

**San Joaquin County  
Employees' Retirement  
Association**

**Actuarial Valuation  
as of  
January 1, 2014**

**Produced by [Cheiron](#)**

**August 2014**

# TABLE OF CONTENTS

Letter of Transmittal .....	i
Foreword.....	ii
Section I Executive Summary .....	1
Section II Assets .....	12
Section III Liabilities .....	20
Section IV Contributions.....	23
Section V Accounting Statement Information.....	26
Appendix A Membership Information .....	30
Appendix B Statement of Current Actuarial Assumptions and Methods .....	49
Appendix C Summary of Plan Provisions.....	54
Appendix D 401(h) Repayment Schedule.....	68
Appendix E Glossary .....	69
Appendix F General and Safety Employer Contribution Rates.....	71
Appendix G Member Contribution Rates.....	76

**LETTER OF TRANSMITTAL**

August 13, 2014

Retirement Board of San Joaquin  
 County Employees' Retirement Association  
 6 South El Dorado Street, Suite 400  
 Stockton, CA 95202

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the San Joaquin County Employees' Retirement Association (SJCERA, the System, the Fund, the Plan) as of January 1, 2014. This report contains information on the System's assets and liabilities. This report also discloses employer contribution levels and required disclosures under the Governmental Accounting Standards Board Statement Nos. 25 and 27. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of SJCERA. This report is for the use of the Retirement Board of San Joaquin and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

Cheiron's report was prepared solely for the Retirement Board of San Joaquin 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. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

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

Sincerely,  
 Cheiron



Robert T. McCrory, FSA, FCA, EA, MAAA  
 Principal Consulting Actuary



Graham A. Schmidt, ASA, MAAA  
 Consulting Actuary



## FOREWORD

Cheiron has performed the actuarial valuation of the San Joaquin County Employees' Retirement Association as of January 1, 2014. The valuation is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation and disclose important trends;
- The **Main Body** of the report presents details on the System's
  - Section II - Assets
  - Section III - Liabilities
  - Section IV- Contributions
  - Section V- Required Accounting Disclosures (GASB)
- In the **Appendices** we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), a 401(h) repayment schedule (Appendix D), a glossary of key actuarial terms (Appendix E), a summary of General and Safety Employer contribution rates (Appendix F), and tables containing member contribution rates (Appendix G).

The results of this report rely on future plan experience conforming to the actuarial assumptions. To the extent that actual plan experience deviates from these assumptions, the results would vary accordingly.

In preparing our report, we relied without audit, on information supplied by the SJCERA staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice #23.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION I  
EXECUTIVE SUMMARY**

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the System,
- Past and expected trends in the financial progress of the System,
- Employer and employee contribution rates for Plan Year 2015; and
- Information required by the Governmental Accounting Standards Board (GASB).

In the balance of this Executive Summary we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the System.

**A. Valuation Basis**

This valuation determines the employer contributions for the plan year.

The System's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Amortization of the unfunded actuarial liability, and
- A portion of the Fund's expected administrative expenses.

The unfunded actuarial liability payment is determined as the amount needed to fund the outstanding extraordinary actuarial loss from 2008 at January 1, 2014 over 25 years as a level percent of pay and the remaining unfunded actuarial liability as of January 1, 2014 over a closed period of 19 years as a level percentage of member payroll. The single amortization period for these two streams of payments is 21 years. The amortization period for the remaining unfunded actuarial liability will decrease each year after 2014.

This valuation was prepared based on the plan provisions shown in Appendix C. There have been no changes in plan provisions since the prior valuation.

A summary of the assumptions and methods used in the current valuation is shown in Appendix B.

SECTION I  
EXECUTIVE SUMMARY

**B. Key Findings of this Valuation**

The key results of the January 1, 2014 actuarial valuation are as follows:

- The actuarially determined employer contribution rate decreased from 42.13% of payroll last year to 41.93% of payroll for 2014.
- The System's funded ratio, the ratio of assets over actuarial liability, increased from 63.4% last year to 64.2% as of January 1, 2014 on an Actuarial Value of Assets (AVA) basis, and from 64.1% to 65.3% on a Market Value of Assets (MVA) basis.
- The unfunded actuarial liability (UAL) is the excess of the System's actuarial liability over the Actuarial Value of Assets. The System experienced an increase in the UAL from \$1,227,593,985 to \$1,276,693,084 as of January 1, 2014.
- During the year ending December 31, 2013, the return on Plan assets was 9.22% on a market value basis, as compared to the 7.50% assumption. This resulted in a market value gain on investments of \$32,770,061. The Actuarial Value of Assets recognizes 20% of the difference between the expected actuarial value of assets and the Market Value of Assets. The market value gains from this year will be recognized over the next five years. This method of smoothing the asset gains and losses returned 8.45% on the smoothed value of assets, an actuarial asset gain of \$18,029,511.

