

**Federated City Employees'
Retirement System**

**June 30, 2011
Actuarial Valuation**

Produced by Cheiron

November 2011



Classic Values, Innovative Advice

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LETTER OF TRANSMITTAL

November 29, 2011

Retirement Board of the Federated City
 Employees' Retirement System
 1737 North 1st Street, Suite 580
 San Jose, California 95112

Dear Members of the Board:

The purpose of this report is to present the June 30, 2011 actuarial valuation of the City of San Jose Federated City Employees' Retirement System ("System"). This report is for the use of the Retirement Board and its auditors in preparing financial reports in accordance with applicable laws and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

The table below presents the key results of the 2011 valuation compared to the 2010 valuation.

Summary of Key Valuation Results		
	6/30/2011	6/30/2010
Discount Rate	7.50%	7.95%
Actuarial Liability (AL)	\$ 2,770,227	\$ 2,510,358
Actuarial Value of Assets (AVA)	1,788,660	1,729,413
Unfunded Actuarial Liability (UAL)	\$ 981,567	\$ 780,945
Funding Ratio - AVA	65%	69%
Market Value of Assets (MVA)	\$ 1,760,617	\$ 1,512,802
Funding Ratio - MVA	64%	60%
Fiscal Year Ending	6/30/2013	6/30/2012
Member Contribution Rate	5.74%	4.68%
City Contribution Rate		
Normal Cost Rate	18.08%	12.76%
UAL Rate	26.37%	15.58%
Total City Rate	44.45%	28.34%
Total Contribution Rate	50.19%	33.02%
Total Contribution Amount		
-if paid at the beginning of the year	\$ 102,972	\$ 86,888
-if paid at the end of the year	\$ 110,694	\$ 93,795

Amounts in thousands



At its October 2011 meeting, the Board adopted a number of assumption changes based on recommendations from our experience study report. In particular, the Board reduced its investment return assumption from the 7.95% that was used in the prior valuation and the 7.75% that had been previously adopted for this valuation to 7.50%. The wage growth assumption was also reduced from 3.90% in the prior valuation to 3.25% in this valuation. Administrative expenses and the Supplemental Retiree Benefit Reserve (SRBR), which had been implicitly valued as part of the investment return assumption, are now explicitly valued as an addition to normal cost (0.70% of payroll for administrative expenses and 0.35% of the market value of assets for the SRBR). The changes in assumptions are summarized in Appendix B of this report, and more detail is provided in our experience study report.

During the year, there were also very significant changes due to the experience of the System, including a 14% reduction in the number of active members and a 24% reduction in the expected payroll. The investment return for the year was nearly 19%, but due to asset smoothing, prior investment losses are still being phased in and as a result the return on the actuarial value of assets was only 5.5%.

- *Unfunded Actuarial Liability (UAL)/Surplus:* The UAL increased by approximately \$200 million primarily due to the assumption changes (\$188 million).
- *Funding Ratio:* The ratio of the actuarial value of assets to actuarial liabilities declined since the last valuation from 69% to 65% due to the assumption changes. 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 60% to 64% even with the impact of the assumption changes.
- *Member Contribution Rate:* The member contribution rate is a proportion (3/11^{ths}) of the service normal cost rate. The Member contribution rate increased from 4.68% to 4.82% due to demographic experience and from 4.82% to 5.74% due to the changes in assumptions.
- *City Contributions:* City contributions are a proportion (8/11^{ths}) of the service normal cost rate plus the reciprocity normal cost rate plus an amortization payment on the UAL. City contributions as a percent of payroll increased significantly from 28.34% of payroll to 44.45% of payroll. However, the decrease in payroll exaggerates the increased cost to the City. The beginning of year contribution amount increased from \$87 million to \$103 million due primarily to the assumption changes. Based on the prior valuation, the contribution amount had been expected to increase to \$105 million without all of the assumption changes.

More details on the plan experience for the past year, including the changes listed above and their impact on these June 30, 2011 valuation results can be found in our report which follows.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the City of San Jose Department of Retirement Services. This information includes, but is not limited to, the plan provisions, employee data, and financial information.

We hereby certify that, to the best of our knowledge, this report and its contents, which are based on the information and data supplied by the City of San Jose Department of Retirement Services, are work products of Cheiron, Inc. These work products are complete and accurate and have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

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

Finally, it's important to note that this valuation, which was prepared using census data and financial information as of June 30, 2011, does not reflect any subsequent changes in the membership profile and the investment markets.

Sincerely,
Cheiron



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



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

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

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 Federated City Employees' Retirement System,
- Past and expected trends in the financial condition of the System ,
- The Employer's contribution rate for the Fiscal Year Ending June 30, 2013, 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 June 30, 2011 valuation was completed and an examination of the current financial condition of the System. In addition, we present a review of the key historical trends followed by the projected financial outlook for the System.

A. Valuation Basis

The System's funding policy sets City contributions equal to the sum of:

- A portion (8/11th) of the Service Normal Rate (Regular Current Service Rate).
- The Reciprocity Rate, which is the prefunding of the liability for reciprocal benefits with certain other California public pension plans.
- The Deficiency Rate, which is the amortization of the funding deficiency.
- The Golden Handshake Rate, which is the cost for funding the additional benefits granted in the past to certain retiring employees.

The unfunded actuarial liability as of June 30, 2009 (including the Golden Handshake) is amortized over 30 years from that date, and any subsequent gains or losses or assumption changes are amortized as part of the Deficiency Rate over 20 years from the valuation in which they are first recognized.

Member contributions equal 3/11th of the Service Normal Rate.

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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**SECTION I
BOARD SUMMARY**

B. Current Financial Condition

On the following pages, we summarize the key results of the June 30, 2011 valuation and how they compare to the results from the June 30, 2010 valuation.

1. Membership:

As shown in Table I-1 below, total membership in Federated declined slightly from 2010 to 2011, but the changes between categories of membership were significant. Active membership decreased 14.2%, terminated vested membership increased 18.7%, and retiree membership (including beneficiaries) increased 10.2%. Total payroll decreased by 23.9%, and the average pay per active member decreased by 11.2%.

Table I-1			
Total Membership			
Item	June 30, 2011	June 30, 2010	% Change
Active Counts	3,274	3,818	(14.2%)
Terminated Vesteds	869	732	18.7%
Retirees	2,769	2,472	12.0%
Beneficiaries	449	428	4.9%
Disabled	210	211	(0.5%)
Total City Members	7,571	7,661	(1.2%)
Active Member Payroll	\$ 228,936,398	\$ 300,811,165	(23.9%)
Average Pay per Active Member	69,926	78,788	(11.2%)

2. Assets and Liabilities:

Table I-2 on the following page presents a comparison between the June 30, 2011 and June 30, 2010 assets, liabilities, UAL, and funding ratios.

The key results shown in Table I-2 indicate that the total actuarial liability increased 10.4% and the market value of assets increased by 16.4%. The System 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 3.4%. The ratio of the actuarial value of assets to the market value of assets decreased from 114% to 102%, indicating that the deferred losses are now only slightly greater than the deferred gains. Finally, the UAL increased from \$780.9 million to \$981.6 million, resulting in a decrease in the funding ratio from 68.9% to 64.6%. Based on the market value of assets, the funding ratio increased from 60.3% to 63.6%.

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

Table I-2					
Assets & Liabilities					
Item (EAN)	June 30, 2011		June 30, 2010		% Change
Actives	\$	878,864	\$	1,005,660	(12.6%)
Terminated Vesteds		111,225		85,904	29.5%
Retirees		1,570,604		1,271,308	23.5%
Beneficiaries		93,751		81,931	14.4%
Disabled		72,674		65,554	10.9%
SRBR Balance		43,109		0	
Total Actuarial Liability		2,770,227		2,510,358	10.4%
Market Value Assets	\$	1,760,617	\$	1,512,802	16.4%
Actuarial Value Assets	\$	1,788,660	\$	1,729,413	3.4%
Unfunded Actuarial Liability	\$	981,567	\$	780,944	25.7%
Funding Ratio - Market Value		63.6%		60.3%	3.3%
Funding Ratio - Actuarial Value		64.6%		68.9%	(4.3%)

Amounts in thousands

3. Contributions:

Table I-3 shows sources for the change in the net contribution rates and City contribution amount from the rates and amount calculated in the prior report. The increase in the Member contribution rate is primarily due to the assumption changes. The increase in the City's contribution rate is also primarily due to the assumption changes, but is further exaggerated by the decreased payroll over which the UAL is spread. The City's contribution amount would have actually been lower than the prior valuation except for the assumption changes.

