

City and County of San Francisco Employees' Retirement System

> July 1, 2010 Actuarial Valuation

**Produced by Cheiron** 

January 2011



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### LETTER OF TRANSMITTAL

January 4, 2011

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

Dear Members of the Board:

At your request, we performed the July 1, 2010 actuarial valuation of the City and County of San Francisco Employees' Retirement System (SFERS). The valuation results with respect to SFERS are contained in this report.

The table below presents the key results of the 2010 and 2009 valuations for SFERS.

Table I-1 City and County of San Francisco Employees' Retirement System Summary of Key Valuation Results							
Valuation DateJuly 1, 2010July 1, 20							
Fiscal Year End		2012	/	2011			
Unfunded Actuarial Liability (millions)	\$	1,574.3	\$	493.9			
Funding Ratio (actuarial value of assets)		91.1%		97.0%			
Funding Ratio (market value of assets)		74.5%		72.3%			
Net Employer Contribution Rate		18.09%		13.56%			

- Unfunded Actuarial Liability (UAL): SFERS' UAL has increased by \$1,080.4 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.
- *Funding Ratio:* The ratio of the actuarial value of assets to actuarial liabilities declined since the last valuation from 97.0% to 91.1%. 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 increased from 72.3% to 74.5% reflecting the greater than expected investment return on a market value basis during the 12 months ended June 30, 2010.
- *Net Employer Contribution Rate:* The recommended contribution rate to be made by the Employer increased by 4.53% of payroll. This increase is primarily attributable to the investment experience during the 12 months ended June 30, 2009, but the assumption changes also increased the contribution rate. Because assets are smoothed and the investment losses from 2008-09 have not been fully recognized yet, the contribution rate

Board of Administration January 4, 2011 Page ii

is expected to increase for the next three years assuming investment returns are 7.75% per year and all other actuarial assumptions are met.

More details on the plan experience for the past year, including the changes listed above and their impact on these July 1, 2010 valuation results can be found in our report which follows.

We certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that as Members of the American Academy of Actuaries, we meet the Qualification Standards to render the opinion contained in this report. In preparing our report, we relied without audit, on information supplied by SFERS' staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.

Finally, it's important to note that this valuation, which was prepared using census data and financial information as of July 1, 2010, does not reflect any subsequent changes in the membership or the assets.

Sincerely, Cheiron

Gene Kalwarski, FSA, FCA, EA, MAAA Consulting Actuary

Willia R. Hallack

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, 2012, 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, 2010 valuation was completed and an examination of the current financial condition of SFERS. In addition, we present a review of the key historical trends followed by the projected financial outlook for SFERS.

# A. Valuation Basis

SFERS funding policy sets employer contributions equal to the sum of normal cost under the Entry Age Normal Cost Method, plus amortization of changes in the unfunded actuarial liabilities due to assumption changes and actuarial gains and losses over a rolling 15-year period, plus amortization of Proposition costs over 20-year closed periods.

The results incorporate all the assumption changes approved by the Board at the November 9, 2010 Board Meeting. Details of these changes can be found in the 2010 Experience Study Current and Proposed Assumptions.



# **B.** Current Financial Condition of SFERS

On the following pages, we summarize the key results of the July 1, 2010 valuation and how they compare to the results from the July 1, 2009 valuation.

### 1. SFERS Membership:

As shown in Table I-2 below, total membership in SFERS remained relatively level in total, but there was a shift from active to retirees and terminated vesteds from 2009 to 2010. Active membership decreased 5.7%, active DROP membership increased 117.9%, terminated vested membership increased 10.2% and retiree membership increased 7.4%. Total payroll decreased by 5.7%, and the average pay per active member decreased by 0.3%.

Table I-2 Membership Total									
Item		July 1, 2010		July 1, 2009	% Change				
Actives		28,222		29,919	-5.7%				
Active DROP		122		56	117.9%				
Terminated Vested		5,493		4,986	10.2%				
Disabled		2,677		2,669	0.3%				
Retirees		17,040		15,868	7.4%				
Beneficiaries		3,783		3,757	<u>0.7%</u>				
Total SFERS Members		57,337		57,255	0.1%				
Active Member and DROP Payroll	\$	2,398,823,037	\$	2,544,939,324	-5.7%				
Average Pay per Active/DROP	\$	84,632	\$	84,902	-0.3%				

### 2. SFERS Assets and Liabilities:

Table I-3, on the following page, presents a comparison between the July 1, 2010 and July 1, 2009 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 6.9% and the market value of assets increased by 10.2%. 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) increased by 0.4%. Finally, SFERS' UAL (actuarial liabilities less actuarial value of assets) increased from \$0.49 billion to \$1.57 billion, resulting in a decrease in the funding ratio from 97.0% to 91.1%. Based on the market value of assets, the funding ratio increased from 72.3% to 74.5%.



# SECTION I BOARD SUMMARY

Table I-3       Assets & Liabilities       (in millions)									
Item		July 1, 2010		July 1, 2009	% Change				
Actives	\$	7,263.3	\$	7,377.9	-1.6%				
Active DROP		209.5		93.0	125.3%				
Terminated Vested		409.5		307.7	33.1%				
Disabled		1,701.9		1,624.4	4.8%				
Retirees		7,164.4		6,256.4	14.5%				
Beneficiaries		894.8		839.2	<u>6.6%</u>				
Total Actuarial Liability	\$	17,643.4	\$	16,498.6	6.9%				
Market Value Assets <sup>1</sup>	\$	13,136.7	\$	11,924.5	10.2%				
Actuarial Value Assets	\$	16,069.1	\$	16,004.7	0.4%				
		,		,					
Unfunded Actuarial Liability	\$	1,574.3	\$	493.9	218.8%				
		,							
Funding Ratio - Market Value		74.5%		72.3%	2.2%				
Funding Ratio - Actuarial Value		91.1%		97.0%	-5.9%				

### 3. Components of UAL Increase between July 1, 2009 and July 1, 2010:

The UAL of \$493.9 million last year grew to a UAL of \$1,574.3 million this year, representing an increase this year of \$1,080.4 million. Table I-4 presents the specific components of this change in the UAL.

	Table I-4         Increase in Unfunded Actuarial Liability								
	Experience	in	millions						
1.	Unfunded increase due to investment loss	\$	755.6						
2.	Unfunded decrease due to liability gain		(150.4)						
3.	Unfunded increase due to assumption changes		353.4						
4.	Unfunded increase due to contributions less than expected		19.8						
5.	Expected change in Unfunded		102.0						
6.	Total change in Unfunded	\$	1,080.4						

The key findings in Table I-4 are that asset losses increased the UAL by \$775.3 million; assumption changes added \$353.4 million; and liability experience gains decreased the UAL by \$150.4 million.



# SECTION I BOARD SUMMARY

### 4. SFERS Contributions:

Table I-5 shows that the SFERS contribution rate for FY 2012, measured as a percent of membership payroll, increased from 13.56% to 18.09%.

	Table I-5 Contributions									
	Item FYE 2012 FYE 2011 Change									
1.	Gross Normal Cost %	17.90%	18.18%	-0.28%						
2.	Member Cost %	<u>7.50%</u>	7.51%	-0.01%						
3.	Employer Normal Cost %	10.40%	10.67%	-0.27%						
4.	Amortization of Remaining UAL%	0.73%	-3.09%	3.82%						
5.	Amortization of Proposition UAL%	<u>6.51%</u>	<u>5.53%</u>	0.98%						
6.	Total Employer Unfunded Liability Cost %	7.24%	2.44%	4.80%						
7.	Expenses %	<u>0.45%</u>	<u>0.45%</u>	0.00%						
8.	Net Employer Contribution Rate: $(3 + 6 + 7)$	18.09%	13.56%	4.53%						

Table I-6 shows sources for the change in the net employer contribution rate. The contribution rate increase is primarily attributable to the asset loss and change in assumptions.

Table I-6									
Contribution Reconciliation									
Item Total Normal Cost* Amortization									
2009 Net Employer Contribution Rate	13.56%	11.12%	2.44%						
Change due to asset loss	2.56%	0.00%	2.56%						
Change due to liabilities	-0.61%	-0.11%	-0.50%						
Change due to affect of payroll on amortization	0.58%	0.00%	0.58%						
Change due to assumptions	1.32%	-0.17%	1.49%						
Other (includes expected change)	0.68%	<u>0.01%</u>	<u>0.67%</u>						
2010 Net Employer Contribution Rate	18.09%	10.85%	7.24%						

\*includes expenses

In Section IV of this report, we provide more detail on the development of this contribution rate.



# SECTION I BOARD SUMMARY

# **C. Historical Trends**

Despite the fact that most of the attention given to the valuation is with respect to the most recently computed unfunded actuarial liability, funding ratio, and SFERS contribution rate, 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 actuarial liabilities, and also shows the progress of SFERS' funding ratios since 2000.

#### Actuarial Liability Assets-Smoothed Assets at Market Value Billions 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2000 2001 2004 2005 2006 2007 2009 2010 2002 2003 2008 Funded Ratio 138.8% 129.0% 117.9% 109.0% 103.8% 107.6% 108.6% 110.2% 103.8% 97.0% 91.1% **UAL/(Surplus)** \$ (2.82) \$ (2.43) \$ (1.69) \$ (0.92) \$ (0.41) \$ (0.89) \$ (1.08) \$ (1.39) \$ (0.58) \$ 0.49 \$ 1.57

### SFERS- Assets and Liabilities 2000-2010

City and County of San Francisco Employees' Retirement System

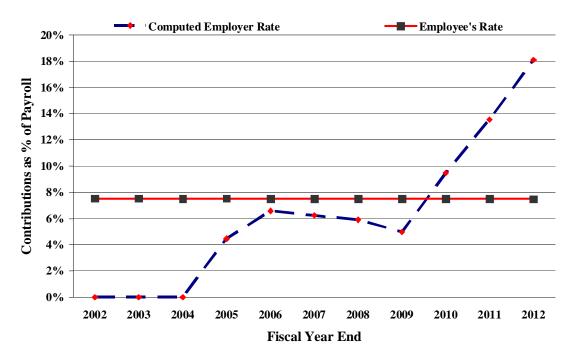
The chart above indicates that from 2000 to 2004, the funding ratio declined but remained in a surplus status with the low point being in 2004 at 103.8%. From 2004 to 2007, the ratio improved, primarily due to strong asset performance. From 2008 to 2010, the ratio declined primarily due to investment experience, Proposition B and assumption changes. Based on the current difference between the market value of assets and the actuarial value of assets, a further decline in the funded status is expected over the next few years.



# SECTION I BOARD SUMMARY

In the chart below, we present the historical trends for SFERS' contribution rates since the Fiscal Year Ending June 30, 2002. All information shown prior to the Fiscal Year Ending June 30, 2010 was calculated by the prior actuary.