The System experienced a gain on the actuarial liability of \$21,956,197. Combining the liability and asset gains, the System experienced a total gain of \$39,985,708.

- Overall participant membership increased compared to last year. There were 679 new hires and rehires during 2013 and the total active population increased from 5,295 active members to 5,553. Total payroll increased 5.57% from \$365,892,022 to \$388,691,431.
- The Actuarial Experience Study as of December 31, 2012 recommended significant contribution increases due to improving mortality rates and reducing the expected return on System assets. The County requested, and the Retirement Board agreed, that employer contribution rates will increase by at least 2.97% per year (plus interest on any contribution shortfall from the full employer rates) in 2015 and 2016 to phase in the impact of the changes in assumptions recommended in the Experience Study and adopted by the Board. The schedule of required employer contributions is shown in Table I-2 on the next page. This phase in of rate increases is consistent with model practice specified by the California Actuarial Advisory Panel (CAAP).

On the following page we present Table I-1 which summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION I  
EXECUTIVE SUMMARY**

<b>TABLE I-1 Summary of Principal Plan Results</b>			
	January 1, 2013	January 1, 2014	% Change
<b><u>Participant Counts</u></b>			
Active Participants	5,295	5,553	4.87%
Participants Receiving a Benefit	4,897	5,041	2.94%
Terminated Vested Participants	895	904	1.01%
Terminated Non-Vested Participants	505	507	0.40%
<b>Total</b>	<b>11,592</b>	<b>12,005</b>	<b>3.56%</b>
Annual Pay of Active Members	\$ 362,350,501	\$ 382,525,098	5.57%
<b><u>Assets and Liabilities</u></b>			
Actuarial Liability (AL)	\$ 3,353,294,212	\$ 3,561,859,056	6.22%
Actuarial Value of Assets (AVA)	2,125,700,227	2,285,165,972	7.50%
Unfunded Actuarial Liability (UAL)	\$ 1,227,593,985	\$ 1,276,693,084	4.00%
Funded Ratio (AVA)	63.4%	64.2%	1.21%
Funded Ratio (MVA)	64.1%	65.3%	1.91%
Inactive Funded Ratio	56.5%	57.5%	1.76%
<b><u>Contributions as a Percentage of Payroll</u></b>			
Normal Cost Rate	18.07%	17.28%	-0.79%
Unfunded Actuarial Liability Rate	23.12%	23.74%	0.62%
Administrative Expense	0.95%	0.91%	-0.04%
Total Contribution Rate	42.13%	41.93%	-0.20%

<b>TABLE I-2 Development of Phased Employer Contributions</b>				
	Full	Phased	Interest	Total
<b>Calendar Year</b>	<b>Contribution</b>	<b>Contribution</b>	<b>Interest</b>	<b>Phased</b>
2015	41.93%	38.99%	0.70%	39.69%
Projected 2016	40.71%	41.21%	0.00%	41.21%

**SECTION I  
EXECUTIVE SUMMARY**

**C. Changes in Plan Cost**

Table I-3 below summarizes the impact of actuarial experience and changes in benefits on Plan cost.

<b>TABLE I-3 Summary of Changes in Plan Cost from Prior Review</b>		
	<b>Employer Cost</b>	<b>Employer Contribution Rate (% Payroll)</b>
<b>January 1, 2013</b>	\$ 152,785,573	42.13%
Change in Cost Due to:		
Demographic Experience	5,157,773	0.82%
Salary Experience	(3,934,460)	( 0.73%)
New Entrants to the Plan	2,429,444	( 0.60%)
Asset Experience	(583,538)	( 0.15%)
Coding Refinements	2,140,147	0.45%
<b>Total Cost as of January 1, 2014 before Phase-In</b>	<b>\$ 157,994,939</b>	<b>41.93%</b>
Change due to Phase-in Contribution	(8,482,331)	( 2.24%)
<b>Total Cost as of January 1, 2014 after Phase-In</b>	<b>\$ 149,512,608</b>	<b>39.69%</b>

An analysis of the cost changes from the prior valuation reveals the following:

- Demographic experience was somewhat unfavorable.

The demographic experience of the Plan – rates of retirement, death, disability, and termination – was slightly worse than predicted by the actuarial assumptions in aggregate, causing a 0.82% increase in cost.

- Pay increases were below expectations.

Increases in pay among active members during 2013 were below those anticipated by the actuarial assumptions. As a result, actuarial liabilities increased less than expected, resulting in an actuarial gain, decreasing the employer contribution rate by 0.73% of payroll.