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

Table I-3 Contribution Reconciliation					
Item	Member	Normal	City UAL	Total	Total City \$
1. FYE 2012 Contribution Rate	4.68%	12.76%	15.58%	28.34%	\$ 86.9
2. Plan Experience					
a) Change due to investment loss	0.00%	0.00%	2.69%	2.69%	6.2
b) Change due to demographic experience	0.14%	0.42%	(2.79%)	(2.37%)	(5.5)
c) Change due to aggregate payroll decreasing	0.00%	0.00%	4.16%	4.16%	(11.6)
3. Assumption Changes					
a) Change due to demographic assumption changes	0.57%	1.45%	2.09%	3.54%	8.2
b) Change due to explicit expense assumption	0.19%	0.51%	0.00%	0.51%	1.2
c) Change due to explicit SRBR assumption	0.00%	2.57%	0.00%	2.57%	6.0
d) Change due to economic assumption changes	0.16%	0.37%	4.64%	5.01%	11.6
4. FYE 2013 Contribution Rate	5.74%	18.08%	26.37%	44.45%	\$ 103.0

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

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION I
 BOARD SUMMARY

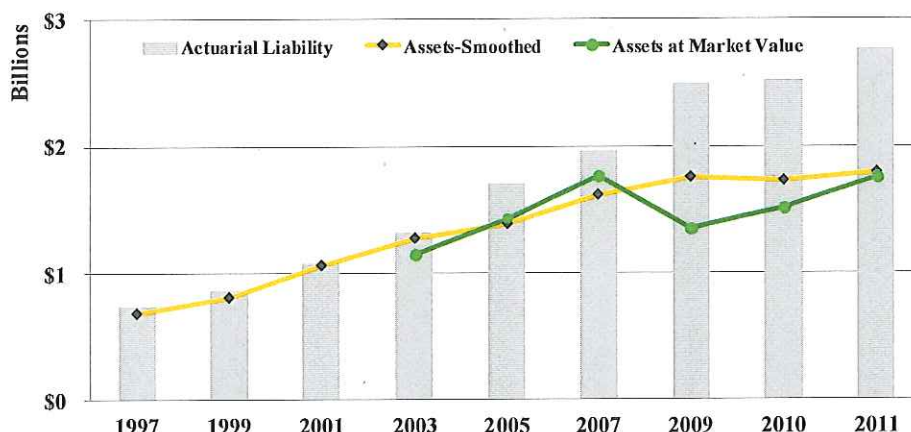
C. Historical Trends

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 the System's contribution rates, it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future. In the following charts, we present the historical trends based on prior actuarial valuations. Please note that prior to June 30, 2009, valuations were performed every other year. Beginning June 30, 2009, valuations are performed every year.

In the chart below, we present the historical trends for assets (both market and smoothed) versus actuarial liabilities, and also show the progress of the funding ratios since 1997.

Federated Assets and Liabilities 1997-2011

The City of San Jose Federated Employees' Retirement System



Funded Ratio	92.3%	93.3%	98.9%	97.6%	80.9%	82.8%	70.7%	68.9%	64.6%
UAL/(Surplus) (in millions)	\$ 56.8	\$ 57.4	\$ 12.2	\$ 31.0	\$ 326.9	\$ 338.1	\$ 729.6	\$ 780.9	\$ 981.6

* Market Value of Assets prior to 2003 were not reported separately for the Retirement Benefits

The chart above indicates that from 1997 to 2001, the System's funding ratio improved, but was still in deficit status. Then, from 2001 to 2011 (with the exception of 2007), the funding ratio steadily declined. The decline is due primarily to investment experience.

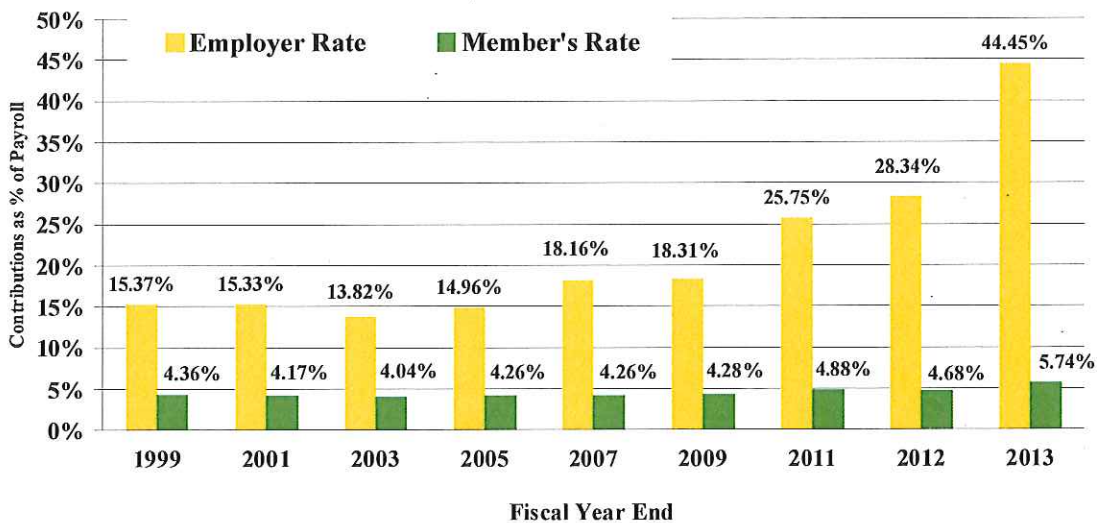
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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In the chart below, we present the historical trends for the System's contribution rates since the Fiscal Year Ending June 30, 1999. All information shown prior to the Fiscal Year Ending June 30, 2012 was calculated by the prior actuary. Also, please note that the Fiscal Year Ending 2011 rates shown do not reflect the phase-in of contribution rates that was adopted for Members. The phased-in rate was 4.54%.

Employer and Member Contribution Rates 1999-2013

The City of San Jose Federated Employees' Retirement System



The key information in this chart is the increase in the Employer contribution rate since 2003. The increase scheduled for the Fiscal Year Ending in 2013 is primarily due to the assumption changes and the reduction in payroll.

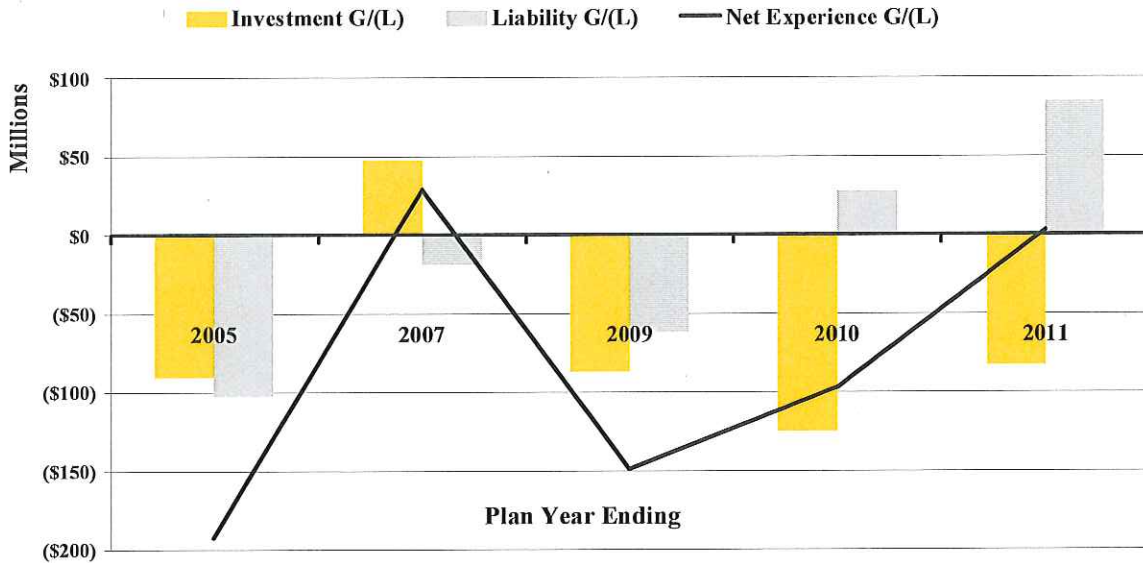
The following chart represents the pattern of the System's actuarial gains and losses, broken into the investment and liability components. The chart does not include any changes in the System's assets and liabilities attributable to changes to methods, procedures or assumptions.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

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 BOARD SUMMARY

SJFCERS Historical Gain/(Loss) 2005-2011

The City of San Jose Federated Employees' Retirement System



The key insights from this chart are:

- Investment losses (gold bars) in 2005 are partially offset by investment gains from 2006 and 2007. From 2008 to 2011, there were additional investment losses. 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 two years followed by investment gains as the most recent market returns are fully recognized.
- On the liability side, three of the four valuations showed actuarial losses with 2010 and 2011 as the only exceptions. The actuarial gains in 2010 and 2011 are primarily due to actual salaries being less than expected. We expect the new demographic assumptions adopted with this valuation to more accurately reflect future demographic experience resulting in a balance between future gains and future losses.