### **Employer and Member Contribution Rates 2002-2012**

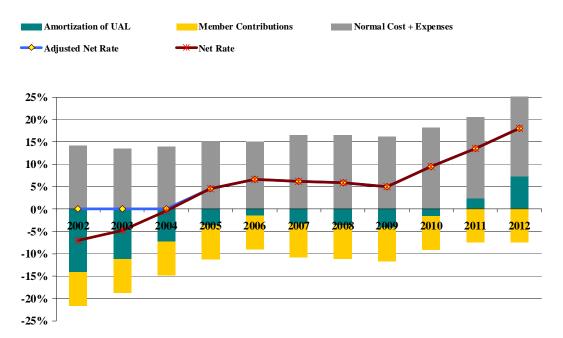


### City and County of San Francisco Employees' Retirement System

The key information in this chart is the increase in the Employer contribution rate since 2004. 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 scheduled for the Fiscal Years Ending in 2011 and 2012 are primarily due to recent investment experience and assumption changes adopted in November 2010 for FYE 2012. Significant employer contribution rate increases are expected for the next three years as the balance of the investment losses are recognized under the asset smoothing method.



The chart below shows historical trends of SFERS' contribution rate components since the Fiscal Year Ending June 30, 2002, 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.



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

Historic Cost as a Percentage of Pay

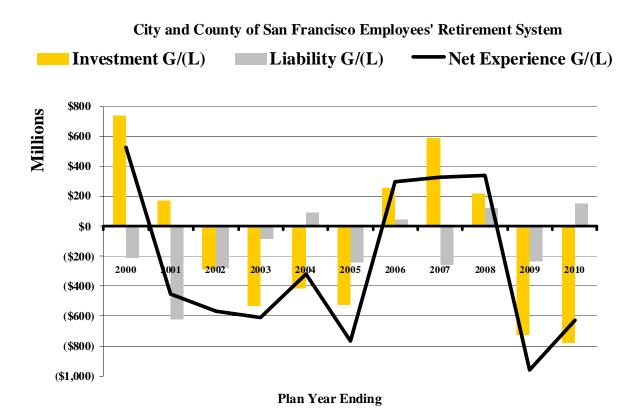
Fiscal Year End	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Normal Cost + Expenses	14.57%	14.01%	14.42%	15.64%	15.51%	17.01%	17.05%	16.64%	18.61%	18.63%	18.35%
Amortization of UAL	-14.10%	-11.21%	-7.32%	-3.63%	-1.41%	-3.25%	-3.63%	-4.13%	-1.62%	2.44%	7.24%
Member Contributions	<u>-7.53%</u>	-7.53%	<u>-7.52%</u>	<u>-7.53%</u>	-7.52%	<u>-7.52%</u>	<u>-7.51%</u>	-7.52%	<u>-7.50%</u>	-7.51%	<u>-7.50%</u>
Net Rate	-7.06%	-4.73%	-0.42%	4.48%	6.58%	6.24%	5.91%	4.99%	9.49%	13.56%	18.09%
Adjusted Net Rate	0.00%	0.00%	0.00%	4.48%	6.58%	6.24%	5.91%	4.99%	9.49%	13.56%	18.09%

The key information above is that the amortization of the UAL has changed over the last decade from -14.10% to 7.24% accounting for the majority of the increase in contribution rates. While some of the increase is due to plan changes, the primary cause of the increase is an average annual investment return on the market value of assets of approximately 2.85% compared to an expected return of 8.0% (7.75% after July 1, 2008) as well as changes in assumptions. The normal cost as a percent of payroll has also increased from the Fiscal Year Ending in 2002 to the Fiscal Year Ending in 2012, due to experience, 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 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.

# SFERS Historical Gain/(Loss) 2000-2010



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. 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 three years.
- On the liability side, there has been a pattern of liability losses, with the exception of gains in 2004, 2006, 2008 and 2010. Recent limits on salary increases have had a significant impact in 2010, but this impact has been somewhat offset by the increased number of retirements. The recent experience study provides a more detailed analysis of historical liability gains and losses. This trend is expected to be mitigated by the assumption changes adopted for this year's valuation.



# **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, 2010 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 7.75% returns each and every year, and
- 2) Assuming returns shown in the table below. These are rates of return that vary each year but over the projection period equals on average the assumed 7.75% return. We do this because SFERS' returns will never be level each and every year.

July 1,	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Return	16.00%	1.00%	9.00%	-10.00%	9.00%	7.00%	25.00%	1.00%	15.00%	8.00%
July 1,	2020	<u>2021</u>	2022	2023	2024	2025	2026	2027	2028	2029
Return	-9.00%	6.00%	15.00%	4.00%	9.00%	10.00%	15.00%	24.00%	7.00%	0.00%

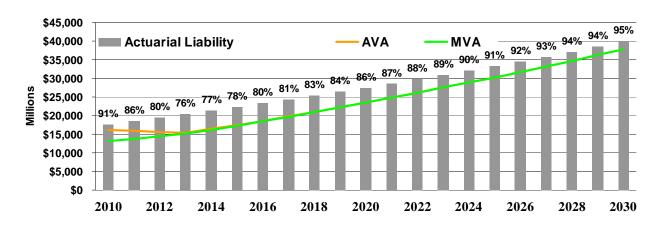
Please note that the investment returns shown above were selected solely to illustrate the impact of investment volatility on the pattern of funded status and employer contribution rates while producing the same average long-term rate of return. They are not intended to be predictive of actual future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



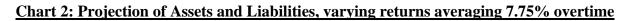
# SECTION I BOARD SUMMARY

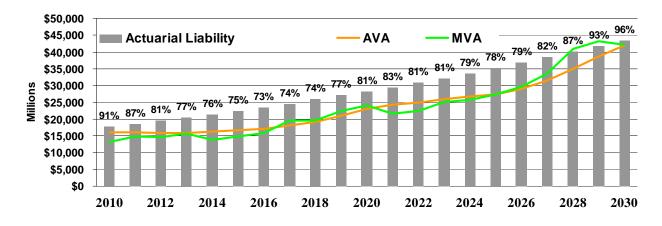
# **Projection Set 1: Assets and Liabilities - SFERS**

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 several years, as recent market losses become fully recognized, and how varying investment returns can impact SFERS' funding ratios.



# Chart 1: Projection of Assets and Liabilities, 7.75% return each year





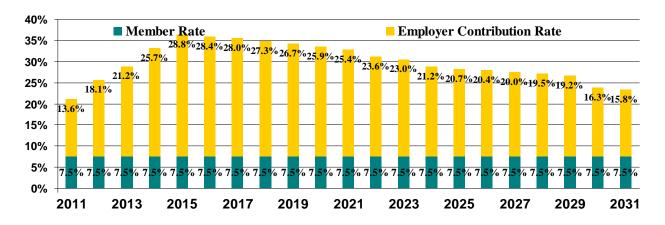
Please note that the investment returns shown above were selected solely to illustrate the impact of investment volatility on the pattern of funded status and employer contribution rates while producing the same average long-term rate of return. They are not intended to be predictive of actual future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



# SECTION I BOARD SUMMARY

# **Projection Set 2: Projected Employer Contribution Rate**

As seen in the charts below, employer contribution rates are expected to increase significantly over the next several years. In addition, varying returns will also have a significant impact on the pattern and magnitude of actuarially computed employer contribution rates.



# Chart 1: 7.75% return each year

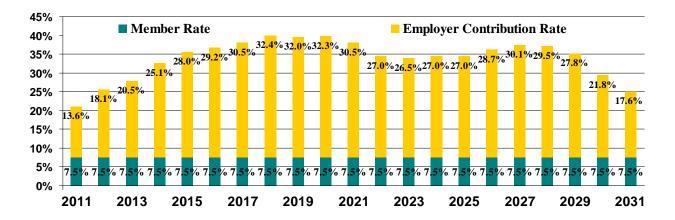


Chart 2: varying returns averaging 7.75% overtime

Please note that 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 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 cash flows during the year,
- B. Development of the actuarial value of assets, and
- C. Discussion of investment performance for the year.

A. Cash	Flows
---------	-------

Γ	Table II-1 Change in Market Value of Assets									
	(in thousands)									
	Item		FYE 2010		FYE 2009					
1.	Market Value, Beginning of Year*	\$	11,886,728	\$	15,832,521					
2.	Additions									
	a. Employer contributions		223,614		119,750					
	b. Member contributions		189,949		199,314					
	c. Total Additions: (2a + 2b)	\$	413,563	\$	319,064					
3.	Net Investment Income		1,655,017		(3,475,099)					
4.	Benefits and Administrative Expenses		(818,606)		(752,007)					
5.	Net Increase/(Decrease): $(2c + 3 + 4)$	\$	1,249,974	\$	(3,908,042)					
6.	Market Value, End of Year	\$	13,136,702	\$	11,924,479					

\* The Market Value as of July 1, 2009 differs slightly from last year's report due to a change in net depreciation in fair value of investments reported in the final asset statements.

# **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 averaging or 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 four 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 (7.75% for 2008-09 and later years and 8.0%



# SECTION II ASSETS

for prior years). (See Appendix B on page 54 for further explanation of the asset valuation method).

	Table II-2								
	Development of Actuarial Value of Assets for 7/1/2010								
	(in thousands)								
	Item		Total						
1.	Actuarial Value as of 7/1/2009	\$	16,004,730						
2.	Non-Investment Cash Flow for 2009-2010		(405,043)						
3.	Expected Return in 2009-2010		1,224,964						
4.	Expected Actuarial Value as of $7/1/2010$ : $(1 + 2 + 3)$	\$	16,824,651						
5.	Actual Return in 2009-2010		1,655,017						
6.	Actual Return Above Expected in 2009-2010: (5 - 3)		430,053						
7.	Recognition of Returns Above Expected								
	a. 2009-2010 (20% of 6.)		86,011						
	b. 2008-2009		(938,819)						
	c. 2007-2008		(382,948)						
	d. 2006-2007		344,487						
	e. 2005-2006		135,676						
	f. Total: $(7a + 7b + 7c + 7d + 7e)$	<u>\$</u>	(755,593)						
8.	Actuarial Value as of 7/1/2010: (4 + 7f)	\$	16,069,058						

# **C. Investment Performance**

The market value of assets internal rate of return, net of investment expenses, was 14.16% for the year ending June 30, 2010. This is compared to an assumed rate of return of 7.75%.

On an actuarial value of assets basis, the return for the year ending June 30, 2009 was 2.97%. The difference is largely due to the deferred recognition of losses from 2009. This return produced an overall SFERS investment loss of \$755.6 million for the year ending June 30, 2010.



# SECTION III LIABILITIES

In this section, we present detailed information on liabilities for SFERS, including:

- Disclosure of liabilities as of July 1, 2009 and July 1, 2010, and
- Statement of changes in the unfunded actuarial liabilities during the year.