- New members entered the Plan.

During 2013, there were 679 newly hired or rehired members entering the Plan to replace departing members. Recent new hires have a smaller Plan normal cost as a percentage of payroll when compared to current members, but they increase the payroll on which



**SECTION I**  
**EXECUTIVE SUMMARY**

contributions are based. Due to these new hires, the employer contribution rate decreased by 0.60% of payroll. The addition of these new members increased member payroll by \$26 million, and increased the Plan cost by about \$2.4 million.

Overall, the combined demographic and salary experience was closely in line with expectations, for a net decrease in cost of about 0.5% of pay.

- Asset experience produced an investment gain on a market basis.

The assets of the Plan returned 9.2% on a market basis, higher than the assumed rate of 7.50%. Under the actuarial asset smoothing policy, 20% of this gain is recognized in the current year, resulting in a recognized gain of approximately \$37 million for 2013. Overall, asset experience decreased the contribution rate by 0.15%.

- Coding refinements were made.

Changes were made to the service timing used in determining entry age for active employees. This was done in order to better conform with the new GASB 67/68 standards. Changes were also made to the liabilities that reflect the timing of actual COLA increases and payroll compared to those assumed in the valuation software. This system change increased Plan costs by about 0.45% of pay.

- There is a change due to the Phase-In of contribution rate.

This is the second year of a three year Phase-In of the employer contribution rates. The total contribution rate before Phase-In was 41.93% of pay, which was then lowered by 2.24% to equal 39.69% of pay. This lowered the projected contribution by \$8,482,331.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION I  
EXECUTIVE SUMMARY**

Table I-4 below shows the ratio of assets to active member payroll for SJCERA.

Active Member Payroll	388,691,431
Assets (Market Value Net of Non-Valuation Reserves)	2,326,734,378
Ratio of Assets to Payroll	5.99
Ratio with 100% Funding	9.16

The table above shows SJCERA's assets as a percentage of active member payroll. This ratio indicates the sensitivity of the plan to the returns earned on plan assets. We note in the table that plan assets currently are nearly 6 times covered payroll for the Plan; as funding improves and the Plan reaches 100% funding, the ratio of asset to payroll will increase to over 9 times payroll, perhaps higher depending on the Plan's future demographic makeup.

To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the assets are so small.

On the other hand, consider the situation for SJCERA. Suppose SJCERA's assets lose 10% of their value in a year. Since they were assumed to earn 7.50%, there is an actuarial loss of 17.50% of plan assets. Based on the current ratio of assets to payroll (599%), that means the loss in assets is about 105% of active payroll (599% of the 17.50% loss). There is only one source of funding to make up for this loss: the employers. Consequently, barring future offsetting investment gains, the employer has to make up the asset loss in future contributions. In this example of a one year loss of 10%, this shortfall will eventually require an additional amortization payment in the vicinity of 8.0% of payroll if amortized over 19 years.

Furthermore, consider the impact of a one year asset loss of 10% if the plan is 100% funded. Based on the ratio of asset to payroll at 100% funding (916%), the asset loss would be about 160% of active payroll (916% of the 17.50% loss). Again, there is only one source of funding to make up for this loss: the employers. In this example, the shortfall could require an additional amortization payment of approximately 12.3% of payroll, amortized over 19 years.

