

CITY OF SAUSALITO

**Actuarial Valuation of
Postemployment Health Care Benefits
Valuation Date: July 1, 2012**



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November 28, 2012

Mr. Charlie Francis
Administrative Services Director/Treasurer
City of Sausalito
420 Litho Street
Sausalito, CA 94965

Dear Mr. Francis:

Re: Actuarial Valuation of Postemployment Medical Program

The Nicolay Consulting Group is pleased to present the results of our July 1, 2012 actuarial valuation of the City of Sausalito postemployment health care program. In preparing this report, we relied on employee data and plan information provided by the City. On the basis of that information, this report has been prepared in accordance with generally accepted actuarial principles and methods. It is our opinion that the actuarial assumptions used are reasonably related to the actual experience of the plan and to anticipated future experience.

The financial projections presented in this report are intended for the City's internal use in evaluating the potential cost of the retiree medical program. Because future events frequently do not occur as expected, it should be recognized that there are usually differences between anticipated and actual results. These differences may be material, especially if there are significant changes in the employee or retiree population. Consequently, we can express no assurance that the projected values will occur. We recommend that the City obtain an updated actuarial valuation at least every three years.

I, the undersigned, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Questions about the report should be directed to Doug Tokerud at (800) 998-7675 x220.

Sincerely,

Nicolay Consulting Group

By: 
Douglas R. Tokerud, F.S.A.
Member, American Academy of Actuaries

CITY OF SAUSALITO

Actuarial Valuation of Postemployment Health Care Benefits

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Valuation Date: July 1, 2012

SECTION I

Introduction

The City of Sausalito provides postemployment healthcare benefits to certain retirees who satisfy plan eligibility requirements. This report provides a July 1, 2012 estimate of the present value of the City's postemployment medical benefits attributable to past service, illustrations of the impact of GASB 45 accounting requirements and a ten-year projection of the pay-as-you-go cost of providing the benefits. **Section II** contains valuation results. **Section III** describes the plan and presents a demographic summary. **Section IV** describes the actuarial assumptions used to complete the valuation. **Section V** is a Glossary of several of the terms used in this report.

Accounting Requirements

In July 2004 the Governmental Accounting Standards Board issued **Statement 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions**. This statement requires governmental entities to account for postemployment benefits on an accrual basis rather than the previously more common pay-as-you-go accounting. Each employee's benefit will "accrue" throughout their working lifetime and employers are now required to show the annual accruals as a current year expense.

Employers must adopt Statement 45 no later than the plan year that begins after December 15, 2006, 2007 or 2008 depending on the annual revenues of the entity. We understand the City of Sausalito adopted Statement 45 during the 2008/09 fiscal year.

SECTION II

Valuation Results

Table 2-1 contains estimates of the present value of the cost of postemployment medical and dental benefits for current retirees and employees who are expected to receive the benefit. The estimates in Table 2-1 are based on a 5.0% discount rate. The valuation date was July 1, 2012.

Tables 2-1 through 2-3 are based on the "entry age normal" actuarial cost method, and on 30 year amortization of the actuarial accrued liability (as a level percent of payroll.) Table 2-3 shows 5 years of estimated costs assuming continuation of "pay-as-you-go" funding.

Plan Changes

Certain Plan changes occurred effective for this July 1, 2012 valuation. First, the City's fire department was taken over by Marin County, and most of the liability for active firefighters has been eliminated. Second, the other active employees were permitted to opt out of this Plan and elect a defined contribution plan. These changes reduced the actuarial accrued liability by approximately \$1.0 million and reduced the annual expense by approximately \$350,000. No future hires will be covered under this Plan.