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

D. Projected Financial Trends

Our analysis of projected financial trends is an important part of this valuation. In this Section, we present our assessment of the implications of the June 30, 2011 valuation results on the future outlook for the System in terms of benefit security (assets over liabilities) and the expected cost progression.

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

- 1) Assuming 7.5% return for 2011-12 and each and every year that follows, 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 7.5% return. We do this in order to illustrate the impact of volatility because the System's returns will never be level each and every year.

FYE	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Return	20.0%	8.0%	3.0%	20.0%	(4.0%)	18.0%	13.0%	9.0%	(7.0%)	16.0%
FYE	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>
Return	9.0%	(8.0%)	8.0%	13.0%	16.0%	(8.0%)	(16.0%)	30.0%	25.0%	(1.0%)

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. 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.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION I
 BOARD SUMMARY

Projection Set 1: Assets and Liabilities

The chart below shows asset measures (green and gold lines) compared to liabilities (gray bars). At the top of each chart is the progression of funding ratios. The key insight from this chart is the steady projected improvement in funded ratios in the first chart, and how varying investment returns can impact the progression of funding ratios.

Chart 1: Projection of Assets and Liabilities, 7.5% return each year

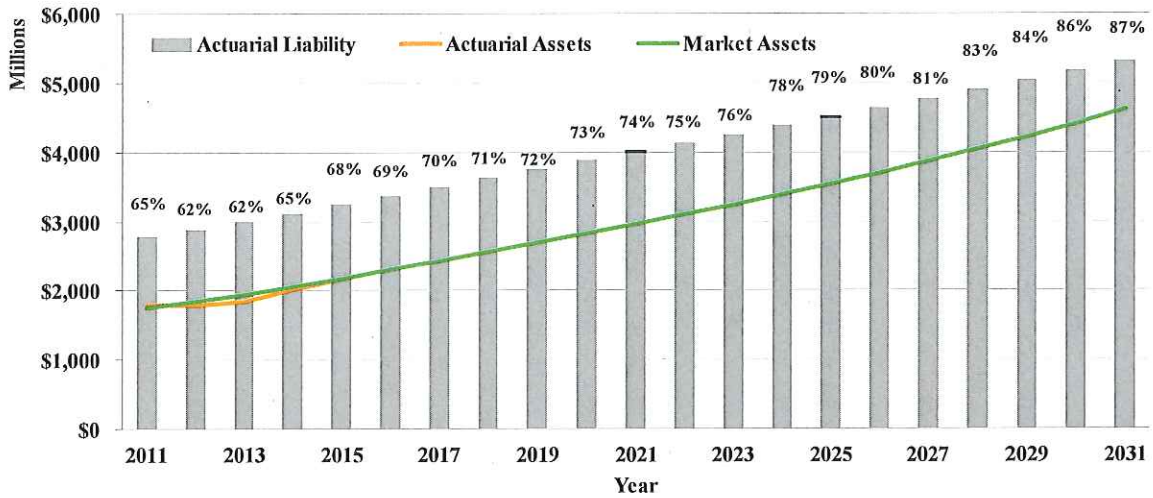
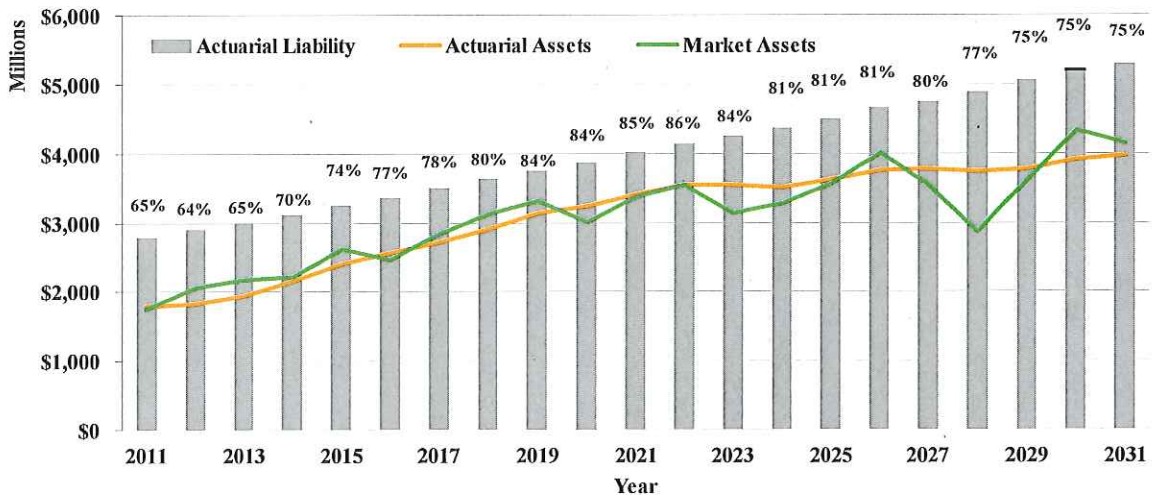


Chart 2: Projection of Assets and Liabilities, varying returns averaging 7.5% over time



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SECTION I
 BOARD SUMMARY

Projection Set 2: Projected Employer Contribution Rate

As shown in Chart 1 below, employer contribution rates are expected to increase over the next two years as the 2008-09 investment losses are fully recognized, and then decline as the subsequent investment gains are realized. These contribution rates are significantly greater than those projected in the prior valuation (red line). However, much of the increase is due to the reduction in payroll. As shown in Chart 2 below, the projected amount of the contribution is less than what was projected in the prior valuation. Varying investment returns, as shown in Charts 3 and 4, can significantly alter the projected contribution rates and amounts.

Chart 1: 7.5% return each year – Percentage of Pay

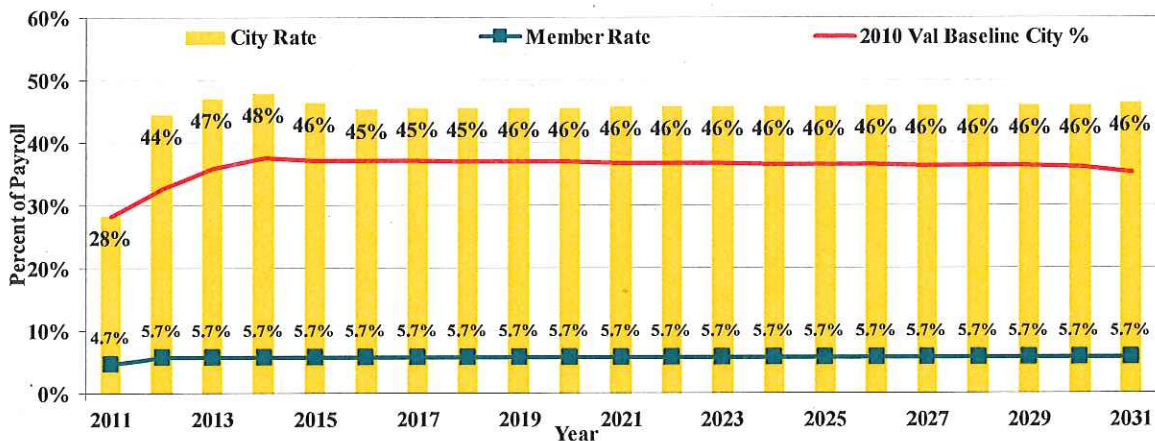
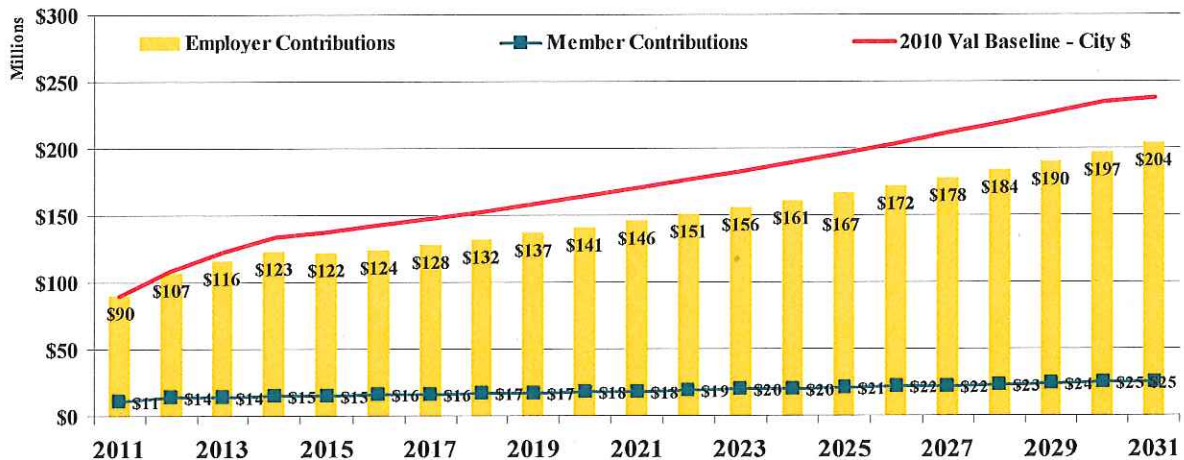


