



Ben Rosenfield
Controller

Monique Zmuda
Deputy Controller

MEMORANDUM

TO: Mayor Edwin Lee
Members of the Board of Supervisors

FROM: Ben Rosenfield, Controller *BR*

DATE: November 20, 2012

SUBJECT: Report on Retiree (Postemployment) Medical Benefit Costs

I am providing with this letter an updated valuation 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 Cheiron, Inc., the actuarial consulting firm that also provides services to the San Francisco Employee Retirement System. This letter briefly summarizes the analysis and the attached package includes Cheiron's July 1, 2010 Postretirement Health Plan Actuarial Valuation Report and a slide presentation illustrating the findings.

Executive Summary

- The City's unfunded actuarial liability for other post-employment health benefits (OPEB) reported in the July 1, 2010 valuation report is \$4.42 billion. This number represents the future cost of providing retiree health benefits earned by employees and retirees as of that date, net of a modest balance of \$3.2 million in the Retiree Health Care Trust Fund.
- This unfunded liability estimate is largely unchanged from the prior study performed two years ago, despite inflationary impacts that would otherwise be expected to increase it. This is largely due to lower than expected medical inflation during this past two years, a long-term assumption that medical inflation will be marginally lower in future years, and some reductions from steps the City has taken in recent years to reduce costs for new employees.

- Until recently, the City paid strictly for retiree medical benefits on a ‘pay-as-you-go’ basis, which means paying the cost of the retiree health benefits as they become due each year. As a sound financial management practice, it would be preferable to set-aside funds for these benefits as they are earned, investing those funds in an interest bearing account. It is assumed that over time, pre-funded assets will earn investment income that will be used to pay a portion of future benefit costs, reducing costs to future taxpayers and employees accordingly.
- As a result of Proposition B (2008) and Proposition C (2011), the City has taken important steps in this direction in recent years, which will slow the rate of growth of the City’s unfunded liability in coming years. Beginning in 2009, the City and newly-hired employees contribute to a Retiree Health Care Trust Fund, which will be used to pay for future costs of a lower retiree health benefit level. Beginning in 2016, additional contributions to this fund on behalf of pre-2009 hires will also be required by both employees and the City.
- Given the scale of the overall benefit costs and previously accumulated liability, these pre-funded contributions are modest and will phase in gradually, as the workforce changes over many years. For fiscal year 2012, the City’s pay-as-you-go expense was \$151 million and contributions to the Retiree Health Care Trust Fund were \$4.8 million. The City’s unfunded liability will continue to grow for many years, albeit at a slower rate, given that the City’s and employees’ prefunding contributions are less than the interest due on the accumulated liability. The Controller’s Office is available to work on a broader prefunding strategy that builds on these important steps from the past several years.
- As with all long-term projections, the City’s unfunded actuarial liability for OPEB reported in the valuation report incorporates assumptions about the probability of events far into the future including the rate of return on investments, employee counts and wage rates, mortality rates and healthcare cost trends. The most significant driver of these projections is the future medical inflation assumption. To the extent that medical inflation exceeds these assumptions, the unfunded liability will increase, while to the extent that the City can control future inflationary increases, future costs will be lower than projected.

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

cc: Department Heads
Labor Organizations



City and County of San Francisco

**July 1, 2010
Postretirement Health Plan
Actuarial Valuation Report**

Produced by [Cheiron](#)

November 2012

Table of Contents

| | |
|---|-----------|
| Letter of Transmittal | i |
| Section I - Introduction | 1 |
| Section II - Valuation Results and Future Projections..... | 2 |
| Section III - Reconciliation with Prior Results..... | 8 |
| Section IV - Sensitivity of Trends | 10 |
| Section V - Accounting Disclosures | 12 |
| Appendix A – Participant Data, Assumptions and Methods | 16 |
| Appendix B – Substantive Plan Provisions..... | 31 |
| Appendix C – Glossary of Terms | 36 |
| Appendix D – Abbreviation List..... | 38 |

November 20, 2012

Mr. Ben Rosenfield
Controller
City and County of San Francisco
City Hall Room 316
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Mr. Rosenfield:

As requested, we have performed an actuarial valuation of the postretirement health benefits provided by the City and County of San Francisco Postretirement Health Plan as of July 1, 2010. The following report contains our findings and information for disclosures required by the Governmental Accounting Standards Board Statements No. 43 and 45 (GASB 43 and 45) for the fiscal years ending June 30, 2012 and June 30, 2013. This is the first valuation of the Plan performed by Cheiron. Valuation results as of July 1, 2008 and earlier were derived from the prior actuary's reports and the City's historical financial statements.

As of July 1, 2010, the Plan's actuarial liability was approximately \$4,420.1 million. Since the valuation as of July 1, 2008, there were changes in plan benefits and assumptions as well as demographic experience, which had a combined effect of reducing the Plan's actuarial liability by approximately \$607.9 million.

In 2009, the City began to pre-fund its obligations and subsequently the Plan created an irrevocable trust, the Retiree Health Care Trust Fund. As of July 1, 2010, the market value of assets (set aside in an agency fund) was just over \$3 million. The Annual Required Contributions (ARC) for the 12 months ending June 30, 2012 amounts to \$397.9 million, compared to \$384.3 million for the previous year. Please see the tables in this report for additional information.

The purpose of this report is to present the biennial actuarial valuation of the City and County of San Francisco Postretirement Health Plan. This report is for the use of the City and County of San Francisco and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

Appendix A describes the participant data, assumptions, and methods used in calculating the figures throughout the report. In preparing our report, we relied without audit, on information (some oral and some written) supplied by the City and County. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice #23.



Appendix B contains a summary of the substantive plan provisions based on documentation provided by and discussions with the City and County of San Francisco's staff.

The results of this report are based on future experience conforming to the actuarial assumptions used. The results will change to the extent that future experience differs from the assumptions. Actuarial computations are calculated based on our understanding of GASB 43 and 45 and are for purposes of fulfilling employer financial accounting requirements. Determinations for purposes other than meeting employer financial accounting requirements may be significantly different from the results in this report.

This report reflects future changes in benefits, penalties or taxes, or administrative costs that may be required as a result of the Patient Protection and Affordable Care Act of 2010 related legislation and regulations only to the extent described in Appendix A.

We hereby certify that, to the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This actuarial valuation report was prepared solely for the City and County of San Francisco for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. This valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Sincerely,
Cheiron



Margaret A. Tempkin, FSA, EA, MAAA
Principal Consulting Actuary



William R. Hallmark, ASA, FCA, EA, MAAA
Consulting Actuary

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION I
INTRODUCTION**

The City and County of San Francisco engaged Cheiron to provide a valuation of its Postretirement Health Plan's liability as of July 1, 2010. The primary purposes of performing this actuarial valuation are to:

- Determine the Annual Required Contribution (ARC), Annual OPEB Cost (AOC), and the Net Other Postemployment Benefit (OPEB) Obligation (NOO) of the Postretirement Health Plan under GASB 43 and 45 for the fiscal years ending June 30, 2012 and June 30, 2013;
- Provide information for financial statement disclosures under GASB 43 and 45;
- Provide projections of contributions, assets, actuarial liability, ARC, and NOO to illustrate the long-term effect of the contribution strategy; and
- Show the sensitivity of the valuation results to changes in health trend assumptions.

Funding Policy

The San Francisco Retiree Health Care Trust Fund (RHCTF) was established in December 2010 by the Retiree Health Trust Fund Board of the City and County of San Francisco. The trust was established to receive employer and employee contributions prescribed by the Charter for the purpose of pre-funding certain postretirement health benefits. Proposition B requires employees hired on or after January 10, 2009 to contribute 2% of pay and the employer to contribute 1% of pay. Between January 10, 2009 and the establishment of the RHCTF, contributions were set aside and deposited into the RHCTF when it was established. For purposes of this valuation, the amounts set aside are generally treated as assets of the Plan.

Proposition C requires all employees hired on or before January 9, 2009 to contribute 0.25% of pay to the Retiree Health Care Trust Fund commencing July 1, 2016, increasing annually by 0.25% to a maximum of 1.0% of pay. The employer is required to contribute an equal amount. Estimates of these contribution amounts are included in the projections within this report.

The Retiree Health Care Trust Fund is currently invested in short-term fixed income securities. It is our understanding that once the Trust reaches \$25 million in assets, it is intended to be invested similarly to the City and County of San Francisco Employees' Retirement System. Consequently, solely for the purposes of the projections shown in this report, we have assumed that once the Trust reaches \$25 million, its assets will be expected to earn annual investment returns of 7.5%.

The Retiree Health Care Trust Fund may not pay benefits from the Trust before January 1, 2020.

SECTION II
VALUATION RESULTS, HISTORICAL TRENDS AND FUTURE PROJECTIONS

Valuation Results

Below is a summary of the key results of the valuation:

- The Annual Required Contribution (ARC) under GASB 43 and 45 is \$397.9 million and \$408.7 million for the fiscal years ending June 30, 2012 and June 30, 2013 respectively.
- The Annual OPEB Cost (AOC) under GASB 45 is \$405.9 million and \$418.5 million for the fiscal years ending June 30, 2012 and June 30, 2013 respectively.
- The Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2012 is \$1,348.9 million, and for the fiscal year ending June 30, 2013, it is estimated to be \$1,598.3 million depending on actual contributions during the fiscal year.
- The actuarial liability under the Entry Age Normal Actuarial Cost Method as of July 1, 2010 is \$4,420.1 million.
- The figures provided in this report are highly sensitive to the assumptions used.

These results as of July 1, 2010 include an assessment of most recent claims and demographic experience. The change in liabilities from the prior valuation reflects a number of factors, including: updated census, benefit changes, changes in assumptions, variations in experience since the prior valuation, and updated claims cost analysis.

The remainder of this report provides additional details on our analysis. First, we present the results of our baseline actuarial study, followed by a historical overview of the Plan's key measurements and a projection of liabilities and expense into the future. This is followed by a reconciliation of our results to the prior actuarial results. We then introduce sensitivity analyses to the funding policy. Finally, we conclude with information for the required GASB 43 and 45 financial statement disclosures.

The fundamental principal underlying our analysis, as well as the GASB standard, is that the cost of the plan's benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. The *normal cost* (which is a component of the *ARC*) is the annual amount that is expected to be sufficient to fund the substantive plan benefits (net of retiree contributions) if it were paid from each employee's date of hire until termination or retirement. For an individual, the normal cost is designed to be a level percentage of pay throughout their career and represents the cost allocated to the next year of service. The *actuarial liability* represents the portion of the value of projected benefits that is allocated to service earned prior to the valuation date. That is, it represents the accumulation of past normal costs from date of hire until the valuation date. The *unfunded actuarial liability* (UAL) represents the excess of the actuarial liability over plan assets.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION II
VALUATION RESULTS, HISTORICAL TRENDS, AND FUTURE PROJECTIONS

Information about the actuarial liability of the Plan as of July 1, 2008 and July 1, 2010 compared to plan assets is shown in Table II-1 below.

| Table II-1 | | |
|--|----------------------|----------------------|
| Actuarial Liability | | |
| | July 1, 2008 | July 1, 2010 |
| Discount Rate | 4.25% | 4.25% |
| 1. Actives | \$ 1,848,722,132 | \$ 2,045,612,185 |
| 2. Terminated Vested Members | 531,275,441 | 381,447,961 |
| 3. Retirees | <u>1,984,275,165</u> | <u>1,993,085,681</u> |
| 4. Total Actuarial Liability (1 + 2 + 3) | 4,364,272,738 | 4,420,145,827 |
| 5. Assets* | <u>(0)</u> | <u>(3,194,672)</u> |
| 6. Unfunded Actuarial Liability (4 + 5) | 4,364,272,738 | 4,416,951,155 |
| 7. Funding Ratio (5 ÷ 4) | 0.0% | 0.1% |

* Assets shown as of July 1, 2010 were set aside for the RHCTF and contributed when it was established in December 2010

The valuation is performed as of July 1, 2010 and those results are then projected forward to the first day of the fiscal year for which the annual required contribution (ARC) is determined. In Table II-2 below, the projection of the actuarial liability from the valuation date to the beginning of each of the next two fiscal years is shown.

| Table II-2 | | |
|---|-------------------------|-------------------------|
| Projected Actuarial Liability | | |
| | July 1, 2011 | July 1, 2012 |
| 1. Actuarial Liability (Beginning of prior year) | \$ 4,420,145,833 | \$ 4,694,122,489 |
| 2. Total Normal Cost | 233,656,560 | 236,663,144 |
| 3. Projected Benefit Payments | (149,309,821) | (151,300,727) |
| 4. Interest | <u>189,629,916</u> | <u>194,707,643</u> |
| 5. Projected Actuarial Liability (1 + 2 + 3 + 4) | \$ 4,694,122,489 | \$ 4,974,192,549 |
| 6. Assets | <u>(8,541,521)</u> | <u>(17,846,561)</u> |
| 7. Projected Unfunded Actuarial Liability (5 + 6) | \$ 4,685,580,968 | \$ 4,956,345,988 |
| 8. Amortization Factor | 28.38 | 28.38 |
| 9. Unfunded Actuarial Liability Amortization (7/8) | \$ 165,084,368 | \$ 174,624,076 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION II
VALUATION RESULTS, HISTORICAL TRENDS, AND FUTURE PROJECTIONS

The ARC consists of two parts: (1) the *employer normal cost*, which represents the annual cost attributable to service earned in a given year less employee contributions, and (2) amortization of the UAL, which is based on a rolling 30-year amortization period. In Table II-3 below, the calculation of the ARC for fiscal years ending June 30, 2012 and June 30, 2013 is shown.