# A. Disclosure

Several types of liabilities 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 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.
- **Present Value of Accrued Benefits:** Disclosed in Section V of this report for accounting statement purposes (FASB 35). This liability represents the present value of future benefits payable to all plan participants if the plan were terminated as of the valuation date, and future accruals and contributions stopped.

Table III-1 on the following page discloses the first two of these liabilities 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.



# SECTION III LIABILITIES

Table	III	-1							
Present Value of Future Ben			iabi	lity					
	(in thousands)								
Item		July 1, 2010		July 1, 2009					
Present Value of Future Benefits									
Actives	\$	11,364,187	\$	12,061,784					
Active DROP		209,505		92,990					
Terminated Vested		409,472		307,693					
Retirees		7,164,362		6,256,379					
Disabled		1,701,901		1,624,439					
Beneficiaries		894,808		839,233					
Total SFERS	\$	21,744,235	\$	21,182,517					
Actuarial Liability									
Total Present Value of Benefits	\$	21,744,235	\$	21,182,517					
Present Value of Future Normal Costs									
Employer Portion		2,510,470		2,869,583					
Employee Portion		1,590,371		1,814,285					
Actuarial Liability	\$	17,643,394	\$	16,498,649					
Actuarial Value of Assets	\$	16,069,058	\$	16,004,730					
Unfunded Actuarial Liability/(Surplus)	\$	1,574,336	\$	493,919					

Table III-2 shows actuarial liability as of July 1, 2010 for each of the Miscellaneous, Police, and Fire members of SFERS.

Table III-2         Liabilities by Group as of July 1, 2010         (in thousands)										
<b>Present Value of Future Benefits</b>		Police		Fire	N	/liscellaneous		Total		
Actives	\$	2,021,285	\$	1,421,604	\$	7,921,298	\$	11,364,187		
Active DROP		209,505		-		-		209,505		
Terminated Vested		14,632		21,727		373,113		409,472		
Retirees		1,188,605		1,029,627		4,946,130		7,164,362		
Disabled		510,708		842,682		348,511		1,701,901		
Beneficiaries		305,604		250,288		338,916		894,808		
Total SFERS	\$	4,250,339	\$	3,565,928	\$	13,927,968	\$	21,744,235		
Actuarial Liability										
Actives	\$	1,221,970	\$	877,844	\$	5,163,532	\$	7,263,346		
Active DROP		209,505		-		-		209,505		
Terminated Vested		14,632		21,727		373,113		409,472		
Retirees		1,188,605		1,029,627		4,946,130		7,164,362		
Disabled		510,708		842,682		348,511		1,701,901		
Beneficiaries		305,604		250,288		338,916		894,808		
Total SFERS	\$	3,451,024	\$	3,022,168	\$	11,170,202	\$	17,643,394		



# SECTION III LIABILITIES

# **B.** Changes in Unfunded Actuarial Liabilities

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 liabilities since the last valuation.

	Table III-3	
	<b>Development of 2010 Experience Gain/(Loss)</b>	
	(in millions)	
	Item	Cost
1.	Unfunded Actuarial Liability at July 1, 2009	\$ 493.9
2.	Middle of year actuarial liability payment	61.4
3.	Interest to end of year on 1 and 2	 40.6
4.	Expected Unfunded Actuarial Liability at July 1, 2010 (1+2+3)	\$ 595.9
5.	Actual Unfunded Liability at July 1, 2010	\$ 1,574.3
6.	Difference: (4 - 5)	\$ (978.4)
7.	Portion of difference (6) due to investment experience	(755.6)
8.	Portion of difference (6) due to contributions less than expected	(19.8)
9.	Portion of difference (6) due to Supplemental COLA	(164.0)
10.	Portion of difference (6) due to Old Safety COLAs	162.9
11.	Portion of difference (6) due to salaries	319.2
12.	Portion of difference (6) due to retirements	(111.8)
13.	Portion of difference (6) due to assumptions	(353.4)
14.	Portion of difference (6) due to other experience	(55.9)



# 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 process will use an actuarial funding method that will result in a pattern of contributions that are both stable and predictable.

The actuarial funding methodology employed is the Entry Age Normal actuarial funding 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 the 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 and method changes and Supplemental COLA costs.

Table IV-1 on the following page develops the Employer's contribution rate for FY 2011-12. 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 gains/losses, cost of Supplemental COLA or 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 of 4.0%.



# SECTION IV CONTRIBUTIONS

		Table									
	Development of the Net En	(dollars in		July 1, 2010 for	FYE 2012						
			July 1, 2010								
		Police									
1.	Total Normal Cost Rate	26.06%	32.16%	15.54%	17.90%	18.18%					
2.	Member Contribution Rate	<u>7.49%</u>	<u>7.50%</u>	7.51%	<u>7.50%</u>	<u>7.51%</u>					
3.	Employer Normal Cost Rate (1-2)	18.57%	24.66%	8.03%	10.40%	10.67%					
4.	a. UAL - Proposition balance as of 7/1/2010	\$206.5	\$199.7	\$976.5	\$1,382.6	\$1,418.9					
	<ul> <li>b. Remaining balance of 7/1/2010 UAL</li> <li>c. Net UAL - as of 7/1/2010 (4a + 4b)</li> </ul>	<u>21.6</u> \$228.1	<u>13.6</u> \$213.3	<u>156.5</u> \$1,133.0	<u>191.7</u> \$1,574.3	<u>(925.0)</u> \$493.9					
5.	a. Amortization of 4.a., Proposition UAL	8.42%	13.13%	5.67%	6.51%	5.53%					
5.	b. Amortization of 4.b., Remaining UAL	<u>0.73%</u>	<u>0.73%</u>	<u>0.73%</u>	<u>0.73%</u>	<u>-3.09%</u>					
	c. Amortization of Net UAL (5a + 5b)	9.15%	13.86%	6.40%	7.24%	2.44%					
6.	Expense Load	<u>0.45%</u>	<u>0.45%</u>	<u>0.45%</u>	<u>0.45%</u>	<u>0.45%</u>					
7.	Net Employer Contribution Rate (3+5c+6)	28.17%	38.97%	14.88%	18.09%	13.56%					

The employer pays the composite contribution rate on the payroll for all employees. The contribution rates shown above for Police, Fire, and Miscellaneous are for illustrative purposes only.

# SECTION IV CONTRIBUTIONS

					Tal	le IV-2								
		Dev	elonment of	the Proposi			as of July 1	l, 2010 (FYE	2012)					
		Dev	Police	the Proposi		Fire	as of July	<u></u>	iscellaneous			Total		
	Remaining	Outstanding	Total	Total As a	Outstanding	Total	Total As a	Outstanding	Total	Total As a	Outstanding	Total	Total As a	
Item	Period	Balance	Amortization	% of Pay	Balance	Amortization	% of Pay	Balance	Amortization	% of Pay	Balance	Amortization	% of Pay	
1991 Prop A - Misc ERP Window	1	\$0	\$ 0	0.00%	\$ 0	\$ 0	0.00%	\$ 14,124	\$ 15,798	0.78%	\$ 14,124	\$ 15,798	0.63%	
1992 Prop F - Retiree Bft Increase	2	59	34	0.01%	34	19	0.01%	9,973	5,676	0.28%	10,065	5,729	0.23%	
1994 Prop H - Domestic Partners	4	2,496	735	0.26%	2,784	820	0.47%	4,220	1,244	0.06%	9,500	2,799	0.11%	
1996 Prop C - Retiree Benefits	6	150	31	0.01%	60	12	0.01%	27,371	5,565	0.27%	27,581	5,607	0.22%	
1996 Prop D - New Fire Ret Bfts	6	0	0	0.00%	11,486	2,335	1.32%	0	0	0.00%	11,486	2,335	0.09%	
1998 Prop A - New Police Ret Bfts	8	27,779	4,382	1.56%	0	0	0.00%	0	0	0.00%	27,779	4,382	0.18%	
1998 Prop C - Paramedics Bfts	8	0	0	0.00%	5,757	908	0.52%	0	0	0.00%	5,757	908	0.04%	
2000 Prop C - New Misc Ret Bfts	10	0	0	0.00%	0	0	0.00%	238,390	31,110	1.53%	238,390	31,110	1.25%	
6.25% Credited Interest on EE ctrbs	12	74	8	0.00%	18	2	0.00%	10,289	1,157	0.06%	10,381	1,167	0.05%	
2002 Prop H - Safety Ret Bfts	12	130,861	14,710	5.23%	139,118	15,639	8.86%	0	0	0.00%	269,978	30,349	1.22%	
5.0% Credited Interest on EE ctrbs	14	(503)	(50)	-0.02%	(239)	(24)	-0.01%	(46,120)	(4,592)	-0.23%	(46,862)	(4,666)	-0.19%	
2004 Prop E - New Safety LOD Bfts	15	5,925	560	0.20%	8,322	786	0.45%	0	0	0.00%	14,247	1,345	0.05%	
2003 Prop F - Misc 3+3 Early Ret Bfts	15	0	0	0.00%	0	0	0.00%	17,924	1,693	0.08%	17,924	1,693	0.07%	
Liability of 2003 Prop F (extended) - Misc 3+3 Early Ret Bfts	16	0	0	0.00%	0	0	0.00%	10,450	940	0.05%	10,450	940	0.04%	
Liability of 2003 Prop F (extended) - Misc 3+3 Early Ret Bfts	17	0	0	0.00%	0	0	0.00%	4,720	406	0.02%	4,720	406	0.02%	
2008 Prop B - New Misc Ret Bfts and Compound COLA	18	<u>39,648</u>	<u>3,274</u>	<u>1.16%</u>	<u>32,354</u>	<u>2,671</u>	<u>1.51%</u>	<u>685,110</u>	<u>56,568</u>	<u>2.78%</u>	<u>757,112</u>	<u>62,513</u>	<u>2.51%</u>	
Total of Propositions		\$ 206,489	\$ 23,683	8.42%	\$ 199,693	\$ 23,169	13.13%	\$ 976,452	\$ 115,563	5.67%	\$ 1,382,633	\$ 162,415	6.51%	

# SECTION V ACCOUNTING STATEMENT INFORMATION

Topic No. 960 of the Financial Accounting Standards Board (FASB) requires the disclosure of certain information regarding funding status. 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 FASB Topic No. 960 Basis disclosure provides a "snap shot" view of how system assets at market value compare to liabilities if contributions stopped and accrued benefit claims had to be satisfied.

The GASB Nos. 25 and 27 Basis disclosure presents the actuarial liability computed for funding purposes to the actuarial value of assets to determine a funded ratio (i.e. the EAN liability).

Both the present value of accrued benefits (FASB Topic No. 960) and the actuarial liability (GASB No. 25 Basis) are 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 7.75% per annum.