Table 2-1						
Present Value of Future Postemployment Health Benefits Attributable to Past Service And Annual OPEB Cost						
As of July 1, 2012						
Entry Age Normal Actuarial Cost Method						
Discount Rate: 5.0%						
	Fire	Police	SEIU	Unrepresented Employees	Total	
Actives	\$ 1,265,936	\$ 664,701	\$ 963,837	\$ 406,379	\$ 3,300,853	
Retirees and Spouses	<u>755,926</u>	<u>657,032</u>	<u>378,329</u>	<u>1,534,961</u>	<u>3,326,248</u>	
Actuarial Accrued Liability*	\$ 2,021,862	\$ 1,321,733	\$ 1,342,166	\$ 1,941,340	\$ 6,627,101	
Actuarial Value of Assets						0
Unfunded Actuarial Accrued Liability						\$ 6,627,101
Annual Level Percent of Payroll Amortization of Unfunded AAL						\$ 327,588
Normal Cost (based on Entry Age Normal Cost Method)						<u>185,260</u>
Annual Required Contribution (ARC)						\$ 512,848
Interest on Net OPEB Obligation						97,190
Adjustment to ARC (see Table 2-3)						<u>(96,085)</u>
Annual OPEB Cost						\$ 513,953
<i>*Includes dental of \$199,794</i>						

Comment: As discussed later in this report, we have assumed that the CalPERS medical plan is what is known as a "community rated" plan under GASB 45. This view is held by CalPERS and is, we believe, widely supported at present. In the event the accounting and/or actuarial professions, or CalPERS, should change this position in the future, or if CalPERS changes how it determines premium rates to more of an age based method, the estimated liabilities and costs would increase.

Projected Health Benefit Costs

Table 2-2 contains a ten-year projection of the City's pay-as-you-go cost to provide postemployment benefits to current and future retirees.

Table 2-2 Projected Future Annual pay-as-you-go Plan Cost of Postemployment Medical Benefits	
<u>Year</u>	<u>Estimated City Cost</u>
2012 / 13	\$ 202,304
2013 / 14	\$ 212,952
2014 / 15	\$ 227,808
2015 / 16	\$ 242,548
2016 / 17	\$ 262,831
2017 / 18	\$ 277,338
2018 / 19	\$ 301,470
2019 / 20	\$ 281,198
2020 / 21	\$ 291,240
2021 / 22	\$ 311,801

Health Benefit Costs Under GASB 45

The first year Annual Required Contribution (ARC) consists of the Normal Cost plus the current period amortization of the Unfunded Actuarial Accrued Liability.

Normal Cost is the portion of the actuarial present value of future benefits that is allocated to a particular year. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year. This valuation is based on the Entry Age Normal actuarial cost method and an attribution period that runs from date of hire until the expected retirement date. In the year the new accounting rules become effective an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability, over a period not to exceed 30 years. The following Tables are based on a level percent of projected payroll amortization over a closed 30-year period. Note: Statement 45 also allows amortization using a level dollar method.



Table 2-3 presents a five-year projection under the assumptions that the City continues to contribute the pay-as-you-go cost, the discount rate remains 5.0%, and that there will be no Normal Cost for future hires.

Table 2-3
City of Sausalito
Five-year Projection of Annual OPEB Cost and Net OPEB Obligation
Based on the Entry Age Normal Actuarial Cost Method, a 5.0.% discount rate and
assuming pay-as-you-go funding