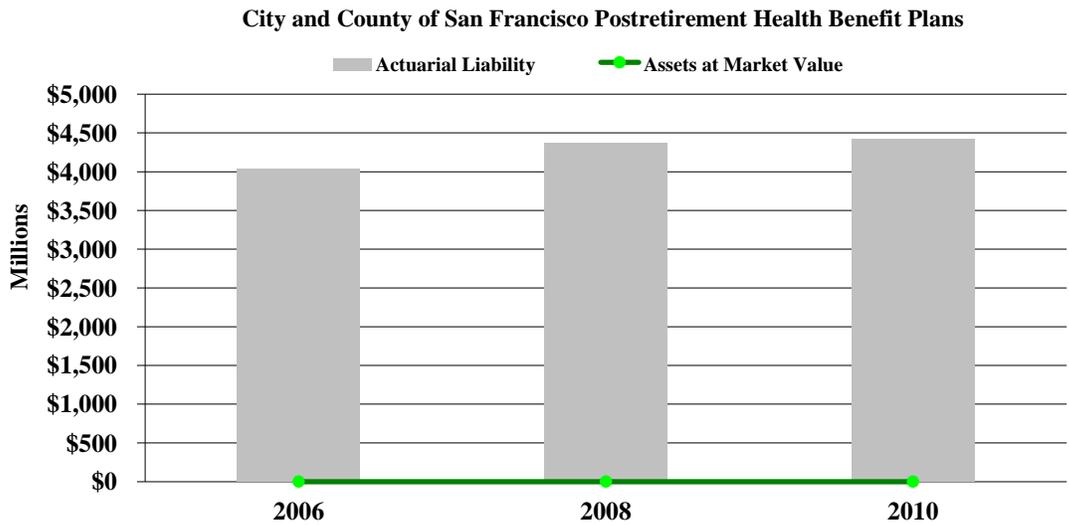
| Table II-3 | | |
|--|-----------------------|-----------------------|
| Annual Required Contribution | | |
| | FYE 2012 | FYE 2013 |
| 1. Total Normal Cost | \$ 236,663,144 | \$ 240,447,075 |
| 2. Less Expected Employee Contribution | <u>(3,885,292)</u> | <u>(6,335,717)</u> |
| 3. Employer Normal Cost (1 + 2) | 232,777,852 | 234,111,358 |
| 4. Unfunded Actuarial Liability Amortization | <u>165,084,368</u> | <u>174,624,076</u> |
| 5. Annual Required Contribution (3 + 4) | \$ 397,862,220 | \$ 408,735,434 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION II
VALUATION RESULTS, HISTORICAL TRENDS, AND FUTURE PROJECTIONS

Historical Trends

The chart below shows the historical trend of assets and liabilities on a GASB 45 basis for the City and County of San Francisco Postretirement Health Benefit Plan. The first valuation complying with GASB 45 was performed as of July 1, 2006. The City established the San Francisco Retiree Health Care Trust Fund (RHCTF) in December 2010 to fund its OPEB liabilities and this valuation is the first to provide GASB 43 information.



| | 2006 | 2008 | 2010 |
|--|-----------|-----------|-----------|
| Funded Ratio | 0.0% | 0.0% | 0.0% |
| UAL/(Surplus) <i>(in millions)</i> | \$4,036.3 | \$4,364.3 | \$4,420.1 |
| Discount Rate | 4.50% | 4.25% | 4.25% |

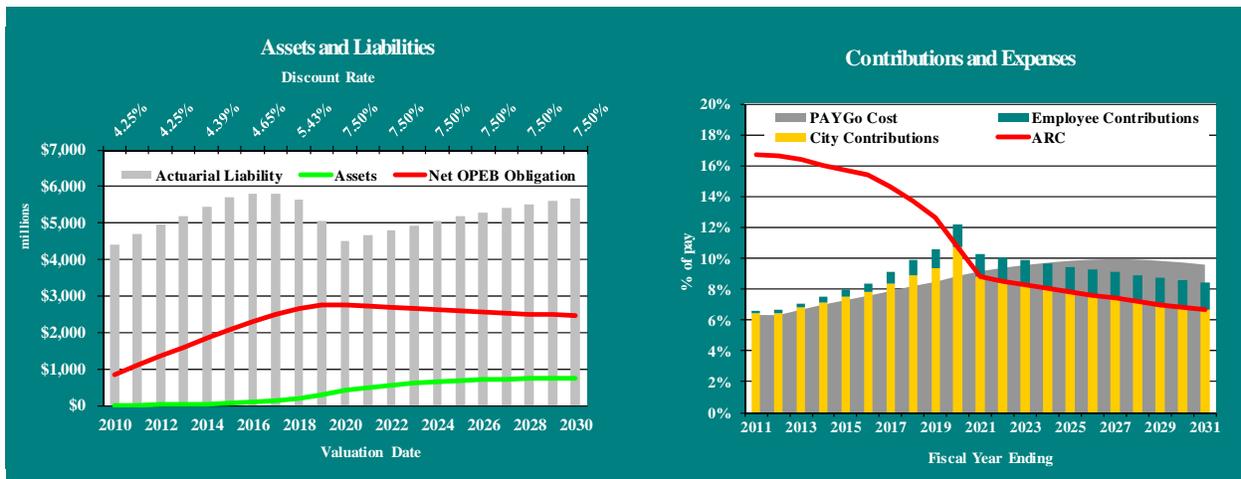
* 2006 was the first GASB 45 valuation.

** As of July 1, 2010, there were approximately \$3.2 million in assets set aside for the Postretirement Health Plan, but the RHCTF was not established until August 30, 2010.

SECTION II
 VALUATION RESULTS, HISTORICAL TRENDS, AND FUTURE PROJECTIONS

Projected Trends

Looking beyond the fiscal year ending 2013, the ARC is expected to decrease as contributions under Propositions B and C increase and assets are projected to be invested similarly to those of the Retirement System. The charts below project the assets and liabilities as well as the contributions and accounting expenses for the 20 years following the valuation date. These projections are based on the current valuation assumptions, except as indicated below.



The chart on the left shows the projected actuarial liability (gray bars) increasing for several years. As contributions grow and the assets are invested in a diversified portfolio, the discount rate is expected to increase causing a decrease in the measure of the actuarial liability. The blended discount rate assumed for these projections is shown along the top of the chart. Once the discount rate reaches 7.5%, it remains level and the actuarial liability is projected to continue growing. The actuarial liability begins at approximately \$4,420 million and is projected to end over \$5,684 million after 20 years.

The red line on the same chart projects the NOO. It first increases from \$853 million to just under \$2,760 million in 2020 when the full ARC is projected to be contributed, and then starts to decrease slowly ending at approximately \$2,455 million in 2030.

The green line shows the projected accumulation of assets. As directed by the City, these projections include an anticipated investment policy, once the fund reaches \$25 million in assets, that results in an assumed rate of return of 7.5%. Currently, there is no formal investment policy.

The chart on the right shows the annual costs. Benefit payments, net of retiree contributions, are shown by the gray area and are projected to increase from 6.3% to 9.9% of pay, and then slightly decrease to approximately 9.6% of pay due in part to the changes made by Proposition B. The yellow bars represent the City’s contributions as a percent of payroll, and the teal bars represent the employee contributions as a percent of payroll. The City’s contribution is based on the pay-as-you-go cost plus the contributions to the RHCTF required by Propositions B and C until the

SECTION II
VALUATION RESULTS, HISTORICAL TRENDS, AND FUTURE PROJECTIONS

contribution amount reaches the full ARC. At that time it is assumed that the City continues to contribute the ARC and the pay-as-you-go costs are paid from the RHCTF. As a result, the City’s contribution is expected to grow from 6.4% of payroll in fiscal year ending 2011 to about 10.2% of pay after approximately 10 years, and then decrease to approximately 6.7% of payroll by the end of the projection period. The employee’s contribution is anticipated to increase from approximately 0.2% to 1.8% of payroll by the end of the projection period. Note the employee contribution rate will eventually reach 2% of pay, as Proposition B becomes fully phased-in. The ARC, shown by the red line, is projected to decrease from 16.7% in fiscal year ending June 30, 2011 to 6.6% in fiscal year ending June 30, 2031. The reduction is a result of the plan phasing into fully funding the ARC, thus valuing liabilities at a discount rate of 7.5%, based on the expected long-term return on plan assets as opposed to the current 4.25% discount rate.

Table II-4 shows the expected benefit payments, or “pay as you go”, net of retiree contributions, for the 15 fiscal years following the valuation date. In calculating the liability of the plan, these figures are projected for the life of each existing participant.

| Table II-4 | | | | | |
|--------------------------------------|---------------------|--------------------|---------------------|--------------------|---------------------|
| Expected Net Benefit Payments | | | | | |
| Fiscal Year | Expected Net | Fiscal Year | Expected Net | Fiscal Year | Expected Net |
| Ending | Benefit | Ending | Benefit | Ending | Benefit |
| June 30 | Payments | June 30 | Payments | June 30 | Payments |
| 2011* | \$145,756,000 | 2016 | \$212,164,198 | 2021 | \$312,421,178 |
| 2012* | 151,300,727 | 2017 | 229,275,353 | 2022 | 332,476,627 |
| 2013 | 165,968,602 | 2018 | 248,680,464 | 2023 | 351,998,076 |
| 2014 | 181,101,965 | 2019 | 267,070,853 | 2024 | 372,351,089 |
| 2015 | 196,262,809 | 2020 | 290,232,317 | 2025 | 392,631,666 |

* Actual benefit payment shown, rounded to the thousands for the FYE 2011.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION III
 RECONCILIATION WITH PRIOR RESULTS**

Value of Assets

Table III-1, below, shows the change in the value of assets through fiscal year ending 2012. The San Francisco Retiree Health Care Trust Fund (RHCTF) was established in December 2010 as an irrevocable trust. Prior to December 2010, contributions required under Proposition B were set aside and contributed to the RHCTF when it was established. The assets set aside are treated as plan assets in the table below.

| Table III-1 Market Value of Assets | | | |
|--|---------------------|---------------------|----------------------|
| | FYE 2010 | FYE 2011 | FYE2012 |
| Market Value of Assets, beginning of year | \$ 323,483 | \$ 3,194,672 | \$ 8,541,521 |
| Contributions | | | |
| Employer | 951,919 | 1,773,184 | 3,070,242 |
| Employee | <u>1,903,374</u> | <u>3,518,030</u> | <u>6,140,559</u> |
| Total | 2,855,293 | 5,291,214 | 9,210,801 |
| Benefit payments* | 0 | 0 | 0 |
| Other Expenditures | 0 | 0 | (49,888) |
| Interest Earned | 15,896 | 55,635 | 144,127 |
| Market Value of Assets, end of year | \$ 3,194,672 | \$ 8,541,521 | \$ 17,846,561 |