Chart 2: 7.5% return each year – Dollar Contributions



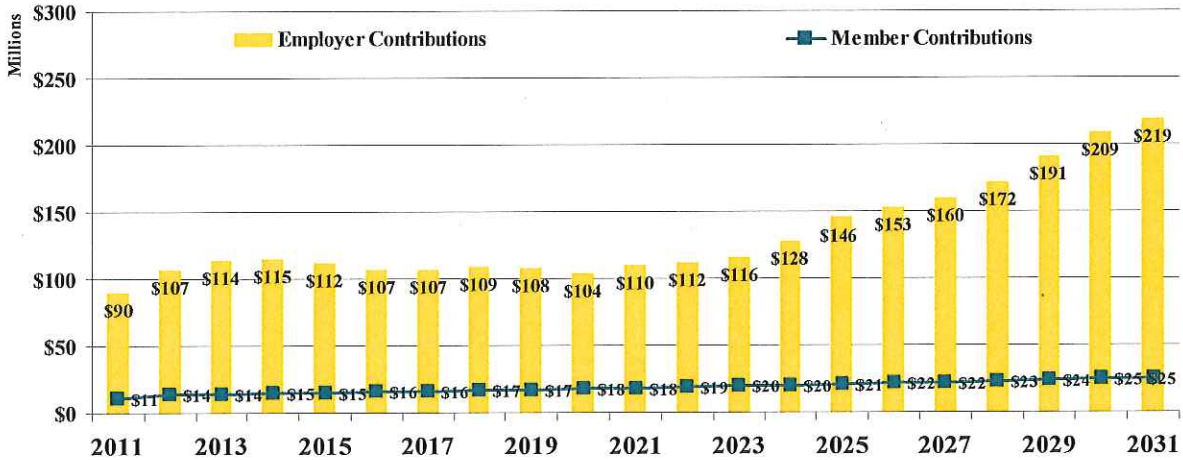
FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION I
 BOARD SUMMARY

Chart 3: Varying returns averaging 7.5% over time – Percentage of Pay



Chart 4: Varying returns averaging 7.5% over time – Dollar Contributions



**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION II
ASSETS**

The System 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 short-term investment volatility on employer contribution rates.

On the following pages we present detailed information on the System's 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

Table II-1 shows sources for the change in the market value of assets.

Table II-1 Change in Market Value of Assets					
	Basic*	June 30, 2011		June 30, 2010	
		Cost of Living	Total Retirement	Total Retirement	
Market Value, Beginning of Year	\$ 1,108,322	\$ 404,480	\$ 1,512,802	\$ 1,356,638	
Contributions					
Member	21,513	3,089	24,602	13,396	
City	42,180	17,000	59,180	54,566	
Total	\$ 63,693	\$ 20,089	\$ 83,782	\$ 67,962	
Net Investment Earnings**	\$ 213,159	\$ 71,153	\$ 284,312	\$ 195,114	
Benefit Payments	\$ 93,689	\$ 26,589	\$ 120,278	\$ 106,912	
Market Value, End of Year	\$ 1,291,485	\$ 469,133	\$ 1,760,618	\$ 1,512,802	

* Includes SRBR of \$43,109 and \$28,331 as of End of Year and Beginning of Year respectively

** Gross investment earnings less investment and administrative expenses

Amounts in thousands

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION II
 ASSETS

Table II-2 shows the development of excess earnings.

Table II-2				
Development of Excess Earnings as of June 30, 2011				
	Retirement Fund Reserve			
	Employee	SRBR	General	Total
1. Total Earnings				\$ 213,159
2. Balance, July 1, 2010	\$ 201,166	\$ 28,331	\$ 878,824	\$ 1,108,322
3. Net Cashflow	\$ (13,907)	\$ 0	\$ (16,089)	\$ (29,996)
4. Crediting Rate	3.00%	7.95%	7.95%	
5. Primary Interest Crediting	\$ 5,562	\$ 2,252	\$ 80,084	\$ 87,899
6. Balance, June 30, 2011	\$ 192,822	\$ 30,583	\$ 942,820	\$ 1,166,225
7. Excess Earnings		\$ 12,526	\$ 112,734	\$ 125,260
8. Balance, July 1, 2011	\$ 192,822	\$ 43,109	\$ 1,055,554	\$ 1,291,485

Amounts in thousands

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 each of the prior four years of actual investment experience relative to the expected return on the actuarial asset value (7.95% for 2010-2011, 7.75% for 2009-2010, 8.25% for prior years). The expected return on the 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. (See Appendix B for further explanation of the asset valuation method).

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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**SECTION II
ASSETS**

Table II-3 Development of Actuarial Value of Assets				
			June 30, 2011	
	Basic		Cost of Living	Total Retirement
Market Value of Assets	\$ 1,291,485	\$	469,133	\$ 1,760,617
Gains/(Losses)				
Current Year	125,205		38,797	164,003
Prior Year	72,529		18,926	91,456
2nd Prior Year	(343,206)		(89,559)	(432,764)
3rd Prior Year	(162,624)		(42,436)	(205,061)
Deferred Gains/(Losses)				
Current Year (80% deferred)	100,164		31,038	131,202
Prior Year (60% deferred)	43,518		11,356	54,873
2nd Prior Year (40% deferred)	(137,282)		(35,823)	(173,106)
3rd Prior Year (20% deferred)	(32,525)		(8,487)	(41,012)
Total	\$ (26,125)	\$	(1,917)	\$ (28,042)
Actuarial Value of Assets	\$ 1,317,610	\$	471,050	\$ 1,788,660

Amounts in thousands

C. Investment Performance

The market value of assets internal rate of return, net of investment and administrative expenses, was 18.8% for the year ending June 30, 2011. This is compared to an assumed return of 7.95%.

On an actuarial value of assets basis, the return for the year ending June 30, 2011 was 5.5%. The difference is largely due to the recognition of deferred losses from prior years while 80% of the gain for 2010 is deferred to future years. This return produced an overall investment loss of \$82.2 million for the year ending June 30, 2011.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

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

- Disclosure of liabilities at June 30, 2010 and June 30, 2011, and
- Statement of changes in the unfunded actuarial liabilities during the year.

A. Disclosure

Two 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 obligations, represents the expected amount of money needed today to fully pay off all benefits 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. It represents the expected amount of money needed today to pay for benefits attributed to service prior to the valuation date.

Table III-1 and Table III-2 on the following page disclose 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.

Table III-3 shows the Entry Age Normal Cost as a percentage of pay. The Entry Age Normal Cost represents the expected amount of money needed to fund the benefits attributed to the next year of service under the EAN actuarial funding method. Administrative expenses and the SRBR, which had been implicitly valued as part of the investment return assumption, are now explicitly valued as an addition to normal cost (0.70% of payroll for administrative expenses and 0.35% of the market value of assets for the SRBR).

