

**City and County of San Francisco
Employees' Retirement System**

**July 1, 2012
Actuarial Valuation**

Produced by [Cheiron](#)

March 2013

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LETTER OF TRANSMITTAL

March 7, 2013

Retirement Board of the City and County of
 San Francisco Employees' Retirement System
 c/o Mr. Jay Huish, Executive Director
 30 Van Ness Avenue, Suite 3000
 San Francisco, CA 94102

Dear Members of the Board:

The purpose of this report is to present the July 1, 2012 actuarial valuation of the City and County of San Francisco Employees' Retirement System (SFERS). This report is for the use of the Retirement Board and its auditors in preparing financial reports in accordance with applicable laws and accounting requirements.

The table below presents the key results of the 2012 and 2011 valuations for SFERS.

Table I-1		
City and County of San Francisco Employees' Retirement System		
Summary of Key Valuation Results		
(in millions)		
Valuation Date	July 1, 2012	July 1, 2011
Fiscal Year End	2014	2013
Actuarial Liability	\$ 19,393.9	\$ 18,598.7
Actuarial Value of Assets	16,027.7	16,313.1
Unfunded Actuarial Liability (actuarial value)	\$ 3,366.2	\$ 2,285.6
Funding Ratio (actuarial value)	82.6%	87.7%
Market Value of Assets	15,293.7	15,598.8
Unfunded Liability (market value)	\$ 4,100.1	\$ 2,999.9
Funding Ratio (market value)	78.9%	83.9%
Net Employer Contribution Rate	24.82%	20.71%

- Unfunded Actuarial Liability (UAL)*: SFERS' UAL based on the actuarial value of assets increased by \$1,080.6 million. The primary cause of this increase is the investment experience during the 12 months ended June 30, 2009 that is being recognized over five years, but assumption changes also added to the UAL. SFERS' unfunded liability based on the market value of assets increased by \$1,100.2 million primarily due to the actual investment returns during the 12 months ended June 30, 2012.



- *Funding Ratio:* The ratio of the actuarial value of assets to actuarial liabilities declined since the last valuation from 87.7% to 82.6%. The actuarial value of assets is smoothed in order to mitigate the impact of investment performance volatility on employer contribution rates. Without the asset smoothing, the ratio of the market value of assets to actuarial liabilities decreased from 83.9% to 78.9% reflecting the less than expected investment return on a market value basis during the 12 months ended June 30, 2012.
- *Net Employer Contribution Rate:* The net employer contribution rate before applying the floating employee contribution rate provisions for the fiscal year ending June 30, 2014 increased by 4.11% of payroll. This increase is primarily attributable to the continued recognition of the investment experience during the 12 months ended June 30, 2009. The contribution rate increase is more than had been projected last year because the actual investment returns for the year ending June 30, 2012 were lower than expected. This investment loss will be recognized over the next five years.

The Charter (as amended by Proposition C) requires employees to pay a portion of the net employer contribution rate. The portion each employee pays depends on the net employer contribution rate, the employee group and the level of pay received by the employee. Unless explicitly identified otherwise, the figures shown in this report are before applying the floating contribution rate provisions. Table I-7 in the Board Summary section of the report shows the adjusted contribution rates for each of the employee groups based on the net employer contribution rate of 24.82% and estimates the resulting aggregate contribution rates for employees and employers.

More details on the plan experience for the past year, including the changes listed above and their impact on these July 1, 2012 valuation results can be found in this report.

In preparing our report, we relied on information (some oral and some written) supplied by the City and County of 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.

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 for the System for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. This

Board of Administration

March 7, 2013

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actuarial valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

Finally, it's important to note that this valuation, which was prepared using census data and financial information as of July 1, 2012, does not reflect any subsequent changes in the membership or the assets.

Sincerely,
Cheiron



Kenneth A. Kent, FSA, FCA, EA, MAAA
Principal Consulting Actuary



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

**SECTION I
BOARD SUMMARY**

The primary purpose of this actuarial valuation is to report, as of the valuation date, on the following:

- The financial condition of the City and County of San Francisco Employees' Retirement System (SFERS),
- Past and expected trends in the financial condition of SFERS,
- The employer's contribution rate for the Fiscal Year Ending June 30, 2014, and
- Information required by the Governmental Accounting Standards Board (GASB).

In this Section, we present a summary of the principal valuation results. This includes the basis upon which the July 1, 2012 valuation was completed and an examination of the current financial condition of SFERS. In addition, we review the key historical trends and project the financial outlook for SFERS assuming all assumptions are met.

A. Valuation Basis

SFERS funding policy sets employer contributions equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method, plus
- Expected administrative expenses, and plus
- Amortization payments for changes in the unfunded actuarial liability.

Changes in the unfunded actuarial liability due to assumption changes and actuarial gains and losses are amortized over a rolling 15-year period. Changes due to Propositions are amortized over 20-year closed periods.

The results in this report incorporate the assumption changes adopted by the Board at the December 2011 Board Meeting. The Board changed the investment return assumption from 7.75% to 7.50% over a three-year period: 7.66% for the 2011 valuation, 7.58% for the 2012 valuation, and 7.50% for the 2013 and future valuations. The Board changed the wage inflation assumption from 4.00% to 3.75% over the same three-year period: 3.91% for the 2011 valuation, 3.83% for the 2012 valuation, and 3.75% for the 2013 and future valuations. Hence, this valuation is based on an investment return assumption of 7.58% and a wage inflation assumption of 3.83%. We have incorporated the Board adopted rates for future valuations in all projections shown in this report.

B. Current Financial Condition of SFERS

On the following pages, the key results of the July 1, 2012 valuation are summarized and compared to the results from the July 1, 2011 valuation.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

1. SFERS Membership:

As shown in Table I-2 below, total membership in SFERS increased slightly in total. Active membership increased 0.5%, active DROP membership decreased 30.7%, and retiree membership increased 4.9%. Total payroll increased by 2.1% for active members and decreased 39.6% for DROP members. The average pay per active and DROP member increased by 1.2%. The significant decrease in DROP participation is due to the closure of the DROP effective June 30, 2011 and DROP members retiring.

Table I-2				
Membership Total				
Item	July 1, 2012	July 1, 2011	% Change	
Actives	28,097	27,955	0.5%	
Active DROP	185	267	-30.7%	
Terminated Vested	5,558	5,520	0.7%	
Retirees	18,711	17,841	4.9%	
Disabled	2,676	2,700	-0.9%	
Beneficiaries	3,803	3,751	1.4%	
Total SFERS Members	59,030	58,034	1.7%	
Active Member Payroll (FYE 2013/2012)	\$ 2,371,917,518	\$ 2,324,090,053	2.1%	
DROP Member Payroll (FYE 2013/2012)	\$ 21,924,019	\$ 36,323,172	-39.6%	
Average Pay per Active (including DROP)	\$ 84,642	\$ 83,637	1.2%	

Included in the active counts above are 491 new members who were hired with benefits under Proposition C (See Appendix C for a description of the changes in plan provisions contained in Proposition C).

2. SFERS Assets and Liabilities:

Table I-3, on the following page, compares the July 1, 2012 and July 1, 2011 SFERS assets, liabilities, unfunded actuarial liability (UAL), and funding ratios.

The key results shown in Table I-3 indicate that the total actuarial liability increased 4.3% and the market value of assets decreased by 2.0%. SFERS employs an asset smoothing method which dampens investment market volatility. For this year the smoothed value of assets (called the actuarial value of assets) decreased by 1.7%. Finally, SFERS' UAL (actuarial liability less actuarial value of assets) increased from \$2.29 billion to \$3.37 billion, resulting in a decrease in the funding ratio from 87.7% to 82.6%. Based on the market value of assets, the funding ratio decreased from 83.9% to 78.9%.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

Table I-3			
Assets & Liabilities			
(in millions)			
Item	July 1, 2012	July 1, 2011	% Change
Actuarial Liability			
Actives	\$ 7,413.2	\$ 7,157.8	3.6%
Active DROP	322.9	453.8	-28.8%
Terminated Vested	395.9	371.3	6.6%
Retirees	8,482.9	7,870.7	7.8%
Disabled	1,813.8	1,799.9	0.8%
Beneficiaries	965.2	945.2	2.1%
Total Actuarial Liability	\$ 19,393.9	\$ 18,598.7	4.3%
Market Value Assets	\$ 15,293.7	\$ 15,598.8	-2.0%
Actuarial Value Assets	\$ 16,027.7	\$ 16,313.1	-1.7%
Unfunded Actuarial Liability (market value)	\$ 4,100.2	\$ 2,999.9	36.7%
Unfunded Actuarial Liability (actuarial value)	\$ 3,366.2	\$ 2,285.6	47.3%
Funding Ratio - Market Value	78.9%	83.9%	-5.0%
Funding Ratio - Actuarial Value	82.6%	87.7%	-5.1%

3. Components of UAL Increase between July 1, 2011 and July 1, 2012:

The UAL based on the actuarial value of assets of \$2,285.6 million last year grew to a UAL of \$3,366.2 million this year, representing an increase of \$1,080.6 million. Table I-4 presents the specific components of this change in the UAL.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**SECTION I
BOARD SUMMARY**

Table I-4	
Increase in Unfunded Actuarial Liability	
Experience	in millions
1. Unfunded actuarial liability, 7/1/2011	\$ 2,285.6
2. Expected change in unfunded actuarial liability	\$ (58.3)
3. Unfunded increase due to investment loss and expenses	1,139.0
4. Unfunded decrease due to liability gain	(187.0)
5. Unfunded increase due to contributions less than expected	51.4
6. Unfunded increase due to assumption changes	<u>135.5</u>
7. Total change in unfunded actuarial liability	\$ 1,080.6
8. Unfunded actuarial liability, 7/1/2012	\$ 3,366.2

The key findings in Table I-4 are that investment losses and expenses increased the UAL by \$1,139.0 million, assumption changes added \$135.5 million, and liability experience gains decreased the UAL by \$187.0 million. In addition, the one-year lag between the valuation date and the change in the employer contribution rate from 18.09% to 20.71% (augmented somewhat by the lower than expected payroll) increased the UAL by \$51.4 million.

4. SFERS Contributions:

Table I-5 shows that the SFERS contribution rate for FYE 2014 before adjustment for the floating employee contribution rates, measured as a percent of membership payroll, increased from 20.71% to 24.82%.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**SECTION I
BOARD SUMMARY**

Table I-5 Contributions			
Item	FYE 2014	FYE 2013	Change
1. Gross Normal Cost %	17.91%	17.90%	0.01%
2. Member Cost %	<u>7.53%</u>	<u>7.51%</u>	0.02%
3. Employer Normal Cost %	10.38%	10.39%	-0.01%
4. Amortization of Remaining UAL%	7.88%	3.66%	4.22%
5. Amortization of Proposition UAL%	<u>6.11%</u>	<u>6.21%</u>	-0.10%
6. Total Employer Unfunded Liability Cost %	13.99%	9.87%	4.12%
7. Administrative Expenses %	0.45%	0.45%	0.00%
8. Net Employer Contribution Rate: (3 + 6 + 7)	24.82%	20.71%	4.11%

Table I-6 shows sources for the change in the net employer contribution rate. The contribution rate increase is primarily attributable to the smoothed asset loss and is more than was projected to occur because of the unfavorable investment returns achieved in the last year.

Table I-6 Contribution Reconciliation			
Item	Total	Normal Cost*	Amortization
FYE 2013 Net Employer Contribution Rate	20.71%	10.84%	9.87%
Change due to asset loss	4.41%	0.00%	4.41%
Change due to liability gain	-0.83%	-0.14%	-0.69%
Change due to effect of payroll on amortization	0.32%	0.00%	0.32%
Change due to assumptions	0.66%	0.15%	0.51%
Change due to increase in employee contribution rate	-0.02%	-0.02%	0.00%
Completion of 1992 proposition amortization and other	<u>-0.43%</u>	<u>0.00%</u>	<u>-0.43%</u>
FYE 2014 Net Employer Contribution Rate	24.82%	10.83%	13.99%

* Includes administrative expenses

In Section IV of this report, more detail is provided on the development of this contribution rate.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

Table I-7 shows the estimated member and employer contributions adjusted for the floating employee contribution rates under Proposition C. The adjustments are based on the applicable table in the Charter for an employer contribution rate of 24.82%.

Table I-7 Employee and Employer Contribution Rates By Employee Group for FYE 2014							
Hire Date	Hourly Pay	Estimated Payroll FYE 2014	Base Rates		Adjusted Rates		
			Employee	Employer	Employee	Employer	
Police and Fire							
< 11/2/1976	All	\$ 92,169	7.0%	24.82%	11.5%	20.32%	
11/2/1976 - 6/30/2010	All	399,387,680	7.5%	24.82%	12.0%	20.32%	
> 6/30/2010	< \$48	37,226,840	9.0%	24.82%	12.5%	21.32%	
> 6/30/2010	>= \$48	7,456,673	9.0%	24.82%	13.0%	20.82%	
Miscellaneous							
< 11/2/1976	< \$24	\$ 219,048	8.0%	24.82%	8.0%	24.82%	
< 11/2/1976	\$24 - \$48	3,988,533	8.0%	24.82%	11.5%	21.32%	
< 11/2/1976	>= \$48	1,161,716	8.0%	24.82%	12.0%	20.82%	
>= 11/2/1976	< \$24	136,638,016	7.5%	24.82%	7.5%	24.82%	
>= 11/2/1976	\$24 - \$48	1,185,123,774	7.5%	24.82%	11.0%	21.32%	
>= 11/2/1976	>= \$48	714,231,218	7.5%	24.82%	11.5%	20.82%	
Estimated Aggregate		\$ 2,485,525,668	7.53%	24.82%	11.14%	21.21%	

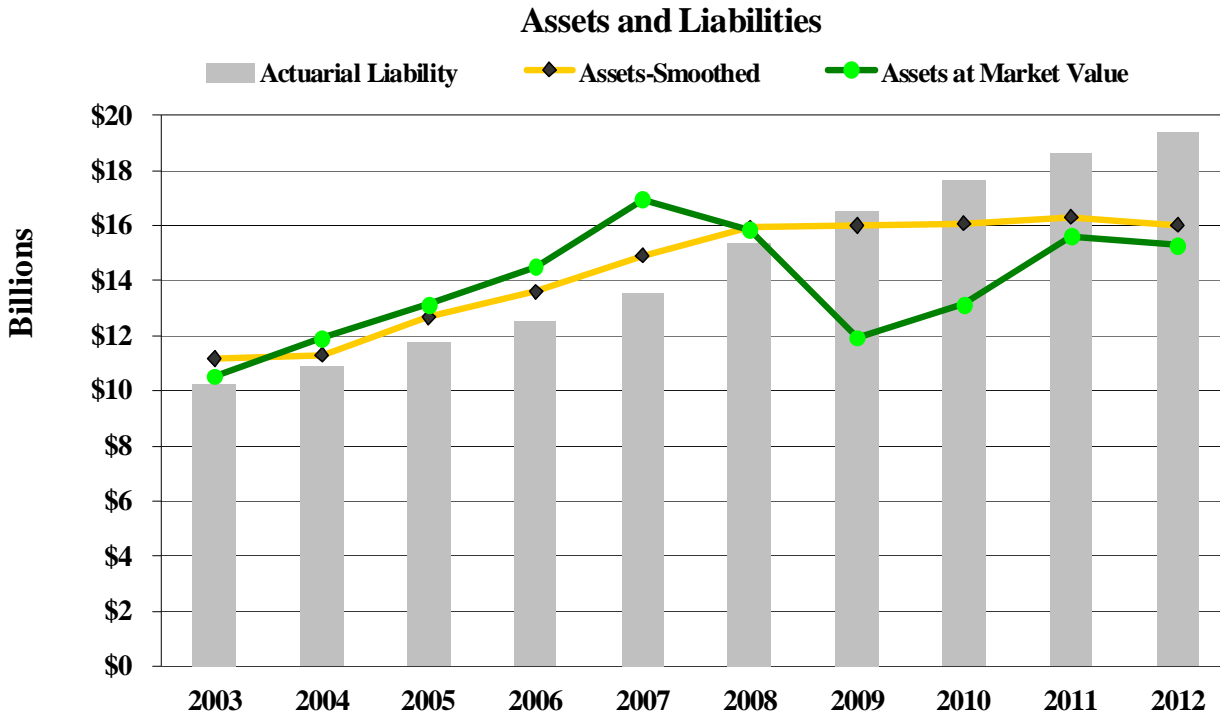
SECTION I
 BOARD SUMMARY

C. Historical Trends

It is important to remember that each valuation is merely a snapshot of the long-term progress of a pension fund. It is important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

The chart below shows the historical trends for assets (both market and smoothed) versus the actuarial liability, and also shows the progress of SFERS' funding ratios since 2003.