* The Trust is not allowed to use funds to pay benefit payments until 2020.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION III
RECONCILIATION WITH PRIOR RESULTS**

Reconciliation with Prior Results

Table III-2 provides an estimate of the major factors contributing to the change in liability since the last actuarial valuation report (AVR). Note that the expected values as of July 1, 2010 are based on assumptions and methods from the prior valuation.

| Table III-2 Reconciliation with Prior Results (\$ in millions) | | | |
|---|---|-------------------------------------|--|
| | Actuarial Accrued Liability July 1, 2010 | Normal Cost July 1, 2010 | FYE 2012 Annual Required Contribution |
| Expected values based on the 7/1/2008 actuarial valuation | \$5,028.0 | \$224.3 | \$409.8 |
| <i>(Gain)/Loss due to:</i> | | | |
| Demographic Changes | (122.5) | (6.1) | (11.3) |
| Demographic Assumptions | 404.0 | 41.0 | 64.3 |
| Health Cost Assumptions | (721.4) | (25.6) | (54.0) |
| Other Assumptions | (98.5) | (0.3) | (4.0) |
| Implementation of Proposition B | <u>(69.5)</u> | <u>(4.4)</u> | <u>(6.9)</u> |
| Total (Gain)/Loss | (607.9) | 4.5 | (11.9) |
| July 1, 2010 valuation results | \$4,420.1 | \$228.8 | \$397.9 |

Below is a brief description of each of the changes shown above:

- *Demographic Changes* refer to the difference between the actual 7/1/2010 census data and what was projected from 7/1/2008.
- *Demographic Assumptions* refers to the updated demographic assumptions adopted by the City and County of San Francisco Employees' Retirement System effective July 1, 2010, including changes in rates of retirement, termination, mortality and other assumptions.
- *Health Cost Assumptions* refers to the change in expected current and future healthcare claims, expense costs, and premiums. The claim curves were updated to reflect actual changes in utilization. The trends for the curves were extended and lowered to reflect anticipated health care costs.
- *Other Assumptions* refers to the change in election assumption of spouses and domestic partners choosing medical coverage.
- *Implementation of Proposition B* refers to the benefit change applicable to employees hired on or after January 10, 2009.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION IV
SENSITIVITY TO HEALTH CARE TREND RATES

The actuarial liability, ARC, and benefit payments produced in this report are sensitive to the assumptions used. The tables below show the impact of a 1% increase or decrease in the health care trend rates on the actuarial liability, the ARC, and the net expected benefit payments, using the 4.25% discount rate, to provide some measure of sensitivity. Since actual premiums are known through 2013, the 1% increase or decrease to the health care trend commences after December 31, 2013. The effect of healthcare reform remains in line with the valuation assumptions.

| Table IV-1 | | | |
|---|-------------------------|-------------------------|-------------------------|
| Actuarial Liability as of July 1, 2010 | | | |
| (4.25% discount rate) | | | |
| Health Care Trend Rate | - 1% | Base | + 1% |
| Actuarial Liability | | | |
| Actives | \$ 1,843,801,942 | \$ 2,045,612,185 | \$ 2,257,695,208 |
| Terminated Vested Members | 346,823,514 | 381,447,961 | 422,959,405 |
| Retirees | <u>1,812,171,123</u> | <u>1,993,085,681</u> | <u>2,209,985,162</u> |
| Total Actuarial Liability | \$ 4,002,796,579 | \$ 4,420,145,827 | \$ 4,890,639,775 |
| Assets | <u>(3,194,672)</u> | <u>(3,194,672)</u> | <u>(3,194,672)</u> |
| UAL | \$ 3,999,601,907 | \$ 4,416,951,155 | \$ 4,887,445,103 |

| Table IV-2 | | | |
|-------------------------------|-----------------------|-----------------------|-----------------------|
| GASB ARC – FYE 2012 | | | |
| (4.25% discount rate) | | | |
| Health Care Trend Rate | - 1% | Base | + 1% |
| Total Normal Cost | \$ 182,139,003 | \$ 236,663,144 | \$ 311,959,673 |
| Less Employee Contribution | <u>(3,885,292)</u> | <u>(3,885,292)</u> | <u>(3,885,292)</u> |
| Employer Normal Cost | \$ 178,253,711 | \$ 232,777,852 | \$ 308,074,381 |
| UAL Amortization | <u>147,759,568</u> | <u>165,084,368</u> | <u>185,121,455</u> |
| Total ARC | \$ 326,013,279 | \$ 397,862,220 | \$ 493,195,836 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION IV
SENSITIVITY TO HEALTH CARE TREND RATES

| Table IV-3 | | | |
|---|-------------------------------|----------------|----------------|
| Expected Net Benefit Payments | | | |
| Fiscal Year Ending June 30 | Health Care Trend Rate | | |
| | - 1% | Base | + 1% |
| 2011* | \$ 145,756,000 | \$ 145,756,000 | \$ 145,756,000 |
| 2012* | 151,300,727 | 151,300,727 | 151,300,727 |
| 2013 | 165,968,602 | 165,968,602 | 165,968,602 |
| 2014 | 180,260,999 | 181,101,965 | 181,942,931 |
| 2015 | 193,533,364 | 196,262,809 | 199,009,221 |
| 2016 | 207,262,293 | 212,164,198 | 217,139,661 |
| 2017 | 221,884,806 | 229,275,353 | 236,845,158 |
| 2018 | 238,411,137 | 248,680,464 | 259,296,155 |
| 2019 | 253,639,445 | 267,070,853 | 281,084,727 |
| 2020 | 273,077,943 | 290,232,317 | 308,296,514 |
| 2021 | 291,194,737 | 312,421,178 | 334,983,056 |
| 2022 | 306,962,593 | 332,476,627 | 359,851,692 |
| 2023 | 321,912,374 | 351,998,076 | 384,583,678 |
| 2024 | 337,300,372 | 372,351,089 | 410,674,212 |
| 2025 | 352,297,190 | 392,631,666 | 437,150,905 |

* Actual benefit payments are shown rounded to the thousands for the FYE 2011.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION V
 ACCOUNTING DISCLOSURES**

GASB Statements No. 43 and 45 establish standards for disclosure of OPEB information by governmental plans and employers in their financial statements. In accordance with those statements, we have prepared the following disclosures.

Schedule of Funding Progress

The schedule of funding progress, Table V-1, compares the assets used for funding purposes to the actuarial liability to determine how well the Plan is funded and how this status has changed over the past several years. The unfunded actuarial liability is compared to the covered payroll as a measure of the potential future burden on the employer.

| Table V-1 Schedule of Funding Progress (\$ in thousands) | | | | | | |
|---|--|--|--|-----------------------------------|------------------------------------|--|
| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (b) | Unfunded Actuarial Accrued Liability (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll [(b-a)/c] |
| 7/1/2010* | \$ 0 | \$ 4,420,146 | \$ 4,420,146 | 0.0% | \$ 2,303,650 | 191.9% |
| 7/1/2008** | 0 | 4,364,273 | 4,364,273 | 0.0% | 2,296,336 | 190.1% |
| 7/1/2006** | 0 | 4,036,324 | 4,036,324 | 0.0% | 2,066,866 | 195.3% |

* As of July 1, 2010, there were approximately \$3.2 million in assets set aside for the Postretirement Health Plan, but the RHCTF was not established until December 2010.

** Calculated by prior actuary.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION V
 ACCOUNTING DISCLOSURES**

Schedule of Employer Contributions

The schedule of employer contributions, Table V-2, is a required disclosure under GASB 45. It compares the actual employer contributions to the Annual OPEB Cost and shows the historical trend of the Net OPEB Obligation. For this purpose, employer contributions include both the pay-as-you-go cost and contributions to the RHCTF.

| Table V-2 GASB 45 Schedule of Employer Contributions (\$ in thousands) | | | | |
|---|---|---|--|--|
| Fiscal Year Ended June 30 | Annual OPEB Cost (AOC) | Amount Contributed* | Percentage of AOC Contributed | Net OPEB Obligation |
| 2013** | \$ 418,539 | \$ 169,137 | 40.4% | \$ 1,598,286 |
| 2012 | 405,850 | 156,144 | 38.5% | 1,348,883 |
| 2011*** | 392,151 | 145,756 | 37.2% | 1,099,177 |
| 2010 | 374,214 | 126,829 | 33.9% | 852,782 |
| 2009 | 430,924 | 119,967 | 27.8% | 605,398 |
| 2008 | 409,080 | 114,640 | 28.0% | 294,441 |

- * Includes net benefit payments and employer contributions to the Retiree Health Care Trust Fund.
- ** Projected amounts shown. NOO will vary depending on actual contributions and benefit payments.
- *** Figures prior to FYE 2012 were calculated by prior actuary.

Under GASB 43, there is a separate Schedule of Employer Contributions, Table V-3, for the Retiree Health Care Trust Fund that compares the actual contributions to the Annual Required Contribution.

| Table V-3 GASB 43 Schedule of Employer Contributions (\$ in thousands) | | | |
|---|---|---|--|
| Fiscal Year Ended June 30 | Annual Required Contribution (ARC) | Amount Contributed* | Percentage of ARC Contributed |
| 2013** | \$ 408,735 | \$ 169,137 | 41.4% |
| 2012 | 397,862 | 156,144 | 39.2% |
| 2011*** | 384,334 | 145,756 | 37.9% |

- * Includes net benefit payments and employer contributions to the Retiree Health Care Trust Fund.
- ** Projected amounts shown.
- *** Figures prior to FYE 2012 were calculated by prior actuary.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**SECTION V
ACCOUNTING DISCLOSURES**

Table V-4 below shows the development of the Net OPEB Obligation.

| Table V-4 Development of Net OPEB Obligation (NOO) (\$ in thousands) | | |
|---|---------------------|---------------------------------|
| | FYE 2012 | <i>Projected FYE 2013**</i> |
| 1. NOO at beginning of fiscal year | \$ 1,099,177 | \$ 1,348,883 |
| 2. ARC for FYE | 397,862 | 408,735 |
| 3. Interest on NOO | 46,715 | 57,328 |
| 4. Adjustment to ARC | <u>38,727</u> | <u>47,524</u> |
| 5. Annual OPEB Cost (2.) + (3.) - (4.) | 405,850 | 418,539 |
| 6. Employer Contributions | | |
| a. Contributions to RHCTF* | \$ 4,843 | \$ 3,168 |
| b. Benefit Payments | <u>151,301</u> | <u>165,969</u> |
| c. Total (6a.) + (6b.) | 156,144 | <i>169,137</i> |
| 7. NOO at end of fiscal year (1.) + (5.) - (6c.) | \$ 1,348,883 | \$ 1,598,286 |

* Contributions to RHCTF for FYE 2012 include previously unrecognized FYE 2011 employer contributions in excess of benefit payments to the Retiree Health Care Trust Fund.

** Estimated values are shown in italics.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

SECTION V
ACCOUNTING DISCLOSURES

The *Note to Required Supplementary Information* shown in Table V-5 provides additional disclosure information for the financial statements.

| Table V-5 | |
|---|----------------------|
| NOTE TO REQUIRED SUPPLEMENTARY INFORMATION | |
| The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows. | |
| Valuation Date | July 1, 2010 |
| Actuarial Cost Method | Entry Age Normal |
| Amortization Method | Level Percent of Pay |
| Amortization Period | Rolling 30 years |
| Asset Valuation Method | Market Value |
| Actuarial Assumptions: | |
| Investment Rate of Return | 4.25% |
| Total Payroll Growth | 4.00% |
| Ultimate Rate of Medical Inflation | 4.75% |
| Years to Ultimate Rate | 18 |

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Participant Data:

| Schedule of Valuation Data | | | |
|--|---------------------|---------------------|-----------------|
| Valuation Date | July 1, 2008 | July 1, 2010 | % Change |
| Active Employees | | | |
| Count* | 28,298 | 27,378 | (3%) |
| Average Age | 47.5 | 47.9 | 1% |
| Average Service | 13.0 | 13.5 | 4% |
| Total Payroll | \$2,248,554,619 | \$2,303,649,881 | 2% |
| In-Pay Participants with Coverage** | | | |
| Count | 21,351 | 23,511 | 10% |
| Average Age | 69.1 | 69.8 | 1% |
| Vested, Terminated Members | | | |
| Count | 2,204 | 1,509 | (32%) |
| Average Age | 45.0 | 48.0 | 7% |

* Excludes PERS group of approximately 43 employees.