FASB Topic No. 960 specifies that a comparison of the present value of accrued (accumulated) benefits to the market value of the assets as of the valuation date must be provided. 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, 2009 and July 1, 2010 are presented in Table V-1.



# SECTION V ACCOUNTING STATEMENT INFORMATION

	Table V-	1				
	GASB No. 25 and FASE		pic No. 960			
	(in thousand		uly 1, 2010		July 1, 2009	% Change
-	GASB No. 25 Basis	J	Tuly 1, 2010		July 1, 2009	70 Change
1.	Actuarial Liabilities					
	a. Members Currently Receiving Payments	\$	9,761,070	\$	8,720,050	11.9%
	b. Active DROP members		209,505		92,990	125.3%
	c. Vested Terminated and Inactive Members		409,472		307,693	33.1%
	d. Active Members		7,263,347		7,377,916	-1.6%
	e. Total Actuarial Liability	\$	17,643,394	\$	16,498,649	6.9%
2.	Actuarial Value of Assets	\$	16,069,058	\$	16,004,730	0.4%
3.	Unfunded Actuarial Liability	\$	1,574,336	\$	493,919	218.7%
4.	Ratio of Actuarial Value of Assets					
	to Actuarial Liability (2)/(1)(e)		91.08%		97.01%	-5.9%
	FASB Topic No. 960					
1.	Present Value of Benefits Accrued and Vested to Date	<b>_</b>	0 5 41 050	<i>•</i>		11.004
	a. Members Currently Receiving Payments	\$	9,761,070	\$	8,720,050	11.9%
	b. Active DROP Members		209,505		92,990	125.3%
	c. Vested Terminated and Inactive Members		409,472		307,693	33.1%
	d. Active Members e. Total PVAB	\$	5,618,002 15,998,049	\$	<u>5,565,721</u> 14,686,454	<u>0.9%</u> 8.9%
	e. Totar FVAB	φ	13,998,049	φ	14,080,434	0.9%
2.	Assets at Market Value*		13,136,702		11,924,479	10.2%
3.	Unfunded Present Value of Accrued Benefits,					
	But Not Less Than Zero	\$	2,861,347	\$	2,761,975	N/A
4.	Ratio of Assets to Value of Benefits (2)/(1)(e)		82.11%		81.19%	0.9%



# 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, 2010					
Actuarial funding method	I	Entry Age Normal					
Amortization method	Rolling and Fixed dependin	g upon the source					
Equivalent single amortization period 13.4 Yea							
Asset valuation method	5 year smoothing of return over or unde	r expected returns					
Actuarial assumptions: Investment rate of return Projected salary increases due to inflation <sup>1</sup>		7.75% 4.00%					
Cost-of-living adjustments	Old Safety Plans – Charters 8.559 and 8.585	5.0% per year					
The actuarial accurations used	Old Safety Plans – Charters 8.595 and 8.596 Old Safety - Pre 7/1/75 Date of Retirement Old Plans – Miscellaneous New Plans – Police, Fire, and Miscellaneous	4.0% per year 3.0% per year 2.0% per year 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 rate of employer contribution	ons to SFERS is composed of the normal cost an	nd amortization of					

The rate of employer contributions to SFERS is composed of the normal cost and amortization of the unfunded actuarial liability. The normal cost is a level percent of payroll cost which, along with the member contributions, will pay for projected benefits at retirement for the average plan participant. 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.



# 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, 2010						
Investment Income Combined Liability Experience	\$	(755,593) 150,330					
Gain (or Loss) During Year from Financial Experience Non-Recurring Gain (or Loss) Items Composite Gain (or Loss) During Year	\$ 	(605,263) (373,175) (978,437)					

Table V-4 GASB SOLVENCY TEST											
				(0	lolla	rs in thousands)	)				
	(A) (B) (C)										
	Remaining Portion of Actuarial										
Valuation		Active		Retirees		Active			Liabili	ties Cove	red
Date		Member		And	I	Members'		Reported	by Rep	orted Ass	sets
July 1,	Co	ntributions	Be	eneficiaries	]	Liabilities		Assets	(A)	<b>(B</b> )	(C)
2010 <sup>2</sup>	\$	2,593,076	\$	9,761,070	\$	5,289,248	\$	16,069,058	100%	100%	70%
2009	\$	2,528,667	\$	8,720,050	\$	5,249,932	\$	16,004,730	100%	100%	91%
2008 3	\$	2,411,027	\$	8,013,456	\$	4,934,341	\$	15,941,390	100%	100%	100%
2007 4	\$	2,251,564	\$	7,423,580	\$	3,866,243	\$	14,929,287	100%	100%	100%

<sup>1</sup> Actuarial Value of Assets

<sup>2</sup> Reflects revised economic and demographic assumptions

<sup>3</sup> Reflects revised economic assumptions and Prop B changes

 $^{\rm 4}$  July 1, 2007 numbers calculated by prior actuary



# SECTION V ACCOUNTING STATEMENT INFORMATION

	Table V-5 Schedule of Funding Progress								
		(dollar	s in thousands)						
Actuarial	Actuarial	Actuarial				Unfunded AL			
Valuation	Value	Liability	Unfunded	Funded	Covered	as a % of			
Date	of Assets	(AL)	AL	Ratio	Payroll	<b>Covered Payroll</b>			
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%			
July 1, 2002	11,102,516	9,415,905	(1,686,611)	118%	2,019,097	-84%			
July 1, 2001	10,797,024	8,371,843	(2,425,181)	129%	1,858,365	-131%			

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



# APPENDIX A MEMBERSHIP INFORMATION

Table A-1 Active Member Data - TOTAL SYSTEM									
July 1, 2010 July 1, 2009 % Change									
Total									
Count		28,222		29,919	-5.7%				
Average Current Age		47.6		47.7	-0.2%				
Average Service		12.2		12.2	0.0%				
Annual Pensionable Earnings*	\$	2,315,432,384	\$	2,384,764,400	-2.9%				
Average Pensionable Earnings	\$	82,044	\$	79,707	2.9%				

	Table A-2           Active Member Data - POLICE									
		July 1, 2010		July 1, 2009	% Change					
<u>Total</u>										
Count		2,139		2,255	-5.1%					
Average Current Age		42.4		42.6	-0.5%					
Average Service		14.3		14.5	-1.4%					
Annual Pensionable Earnings*	\$	236,132,709	\$	239,053,793	-1.2%					
Average Pensionable Earnings	\$	110,394	\$	106,011	4.1%					
<u>Old</u>										
Count		10		15	-33.3%					
Average Current Age		64.0		61.5	4.1%					
Average Service		40.7		39.0	4.4%					
Annual Pensionable Earnings*	\$	1,487,270	\$	2,226,933	-33.2%					
Average Pensionable Earnings	\$	148,727	\$	148,462	0.2%					
New										
Count		2,129		2,240	-5.0%					
Average Current Age		42.3		42.5	-0.5%					
Average Service		14.2		14.3	-0.7%					
Annual Pensionable Earnings*	\$	234,645,439		236,826,860	-0.9%					
Average Pensionable Earnings	\$	110,214		105,726	4.2%					

\* Fiscal Year ending June 30, excludes DROP members



# APPENDIX A MEMBERSHIP INFORMATION

	Table Active Membe			
		July 1, 2010	July 1, 2009	% Change
<u>Total</u>				
Count		1,394	1,459	-4.5%
Average Current Age		44.4	44.1	0.7%
Average Service		14.2	14.1	0.7%
Annual Pensionable Earnings*	\$	164,130,070	\$ 163,922,064	0.1%
Average Pensionable Earnings	\$	117,740	\$ 112,352	4.8%
<u>Old</u>				
Count		9	11	-18.2%
Average Current Age		64.9	62.7	3.5%
Average Service		39.9	38.1	4.7%
Annual Pensionable Earnings*	\$	1,585,701	\$ 1,762,736	-10.0%
Average Pensionable Earnings	\$	176,189	\$ 160,249	9.9%
New				
Count		1,385	1,448	-4.4%
Average Current Age		44.3	44.0	0.7%
Average Service		14.0	13.9	0.7%
Annual Pensionable Earnings*	\$	162,544,369	\$ 162,159,328	0.2%
Average Pensionable Earnings	\$	117,361	\$ 111,988	4.8%

Active Me	Table mber Data	e A-4 - MISCELLAN	EO	US	
		July 1, 2010		July 1, 2009	% Change
<u>Total</u>					
Count		24,689		26,205	-5.8%
Average Current Age		48.2		48.3	-0.2%
Average Service		11.9		11.9	0.0%
Annual Pensionable Earnings*	\$	1,915,169,605	\$	1,981,788,543	-3.4%
Average Pensionable Earnings	\$	77,572	\$	75,626	2.6%
<u>Old</u>					
Count		223		430	-48.1%
Average Current Age		61.3		61.4	-0.2%
Average Service		36.3		35.6	2.0%
Annual Pensionable Earnings*	\$	19,487,340	\$	37,937,540	-48.6%
Average Pensionable Earnings	\$	87,387	\$	88,227	-1.0%
New					
Count		24,466		25,775	-5.1%
Average Current Age		48.1		48.1	0.0%
Average Service		11.7		11.5	1.7%
Annual Pensionable Earnings*	\$	1,895,682,265	\$	1,943,851,003	-2.5%
Average Pensionable Earnings	\$	77,482	\$	75,416	2.7%

\* Fiscal Year ending June 30, excludes DROP members



# APPENDIX A MEMBERSHIP INFORMATION

	Table A-5         Non-Active Member Data - TOTAL SYSTEM												
	Count Average Age												
	July 1, 2010	July 1, 2009	%Change	July 1, 2010	July 1, 2009	Change							
<u>Total</u>	17040	15.0.00	7 40/	(0.0	70.0	0.0							
Retired	17,040	15,868	7.4%	69.8	70.0	-0.2							
Disabled	2,677	2,669	0.3%	66.6	66.5	0.1							
Beneficiaries	3,783	3,757	0.7%	77.1	77.1	0.0							
Payee Total	23,500	22,294	5.4%	70.6	70.7	-0.1							
Inactives	5,493	4,986	10.2%	46.8	47.4	-0.6							

	Table A-6         Non-Active Member Data - TOTAL SYSTEM												
	Total Annual Benefit* Average Annual Benefit*												
	Jı	ıly 1, 2010**		July 1, 2009	%Change		July 1, 2010	Ju	ıly 1, 2009	%Change			
<u>Total</u>													
Retired	\$	615,328,927	\$	546,865,728	12.5%	\$	36,111	\$	34,463	4.8%			
Disabled		122,582,029		116,896,285	4.9%		45,791		43,798	4.6%			
Beneficiaries		96,514,958		91,267,068	5.8%		25,513		24,293	5.0%			
Payee Total	\$	834,425,915	\$	755,029,081	10.5%	\$	35,507	\$	33,867	4.8%			
Inactives***	\$	187,199,190	\$	136,345,362	37.3%	\$	34,080	\$	27,346	24.6%			