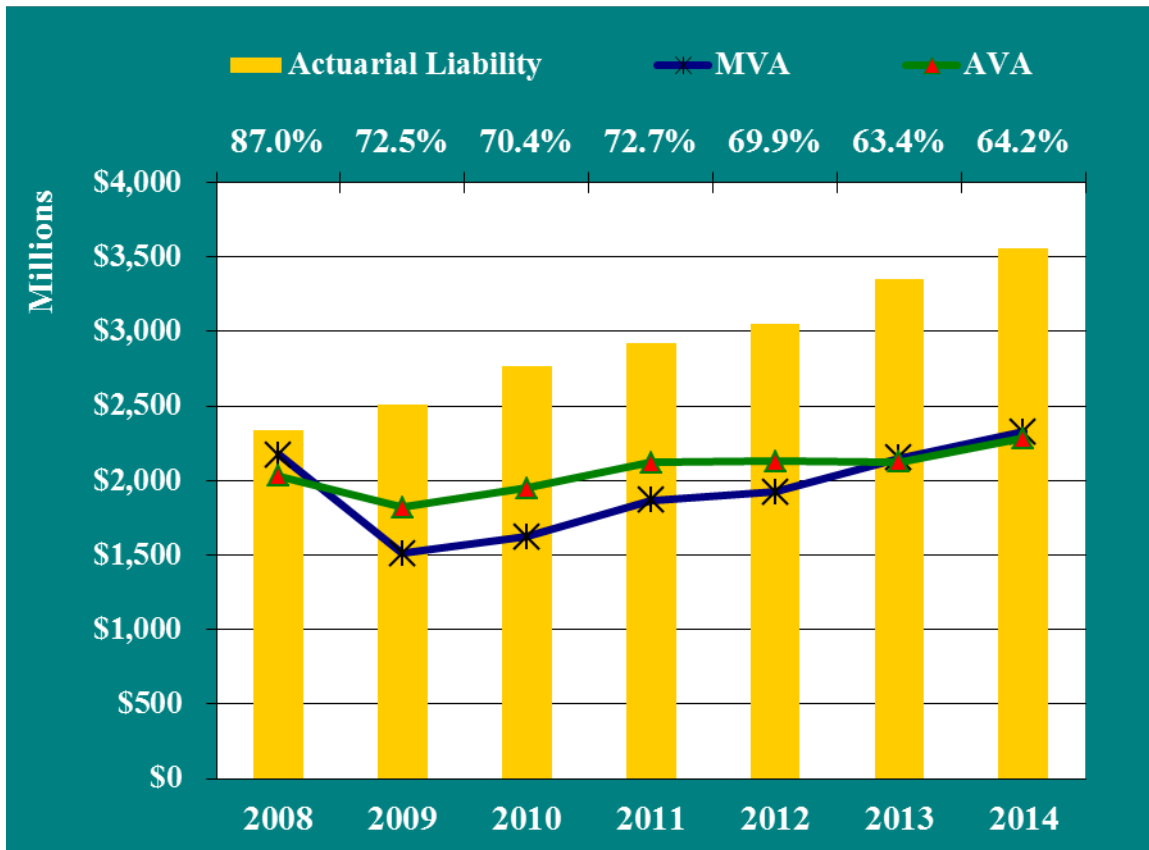
SECTION I  
 EXECUTIVE SUMMARY

**D. Historical Trends**

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular the size of the current unfunded actuarial liability and the employer contribution, it is important to remember that each valuation is merely a snapshot in 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.

**Assets and Liabilities**

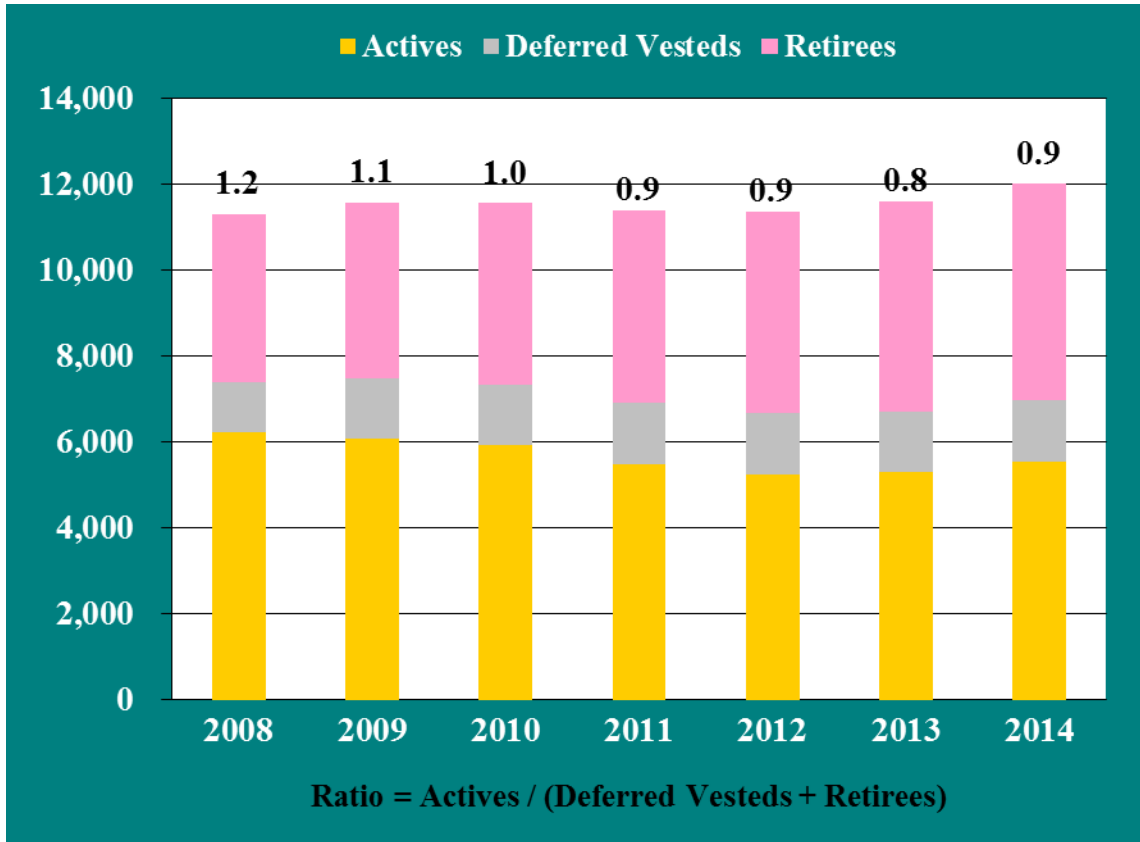
The chart on this page compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities. The percentage shown at the top of each bar is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio).