** Includes spouses and domestic partners

| Active Employees by Age and Service | | | | | | | | |
|--|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| As of July 1, 2010 | | | | | | | | |
| Age Group | Years of Service | | | | | | | Total |
| | < 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | |
| Under 25 | 157 | 64 | 0 | 0 | 0 | 0 | 0 | 221 |
| 25 to 29 | 837 | 259 | 43 | 0 | 0 | 0 | 0 | 1,139 |
| 30 to 34 | 1,004 | 791 | 267 | 12 | 0 | 0 | 0 | 2,074 |
| 35 to 39 | 877 | 1,063 | 905 | 197 | 8 | 0 | 0 | 3,050 |
| 40 to 44 | 733 | 1,006 | 1,287 | 656 | 244 | 8 | 0 | 3,934 |
| 45 to 49 | 601 | 901 | 1,322 | 826 | 664 | 340 | 19 | 4,673 |
| 50 to 54 | 460 | 768 | 1,070 | 731 | 748 | 843 | 255 | 4,875 |
| 55 to 59 | 293 | 547 | 849 | 538 | 671 | 764 | 606 | 4,268 |
| 60 to 64 | 157 | 336 | 506 | 293 | 322 | 340 | 368 | 2,322 |
| Over 65 | 43 | 143 | 180 | 119 | 88 | 85 | 164 | 822 |
| Total | 5,162 | 5,878 | 6,429 | 3,372 | 2,745 | 2,380 | 1,412 | 27,378 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

| Active Employees by Employee Group As of July 1, 2010 | | | | | | |
|--|---------------|-------------|-------------|--------------|--------------|--------------|
| | Police | Fire | Muni | Craft | Misc. | Total |
| Fully eligible | 1,825 | 1,255 | 1,706 | 2,698 | 14,733 | 22,217 |
| Not fully eligible | <u>467</u> | <u>142</u> | <u>412</u> | <u>483</u> | <u>3,657</u> | <u>5,161</u> |
| Total | 2,292 | 1,397 | 2,118 | 3,181 | 18,390 | 27,378 |
| Average age | 43.6 | 44.4 | 49.2 | 50.9 | 48.0 | 47.9 |
| Average service | 16.1 | 14.4 | 12.2 | 14.7 | 13.1 | 13.5 |

| Inactive Participants by Status and Age Group As of July 1, 2010 | | | | | |
|---|-----------------------------|----------------|-----------------|------------------------|--------------|
| Age Group | Disabled Retiree | Retiree | Survivor | Term Vested | Total |
| Under 40 | 9 | 0 | 7 | 225 | 241 |
| 40 to 44 | 23 | 0 | 15 | 354 | 392 |
| 45 to 49 | 90 | 0 | 24 | 431 | 545 |
| 50 to 54 | 165 | 465 | 46 | 229 | 905 |
| 55 to 59 | 210 | 1,509 | 102 | 149 | 1,970 |
| 60 to 64 | 195 | 3,226 | 204 | 90 | 3,715 |
| 65 to 69 | 160 | 3,036 | 217 | 14 | 3,427 |
| 70 to 74 | 115 | 2,333 | 264 | 8 | 2,720 |
| 75 to 79 | 63 | 1,558 | 369 | 6 | 1,996 |
| 80 to 84 | 33 | 1,150 | 428 | 2 | 1,613 |
| 85 to 90 | 11 | 776 | 419 | 1 | 1,207 |
| Over 90 | 3 | 300 | 236 | 0 | 539 |
| Total | 1,077 | 14,353 | 2,331 | 1,509 | 19,270 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

| Medical Plan Elections for In-Pay Participants | | | | | | |
|---|---|---|--------------|---|---|---------------|
| As of July 1, 2010 | | | | | | |
| Medical Plan | <u>Pre-Medicare</u> | | | <u>Medicare Eligible</u> | | |
| | Retirees & Surviving Spouses | Spouses & Domestic Partners* | Total | Retirees & Surviving Spouses | Spouses & Domestic Partners* | Total |
| Blue Shield | 2,377 | 1,024 | 3,401 | 2,664 | 818 | 3,482 |
| City Health Plan | 988 | 324 | 1,312 | 3,889 | 1,021 | 4,910 |
| Kaiser | 2,549 | 913 | 3,462 | 5,294 | 1,650 | 6,944 |
| Total** | 5,914 | 2,261 | 8,175 | 11,847 | 3,489 | 15,336 |

* Assumed spouses / domestic partners become Medicare eligible at age 65

** Waived and exempt retired participants have been excluded from the valuation

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Economic Assumptions:

1. Expected Return on Plan Assets: 4.25% per year
2. Expected Return on City Assets: 4.25% per year
3. Consumer Price Index: 3.50% per year
4. Per Person Cost Trends:

| To Year Beginning July 1 | 10-County Trend | Annual Increases | | |
|--------------------------------|--------------------|-----------------------------|----------------------|--------|
| | | Medical & Rx | | |
| | | Pre-Medicare | Medicare Eligible | Vision |
| 2011 | | <i>Actual Premiums Used</i> | | |
| 2012 | | <i>Actual Premiums Used</i> | | |
| 2013* | 6.00% | 8.50% | 6.50% | 0.00% |
| 2014 | 5.92 | 8.25 | 6.38 | 3.00 |
| 2015 | 5.83 | 8.00 | 6.27 | 3.00 |
| 2016 | 5.75 | 7.75 | 6.15 | 3.00 |
| 2017 | 5.67 | 7.50 | 6.03 | 3.00 |
| 2018 | 5.58 | 7.25 | 5.92 | 3.00 |
| 2019 | 5.50 | 9.50 | 5.80 | 3.00 |
| 2020 | 5.42 | 7.25 | 5.68 | 3.00 |
| 2021 | 5.33 | 6.50 | 5.57 | 3.00 |
| 2022 | 5.25 | 6.25 | 5.45 | 3.00 |
| 2023 | 5.17 | 6.00 | 5.33 | 3.00 |
| 2024 | 5.08 | 5.75 | 5.22 | 3.00 |
| 2025 | 5.00 | 5.50 | 5.10 | 3.00 |
| 2026 | 4.92 | 5.25 | 4.98 | 3.00 |
| 2027 | 4.83 | 5.00 | 4.87 | 3.00 |
| 2028+ | 4.75 | 4.75 | 4.75 | 3.00 |

* Actual premiums are known and used through December 31, 2013

- A load of 2.5% in FYE 2019 and 0.5% in FYE 2020 was added to the Pre-Medicare medical trend to account for Healthcare Reform.
- Expenses are assumed to increase at 3% per annum after December 31, 2013.
- Deductibles, Co-payments, Out-of-Pocket Maximums, and Annual Maximum are assumed to increase at the above trend rates.
- In 2013 the City's PPO plan will participate in an Employee Group Waiver Plan (EGWP). As a result of participating in this plan, the City's cost for post 65 pharmacy was reduced an additional \$50 per month. This reduction was incorporated into the actual trends used in our claim curves.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Demographic Assumptions:

1. Retirement Rates:

Rates of retirement are based on age and service according to the following tables.

Eligible deferred vested members are assumed to retire at age 55, or current age if older.

| Rates of Retirement by Age and Service | | | | | | |
|--|---------------|-------------|-------------------------|--------------|--------------------------|------------------------|
| 29 Years of Service or less (24 or less for Safety) | | | | | | |
| Age | Police | Fire | Muni Drivers | Craft | Misc. Females | Misc. Males |
| 50 | 0.0150 | 0.0200 | 0.0700 | 0.0300 | 0.0300 | 0.0300 |
| 51 | 0.0150 | 0.0100 | 0.0250 | 0.0250 | 0.0250 | 0.0250 |
| 52 | 0.0150 | 0.0100 | 0.0250 | 0.0250 | 0.0250 | 0.0250 |
| 53 | 0.0300 | 0.0100 | 0.0500 | 0.0400 | 0.0400 | 0.0400 |
| 54 | 0.0300 | 0.0100 | 0.0500 | 0.0400 | 0.0400 | 0.0400 |
| 55 | 0.1000 | 0.0300 | 0.0600 | 0.0500 | 0.0400 | 0.0400 |
| 56 | 0.1000 | 0.0300 | 0.0600 | 0.0500 | 0.0450 | 0.0450 |
| 57 | 0.1000 | 0.0300 | 0.1000 | 0.0500 | 0.0500 | 0.0500 |
| 58 | 0.1000 | 0.0500 | 0.1000 | 0.0500 | 0.0600 | 0.0600 |
| 59 | 0.1000 | 0.1000 | 0.1000 | 0.0750 | 0.0750 | 0.0750 |
| 60 | 0.1000 | 0.2500 | 0.1000 | 0.1000 | 0.1100 | 0.1100 |
| 61 | 0.1000 | 0.2500 | 0.1250 | 0.1300 | 0.1400 | 0.1400 |
| 62 | 0.3000 | 0.2500 | 0.2500 | 0.2250 | 0.2250 | 0.2250 |
| 63 | 0.1000 | 0.2500 | 0.2000 | 0.1750 | 0.1750 | 0.1750 |
| 64 | 0.1000 | 0.2500 | 0.2000 | 0.1750 | 0.1750 | 0.1750 |
| 65 | 1.0000 | 1.0000 | 0.2500 | 0.2750 | 0.2250 | 0.2250 |
| 66 | 1.0000 | 1.0000 | 0.2500 | 0.2750 | 0.2250 | 0.2250 |
| 67 | 1.0000 | 1.0000 | 0.2500 | 0.1750 | 0.2000 | 0.2000 |
| 68 | 1.0000 | 1.0000 | 0.2500 | 0.1750 | 0.2000 | 0.2000 |
| 69 | 1.0000 | 1.0000 | 0.2500 | 0.1750 | 0.2000 | 0.2000 |
| 70 & over | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

**CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION**

**APPENDIX A
 PARTICIPANT DATA, ASSUMPTIONS AND METHODS**

| Rates of Retirement by Age and Service 30 Years of Service or more (25 or more for Safety) | | | | | | |
|--|---------------|-------------|-------------------------|--------------|--------------------------|------------------------|
| Age | Police | Fire | Muni Drivers | Craft | Misc. Females | Misc. Males |
| 50 | 0.0300 | 0.0200 | 0.0300 | 0.0300 | 0.0300 | 0.0300 |
| 51 | 0.0300 | 0.0200 | 0.0300 | 0.0300 | 0.0300 | 0.0300 |
| 52 | 0.0400 | 0.0200 | 0.0300 | 0.0300 | 0.0300 | 0.0300 |
| 53 | 0.0700 | 0.1000 | 0.0300 | 0.0300 | 0.0300 | 0.0300 |
| 54 | 0.1000 | 0.2000 | 0.0300 | 0.0300 | 0.0750 | 0.0300 |
| 55 | 0.1200 | 0.2250 | 0.3000 | 0.0750 | 0.0750 | 0.0750 |
| 56 | 0.1400 | 0.2250 | 0.3000 | 0.0750 | 0.0750 | 0.0750 |
| 57 | 0.1600 | 0.2250 | 0.3000 | 0.0750 | 0.0750 | 0.0750 |
| 58 | 0.1800 | 0.2500 | 0.3000 | 0.1500 | 0.1250 | 0.1200 |
| 59 | 0.2000 | 0.3000 | 0.3000 | 0.3000 | 0.1750 | 0.1500 |
| 60 | 0.2200 | 0.3500 | 0.3000 | 0.3000 | 0.2500 | 0.3000 |
| 61 | 0.2500 | 0.4000 | 0.3000 | 0.3000 | 0.2500 | 0.3000 |
| 62 | 0.2500 | 0.4000 | 0.3500 | 0.3500 | 0.3750 | 0.3500 |
| 63 | 0.2500 | 0.3000 | 0.3000 | 0.3000 | 0.2500 | 0.2500 |
| 64 | 0.2500 | 0.3000 | 0.3000 | 0.3000 | 0.2500 | 0.2500 |
| 65 | 1.0000 | 1.0000 | 0.4500 | 0.3000 | 0.3750 | 0.2500 |
| 66 | 1.0000 | 1.0000 | 0.4500 | 0.3000 | 0.3750 | 0.2500 |
| 67 | 1.0000 | 1.0000 | 0.4500 | 0.3000 | 0.3750 | 0.2500 |
| 68 | 1.0000 | 1.0000 | 0.4500 | 0.3000 | 0.3750 | 0.2500 |
| 69 | 1.0000 | 1.0000 | 0.4500 | 0.3000 | 0.3750 | 0.2500 |
| 70 & over | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

**CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION**

**APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS**

2. Termination Rates:

Sample rates of termination of employment for all employee groups (excluding Miscellaneous members) are shown in the following table.

| Rates of Termination/Withdrawal | | | | |
|--|---------------|-------------|-------------------------|--------------|
| Service | Police | Fire | Muni Drivers | Craft |
| 0 | 10.00% | 4.00% | 12.00% | 8.00% |
| 1 | 4.00 | 1.50 | 6.00 | 7.00 |
| 2 | 2.00 | 1.50 | 5.00 | 6.00 |
| 3 | 2.00 | 1.25 | 4.00 | 5.00 |
| 4 | 2.00 | 1.25 | 3.50 | 4.00 |
| 5 | 1.00 | 1.25 | 3.25 | 3.25 |
| 6 | 1.00 | 1.00 | 3.00 | 2.75 |
| 7 | 1.00 | 1.00 | 3.00 | 2.50 |
| 8 | 1.00 | 1.00 | 3.00 | 2.25 |
| 9 | 1.00 | 1.00 | 3.00 | 2.00 |
| 10 | 1.00 | 1.00 | 3.00 | 1.75 |
| 11 | 1.00 | 0.50 | 3.00 | 1.75 |
| 12 | 1.00 | 0.50 | 3.00 | 1.75 |
| 13 | 1.00 | 0.50 | 3.00 | 1.75 |
| 14 | 1.00 | 0.50 | 3.00 | 1.75 |
| 15 | 1.00 | 0.50 | 3.00 | 1.75 |
| 16 | 0.50 | 0.50 | 3.00 | 1.75 |
| 17 | 0.50 | 0.50 | 3.00 | 1.75 |
| 18 | 0.50 | 0.20 | 3.00 | 1.75 |
| 19 | 0.50 | 0.10 | 3.00 | 1.75 |
| 20 | 0.50 | 0.05 | 3.00 | 1.75 |
| 21 | 0.00 | 0.00 | 3.00 | 1.75 |
| 22 | 0.00 | 0.00 | 0.00 | 1.75 |
| 23 | 0.00 | 0.00 | 0.00 | 0.00 |

* Termination rates do not apply once a member is eligible for retirement.

**CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION**

**APPENDIX A
 PARTICIPANT DATA, ASSUMPTIONS AND METHODS**

Sample rates of termination by age and service for Miscellaneous members are shown in the following table.

| Rates of Termination/Withdrawal Miscellaneous Members | | | |
|--|----------------|----------|-----------|
| Age | Service | | |
| | 0 | 3 | 5+ |
| 20 | 37.50% | 9.00% | 5.50% |
| 25 | 27.50 | 9.00 | 5.50 |
| 30 | 24.00 | 9.00 | 5.50 |
| 35 | 20.00 | 7.00 | 4.25 |
| 40 | 17.50 | 6.00 | 3.00 |
| 45 | 15.00 | 4.50 | 2.50 |
| 50 | 15.00 | 4.50 | 2.60 |
| 55 | 15.00 | 4.50 | 3.15 |
| 60 | 15.00 | 4.50 | 4.00 |
| 65 | 15.00 | 4.50 | 4.00 |

3. Member Refunds:

The rates of refund of contributions for terminated vested members are presented in the table below.

| Vested Terminated Rates of Refund | | |
|--|----------------------|---|
| Age | Police / Fire | Miscellaneous (including Muni and Craft) |
| Under 25 | 100% | 70% |
| 25 | 75 | 55 |
| 30 | 50 | 40 |
| 35 | 30 | 35 |
| 40 | 20 | 30 |
| 45 | 10 | 20 |
| 50 & over | 0 | 0 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

4. Mortality Rates:

Healthy Lives:

Mortality rates for actives, retirees, beneficiaries, terminated vested and reciprocals are based on the sex distinct RP-2000 Mortality Tables. To reflect mortality improvements since the date of the table, for active females, the Employee table is projected to 2030 and for active males to 2005. For female and male annuitants, the Annuitant table is projected to 2020.

| Rates of Mortality for Actives and Annuitants Healthy Lives at Selected Ages | | | | | |
|---|----------------|---------------|------------|-------------------|---------------|
| Age | Actives | | Age | Annuitants | |
| | Male | Female | | Male | Female |
| 25 | 0.036% | 0.014% | 50 | 0.372% | 0.166% |
| 30 | 0.043 | 0.020 | 55 | 0.402 | 0.301 |
| 35 | 0.075 | 0.034 | 60 | 0.594 | 0.561 |
| 40 | 0.104 | 0.045 | 65 | 1.012 | 0.938 |
| 45 | 0.141 | 0.069 | 70 | 1.641 | 1.515 |
| 50 | 0.195 | 0.100 | 75 | 2.854 | 2.394 |
| 55 | 0.275 | 0.199 | 80 | 5.265 | 3.987 |
| 60 | 0.450 | 0.338 | 85 | 9.624 | 6.866 |
| 65 | 0.706 | 0.501 | 90 | 16.928 | 12.400 |
| 70 | 0.920 | 0.655 | 95 | 25.699 | 18.688 |
| | | | 100 | 33.773 | 23.276 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**APPENDIX A
 PARTICIPANT DATA, ASSUMPTIONS AND METHODS**

Disabled Lives:

The following provides a sample of the mortality rates for members with disability retirement.

| Rates of Mortality for Disabled Lives at Selected Ages | | | | | |
|---|------------------------|---------------|------------|--------------------------|---------------|
| Age | Police and Fire | | Age | All Miscellaneous | |
| | Male | Female | | Male | Female |
| 50 | 0.40% | 0.33% | 50 | 1.63% | 1.11% |
| 55 | 0.53 | 0.50 | 55 | 1.94 | 1.56 |
| 60 | 0.74 | 0.74 | 60 | 2.29 | 1.61 |
| 65 | 1.26 | 1.09 | 65 | 3.17 | 1.80 |
| 70 | 2.04 | 1.59 | 70 | 3.87 | 2.84 |
| 75 | 3.18 | 2.47 | 75 | 6.00 | 3.65 |
| 80 | 6.09 | 4.08 | 80 | 8.39 | 5.23 |
| 85 | 10.80 | 7.16 | 85 | 14.04 | 8.42 |
| 90 | 15.09 | 12.35 | 90 | 21.55 | 14.14 |
| 95 | 23.77 | 21.24 | 95 | 31.03 | 20.92 |
| 100 | 37.44 | 32.55 | 100 | 45.91 | 34.18 |

5. Disability Rates:

Sample disability rates of active participants are provided in the following table.

| Rates of Disability at Selected Ages | | | | | | |
|---|---------------|-------------|---------------------|--------------|----------------------|--------------------|
| Age | Police | Fire | Muni Drivers | Craft | Misc. Females | Misc. Males |
| 30 | 0.05% | 0.06% | 0.01% | 0.01% | 0.01% | 0.01% |
| 35 | 0.09 | 0.15 | 0.06 | 0.06 | 0.05 | 0.04 |
| 40 | 0.16 | 0.38 | 0.11 | 0.12 | 0.10 | 0.08 |
| 45 | 0.37 | 0.60 | 0.17 | 0.24 | 0.28 | 0.11 |
| 50 | 0.79 | 1.20 | 0.75 | 0.44 | 0.55 | 0.30 |
| 55 | 3.00 | 5.00 | 1.20 | 0.64 | 0.60 | 0.42 |
| 60 | 6.10 | 12.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65 | 7.50 | 15.00 | 0.00 | 0.00 | 0.00 | 0.00 |

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

6. Salary Increase Rate:

Wage inflation component: 4.00%

The additional merit component:

| Salary Merit Increases | | | | | |
|-------------------------------|---------------|-------------|-------------------------|--------------|--------------|
| Service | Police | Fire | Muni Drivers | Craft | Misc. |
| 1 | 11.00% | 15.00% | 15.00% | 4.50% | 7.00% |
| 2 | 8.50 | 8.00 | 10.00 | 3.25 | 5.25 |
| 3 | 6.50 | 6.00 | 2.00 | 2.50 | 4.00 |
| 4 | 4.50 | 4.25 | 1.00 | 2.00 | 3.00 |
| 5 | 3.25 | 3.00 | 0.00 | 1.50 | 2.50 |
| 6 | 2.30 | 2.30 | 0.00 | 1.25 | 2.00 |
| 7 | 1.95 | 1.95 | 0.00 | 1.00 | 1.75 |
| 8 | 1.70 | 1.70 | 0.00 | 0.90 | 1.65 |
| 9 | 1.50 | 1.50 | 0.00 | 0.85 | 1.45 |
| 10 | 1.50 | 1.50 | 0.00 | 0.85 | 1.30 |
| 11 | 1.50 | 1.50 | 0.00 | 0.85 | 1.20 |
| 12 | 1.50 | 1.50 | 0.00 | 0.85 | 1.15 |
| 13 | 1.50 | 1.50 | 0.00 | 0.85 | 1.10 |
| 14 | 1.50 | 1.50 | 0.00 | 0.85 | 1.05 |
| 15 & over | 1.50 | 1.50 | 0.00 | 0.85 | 1.00 |

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

7. Percent of Retirees Electing Coverage:

94% of future eligible retirees are assumed to elect coverage at retirement.

Participants currently receiving benefits are assumed to keep their current coverage.

8. Medical Plan Election:

Future retirees' plan elections are assumed to mirror current retiree plan elections. The following rates are used to determine blended claims and contributions for future retirees.

| Assumed Plan Elections for Future Retirees | |
|---|-----------------|
| Medical Plan | Election |
| Blue Shield | 45% |
| City Health Plan | 5% |
| Kaiser | 50% |

Participants currently receiving benefits are assumed to continue participation in their current medical plan.

9. Medicare Participation:

Retirees who turn age 65 are assumed to be eligible for Medicare.

10. Family Composition:

Percentage married (including assumption for Domestic Partners, 1994 Proposition H) for future retirees is shown in the following table.

| Assumed Spousal / Domestic Partner Election | |
|--|-----------------|
| | Election |
| Pre-Medicare | 47.5% |
| Medicare Eligible | 25.0% |

Actual spouse / partner data is used for current retirees, with the above assumption applied at Medicare eligible age for those participants currently not enrolled in Medicare.

The cost for children is fully paid for by the member. No additional load was added for children.

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

11. Dependent Age:

Husbands are assumed to be three years older than their wives.

12. Future Service Accruals

Actives are assumed to accrue a full year of credited service each year.

13. Surviving Spouse Participation:

100% of future beneficiaries continue coverage

14. Other

The contribution requirements and benefit values of a plan are calculated by applying actuarial assumptions to the benefit provisions and member information, using the actuarial funding methods described in the following section.

