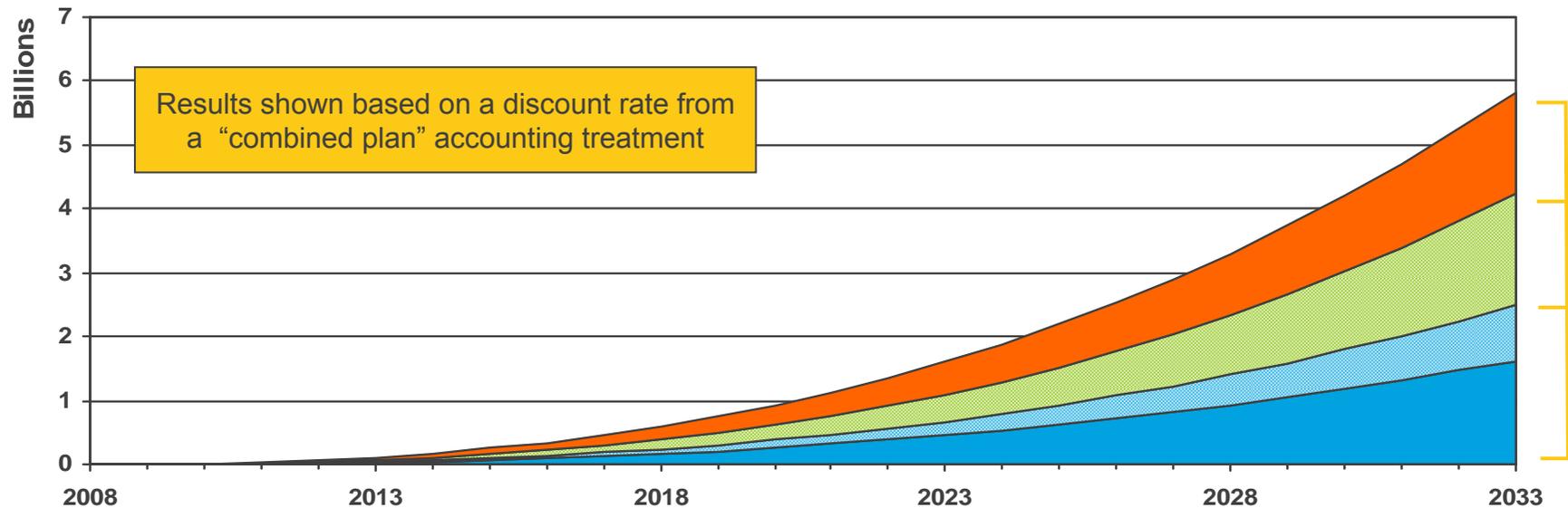
At 2033, the remaining employer liability is 9.7B, of which 8.0B is attributable to pre-prop B employees.

- Employer liability for Prop B EEs
- Accumulated Employer contributions
- Accumulated Employee contributions
- Effect of Prop B changes
- Employer liability for Pre-Prop B EEs

## OPEB Projection Results – Impact of Prop B (2008)

### Impact on UAL - Prop B members only

- Before adjusting for any potential discount rate changes (i.e., using a 4.25% pay-as-you-go discount rate), the liability for Prop B members only is divided roughly into thirds:
  - Roughly 1/3 (orange) is eliminated by the Prop B (2008) benefit changes
  - Roughly 1/3 (green) is estimated to be funded by employee contributions
  - Roughly 1/3 (blue) is estimated to be funded by the City contributions to the Trust or remains as unfunded employer liability