The funded ratio has declined from 87.0% in 2008 to 64.2% as of January 1, 2014. The extraordinary asset loss of 2008 adversely affected the funded ratio from 2009 to 2013. In addition, for the January 1, 2013 valuation assumption changes were made that reflect lower expected future returns on assets and improved mortality, lessening the impact of recent asset gains on the funded ratio.

SECTION I  
EXECUTIVE SUMMARY

**Participant Trends**

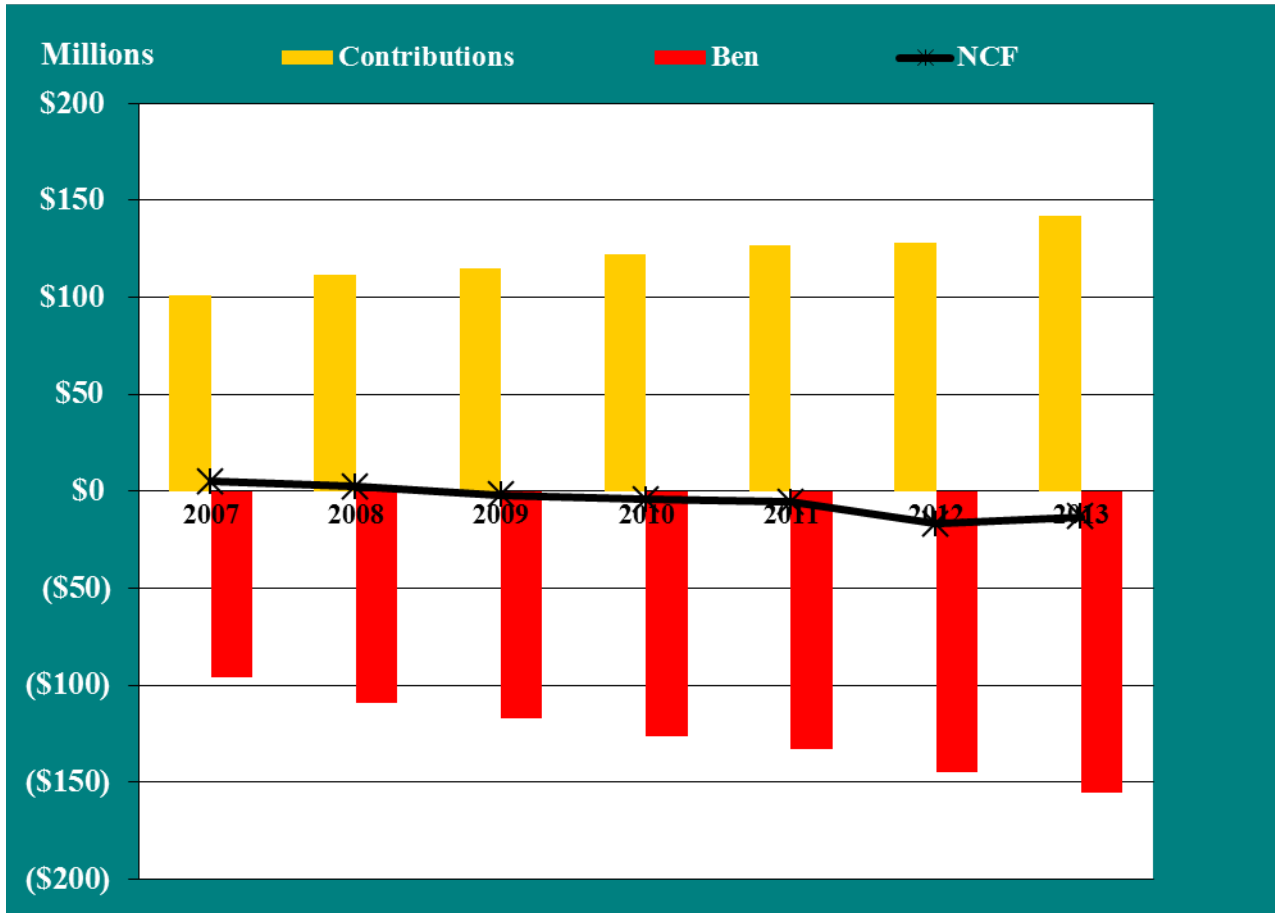


The chart above provides a measure for the maturity in the System by comparing the ratio of active members to inactive members (retirees and deferred vested participants). These ratios are given at the top of each bar. As the Plan matures, this ratio is expected to decrease as more employees leave the active workforce and receive benefits. The increase in inactive liabilities relative to active liabilities may result in a larger burden on the employers should assets perform poorly. The active-to-inactive ratio has decreased significantly from 2008 to 2013, but increased in 2014, indicating an influx of new members to the Plan.

**Cash Flows**

The chart on the next page shows the System's cash flow (contribution less benefit payments). This is a critical measure, as it reflects the ability to have funds available to meet benefit payments without having to make difficult investment decisions, especially during volatile markets.

SECTION I  
 EXECUTIVE SUMMARY



The contributions, benefit payments and the System's net cash flow (NCF) are represented by the chart above. The NCF - shown as the black line in the chart - has slowly decreased during the period shown, with a slight increase this year to a -\$13.2 million net cash flow. A negative