SFERS - Assets and Liabilities 2003-2012



Funded Ratio	109.0%	103.8%	107.6%	108.6%	110.2%	103.8%	97.0%	91.1%	87.7%	82.6%
UAL/(Surplus)	\$ (0.92)	\$ (0.41)	\$ (0.89)	\$ (1.08)	\$ (1.39)	\$ (0.58)	\$ 0.49	\$ 1.57	\$ 2.29	\$ 3.37

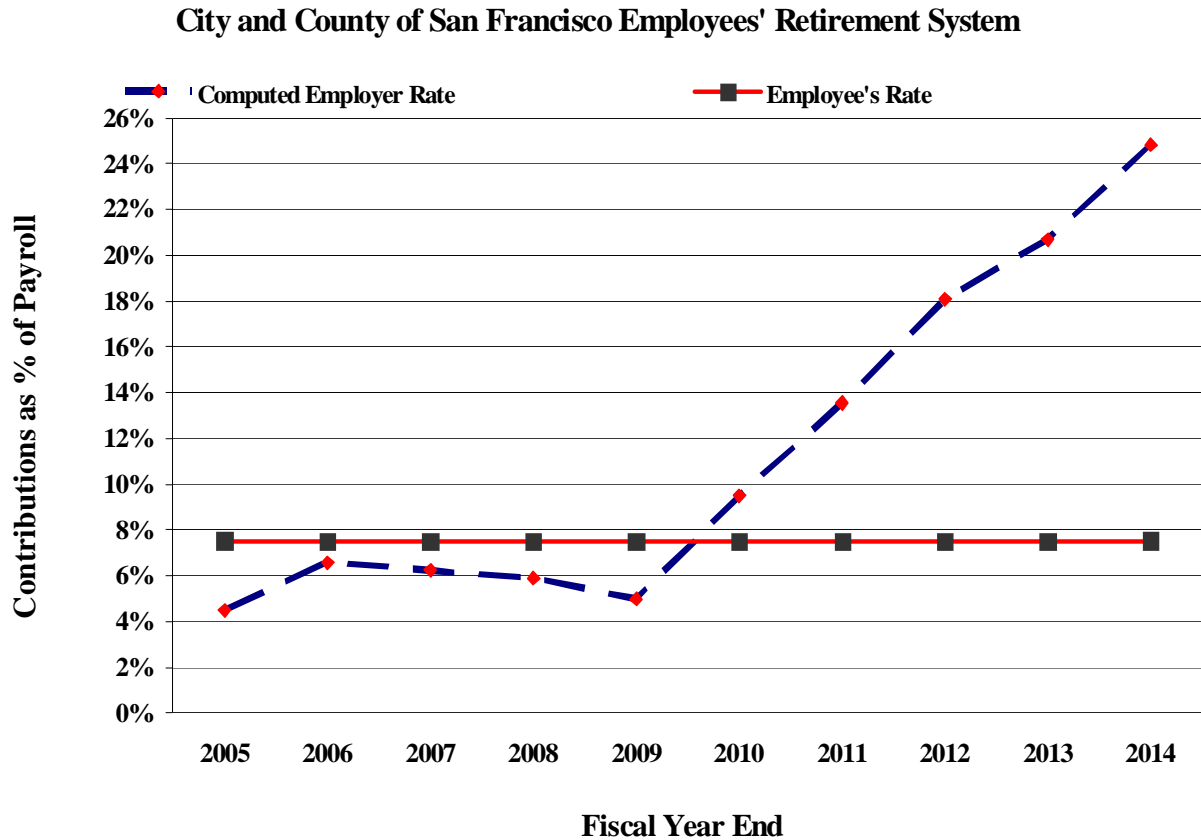
The chart above shows that the System maintained a surplus through July 1, 2008 ending the period at 103.8% funded. Since 2008 the funding ratio has declined primarily due to investment experience, Proposition B and assumption changes. In 2009, the actuarial value of assets was 34 percent greater than the market value of assets. This gap, however, has closed significantly such that the actuarial value of assets is now only about 5 percent greater than the market value.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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**SECTION I
BOARD SUMMARY**

In the chart below, the historical trends for SFERS' contribution rates since the Fiscal Year Ending June 30, 2004 are shown. All information shown prior to the Fiscal Year Ending June 30, 2010 was calculated by the prior actuary.

Employer and Member Contribution Rates for Fiscal Years Ending 2005-2014

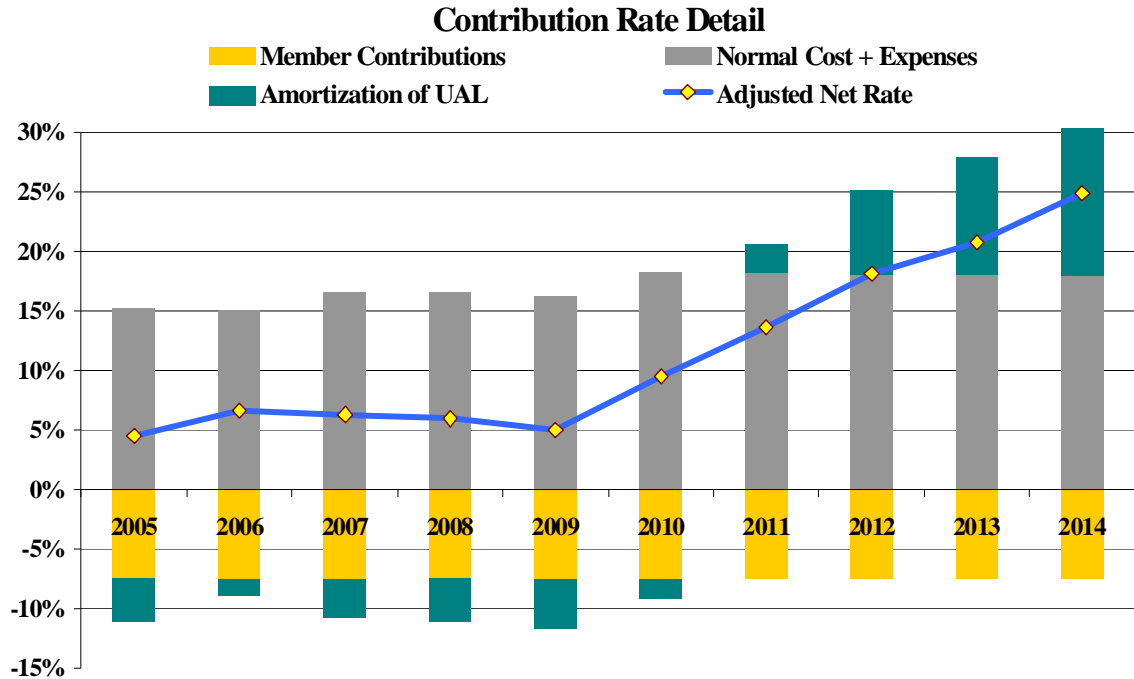


The key information in this chart is the increase in the employer contribution rate since 2005. The increase for the Fiscal Year Ending in 2010 is primarily due to benefit changes under Proposition B and decreasing the investment return assumption from 8.00% to 7.75%. The increases for the Fiscal Years Ending in 2011, 2012, 2013 and 2014 are primarily due to the investment losses from 2008-09 being phased-in and assumption changes adopted for the 2010, 2011 and 2012 actuarial valuations. Employer contribution rate increases are expected for the next year as the balance of the investment losses are recognized under the asset smoothing method and the investment return and wage inflation assumptions are completely phased-in.

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**SECTION I
BOARD SUMMARY**

The chart below shows historical trends of SFERS' contribution rate components since the Fiscal Year Ending June 30, 2005, and the table below it shows the detail of the components of the contribution rates. All information shown prior to the Fiscal Year Ending June 30, 2010 was calculated by the prior actuary.



Historic Cost as a Percentage of Pay

Fiscal Year End	2005	2006	2007	2008	2009	2010	2011	2012	2013*	2014*
Normal Cost + Expenses	15.64%	15.51%	17.01%	17.05%	16.64%	18.61%	18.63%	18.35%	18.35%	18.36%
Amortization of UAL	-3.63%	-1.41%	-3.25%	-3.63%	-4.13%	-1.62%	2.44%	7.24%	9.87%	13.99%
Member Contributions	-7.53%	-7.52%	-7.52%	-7.51%	-7.52%	-7.50%	-7.51%	-7.50%	-7.51%	-7.53%
Adjusted Net Rate	4.48%	6.58%	6.24%	5.91%	4.99%	9.49%	13.56%	18.09%	20.71%	24.82%

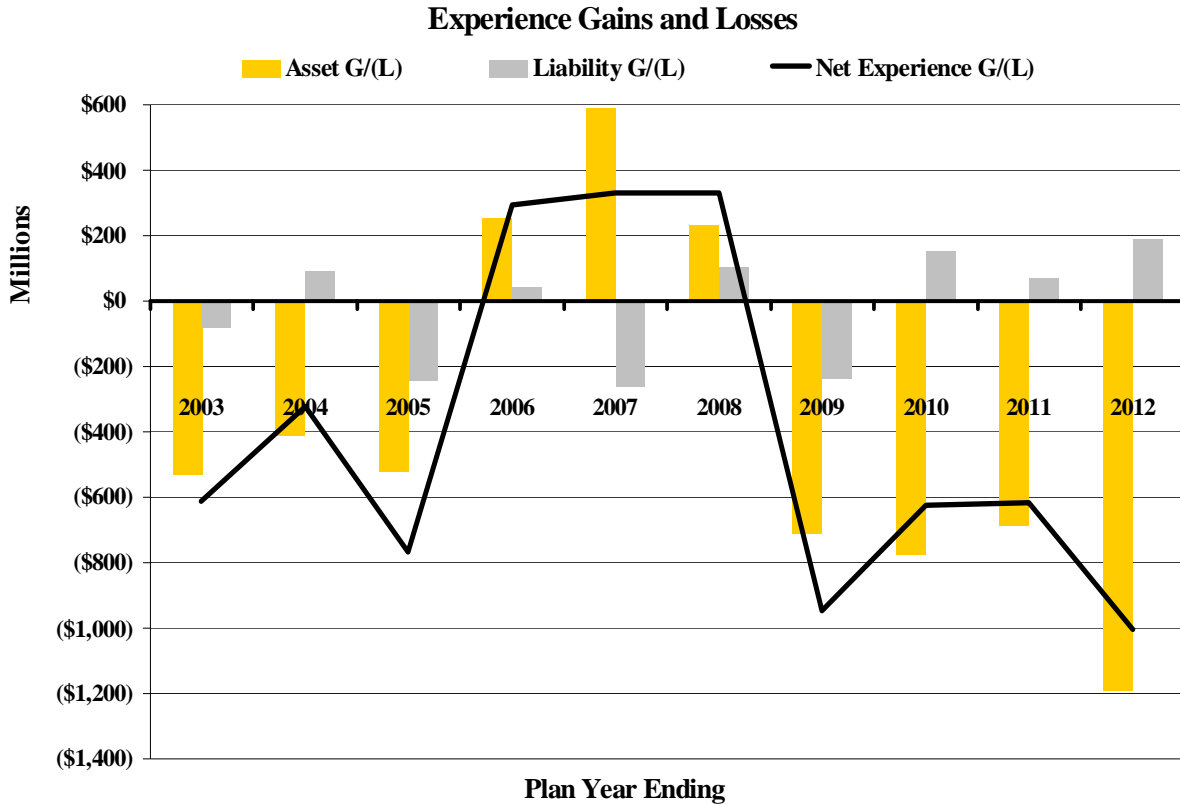
* Before adjustment to the member contribution rates

The amortization of the UAL has changed over the last decade from -3.63% to 13.99% accounting for the majority of the increase in contribution rates. This increase is due to plan changes, lower than expected investment returns, as well as changes in assumptions. The normal cost as a percent of payroll has also increased from the Fiscal Year Ending in 2005 to the Fiscal Year Ending in 2014, due to plan changes and assumption changes. The chart demonstrates how the total annual cost is offset by member contributions and the amortization of surplus assets (prior to FYE 2011).

The chart below illustrates the pattern of SFERS' annual gains and losses, broken into the investment and liability components. The chart does not include any changes in the System's assets and liabilities attributable to changes to methods, procedures or assumptions.

SECTION I
 BOARD SUMMARY

SFERS Historical Gain/(Loss) 2003-2012



The key insights from this chart are:

- On a smoothed asset basis, the investment gains and losses (gold bars) for the last decade reflect material net investment losses driven by the market declines of 2001 and 2008 which are spread over successive years. Since the actuarial value of assets only recognizes a portion of the recent market losses, additional investment losses on the actuarial value of assets are expected over the next year.
- On the liability side, there have been greater losses than gains. This trend has been mitigated with the assumption changes adopted beginning with the July 1, 2010 valuation.

**SECTION I
 BOARD SUMMARY**

D. Projected Financial Trends

Our analysis of SFERS projected financial trends is an important part of this valuation. In this Section, we examine the implications of the July 1, 2012 valuation results on the future outlook for SFERS in terms of benefit security (assets over liabilities) and expected future contribution rates.

In the charts that follow, we project SFERS' assets and liabilities, the pay down of UAL, and the employer contributions as a percent of payroll on two different bases:

- 1) Assuming 7.58% returns for FYE 2013 and 7.50% for FYE 2014 and every year thereafter, and
- 2) Assuming returns shown in the table below. These are rates of return that vary each year but over the projection period equal on average the assumed 7.50% return (the average over 20 years reflecting the phase-in described above). We do this because SFERS' returns will never be level each and every year.
- 3) The liabilities and future contribution rates also reflect the phase-in of the assumption changes the Board has adopted.

FYE	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Return	20.00%	8.00%	3.00%	21.00%	-8.00%	15.00%	13.00%	8.00%	-7.00%	16.00%
FYE	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>
Return	9.00%	-5.00%	8.00%	14.00%	15.80%	-7.00%	-12.00%	29.50%	20.75%	0.00%

The investment returns shown above were selected solely to illustrate the impact of investment volatility on the pattern of funded status and employer contribution rates while producing the same average long-term rate of return. They are not intended to be predictive of actual future contribution rates or funded status or even to represent a realistic pattern of investment returns.

SECTION I
 BOARD SUMMARY

Projection Set 1: Assets and Liabilities - SFERS

The two charts below show asset measures (green and gold lines) compared to liabilities (gray bars). At the top of each chart is the progression of SFERS' funding ratios. The key insights from these two charts are the projected declines in funded ratios over the next couple of years, as recent market losses become fully recognized and the changes in assumptions are phased-in, and how varying investment returns can impact SFERS' funding ratios.