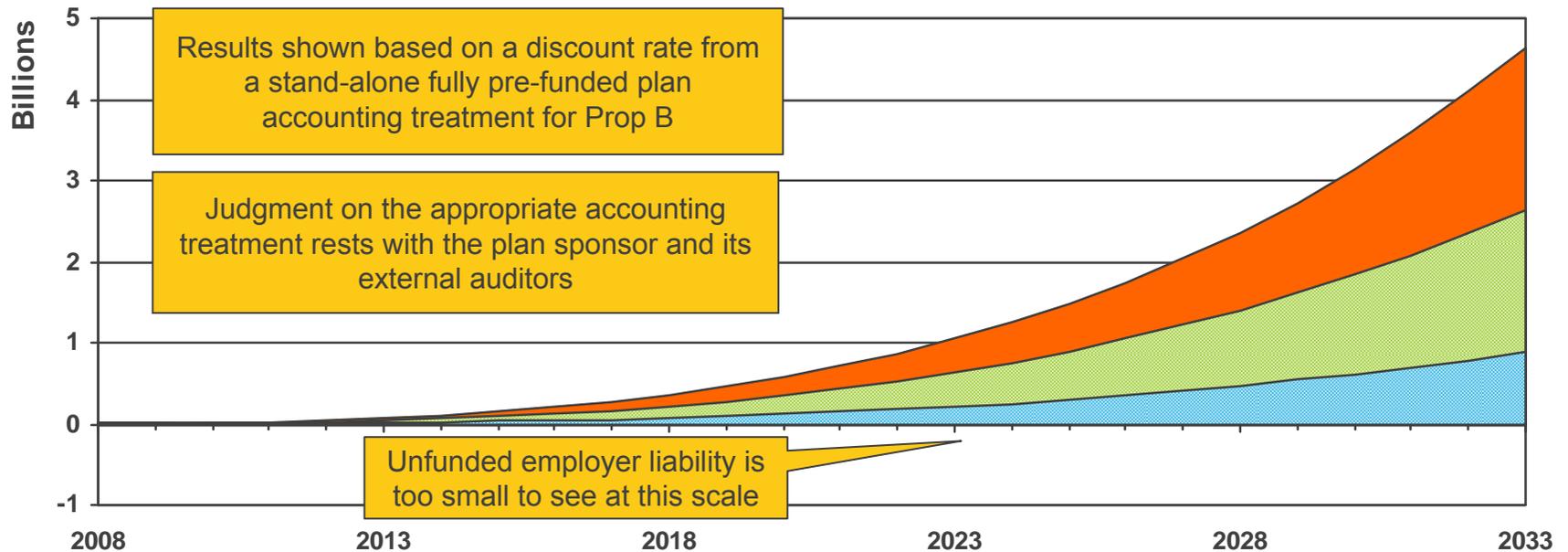


■ Employer liability for Prop B EEs ■ Accumulated Employer contributions ■ Accumulated Employee contributions ■ Effect of Prop B changes

## OPEB Projection Results – Impact of Prop B (2008)

Impact on UAL – Prop B members only as a stand-alone plan

- If the post-Prop B members composed a stand-alone plan, the plan would be considered “pre-funded” under GASB 45 and therefore, the discount rate would be based on the expected return on assets
- Assuming a long-term return on assets of 7%, the projected accumulated contributions are approximately equal to the projected liability