Actual experience of the plan will not coincide exactly with assumed experiences, regardless of the choice of the assumptions, the skill of the actuary or the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed contribution rate. From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends, but not random year-to-year fluctuations.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Claim and Expense Assumptions:

1. Average Annual Claims Assumptions: The following claim assumptions are applicable to the 12-month period beginning July 1, 2010 and are based on the premiums in effect on the valuation date. Subsequent years' costs are based on actual premiums when available, then adjusted with trends previously listed.

| Annual Claims and Expenses* | | | | | | | | |
|---|-------------------------|--------------|------------------|-----------|--------------|-------------------------|--------------|---------------|
| For the period July 1, 2010 to June 30, 2011 | | | | | | | | |
| Age | Blue Shield | | City Plan | | | Kaiser | | Vision |
| | Medical & Rx | Admin | Medical | Rx | Admin | Medical & Rx | Admin | |
| 40 | \$ 5,398 | \$ 12 | \$ 6,072 | \$ 1,094 | \$ 502 | \$ 4,339 | \$ 12 | \$ 43 |
| 45 | 6,091 | 12 | 6,603 | 1,393 | 502 | 4,896 | 12 | 43 |
| 50 | 7,561 | 12 | 7,970 | 1,875 | 502 | 6,077 | 12 | 43 |
| 55 | 9,405 | 12 | 9,725 | 2,453 | 502 | 7,559 | 12 | 43 |
| 60 | 11,676 | 12 | 12,042 | 3,065 | 502 | 9,385 | 12 | 43 |
| 64 | 13,846 | 12 | 14,585 | 3,440 | 502 | 11,129 | 12 | 43 |
| 65 | 3,975 | 12 | 1,456 | 2,245 | 415 | 3,564 | 12 | 43 |
| 70 | 4,434 | 12 | 1,726 | 2,487 | 415 | 3,976 | 12 | 43 |
| 75 | 4,731 | 12 | 2,002 | 2,628 | 415 | 4,242 | 12 | 43 |
| 80 | 4,846 | 12 | 2,182 | 2,670 | 415 | 4,345 | 12 | 43 |
| 85 | 4,783 | 12 | 2,241 | 2,621 | 415 | 4,288 | 12 | 43 |

* Participants are assumed to enroll in Medicare at age 65.

2. Dental, Vision, and Expense: These benefits are assumed to have no implied subsidy cost.
3. Medicare Part D Subsidy: Per GASB guidance, the Part D Subsidy has not been reflected in this valuation.
4. Annual Limits: Assumed to increase at the same rate as trend.
5. Lifetime Maximums: Unlimited.
6. Geography: Implicitly assumed to remain the same as current retirees.

APPENDIX A
PARTICIPANT DATA, ASSUMPTIONS AND METHODS

Methodology:

The Entry Age Actuarial Cost Method was used to value the Plan's actuarial liabilities and to set the normal cost. Under this method, the normal cost rate is the percentage of pay contribution that is expected to be sufficient to fund the plan benefits if it were paid from each member's hire date at the City until termination or retirement.

A normal cost rate is determined for each individual by taking the value, as of age at entry into the plan, of the member's projected future benefits, reducing it by the value of future member contributions, and dividing it by the value, also as of the member's entry age, of the member's expected future salary.

The actuarial liability is that portion of the present value of projected benefits that is not expected to be paid by future employer normal costs or member contributions. The difference between this liability and assets accumulated as of the same date is referred to as the unfunded actuarial liability. The unfunded actuarial liability is amortized to develop an additional cost or savings which is added to each year's employer normal cost. Under this cost method, actuarial gains and losses are directly reflected in the size of the unfunded actuarial liability. The unfunded liability is amortized over a rolling 30-year period. The amortization is a level percent of pay amortization.

The assets accumulated are considered on a market value basis.

The medical claims costs were developed based on actual premiums for 2010-11 for the HMO plans and actual rates for 2010-11 for the City Plan. For non-Medicare adults, the premiums (or rates, as applicable) for active employee only, first dependent of active employee, non-Medicare retiree, and first dependent of non-Medicare retirees were blended based upon enrollment data for the period July 1, 2009 to June 30, 2010. The same process was used for Medicare adults, except only Medicare retirees and first dependents of Medicare retirees were included. The resulting per person per month (PPPM) cost was then adjusted using age curves. Expenses and vision costs were based directly on the rates in effect for 2010-11.

Changes Since Last Valuation:

Actuarial assumptions have been changed based on the actuarial experience study completed in November 2010 for the City and County of San Francisco Retirement System that were adopted by the Board. The changes affected the wage inflation, salary merit increase, member refunds of contributions rates, and rates of termination, disability, retirement, and healthy and disabled mortality. For a complete description of these changes, please refer to the experience study report dated November 5, 2010. The medical plan election and family composition assumptions were adjusted to align more closely with current plan trends.

In addition, the annual claims and trends were updated to reflect current experience.

APPENDIX B
SUBSTANTIVE PLAN PROVISIONS

Eligibility:

Permanent full-time and elected employees are eligible to retire and receive postretirement health insurance benefits when they are eligible for retirement benefits from the City and County of San Francisco's Retirement System. Certain members of the California Public Employees Retirement System and certain court employees are also eligible for benefits from the City. Employees of the San Francisco Unified School District and the San Francisco Community College District are not included in the plan. The eligibilities are as follows:

City and County of San Francisco's Retirement System (SFERS)

| | | |
|----------------------------------|---------------|--|
| Normal Retirement | Miscellaneous | Age 50 with 20 years of credited service Age 60 with 10 years of credited service |
| | Safety | Age 50 with 5 years of credited service |
| Disabled Retirement ¹ | | Any age with 10 years of credited service |
| Terminated Vested ² | | Age 50 with 5 years of credited service at separation |
| Active Death | | Any age with 10 years of credited service |

California Public Employees Retirement System (CalPERS)

A small group of currently active employees, previously considered a State Agency, have been shifted to the City's responsibility. This group is subject to CalPERS retirement criteria (age 50 and 5 years of credited service).

Courts

Members separated as of January 1, 2001 are the responsibility of the City and County of San Francisco. These participants are subject to the eligibility requirements of SFERS.

Benefits for Retirees:

| | |
|----------|---|
| Medical: | PPO – City Health Plan (self-insured) HMO – Kaiser and Blue Shield (fully-insured) |
| Dental: | Delta Dental & DeltaCare USA |
| Vision: | Vision benefits are provided under the medical insurance plans and are administered by Vision Service Plan. |

¹ No service requirement for safety members retiring under the industrial disability benefit.

² For participants hired after January 10, 2009, participant must retire within 180 days of separation in order to be eligible for retiree healthcare benefits from the City.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**APPENDIX B
 SUBSTANTIVE PLAN PROVISIONS**

Premiums: Monthly premiums for July 1, 2010 through December 31, 2013 are as follows.

| Medical Premiums / Premium Equivalents* | | | | |
|--|---------------------|-------------|--------------------------|-----------|
| | <u>Pre-Medicare</u> | | <u>Medicare Eligible</u> | |
| | Single | Dual | Single | Dual |
| July 1, 2010 – June 30, 2011 | | | | |
| Active | | | | |
| Blue Shield | \$ 593.73 | \$ 1,186.46 | N/A | N/A |
| City Plan | 926.66 | 1,812.00 | N/A | N/A |
| Kaiser | 481.69 | 962.34 | N/A | N/A |
| Retiree | | | | |
| Blue Shield | \$ 1,318.34 | \$ 1,911.07 | \$ 383.84 | \$ 766.65 |
| City Plan | 1,069.39 | 2,097.49 | 367.88 | 701.69 |
| Kaiser | 967.59 | 1,448.19 | 346.99 | 692.94 |
| July 1, 2011 – June 30, 2012 | | | | |
| Active | | | | |
| Blue Shield | \$ 589.40 | \$ 1,177.81 | N/A | N/A |
| City Plan | 1,110.87 | 2,178.64 | N/A | N/A |
| Kaiser | 505.22 | 1,009.42 | N/A | N/A |
| Retiree | | | | |
| Blue Shield | \$ 1,308.44 | \$ 1,896.85 | \$ 378.81 | \$ 756.60 |
| City Plan | 1,287.72 | 2,532.31 | 381.89 | 729.66 |
| Kaiser | 1,014.87 | 1,519.07 | 355.13 | 709.24 |
| July 1, 2012 – December 31, 2012 | | | | |
| Active | | | | |
| Blue Shield | \$ 608.43 | \$ 1,215.87 | N/A | N/A |
| City Plan | 1,237.46 | 2,431.13 | N/A | N/A |
| Kaiser | 530.01 | 1,059.00 | N/A | N/A |
| Retiree | | | | |
| Blue Shield | \$ 1,350.87 | \$ 1,958.31 | \$ 405.82 | \$ 810.63 |
| City Plan | 1,427.03 | 2,810.25 | 375.14 | 715.90 |
| Kaiser | 1,064.98 | 1,593.97 | 334.42 | 667.82 |
| January 1, 2013 – December 31, 2013 | | | | |
| Active | | | | |
| Blue Shield | \$ 647.16 | \$ 1,292.31 | N/A | N/A |
| City Plan | 1,258.97 | 2,473.63 | N/A | N/A |
| Kaiser | 537.02 | 1,072.01 | N/A | N/A |
| Retiree | | | | |
| Blue Shield | \$ 1,435.98 | \$ 2,081.14 | \$ 363.30 | \$ 724.57 |
| City Plan | 1,466.49 | 2,888.64 | 374.49 | 714.02 |
| Kaiser | 1,078.10 | 1,613.09 | 335.43 | 668.83 |

* Includes Rx, vision, and expense. Plan start date shifts from July 1 to January 1 in 2013.

**CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION**

**APPENDIX B
SUBSTANTIVE PLAN PROVISIONS**

| Plan Last Modified: | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 |
|---|------------------------------------|---|------------------------------------|---|
| Plan: | Blue Shield Access+ HMO | Blue Shield 65 Plus (HMO) | City Health Plan (PPO) | Kaiser (HMO) |
| <u>In-Network (INN) Benefits</u> | | | | |
| Deductible (Individual / Family) | None | None | \$250 / \$750 | None |
| Coinsurance | N/A | N/A | 15% | N/A |
| Out-of-Pocket Max (Individ/ Family) | \$1000 / \$2000 | \$6,700 (Part A&B services) | \$3,750 per person | \$1500 / \$3000 |
| Copays | | | | |
| Preventive Care | Fully Covered | Fully Covered | DC ¹ | \$15 per visit |
| Office Visit (OV)-Primary Care (PCP) | \$20 per visit | \$20 per visit | DC ¹ | \$15 per visit |
| OV - Specialist Care Provider (SCP) | \$30 per visit | \$20 per visit | DC ¹ | \$15 per visit |
| Hospital Emergency Room (ER) | \$100 per visit | \$50 per visit | DC ¹ | \$50 per visit |
| Outpatient Surgery | \$50 per surgery | \$50 per visit | DC ¹ | \$15 per admission |
| Hospital Inpatient | \$150 per admission | \$150 per admission | DC ¹ | \$100 per admission |
| Lifetime Max | Unlimited | Unlimited | \$2,000,000 per person | Unlimited |
| <u>Out-of-Network (OON) Benefits</u> | | | | |
| Deductible (Individual / Family) | N/A | N/A | \$250 / \$750 | N/A |
| Coinsurance | N/A | N/A | 50% | N/A |
| Office Visits (PCP) & (SCP) | N/A | N/A | DC ¹ | N/A |
| Out-of-Pocket Max (Individ / Family) | N/A | N/A | \$7,500 per person | N/A |
| Lifetime Max | N/A | N/A | \$2,000,000 per person | N/A |
| <u>Prescription Drugs</u> | | | | |
| Retail (34 Days) - Generic/Formulary /Non-Form. Copay | Not Covered | \$5 / 20 / 45 (INN & OON) | \$5 / 20 / 35, DC ¹ OON | \$5 / 15 / N/A |
| Mail Order (90 Days) - Generic/Form. /Non-Form. Copay | Not Covered | \$10/40/90 (\$15/60/135 OON) | \$10 / 40 / 70 | \$10 / 30 / N/A |
| <u>Mental Health and Substance Abuse</u> | | | | |
| Mental Health Inpatient | \$150 per admission | \$150 per admission | DC ¹ | \$100 per admission |
| Mental Health Outpatient | \$20 per visit | \$20 per visit | 15% (INN & OON) | \$15 per visit (\$7 group) |
| Substance Abuse Inpatient | \$150 per admission | \$150 per admission | DC ¹ | \$100 per admission |
| Substance Abuse Outpatient | Fully Covered | \$20 per visit | 15% (INN & OON) | \$15 per visit (\$5 group) |
| <u>Detail Benefits</u> | | | | |
| Chiropractic Benefit | \$15 per visit (30 visit limit) | \$20 per visit | 50% (INN & OON) | \$15 per visit |
| Rehab (speech, occup., physical) | \$20 per visit | \$20 per visit | DC ¹ | \$15 per visit |
| Hearing | Fully Covered | \$2500 for 36 mos. | DC ¹ | \$15 per visit |
| Durable Medical Equipment | Fully Covered | Fully Covered | DC ¹ | Fully Covered |
| <u>Medical Management</u> | | | | |
| | PCP referral required | PCP referral required | Req'd on some services | PCP referral required |
| <u>Medicare Integration</u> | | | | |
| | N/A | Medicare Advantage & Coordination of Benefits | Coordination of Benefits | Medicare Advantage & Coordination of Benefits |
| <u>Vision Care Services</u> | | | | |
| Exam | Not Covered | Not Covered | Not Covered | Not Covered |
| Lens | Not Covered | Not Covered | Not Covered | Not Covered |
| Frames | Not Covered | Not Covered | Not Covered | Not Covered |
| Contacts | Not Covered | Not Covered | Not Covered | Not Covered |