net cash flow could magnify the losses during a market decline hindering the System in its ability to absorb market fluctuations. The implications of a plan in negative net cash flow are that the impact of market fluctuations can be more severe: As assets are being depleted to pay benefits in down markets, there is less principal available to be reinvested during favorable return periods.

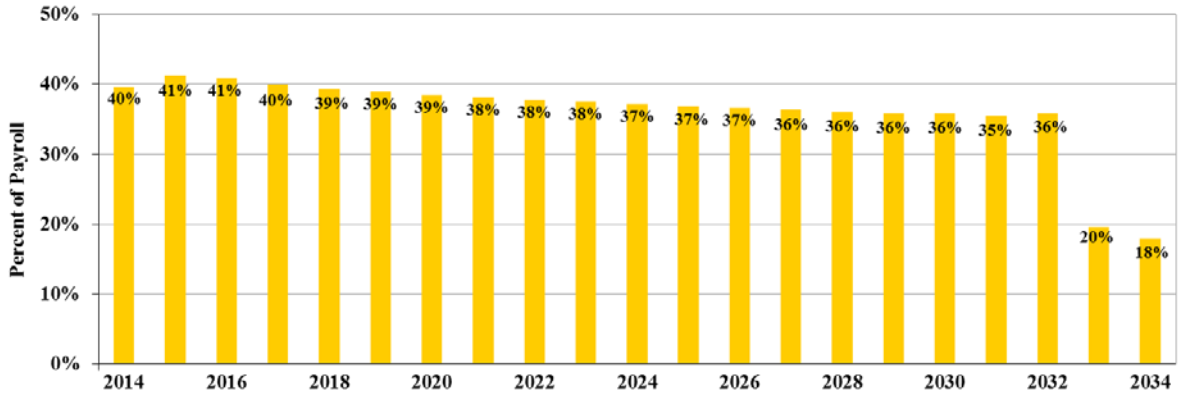
**E. Future Expected Financial Trends**

The analysis of projected financial trends is perhaps the most important component of this valuation. In this Section, we present our assessment of the implications of the January 1, 2014 valuation results in terms of benefit security (assets over liabilities). All the projections in this section are based on the current interest rate assumption of 7.50%. We have assumed future salary increases of 3.25% per year.

SECTION I  
EXECUTIVE SUMMARY

The following graph shows the expected employer contribution rate based on actually achieving the 7.50% assumption each year for the next 20 years, which is clearly impossibility.

**Projection of Employer Contributions, 7.50% return each year**



The contribution rate graph shows that County contributions are expected to grow to around 41% of member payroll next year as the Phase-In Period comes to an end. They will start to decline as the unfunded actuarial liability is amortized. The dollar contribution will be approximately \$140 million in 2014, growing to around \$180 million in five years.

Note that the graph above does not forecast any actuarial gains or losses. Even relatively modest losses relative to the 7.5% assumed return could push the employer contribution rate over 50% in the next few years.