\* Benefits provided in June 30 valuation data

\*\* After adjusting for expected Supplemental COLA benefit, the total annual benefit increased from \$834,425,915 to \$851,280,788

\*\*\* For Inactives, total contribution balance with interest is shown



# APPENDIX A MEMBERSHIP INFORMATION

Active DRC	Table DP Member D	e A-7 Data - TOTAL S	SY S	STEM	
		July 1, 2010		July 1, 2009	%Change
Total Active DROP					
Count		122		56	117.9%
Average Current Age		57.6		57.8	-0.3%
Total Annual Benefit	\$	13,660,598	\$	5,951,364	129.5%
Average Annual Benefit	\$	111,972	\$	106,274	5.4%
Total DROP Account Balance	\$	10,913,447	\$	4,072,307	168.0%
<u>Old Police</u>					
Count		15		14	7.1%
Average Current Age		60.9		60.8	0.1%
Total Annual Benefit	\$	1,674,492	\$	1,496,621	11.9%
Average Annual Benefit	\$	111,633	\$	106,902	4.4%
Total DROP Account Balance	\$	2,853,329	\$	1,404,143	103.2%
New Police					
Count		107		42	154.8%
Average Current Age		57.2		56.8	0.7%
Total Annual Benefit	\$	11,986,105	\$	4,454,743	169.1%
Average Annual Benefit	\$	112,020	\$	106,065	5.6%
Total DROP Account Balance	\$	8,060,118	\$	2,668,164	202.1%



# APPENDIX A MEMBERSHIP INFORMATION

	]	T Non-Active Me	`able A-8 ember Data -	POLICE		
	July 1, 2010	Count July 1, 2009	%Change	July 1, 2010	Average Age July 1, 2009	Change
<u>Total</u>						
Retired	1,100	1,065	3.3%	67.2	67.6	-0.4
Disabled	531	534	-0.6%	67.3	67.3	0.0
Beneficiaries	583	571	2.1%	76.1	76.1	0.0
Payee Total	2,214	2,170	2.0%	69.6	69.8	-0.2
Inactives	121	119	1.7%	43.5	42.6	0.9
<u>Old</u>						
Retired	711	745	-4.6%	71.2	70.8	0.4
Disabled	373	391	-4.6%	71.9	71.5	0.4
Beneficiaries	538	533	0.9%	77.7	77.5	0.2
Payee Total	1,622	1,669	-2.8%	73.5	73.1	0.4
Inactives	-	-	0.0%	-	-	0.0
New						
Retired	389	320	21.6%	60.0	60.1	-0.1
Disabled	158	143	10.5%	56.3	55.8	0.5
Beneficiaries	45	38	18.4%	57.6	56.6	1.0
Payee Total	592	501	18.2%	58.8	58.6	0.2
Inactives	121	119	1.7%	43.5	42.6	0.9

	Table A-9       Norr Action Member Data BOLICE											
Non-Active Member Data - POLICE												
		Total Annual Benefit* Average Annual Benefit*										
	J	July 1, 2010	•	July 1, 2009	%Change	Ju	ly 1, 2010	Ju	ly 1, 2009	%Change		
<u>Total</u>												
Retired	\$	83,556,851	\$	76,450,470	9.3%	\$	75,961	\$	71,784	5.8%		
Disabled		33,918,066		32,216,835	5.3%		63,876		60,331	5.9%		
Beneficiaries		29,197,207		27,394,792	6.6%		50,081		47,977	4.4%		
Payee Total	\$	146,672,124	\$	136,062,097	7.8%	\$	66,248	\$	62,701	5.7%		
Inactives**	\$	5,440,651	\$	4,620,163	17.8%	\$	44,964	\$	38,825	15.8%		
<u>Old</u>												
Retired	\$	58,018,067	\$	58,479,230	-0.8%	\$	81,601	\$	78,496	4.0%		
Disabled		23,428,085		23,410,877	0.1%		62,810		59,874	4.9%		
Beneficiaries		27,412,509		25,855,450	6.0%		50,953		48,509	5.0%		
Payee Total	\$	108,858,661	\$	107,745,558	1.0%	\$	67,114	\$	64,557	4.0%		
Inactives**	\$	-	\$	-	0.0%	\$	-	\$	-	0.0%		
New												
Retired	\$	25,538,784	\$	17,971,240	42.1%	\$	65,652	\$	56,160	16.9%		
Disabled		10,489,981		8,805,958	19.1%		66,392		61,580	7.8%		
Beneficiaries		1,784,697		1,539,342	15.9%		39,660		40,509	-2.1%		
Payee Total	\$	37,813,463	\$	28,316,540	33.5%	\$	63,874	\$	56,520	13.0%		
Inactives**	\$	5,440,651	\$	4,620,163	17.8%	\$	44,964	\$	38,825	15.8%		

\* Benefits provided in June 30 valuation data

\*\* For Inactives, total contribution balance with interest is shown



# APPENDIX A MEMBERSHIP INFORMATION

	Table A-10         Non-Active Member Data - FIRE												
	July 1, 2010	Count July 1, 2009	%Change	July 1, 2010	Average Age July 1, 2009	%Change							
<u>Total</u>													
Retired	854	832	2.6%	67.2	67.1	0.1							
Disabled	735	727	1.1%	68.6	68.5	0.1							
Beneficiaries	470	472	-0.4%	78.4	78.3	0.1							
Payee Total	2,059	2,031	1.4%	70.3	70.2	0.1							
Inactives	71	60	18.3%	44.4	42.3	2.1							
<u>Old</u>													
Retired	558	579	-3.6%	71.3	70.5	0.8							
Disabled	556	572	-2.8%	71.9	71.5	0.4							
Beneficiaries	437	442	-1.1%	80.3	80.1	0.2							
Payee Total	1,551	1,593	-2.6%	74.0	73.6	0.4							
Inactives	-	-	0.0%	-	-	0.0							
New													
Retired	296	253	17.0%	59.5	59.4	0.1							
Disabled	179	155	15.5%	58.5	57.6	0.9							
Beneficiaries	33	30	10.0%	53.1	51.3	1.8							
Payee Total	508	438	16.0%	58.7	58.2	0.5							
Inactives	71	60	18.3%	44.4	42.3	2.1							

	Table A-11Non-Active Member Data - FIRE													
	,	Total Annual Benefit* Average Annual Benefit* July 1, 2010 July 1, 2009 %Change July 1, 2010 July 1, 2009 %C												
Total	و	uly 1, 2010	•	July 1, 2009	76 Change	JU	iy 1, 2010	JL	ily 1, 2009	%Change				
Retired Disabled	\$	73,171,702 56,598,993	\$	67,910,211 53,865,271	7.7% 5.1%	\$	85,681 77,005	\$	81,623 74,093	5.0% 3.9%				
Beneficiaries		26,934,487		25,482,548	5.7%		57,307		53,988	6.1%				
Payee Total	\$	156,705,182	\$	147,258,030	6.4%	\$	76,107	\$	72,505	5.0%				
Inactives**	\$	5,905,546	\$	3,321,173	77.8%	\$	83,177	\$	55,353	50.3%				
Old														
Retired Disabled Beneficiaries	\$	47,074,428 44,552,493 25,564,287	\$	47,192,060 44,178,011 24,416,149	-0.2% 0.8% 4.7%	\$	84,363 80,130 58,500	\$	81,506 77,234 55,240	3.5% 3.7% 5.9%				
Payee Total	\$	117,191,209	\$	115,786,220	1.2%	\$	75,558	\$	72,684	4.0%				
Inactives**	\$	-	\$	-	0.0%	\$	-	\$	-	0.0%				
<u>New</u> Retired	\$	26,097,275	\$	20,718,151	26.0%	\$	88,166	\$	81,890	7.7%				
Disabled Beneficiaries		12,046,499 1,370,200		9,687,260 1,066,399	24.4% 28.5%		67,299 41,521		62,498 35,547	7.7% 16.8%				
Payee Total	\$	39,513,974	\$	31,471,810	25.6%	\$	77,783	\$	71,853	8.3%				
Inactives**	\$	5,905,546	\$	3,321,173	77.8%	\$	83,177	\$	55,353	50.3%				

\* Benefits provided in June 30 valuation data

\*\* For Inactives, total contribution balance with interest is shown



# APPENDIX A MEMBERSHIP INFORMATION

	Non-A		able A-12 Data - MIS	CELLANEOU	s	
	July 1, 2010	Count July 1, 2009	%Change	July 1, 2010	Average Age July 1, 2009	%Change
<u>Total</u>						
Retired	15,086	13,971	8.0%	70.2	70.3	-0.1
Disabled	1,411	1,408	0.2%	65.3	65.1	0.2
Beneficiaries	2,730	2,714	0.6%	77.1	77.1	0.0
Payee Total	19,227	18,093	6.3%	70.8	70.9	-0.1
Inactives	5,301	4,807	10.3%	46.9	47.6	-0.7
<u>Old</u>						
Retired	6,312	6,372	-0.9%	75.1	74.9	0.2
Disabled	598	633	-5.5%	73.6	72.9	0.7
Beneficiaries	2,135	2,173	-1.7%	79.4	79.2	0.2
Payee Total	9,045	9,178	-1.4%	76.0	75.8	0.2
Inactives	63	297	-78.8%	67.4	69.9	-2.5
<u>New</u>						
Retired	8,774	7,599	15.5%	66.6	66.5	0.1
Disabled	813	775	4.9%	59.2	58.8	0.4
Beneficiaries	595	541	10.0%	68.7	68.5	0.2
Payee Total	10,182	8,915	14.2%	66.1	65.9	0.2
Inactives	5,238	4,510	16.1%	46.7	46.1	0.6

	Table A-13         Non-Active Member Data - MISCELLANEOUS													
		Tota		nual Benefit*			*							
	]	luly 1, 2010		July 1, 2009	%Change	Ju	ly 1, 2010	Jı	ıly 1, 2009	%Change				
<u>Total</u>														
Retired	\$	458,600,374	\$	402,505,047	13.9%	\$	30,399	\$	28,810	5.5%				
Disabled		32,064,970		30,814,179	4.1%		22,725		21,885	3.8%				
Beneficiaries		40,383,265		38,389,728	5.2%		14,792		14,145	4.6%				
Payee Total	\$	531,048,608	\$	471,708,954	12.6%	\$	27,620	\$	26,071	5.9%				
Inactives**	\$	175,852,993	\$	128,404,027	37.0%	\$	33,174	\$	26,712	24.2%				
<u>Old</u>														
Retired	\$	247,387,525	\$	237,347,041	4.2%	\$	39,193	\$	37,248	5.2%				
Disabled		13,571,785		13,952,730	-2.7%		22,695		22,042	3.0%				
Beneficiaries		33,653,301		32,615,824	3.2%		15,763		15,010	5.0%				
Payee Total	\$	294,612,612	\$	283,915,594	3.8%	\$	32,572	\$	30,934	5.3%				
Inactives**	\$	9,261,202	\$	4,925,460	88.0%	\$	147,003	\$	16,584	786.4%				
New														
Retired	\$	211,212,848	\$	165,158,006	27.9%	\$	24,073	\$	21,734	10.8%				
Disabled		18,493,185		16,861,450	9.7%		22,747		21,757	4.6%				
Beneficiaries		6,729,963		5,773,904	16.6%		11,311		10,673	6.0%				
Payee Total	\$	236,435,997	\$	187,793,359	25.9%	\$	23,221	\$	21,065	10.2%				
Inactives**	\$	166,591,791	\$	123,478,567	34.9%	\$	31,804	\$	27,379	16.2%				