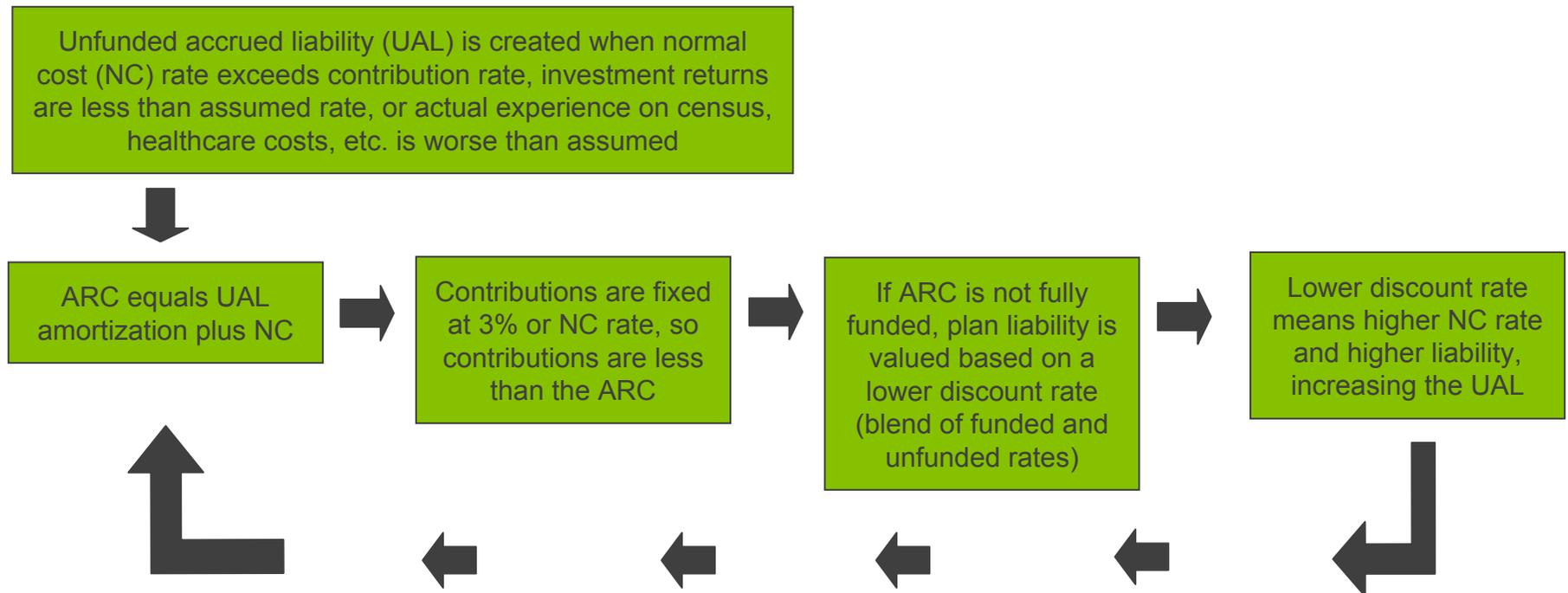


■ Employer liability for Prop B EEs ■ Effect of Prop B changes ■ Accumulated Employee contributions ■ Accumulated Employer contributions

## OPEB Projection Results – Impact of Prop B (2008)

Impact on UAL – Prop B members only as a stand-alone plan

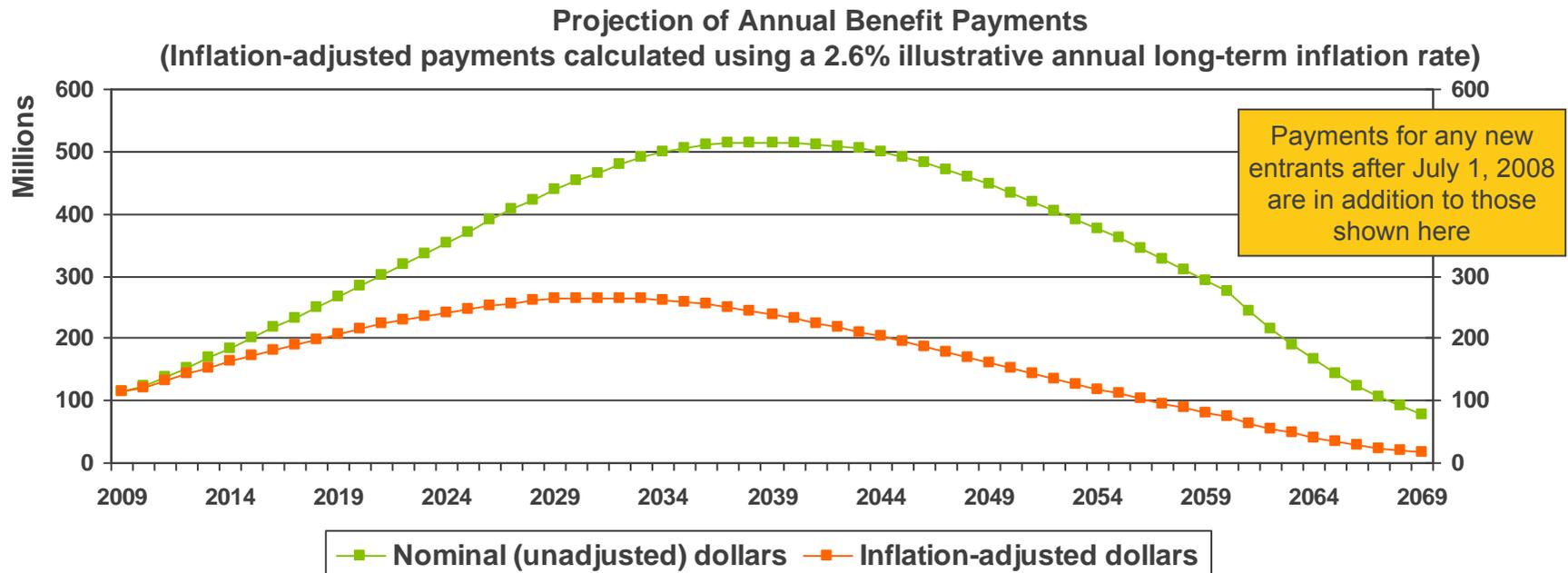
- Funded status of stand-alone plan for Prop B members is highly sensitive to projection assumptions
  - A small change can create an unfunded accrued liability (UAL) shortfall
  - Absent a mechanism in Prop B to fund a UAL shortfall, this can trigger a feedback loop of progressively escalating GASB 45 UAL as the plan is viewed as progressively less pre-funded, as illustrated below:



# OPEB Projection Results – Impact of Prop B (2008)

## Duration of Pre-Prop B employee obligations

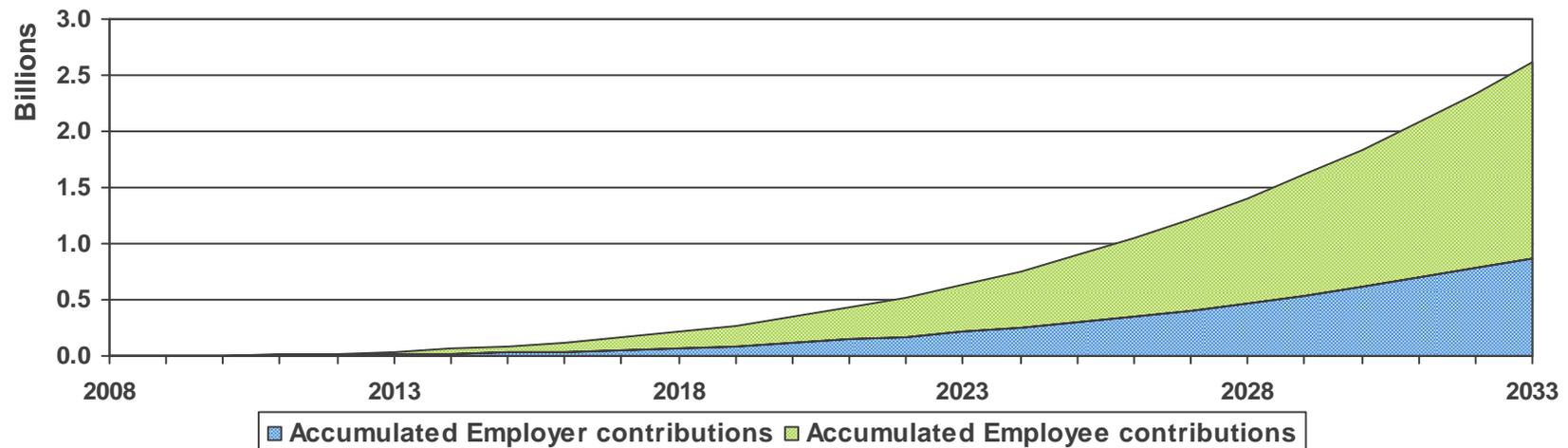
- Full effect of Prop B (2008) will not be realized until all pre-Prop B employees have retired and received all benefits due
- On an inflation-adjusted basis, payments for pre-Prop B retirees only are forecast to double over the next 13 years, peak in FYE2032, and next return to the current level in FYE2055