	2012 / 13	2013 / 14	2014 / 15	2015 / 16	2016 / 17
Actuarial Accrued Liability (AAL)	\$ 6,627,101	\$ 6,936,416	\$ 7,246,900	\$ 7,555,037	\$ 7,859,734
Actuarial Value of Assets at beginning of year	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Unfunded Actuarial Accrued Liability (UAAL)	\$ 6,627,101	\$ 6,936,416	\$ 7,246,900	\$ 7,555,037	\$ 7,859,734
Remaining Amortization Period	26	25	24	23	22
Normal Cost	\$ 185,260	\$ 181,874	\$ 179,226	\$ 175,483	\$ 171,935
Amortization of UAAL	327,588	353,827	382,059	412,370	444,983
Annual Required Contribution (ARC)	\$ 512,848	\$ 535,701	\$ 561,285	\$ 587,853	\$ 616,918
Annual Required Contribution (ARC)	\$ 512,848	\$ 535,701	\$ 561,285	\$ 587,853	\$ 616,918
Interest on net OPEB Obligation	97,190	112,772	128,796	145,120	161,720
Adjustment to ARC	(96,085)	(115,050)	(135,803)	(158,419)	(183,117)
Annual OPEB Cost	\$ 513,953	\$ 533,423	\$ 554,278	\$ 574,554	\$ 595,521
City Contributions	(202,304)	(212,952)	(227,808)	(242,548)	(262,831)
Increase in net OPEB Obligation	\$ 311,649	\$ 320,471	\$ 326,470	\$ 332,006	\$ 332,690
Net OPEB Obligation - Beginning of Year	\$ 1,943,800	\$ 2,255,449	\$ 2,575,920	\$ 2,902,390	\$ 3,234,396
Net OPEB Obligation - End of Year	\$ 2,255,449	\$ 2,575,920	\$ 2,902,390	\$ 3,234,396	\$ 3,567,086

Note: the ARC adjustment is calculated by dividing the beginning of year net OPEB obligation by the same amortization factor used to amortize the Unfunded Actuarial Accrued Liability.



SECTION III

Plan Description and Demographic Summary

Eligibility and Contribution Requirements

We valued separately four employee groups: police, fire, SEIU Local 1021 and unrepresented employees. Fire employees and retirees are covered under a Marin County medical plan. The other groups are covered under the CalPERS medical program.

The three groups covered under CalPERS who retire at age 50 or over with at least 5 years of service receive benefits at least equal to the CalPERS minimum, which is equal to \$112 per month in 2012, and \$115 in 2013.

In addition, employees who retire after 20 years of service at or after age 50 for police and fire, and at or after age 55 for other employees, receive total medical benefits up to the Kaiser single retiree premium (including the CalPERS minimum if applicable.)

Spouses of retirees can also be covered, but the retiree is required to pay the spousal premiums. However, upon the death of a retiree covered under CalPERS, a surviving spouse continues to receive the CalPERS minimum benefit at no cost.

The City also pays/will pay for dental benefits for certain unrepresented retirees, and for two current active management employees after retirement. No other future retirees will receive City paid dental benefits.

Medical Plan Options

Eligible retirees may enroll in any of the available CalPERS medical plans or in the case of Fire retirees, any of the available Marin County plans.

Duration of Benefits

City provided benefits continue for the life of the retiree and surviving spouse.

Demographic Data

Tables 3-1 and 3-2 contain summaries of the demographic information provided by the City.

Table 3-1

**Age and Service Table of
Active Employees included in the valuation
as of July 1, 2012**

<u>Age</u>	<u>Years of Service</u>						<u>Total</u>
	<u><5</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
Under 25	0	0	0	0	0	0	0
25-29	3	1	0	0	0	0	4
30-34	1	2	0	0	0	0	3
35-39	2	1	4	0	0	0	7
40-44	1	2	2	2	1	0	8
45-49	2	2	1	1	1	0	7
50-54	0	2	0	1	0	2	5
55-59	1	0	3	0	0	2	6
60-64	0	0	0	0	1	0	1
65-69	0	0	0	0	0	0	0
70+	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	10	10	10	4	3	4	41

Table 3-2

**Age Table for
Retirees and Surviving Spouses Receiving Benefits
as of July 1, 2012**

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 50	1	0	1
50-54	0	0	0
55-59	5	3	8
60-64	5	4	9
65-69	5	0	5
70-74	3	3	6
75-79	2	0	2
80-84	1	2	3
85+	<u>0</u>	<u>2</u>	<u>2</u>
Total	22	14	36

SECTION IV

Actuarial Method and Assumptions

In order to project the City's liabilities into the future, a number of economic, demographic, and baseline cost assumptions are necessary. We used the same demographic actuarial assumptions as those used in the most recent California PERS pension valuations.