Chart 1: Projection of Assets and Liabilities, assumed return each year

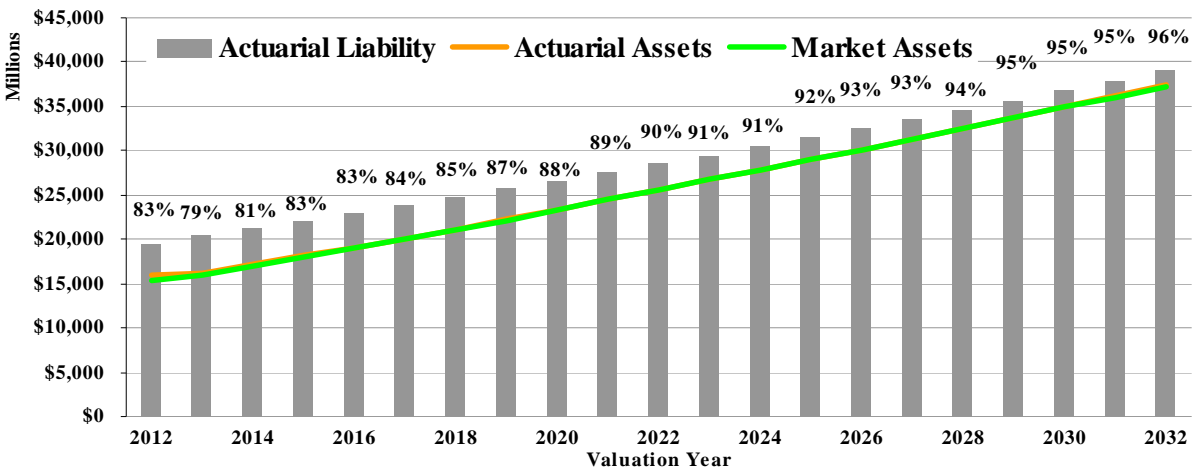
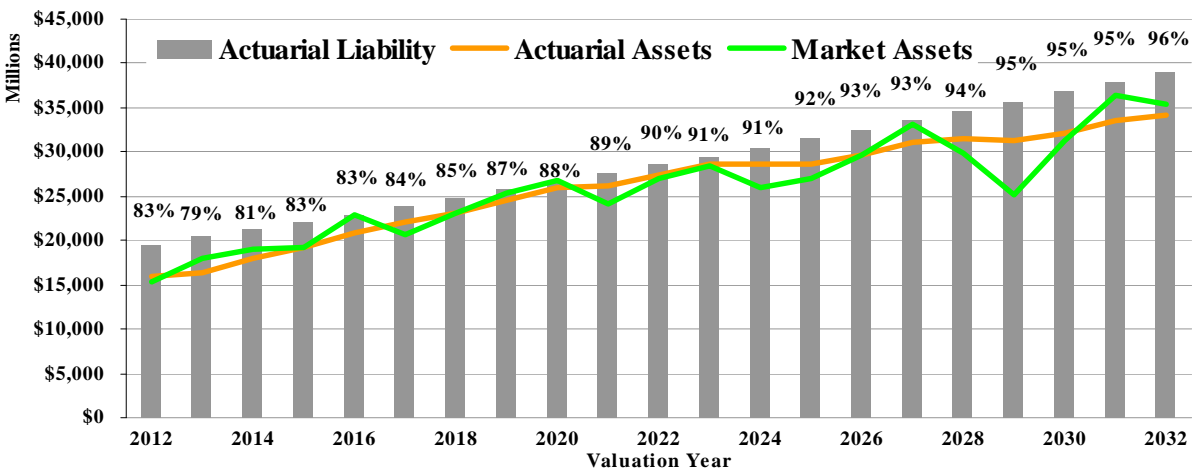


Chart 2: Projection of Assets and Liabilities, varying returns averaging 7.50% over time



The investment returns used in the projection above were selected solely to illustrate the impact of investment volatility on the pattern of funded status and employer contribution rates while producing the same average long-term rate of return. They are not intended to be predictive of actual future contribution rates or funded status or even to represent a realistic pattern of investment returns.

SECTION I
 BOARD SUMMARY

Projection Set 2: Projected Employer Contribution Rate

As seen in the charts below, employer contribution rates (before applying the adjustments for floating employee contribution rates) are expected to increase over the next couple of years. In addition, varying returns will also have a significant impact on the pattern and magnitude of actuarially computed employer contribution rates.

Chart 1: Assumed return each year

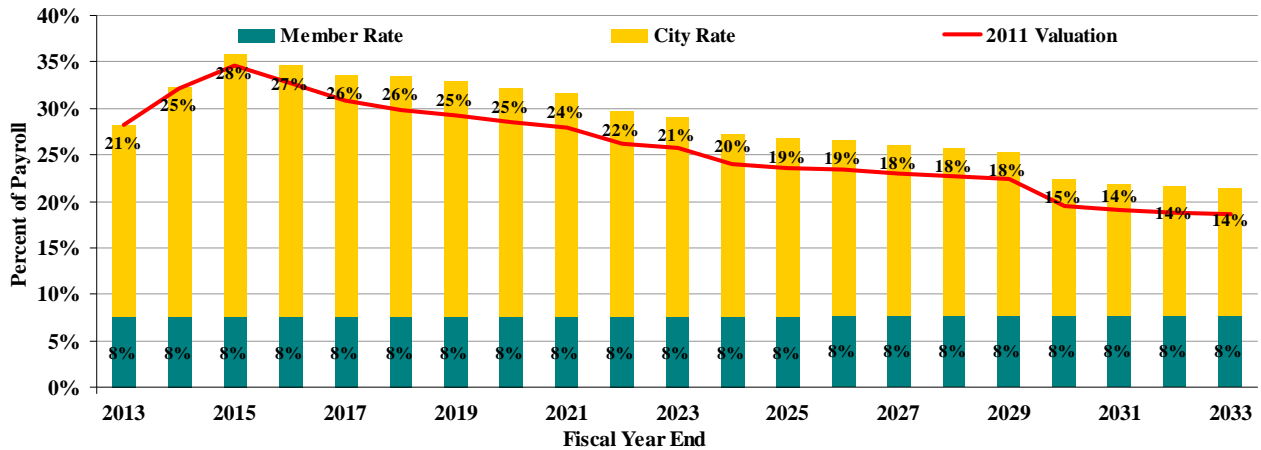
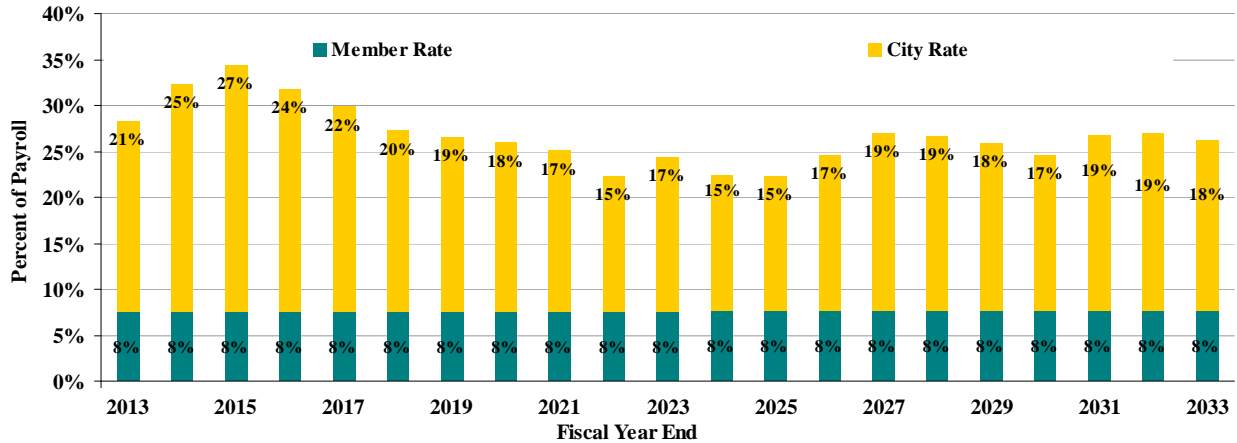


Chart 2: Varying returns averaging 7.50% over time



The investment returns used in the projection above were selected solely to illustrate the impact of investment volatility on the pattern of funded status and employer contribution rates while producing the same average long-term rate of return. They are not intended to be predictive of actual future contribution rates or funded status or even to represent a realistic pattern of investment returns.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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**SECTION II
ASSETS**

SFERS uses and discloses two different asset measurements which are presented in this section of the report: market value and actuarial value of assets. The market value represents the value of the assets if they were liquidated on the valuation date. The actuarial value of assets is a value that attempts to smooth annual investment return performance over multiple years to reduce the impact of investment volatility on SFERS' contribution rates.

This section includes the following detailed information on SFERS' assets:

- A. Statement of changes in the market value of assets during the year,
- B. Development of the actuarial value of assets, and
- C. Discussion of investment performance for the year.

A. Changes in the Market Value of Assets

Table II-1		
Change in Market Value of Assets		
(in thousands)		
Item	FYE 2012	FYE 2011
1. Market Value, Beginning of Year	\$ 15,598,840	\$ 13,136,786
2. Additions		
a. Employer contributions	410,797	308,822
b. Member contributions	<u>198,160</u>	<u>181,756</u>
c. Total Additions: (2a + 2b)	\$ 608,957	\$ 490,578
3. Net Investment Income	80,402	2,887,576
4. Benefits and Administrative Expenses	<u>(994,474)</u>	<u>(916,100)</u>
5. Net Increase/(Decrease): (2c + 3 + 4)	\$ (305,115)	\$ 2,462,054
6. Market Value, End of Year	\$ 15,293,725	\$ 15,598,840

B. Actuarial Value of Assets

To determine on-going funding requirements, most pension funds utilize an actuarial value of assets that differs from the market value of assets. The actuarial value of assets is based on smoothing year-to-year market value returns for purposes of reducing the resulting volatility on contributions.

The actuarial value is calculated by recognizing 20% of the variance of each of the prior five years of actual investment returns compared to the expected return on the actuarial value of assets. The expected return on the actuarial value of assets is determined using the Fund's actual cash flows and the assumed rate of return (7.66% for the year ending 2012, 7.75% for years ending 2009-2011, and 8.0% for prior years). (See Appendix B on page 54 for further explanation of the asset valuation method).

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**SECTION II
ASSETS**

Table II-2	
Development of Actuarial Value of Assets for 7/1/2012	
(in thousands)	
Item	Total
1. Actuarial Value as of 7/1/2011	\$ 16,313,120
2. Non-Investment Cash Flow for 2011-2012	(385,517)
3. Expected Return in 2011-2012	1,235,092
4. Expected Actuarial Value as of 7/1/2012: (1 + 2 + 3)	\$ 17,162,695
5. Actual Return in 2011-2012	80,402
6. Actual Return Above Expected in 2011-2012: (5 - 3)	(1,154,690)
7. Recognition of Returns Above Expected	
a. 2011-2012 (20% of 6.)	(230,938)
b. 2010-2011	331,681
c. 2009-2010	86,011
d. 2008-2009	(938,819)
e. 2007-2008	(382,947)
f. Total: (7a + 7b + 7c + 7d + 7e)	\$ (1,135,012)
8. Actuarial Value as of 7/1/2012: (4 + 7f)	\$ 16,027,683

C. Investment Performance

The market value of assets internal rate of return, net of investment expenses, was 0.52% for the year ending June 30, 2012. This is compared to an assumed rate of return of 7.66%.

On an actuarial value of assets basis, the return for the year ending June 30, 2012 was 0.62%. This return produced an overall SFERS investment loss on the actuarial value of assets of \$1,135.0 million for the year ending June 30, 2012.

**SECTION III
LIABILITIES**

In this section, detailed information on the measurement of liabilities for SFERS is presented, including:

- Disclosure of liabilities as of July 1, 2011 and July 1, 2012, and
- Statement of changes in the unfunded actuarial liability during the year.

A. Disclosure

Two measures of liability are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- **Present Value of all Future Benefits:** Used for measuring all future SFERS obligations, represents the expected amount of money needed today to fully pay off all benefits of SFERS both earned as of the valuation date and those to be earned in the future by current plan participants, under the current Plan provisions.
- **Actuarial Liability-Entry Age Normal (EAN):** Used for determining employer contributions and GASB accounting disclosures. This liability is calculated taking the present value of all future benefits and subtracting the present value of future member contributions and future employer normal costs as determined under the EAN actuarial funding method.

Table III-1 on the following page discloses these measures of liability for the current and prior year valuations. By subtracting the actuarial value of assets from the actuarial liability, the net surplus or an unfunded actuarial liability (UAL) is determined. The division of the present value of future normal costs between employees and employers is prior to applying the floating employee contribution provisions of Proposition C.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

Table III-1		
Present Value of Future Benefits and Actuarial Liability		
(in thousands)		
Item	July 1, 2012	July 1, 2011
Present Value of Future Benefits		
Actives	\$ 11,427,849	\$ 11,172,300
Active DROP	322,916	453,771
Terminated Vested	395,892	371,334
Retirees	8,482,868	7,870,695
Disabled	1,813,794	1,799,939
Beneficiaries	<u>965,223</u>	<u>945,217</u>
Total SFERS	\$ 23,408,542	\$ 22,613,256
Actuarial Liability		
Total Present Value of Benefits	\$ 23,408,542	\$ 22,613,256
Present Value of Future Normal Costs		
Employer Portion	2,451,852	2,466,156
Employee Portion	<u>1,562,837</u>	<u>1,548,374</u>
Actuarial Liability	\$ 19,393,854	\$ 18,598,726
Actuarial Value of Assets	\$ 16,027,683	\$ 16,313,120
Unfunded Actuarial Liability/(Surplus)	\$ 3,366,171	\$ 2,285,606

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-2 shows the actuarial liability as of July 1, 2012 for each of the Miscellaneous, Police, and Fire members of SFERS.

Present Value of Future Benefits	Police	Fire	Miscellaneous	Total
Actives	\$ 1,838,285	\$ 1,472,176	\$ 8,117,387	\$ 11,427,848
Active DROP	322,916	0	0	322,916
Terminated Vested	19,459	8,002	368,431	395,892
Retirees	1,480,031	1,132,319	5,870,519	8,482,869
Disabled	542,148	899,957	371,689	1,813,794
Beneficiaries	320,727	255,792	388,704	965,223
Total SFERS	\$ 4,523,566	\$ 3,768,246	\$ 15,116,730	\$ 23,408,542
Actuarial Liability				
Actives	\$ 1,108,142	\$ 945,209	\$ 5,359,809	\$ 7,413,160
Active DROP	322,916	0	0	322,916
Terminated Vested	19,459	8,002	368,431	395,892
Retirees	1,480,031	1,132,319	5,870,519	8,482,869
Disabled	542,148	899,957	371,689	1,813,794
Beneficiaries	320,727	255,792	388,704	965,223
Total SFERS	\$ 3,793,423	\$ 3,241,279	\$ 12,359,152	\$ 19,393,854

B. Changes in Unfunded Actuarial Liability

The UAL of any retirement plan is expected to change at each subsequent valuation for a variety of reasons. In each valuation, we report on those elements of change in the UAL that have particular significance or could potentially affect the long-term financial outlook of a retirement plan. Below we present key changes in the UAL since the last valuation.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
 JULY 1, 2012 ACTUARIAL VALUATION

**SECTION III
 LIABILITIES**

Table III-3	
Development of 2012 Experience Gain/(Loss)	
(in millions)	
Item	Cost
1. Unfunded Actuarial Liability at July 1, 2011	\$ 2,285.6
2. Middle of year actuarial liability payment	(224.9)
3. Interest to end of year on 1 and 2	166.6
4. Expected Unfunded Actuarial Liability at July 1, 2012 (1+2+3)	\$ 2,227.3
5. Actual Unfunded Liability at July 1, 2012	3,366.2
6. Difference: (4 - 5)	\$ (1,138.9)
7. Portion of difference due to:	
a. Investment experience	\$ (1,135.0)
b. Salary increases	173.7
c. Old Safety COLAs	145.1
d. Assumption changes	(135.5)
e. One-year lag in contribution rate change	(64.2)
f. Retirements	(64.7)
g. Terminations	(13.8)
h. New entrant loss	(14.7)
i. Other experience	(29.8)
j. Total	(1,138.9)

**SECTION IV
CONTRIBUTIONS**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions are needed to achieve and maintain an appropriate funded status of a plan. Typically, the actuarial valuation will use an actuarial funding method that will result in a pattern of contributions that are both relatively stable and predictable.

The actuarial funding methodology employed in this valuation is the Entry Age actuarial cost method. Under this method, there are two components to the total contribution: the normal cost and the unfunded actuarial liability contribution. The normal cost rate is determined by taking the value, as of entry age into the plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of each member's expected future salary. The normal cost rate is multiplied by current salary to determine each member's normal cost. Finally, the normal cost is reduced by the member contribution to produce the employer normal cost. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability. The UAL is made up of unamortized prior Charter amendments, plus the impact of accumulated experience, assumption changes and method changes.

Table IV-1 on the following page develops the employer's contribution rate for FY 2013-2014. The methodology and assumptions used are in full compliance with the parameters set in GASB Statement No. 25 for purposes of determining the annual required contribution (ARC).