## OPEB Projection Results – Impact of Prop B (2008)

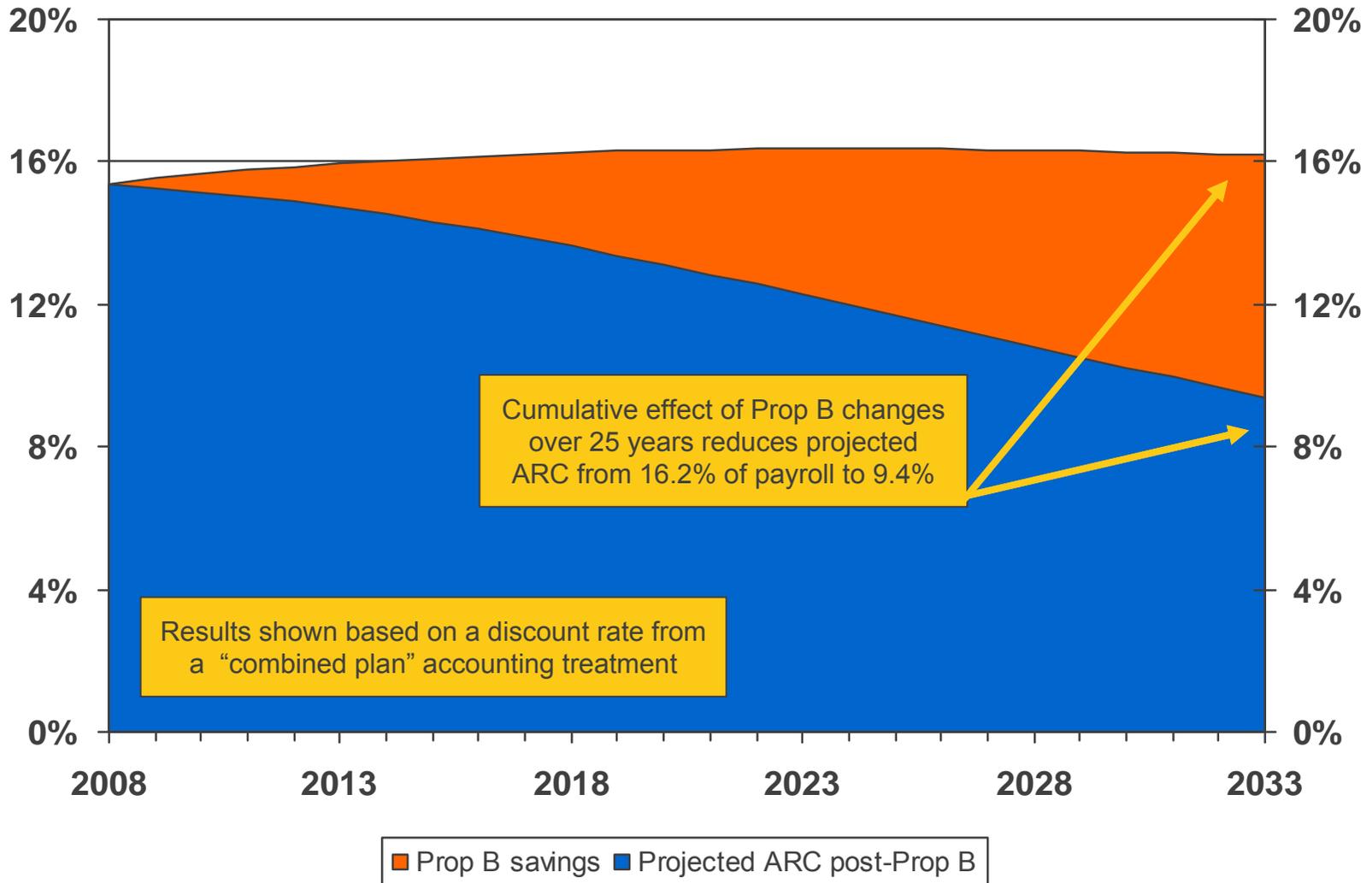
### Growth of Retiree Health Care Trust Fund

- Projection basis:
  - 7.00% annual investment return
  - Trust fund assets used to pay benefits for Prop B employees only (pre-Prop B employee benefits continue to be funded exclusively on pay-as-you-go basis)
- To the extent actual investment returns lag behind the assumption, the employer will bear the liability for any additional shortfalls.