Valuation Date

The valuation date is July 1, 2012. This date is the starting point from which current costs are increased according to the assumed annual rates of health care cost trend. The City census is projected from the valuation date to the anticipated date of the final benefit payment for each employee and retiree on the census. After calculating future costs for the projected retiree and dependent population, all liabilities are discounted back to the valuation date to obtain the present value of future costs.

Economic Assumptions

Discount Rate

A discount rate is required to calculate the present value of future benefit payments which are used to determine financial statement expense. At the City's request, we used a 5.0% discount rate for this valuation. We believe this is a reasonable assumption as to the long term rate of return the City can expect to achieve on funds used to pay its postemployment healthcare obligation.

Baseline Cost

Estimates of retiree health benefit obligations are normally based on current costs for a one year period. We refer to this as the *baseline cost*. The components of baseline cost, such as average per capita cost, and the current plan population are projected into the future to estimate the cost of future benefits.

The large majority of City employees and retirees have elected Kaiser medical coverage. Also, the City paid benefits of all future retirees will be capped at Kaiser rates. Therefore, we have assumed that all future retirees will elect Kaiser coverage. For current retirees receiving a more expensive City paid coverage, we have included in our calculations such more expensive benefits.

Kaiser medical premiums for 2012 are shown in Table 4-1 below.

	Before Age 65		After Age 65	
	<u>Single</u>	<u>Married</u>	<u>Single</u>	<u>Married</u>
Fire	\$578.89	\$1,157.78	\$424.13	\$848.26
Other (CALPERS Bay Area)	610.44	1,220.88	277.81	288.37

For the few individuals who are receiving, or may receive in the future, City paid retiree dental coverage, we assumed the rate of \$54.22 per month for 2012, and that future dental premiums will increase 5% per year.

CalPERS has indicated that its medical program is a “community rated” plan as described in GASB 45. This means that all participating employers located in the same geographical region pay the same premium rates even though older employees and early retirees generally have higher medical costs than younger employees. If CalPERS changes its present practice and at a future date decides to modify the premium structure so that it charges more on average for non-Medicare retirees than for active employees, then higher costs would need to be allocated to retirees, and this could result in a substantial increase in the City’s Actuarial Accrued Liability and Annual Required Contribution. Please also see the related comment on page 2.

For the Fire retirees, we have *not* treated the medical plan as community rated, since it is a local (Marin County) plan. GASB 45 requires that, for plans which are not community rated, medical premium rates need to be “age graded” in order to reflect the fact that younger people have lower medical costs than older people. We used the following age graded premium rates to value the fire group, based on our own database and on a 2003 study sponsored by the Society of Actuaries.

Table 4-2

Rate charged for Employees and Retirees under Age 65	<u>Monthly</u> \$ 578.89
Corresponding Age Graded Rates	
<u>Age</u>	
25	\$ 341.67
35	\$ 492.67
45	\$ 680.33
55	\$ 934.33
60	\$ 1,115.17
64	\$ 1,314.58
65 and over*	\$ 424.13

*Since a separate rate is charged for retirees 65 and older (\$424.13) and there is much less cost variance after that age, the \$424.13 amount was used at ages 65 and over.

Contributions

Retirees are responsible for any premium costs in excess of the City's contribution.

Health Care Trend

The rate of increase in per capita health care costs is commonly referred to as the *health care trend rate*.

We assumed the following annual rates of increase in Kaiser medical premiums.

the Plan Year Beginning	Estimated Increase
January 1, 2013	7.3 %
January 1, 2014	7.0 %
January 1, 2015	6.7 %
January 1, 2016	6.4 %
January 1, 2017	6.1 %
January 1, 2018	5.8 %
January 1, 2019 and thereafter	5.5 %

We assumed the CalPERS minimum benefit (\$112 for 2012, \$115 for 2013) will increase 5% per year after 2012.

Payroll Increases

In this valuation we assumed a 3.25% annual rate of increase in City payroll. This rate is a component of the Entry Age Normal Actuarial Cost Method and is used in the calculation of the amortization component of the Annual Required Contribution and in calculation of the Normal Cost.