¹ DC = Deductible and coinsurance applies

In 2013 the City's PPO plan will participate in an Employee Group Waiver Plan (EGWP). As a result of participating in this plan, the City's cost for post 65 pharmacy was reduced an additional \$50 per month. This reduction was incorporated into the actual trends used in our claim curves.

CITY AND COUNTY OF SAN FRANCISCO
 JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**APPENDIX B
 SUBSTANTIVE PLAN PROVISIONS**

Cost Sharing Provisions:

Medical & Vision: Members are required to pay the difference between the cost of coverage and the City contribution.

Dental Coverage: Retirees pay the full cost of dental coverage offered by the City for themselves and their dependents.

City Contribution: The City pays a portion of the retiree or spouse / domestic partner premium as detailed in the following table, with the vesting schedule also applied. The City's contribution is limited by the premium. Medicare Part B premiums are the responsibility of the retiree.

| City Contribution | |
|----------------------------|--|
| <u>Pre-Medicare:</u> | |
| Retiree / Surviving Spouse | Single Retiree Premium less 50% of Contribution for Active Employee in the same Plan |
| Spouse / Domestic Partner | 50% of the difference between the single and two-party coverage premiums |
| Child | None |
| <u>Medicare Eligible:</u> | |
| Retiree / Surviving Spouse | 100% of Single Retiree Premium, up to the 10- County Amount |
| Spouse / Domestic Partner | 50% of the difference between the single and two-party coverage premiums |
| Child | None |

| Vesting Schedule (based on years of service)* | |
|---|------|
| Hired on or before January 9, 2009 | |
| With 5 years | 100% |
| Hired on or after January 10, 2009 | |
| Under 10 years | 0% |
| 10 to 15 years | 50% |
| 15 to 20 years | 75% |
| Over 20 years | 100% |

* Proposition B, passed 6/3/2008, introducing this vesting schedule to the postretirement health benefit plan. Participants retiring under disability or benefiting under the active death benefit receive 100% of the City Contribution, regardless of hire date and service.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

**APPENDIX B
SUBSTANTIVE PLAN PROVISIONS**

Active Member Contribution:

Active Contribution for Employee: Members are required to pay the difference between the cost of coverage and the 10-County Amount. The 10-County Amount (historical and bargained amounts are listed in the table below) is the average of the employer contribution in the ten most populous counties in California (other than San Francisco).

| 10-County Amount | |
|-------------------------|-----------|
| Period Ending | |
| June 30, 2011 | \$ 472.85 |
| June 30, 2012 | 503.94 |
| December 31, 2012 | 522.97 |
| December 31, 2013 | 534.78 |

Active Contribution for Spouse: Spouses and domestic partners are allowed to participate in the City provided medical plans at their own cost.

Changes Since Last Valuation:

There were changes to the Blue Shield medical plan effective July 1, 2010, which included \$5 increases to office visit copays, \$50 increases to emergency room visit copays (pre-Medicare plan only), the addition of a \$15 copay to preventative and pre/post-natal care, and a shift to a Medicare Advantage plan.

**APPENDIX C
 GLOSSARY OF TERMS**

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of plan 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.

3. Actuarial Gain (Loss) (Called Actuarial Experience Gain and Loss)

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

4. Actuarial Liability, i.e., Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of projected benefits which will not be paid by future Normal Costs.

5. Actuarial Present Value (Present Value)

The value as of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.),
- b. multiplied by the probability of the occurrence of the 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) or return to reflect the time value of money.

As a simple example: assume you owe \$100 to a friend one year from now. Also, assume there is a 1% probability of your friend dying over the next year, in which case you won't be obligated to pay him. If the assumed investment return is 10%, the actuarial present value is:

$$\begin{array}{rclclcl}
 \text{Amount} & & \text{Probability} & & & & \\
 \$100 & \times & \text{of Payment} & \frac{1}{(1+\text{Discount Rate})} & & & \\
 & & (1 - .01) & \frac{1}{1/(1+.1)} & = & \$90 &
 \end{array}$$

**APPENDIX C
GLOSSARY OF TERMS**

6. 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 for the Plan.

7. Actuarial Value of Assets

The value of cash, investments and other property belonging to a Plan, as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an actuarial value of assets is to smooth out fluctuations in market values. This way, long-term costs are not distorted by short-term fluctuations in the market.

8. Amortization

The portion of the Plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

9. Discount Rate

The estimated long-term interest yield on the investments that are expected to be used to finance the payment of benefits, with consideration given to the nature and mix of current and expected investments and the basis used to determine the Actuarial Value of Assets.

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The Actuarial Value of Assets expressed as a percentage of the Actuarial Accrued Liability.

12. Normal Cost

That portion of the Actuarial Present Value of the Plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

13. Unfunded Actuarial Liability

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

14. Per Person Cost Trend, i.e., 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.

CITY AND COUNTY OF SAN FRANCISCO
JULY 1, 2010 POSTRETIREMENT HEALTH BENEFIT VALUATION

APPENDIX D
ABBREVIATION LIST

Actuarial Accrued Liability (AAL)
Actuarial Valuation Report (AVR)
Annual Required Contribution (ARC)
Coordination of Benefits (COB)
Deductible and Coinsurance (DC)
Deferred Retirement Option Plan (DROP)
Durable Medical Equipment (DME)
Employee Assistance Program (EAP)
Employee Benefits Division (EBD)
Fiscal Year Ending (FYE)
Governmental Accounting Standards Board (GASB)
Hospital Emergency Room (ER)
In-Network (INN)
Inpatient (IP)
Medicare Eligible (ME)
Net Other Postemployment Benefit (NOO)
Non-Medicare Eligible (NME)
Not Applicable (NA)
Office Visit (OV)
Other Postemployment Benefit (OPEB)
Out-of-Network (OON)
Out-of-Pocket (OOP)
Outpatient (OP)
Pay-as-you-go (PAYGo)
Per Person Per Month (PPPM)
Pharmacy (Rx)
Preferred Provider Organization (PPO)
Primary Care Physician (PCP)
Specialist Care Provider (SCP)
Summary Plan Description (SPD)
Unfunded Actuarial Accrued Liability (UAAL)
Unfunded Actuarial Liability (UAL)
Urgent Care (UC)

City and County of San Francisco

July 1, 2010

OPEB Valuation Overview



Bill Hallmark, ASA, FCA
Margaret Tempkin, FSA
November 20, 2012



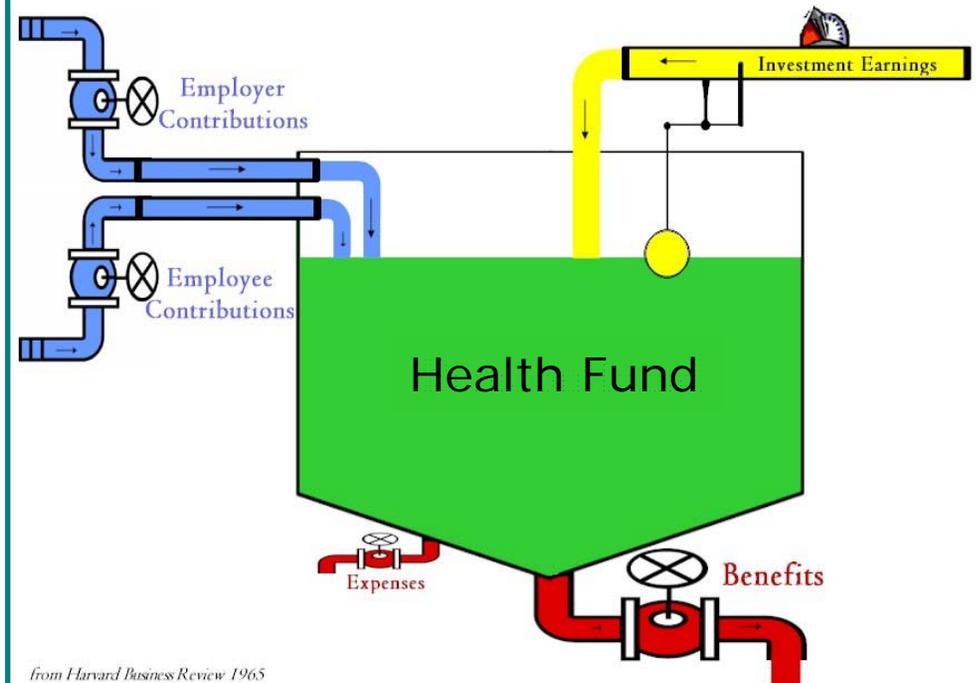
Overview

- The Actuarial Valuation Process
- Key Results
- Key Elements Affecting Projected Costs
- Current Funding Policy
- Projected Contributions
- Actuarial Basis



The Actuarial Valuation Process In General

1. Collect data – census, claims, assets, etc.
2. Develop health plan specific assumptions - claims, participation, health plan election, trend, etc.
3. Project all future benefit payments
4. Determine a present value of the benefits and allocate over each individual's career as a level percentage of pay
5. Compare to assets
6. Calculate "Annual Required Contribution"
7. Calculate Annual OPEB Cost and Net OPEB Obligation





Key Results

Table 1
Actuarial Liability

| Valuation Date | July 1, 2008 | | July 1, 2010 | |
|-------------------------------------|---------------------|------------------|---------------------|------------------|
| Discount Rate | 4.25% | | 4.25% | |
| Actives | \$ | 1,848,722 | \$ | 2,045,612 |
| Terminated Vested Members | | 531,275 | | 381,448 |
| Retirees | | 1,984,275 | | 1,993,086 |
| Total Actuarial Liability | \$ | 4,364,273 | \$ | 4,420,146 |
| Assets | | 0 | | (3,195) |
| Unfunded Actuarial Liability | \$ | 4,364,273 | \$ | 4,416,951 |
| Funded Ratio | | 0.0% | | 0.1% |

Dollar amounts in thousands

- The Actuarial Liability represents the present value of benefits attributed to service prior to the valuation date
- The discount rate is the interest rate used to calculate the present value
- Since the July 1, 2008 valuation, the actuarial liability has increased approximately 1.3%