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-1 Present Value of Future Benefits					
		June 30, 2011		June 30, 2010	
		Basic	Cost of Living	Total Retirement	Total Retirement
Actives					
Retirement	\$	800,561	\$ 282,729	\$ 1,083,290	\$ 1,189,282
Termination		61,551	20,803	82,354	97,699
Death		17,878	5,904	23,782	34,360
Disability		30,142	10,576	40,718	66,216
Total Actives	\$	910,132	\$ 320,012	\$ 1,230,144	\$ 1,387,557
Retirees		1,198,186	372,418	1,570,604	1,271,308
Beneficiaries		73,694	20,057	93,751	81,931
Disabled		55,785	16,889	72,674	65,554
Deferred Vested		81,988	29,237	111,225	85,904
SRBR Balance		43,109	0	43,109	0
Total	\$	2,362,894	\$ 758,613	\$ 3,121,507	\$ 2,892,255

Amounts in thousands

Table III-2 Actuarial Liability					
		June 30, 2011		June 30, 2010	
		Basic	Cost of Living	Total Retirement	Total Retirement
Actives					
Retirement	\$	602,387	\$ 212,919	\$ 815,306	\$ 906,339
Termination		21,786	9,217	31,003	42,318
Death		10,476	3,319	13,795	20,440
Disability		14,206	4,554	18,760	36,562
Total Actives	\$	648,855	\$ 230,009	\$ 878,864	\$ 1,005,660
Retirees		1,198,186	372,418	1,570,604	1,271,308
Beneficiaries		73,694	20,057	93,751	81,931
Disabled		55,785	16,889	72,674	65,554
Deferred Vested		81,988	29,237	111,225	85,904
SRBR Balance		43,109	0	43,109	0
Total	\$	2,101,617	\$ 668,610	\$ 2,770,227	\$ 2,510,358

Amounts in thousands

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-3 Normal Cost				
	June 30, 2011			June 30, 2010
	Basic	Cost of Living	Total	Total
Retirement	11.79%	4.11%	15.90%	13.08%
Termination	1.99%	0.56%	2.55%	2.06%
Death	0.45%	0.16%	0.61%	0.66%
Disability	0.93%	0.35%	1.28%	1.38%
Reciprocity	0.15%	0.06%	0.21%	0.27%
Sub-Total	15.31%	5.24%	20.55%	17.44%
Admin Expense	0.70%	0.00%	0.70%	0.00%
SRBR	2.57%	0.00%	2.57%	0.00%
Total	18.58%	5.24%	23.82%	17.44%

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-4 Development of 2011 Experience Gain/(Loss)	
Item	Amount
1. Unfunded Actuarial Liability at June 30, 2010	\$ 780,945
2. Expected unfunded accrued liability payment	42,490
3. Interest accrued	58,566
4. Increase due to change in assumptions	187,548
5. Expected Unfunded Actuarial Liability at June 30, 2011 (1-2+3+4)	\$ 984,569
6. Actual Unfunded Liability at June 30, 2011	\$ 981,567
7. Difference: (5 - 6)	3,002
a. Portion of (6) due to investment gain or (loss)	\$ (82,166)
b. Portion of (6) due to salary decreases	127,350
c. Portion of (6) due to earlier than expected retirements	(34,778)
d. Portion of (6) due to mortality experience less than expected	(10,568)
e. Portion of (6) due to other experience	3,164
f. Total	\$ 3,002

Amounts in thousands

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. Administrative expenses and the expected net transfer to the SRBR are added to the entry age normal cost. Finally, the normal cost is reduced by the member contribution to produce the employer normal cost. The difference between the actuarial liability and the actuarial value of assets is the unfunded actuarial liability. The UAL is made up of the unamortized UAL as of June 30, 2010 plus the impact of the 2011 experience, assumption changes and the 2010 UAL payment that is made on July 1, 2011.

Table IV-1 provides the payment schedules to amortize the unfunded liability as of June 30, 2009 over 30 years, and any additional actuarial gains/(losses), assumption or method changes after June 30, 2009 over 20 years.

Table IV-2 shows how the Employer's contribution rate for FYE 2013 is developed. 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-3 shows the Employer' contribution dollar amounts for FYE 2013 assuming contributions are made at the beginning of the fiscal year. To the extent contributions are made after the beginning of the fiscal year, the amounts should be increased at an annual rate of 7.50 percent.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION IV
 CONTRIBUTIONS

Table IV-1
 UAL Amortization

	Outstanding Balance	Remaining Period	Payment \$ Amount	% of Pay
Basic Retirement Benefit				
Golden Handshake	\$ 16,525	28	\$ 1,038	0.45%
2009 UAL	592,115	28	37,183	16.05%
2010 (Gain) or Loss	47,696	19	3,787	1.63%
2010 Assumption Change	(38,315)	19	(3,042)	(1.3%)
2011 (Gain) or Loss	9,372	20	719	0.31%
2011 Assumption Changes	117,018	20	8,982	3.88%
7/1/2011 Payment	39,596		0	0.00%
Total	\$ 784,007		\$ 48,667	21.01%
Cost of Living Benefit				
Golden Handshake	\$ 4,018	28	\$ 252	0.11%
2009 UAL	145,001	28	9,106	3.93%
2010 (Gain) or Loss	3,476	19	276	0.12%
2010 Assumption Change	(21,270)	19	(1,689)	(0.7%)
2011 (Gain) or Loss	(12,373)	20	(950)	(0.4%)
2011 Assumption Changes	70,530	20	5,414	2.34%
7/1/2011 Payment	8,178		0	0.00%
Total	\$ 197,560		\$ 12,409	5.36%
Total	\$ 981,567		\$ 61,076	26.36%

Amounts in thousands

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

SECTION IV
 CONTRIBUTIONS

	Fiscal Year 2011-12			Fiscal Year 2010-11		
	Basic	COLA	Total	Basic	COLA	Total
Member Contribution Rate	4.32%	1.42%	5.74%	3.56%	1.12%	4.68%
City Service Normal Rate	14.11%	3.76%	17.87%	9.51%	2.98%	12.49%
City Reciprocity Normal Rate	0.15%	0.06%	0.21%	0.20%	0.07%	0.27%
Total City Normal Rate	14.26%	3.82%	18.08%	9.70%	3.05%	12.76%
City Deficiency Rate	20.56%	5.25%	25.81%	12.59%	2.59%	15.18%
City Golden Handshake Rate	<u>0.45%</u>	<u>0.11%</u>	<u>0.56%</u>	<u>0.32%</u>	<u>0.08%</u>	<u>0.40%</u>
Total City UAL Rate	21.01%	5.36%	26.37%	12.91%	2.67%	15.58%
City ARC Rate	35.27%	9.18%	44.45%	22.62%	5.72%	28.34%

	July 1, 2011			July 1, 2010		
	Basic	COLA	Total	Basic	COLA	Total
City Service Normal Cost	\$ 32,687	\$ 8,710	\$ 41,397	\$ 29,148	\$ 9,146	\$ 38,294
City Reciprocity Normal Cost	<u>347</u>	<u>139</u>	<u>486</u>	<u>608</u>	<u>212</u>	<u>820</u>
Total City Normal Cost	\$ 33,034	\$ 8,849	\$ 41,884	\$ 29,756	\$ 9,358	\$ 39,114
City Deficiency Cost	\$ 47,629	\$ 12,162	\$ 59,791	\$ 38,616	\$ 7,940	\$ 46,555
City Golden Handshake Cost	<u>1,042</u>	<u>255</u>	<u>1,297</u>	<u>980</u>	<u>238</u>	<u>1,218</u>
Total City UAL Cost	\$ 48,671	\$ 12,417	\$ 61,088	\$ 39,596	\$ 8,178	\$ 47,774
City Annual Required Contribution	\$ 81,705	\$ 21,266	\$ 102,972	\$ 69,352	\$ 17,536	\$ 86,888

Amounts in thousands

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

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

The GASB No. 25 disclosure compares the actuarial liability computed for funding purposes to the actuarial value of assets to determine a funded ratio. The actuarial liability is determined assuming that members continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5% per annum as of June 30, 2010 and 7.95% per annum as of June 30, 2011.

GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of June 30, 2010 and June 30, 2011 are presented in Table V-1.

Table V-1 Federated City Employees' Retirement System			
Item	June 30, 2011	June 30, 2010	% Change
GASB No. 25 Basis			
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 1,780,139	\$ 1,418,794	25.5%
b. Vested Terminated and Inactive Members	111,225	85,904	29.5%
c. Active Members	<u>878,863</u>	<u>1,005,660</u>	<u>(12.6%)</u>
d. Total Actuarial Liability	\$ 2,770,227	\$ 2,510,358	10.4%
2. Actuarial Value of Assets	\$ 1,788,660	\$ 1,729,413	3.4%
3. Unfunded Actuarial Liability	\$ 981,567	\$ 780,945	25.7%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	64.57%	68.89%	(4.3%)

Amounts in thousands

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Tables V-2 through V-5 are exhibits for use in the System's 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 presents the Schedule of Funding Progress.