Amortization Methodology

GASB 45 allows amortization of the Unfunded Actuarial Accrued Liability based on a level dollar approach or as a level percentage of covered payroll. The maximum amortization period is 30 years. This valuation is based on a closed, 30-year amortization of the Unfunded Actuarial Accrued Liability as a level percentage of payroll; increasing each year as the payroll increases. Of the original 30 year amortization period, 26 years remain as of July 1, 2012.

Plan Assets

We understand that as of July 1, 2012, no portion of this obligation had been prefunded.

Demographic Assumptions

In estimating this obligation, a number of demographic assumptions are needed. These assumptions are the same as those used in the most recent California PERS valuation.

Withdrawal

This valuation is based on withdrawal rates used in the most recent California PERS Public Agency Miscellaneous retirement plan valuations. Selected rates are shown below.

Table 4-4
Public Agency Miscellaneous Withdrawal Rates

<u>Service</u>	----- Entry Age -----						
	20	25	30	35	40	45	50
0	0.17420	0.16740	0.16060	0.15370	0.14680	0.14000	0.13320
1	0.15450	0.14770	0.14090	0.13390	0.12710	0.12030	0.11350
2	0.13480	0.12800	0.12120	0.11420	0.10740	0.10060	0.09380
3	0.11510	0.10830	0.10150	0.09450	0.08770	0.08090	0.07410
4	0.09540	0.08860	0.08180	0.07480	0.06800	0.06120	0.05430
5	0.08680	0.07900	0.07110	0.06320	0.05540	0.01160	0.00970
6	0.08290	0.07510	0.06700	0.05920	0.05140	0.01030	0.00840
7	0.07900	0.07100	0.06310	0.05520	0.04710	0.00900	0.00720
8	0.07490	0.06700	0.05910	0.05100	0.04300	0.00770	0.00600
9	0.07100	0.06290	0.05480	0.04690	0.03890	0.00660	0.00490
10	0.06680	0.05870	0.05070	0.04270	0.00710	0.00550	0.00380
15	0.05030	0.04240	0.03470	0.00320	0.00230	0.00140	0.00040
20	0.03700	0.02900	0.00210	0.00130	0.00050	0.00010	0.00010
25	0.02290	0.00110	0.00050	0.00010	0.00010	0.00010	0.00010
30	0.00050	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
35	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00000

For Fire employees we used withdrawal rates used in the most recent California PERS Public Agency Fire 3% @55 retirement plan valuations. Selected rates are shown below.

**Table 4-5
Public Agency Fire Withdrawal Rates**

Completed Years of Service	Fire Safety
0	0.09470
1	0.07390
2	0.05310
3	0.03230
4	0.02900
5	0.02570
6	0.02230
7	0.01890
8	0.01560
9	0.01230
10	0.00900
15	0.00790
20	0.00690
25	0.00570
30	0.00540
35	0.00090

For Police employees we used withdrawal rates used in the most recent California PERS Public Agency Police 3% @55 retirement plan valuations. Selected rates are shown below.

Table 4-6
Public Agency Police Withdrawal Rates

<u>Service</u>	-----Age-----						
	20	25	30	35	40	45	50
0	0.1013	0.1013	0.1013	0.1013	0.1013	0.1013	0.1013
1	0.0636	0.0636	0.0636	0.0636	0.0636	0.0636	0.0636
2	0.0271	0.0271	0.0271	0.0271	0.0271	0.0271	0.0271
3	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258
4	0.0245	0.0245	0.0245	0.0245	0.0245	0.0245	0.0245
5	0.0249	0.0249	0.0249	0.0249	0.0249	0.0249	0.0086
6	0.0000	0.0236	0.0236	0.0236	0.0236	0.0236	0.0079
7	0.0000	0.0221	0.0221	0.0221	0.0221	0.0221	0.0072
8	0.0000	0.0208	0.0208	0.0208	0.0208	0.0208	0.0066
9	0.0000	0.0193	0.0193	0.0193	0.0193	0.0193	0.0059
10	0.0000	0.0179	0.0179	0.0179	0.0179	0.0179	0.0053
15	0.0000	0.0000	0.0109	0.0109	0.0109	0.0109	0.0027
20	0.0000	0.0000	0.0000	0.0082	0.0082	0.0082	0.0017
25	0.0000	0.0000	0.0000	0.0000	0.0070	0.0070	0.0012
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0065	0.0009
35	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009

Retirement Rates

For Miscellaneous employees we used the retirement rates in Table 4-7. These rates match Service Retirement rates used in the most recent California PERS Public Agency Miscellaneous 2% @55 pension valuation.