\* Benefits provided in June 30 valuation data

\*\* For Inactives, total contribution balance with interest is shown



# APPENDIX A MEMBERSHIP INFORMATION

	Table A-14 Distribution of Active Members as of July 1, 2010 Total System											
Age	Years of Service           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	101	111						-	-		Total 212	
25 to 29	235	858	92	2	-	-	-	-	-	-	1,187	
30 to 34	256	1,158	592	111	-	-	-	-	-	-	2,117	
35 to 39	178	1,058	952	667	91	1	-	-	-	-	2,947	
40 to 44	177	907	1,018	1,113	584	95	1	-	-	-	3,895	
45 to 49	139	776	952	1,289	820	559	194	1	-	-	4,730	
50 to 54	109	649	841	1,140	762	798	848	109	2	2	5,260	
55 to 59	45	414	599	867	628	744	787	307	80	3	4,474	
60 to 64	23	210	394	564	371	397	411	189	63	8	2,630	
65 to 69	5	41	90	146	82	78	64	33	19	16	574	
70 and up	3	13	32	37	42	17	24	13	5	10	196	
Total Count	1,271	6,195	5,562	5,936	3,380	2,689	2,329	652	169	39	28,222	

Table A-15         Distribution of Active Members as of July 1, 2010																						
									Av	erage Exp												
Age		Under 1 1 to 4 5 to				5 to 9	9 10 to 14			Years of So 15 to 19		20 to 24		25 to 29		30 to 34		35 to 39	4	40 and up		Total
Under 25	\$	50,079	\$	54,829	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	52,566
25 to 29		57,192		69,067		77,975		77,704		-		-		-		-		-		-		67,421
30 to 34		63,046		73,641		82,709		84,308		-		-		-		-		-		-		75,455
35 to 39		65,448		75,877		84,912		89,199		104,727		102,881		-		-		-		-		82,081
40 to 44		66,489		74,817		81,751		88,432		101,697		98,110		160,883		-		-		-		84,762
45 to 49		63,339		72,935		79,942		84,625		96,977		95,504		90,077		79,342		-		-		84,788
50 to 54		70,000		74,139		75,376		78,677		86,209		93,863		98,962		105,945		91,598		144,244		84,670
55 to 59		63,586		71,784		74,773		77,097		84,945		88,044		94,398		95,130		96,689		131,915		83,748
60 to 64		70,823		74,871		74,198		76,689		80,288		81,731		87,400		90,299		93,658		122,167		80,585
65 to 69		78,891		69,651		73,274		79,267		81,465		80,795		78,683		76,792		91,627		96,220		78,833
70 and up		45,000		74,560		62,272		73,704		69,741		64,002		69,648		82,712		80,071		120,312		72,406
Avg. Salary	\$	62,557	\$	73,081	\$	79,522	\$	82,649	\$	90,791	\$	90,389	\$	93,807	\$	94,337	\$	94,438	\$	112,929	\$	82,044



			Dist	ribution of	Poli	mbers as of ce	July 1, 2010				
	<b>TT 1 1</b>	1	54.0	10 / 14	Years of		25 4 20	20 / 24	25 4 20	40 1	<b>T</b> ( )
Age	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	Total
Under 25	7	18	-	-	-	-	-	-	-	-	25
25 to 29	10	182	12	-	-	-	-	-	-	-	204
30 to 34	6	138	92	22	-	-	-	-	-	-	258
35 to 39	2	64	106	117	47	-	-	-	-	-	336
40 to 44	5	33	59	99	188	15	-	-	-	-	399
45 to 49	-	8	34	61	133	79	42	-	-	-	357
50 to 54	1	7	3	27	43	55	206	27	-	-	369
55 to 59	-	3	1	10	15	19	67	25	3	-	143
60 to 64	-	1	-	5	6	1	16	2	5	3	39
65 to 69	_	-	-	3	1	-	-	-	-	1	5
70 and up	-	-	-	-	1	-	-	1	-	2	4
Total Count	31	454	307	344	434	169	331	55	8	6	2,139

					Di	istr	ibution (	of A	Table Active M Pol	em	bers as o	of J	fuly 1, 20	10					
								A	verage Ex Years	-	cted Salary Service	y							
Age	۱	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	4	40 and up	Total
Under 25		81,615	83,930		-		-		-		-		-		-	-		-	83,282
25 to 29		81,615	87,659		98,458		-		-		-		-		-	-		-	87,998
30 to 34		81,615	90,675		105,246		109,254		-		-		-		-	-		-	97,245
35 to 39		81,615	90,140		104,365		109,332		115,510		-		-		-	-		-	104,809
40 to 44		81,615	92,411		102,925		110,196		118,337		124,063		-		-	-		-	111,649
45 to 49		-	92,272		104,860		108,445		116,093		123,262		126,505		-	-		-	115,994
50 to 54	2	270,814	99,677		117,595		110,048		110,541		115,728		129,217		143,205	-		-	124,380
55 to 59		-	164,861		116,609		112,311		116,410		120,596		124,377		136,604	148,004		-	125,623
60 to 64		-	109,083		-		112,747		109,275		122,819		120,850		114,987	138,327		175,841	123,949
65 to 69		-	-		-		114,134		113,896		-		-		-	-		192,871	129,834
70 and up		-	-		-		-		118,527		-		-		135,988	-		119,225	123,241
Avg. Salary	\$	87,718	\$ 89,947	\$	104,346	\$	109,653	\$	116,369	\$	120,579	\$	127,489	\$	139,047	\$ 141,956	\$	159,807	\$ 110,394



			Dist	ribution of	Table A Active Mer Fire	nbers as of	July 1, 2010				
					Years of	Service					
Age	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	Tota
Under 25	-	4	-	-	-	-	-	-	-	-	2
25 to 29	1	35	10	-	-	-	-	-	-	-	4
30 to 34	-	35	46	15	-	-	-	-	-	-	9
35 to 39	1	37	70	79	12	-	-	-	-	-	19
40 to 44	-	32	70	136	104	23	-	-	-	-	36
45 to 49	-	3	51	89	116	68	4	-	-	-	33
50 to 54	-	5	20	38	60	55	29	10	-	1	21
55 to 59	-	2	1	3	21	23	35	14	3	-	10
60 to 64	-	-	-	2	6	4	8	5	3	-	2
65 to 69	-	-	-	-	-	-	-	-	1	1	
70 and up	-	-	1	-	-	-	-	-	-	2	
Total Count	2	153	269	362	319	173	76	29	7	4	1,394

				Di	str	ibution (	of A			bers as o	of J	uly 1, 2010						
							A	verage Ex Years	-		y							
Age	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	4	0 and up	Total
Under 25	-	60,494		-		-		-		-		-		-	-		-	60,494
25 to 29	62,979	85,569	1	109,808		-		-		-		-		-	-		-	90,347
30 to 34	-	91,896	1	114,359		109,448		-		-		-		-	-		-	105,402
35 to 39	45,000	96,656	1	112,521		115,124		122,733		-		-		-	-		-	110,881
40 to 44	-	101,084	1	108,532		116,259		124,433		131,793		-		-	-		-	116,755
45 to 49	-	97,117	1	110,340		116,453		121,197		126,637		134,202		-	-		-	119,305
50 to 54	-	127,413	1	113,431		113,044		120,361		132,071		143,461	1	52,580	-		172,930	126,358
55 to 59	-	50,774	1	106,722		115,783		119,901		127,462		131,816	1	48,432	162,854		-	129,268
60 to 64	-	-		-		118,913		118,110		131,050		129,979	1	49,393	167,562		-	134,292
65 to 69	-	-		-		-		-		-		-		-	205,861		183,930	194,895
70 and up	-	-	1	149,712		-		-		-		-		-	-		205,861	187,145
Avg. Salary	\$ 53,990	\$ 93,426	<b>\$</b> 1	111,467	\$	115,450	\$	122,009	\$	129,262	\$	136,192 \$	1	50,028	\$ 171,015	\$	192,145	\$ 117,740



			Dist	ribution of	Miscella	nbers as of neous	July 1, 2010				
	TT 1 1	14.4	54.0	10 / 14	Years of		25.4 20	20.4 . 24	25 4 20	40 1	<b>T</b> ( )
Age	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	Total
Under 25	94	89	-	-	-	-	-	-	-	-	183
25 to 29	224	641	70	2	-	-	-	-	-	-	937
30 to 34	250	985	454	74	-	-	-	-	-	-	1,763
35 to 39	175	957	776	471	32	1	-	-	-	-	2,412
40 to 44	172	842	889	878	292	57	1	-	-	-	3,131
45 to 49	139	765	867	1,139	571	412	148	1	-	-	4,042
50 to 54	108	637	818	1,075	659	688	613	72	2	1	4,673
55 to 59	45	409	597	854	592	702	685	268	74	3	4,229
60 to 64	23	209	394	557	359	392	387	182	55	5	2,563
65 to 69	5	41	90	143	81	78	64	33	18	14	567
70 and up	3	13	31	37	41	17	24	12	5	6	189
Total Count	1,238	5,588	4,986	5,230	2,627	2,347	1,922	568	154	29	24,689