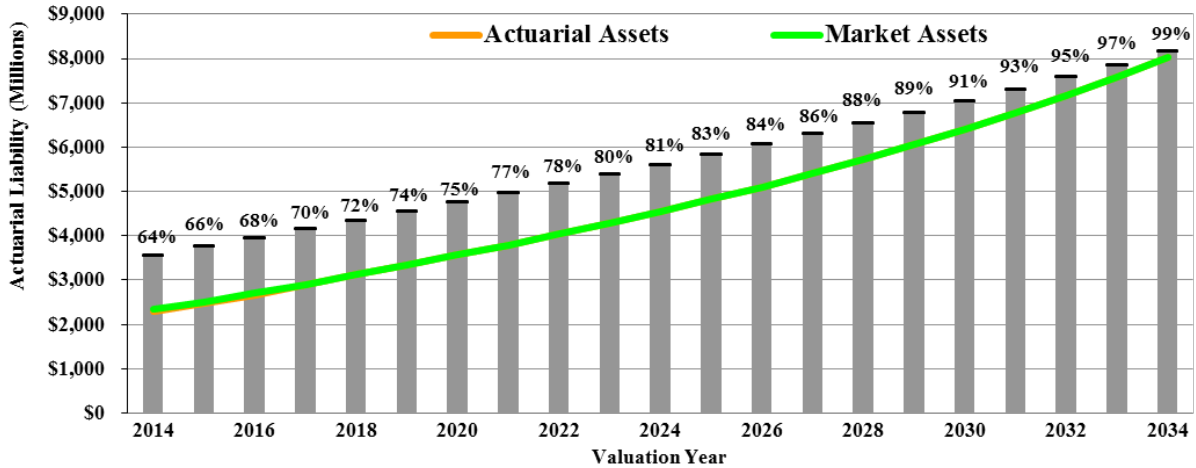
**Asset and Liability Projections:**

The graph on the next page shows the projection of assets and liabilities assuming that assets will earn the 7.50% assumption each year during the projection period.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

SECTION I  
EXECUTIVE SUMMARY

**Projection of Assets and Liabilities, 7.50% return each year**



The graph shows that the projected funded status increases over the next 20 years to 99%, assuming the actuarial assumption is achieved. However, as above, it is the actual return on System assets that will determine the future funding status and contribution rate to the Fund.

**SECTION II**  
**ASSETS**

Pension Plan assets play a key role in the financial operation of the System and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on System assets including:

- **Disclosure** of System assets as of December 31, 2012 and December 31, 2013;
- Statement of the **changes** in market values during the year;
- Development of the **Actuarial Value of Assets**;
- An assessment of **investment performance**; and
- Determination of **reserve balances** as of January 1, 2014.

**Disclosure**

There are two types of asset values disclosed in the valuation, the market value of assets and the actuarial value of assets. The market value represents "snap-shot" or "cash-out" values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the actuarial value of assets which reflect smoothing of annual investment returns.

Table II-1 on the next page discloses and compares each asset value as of December 31, 2012 and December 31, 2013.



SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION II  
ASSETS**

<b>TABLE II-1</b>		
<b>Statement of Assets at Market Value</b>		
<b>December 31,</b>		
<b>Assets</b>	<b>2012</b>	<b>2013</b>
Cash and Cash Equivalents	\$ 99,074,454	\$ 62,574,166
Cash Collateral-Securities Lending	<u>108,957,685</u>	<u>107,126,504</u>
Total Cash and Cash Equivalents	208,032,139	169,700,670
<b>Receivables:</b>		
Investment Income Receivables	2,395,677	2,774,881
Contributions Receivable	6,661,993	7,537,892
Securities Sold, Not Received - Domestic	2,078,343	18,162,236
Other Investment Income Receivable	53	536
Miscellaneous Receivables	<u>15,769</u>	<u>15,822</u>
Total Receivables	11,151,835	28,491,367
<b>Investments, at Market Value:</b>		
Fixed Income	528,651,982	484,341,760
U.S. and Non U.S. Equities	734,025,936	891,888,949
Global Equity	31,065,682	59,253,441
Real Estate	243,187,074	258,866,921
Real Asset	171,933,365	155,406,359
Global Opportunistic Strategy	159,004,436	178,452,433
Risk Parity	<u>186,846,658</u>	<u>228,698,438</u>
Total Investments	2,054,715,133	2,256,908,301
<b>Other Assets:</b>		
Prepaid Expenses	100,529	81,357
Equipment and Fixtures, Net	<u>487,449</u>	<u>427,463</u>
<b>Total Assets</b>	2,274,487,085	2,455,609,158
<b>Liabilities:</b>		
Securities Lending-Cash Collateral	108,957,685	107,126,504
Securities Purchased, Not Paid	3,783,034	5,432,718
Accrued Expenses and Other Payables	1,328,671	1,537,573
Security Lending Interest and Other Expense	2,236	0
<b>Total Liabilities</b>	<u>114,071,626</u>	<u>114,096,795</u>
<b>Market Value of Assets</b>	<b>\$ 2,160,415,459</b>	<b>\$ 2,341,512,363</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION II  
ASSETS**

**Changes in Market Value**

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table II-2 below shows the components of change in the market value of assets during 2012 and 2013.