Table 4-7
PERS Public Agency Miscellaneous - Annual Rates of Retirement

Age	----- Years of Service -----						
	5	10	15	20	25	30	35
50	0.0261	0.0333	0.0404	0.0475	0.0546	0.0618	0.0689
51	0.0206	0.0263	0.0319	0.0375	0.0431	0.0488	0.0544
52	0.0206	0.0263	0.0319	0.0375	0.0431	0.0488	0.0544
53	0.0261	0.0333	0.0404	0.0475	0.0546	0.0618	0.0689
54	0.0426	0.0543	0.0659	0.0775	0.0891	0.1008	0.1124
55	0.0880	0.1120	0.1360	0.1600	0.1840	0.2080	0.2320
56	0.0550	0.0700	0.0850	0.1000	0.1150	0.1300	0.1450
57	0.0605	0.0770	0.0935	0.1100	0.1265	0.1430	0.1595
58	0.0715	0.0910	0.1105	0.1300	0.1495	0.1690	0.1885
59	0.0825	0.1050	0.1275	0.1500	0.1725	0.1950	0.2175
60	0.0880	0.1120	0.1360	0.1600	0.1840	0.2080	0.2320
61	0.0825	0.1050	0.1275	0.1500	0.1725	0.1950	0.2175
62	0.1210	0.1540	0.1870	0.2200	0.2530	0.2860	0.3190
63	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
64	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
65	0.1430	0.1820	0.2210	0.2600	0.2990	0.3380	0.3770
66	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
67	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
68	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
69	0.1045	0.1330	0.1615	0.1900	0.2185	0.2470	0.2755
70	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
71	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
72	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
73	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
74	0.1254	0.1596	0.1938	0.2280	0.2622	0.2964	0.3306
75	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

For Fire Safety employees we used the rates in Table 4-8. These rates match Service Retirement rates used in the most recent California PERS Public Agency Firefighter 3% @55 pension valuation.

Table 4-8
PERS Fire Safety - Annual Rates of Retirement

<u>Age</u>	----- Years of Service -----						
	5	10	15	20	25	30	35
50	0.0120	0.0120	0.0120	0.0180	0.0280	0.0330	0.0330
51	0.0080	0.0080	0.0080	0.0120	0.0190	0.0220	0.0220
52	0.0180	0.0180	0.0180	0.0270	0.0420	0.0500	0.0500
53	0.0430	0.0430	0.0430	0.0620	0.0980	0.1140	0.1140
54	0.0570	0.0570	0.0570	0.0830	0.1310	0.1520	0.1520
55	0.0920	0.0920	0.0920	0.1340	0.2110	0.2460	0.2460
56	0.0810	0.0810	0.0810	0.1180	0.1870	0.2180	0.2180
57	0.1000	0.1000	0.1000	0.1460	0.2300	0.2680	0.2680
58	0.0810	0.0810	0.0810	0.1190	0.1870	0.2190	0.2190
59	0.0780	0.0780	0.0780	0.1130	0.1780	0.2080	0.2080
60	0.1170	0.1170	0.1170	0.1695	0.2670	0.3120	0.3120
61	0.0780	0.0780	0.0780	0.1130	0.1780	0.2080	0.2080
62	0.0975	0.0975	0.0975	0.1413	0.2225	0.2600	0.2600
63	0.0780	0.0780	0.0780	0.1130	0.1780	0.2080	0.2080
64	0.0780	0.0780	0.0780	0.1130	0.1780	0.2080	0.2080
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000



For Police employees we used the same retirement rates as those used in the most recent California PERS Public Agency Police 3% @55 retirement plan valuation. Sample rates are shown below.