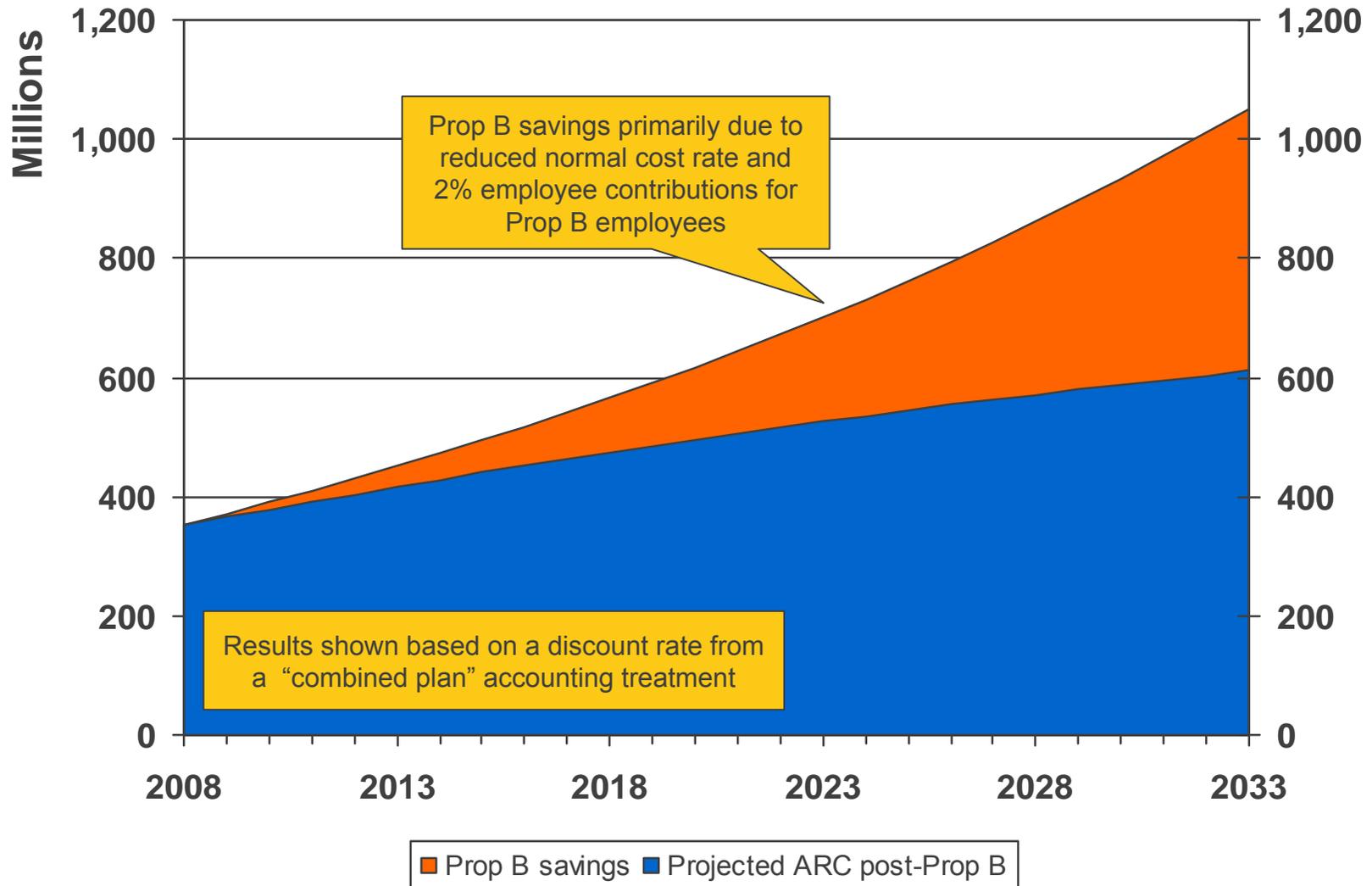
# OPEB Projection Results – Impact of Prop B (2008)