Table IV-2 provides the payment schedules to amortize the changes to the actuarial liability as a result of changes to the Charter over 20 years with the net unfunded liability representing the accumulated experience of gains/losses and changes in the assumptions or methods over 15 years. All amortizations are determined on a level percent of pay basis which means that for the duration of the amortization schedule, the payment amount increases each year at the assumed wage inflation rate.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS**

Table IV-1					
Development of the Net Employer Contribution Rate as of July 1, 2012 for FYE 2014					
(dollars in millions)					
	July 1, 2012				July 1, 2011
	Police	Fire	Miscellaneous	COMPOSITE	COMPOSITE
1. Total Normal Cost Rate	27.18%	32.50%	15.42%	17.91%	17.90%
2. Member Contribution Rate	<u>7.67%</u>	<u>7.62%</u>	<u>7.50%</u>	<u>7.53%</u>	<u>7.51%</u>
3. Employer Normal Cost Rate (1-2)	19.51%	24.88%	7.92%	10.38%	10.39%
4. a. UAL - Proposition balance as of 7/1/2012	\$191.3	\$184.4	\$913.0	\$1,288.7	\$1,333.3
b. Remaining balance of 7/1/2012 UAL	<u>214.8</u>	<u>150.4</u>	<u>1,712.4</u>	<u>2,077.5</u>	<u>952.3</u>
c. Net UAL - as of 7/1/2012 (4a + 4b)	\$406.1	\$334.8	\$2,625.4	\$3,366.2	\$2,285.6
5. a. Amortization of 4.a., Proposition UAL	9.63%	13.93%	4.97%	6.11%	6.21%
b. Amortization of 4.b., Remaining UAL	<u>7.64%</u>	<u>7.91%</u>	<u>7.91%</u>	<u>7.88%</u>	<u>3.66%</u>
c. Amortization of Net UAL (5a + 5b)	17.27%	21.84%	12.88%	13.99%	9.87%
6. Administrative Expenses	<u>0.45%</u>	<u>0.45%</u>	<u>0.45%</u>	0.45%	0.45%
7. Net Employer Contribution Rate (3+5c+6)	37.23%	47.17%	21.25%	24.82%	20.71%

The employer pays the composite contribution rate on the payroll for all employees. However, the composite rate shown above is prior to any adjustment necessary for each employee due to the floating contribution rate provisions of Proposition C. The contribution rates shown above for Police, Fire, and Miscellaneous are for illustrative purposes only.

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS**

Table IV-2													
Development of the Proposition Amortization Rate as of July 1, 2012 (FYE 2014)													
(dollars in thousands)													
Item	Remaining Period	Police			Fire			Miscellaneous			Total		
		Outstanding Balance	Total Amortization	Total As a % of Pay	Outstanding Balance	Total Amortization	Total As a % of Pay	Outstanding Balance	Total Amortization	Total As a % of Pay	Outstanding Balance	Total Amortization	Total As a % of Pay
1994 Prop H - Domestic Partners	2	1,396	793	0.30%	1,557	884	0.49%	2,361	1,341	0.07%	5,315	3,018	0.12%
1996 Prop C - Retiree Benefits	4	112	33	0.01%	45	13	0.01%	20,409	6,000	0.29%	20,566	6,046	0.24%
1996 Prop D - New Fire Ret Bfts	4	0	0	0.00%	8,564	2,518	1.40%	0	0	0.00%	8,564	2,518	0.10%
1998 Prop A - New Police Ret Bfts	6	23,293	4,725	1.78%	0	0	0.00%	0	0	0.00%	23,293	4,725	0.19%
1998 Prop C - Paramedics Bfts	6	0	0	0.00%	4,827	979	0.55%	0	0	0.00%	4,827	979	0.04%
2000 Prop C - New Misc Ret Bfts	8	0	0	0.00%	0	0	0.00%	213,129	33,546	1.64%	213,129	33,546	1.35%
6.25% Credited Interest on EE ctrbs	10	69	9	0.00%	17	2	0.00%	9,578	1,247	0.06%	9,664	1,258	0.05%
2002 Prop H - Safety Ret Bfts	10	121,818	15,863	5.99%	129,504	16,864	9.41%	0	0	0.00%	251,323	32,728	1.32%
5.0% Credited Interest on EE ctrbs	12	(481)	(54)	-0.02%	(229)	(26)	-0.01%	(44,142)	(4,952)	-0.24%	(44,852)	(5,031)	-0.20%
2004 Prop E - New Safety LOD Bfts	13	5,733	603	0.23%	8,052	848	0.47%	0	0	0.00%	13,784	1,451	0.06%
2003 Prop F - Misc 3+3 Early Ret Bfts	13	0	0	0.00%	0	0	0.00%	17,342	1,826	0.09%	17,342	1,826	0.07%
Liability of 2003 Prop F (extended) - Misc 3+3 Early Ret Bfts	14	0	0	0.00%	0	0	0.00%	10,206	1,014	0.05%	10,206	1,014	0.04%
Liability of 2003 Prop F (extended) - Misc 3+3 Early Ret Bfts	15	0	0	0.00%	0	0	0.00%	4,647	438	0.02%	4,647	438	0.02%
2008 Prop B - New Misc Ret Bfts and Compound COLA	16	<u>39,320</u>	<u>3,531</u>	<u>1.33%</u>	<u>32,086</u>	<u>2,881</u>	<u>1.61%</u>	<u>679,442</u>	<u>61,010</u>	<u>2.99%</u>	<u>750,849</u>	<u>67,422</u>	<u>2.71%</u>
Total of Propositions		\$ 191,259	\$ 25,503	9.63%	\$ 184,424	\$ 24,964	13.93%	\$ 912,974	\$ 101,470	4.97%	\$ 1,288,658	\$ 151,937	6.11%

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes financial reporting standards for public employee retirement systems. GASB Statement No. 27 establishes accounting and financial reporting standards for pension plans by governmental employers.

The actuarial liability is determined assuming that participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.58% per annum. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of July 1, 2011 and July 1, 2012 are presented in Table V-1.

Table V-1			
GASB No. 25			
(in thousands)			
Item	July 1, 2012	July 1, 2011	% Change
GASB No. 25 Basis			
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 11,261,886	\$ 10,615,852	6.1%
b. Active DROP members	322,916	453,771	-28.8%
c. Vested Terminated and Inactive Members	395,892	371,334	6.6%
d. Active Members	<u>7,413,160</u>	<u>7,157,771</u>	<u>3.6%</u>
e. Total Actuarial Liability	\$ 19,393,854	\$ 18,598,728	4.3%
2. Actuarial Value of Assets	\$ 16,027,683	\$ 16,313,120	-1.7%
3. Unfunded Actuarial Liability	\$ 3,366,171	\$ 2,285,608	47.3%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(e)	82.64%	87.71%	-5.1%

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Tables V-2 through V-5 are exhibits for use in SFERS' Comprehensive Annual Financial Report (CAFR). The Government Finance Officers Association (GFOA) recommends showing at least 6 years of experience in each of these exhibits. Table V-2 shows the Notes to Required Supplementary Information. Table V-3 presents an analysis of financial experience for the valuation year, Table V-4 presents the Solvency Test which shows the portion of actuarial liability covered by assets, and Table V-5 shows the Schedule of Funding Progress.

**Table V-2
San Francisco Employees' Retirement System
NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**

The information presented in the required supplementary schedules to the Financial Section of the CAFR 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, 2012										
Actuarial funding method	Entry Age Normal										
Amortization method	Rolling and Fixed depending upon the source										
Equivalent single amortization period	13.3 Years										
Asset valuation method	5-year smoothing of return over or under expected returns										
Actuarial assumptions:											
Investment rate of return	7.58%										
Projected salary increases due to inflation ¹	3.83%										
Cost-of-living adjustments	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Old Safety Plans – Charters 8.559 and 8.585</td> <td style="width: 50%; text-align: right;">5.0% per year</td> </tr> <tr> <td>Old Safety Plans – Charters 8.595 and 8.596</td> <td style="text-align: right;">4.0% per year</td> </tr> <tr> <td>Old Safety – Pre 7/1/75 Date of Retirement</td> <td style="text-align: right;">3.0% per year</td> </tr> <tr> <td>Old Plans – Miscellaneous</td> <td style="text-align: right;">2.0% per year</td> </tr> <tr> <td>New Plans – Police, Fire, and Miscellaneous</td> <td style="text-align: right;">2.0% per year</td> </tr> </table>	Old Safety Plans – Charters 8.559 and 8.585	5.0% per year	Old Safety Plans – Charters 8.595 and 8.596	4.0% per year	Old Safety – Pre 7/1/75 Date of Retirement	3.0% per year	Old Plans – Miscellaneous	2.0% per year	New Plans – Police, Fire, and Miscellaneous	2.0% per year
Old Safety Plans – Charters 8.559 and 8.585	5.0% per year										
Old Safety Plans – Charters 8.595 and 8.596	4.0% per year										
Old Safety – Pre 7/1/75 Date of Retirement	3.0% per year										
Old Plans – Miscellaneous	2.0% per year										
New Plans – Police, Fire, and Miscellaneous	2.0% per year										

The actuarial assumptions used have been recommended by the actuary and adopted by SFERS Board based on the most recent review of SFERS' experience completed in 2010. The assumed investment rate of return and wage inflation assumptions were updated in 2012.

The rate of employer contributions to SFERS is composed of the normal cost and amortization of the unfunded actuarial liability. The normal cost is calculated individually as the level percent of payroll contribution commencing at hire which, along with the member's contributions, is expected to pay for projected benefits at retirement for each plan participant. The total normal cost for the System is the sum of the individual normal costs. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the funds accumulated as of the same date is the unfunded actuarial liability.

¹ Additional merit salary increases of 0.85% to 15.00% based on a participant's years of service and membership group are also assumed. These increases are not used in the amortization of SFERS' UAL.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-3
ANALYSIS OF FINANCIAL EXPERIENCE
Gain (or Loss) in Actuarial Liability During Years Ended July 1
Resulting from Differences Between Assumed Experience
and Actual Experience

(in thousands)

Type of Activity	Gain (or Loss) for Year Ending				
	July 1, 2012	July 1, 2011	July 1, 2010	July 1, 2009	July 1, 2008
Investment Income and Expenses	\$ (1,139,038)	\$ (563,305)	\$ (755,593)	\$ (722,712)	\$ 216,709
Contribution Income (Due to Payroll Changes and One-Year Lag)	(51,415)	(122,074)			
Combined Liability Experience	<u>187,116</u>	<u>70,969</u>	<u>150,330</u>	<u>(235,783)</u>	<u>122,569</u>
Gain (or Loss) During Year from Financial Experience	\$ (1,003,336)	\$ (614,410)	\$ (605,263)	\$ (958,495)	\$ 339,278
Non-Recurring Gain (or Loss) Items	<u>(135,527)</u>	<u>(148,758)</u>	<u>(373,175)</u>	<u>12,527</u>	<u>(1,155,958)</u>
Composite Gain (or Loss) During Year	\$ (1,138,863)	\$ (763,168)	\$ (978,438)	\$ (945,968)	\$ (816,680)

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-4								
GASB SOLVENCY TEST								
(dollars in thousands)								
Valuation Date	(A)	(B)	(C)	Reported Assets ¹	Portion of Actuarial Liabilities Covered by Reported Assets			
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)	
2012 ²	\$ 2,687,347	\$ 11,261,886	\$ 5,444,621	\$ 16,027,683	100%	100%	38%	
2011 ²	2,663,625	10,615,852	5,319,251	16,313,120	100%	100%	57%	
2010 ³	2,593,076	9,761,070	5,289,247	16,069,058	100%	100%	70%	
2009	2,528,667	8,720,050	5,249,932	16,004,730	100%	100%	91%	
2008 ⁴	2,411,027	8,013,456	4,934,341	15,941,390	100%	100%	100%	
2007 ⁵	2,251,564	7,423,580	3,866,243	14,929,287	100%	100%	100%	

¹ Actuarial Value of Assets

² Reflects revised discount rate and wage inflation

³ Reflects revised economic and demographic assumptions

⁴ Reflects revised economic assumptions and Prop B changes

⁵ July 1, 2007 numbers calculated by prior actuary

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-5

Schedule of Funding Progress

(dollars in thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Liability (AL)	Unfunded AL	Funded Ratio	Covered Payroll	Unfunded AL as a % of Covered Payroll
July 1, 2012	\$ 16,027,683	\$ 19,393,854	\$ 3,366,171	83%	\$ 2,393,842	141%
July 1, 2011	16,313,120	18,598,728	2,285,608	88%	2,360,413	97%
July 1, 2010	16,069,058	17,643,394	1,574,336	91%	2,398,823	66%
July 1, 2009	16,004,730	16,498,649	493,919	97%	2,544,939	19%
July 1, 2008	15,941,390	15,358,823	(582,567)	104%	2,457,196	-24%
July 1, 2007*	14,929,287	13,541,388	(1,387,899)	110%	2,376,221	-58%
July 1, 2006	13,597,646	12,515,463	(1,082,183)	109%	2,161,261	-50%
July 1, 2005	12,659,698	11,765,737	(893,961)	108%	2,052,862	-44%
July 1, 2004	11,299,997	10,885,455	(414,542)	104%	2,155,252	-19%
July 1, 2003	11,173,636	10,249,896	(923,740)	109%	2,130,071	-43%

* Amounts for July 1, 2007 and earlier were calculated by the prior actuary

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

ACTIVE MEMBER DATA			
	July 1, 2012	July 1, 2011	% Change
Total			
Count	28,097	27,956	0.5%
Average Current Age	47.8	47.8	0.0
Average Service	12.2	12.2	0.0
Annual Pensionable Earnings*	\$ 2,323,991,126	\$ 2,263,580,379	2.7%
Average Pensionable Earnings	\$ 82,713	\$ 80,969	2.2%
Police			
Count	1,883	1,908	-1.3%
Average Current Age	42.5	41.8	0.7
Average Service	14.1	13.5	0.6
Annual Pensionable Earnings*	\$ 226,328,638	\$ 216,325,059	4.6%
Average Pensionable Earnings	\$ 120,196	\$ 113,378	6.0%
Fire			
Count	1,336	1,347	-0.8%
Average Current Age	45.1	44.7	0.4
Average Service	14.7	14.3	0.4
Annual Pensionable Earnings*	\$ 169,513,902	\$ 164,132,980	3.3%
Average Pensionable Earnings	\$ 126,882	\$ 121,851	4.1%
Miscellaneous			
Count	24,878	24,701	0.7%
Average Current Age	48.4	48.4	0.0
Average Service	11.9	12.0	-0.1
Annual Pensionable Earnings*	\$ 1,928,148,586	\$ 1,883,122,340	2.4%
Average Pensionable Earnings	\$ 77,504	\$ 76,237	1.7%

* Fiscal Year ending June 30, 2012 and June 30, 2011, excludes DROP members

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
 JULY 1, 2012 ACTUARIAL VALUATION

**APPENDIX A
 MEMBERSHIP INFORMATION**

Active Member Data - BY CHARTER		
July 1, 2012		
	Counts	Annual Pensionable Earnings*
Total		
Old	134	\$ 11,207,546
New	25,391	2,136,313,019
Prop D	2,081	140,585,959
Prop C	<u>491</u>	<u>35,884,602</u>
Total	28,097	\$ 2,323,991,126
Police		
Old	1	\$ 143,258
New	1,845	222,513,855
Prop D	24	2,327,411
Prop C**	<u>13</u>	<u>1,344,114</u>
Total	1,883	\$ 226,328,638
Fire		
Old	5	\$ 893,721
New	1,278	164,125,852
Prop D	53	4,494,329
Prop C	<u>0</u>	<u>0</u>
Total	1,336	\$ 169,513,902
Miscellaneous		
Old	128	\$ 10,170,567
New	22,268	1,749,673,312
Prop D	2,004	133,764,219
Prop C	<u>478</u>	<u>34,540,488</u>
Total	24,878	\$ 1,928,148,586

* Fiscal Year ending June 30, 2011 excludes DROP members

** Includes 1 member in the new Sheriffs Plan (Charter A8.610) and 4 members in the new Miscellaneous Safety Plan(Charter A8.608)

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Active DROP Member Data - TOTAL SYSTEM			
	July 1, 2012	July 1, 2011	%Change
Total Active DROP			
Count	185	267	-30.7%
Average Current Age	57.2	56.8	0.4
Total Annual Benefit*	\$ 20,718,754	\$ 29,775,543	-30.4%
Average Annual Benefit	\$ 111,993	\$ 111,519	0.4%
Total DROP Account Balance	\$ 27,666,179	\$ 18,656,995	48.3%