Age	----- Years of Service -----						
	5	10	15	20	25	30	35
50	0.0190	0.0190	0.0190	0.0190	0.0040	0.0060	0.0060
51	0.0240	0.0240	0.0240	0.0240	0.0490	0.0740	0.0740
52	0.0240	0.0240	0.0240	0.0240	0.0510	0.0770	0.0770
53	0.0590	0.0590	0.0590	0.0590	0.1210	0.1830	0.1830
54	0.0690	0.0690	0.0690	0.0690	0.1420	0.2150	0.2150
55	0.1160	0.1160	0.1160	0.1160	0.2400	0.3630	0.3630
56	0.0760	0.0760	0.0760	0.0760	0.1560	0.2360	0.2360
57	0.0580	0.0580	0.0580	0.0580	0.1200	0.1810	0.1810
58	0.0760	0.0760	0.0760	0.0760	0.1570	0.2370	0.2370
59	0.0940	0.0940	0.0940	0.0940	0.1930	0.2920	0.2920
60	0.1410	0.1410	0.1410	0.1410	0.2895	0.4380	0.4380
61	0.0940	0.0940	0.0940	0.0940	0.1930	0.2920	0.2920
62	0.1175	0.1175	0.1175	0.1175	0.2413	0.3650	0.3650
63	0.0940	0.0940	0.0940	0.0940	0.1930	0.2920	0.2920
64	0.0940	0.0940	0.0940	0.0940	0.1930	0.2920	0.2920
65	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Mortality

The mortality rates used in this valuation are those used in the most recent California PERS pension valuations. These rates provide a starting point for the projection of future mortality rates. The mortality rates for each future year were determined based on a generational mortality projection using Projection Scale AA. This scale consists of a set of Annual Mortality improvement factors as a function of age and sex. The resulting projected mortality rates were applied to each employee and retiree.

Table 4-7
Sample Mortality Rates
 (prior to the application of Projection Scale AA)

<u>Age</u>	<u>Active Employees</u>		<u>Retired Employees</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	0.260%	0.176%	0.474%	0.243%
60	0.395%	0.266%	0.720%	0.431%
65	0.608%	0.419%	1.069%	0.775%
70	0.914%	0.649%	1.675%	1.244%
75			3.080%	2.071%
80			5.270%	3.749%
85			9.775%	7.005%
90			16.747%	12.404%

Disability Retirement

Sample disability rates for Public Agency Fire employees are shown below. These rates match those used in the most recent California PERS pension valuation.

Table 4-11
Public Agency Fire Safety Annual Rates of Disability

<u>Age</u>	
25	0.130%
30	0.262%
35	0.382%
40	0.502%
45	0.632%
50	0.760%
55	6.312%

Sample disability rates for Public Agency Police employees are shown below. These rates match those used in the most recent California PERS pension valuation.

Table 4-12
Public Agency Police Safety Annual Rates of Disability

<u>Age</u>	
25	0.332%
30	0.664%
35	0.996%
40	1.328%
45	1.660%
50	2.001%
55	6.812%

Because of the low incidence of disability retirements for non-Safety employees we did not value disability retirement for non-Safety employees.

Health Plan Participation

We assumed that 100% of future eligible retirees will enroll in one of the offered medical plans and that 70% of future fire retirees and 80% of others will enroll a spouse.

Medicare Coverage

We assumed that all retirees will be eligible for Medicare when they reach age 65.