			Di	istri	bution o	of A	Table Ctive M	em	bers as o	of J	uly 1, 2(	10					
						A	Miscell verage Ex	spec	ted Salar	y							
Age	Under 1	1 to 4	5 to 9		10 to 14		Years 15 to 19	of S	ervice 20 to 24		25 to 29		30 to 34	35 to 39	4	40 and up	Total
Under 25	47,730	48,689	-		-		-		-		-		-	-		-	48,196
25 to 29	56,075	62,887	69,916		77,704		-		-		-		-	-		-	61,816
30 to 34	62,601	70,606	74,935		71,795		-		-		-		-	-		-	70,636
35 to 39	65,380	74,120	79,764		79,850		82,136		102,881		-		-	-		-	76,539
40 to 44	66,049	73,129	78,237		81,668		82,885		77,690		160,883		-	-		-	77,606
45 to 49	63,339	72,638	77,176		80,862		87,603		85,043		78,547		79,342	-		-	79,206
50 to 54	68,140	73,440	74,290		76,675		81,512		89,061		86,690		85,495	91,598		115,559	79,589
55 to 59	63,586	71,204	74,650		76,548		82,908		85,871		89,554		88,476	91,927		131,915	81,234
60 to 64	70,823	74,708	74,198		76,214		79,171		81,123		85,137		88,404	85,566		89,963	79,339
65 to 69	78,891	69,651	73,274		78,536		81,064		80,795		78,683		76,792	85,281		83,052	77,974
70 and up	45,000	74,560	59,452		73,704		68,551		64,002		69,648		78,273	80,071		92,158	69,509
Avg. Salary	\$ 61,941	\$ 71,154	\$ 76,270	\$	78,602	\$	82,775	\$	85,349	\$	86,330	\$	87,165	\$ 88,489	\$	92,303	\$ 77,572



			D. 11 1		Table A			*4 T166 4*	D (		
		Keurees,	Disabled, a	na Benefic	iaries by At Total Sy		e and Bener	it Effective	Date		
Benefit					Age						
Effective	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	Total
pre-1991	2	9	25	75	158	359	590	1,115	1,166	725	4,224
1991	-	2	5	8	108	313	511	367	111	22	1,447
1992	-	1	5	8	52	54	46	37	32	18	253
1993	1	5	8	21	72	70	79	57	33	14	360
1994	-	3	9	16	110	101	107	65	36	24	471
1995	4	6	9	57	94	119	141	87	24	22	563
1996	3	6	16	62	135	142	137	56	32	19	608
1997	4	12	26	100	157	211	172	53	36	24	795
1998	1	6	13	110	148	212	132	49	33	18	722
1999	3	12	26	181	157	210	151	58	23	11	832
2000	11	15	53	210	256	293	145	73	31	12	1,099
2001	11	13	74	182	262	249	103	41	36	16	987
2002	13	26	135	286	302	222	85	50	21	15	1,155
2003	15	22	171	296	331	204	69	48	39	16	1,211
2004	20	30	273	399	415	216	89	44	33	14	1,533
2005	21	58	286	343	327	151	46	42	29	15	1,318
2006	26	114	274	387	341	122	55	51	33	9	1,412
2007	23	146	220	315	200	69	41	39	41	12	1,106
2008	34	171	309	439	275	97	53	46	33	20	1,477
2009	19	203	369	731	325	135	66	36	35	8	1,927
2010	-	-	-	-	-	-	-	-	-	-	-
Total	211	860	2,306	4,226	4,225	3,549	2,818	2,414	1,857	1,034	23,500
0 0	e at Retiremen	nt/Disability		57.9							
Average Cu	U			70.6							
Average An	nual Pension		\$	35,507							

		Dotimoos	Disablad a	nd Ronofia	Table A iaries by At	-	and Bonof	it Effoativa	Data		
		Neur ees,	Disabieu, a	nu Denenc	Polic		e allu Dellei	n Enecuve	Date		
Benefit					Age						
Effective	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	Total
pre-1991	1	7	13	37	49	93	150	161	111	56	678
1991	-	1	1	-	11	15	7	3	1	1	40
1992	-	-	2	1	14	12	2	1	2	4	38
1993	-	2	-	3	14	12	11	5	2	-	49
1994	-	-	1	2	30	19	3	3	4	3	65
1995	-	1	1	13	17	8	3	7	4	3	57
1996	-	1	1	10	26	14	4	4	3	1	64
1997	1	3	3	13	10	16	8	1	3	3	61
1998	1	-	1	10	17	6	5	5	3	1	49
1999	1	4	7	34	24	7	3	6	8	-	94
2000	3	2	4	37	24	11	8	9	2	-	100
2001	3	2	7	32	12	7	2	4	6	1	76
2002	-	2	16	45	22	13	4	7	2	1	112
2003	3	4	18	44	17	5	4	5	5	1	106
2004	2	4	26	30	15	10	3	5	3	1	99
2005	7	6	31	23	8	4	5	4	3	3	94
2006	4	9	38	22	6	5	9	5	5	1	104
2007	8	18	35	23	4	5	3	3	1	2	102
2008	4	12	41	13	9	2	1	6	6	-	94
2009	6	24	53	21	5	5	9	5	3	1	132
2010	-	-	-	-	-	-	-	-	-	-	-
Total	44	102	299	413	334	269	244	249	177	83	2,214
Average Ag	e at Retiremer	nt/Disability		51.7							
Average Cu		2		69.6							
-	nual Pension		\$								



		Dotingoog	Disablad a	nd Donofia	Table A		and Donof	it Tffootivo	Dete		
		Keurees,	Disableu, a	nu Denerici	iaries by At Fire		e and Dener	It Effective	Date		
Benefit					Age						
Effective	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	Total
pre-1991	-	-	3	9	27	54	77	133	129	90	522
1991	-	-	-	3	4	20	9	2	1	1	40
1992	-	-	1	2	10	12	10	4	6	3	48
1993	-	-	3	5	4	14	7	3	2	1	39
1994	-	-	1	1	19	21	4	2	5	2	55
1995	-	1	1	7	12	14	7	4	2	3	51
1996	1	2	1	4	15	14	4	4	2	2	49
1997	1	1	4	6	33	18	8	3	5	3	82
1998	-	-	1	11	26	12	3	2	4	-	59
1999	-	2	4	18	25	8	6	2	1	2	68
2000	2	4	5	34	32	20	1	3	2	4	107
2001	2	1	5	17	27	6	3	2	5	3	71
2002	6	8	7	63	53	3	5	4	1	3	153
2003	2	4	11	56	24	1	-	3	3	1	105
2004	5	4	13	45	17	-	7	3	5	1	100
2005	3	4	29	41	13	4	3	5	5	1	108
2006	7	8	43	47	2	-	2	6	5	1	121
2007	2	2	24	30	2	3	5	6	8	1	83
2008	6	8	46	19	3	5	3	9	-	4	103
2009	-	11	48	11	6	-	8	4	6	1	95
2010	-	-	-	-	-	-	-	-	-	-	-
Total	37	60	250	429	354	229	172	204	197	127	2,059
				54.0							
	e at Retiremer	nt/Disability		54.0							
Average Cu	-		هد	70.3							
Average An	nual Pension		\$	76,107							

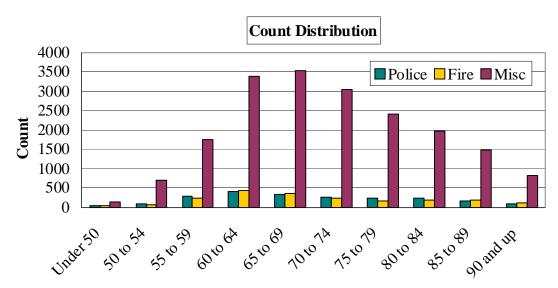


					Table A						
		Retirees,	Disabled, a	ind Benefic	-	-	e and Benef	it Effective	Date		
					Miscellar						1
Benefit	Under 50	50 to 54	55 to 59	60 to 64	A ge 65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	Total
Effective pre-1991				29	82	212	363	821	926	<b>50 and up</b>	3,024
1991	1	2	94	29 5	93	212	495	362	928 109	20	1,367
1991 1992	-	1	2	5	28	30	34	302	24	11	1,307
1992 1993	- 1	3	5	13	54	44	61	49	24	13	272
1994	-	3	7	13	61	61	100	60	27	19	351
1995	4	4	7	37	65	97	131	76	18	16	455
1996	2	3	14	48	94	114	129	48	27	16	495
1997	2	8	19	81	114	177	156	49	28	18	652
1998	-	6	11	89	105	194	124	42	26	17	614
1999	2	6	15	129	108	195	142	50	14	9	670
2000	6	9	44	139	200	262	136	61	27	8	892
2001	6	10	62	133	223	236	98	35	25	12	840
2002	7	16	112	178	227	206	76	39	18	11	890
2003	10	14	142	196	290	198	65	40	31	14	1,000
2004	13	22	234	324	383	206	79	36	25	12	1,334
2005	11	48	226	279	306	143	38	33	21	11	1,116
2006	15	97	193	318	333	117	44	40	23	7	1,187
2007	13	126	161	262	194	61	33	30	32	9	921
2008	24	151	222	407	263	90	49	31	27	16	1,280
2009	13	168	268	699	314	130	49	27	26	6	1,700
2010	-	-	-	-	-	-	-	-	-	-	-
Total	130	698	1,757	3,384	3,537	3,051	2,402	1,961	1,483	824	19,227
				<b>F</b> 0 0							
	e at Retiremer	nt/Disability		59.0							
Average Cu	U		4	70.8							
Average An	nual Pension		\$	5 27,620							



]	Ta Distribution of Reti and Beneficiar	,	,	
		Count		
Age	Police	Fire	Misc	Total
Under 50	44	37	130	211
50 to 54	102	60	698	860
55 to 59	299	250	1,757	2,306
60 to 64	413	429	3,384	4,226
65 to 69	334	354	3,537	4,225
70 to 74	269	229	3,051	3,549
75 to 79	244	172	2,402	2,818
80 to 84	249	204	1,961	2,414
85 to 89	177	197	1,483	1,857
90 and up	83	127	824	1,034
Total	2,214	2,059	19,227	23,500

Chart A-1



# APPENDIX A MEMBERSHIP INFORMATION

	Dist	and Benef	' Ro icia	<b>Fable A-27</b> etirees, Disa aries as of J nual Benefi	[ul]		ers,
Age		Police		Fire		Misc	Total
Under 50	\$	2,181,797	\$	1,486,690	\$	2,430,774	\$ 6,099,261
50 to 54		6,072,698		3,108,507		12,252,627	21,433,832
55 to 59		23,785,336		23,092,060		34,862,277	81,739,673
60 to 64		31,324,257		37,830,574	1	112,360,237	181,515,068
65 to 69		23,474,214		28,589,490	1	120,147,187	172,210,892
70 to 74		17,388,259		16,913,799		94,590,627	128,892,685
75 to 79		14,680,373		12,699,936		66,011,406	93,391,715
80 to 84		14,703,675		14,499,917		46,138,372	75,341,963
85 to 89		9,505,487		11,970,093		29,979,825	51,455,404
90 and up		3,556,029		6,514,117		12,275,276	22,345,422
Total	\$	146,672,124	\$	156,705,182	\$3	531,048,608	834,425,915

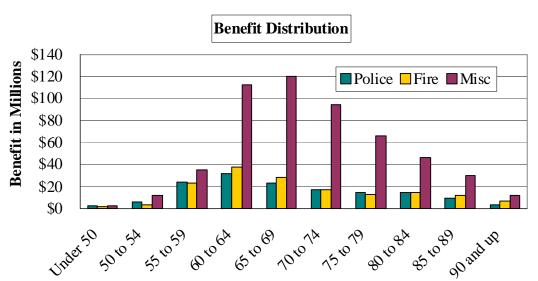


Chart A-2



## APPENDIX A MEMBERSHIP INFORMATION

## **Data Assumptions and Methods**

In preparing our data, 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 will be assumed to be paid in full and this service will be reflected in the projected benefit. An adjusted date of hire is retroactively calculated from the valuation date.
- Valuation Salary for fiscal year ending 6/30/2010 will be "Covered Pay" for members hired before the beginning of the previous plan year and "Calculated Pay", which is an annualized pay rate, for new hires. For Miscellaneous Other and Craft groups, the maximum of 6/30/2009 or 6/30/2010 "Covered Pay" so that furloughs would not affect pensionable salaries. A minimum of \$45,000 is used for all active members. Projected salary for fiscal year ending 6/30/2011 is increased 1.5% for Fire, 5% for Police, and 5.75% for Muni-Drivers based on recent MOUs.
- All benefits for members in pay status as of June 30, 2010 were adjusted for the Supplemental COLA effective July 1, 2010.
- 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" which means active, no "Job End Date or the "Job End Date" is after 6/30/2010, 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 6/30/2010, or their "Cvd Pay" is \$0.
- Inactive members with less than 5 years of service are assumed to receive a lump sum distribution on the valuation date.
- Inactive members with 5 or more years of service are assumed to retire at age 55 with a deferred annual benefit. 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". The deferred benefit is calculated using the estimated 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



## APPENDIX A MEMBERSHIP INFORMATION

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.