* Benefits provided in June 30, valuation data.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Non-Active Member Data - TOTAL SYSTEM			
	July 1, 2012	July 1, 2011	Change
Retired			
Count	18,711	17,841	4.9%
Average Age	69.7	69.8	-0.1
Total Annual Benefit*	\$ 740,008,701	\$ 674,332,516	9.7%
Average Annual Benefit	\$ 39,549	\$ 37,797	4.6%
Disabled			
Count	2,676	2,700	-0.9%
Average Age	67.2	66.8	0.4
Total Annual Benefit*	\$ 135,535,618	\$ 129,971,776	4.3%
Average Annual Benefit	\$ 50,649	\$ 48,138	5.2%
Beneficiaries			
Count	3,803	3,751	1.4%
Average Age	77.0	76.9	0.1
Total Annual Benefit*	\$ 106,705,968	\$ 100,749,179	5.9%
Average Annual Benefit	\$ 28,058	\$ 26,859	4.5%
Payee Total			
Count	25,190	24,292	3.7%
Average Age	70.5	70.6	-0.1
Total Annual Benefit*	\$ 982,250,287	\$ 905,053,471	8.5%
Average Annual Benefit	\$ 38,994	\$ 37,257	4.7%
Inactives			
Count	5,558	5,520	0.7%
Average Age	47.0	46.7	0.3
Total Contribution Balance with Interest	\$ 182,611,394	\$ 176,807,170	3.3%
Average Contribution Balance with Interest	\$ 32,856	\$ 32,030	2.6%

* Benefits provided in June 30, valuation data

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Non-Active Member Data - Old Safety - Prop H			
Pre 7/1/1975 Retirements			
	July 1, 2012	July 1, 2011	Change
Retired			
Count	14	19	-26.3%
Average Age	91.7	91.7	0.0
Total Annual Benefit*	\$ 431,876	\$ 578,848	-25.4%
Average Annual Benefit	\$ 30,848	\$ 30,466	1.3%
Disabled			
Count	92	103	-10.7%
Average Age	81.2	80.8	0.4
Total Annual Benefit*	\$ 3,199,630	\$ 3,445,751	-7.1%
Average Annual Benefit	\$ 34,779	\$ 33,454	4.0%
Beneficiaries			
Count	233	260	-10.4%
Average Age	84.0	83.8	0.2
Total Annual Benefit*	\$ 7,026,587	\$ 7,706,656	-8.8%
Average Annual Benefit	\$ 30,157	\$ 29,641	1.7%
Payee Total			
Count	339	382	-11.3%
Average Age	83.6	83.4	0.2
Total Annual Benefit*	\$ 10,658,092	\$ 11,731,255	-9.1%
Average Annual Benefit	\$ 31,440	\$ 30,710	2.4%
Inactives			
Count	N/A	N/A	
Average Age	N/A	N/A	
Total Contribution Balance with Interest	N/A	N/A	
Average Contribution Balance with Interest	N/A	N/A	

* Benefits provided in June 30, valuation data

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

APPENDIX A
MEMBERSHIP INFORMATION

Non-Active Member Data - Old Safety - Prop M			
Charters A8.559, A8.585, A8.595, and A8.596			
	July 1, 2012	July 1, 2011	Change
Retired			
Count	1,192	1,216	-2.0%
Average Age	72.1	71.5	0.6
Total Annual Benefit*	\$ 108,728,904	\$ 105,621,251	2.9%
Average Annual Benefit	\$ 91,216	\$ 86,860	5.0%
Disabled			
Count	768	796	-3.5%
Average Age	72.1	71.5	0.6
Total Annual Benefit*	\$ 65,664,741	\$ 65,123,352	0.8%
Average Annual Benefit	\$ 85,501	\$ 81,813	4.5%
Beneficiaries			
Count	700	698	0.3%
Average Age	77.8	77.2	0.6
Total Annual Benefit*	\$ 49,861,652	\$ 47,215,563	5.6%
Average Annual Benefit	\$ 71,231	\$ 67,644	5.3%
Payee Total			
Count	2,660	2,710	-1.8%
Average Age	73.6	73.0	0.6
Total Annual Benefit*	\$ 224,255,296	\$ 217,960,165	2.9%
Average Annual Benefit	\$ 84,307	\$ 80,428	4.8%
Inactives			
Count	N/A	N/A	
Average Age	N/A	N/A	
Total Contribution Balance with Interest	N/A	N/A	
Average Contribution Balance with Interest	N/A	N/A	

* Benefits provided in June 30, valuation data

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Non-Active Member Data - New Safety			
	July 1, 2012	July 1, 2011	Change
Retired			
Count	937	795	17.9%
Average Age	60.3	60.0	0.3
Total Annual Benefit*	\$ 83,295,826	\$ 66,067,286	26.1%
Average Annual Benefit	\$ 88,896	\$ 83,104	7.0%
Disabled			
Count	412	386	6.7%
Average Age	59.1	58.3	0.8
Total Annual Benefit*	\$ 31,978,359	\$ 27,756,594	15.2%
Average Annual Benefit	\$ 77,617	\$ 71,908	7.9%
Beneficiaries			
Count	87	82	6.1%
Average Age	57.0	56.0	1.0
Total Annual Benefit*	\$ 3,754,053	\$ 3,412,619	10.0%
Average Annual Benefit	\$ 43,150	\$ 41,617	3.7%
Payee Total			
Count	1,436	1,263	13.7%
Average Age	59.8	59.2	0.6
Total Annual Benefit*	\$ 119,028,239	\$ 97,236,498	22.4%
Average Annual Benefit	\$ 82,889	\$ 76,989	7.7%
Inactives			
Count	180	185	-2.7%
Average Age	44.0	43.7	0.3
Total Contribution Balance with Interest	\$ 9,703,656	\$ 9,557,216	1.5%
Average Contribution Balance with Interest	\$ 53,909	\$ 51,661	4.4%

* Benefits provided in June 30, valuation data

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Non-Active Member Data - Miscellaneous			
	July 1, 2012	July 1, 2011	Change
Retired			
Count	16,568	15,811	4.8%
Average Age	70.1	70.1	0.0
Total Annual Benefit*	\$ 547,552,095	\$ 502,065,132	9.1%
Average Annual Benefit	\$ 33,049	\$ 31,754	4.1%
Disabled			
Count	1,404	1,415	-0.8%
Average Age	65.9	65.5	0.4
Total Annual Benefit*	\$ 34,692,887	\$ 33,646,080	3.1%
Average Annual Benefit	\$ 24,710	\$ 23,778	3.9%
Beneficiaries			
Count	2,783	2,711	2.7%
Average Age	76.8	76.8	0.0
Total Annual Benefit*	\$ 46,063,677	\$ 42,414,341	8.6%
Average Annual Benefit	\$ 16,552	\$ 15,645	5.8%
Payee Total			
Count	20,755	19,937	4.1%
Average Age	70.7	70.7	0.0
Total Annual Benefit*	\$ 628,308,659	\$ 578,125,552	8.7%
Average Annual Benefit	\$ 30,273	\$ 28,998	4.4%
Inactives			
Count	5,378	5,335	0.8%
Average Age	47.1	46.8	0.3
Total Contribution Balance with Interest	\$ 172,907,738	\$ 167,249,954	3.4%
Average Contribution Balance with Interest	\$ 32,151	\$ 31,350	2.6%

* Benefits provided in June 30, valuation data

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Distribution of Active Members as of July 1, 2012
Total System**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	109	56	0	0	0	0	0	0	0	0	0	165
25 to 29	325	664	150	0	0	0	0	0	0	0	0	1,139
30 to 34	316	1,075	774	122	1	0	0	0	0	0	0	2,288
35 to 39	273	910	937	655	81	0	0	0	0	0	0	2,856
40 to 44	241	764	997	1,243	549	106	1	0	0	0	0	3,901
45 to 49	203	678	832	1,274	842	560	109	3	0	0	0	4,501
50 to 54	156	551	740	1,210	740	799	672	144	1	1	1	5,014
55 to 59	99	354	590	1,022	644	692	780	299	49	6	6	4,535
60 to 64	34	196	352	605	388	418	457	231	83	10	10	2,774
65 to 69	4	37	106	196	113	98	84	38	15	12	12	703
70 and up	1	16	38	49	32	26	25	12	9	13	13	221
Total Count	1,761	5,301	5,516	6,376	3,390	2,699	2,128	727	157	42	42	28,097

**Distribution of Active Members as of July 1, 2012
Total System**

Age	Average Salary Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 53,072	\$ 51,672	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 52,597
25 to 29	61,681	68,077	83,361	0	0	0	0	0	0	0	0	68,264
30 to 34	68,572	71,317	84,973	89,963	58,788	0	0	0	0	0	0	76,547
35 to 39	68,522	73,028	86,583	90,019	93,194	0	0	0	0	0	0	81,513
40 to 44	65,002	71,548	86,283	91,702	104,074	106,146	122,082	0	0	0	0	86,862
45 to 49	62,344	70,171	81,005	86,540	97,819	103,834	99,243	71,882	0	0	0	86,519
50 to 54	68,246	71,212	79,438	79,614	87,815	95,940	94,423	112,237	110,103	195,324	195,324	85,074
55 to 59	64,932	70,263	74,770	77,093	85,240	91,197	92,028	97,848	88,075	105,222	105,222	83,394
60 to 64	71,156	71,880	74,480	75,958	80,150	84,747	83,990	93,604	90,457	107,217	107,217	80,673
65 to 69	86,941	73,292	76,296	77,633	81,507	84,226	84,238	82,140	81,581	97,990	97,990	80,262
70 and up	45,000	52,654	76,053	79,230	68,060	75,263	73,362	65,472	77,401	97,951	97,951	74,136
Avg. Salary	\$ 64,971	\$ 70,781	\$ 82,109	\$ 83,806	\$ 91,289	\$ 94,405	\$ 90,915	\$ 97,887	\$ 88,242	\$ 103,525	\$ 103,525	\$ 82,713

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Distribution of Active Members as of July 1, 2012
Police**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	4	78	51	0	0	0	0	0	0	0	0	133
30 to 34	3	91	147	36	0	0	0	0	0	0	0	277
35 to 39	2	34	93	123	26	0	0	0	0	0	0	278
40 to 44	2	23	51	141	142	22	0	0	0	0	0	381
45 to 49	0	4	29	78	145	97	26	0	0	0	0	379
50 to 54	0	7	8	33	47	64	109	50	0	0	0	318
55 to 59	1	3	1	11	16	22	22	12	0	0	0	88
60 to 64	0	1	1	4	3	6	3	0	0	0	1	19
65 to 69	0	0	0	4	2	0	1	0	0	0	0	7
70 and up	0	0	0	0	0	1	0	0	1	1	1	3
Total Count	12	241	381	430	381	212	161	62	1	2		1,883

**Distribution of Active Members as of July 1, 2012
Police**

Age	Average Salary Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	87,800	100,903	108,852	0	0	0	0	0	0	0	0	103,557
30 to 34	87,800	101,301	111,110	117,534	0	0	0	0	0	0	0	108,470
35 to 39	94,443	104,295	112,519	120,104	119,742	0	0	0	0	0	0	115,414
40 to 44	93,542	102,608	111,531	118,032	126,874	133,463	0	0	0	0	0	120,288
45 to 49	0	103,062	111,009	117,591	122,633	134,561	130,410	0	0	0	0	124,086
50 to 54	0	102,641	123,778	118,965	118,056	126,683	135,788	162,533	0	0	0	132,762
55 to 59	153,807	115,719	116,729	119,874	120,640	125,877	134,385	183,738	0	0	0	134,059
60 to 64	0	116,162	109,397	120,681	116,496	113,757	133,033	0	0	206,470	0	123,467
65 to 69	0	0	0	118,758	119,105	0	116,477	0	0	0	0	118,531
70 and up	0	0	0	0	0	121,810	0	0	143,258	109,619	0	124,896
Avg. Salary	\$ 95,365	\$ 102,029	\$ 111,476	\$ 118,653	\$ 123,301	\$ 130,519	\$ 134,556	\$ 166,637	\$ 143,258	\$ 158,045		\$ 120,196

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Distribution of Active Members as of July 1, 2012
Fire**

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	22	7	0	0	0	0	0	0	0	0	29
30 to 34	0	29	64	9	0	0	0	0	0	0	0	102
35 to 39	0	24	58	66	3	0	0	0	0	0	0	151
40 to 44	0	13	61	148	91	27	1	0	0	0	0	341
45 to 49	0	9	30	115	99	87	4	0	0	0	0	344
50 to 54	0	3	10	56	43	103	15	3	0	1	234	
55 to 59	0	2	3	16	12	41	6	17	3	0	100	
60 to 64	0	1	0	0	4	14	2	8	3	0	32	
65 to 69	0	0	0	0	0	0	0	0	0	1	1	
70 and up	0	0	1	0	0	0	0	0	0	1	2	
Total Count	0	103	234	410	252	272	28	28	6	3	1,336	

**Distribution of Active Members as of July 1, 2012
Fire**

Age	Average Salary Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
25 to 29	0	79,166	99,171	0	0	0	0	0	0	0	0	83,995
30 to 34	0	90,010	118,832	115,230	0	0	0	0	0	0	0	110,320
35 to 39	0	87,765	120,131	125,404	125,941	0	0	0	0	0	0	117,407
40 to 44	0	96,958	116,283	125,894	132,718	144,628	122,082	0	0	0	0	126,365
45 to 49	0	89,732	114,048	125,805	133,738	140,609	130,875	0	0	0	0	129,922
50 to 54	0	96,494	125,432	125,780	130,407	138,917	142,897	137,338	0	195,324	0	133,565
55 to 59	0	83,931	124,939	129,605	126,773	138,396	149,524	165,992	165,710	0	0	140,280
60 to 64	0	45,000	0	0	126,889	135,137	151,201	153,621	148,218	0	0	138,141
65 to 69	0	0	0	0	0	0	0	0	0	229,659	0	229,659
70 and up	0	0	161,737	0	0	0	0	0	0	219,407	0	190,572
Avg. Salary	\$ 0	\$ 87,657	\$ 117,832	\$ 125,685	\$ 132,268	\$ 139,752	\$ 142,449	\$ 159,387	\$ 156,964	\$ 214,796	\$ 216,882	\$ 126,882

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Distribution of Active Members as of July 1, 2012

Miscellaneous

Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	109	56	0	0	0	0	0	0	0	0	165
25 to 29	321	564	92	0	0	0	0	0	0	0	977
30 to 34	313	955	563	77	1	0	0	0	0	0	1,909
35 to 39	271	852	786	466	52	0	0	0	0	0	2,427
40 to 44	239	728	885	954	316	57	0	0	0	0	3,179
45 to 49	203	665	773	1,081	598	376	79	3	0	0	3,778
50 to 54	156	541	722	1,121	650	632	548	91	1	0	4,462
55 to 59	98	349	586	995	616	629	752	270	46	6	4,347
60 to 64	34	194	351	601	381	398	452	223	80	9	2,723
65 to 69	4	37	106	192	111	98	83	38	15	11	695
70 and up	1	16	37	49	32	25	25	12	8	11	216
Total Count	1,749	4,957	4,901	5,536	2,757	2,215	1,939	637	150	37	24,878

Distribution of Active Members as of July 1, 2012

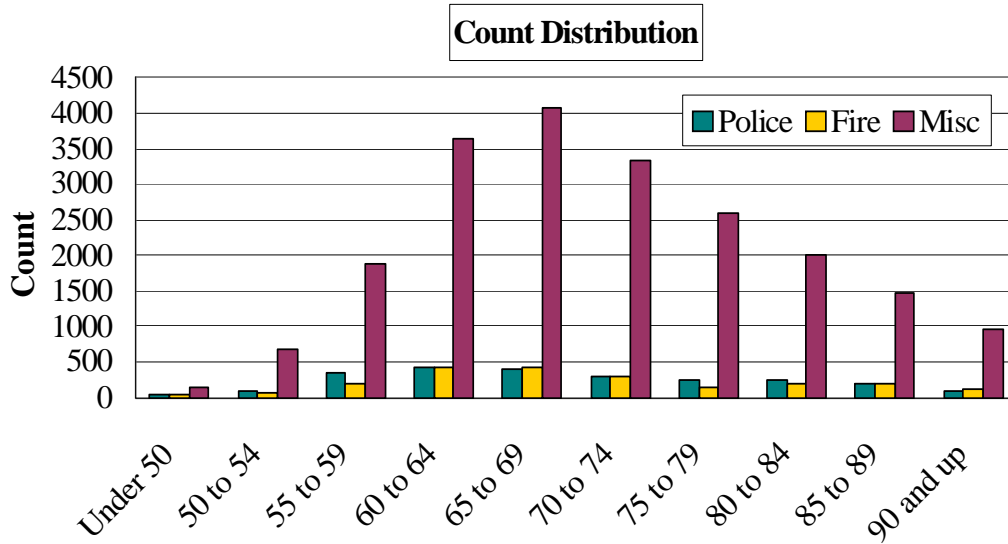
Miscellaneous

Age	Average Salary Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	\$ 53,072	\$ 51,672	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 52,597
25 to 29	61,355	63,104	68,028	0	0	0	0	0	0	0	62,993
30 to 34	68,388	67,893	74,300	74,119	58,788	0	0	0	0	0	70,110
35 to 39	68,330	71,365	81,039	77,066	78,030	0	0	0	0	0	75,396
40 to 44	64,763	70,113	82,760	82,506	85,580	77,375	0	0	0	0	78,618
45 to 49	62,344	69,709	78,597	80,123	85,855	87,398	87,383	71,882	0	0	78,799
50 to 54	68,246	70,665	78,310	76,149	82,811	85,822	84,869	83,774	110,103	0	79,132
55 to 59	64,025	69,794	74,442	75,775	83,511	86,908	90,330	89,740	83,012	105,222	81,060
60 to 64	71,156	71,790	74,380	75,661	79,373	82,537	83,368	91,451	88,291	96,189	79,699
65 to 69	86,941	73,292	76,296	76,776	80,829	84,226	83,850	82,140	81,581	86,020	79,662
70 and up	45,000	52,654	73,737	79,230	68,060	73,401	73,362	65,472	69,168	85,848	72,353
Avg. Salary	\$ 64,763	\$ 68,911	\$ 78,121	\$ 77,998	\$ 83,120	\$ 85,379	\$ 86,547	\$ 88,492	\$ 85,127	\$ 91,556	\$ 77,504