Impact on ARC as percent of payroll



# OPEB Projection Results – Impact of Prop B (2008)

## Impact of Prop B on ARC



# Appendix

## Overview of Key Projection Assumptions and Methods

<b>Payroll growth</b>	<p>Total CCSF payroll for eligible active employees is assumed to increase at 4.25% annually.</p>			
<b>Population growth</b>	<p>One-for-one replacement hiring is assumed, such that total active employee headcount remains constant at the July 1, 2008 level.</p>	<b>Prop B plan changes</b>	<p>For employees hired on or after January 10, 2009, the City contribution towards postretirement health coverage is prorated based on service at retirement::</p> <ul style="list-style-type: none"> <li>▪ Less than 10 years of service: 0%</li> <li>▪ 10 - 15 years of service: 50%.</li> <li>▪ 15 - 20 years of service: 75%.</li> <li>▪ 20 + years of service: 100%</li> </ul> <p>The employee must retire within 180 days of leaving employment in order to receive benefits.</p>	
<b>New entrant profile</b>	<p>Replacement hires will be assumed to enter the program at the same average age at hire and gender mix as active employees in the program at July 1, 2008.</p>		<b>RHCTF asset use</b>	<p>Beginning at July 1, 2015, RHCTF assets are used to pay the projected net annual benefit payments for Prop B employees only.</p>
<b>Plan experience</b>	<p>All plan experience is assumed to be in accordance with the July 1, 2008 valuation assumptions.</p>		<b>Return on assets in RHCTF</b>	<p>7.00% annually</p>

## Appendix

### Projection Methods

It is important to note, in an attempt to minimize the cost of the work, this analysis does not take into account any potential alteration in member retirement patterns due to a change in the offered benefit structure. This approach is very typical since projected retirement benefits for new hires will not begin for many years out in the future and hence are imprecise in nature.

If a more robust follow-up analysis attempted to contemplate such an alteration in behavior patterns, there would likely be two notable effects. The first effect would be that some employees would choose to delay retirement given the lower levels of benefits offered compared to the pre-Prop B structure. Given that the largest annual benefit levels are for pre-Medicare (i.e., under age 65) retirees, such a change in behavior would have a tendency to both lower the overall magnitude of benefits provided and extend the forecast working career over which those benefits are earned. The second effect relates to the nature of the Prop B benefit structure. Since Prop B benefits have step increases at various service tiers, one likely behavior modification would be for some participants to retire immediately after achievement of a particular service tier. To the extent that this behavior occurred, the effects on program liability and length of service career would be the opposite of those noted for the first effect.

# Appendix

## Overview of Key Valuation Assumptions and Methods

<b>Discount Rate</b>	4.25% (based on unfunded plan)	<b>Expected Claims</b>	Reset for all coverages; starting values at 7/1/2008: (Medicare/Non-Medicare) City Plan Medical: 9,374/1,522 City Plan Rx: 1,782/1,975 City Plan Expenses: 427/271 Kaiser: 9,488/3,446 Blue Shield: 10,332/3,072 HMO expenses: 12 Vision: 43	
<b>Payroll Growth</b>	4.25% annual growth in aggregate payroll for eligible employees		<b>Participation</b>	94% elect a medical plan at retirement Plan elections : ▪ City Plan: 10% ▪ Kaiser: 50% ▪ Blue Shield: 40%
<b>Medical Trends</b>	<p>Medical – 9.0% beginning in 2010/11 decreasing to 5.0% over the next 8 years</p> <p>10-County average – 7.0% beginning in 2010/11 decreasing to 5.0% over the next 4 years</p> <p>Vision/Expenses – 3.0% per year</p> <p>HCR add-on – 1% in FYE2011, 2.5% in FYE2019, 0.5% in FYE2020 (non-Medicare only)</p> <p>Actual rates used for first two years after valuation date</p>			
<b>Increase in Contributions</b>	Determined based on formula and component trend rates			

Please refer to the forthcoming full valuation report as of July 1, 2008 for more information.