**Table V-2
Federated City 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	June 30, 2011
Actuarial funding method	Entry Age Normal
Amortization method	Level percent of pay, closed, layered
Equivalent single amortization period	25.2 Years
Asset valuation method	5 year smoothing of return over or under expected returns
Actuarial assumptions:	
Investment rate of return	7.50%
Projected salary increases due to wage inflation*	3.25%
Cost-of-living adjustments**	3.0% per year

The actuarial assumptions used have been recommended by the actuary and adopted by the Federated Board in October 2011 based on the most recent review of Federated experience.

The rate of employer contributions to Federated is composed of the normal cost, reciprocity normal cost, amortization of the unfunded actuarial liability and the golden handshake rate. 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.

* Additional merit salary increases of 0.25% to 4.50% based on a participant's years of service are also assumed. These increases are not used in the amortization of the UAL.

** Cost-of-living adjustments are fixed at 3% by the plan provisions and do not fluctuate with actual inflation.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-3
City of San Jose Federated City Employees' Retirement System

ANALYSIS OF FINANCIAL EXPERIENCE
Gain (or Loss) in Actuarial Liability During Years Ended June 30
Resulting from Differences Between Assumed Experience
and Actual Experience

Type of Activity	Gain (or Loss) for Year Ending June 30, 2011
Investment Income	\$ (82,166)
Combined Liability Experience	<u>83,403</u>
Gain (or Loss) During Year from Financial Experience	\$ 1,237
Non-Recurring Gain (or Loss) Items	<u>(187,548)</u>
Composite Gain (or Loss) During Year	\$ (186,311)

Amounts in thousands

Table V-4
City of San Jose Federated City Employees' Retirement System
GASB SOLVENCY TEST

Valuation Date June 30, *	Actuarial Liabilities For				Reported Assets**	Portion of Actuarial Liabilities Covered by Reported Assets		
	(A) Active Member Contributions	(B) Retirees, Beneficiaries and Other Inactives	(C) Remaining Active Members' Liabilities	(A)		(B)	(C)	
2011	\$ 234,574	\$ 1,848,254	\$ 687,400	\$ 1,788,660	100%	84%	0%	
2010	242,944	1,504,698	762,716	1,729,413	100%	99%	0%	
2009	228,967	1,393,114	864,074	1,756,558	100%	100%	16%	
2007	214,527	1,003,001	743,415	1,622,851	100%	100%	55%	
2005	230,027	824,043	657,300	1,384,454	100%	100%	50%	
2003	224,875	635,092	451,724	1,280,719	100%	100%	93%	
2001	210,377	529,853	332,103	1,060,144	100%	100%	96%	

* Results prior to 6/30/2010 calculated by prior actuary

Amounts in thousands

** Actuarial Value of Assets

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

**Table V-5
Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Liability (AL)	Unfunded AL	Funded Ratio	Covered Payroll	Unfunded AL as a % of Covered Payroll
June 30, 2011	\$ 1,788,660	\$ 2,770,227	\$ 981,567	65%	\$ 228,936	429%
June 30, 2010	1,729,413	2,510,358	780,945	69%	300,811	260%
June 30, 2009	1,756,558	2,486,155	729,597	71%	323,020	226%
June 30, 2007	1,622,851	1,960,943	338,092	83%	291,405	116%
June 30, 2005	1,384,454	1,711,370	326,916	81%	286,446	114%
June 30, 2003	1,280,719	1,311,691	30,972	98%	292,961	11%
June 30, 2001	1,060,144	1,072,333	12,189	99%	252,696	5%

Note: Results prior to 6/30/2010 were calculated by the prior actuary

Amounts in thousands

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX A
MEMBERSHIP INFORMATION

Table A-1 San Jose Federated City Employees' Retirement System Active Member Data			
	June 30, 2011	June 30, 2010	% Change
Total			
Count	3,274	3,818	(14.2%)
Average Current Age	45.9	45.9	0.0%
Average Service	12.3	12.1	1.7%
Annual Expected Pensionable Earnings	\$ 228,936,398	\$ 300,811,165	(23.9%)
Average Expected Pensionable Earnings	\$ 69,926	\$ 78,788	(11.2%)

Table A-2 San Jose Federated City Employees' Retirement System Non-Active Member Data						
	Count			Average Age		
	June 30, 2011	June 30, 2010	%Change	June 30, 2011	June 30, 2010	%Change
Total						
Retired & Disabled	2,979	2,683	11.0%	67.9	68.2	(0.4%)
Beneficiaries	449	428	4.9%	73.0	72.7	0.4%
Payee Total	3,428	3,111	10.2%	68.5	68.9	(0.6%)
Inactives	869	734	18.4%	45.6	45.6	0.0%

Table A-3 San Jose Federated City Employees' Retirement System Non-Active Member Data						
	Total Annual Benefit*			Average Annual Benefit*		
	June 30, 2011	June 30, 2010	%Change	June 30, 2011	June 30, 2010	%Change
Total						
Retired & Disabled	\$ 121,366,908	\$ 104,841,445	15.8%	\$ 40,741	\$ 39,076	4.3%
Beneficiaries	8,501,980	7,818,669	8.7%	18,935	18,268	3.7%
Payee Total	\$ 129,868,888	\$ 112,660,114	15.3%	\$ 37,885	\$ 36,213	4.6%
Inactives**	\$ 11,556,900	\$ 9,611,703	20.2%	\$ 13,299	\$ 13,095	1.6%

* Benefits provided in June 30 valuation data

** For Inactives, benefit is calculated based on the data assumptions and methods outlined in Appendix A.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX A
 MEMBERSHIP INFORMATION

Table A-4
 San Jose Federated City Employees' Retirement System
 Distribution of Active Members as of June 30, 2011

Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up	
Under 25	4	8	0	0	0	0	0	0	0	0	12
25 to 29	22	133	9	0	0	0	0	0	0	0	164
30 to 34	17	152	94	57	0	0	0	0	0	0	320
35 to 39	11	98	100	192	16	0	0	0	0	0	417
40 to 44	7	89	89	199	65	38	2	0	0	0	489
45 to 49	8	69	69	191	75	149	47	0	0	0	608
50 to 54	8	80	47	149	61	184	107	1	0	0	637
55 to 59	4	50	50	122	38	71	20	3	0	0	358
60 to 64	2	26	35	78	21	27	4	2	1	0	196
65 to 69	0	9	6	27	6	5	3	0	0	0	56
70 and up	0	1	1	9	4	0	2	0	0	0	17
Total Count	83	715	500	1,024	286	474	185	6	1	0	3,274

Table A-5
 San Jose Federated City Employees' Retirement System
 Distribution of Active Members as of June 30, 2011

Age	Average Expected Salary										Total
	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	\$ 12,939	\$ 41,223	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 31,795
25 to 29	23,181	51,950	54,947	0	0	0	0	0	0	0	48,255
30 to 34	34,650	57,587	63,725	63,986	0	0	0	0	0	0	59,311
35 to 39	24,231	60,133	66,271	70,254	79,047	0	0	0	0	0	66,044
40 to 44	33,571	64,289	73,172	70,402	75,326	75,835	70,145	0	0	0	70,342
45 to 49	37,327	65,739	74,381	75,360	79,934	76,727	71,009	0	0	0	74,220
50 to 54	36,971	68,631	75,108	70,221	77,500	78,317	78,106	64,726	0	0	74,316
55 to 59	31,116	69,421	79,309	74,994	77,423	81,220	79,985	56,818	0	0	75,947
60 to 64	21,420	73,813	70,684	77,380	77,622	76,958	77,436	75,099	107,722	0	75,241
65 to 69	0	65,896	70,155	74,392	72,633	77,919	70,385	0	0	0	72,485
70 and up	0	95,955	114,733	76,511	55,620	0	71,002	0	0	0	74,340
Avg. Salary	\$ 29,085	\$ 61,137	\$ 70,523	\$ 72,153	\$ 77,321	\$ 77,971	\$ 76,204	\$ 64,230	\$ 107,722	\$ 0	\$ 69,926

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX A
 MEMBERSHIP INFORMATION

Table A-6
 San Jose Federated City Employees' Retirement System
 Retirees and Disabled by Attained Age and Benefit Effective Date
 As of June 30, 2011