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Age	Count			Total
	Police	Fire	Misc	
Under 50	40	35	130	205
50 to 54	89	70	679	838
55 to 59	356	194	1,872	2,422
60 to 64	422	418	3,643	4,483
65 to 69	387	414	4,066	4,867
70 to 74	296	295	3,345	3,936
75 to 79	239	149	2,587	2,975
80 to 84	237	189	1,996	2,422
85 to 89	188	193	1,474	1,855
90 and up	101	123	963	1,187
Total	2,355	2,080	20,755	25,190

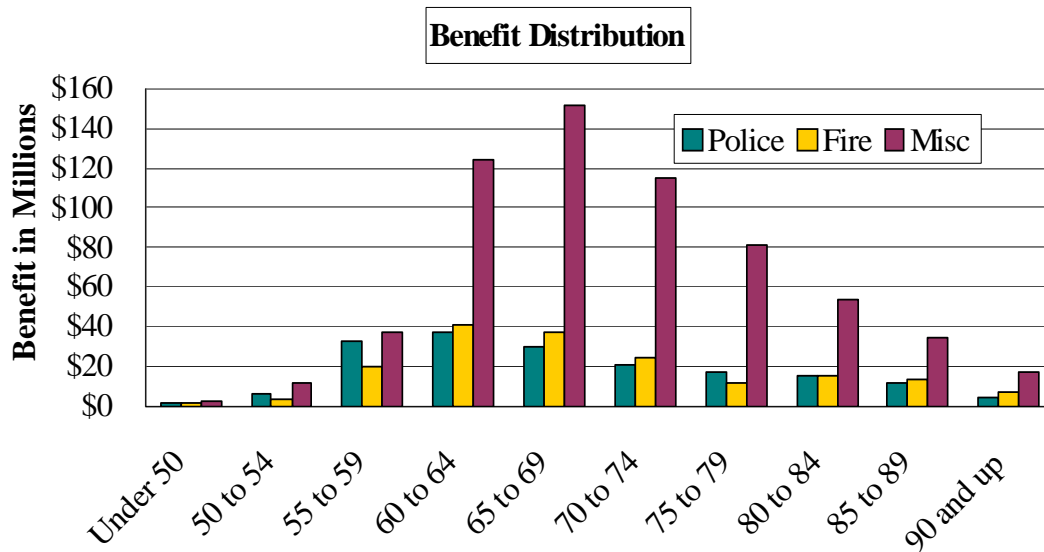


**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
JULY 1, 2012 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Distribution of Retirees, Disabled Members, and Beneficiaries as of July 1, 2012				
Annual Benefit *				
Age	Police	Fire	Misc	Total
Under 50	\$ 2,069,012	\$ 1,408,956	\$ 2,404,385	\$ 5,882,352
50 to 54	5,950,059	3,661,387	12,154,508	21,765,954
55 to 59	33,112,798	19,932,183	37,378,654	90,423,635
60 to 64	37,735,337	41,391,292	123,953,855	203,080,483
65 to 69	30,049,379	37,129,785	151,489,125	218,668,289
70 to 74	21,060,521	24,352,558	114,826,302	160,239,381
75 to 79	16,772,847	11,576,252	81,345,879	109,694,977
80 to 84	15,352,291	15,123,604	53,347,136	83,823,031
85 to 89	11,508,470	14,015,846	34,164,579	59,688,895
90 and up	4,722,151	7,016,902	17,244,234	28,983,288
Total	\$ 178,332,863	\$ 175,608,764	\$ 628,308,659	\$ 982,250,287

* Benefits provided in June 30 valuation data



APPENDIX A
MEMBERSHIP INFORMATION

Data Assumptions and Methods

In preparing our valuation results, we relied without audit on information supplied by the SFERS staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. Our methodology for obtaining the data used for the valuation is based upon the following assumptions and practices:

- Service for members on the “Active” data file was calculated using the field “Yrs Svc”. Service buyback that has been paid for is added to the “Yrs Svc” field. Service buyback that is under contract, but not paid in full, as of the valuation date is assumed to be paid in full per the contract and this service is reflected in the projected benefit. An adjusted date of hire is retroactively calculated from the valuation date.
- Valuation Salary for the fiscal year ending 6/30/2012 is equal to “Covered Pay” reported for members hired before the beginning of the previous plan year and for Fire members who have a date of membership after 7/1/2011, and “Calculated Pay”, which is an annualized pay rate, reported for new hires. “Covered Pay” is adjusted so that furloughs do not affect pensionable salaries. A minimum of \$45,000 annual pay is used for all active members. Valuation Salary for the fiscal year ending 6/30/2013 is equal to Valuation Salary for the prior fiscal year increased for merit according to our assumptions and for wage inflation of 0.0% in accordance with the latest MOUs. All furloughs described in the MOUs are assumed to end on June 30, 2012.
- All benefits for members in DROP as of June 30, 2012 were adjusted for the Basic COLA effective July 1, 2012.
- Benefits in the valuation data for members in pay status for the Miscellaneous and New Safety Charters include the Basic COLA effective July 1, 2012.
- Based on the latest MOUs and data provided by SFERS, it was assumed that there will be no Basic COLA increases for the fiscal year ending June 30, 2013 for the Old Safety Charter members in pay status
- No Supplemental COLA benefits were granted as of July 1, 2012. Thus, there were no adjustments to the benefits provided in the valuation data for a Supplemental COLA.
- For accounts having duplicate records based on Social Security Number in the “Active” data file, the records are added together for fields “Cvd Pay”, “Contribs”, “Interest”, “Shortage”, “Short Int” and “Yrs Svc”. The other data in the record is determined by the record which is considered open (“Plan Stat” = “O”) with the most recent “Membership Date”.
- Records on the “Active” data file are considered to be Active if they have a status of “AM” or “RT” which mean active, no “Job End Date” or the “Job End Date” is after 6/30/2012, and do not have a retiree record and their “Cvd Pay” is greater than \$0.
- Records on the “Active” data file are considered to be Inactive if they have a status of “VM”, which means vested or they have a status of “AM” but their “Job End Date” is prior to

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6/30/2012, or their "Cvd Pay" is \$0. If these inactive members have less than 5 years of service (non-vested), they are assumed to receive a lump sum distribution on the valuation date. If these inactive members have 5 or more years of service (vested), they are assumed to have elected a deferred benefit and to retire at age 55.

- For Safety members, Final Average Compensation is determined using the greater of data fields "Cvd Pay" or "Calc Pay". If both these fields are \$0, then the pay "Rate" field is used and annualized based on the compensation frequency "Cmp Frq".
- For Safety members, the deferred benefit is estimated using Final Average Compensation multiplied by years of service (including service purchased) multiplied by the appropriate age factor. For Miscellaneous members, the deferred benefit at retirement is the twice the member's contribution account balance with interest as of the valuation date projected with the assumed interest crediting rate to age 55 and then divided by the appropriate annuity factor from Table 9 of the Operating Tables.
- Members on the "Inactive" data file are assumed to have elected a refund and receive a lump sum distribution on the valuation date if their "Withdrawal Date" is on or after the valuation date. If their "Withdrawal Date" is before the valuation date, they are assumed to have taken a full refund prior to the valuation date.
- Records on the "Retiree" file are considered in pay status if their benefit is not suspended or terminated.
- Members may retire and receive benefits under multiple Charter sections (e.g. - a police officer can have two benefits, one for the service during the academy training which is considered Miscellaneous service and a second benefit for all other service as a police officer). We value each component of a member's benefit separately under the applicable Charter section. Consequently, the member counts reported in this valuation are slightly higher than the actual number of members due to some individual members being reported under multiple groups.
- We assume any member reported in last year's "Retiree" file and not in this year's file is deceased without a beneficiary and is removed from the valuation data.
- We assume all deceased members with payments continuing to a beneficiary have been reported in the "Retiree" file.

CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

A. Actuarial Assumptions

1. Investment Return Assumption

SFERS' assets are assumed to earn 7.58% net of investment expenses.

2. Inflation

Wage inflation: 3.83% compounded annually

Consumer Price Inflation: 3.33% compounded annually

3. Interest Credited to Member Contributions

4.50%, compounded annually.

4. Salary Increase Rate

Wage inflation component: 3.83%

The additional merit component:

Years of Service	Salary Merit Increases				
	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

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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Extra covered wages in the last year before service retirement are assumed to be as follows:

Safety	3.0%
Muni Drivers	6.0%
Craft Workers	4.0%
Miscellaneous	1.5%

5. Administrative Expense Assumption

There is a 0.45% of Payroll assumption included in the normal cost rates for administrative expenses.

6. Cost-of-Living Increase in Benefits

Old Plans - Police and Fire, Charters 8.559 and 8.585	5.00% per year
Old Plans - Police and Fire, Charters 8.595 and 8.596	4.00% per year
Old Plans - Police and Fire, pre-7/1/75 DOR	3.00% per year
Old Plans - Miscellaneous	2.00% per year
New Plans - Police, Fire and Miscellaneous	2.00% per year

7. Rates of Termination of Employment

Sample rates of termination by age and service for Miscellaneous members are shown below.

Misc. Rates of Termination by Age and Service Years			
Age	Service		
	0	3	5+
20	37.50%	12.00%	6.50%
25	27.50	9.00	6.50
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

**CITY AND COUNTY OF SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM
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**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

Sample rates of termination by service for Police, Fire, Muni Drivers and Craft members are shown below.

Rates of Termination				
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	1.50	4.00	5.00
4	2.00	1.50	3.50	4.00
5	1.00	1.50	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

30% of terminating employees are assumed to subsequently work for a reciprocal employer and receive pay increases equal to the wage inflation assumption.

In estimating termination benefits for Miscellaneous members, it is assumed that employee contribution rates are, on average, not changed by the floating contribution rate provisions of Proposition C.

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ACTUARIAL ASSUMPTIONS AND METHODS**

8. Member Refunds

Non-vested terminated members are assumed to receive a refund of their contributions with interest. The rates of refund for terminated vested members in the year of termination are shown below.

Vested Terminated Rates of Refund		
Age	Police & Fire	Miscellaneous
Under 25	100%	70%
25	75	55
30	50	40
35	30	35
40	20	30
45	10	20
50 & over	0	0

In estimating refund amounts, it is assumed that employee contribution rates are, on average, not changed by the floating contribution rate provisions of Proposition C.

9. Rates of Disability

Sample disability rates of active participants are provided below. 100% of safety and 0% of miscellaneous disabilities are assumed to be duty related.

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

Level of duty disability benefits (if projected to be disabled before service retirement eligibility)	
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Police	55% of pay
Fire	60% of pay

**APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS**

10. Rates of Mortality for Healthy Lives

Mortality rates for actives, retirees, beneficiaries, terminated vested and reciprocals are based on the sex distinct RP 2000 Mortality Tables. The Employee table is used for active employees and the Annuitant table is used for those receiving benefits. To reflect mortality improvements since the date of the table and to project future mortality improvements, the tables have been projected using scale AA to future years as follows:

Active Females: 2030
 Active Males: 2005
 Annuitant Females: 2020
 Annuitant Males: 2020

The table below provides a sample of these rates.

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

For active members, 25% of Safety deaths and 0% of Miscellaneous deaths are assumed to be duty related.

**APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS**

11. Rates of Mortality for Retired Disabled Lives

For Safety, all disabilities are assumed to be duty related and therefore all death benefits of disabled members are assumed to generate duty death benefits. The table below 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		All Miscellaneous	
	Male	Female	Male	Female
50	0.40%	0.33%	1.63%	1.11%
55	0.53	0.50	1.94	1.56
60	0.74	0.74	2.29	1.61
65	1.26	1.09	3.17	1.80
70	2.04	1.59	3.87	2.84
75	3.18	2.47	6.00	3.65
80	6.09	4.08	8.39	5.23
85	10.80	7.16	14.04	8.42
90	15.09	12.35	21.55	14.14
95	23.77	21.24	31.03	20.92
100	37.44	32.55	45.91	34.18

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12. Rates of Retirement

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

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

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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

Safety and Miscellaneous inactive terminated vested members and actives who are expected to terminate are assumed to retire at age 55.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

13. Family Composition

The percentage assumed to be married (including assumption for Domestic Partners, 1994 Proposition H) is shown below. Spouses of male members are assumed to be three years younger than the member and spouses of female members are assumed to be three years older than the member. And, then the spouse is assumed to be an additional year younger in order to value continuance to children and dependent parents.

Percentage Married	
Safety Males	85%
Safety Females	48
Miscellaneous Males	75
Miscellaneous Females	48

14. Deferred Retirement Option Program (DROP)

Effective July 1, 2008 new police plan members may be eligible to enter a DROP. Based on the current plan design, limited experience data, and the sunset of the program in 2011, no adjustment to the retirement rates has been made for DROP in this valuation. Because contributions continue to be made by Members in DROP and employers on the payroll of Members in DROP, the payroll for Members in DROP is used as active payroll in the development of contribution rates.

15. Deferred Member Benefit

The benefit was estimated based on information provided by SFERS staff. The data used to value the estimated deferred benefit were date of birth, date of hire, date of termination, and last pay. Based on the data provided, service credit, highest average salary, and deferred retirement age were estimated. The estimates were used to compute the retirement benefit, upon which the liabilities are based. For those members without sufficient data or service, accumulated member contribution balances, with interest, were used as the actuarial accrued liability.

16. Supplemental COLA

There is currently no explicit assumption to value the Supplemental COLA. Charter Section A8.526-3 was amended by Proposition C stating that beginning on July 1, 2012 no Supplemental COLA is payable unless the System is fully funded based on the market value of assets for the previous year. Based on our projections, no Supplemental COLA is expected to be paid in the near future, although better than expected investment performance or actuarial gains could result in a Supplemental COLA sooner than otherwise expected.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

17. 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 SFERS 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.

18. Changes Since Last Valuation

The investment return assumption decreased from 7.66% to 7.58% and the wage inflation assumption decreased from 3.91% to 3.83%.

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed termination of employment. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost.

2. Asset Valuation Method

For the purposes of determining the Employer's contribution to SFERS, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of the fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process. Assets are assumed to be used exclusively for the provision of retirement benefits and expenses.

The actuarial value is calculated by recognizing 20% of each of the past five years of actual investment experience relative to the expected return (7.66% for 2012, 7.75% for 2008-2011 and 8.0% for prior years) on the actuarial asset value. The expected return on actuarial value of assets is determined using the Fund's actual cash flows and the actuarial rate of interest. The balance of the actual investment experience is recognized in a similar fashion in future years.

This asset smoothing method started with the market value as of July 1, 2004.

3. Amortization Method

The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets. The Charter specifies the period over which different components of the unfunded actuarial liability must be amortized.