Key Results

- **Annual Required Contribution (ARC)** – Neither required or a contribution amount, but serves as the basis for the annual expense reported on the City and County's financial statements. It consists of:
 - **Normal cost** - The present value of the benefits attributed to the next year of service for active employees
 - **Less expected employee contributions** - After Proposition B, employees employed on or after 1/10/2009 are required to contribute 2% of pay
 - **Plus a payment on the unfunded actuarial liability**
- **Unfunded Actuarial Liability (UAL) Payment**
 - UAL amount is amortized over a 30-year period with payments increasing 4.0% each year
 - 4.25% interest rate



Key Results

Table 2
Annual Required Contribution (ARC)

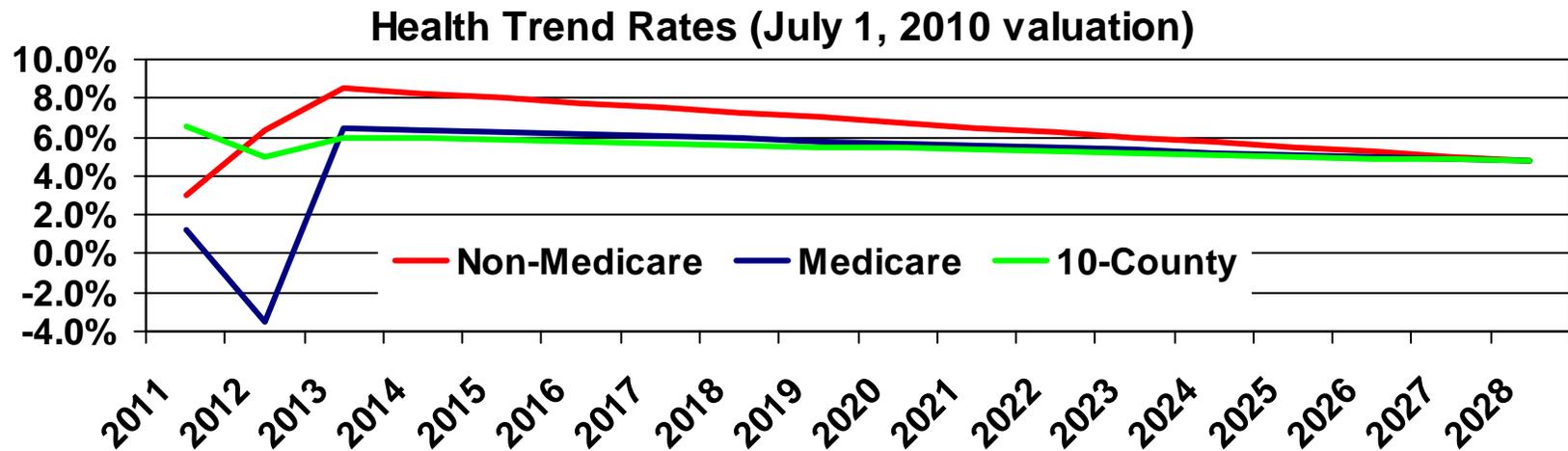
| | FYE 2012 | FYE 2013 |
|--|-------------------|-------------------|
| 1. Projected Total Normal Cost | \$ 236,663 | \$ 240,447 |
| 2. Expected Employee Contributions | <u>(3,885)</u> | <u>(6,336)</u> |
| 3. Projected Employer Normal Cost (1. - 2.) | \$ 232,778 | \$ 234,111 |
| 4. Projected Unfunded Actuarial Liability | \$ 4,685,581 | \$ 4,956,346 |
| 5. Amortization Factor | <u>28.38</u> | <u>28.38</u> |
| 6. Unfunded Actuarial Liability Amortization (4. ÷ 5.) | \$ 165,084 | \$ 174,624 |
| 7. Annual Required Contribution (3. + 6.) | \$ 397,862 | \$ 408,735 |

Dollar amounts in thousands

- 2010 valuation results are used to determine the ARC for FYE 2012 and 2013
- The ARC is the sum of the employer normal cost for the year and the amortization payment on the Unfunded Actuarial Liability
- The amortization factor is used to determine the first year's amortization payment on the unfunded actuarial liability, assuming a 30-year amortization period, as a level percentage of projected payroll.



Key Elements Affecting Projected Costs Economic and Demographic Experience



- Health care trends (Trend rates shown above for 2011 and 2012 reflect actual premium experience)
- Retirement rates
- Participation rates
- Health plan election rates
- Mortality rates
- Changes in covered population



Key Elements Affecting Projected Costs Benefit Program Design

- Eligibility for and level of retiree health benefit subsidies
 - Pre-Prop B – 5 years of service → Full subsidy
 - Post Prop B – Tiered subsidies based on service at retirement, and must begin benefits within 180 days of termination of employment
- Explicit Subsidy Structure
 - Based on 10-County survey amount
 - Retiree pays half of what active employee pays
 - Spouse pays half of spousal premium
- Health coverage provided and premium structure

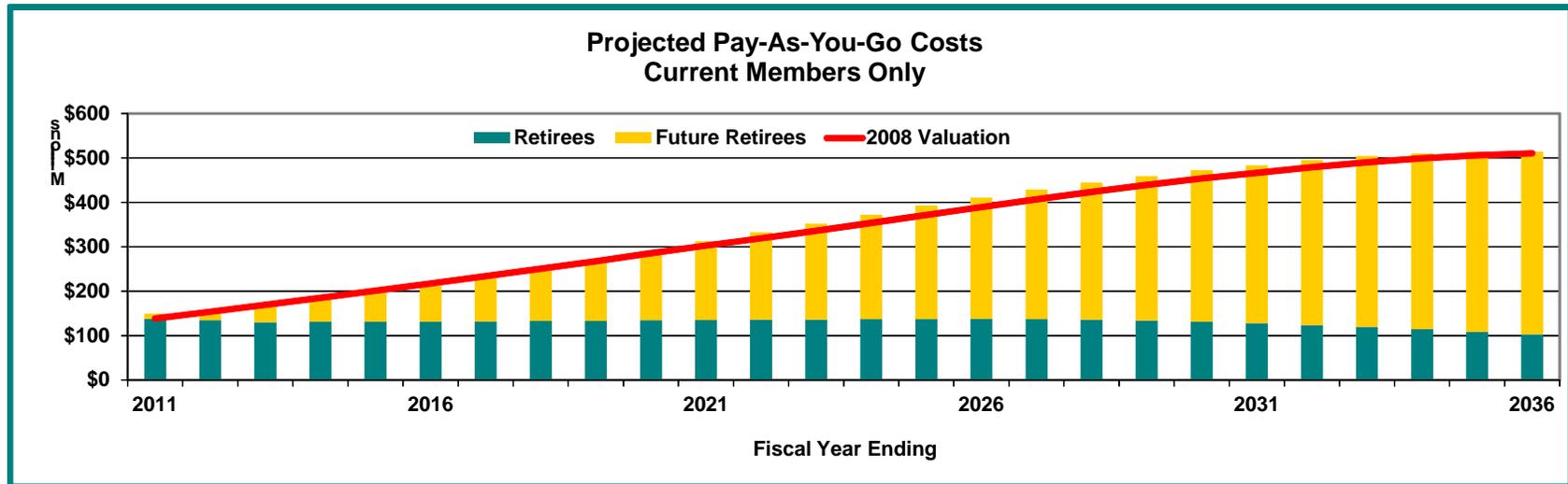


Current Funding Policy

- The City and County of San Francisco has been paying the benefits strictly on a pay-as-you-go basis
- For Prop B employees (hired on or after 1/10/2009), contributions to the Retiree Health Care Trust Fund (RHCTF) take effect immediately upon employment at the following levels:
 - 2% of pay is contributed by the employee
 - 1% of pay is contributed by the City
- For Pre-Prop B employees, contributions to the RHCTF take effect beginning July 1, 2016 as follows
 - 0.25% of pay is contributed by the employee in 2016, increasing 0.25% per year until the contribution level reaches 1% of pay in 2019
 - City contributions are equal to the employee contributions for pre-Prop B employees
- Contribution levels described above are minimum levels, additional contributions may also be made to the RHCTF
- No disbursements will be made from the RHCTF prior to January 1, 2020



Projected Pay-As-You-Go Costs



- Fundamental objective is to ensure that the benefits can be paid
- Over the next 8 years, the City can expect to pay the pay-as-you-go cost plus the contributions to the Retiree Health Care Trust Fund (RHCTF) required by Propositions B and C
- In the future, the assets in the RHCTF will be sufficient to pay a portion of the pay-as-you-go cost



Actuarial Basis

| | | | |
|-----------------------|--|--------------------------------|--|
| Discount Rate | 4.25% | Plan Participation | 94% of eligible participants will elect a medical plan, in the following proportion: City Plan: 5% Kaiser: 50% Blue Shield: 45% |
| Payroll Growth | 4.00% per year | Spousal Coverage | 47.5% Pre-Medicare and 25% Post-Medicare |
| Medical Trends | <p>Medical: 8.5% Pre-Medicare/6.5% Post-Medicare in FYE 2013 decreasing to 4.75% in FYE 2028. Additional Health Care Reform add-on of 2.5% in FYE 2019 and 0.5% in FYE 2020 for Pre-Medicare only.</p> <p>10-County Average: 6% in FYE 2013 decreasing to 4.75% in FYE 2028</p> <p>Vision: 3% per year, beginning in FYE 2014</p> <p>Actual rates used for FYE 2011 and FYE 2012</p> | Demographic Assumptions | Follow 2010 pension valuation, which included updates to the rates assumed for mortality, retirement, termination, disability incidence, refund of contributions, and salary increases. |
| | | Medicare Eligibility | All participants not yet receiving Medicare benefits will be eligible upon the later of retirement and age 65. |



Actuarial Basis

| | | | | | |
|---|---|-------------------|----------------|-----------------|----------------|
| Base Year Per Capita Plan Costs | Reset for all coverages based on claims analysis: | | | | |
| | | | <u>Medical</u> | <u>Pharmacy</u> | <u>Expense</u> |
| | City PPO | Pre-Medicare | 14,585.17 | 3,439.64 | 502.44 |
| | | Medicare Eligible | 1,456.35 | 2,244.62 | 414.72 |
| | Kaiser HMO | Pre-Medicare | 11,129.08 | n/a | 12.48 |
| | | Medicare Eligible | 3,563.91 | n/a | 12.48 |
| | Blue Shield HMO | Pre-Medicare | 13,845.77 | n/a | 12.48 |
| | Medicare Eligible | 3,974.77 | n/a | 12.48 | |
| Vision (All Plans) | | 42.84 | n/a | n/a | |
| Prop B Plan Changes | <p>For employees who commenced employment after January 10, 2009, the City subsidy for retiree health coverage is tiered based on service:</p> <p>Less than 10 years: 0%</p> <p>10-15 years: 50%</p> <p>15-20 years: 75%</p> <p>20 or more years: 100%</p> <p>Prop B employees also must retire within 180 days of termination in order to receive benefits.</p> | | | | |
| Retiree Health Care Trust Fund (RHCTF) Contributions | <p>For Prop B employees, contributions in the following amounts are required beginning at hire:</p> <p>-2% of pay employee contribution</p> <p>-1% of pay City contribution</p> <p>For all other employees, Prop C contributions will commence beginning July 1, 2016 and the employee and City will make equal contributions of 0.25% of pay for FYE 2017, increasing 0.25% per year until a rate of 1.0% is reached July 1, 2019.</p> | | | | |



Required Disclosures

- The purpose of this presentation is to present the results of the July 1, 2010 actuarial valuation for the City and County of San Francisco's Retiree Health Care Plan.
- This presentation is for the use of the City and County of San Francisco and its auditors. Any other user is not an intended user and is considered a third party. This presentation is not intended to benefit any third party and Cheiron assumes no duty or liability to any such party.
- In preparing the valuation, we relied without audit, on information (some oral and some written) supplied by the City and County of San Francisco, the Health Services System, and the San Francisco Employees' Retirement System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice #23. Please refer to the full July 1, 2010 actuarial valuation report for a complete description of the plan provisions, assumptions, methods and a summary of the data used in the actuarial valuation.
- We hereby certify that, to the best of our knowledge, this presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Margaret Tempkin, FSA

William R. Hallmark, ASA