Benefit Effective	Age										Total
	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	
Pre-1993	1	1	5	9	14	88	156	169	144	62	649
1993	0	1	1	0	7	32	8	4	3	0	56
1994	1	1	2	1	0	15	12	8	1	1	42
1995	2	0	1	1	1	22	10	1	1	0	39
1996	1	0	0	1	16	35	13	2	2	0	70
1997	1	0	3	2	26	16	15	1	0	0	64
1998	0	0	2	5	42	16	11	6	0	1	83
1999	0	0	1	8	52	22	5	2	0	0	90
2000	0	1	2	6	45	26	6	1	0	0	87
2001	0	2	1	38	62	35	9	4	1	0	152
2002	1	1	3	58	29	23	5	2	0	0	122
2003	3	1	12	75	28	19	5	0	0	0	143
2004	0	1	12	84	43	26	8	2	0	0	176
2005	5	4	18	75	37	19	2	0	0	0	160
2006	1	4	35	72	27	15	1	3	0	0	158
2007	3	6	64	46	39	10	4	0	0	0	172
2008	3	10	66	38	23	6	0	0	0	0	146
2009	0	18	107	55	31	6	1	0	0	0	218
2010	2	33	159	102	42	10	1	1	0	0	350
2011	1	0	0	1	0	0	0	0	0	0	2
Total	25	84	494	677	564	441	272	206	152	64	2,979

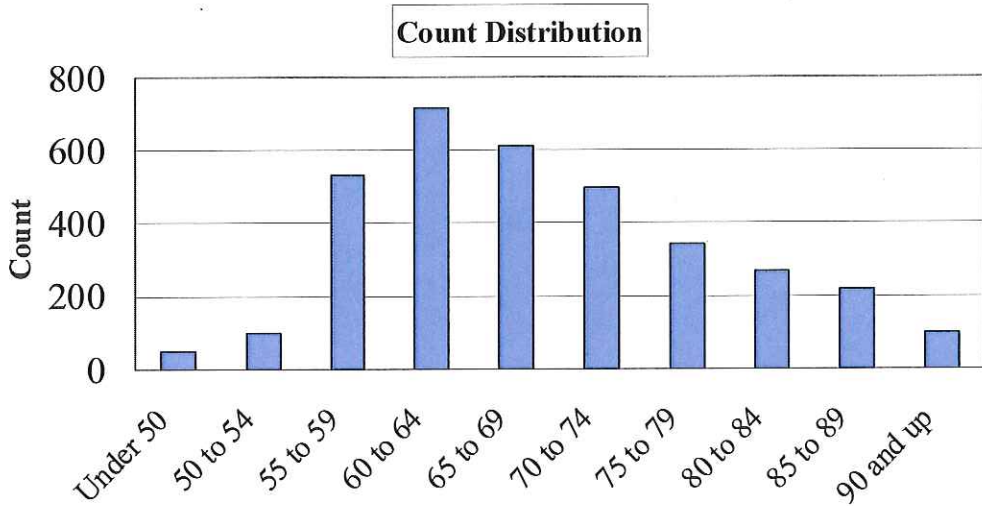
Average Age at Retirement/Disability 57.6
 Average Current Age 67.9
 Average Annual Pension \$ 40,741

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX A
 MEMBERSHIP INFORMATION

Age	Count
Under 50	48
50 to 54	100
55 to 59	530
60 to 64	714
65 to 69	609
70 to 74	495
75 to 79	343
80 to 84	268
85 to 89	220
90 and up	101
Total	3,428

Chart A-1

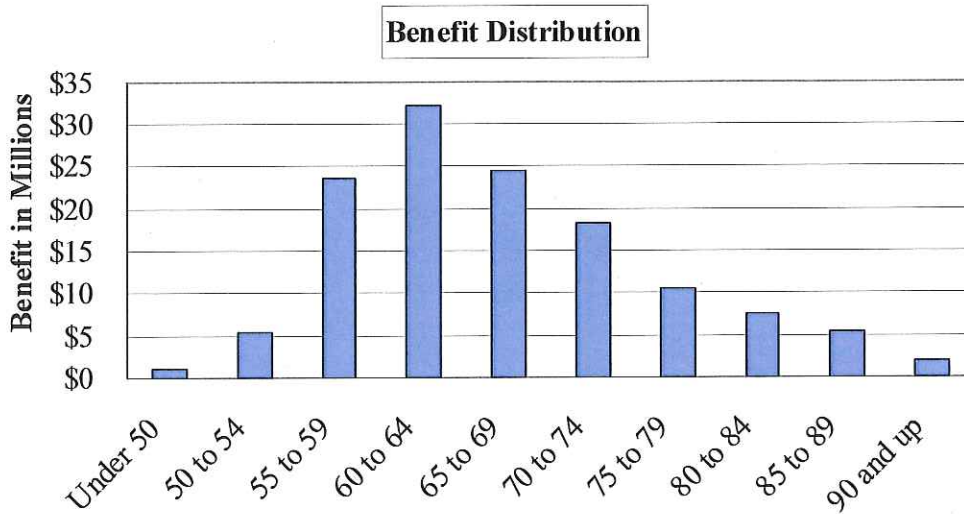


FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX A
 MEMBERSHIP INFORMATION

Age	Annual Benefit
Under 50	\$ 1,043,249
50 to 54	5,252,461
55 to 59	23,569,188
60 to 64	32,208,477
65 to 69	24,377,769
70 to 74	18,178,539
75 to 79	10,539,603
80 to 84	7,451,831
85 to 89	5,277,507
90 and up	1,970,263
Total	129,868,888

Chart A-2



APPENDIX A
MEMBERSHIP INFORMATION

Data Assumptions and Methods

In preparing our data, we relied without audit on information supplied by the Department of Retirement Services. 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:

- Records on the “Active” data file are considered to be Active if they do not have a reason for termination.
- Records on any of the data files are considered to be Inactive if they have a reason for termination of deferred vested or leave of absence/inactive.
- Records on the “Retiree” and “Beneficiary/QDRO” files are considered in pay status if they do not have a date of death, are not inactive and have not withdrawn from the plan.
- Service for actives that have no service amount is calculated to be the time from date of hire to the valuation date.
- Service for inactives that have no service amount is calculated to be the time from date of hire to date of termination.
- The most recent annual salary for actives is set to be “earnable income.” If “earnable income” was not provided, then the most recent annual salary is calculated to be “compensation rate 2” multiplied by 26.
- The annual benefit for inactives is equal to 2.5% of final compensation per year of service, up to a maximum of 75% of final compensation. Members who terminated prior to June 30, 2001 have their final compensation adjusted for a three-year average rather than a 12-month average.
- 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.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

1. Investment Return Assumption

Assets are assumed to earn 7.5% net of investment.

2. Interest Credited to Member Contributions

3.00%, compounded annually.

3. Administrative Expenses

0.70% of payroll is added to the normal cost of the system for expected administrative expenses.

4. Future SRBR transfers

0.35% of the Market Value of Assets is added to the employer normal cost to estimate the average net transfer to the SRBR.

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
 JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX B
 ACTUARIAL ASSUMPTIONS AND METHODS

5. Salary Increase Rate

Wage inflation component: 3.25%

In addition, the following merit component is added based on an individual member's years of service:

Years of Service	Merit/ Longevity
0	4.50%
1	3.50
2	2.50
3	1.85
4	1.40
5	1.15
6	0.95
7	0.75
8	0.60
9	0.50
10	0.45
11	0.40
12	0.35
13	0.30
14	0.25
15+	0.25

6. Family Composition

Percentage married is shown in the following Table B-2. Male retirees are assumed to be three years older than their partner, and female retirees are assumed to be two years younger than their partner.

Gender	Percentage
Males	80%
Females	60%

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

7. Rates of Termination

Sample rates of termination are shown in the following Table B-3.

Table B-3 Rates of Termination			
Age	0 Years of Service	1-4 Years of Service	5 or more Years of Service
20	20%	10.00%	5.50%
25	20	10.00	5.30
30	20	9.50	4.85
35	20	7.20	4.20
40	20	5.60	3.00
45	20	4.60	1.85
50	20	4.00	1.75
55	20	4.00	0.00
60	20	4.00	0.00
65	0	0.00	0.00

* Withdrawal/termination rates do not apply once a member is eligible for retirement

20% of terminating employees are assumed to subsequently work for a reciprocal employer and receive 3.25% pay increases per year.