The unfunded actuarial accrued liability due to net actuarial gains and losses and assumption changes are amortized as a level percentage of payroll over a 15-year period beginning with the valuation date. Additional liabilities generated by Charter amendments and Board-approved changes in the credited interest rate on member contribution accounts are amortized as a level percentage of payroll over a 20-year period beginning with the year the amendment is first reflected in the valuation.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
OLD POLICE AND FIRE

I. Old Police and Fire Members – Charter Sections 8.559 and 8.595 (Police) and 8.585 and 8.596 (Fire)

1. Membership Requirement

Charter Sections 8.559 and 8.585

Police Officers and Firefighters who became members before November 2, 1976 and retired on or before December 31, 2002 without electing membership in another Section.

Charter Sections 8.595 and 8.596

Active members on November 5, 2002 in Section 8.559 (Police) or Section 8.585 (Fire) who elected to switch to Section 8.595 (Police) or Section 8.596 (Fire) by December 31, 2002.

2. Final Compensation

Monthly salary earnable at the final rank held at termination date, or monthly salary at next lower rank if final rank held for less than one year.

3. Credited Service

One year of service credit is given for each fiscal year with 10 or more full months worked. A partial year (fraction with the numerator equal to months including partial months, and the denominator equal to 10) is given for each fiscal year with less than 10 full months worked.

4. Member Contributions

a. Member:

7.0% of salary, excluding overtime and most premium pay. These contributions are credited with interest annually as determined by the Board.

Charter 8.585, 8.595, and 8.596

Depending on the employer contribution rate, the member contribution rate can increase or decrease by up to 6% of pay.

b. Employer:

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System. Any decrease in the member contribution rate is paid by the City.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
OLD POLICE AND FIRE

5. Service Retirement

Eligibility

Age 50 with 25 years of credited service.

Benefit - Member

Charter Sections 8.559 and 8.585

55% of Final Compensation plus an additional 4% of Final Compensation for each year of credited service in excess of 25 years, subject to a maximum of 75% of Final Compensation.

Charter Sections 8.595 and 8.596

A specified percent of Final Compensation based on the member's age at retirement (factors shown in Table C-1 below) for each year of credited service, subject to a maximum of 90% of Final Compensation.

Table C-1	
City and County of San Francisco Employees' Retirement System	
Sections 8.595 (Police) and 8.596 (Fire) – Service Retirement Factors	
Retirement Age	Retirement Factors
50	2.40%
51	2.52%
52	2.64%
53	2.76%
54	2.88%
55 or above	3.00%

Benefit - Survivor

75% of the service retirement benefit paid to a qualified survivor.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
OLD POLICE AND FIRE

6. Non-Industrial Disability

Eligibility

10 years of credited service.

Benefit - Member

At least 10 but less than 25 years of credited service:

1.5% of Final Compensation for each year of credited service between 10 and 25 years, subject to a minimum of 33.3% and a maximum of 75% of Final Compensation for Charter Sections 8.559 and 8.585 or 90% of Final Compensation for Charter Sections 8.595 and 8.596.

At least 25 years of credited service:

Service retirement benefit determined at date of disability.

Benefit - Survivor

75% of the disability retirement benefit paid to a qualified survivor.

7. Industrial Disability

Eligibility

No age or service requirement.

Benefit - Member

If Not Eligible for Service Retirement:

Final Compensation times a percentage of disability, subject to a minimum of 50% and a maximum of 90%, as determined by the Workers' Compensation Appeals Board. Once the member becomes eligible for service retirement, assuming that member earned service and salary increases during the period of disability, the benefit is recalculated using the service and salary rate for the current rank held. The recalculated benefit is based on a minimum of 55% of Final Compensation.

If Eligible for Service Retirement:

Service retirement benefit determined at date of disability, but not less than 55% of Final Compensation.

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Benefit - Survivor

If Not Eligible for Service Retirement:

100% of the disability retirement benefit paid to a qualified survivor. Once the member would have become eligible for service retirement, assuming that member earned service and salary increases from the date of disability to the eligible service retirement date, the benefit is recalculated at 100% of the service retirement benefit, using the service and salary at the eligible service retirement date, not less than 55% of Final Compensation.

If Eligible for Service Retirement:

100% of the disability retirement benefit paid to a qualified survivor, not less than 55% of Final Compensation.

8. Death while an Active Employee

If Death is due to a Non-Work-Related Cause:

- a. Less than 10 Years of Credited Service, or No Qualified Survivor – Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary.
- b. At least 10 but less than 25 years of Credited Service – Monthly continuation allowance to a qualified survivor equal to the non-industrial disability benefit the member would have been entitled to on the date of death, subject to a minimum of 33.3% of compensation at the time of death.
- c. At Least 25 Years of Credited Service but Less than Age 50 – Monthly continuation allowance to a qualified survivor equal to 75% of the monthly service retirement benefit the member would have received had the member been age 50 and retired on the date of death.
- d. Eligible for Service Retirement – Monthly continuation allowance to a qualified survivor equal to 75% of the monthly service retirement benefit the member would have received had the member been retired on the date of death.

If Death is due to a Work-Related Cause:

- a. No Qualified Survivor – Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary. If the death is of a violent nature, an additional lump sum equivalent benefit equal to 12 months salary is payable.

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- b. Qualified Survivor and Not Eligible for Service Retirement – Monthly continuation allowance to a qualified survivor equal to the salary at the date of death. Once the member would have become eligible for service retirement, assuming that member earned service and salary increases from the date of death to the eligible service retirement date, the benefit is recalculated at 100% of the service retirement benefit, using the service and salary at the eligible service retirement date, such allowance shall not be less than 55% of Final Compensation.
- c. Qualified Survivor and Eligible for Service Retirement – Monthly continuation allowance to a qualified survivor equal to 100% of the monthly service retirement benefit the member would have received had the member been retired on the date of death, but such allowance shall not be less than 55% of Final Compensation.

9. Withdrawal Benefits

Less than five years of credited service:

Lump sum benefit equal to the accumulated employee contributions with interest.

Five or more years of credited service:

The member may choose one of the following:

- a. Lump sum benefit equal to the accumulated employee contributions with interest.

- b. **Charter Sections 8.559 and 8.585:** Retirement benefit first payable at age 50 equal to 55% of Final Compensation at termination, multiplied by a service fraction, the numerator being the credited service of the member at termination, and a denominator of 25.

Charter Sections 8.595 and 8.596: A specified percent of Final Compensation based on the member's age at retirement (factors shown in Table C-1 below) for each year of credited service, subject to a maximum of 90% of Final Compensation.

Cost-of-living adjustments are prorated if the member's accrued service is less than 25 years. COLA will be multiplied by a fraction where the denominator is 25 and the numerator is equal to service at date of termination.

10. Additional Post-retirement Death Benefit

A death benefit payable as a lump sum equal to \$100 for each full year of credited service, subject to a maximum of \$3,000, will be paid to a qualified survivor upon the member's death.

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11. Post-retirement Cost-of-Living Benefit

Basic

Monthly benefits are adjusted by 50% of the actual dollar increase or decrease in the salary rank or position the member's Final Compensation used to calculate the monthly benefit was based on. A member's monthly benefit will never decrease below its original amount.

Supplemental

Effective July 1 of each fiscal year, if the Retirement System was fully funded based on the market value of assets for the previous year and there are sufficient "excess" investment earnings on the Retirement fund for the previous fiscal year-end, the adjustment could be increased to 3.5% of that member's current monthly benefit less the amount of the Basic COLA above. If "excess" earnings are insufficient to fund a 3.5% increase, then to the extent of "excess" earnings, benefits are increased in increments of .5% up to a maximum of 3.5%.

12. Changes in this Valuation

Provisions were updated per Proposition C.

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SUMMARY OF PLAN PROVISIONS
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II. New Police and Fire Members – Charter Sections (Police) 8.586, 8.597, 8.602 and 8.605; (Fire) 8.588, 8.598, 8.601 and 8.604; (Sheriff’s Department) 8.608; (Miscellaneous Safety) 8.610

1. Membership Requirement

Charter Sections 8.586 and 8.588

Police Officers and Firefighters who became members on or after November 2, 1976.

Charter Sections 8.597 and 8.598

Active members on January 1, 2003 in Section 8.586 (Police) or Section 8.588 (Fire) who had elected to switch to Section 8.597 (Police) or Section 8.598 (Fire) by December 31, 2002; or new members becoming active on or after January 1, 2003 in Section 8.597 (Police) or Section 8.598 (Fire).

Charter Sections 8.601 and 8.602

Persons who become members of the fire or police department on or after July 1, 2010.

Charter Sections 8.604 and 8.605

Persons who become members of the fire or police department on or after January 7, 2012.

Charter Section 8.608

Sheriff, undersheriffs and all deputized personnel of the sheriff’s department hired on or after January 7, 2012.

Charter Section 8.610

Miscellaneous Safety member hired on or after January 7, 2012.

2. Final Compensation

Charter Sections 8.586, 8.588, 8.597, and 8.598

Average monthly total compensation earnable during any 12 months of credited service which average compensation is the highest.

Charter Sections 8.601 and 8.602

Average monthly total compensation earnable during the higher of any two consecutive fiscal years of earnings or the twenty-four months of earnings immediately prior to retirement.

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Charter Sections 8.604, 8.605, 8.608 and 8.610

Average monthly total compensation earnable during the higher of any three consecutive fiscal years of earnings or the thirty-six months of earnings immediately prior to retirement. Compensation for any fiscal year shall not include remuneration that exceeds 75% of the IRC 401(a)(17) compensation limit.

(Pre 1998 – 3 year average of monthly compensation)

3. Credited Service

One year of service credit is given for each fiscal year with 10 or more full months worked. A partial year (fraction with the numerator equal to months including partial months, and the denominator equal to 10) is given for each fiscal year with less than 10 full months worked.

4. Member Contributions

a. Member:

Charter Sections 8.586, 8.588, 8.597 and 8.598

7.5% of salary, excluding overtime and most premium pay. These contributions are credited with interest annually as determined by the Board.

Depending on the employer contribution rate, the member contribution rate can increase or decrease by up to 6% of pay.

Charter Sections 8.601, 8.602, 8.604, 8.605, 8.608 and 8.610

9.0% of salary, excluding overtime and most premium pay. These contributions are credited with interest annually as determined by the Board.

Depending on the employer contribution rate, the member contribution rate can increase or decrease by up to 4% of pay if the base pay rate is less than \$48 per hour or up to 5% of pay if the base pay rate is at or greater than \$48 per hour.

b. Employer:

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System. Any decrease in the member contribution rate is paid by the City.

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5. Service Retirement

Eligibility

Age 50 with 5 years of credited service. (*Pre 1998 – 50 with 25 years of credited service*)

Benefit – Member

Charter Sections 8.586 and 8.588

The monthly service retirement benefit is the greater of i) and ii) below, subject to a maximum of 75% of Final Compensation (*Pre 1998 – 70%*)

- i) 2% of Final Compensation for each of the first 25 years of service plus an additional 3% of Average Compensation for each year of credited service in excess of 25 years; (*Pre 1998 – benefit is calculated under i) only*);
- ii) A specified percent of Final Compensation based on the member’s age at retirement (factors shown in Table C-2 below) for each year of credited service.

Retirement Age	Retirement Factors
50	2.00%
51	2.14%
52	2.28%
53	2.42%
54	2.56%
55 or above	2.70%

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Charter Sections 8.597, 8.598, 8.601, and 8.602

A specified percent of Final Compensation based on the member's age at retirement (factors shown in Table C-3 below) for each year of credited service, subject to a maximum of 90% of Final Compensation.

Table C-3	
City and County of San Francisco Employees' Retirement System	
Sections 8.597 and 8.601 (Police), 8.598 and 8.602 (Fire)	
Service Retirement Factors	
Retirement Age	Retirement Factors
50	2.40%
51	2.52%
52	2.64%
53	2.76%
54	2.88%
55 or above	3.00%

Charter Sections 8.604, 8.605 and 8.608

A specified percent of Final Compensation based on the member's age at retirement (factors shown in Table C-4 below) for each year of credited service, subject to a maximum of 90% of Final Compensation.

Table C-4	
City and County of San Francisco Employees' Retirement System	
Sections 8.605 (Police), 8.604 (Fire) and 8.608 (Sheriff's Department) –	
Service Retirement Factors	
Retirement Age	Retirement Factors
50	2.20%
51	2.30%
52	2.40%
53	2.50%
54	2.60%
55	2.70%
56	2.80%
57	2.90%
58 and above	3.00%

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Charter Sections 8.610

A specified percent of Final Compensation based on the member's age at retirement (factors shown in Table C-6 below) for each year of credited service, subject to a maximum of 90% of Final Compensation.

Table C-5	
City and County of San Francisco Employees' Retirement System	
Section 8.610 (Miscellaneous Safety) – Service Retirement Factors	
Retirement Age	Retirement Factors
50	1.800%
51	1.912%
52	2.020%
53	2.132%
54	2.244%
55	2.356%
56	2.468%
57	2.590%
58 or above	2.700%

Benefit - Survivor

50% of the service retirement benefit paid to a qualified survivor.

6. Non-Industrial Disability

Eligibility

10 years of credited service.

Benefit – Member

1.5% of Average Compensation for each year of credited service, subject to a minimum of 33.3% of Final Compensation, subject to a maximum of 75% of Final Compensation for Charter Sections 8.586 and 8.588 or 90% of Final Compensation for all other Charter Sections.

Benefit - Survivor

50% of the disability retirement benefit paid to a qualified survivor

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7. Industrial Disability

Eligibility

No age or service requirement.

Benefit – Member

Less than age 50 with 25 Years of Service:

Final Compensation times a percentage of disability, subject to a minimum of 50% and a maximum of 90%, as determined by the Workers' Compensation Appeals Board. If the member is age 50 with 5 years of service, the disability benefit is the service retirement allowance, but not less than 50% of Final Compensation. Once the member becomes eligible for qualified service retirement, assuming that member earned service and salary increases during the period of disability, the benefit is recalculated using the service and salary rate for the rank held at retirement. The recalculated benefit is based on a minimum of 50% of Final Compensation (not to exceed 90% of Final Compensation for Charter Sections 8.597, 8.598, 8.601, 8.602, 8.608, and 8.610).

Age 50 with 25 Years of Service:

The service retirement allowance, but not less than 50% of Final Compensation.

Benefit - Survivor

75% of the disability retirement benefit paid to a qualified survivor.

8. Death while an Active Employee

If Death is Due to a Non-Work-Related Cause:

- a. Less than 10 Years of Credited Service, or No Qualified Survivor – Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary.
- b. At least 10 but less than 25 years of Credited Service – Monthly continuation allowance to a qualified survivor equal to the non-industrial disability benefit the member would have been entitled to on the date of death, subject to a minimum of 33.3% of Average Compensation at the time of death.
- c. At Least 25 Years of Credited Service but Less than Age 50 – Monthly continuation allowance to a qualified survivor equal to 50% of the monthly service retirement benefit the member would have received had the member been age 50 and retired on the date of death.

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SUMMARY OF PLAN PROVISIONS
NEW POLICE AND FIRE

- d. Age 50 with 25 Years of Credited Service – Monthly continuation allowance to a qualified survivor equal to 50% of the monthly service retirement benefit the member would have received had the member been retired on the date of death.

If Death is Due to a Work-Related Cause:

- a. No Qualified Survivor – Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary. For Charter Sections 8.586 and 8.588, if the death is of a violent nature, an additional lump sum equivalent benefit equal to 12 months salary is payable.
- b. Qualified Survivor and Less than Age 50 with 25 Years of Service – Monthly continuation allowance to a qualified survivor equal to 100% (*Pre 1998* – 75%) of Final Compensation at the date of death. Once the member would have completed 25 years of service and attained age 50, assuming that member earned service and salary increases from the date of death to the eligible service retirement date, the benefit is recalculated at 100% of the service retirement benefit, using the service and salary at the eligible service retirement date. Such allowance shall not be less than 50% of Final Compensation (For Chapter Sections 8.597, 8.598, 8.601, 8.602, 8.608 and 8.610 not to exceed 90% of Final Compensation).
- c. Qualified Survivor and Age 50 with 25 Years of Service – Monthly continuation allowance to a qualified survivor equal to 100% (*Pre 1998* – 75%) of the monthly service retirement benefit the member would have received had the member been retired on the date of death, not less than 50% of Final Compensation.

9. Withdrawal Benefits

Less than five years of credited service:

Lump sum benefit equal to the accumulated employee contributions with interest.

Five or more years of credited service:

The member may choose one of the following:

- a. Lump sum benefit equal to the accumulated refund all of employee contributions with interest.
- b. **Charter Sections 8.586 and 8.588:** Retirement benefit first payable at age 50 equal to 2% of Final Compensation at termination for each year of credited service of the member at the date of termination.