SECTION V

Glossary

- Accrual Accounting – A method of matching the cost of an employee's service, including long term obligations such as OPEB, to that employee's period of active service.
- Actuarial Accrued Liability (AAL) – The Actuarial Present Value of all postemployment benefits attributable to past service. Note: the AAL is sometimes referred to as the Past Service Liability.
- Actuarial Cost Method – A procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
- Actuarial Present Value – The value of an amount or series of amounts payable or receivable at various times. Each such amount or series of amounts is:
 - a. adjusted for the probable financial effect of certain intervening events (such as changes in healthcare costs, compensation levels, Medicare, marital status, etc.)
 - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
 - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money
- Actuarial Valuation – The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values.
- Actuarial Value of Assets – The value of cash, investments and other property belonging to a plan. These are amounts that may be applied to fund the Actuarial Accrued Liability. Note: assets must be segregated and placed in a Trust in order to be considered OPEB assets

- Amortization Payment – That portion of the Annual OPEB cost which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

In the year that Statement 45 becomes effective an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability, over a period not to exceed 30 years.

- Annual Other Postemployment Benefit (OPEB) Cost - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. The annual OPEB cost is the amount that must be calculated and reported as an expense.

When an employer has no net OPEB obligation (e.g., in the year of implementation) the annual OPEB cost is equal to the Annual Required Contribution (ARC).

In subsequent years the Annual OPEB cost will include:

- the ARC (equal to the Normal Cost plus one year's amortization of the Unfunded Actuarial Accrued Liability);
 - one year's interest on the net OPEB obligation at the beginning of the year using the valuation discount rate; and
 - an adjustment to the ARC. This adjustment is intended to provide a reasonable approximation of that portion of the ARC that consists of interest associated with past contribution deficiencies. GASB Statement No. 45 specifies that this adjustment should be equal to an amortization of the discounted present value of the net OPEB obligation at the beginning of the year. The amortization should be calculated using the same amortization method and period used in determining the ARC for that year. If the net OPEB obligation is positive the adjustment should be deducted from the ARC.
 - Note: As long as the net OPEB obligation is zero, there will not be any interest charge or adjustment to the ARC. However, if an employer does not contribute the full amount of the ARC, a net OPEB obligation will emerge.
- Annual required contributions of the employer (ARC) - The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
 - Defined benefit OPEB plan - An OPEB plan having terms that specify the *benefits* to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors, such as age, years of service, and compensation), or as a type or

level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

- Defined contribution plan - A pension or OPEB plan having terms that (a) provide an individual account for each plan member and (b) specify how contributions to an active plan member's account are to be determined, rather than the income or other benefits the member or his beneficiaries are to receive at or after separation from employment. Those benefits will depend only on the amounts contributed to the member's account, earnings on investments of those contributions, and forfeitures of contributions made for other members that may be allocated to the member's account. For example, an employer may contribute a specified amount to each active member's postemployment healthcare account each month. At or after separation from employment, the balance of the account may be used by the member or on the member's behalf for the purchase of health insurance or other healthcare benefits.
- Employer's contributions - Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.
- Entry Age Normal Actuarial Cost Method – An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost.
- Healthcare cost trend rate - The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
- Investment return assumption (discount rate) - The rate used to adjust a series of future payments to reflect the time value of money.
- Net OPEB obligation - The cumulative difference since the effective date of GASB Statement 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

Most employers will have no net OPEB obligation at the beginning of the year in which Statement 45 is implemented.

If an employer contributes the annual OPEB cost to the plan each year, and there are no actuarial or investment gains or losses then the net OPEB Obligation will remain zero.

- Normal Cost - That portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Another interpretation is that the Normal Cost is the present value of future benefits that are “earned” by employees for service rendered during the current year.
- OPEB assets - The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expenses.
- OPEB expense - The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.
- Other postemployment benefits (OPEB) - Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, except benefits defined as special termination benefits.
- Plan assets - Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or in an equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.
- Present Value – See Actuarial Present Value.
- Projected Unit Credit Cost Method – An actuarial cost method under which the projected benefits of each individual included in an Actuarial Valuation are separately calculated and allocated to each year service by a consistent formula.
- Substantive plan - The terms of an OPEB plan as understood by the employer(s) and plan members.
- Unfunded Actuarial Accrued Liability (UAAL) – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
- Valuation date – The date as of which the postemployment benefit obligation is determined.