# Appendix

## Overview of Key Valuation Assumptions and Methods

<b>Spousal coverage</b>	35% of all retirees will elect to cover a spouse or domestic partner	<b>Actuarial Cost Method</b>	Entry age normal, level percentage of pay
<b>Medicare eligibility</b>	All participants under age 65 (and all participants who have not yet commenced benefits, if over 65) will be eligible for Medicare	<b>Amortization Method</b>	30-year open amortization as a level percentage of pay
<b>Retirement</b>	Rates follow SFERS valuation. Updated rates for non-police/fire members.  Current and future vested terminated members are assumed to commence benefits at age 55	<b>Mortality</b>	Healthy – 1994 Group Annuity Mortality, follows SFERS valuation
<b>Turnover</b>	No change to rates of withdrawal; rates follow SFERS valuation.  Refund of contribution rates reflecting portion of those participants who leave prior to retirement eligibility and elect a refund of contributions from pension plan were introduced. Rates per SFERS valuation.		

Please refer to the forthcoming full valuation report as of July 1, 2008 for more information.

# Actuarial Certification

Mercer has prepared this report exclusively for the City and County of San Francisco to present the results of the projections of the AAL and ARC for the OPEB program reflecting benefits before and after the changes enacted by the 2008 Proposition B.

This presentation may not be relied upon for any other purpose or by any party other than the City & County of San Francisco or the program's auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

This report material includes or is derived from projections of future costs. To prepare these projections, various *actuarial assumptions*, as described in the appendix were used to project a single scenario from a range of possibilities. However, the future is uncertain, and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. This report has been created for a limited purpose, is presented at a particular point in time and should not be viewed as a prediction of the plan's future financial condition. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios. To prepare the results shown in this report, various *actuarial methods*, as described in the appendix were used.

Over time, a program's total cost will depend on a number of factors, including the amount of benefits the program pays, the number of people paid benefits, program expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

Because actual program experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios and not solely on the basis of a valuation report or reports.

To prepare this report, Mercer has used and relied on participant and cost data supplied by the City & County of San Francisco. We have reviewed the participant and cost data for internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the plan description supplied by the City & County of San Francisco. A summary of the data and program provisions is provided in our forthcoming actuarial valuation report as of July 1, 2008. The City & County of San Francisco is solely responsible for the validity, accuracy and comprehensiveness of this information. If the data or program provisions supplied are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information.

# Actuarial Certification

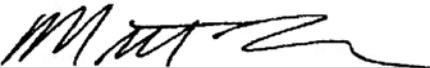
## *Actuarial Calculations, Methods and Assumptions*

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the program were determined in accordance with generally accepted actuarial principles and procedures using an actuarial cost method approved by the City & County of San Francisco. Certain actuarial assumptions, including discount rates and payroll increase assumptions, were selected by the City & County of San Francisco. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in our forthcoming actuarial valuation report as of July 1, 2008. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Board directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report fully and fairly discloses the actuarial position of the program on an ongoing basis.

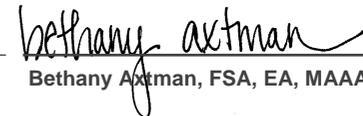
## *Professional Qualifications*

We are available to answer any questions on the material in this report or to provide explanations or further details as appropriate. Collectively, the undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

  
December 13, 2010  
Matthew R. Larrabee, FSA, EA, MAAA      Date

  
December 13, 2010  
Martin A. Miller, FSA, MAAA      Date

  
December 13, 2010  
Bethany Axtman, FSA, EA, MAAA      Date

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