- Records on the "Retiree" file are considered in pay status if their benefit is not suspended or terminated.
- Members may retire and receive benefits from multiple Plans (e.g. a police officer can have two benefits, one for the service during the academy training which is considered the Miscellaneous group and a second benefit for all other service as a police officer). We will value each member's blended benefit individually. This will result in the counts being slightly higher than actual counts due to people having more than one benefit payable from multiple plans.
- We assume any member found in last year's "Retiree" file and not in this year's file has deceased without a beneficiary and should be removed from the valuation data.
- We assume all deceased members with payments continuing to a beneficiary have already been accounted for in the "Retiree" file.



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# **A. Actuarial Assumptions**

# 1. Investment Return Assumption

SFERS' assets are assumed to earn 7.75% net of investment expenses.

# 2. Inflation

Wage inflation: 4.00% compounded annually Consumer Price Inflation: 3.50% compounded annually

# 3. Interest Credited to Member Contributions

4.50%, compounded annually.

# 4. Salary Increase Rate

Wage inflation component 4.00%

The additional merit component:

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



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

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 costs 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. Member Refunds

The rates of refund of contributions for terminated vested members are presented in Table B-2 below.

Table B-2 Rates of Contribution Refund after Withdrawal						
Age	Police & Fire	<b>M</b> iscellaneous				
Under 25	100%	70%				
25	75	55				
30	50	40				
35	30	35				
40	20	30				
45 10 20						
50 & over	0	0				



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## 8. Family Composition

Percentage married (including assumption for Domestic Partners, 1994 Proposition H) is shown in the following Table B-3. Wives are assumed to be three years younger than husbands (and then the spouse is assumed to be an additional year younger in order to value continuance to children and dependent parents).

Table B-3					
Percentage Married					
Safety Males	85%				
Safety Females	48				
Miscellaneous Males	75				
Miscellaneous Females	48				

## 9. Rates of Withdrawal/Termination

Sample rates of withdrawal/termination are show in the following Table B-4.

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



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

Sample rates of withdrawal/termination by age and service for Miscellaneous members are shown in the following Table B-5.

Table B-5 Misc. Rates of Termination by Age and Service Years					
		Service			
Age	0	3	5+		
20	37.50%	9.00%	5.50%		
25	27.50	9.00	5.50		
30	24.00	9.00	5.50		
35	20.00	7.00	4.25		
40	17.50	6.00	3.00		
45	15.00	4.50	2.50		
50	15.00	4.50	2.60		
55	15.00	4.50	3.15		
60	15.00	4.50	4.00		
65	15.00	4.50	4.00		

30% of terminating employees are assumed to subsequently work for a reciprocal employer and receive 4.00% pay increases per year.



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## **10. Rates of Disability**

Sample disability rates of active participants are provided in Table B-6. 100% of safety and 0% of miscellaneous disabilities are assumed to be duty related.

Table B-6 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)	
Police	55% of pay
Fire	60% of pay



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## 11. 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. For active females the Employee table is projected to 2030 and for active males to 2005. For female and male annuitants, the Annuitant table is projected to 2020. 25% of safety and 0% of miscellaneous deaths are assumed to be duty related. Table B-7 provides a sample of these rates.

Table B-7 Rates of Mortality for Actives and Annuitants Healthy Lives at Selected Ages							
	Actives			Annuitants			
Age	Male	Female	Age	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		



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## 12. 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. Table B-8 provides a sample of the mortality rates for members with disability retirement.

Rates of	Table B-8Rates of Mortality for Disabled Lives at Selected Ages							
	Police a	nd Fire	All Misce	llaneous				
Age	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				



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## **13. Rates of Retirement**

Rates of retirement are based on age and service according to the following Tables B-9 and B-10.

			Table B-9					
	<b>Rates of Retirement by Age and Service</b>							
	29 Years of Service or less (24 or less for Safety)							
			Muni		Misc.	Misc.		
Age	Police	Fire	Drivers	Craft	Females	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		



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

Table B-10						
Rates of Retirement by Age and Service						
30 Years of Service or more (25 or more for Safety)						
	Muni Misc. Misc.					
Age	Police	Fire	Drivers	Craft	Females	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	r 1.0000	1.0000	1.0000	1.0000	1.0000	1.0000



## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## 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 potential 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. 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.

## **17.** Changes Since Last Valuation

Many assumptions have been updated from the recent demographic and economic experience studies conducted during 2010. See the experience study reports for a complete description of all of the changes.



## 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 retirement. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost. The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets.

The unfunded actuarial accrued liabilities due to net actuarial gains and losses, Supplemental COLAs 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.

## 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 the expected return (7.75% for 2008-2010 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.



# 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.

b. Employer:

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System.

## 5. Service Retirement

# <u>Eligibility</u>

Age 50 with 25 years of credited service.



## APPENDIX C SUMMARY OF PLAN PROVISIONS OLD POLICE AND FIRE

## **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-1City and County of San Francisco Employees' Retirement SystemSections 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.

# 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 8.596.

At least 25 years of credited service:

Service retirement benefit determined at date of disability.



# APPENDIX C SUMMARY OF PLAN PROVISIONS OLD POLICE AND FIRE

## **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.

## **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.



# APPENDIX C SUMMARY OF PLAN PROVISIONS OLD POLICE AND FIRE

## 8. Death while an Active Employee

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

- a. <u>Less than 10 Years of Credited Service, or No Qualified Survivor</u> Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary.
- b. <u>At least 10 but less than 25 years of Credited Service</u> 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. <u>At Least 25 Years of Credited Service but Less than Age 50</u> 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. <u>Eligible for Service Retirement</u> 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. <u>No Qualified Survivor</u> 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.
- b. <u>Qualified Survivor and Not Eligible for Service Retirement</u> 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. <u>Qualified Survivor and Eligible for Service Retirement</u> 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.



# APPENDIX C SUMMARY OF PLAN PROVISIONS OLD POLICE AND FIRE

## 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.

## 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 1of each fiscal year, if 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 – None



## APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

# II. New Police and Fire Members – Charter Sections 8.586 and 8.597 (Police) and 8.588 and 8.598 (Fire)

## 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).

## 2. Final Compensation

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

## (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:

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

b. Employer:

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System.



## APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

### 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.

Table C-2City and County of San Francisco Employees' Retirement SystemSections 8.586 (Police) and 8.588 (Fire) – Service Retirement FactorsRetirement AgeRetirement Factors				
50	2.00%			
51	2.14%			
52	2.28%			
53	2.42%			
54	2.56%			
55 or above	2.70%			



# APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

**Charter Sections 8.597 and 8.598:** 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-3City and County of San Francisco Employees' Retirement SystemSections 8.597 (Police) and 8.598 (Fire) - Service Retirement Factors			
Retirement AgeRetirement Factors			
50	2.40%		
51	2.52%		
52	2.64%		
53	2.76%		
54	2.88%		
55 or above	3.00%		

## **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 75% of Final Compensation for Charter Sections 8.586 and 8.588 or 90% of Final Compensation for Charter Sections 8.597 and 8.598.

## **Benefit - Survivor**

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

## 7. Industrial Disability

## **Eligibility**

No age or service requirement.



# APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

### 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. 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 50% of Final Compensation (not to exceed 90% of Final Compensation for Charter Sections 8.597 and 8.598).

#### 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. <u>Less than 10 Years of Credited Service, or No Qualified Survivor</u> Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated beneficiary.
- b. <u>At least 10 but less than 25 years of Credited Service</u> 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. <u>At Least 25 Years of Credited Service but Less than Age 50</u> 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.
- d. <u>Age 50 with 25 Years of Credited Service</u> 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. <u>No Qualified Survivor</u> – Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus six months salary to a designated



## APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

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 and 8.598, not to exceed 90% of Final Compensation).
- c. <u>Qualified Survivor and Age 50 with 25 Years of Service</u> 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 and 8.598:** A specified percent of Final Compensation at termination based on the member's age at retirement (factors shown in Table C-3 above) for each year of credited service, subject to a maximum of 90% of Final Compensation, payable at age 50.



## APPENDIX C SUMMARY OF PLAN PROVISIONS NEW POLICE AND FIRE

#### 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 1of each fiscal year, if 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 - None

# APPENDIX C SUMMARY OF PLAN PROVISIONS DROP PROVISIONS

# **III.** Deferred Retirement Option Program (DROP) – Charter Section A8.900

## 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 unless the Board of Supervisors votes to renew for up to three more years.

## 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	<b>Maximum DROP Period</b>		
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.



# APPENDIX C SUMMARY OF PLAN PROVISIONS 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 postretirement 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

# 9. IV. Miscellaneous Members – Charter Sections 8.509 & 8.587

## 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.

## 2. Average Final Compensation

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

## 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

7.5% of salary, excluding overtime and most premium pay.

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).



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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.

## 5. Service Retirement

## **Eligibility**

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

## **Benefit - Member**

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-4 below) for each year of credited service, effective January 11, 2009.

Table C-4 City and County of San Francisco Employees' Retirement System Section 8.509 Member Service Retirement Factors						
RetirementRetirementRetirement AgeFactorsRetirement AgeFactors						
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.



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## **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.

## 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 members with less than five years of credited service:



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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 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.

## 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 1of each fiscal year, if 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 – None

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 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. 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 Funding 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 2010 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).