Charter Sections 8.597, 8.598, 8.601, 8.602, 8.604 8.605, 8.608, and 8.610: A specified percent of Final Compensation at termination based on the member's age at retirement (factors shown in Table C-3, C-4 and C-5 above) for each year of credited service, subject to a maximum of 90% of Final Compensation, payable at age 50.

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SUMMARY OF PLAN PROVISIONS
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10. Additional Post-retirement Death Benefit

A death benefit payable as a lump sum equal to \$100 for each full year of credited service, subject to a maximum of \$3,000, will be paid to a qualified survivor upon the member's death.

11. Post-retirement Cost-of-Living Benefit

Basic

Monthly benefits are increased or decreased each July 1 by a maximum of 2% per year of the initial monthly benefit. A member's monthly benefit will never decrease below its original amount. Effective July 1, 2009, monthly benefits are increased or decreased by a maximum of 2% of the prior year's monthly benefit.

Supplemental

Effective July 1 of each fiscal year, if the Retirement System was fully funded based on the market value of assets for the previous year and there are sufficient "excess" investment earnings on the Retirement fund for the previous fiscal year-end, the adjustment could be increased to 3.5% of that member's current monthly benefit less the amount of the Basic COLA above. If "excess" earnings are insufficient to fund a 3.5% increase, then to the extent of "excess" earnings, benefits are increased in increments of .5% up to a maximum of 3.5%.

12. Changes in this Valuation

Provisions were updated per Proposition C.

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SUMMARY OF PLAN PROVISIONS
DROP PROVISIONS

III. Deferred Retirement Option Program (DROP) – Charter Section 8.900

Effective Date – July 1, 2008 through June 30, 2011

Section 8.900 – effective July 1, 2008 through June 30, 2011. DROP sunsets on June 30, 2011. The Board of Supervisors voted not to renew DROP.

1. Membership Requirement

Active, full duty sworn officers occupying one of the eligible ranks; Police Officer, Sergeant, Inspector, Lieutenant, or Captain.

2. Eligibility

Age 50 with 25 years of credited service as a sworn member, including any service as a member of the San Francisco Airport Police. To participate, the member must agree to terminate employment through retirement at the end of their participation in DROP. No member shall be eligible for a promotion during their participant in DROP.

3. Length of DROP period

Once a member enters DROP, participation continues until either termination of employment the maximum DROP participation period has been reached.

Rank	Maximum DROP Period
Police Officer	36 months
Sergeant/Inspector	24 months
Lieutenant/Captain	12 months

4. DROP Benefit

DROP Account Balance

The service pension, which is calculated based on age, compensation and length of service as of their date of entry into the Program, is credited monthly into a DROP Account including any Basic or Supplemental Cost of Living Adjustments. The DROP Account is also credited on a monthly basis with interest at an annual effective rate of 4% throughout the member's DROP period.

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DROP PROVISIONS

Retirement Benefit

At the end of the DROP period, a lump sum distribution of the DROP Account Balance will be made and monthly retirement benefits will commence based on the initial DROP benefit calculated based on age, compensation and service at the date of entry into DROP including any cost of living adjustments to which the member would otherwise be entitled.

5. Employee Contributions while in DROP

The member still makes employee contributions into the retirement system which are deemed contributions to the general assets of SFERS, and shall not be part of the member's DROP Account.

6. Effect of Disability on DROP participation

Duty Related Disability

The Member will receive an industrial disability benefit as though the participant was never enrolled in DROP. Service, compensation, and age at the time of disability will be used to calculate the disability benefit. The DROP Account will be waived.

Non-Duty Related Disability

Member will terminate participation in DROP and is paid the balance in their DROP Account. They will begin receiving a monthly payment equal to the service retirement benefit determined as of the DROP entry date including any cost of living adjustments to which the member would otherwise be entitled.

7. Effect of Member Death on DROP participation

Duty Related Death

The member's qualified surviving spouse, domestic partner or other qualified dependent will receive a death allowance as though the participant was never enrolled in DROP. Service, compensation, and age at the time of death will be used to calculate the benefit. The DROP Account will be waived. The qualified spouse, domestic partner or qualified dependent may elect to receive a non-work related death benefit specific below instead.

Non-Duty Related Death

Participation in DROP is terminated and the balance in the Member's DROP Account is paid to the Member's beneficiary. In addition, any qualified survivor will begin receiving a post-retirement continuation allowance determined on the basis of beneficiary elections made by the member at the time of entry into DROP including any cost of living adjustments to which the Member would otherwise be entitled.

8. Changes in this Valuation – None.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
MISCELLANEOUS

IV. Miscellaneous Members – Charter Sections 8.509, 8.587, 8.600 and 8.603

1. Membership Requirement

Charter Section 8.509

Employees and Officers, other than Police Officers or Firefighters, who became members before November 2, 1976 and continued as a member without interruption.

Charter Section 8.587

Active Employees and Officers, other than Police Officers or Firefighters, who were members under Section A8.584, and members under A8.587 whose accumulated contributions were in the retirement fund on November 7, 2000 and were not retired. After November 7, 2000, all full time employees, certified Civil Service employees, or temporary employees who work more than 1,040 hours in any 12-month period; excluding all Police Officers and Firefighters.

Charter Section 8.600

Employees and Officers, other than Police Officers or Firefighters, who become employed on or after July 1, 2010.

Charter Section 8.603

Employees and Officers, other than Police Officers or Firefighters, who become employed on or after January 7, 2012.

2. Average Final Compensation

Charter Sections 8.509 and 8.587

Average monthly compensation earned during any year of credited service which average compensation is the highest.

Charter Section 8.600

Average monthly compensation earned during the higher of any two consecutive fiscal years of earnings or the twenty-four months of earnings immediately prior to retirement.

Charter Section 8.603

Average monthly compensation earned during the higher of any three consecutive fiscal years of earnings or the thirty-six consecutive months of earnings immediately prior to retirement. Compensation for any fiscal year shall not include remuneration that exceeds 85% of the IRC 401(a)(17) compensation limit.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
MISCELLANEOUS

3. Credited Service

One year of service credit is given for each fiscal year with 10 or more full months worked. A partial year (fraction with the numerator equal to months including partial months, and the denominator equal to 10) is given for each fiscal year with less than 10 full months worked. (Exception: for Charter 8.509 members, in the year of retirement, the denominator in the fraction is equal to 12).

4. Member Contributions

a. Member:

Charter 8.509
8.0% of salary.

Charter 8.587, 8.600 and 8.603
7.5% of salary, excluding overtime and most premium pay.

Depending on the employer contribution rate and the base rate of pay of the member, the member contribution rate can increase or decrease by up to maximum percentage of pay shown in the following table:

Hourly Rate of Pay	Maximum Increase / Decrease in Contribution Rate
< \$24	0%
\$24 - \$48	4%
>= \$48	5%

These contributions are credited with interest annually as determined by the Board.

If the member elects Social Security, the contributions to the System may be reduced by the amount contributed to Social Security (excluding the Medicare portion). Retirement benefits are actuarially reduced by the shortage, which is the difference between contributions paid at the 8%/7.5% rate and contributions actually paid, plus plan interest.

b. Employer:

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System. Any decrease in the member contribution rate is paid by the City.

**APPENDIX C
 SUMMARY OF PLAN PROVISIONS
 MISCELLANEOUS**

5. Service Retirement

Eligibility

Charter Section 8.509, 8.587 and 8.600

Age 50 with 20 years of credited service, or age 60 with 10 years of credited service.

Charter Section 8.603

Age 53 with 20 years of credited service, age 60 with 10 years of credited service, or age 65

Benefit - Member

Charter Section 8.509, 8.587 and 8.600

The monthly service retirement benefit is the greater of i) and ii) below, subject to a maximum of 75% of Average Final Compensation.

- i) A specified percent of Average Final Compensation based on the member's age at retirement (factors shown in Table C-6 below) for each year of credited service, effective January 11, 2009.

Table C-6			
City and County of San Francisco Employees' Retirement System			
Section 8.509, 8.587 and 8.600 Member Service Retirement Factors			
Retirement Age	Retirement Factors	Retirement Age	Retirement Factors
50	1.0%	57	1.7%
51	1.1%	58	1.8%
52	1.2%	59	1.9%
53	1.3%	60	2.1%
54	1.4%	61	2.2%
55	1.5%	62 or above	2.3%
56	1.6%		

- ii) The actuarial equivalent of twice the member's accumulated contributions with interest.

**APPENDIX C
 SUMMARY OF PLAN PROVISIONS
 MISCELLANEOUS**

Charter Section 8.603

The monthly service retirement benefit is a specified percent of Average Final Compensation based on the member's age at retirement subject to a maximum of 75% of Average Final Compensation (factors shown in Table C-7 below).

Retirement Age	Retirement Factors	Retirement Age	Retirement Factors
53	1.000%	60	1.756%
54	1.108%	61	1.864%
55	1.216%	62	1.972%
56	1.324%	63	2.080%
57	1.432%	64	2.188%
58	1.540%	65 or above	2.300%
59	1.648%		

Benefit - Survivor

50% of the service retirement benefit paid to a qualified survivor.

6. Disability

Eligibility

10 years of credited service.

Benefit - Member

1.8% of Average Final Compensation for each year of credited service, maximum of 75% of Average Final Compensation. If the benefit is less than 40% of Average Final Compensation, additional credited service had the member worked to age 60 can be added to the current credited service, in order to adjust the benefit to 40% of Average Final Compensation.

Benefit - Survivor

50% of the disability retirement benefit paid to a qualified survivor.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
MISCELLANEOUS

7. Death while an Active Employee

If Not Eligible for Service Retirement:

Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary. If the death is of a violent nature and job-related, an additional lump sum equivalent benefit equal to 12 months salary is payable.

If Eligible for Service Retirement:

A qualified spouse may elect i) or ii) below:

- i) Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary.
- ii) A benefit equal to 50% of the service retirement benefit the member would have received had the member retired for service on the date of death.

8. Withdrawal Benefits

Charter 8.509 members with less than ten years of credited service or less than \$1,000 in accumulated contributions and Charter 8.587, 8.600 and 8.603 members with less than five years of credited service:

Lump sum benefit equal to the accumulated employee contributions with interest.

Charter 8.509 members with ten or more years of credited service or accumulated contributions exceeding \$1,000 and Charter 8.587 and 8.600 members with five or more years of credited service:

The member may choose one of the following:

- i) Lump sum benefit equal to the accumulated refund all of employee contributions with interest.
- ii) A deferred retirement benefit payable on or after age 50 equal to the actuarial equivalent of twice the member's accumulated contributions with interest as of the retirement date.

Charter 8.603 members with five or more years of credited service:

The member may choose one of the following:

- i) Lump sum benefit equal to the accumulated refund all of employee contributions with interest.
- ii) A deferred retirement benefit payable on or after age 53 equal to the actuarial equivalent of 150% of the member's accumulated contributions with interest as of the retirement date.

APPENDIX C
SUMMARY OF PLAN PROVISIONS
MISCELLANEOUS

9. Additional Post-retirement Death Benefit

A death benefit payable as a lump sum equal to \$100 for each full year of credited service, subject to a maximum of \$3,000, will be paid to a qualified survivor upon the member's death.

10. Post-retirement Cost-of-Living Benefit

Basic

Monthly benefits are adjusted each July 1 by the accumulated change in the Consumer Price Index to the nearest 1%, with a maximum increase or decrease of 2% per year of the prior year's monthly benefit. A member's monthly benefit will never decrease below its original amount.

Supplemental

Effective July 1 of each fiscal year, if the Retirement System was fully funded based on the market value of assets for the previous year and there are sufficient "excess" investment earnings on the Retirement fund for the previous fiscal year-end, the adjustment could be increased to 3.5% of that member's current monthly benefit less the amount of the Basic COLA above. If "excess" earnings are insufficient to fund a 3.5% increase, then to the extent of "excess" earnings, benefits are increased in increments of .5% up to a maximum of 3.5%.

11. Changes in this Valuation

Provisions were updated per Proposition C.

**APPENDIX C
SUMMARY OF PLAN PROVISIONS
FLOATING EMPLOYEE CONTRIBUTION RATES**

V. Floating Employee Contribution Rates

The table below shows the adjustment to the employee contribution rate based on the calculated net employer contribution rate. There are three different adjustment schedules which apply to different groups of employees.

Net Employer Contribution Rate	Adjustment to Employee Contribution Rate		
	Group 1	Group 2	Group 3
0.00% - 0.00%	-4.00%	-5.00%	-6.00%
0.01% - 1.00%	-4.00%	-4.50%	-5.00%
1.01% - 2.50%	-3.75%	-4.25%	-4.75%
2.51% - 4.00%	-3.50%	-4.00%	-4.50%
4.01% - 5.50%	-2.50%	-3.00%	-3.50%
5.51% - 7.00%	-2.00%	-2.50%	-3.00%
7.01% - 8.50%	-1.50%	-2.00%	-2.00%
8.51% - 10.00%	-1.00%	-1.50%	-1.50%
10.01% - 11.00%	-0.50%	-0.50%	-0.50%
11.01% - 12.00%	0.00%	0.00%	0.00%
12.01% - 13.00%	0.50%	0.50%	0.50%
13.01% - 15.00%	1.00%	1.50%	1.50%
15.01% - 17.50%	1.50%	2.00%	2.00%
17.51% - 20.00%	2.00%	2.50%	3.00%
20.01% - 22.50%	2.50%	3.00%	3.50%
22.51% - 25.00%	3.50%	4.00%	4.50%
25.01% - 27.50%	3.50%	4.00%	4.50%
27.51% - 30.00%	3.75%	4.25%	4.75%
30.01% - 32.50%	3.75%	4.25%	4.75%
32.51% - 35.00%	4.00%	4.50%	5.00%
35.01% +	4.00%	5.00%	6.00%

Group 1: Miscellaneous members earning between \$24 per hour and \$48 per hour, and Police or Fire members hired after June 30, 2010 earning less than \$48 per hour.

Group 2: Miscellaneous members earning \$48 per hour or more, and Police or Fire members hired after June 30, 2010 earning \$48 per hour or more.

Group 3: Police and Fire members hired before July 1, 2010.

There is no adjustment for Miscellaneous members earning less than \$24 per hour. The hourly rates shown above are adjusted each year for consumer price inflation.

Note: The summary of major plan provisions is designed to outline principal plan benefits. If the SFERS staff should find the plan summary not in accordance with the actual provisions, the actuary should immediately be alerted so the proper provisions are valued.

**APPENDIX D
GLOSSARY OF TERMS**

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of all future system benefits and the present value of total future normal costs. This is also referred to by some actuaries as the “accrued liability” or “actuarial accrued liability”.

2. Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement rate or rates of investment income and salary increases. Demographic actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

3. Accrued Service

Service credited under the System which was rendered before the date of the actuarial valuation.

4. Actuarial Equivalent

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

5. Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of a retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.

6. Actuarial Gain (Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

7. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

**APPENDIX D
GLOSSARY OF TERMS**

8. Amortization

Paying off an interest-discounted amount with periodic payments of interest and principal—as opposed to paying off with a lump sum payment.

9. Annual Required Contribution (ARC) under GASB 25

The Governmental Accounting Standards Board (GASB) Statement No. 25 defines the Plan Sponsor's "Annual Required Contribution" (ARC) that must be disclosed annually. The SFERS Employer computed contribution rate for FY 2011 meets the parameters of GASB 25.

10. Normal Cost

The actuarial present value of retirement system benefits allocated to the current year by the actuarial funding method.

11. Set back/Set forward

Set back is a period of years that a standard published table (i.e. mortality) is referenced backwards in age. For instance, if the set back period is 2 years and the participant's age is currently 40, then the table value for age 38 is used from the standard published table. It is the opposite for set forward. A system would use set backs or set forwards to compensate for mortality experience in their work force.

12. Unfunded Actuarial Liability (UAL)

The unfunded actuarial liability represents the difference between actuarial liability and valuation assets. This value is sometimes referred to as "unfunded actuarial accrued liability".

Most retirement systems have unfunded actuarial liabilities. They typically arise each time new benefits are added and each time experience losses are realized.

The existence of unfunded actuarial accrued liability is not in itself an indicator of poor funding. Also, unfunded actuarial liabilities do not represent a debt that is payable today. What is important is the ability of the plan sponsor to amortize the unfunded actuarial liability and the trend in its amount (after due allowance for devaluation of the dollar).