8. Rates of Refund

Sample rates of vested terminated employees electing a refund of contributions are shown in the following Table B-4.

Table B-4 Rates of Refund	
Age	Refund
20	40.0%
25	30.0
30	25.0
35	20.0
40	15.0
45	10.0
50	4.0
55	0.0

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

9. Rates of Disability

Sample disability rates of active participants are provided in Table B-5.

Age	Disability
20	0.030%
25	0.033
30	0.056
35	0.098
40	0.162
45	0.232
50	0.302
55	0.376
60	0.455
65	0.504
70	0.000

50% of disabilities are assumed to be duty related, and 50% are assumed to be non-duty.

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

10. Rates of Mortality for Healthy Lives

Mortality rates for actives, retirees, beneficiaries, terminated vested and reciprocals are based on the male and female RP-2000 combined employee and annuitant tables. To reflect mortality improvements since the date of the table and to project future mortality improvements, the tables are projected to 2015 using scale AA and setback two years. The resulting rates are used for all age cohorts.

Age	Male	Female
20	0.0237%	0.0152%
25	0.0297	0.0155
30	0.0365	0.0196
35	0.0585	0.0344
40	0.0881	0.0484
45	0.1100	0.0747
50	0.1460	0.1092
55	0.2154	0.1841
60	0.4140	0.3639
65	0.8104	0.7094
70	1.4464	1.2471
75	2.4223	2.0673
80	4.3489	3.3835

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

11. Rates of Mortality for Retired Disabled Lives

Mortality rates for disabled retirees are based on the CALPERS ordinary disability mortality tables from their 2000-04 study for miscellaneous employees.

Age	Male	Female
20	0.664%	0.478%
25	0.719	0.492
30	0.790	0.512
35	0.984	0.548
40	1.666	0.674
45	1.646	0.985
50	1.632	1.245
55	1.936	1.580
60	2.293	1.628
65	3.174	1.969
70	3.870	3.019
75	6.001	3.915
80	8.388	5.555

**FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION**

**APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS**

12. Rates of Retirement

Rates of retirement are based on age according to the following Table B-8.

Table B-8 Rates of Retirement by Age and Service		
Age	Less than 30 Years of Service	30 or more Years of Service
50	0.0%	60.0%
51	0.0	60.0
52	0.0	60.0
53	0.0	60.0
54	0.0	60.0
55	17.5	50.0
56	8.5	50.0
57	8.5	50.0
58	8.5	50.0
59	9.5	50.0
60	9.5	50.0
61	16.0	50.0
62	16.0	50.0
63	16.0	50.0
64	16.0	50.0
65	25.0	60.0
66	25.0	60.0
67	25.0	60.0
68	25.0	60.0
69	25.0	60.0
70 & over	100.0	100.0

13. Deferred Member Benefit

The benefit was estimated based on information provided by the Department of Retirement Services. The data used to value the estimated deferred benefit were credited service, date of termination, and last pay rate. Based on the data provided, highest average salary was estimated.

14. Other

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

FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2011 ACTUARIAL VALUATION

APPENDIX B
ACTUARIAL ASSUMPTIONS AND METHODS

Actual experience of Federated 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.

15. Changes Since Last Valuation

Actuarial assumptions have been changed, based upon recommendations from the 2011 actuarial experience study that were adopted by the Board in October 2011. The changes affected the investment return, wage inflation, salary merit increase, family composition, termination rate, disability rate, retirement rate, healthy and disabled mortality, reciprocal rate, and refund rate assumptions. For a complete description of these changes, please refer to the experience study report dated May 12, 2011.

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 costs and represents the target amount of assets the System should have as of the valuation date to fund the benefits as a level percentage of payroll.

2. Asset Valuation Method

For the purpose of determining the Employer's contribution, an actuarial value of assets is used. The asset smoothing method dampens the volatility in asset values that occur because of fluctuations in market conditions, resulting in a smoother pattern of contribution rates.

The actuarial value of assets is calculated by recognizing 20% of the difference in each of the prior four years of actual investment returns compared to the expected return on the market value of assets.

3. Amortization Method

The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets. The unfunded actuarial liability as of June 30, 2009 is amortized as a level percentage of pay over a closed 30-year period commencing June 30, 2009. Actuarial gains and losses, assumption changes, and plan changes are amortized as a level percentage of pay over 20-year periods beginning with the valuation date in which they first arise.

4. Supplemental Retiree Benefit Reserve (SRBR)

Beginning with this valuation, the SRBR balance is added to the actuarial liability and the assets are included in the actuarial value of assets. In prior valuations, the SRBR balance was excluded from both the actuarial liability and the actuarial value of assets.

5. Contributions

At its November 2010 meeting, the Board adopted a policy setting the City's contribution to be the greater of the dollar amount reported in the actuarial valuation (adjusted for interest based on the time of the contribution) and the dollar amount determined by applying the percent of payroll reported in the actuarial valuation to the actual payroll for the fiscal year. The City and Member contributions determined by a valuation become effective for the fiscal year commencing one year after the valuation date.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

1. Membership Requirement

Participation in the Plan is immediate upon the first day of full-time employment.

2. Final Compensation

Members who separated from city service prior to June 30, 2001

The highest average annual compensation earnable during any period of three consecutive years.

Members who separated from city service on or after June 30, 2001

The highest average annual compensation earnable during any period of twelve consecutive months.

3. Credited Service

One year of service credit is given for 1,739 or more hours of Federated city service rendered in any calendar year. A partial year (fraction with the numerator equal to the hours worked, and the denominator equal to 1,739) is given for each calendar year with less than 1,739 hours worked.

4. Member Contributions

Member

The amount needed to fund 3/11 of benefits accruing for the current year. These contributions are credited with interest at 3.0% per year, compounded annually.

Employer

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

5. Service Retirement

Eligibility

Age 55 with five years of service, or any age with 30 years of service.

Benefit – Member

2.5% of Final Compensation for each year of credited service, subject to a maximum of 75% of Final Compensation.

APPENDIX C
SUMMARY OF PLAN PROVISIONS

Benefit - Survivor

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

6. Service-Connected Disability Retirement

Eligibility

No age or service requirement.

Benefit - Member

2.5% of Final Compensation for each year of credited service, subject to a minimum of 40% and a maximum of 75% of Final Compensation. Workers' Compensation benefits are generally offset from the service-connected benefits under this system.

Benefit - Survivor

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

7. Non-Service Connected Disability Retirement

Eligibility

Five years of service.

Benefit - Member

Members who were hired prior to September 1, 1998:

The amount of the service-connected benefit reduced by 0.5% for each year that the disability age preceded 55.

Members who were hired on or after September 1, 1998:

20% of Final Compensation, plus 2% of Final Compensation for each year of credited service between six and 16 years, plus 2.5% of Final Compensation for each year of credited service in excess of 16 years, subject to a maximum of 75% of Final Compensation.

Benefit - Survivor

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

APPENDIX C
SUMMARY OF PLAN PROVISIONS

8. Death While an Active Employee

Less than five Years of Service, or No Qualified Survivor

Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus one month of salary for each year of service, up to a maximum of six years.

Five or more Years of Service

2.5% of Final Compensation for each year of credited service, subject to a minimum of 40% and a maximum of 75% of Final Compensation. The benefit is payable until the spouse or registered domestic partner marries or establishes a domestic partnership. If the member was age 55 with 20 years of service at death, the benefit is payable for the lifetime of the member's spouse or registered domestic partner.

9. Withdrawal Benefits

Less than five Years of Service

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

Five or more years of credited service

The amount of the service retirement benefit, payable at age 55.

10. Additional Post-retirement Death Benefit

A death benefit payable as a lump sum equal to \$500 will be paid to a qualified survivor upon the member's death.

11. Post-retirement Cost-of-Living Benefit

Benefits are increased every April 1 by 3.0%, regardless of actual inflation.

12. Supplemental Retiree Benefit Reserve (SRBR)

Each year, 10% of Excess Earnings, if any, are transferred to the SRBR, and the SRBR balance is credited with interest equal to the actual rate of return up to the actuarially assumed investment return, but not less than \$0. The interest credited to the SRBR balance is distributed to retirees and beneficiaries along with any balance (before interest crediting) in excess of the minimum balance established by the Board (\$7,000 per retiree/beneficiary).

Note: The summary of major plan provisions is designed to outline principal plan benefits. If the Department of Retirement Services 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 System Employer computed contribution rate for FYE 2013 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 two 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).