<b>TABLE II-2</b>		
<b>Changes in Market Values</b>		
<b><u>Additions</u></b>	<b><u>2012</u></b>	<b><u>2013</u></b>
<b>Contributions</b>		
Employer's Contribution	108,062,510	119,494,319
Members' Contributions	19,900,088	22,689,882
Total Contributions	<u>127,962,598</u>	<u>142,184,201</u>
<b>Net Investment Income</b>		
Net Appreciation/(Depreciation) in		
Fair Value of Investments	213,075,672	178,161,110
Interest	27,314,271	24,829,363
Dividends	3,040,855	4,796,804
Real Estate Income, net	2,209,435	7,105,263
Investment Expenses	(15,087,444)	(17,141,459)
Miscellaneous Investment Income	14,004	7,804
Net Investment Income, Before Securities Lending Income	<u>230,566,793</u>	<u>197,758,885</u>
<b>Securities Lending Income</b>		
Earnings	412,154	374,904
Rebates	103,546	176,043
Fees	(128,646)	(137,436)
Net Securities Lending Income	<u>387,054</u>	<u>413,511</u>
Net Investment Income	<u>230,953,847</u>	<u>198,172,396</u>
Miscellaneous Income	61,657	72,467
Total Additions	<u>358,978,102</u>	<u>340,429,064</u>

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**SECTION II  
ASSETS**

**TABLE II-2  
Changes in Market Values (Continued)**

<b><u>Deductions</u></b>		
Benefit payments	143,061,687	153,620,152
Death Benefits	607,453	612,733
Refunds of Members' Contributions	<u>1,308,900</u>	<u>1,168,934</u>
Total Benefit Payments	144,978,040	155,401,819
Administrative & Other Expenses		
General Administrative Expenses	3,403,139	3,672,857
Actuary Fees	188,235	217,819
Fund Legal Fees	<u>277,947</u>	<u>244,040</u>
Total Administrative & Other Expenses	3,869,321	4,134,716
Transfer Between Plans	<u>(339,344)</u>	<u>(204,375)</u>
Total Deductions	148,508,017	159,332,160
Net increase (Decrease)	210,470,085	181,096,904
Net Assets Held in Trust for Pension Benefits:		
Beginning of Year	<u>1,949,945,374</u>	<u>2,160,415,459</u>
End of Year	<u><u>2,160,415,459</u></u>	<u><u>2,341,512,363</u></u>
Approximate Return	11.72%	9.22%

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**SECTION II  
ASSETS**

**Actuarial Value of Assets (AVA)**

The actuarial value of assets represents a “smoothed” value developed by the actuary to reduce the volatile results which could develop due to short-term fluctuations in the market value of assets. For this System, the actuarial value of assets is calculated by recognizing the deviation of actual investment returns compared to the expected return over a five-year period. The dollar amount of the expected return on the market value of assets is determined using the actual contributions, administrative expense (beginning in 2013) and benefit payments during the year. Any difference between this amount and the actual investment earnings is considered a gain or loss. However, in no event will the actuarial value of assets be less than 80% or more than 120% of market value on the valuation date. The following table shows the development of the actuarial asset value.

<b>TABLE II-3 Development of Actuarial Value of Assets as of January 1, 2014</b>								
	(a)	(b)	(c)	(d)	(e)	(f) = (e) – (d)	(g)	(h) = (f) x (g)
Year	Contributions	Benefits	Administrative Expense	Expected Return	Actual Return	Additional Earnings	Not Recognized	Unrecognized Earnings
2010	121,911,631	126,364,628		134,414,379	214,747,485	80,333,105	20%	16,066,621
2011	126,932,474	132,709,273		150,952,879	25,735,622	(125,217,257)	40%	(50,086,903)
2012	127,962,598	144,978,040		150,473,721	227,485,527	77,011,806	60%	46,207,083
2013	142,184,201	155,401,819	4,134,716	161,392,211	198,449,237	37,057,026	80%	<u>29,645,621</u>
1. Total Unrecognized Dollars								41,832,422
2. Market Value of Assets as of December 31, 2013								2,341,512,363
3. Preliminary Actuarial Value of Assets as of December 31, 2013: [(2) - (1)]								2,299,679,941
4. Corridor Limits								
a. 80% of Net Market Value								1,873,209,890
b. 120% of Net Market Value								2,809,814,835
5. Actuarial Value of Assets after Corridor								2,299,679,941
6. Ratio of Actuarial Value to Market Value [(5) ÷ (2)]								98.21%
7. Market Stabilization Designation [(2) – (5)]								41,832,422
8. Special (Non Valuation) Reserves:								
Class Action Settlement – Post 4/1/1982							8,765,004	
Contingency							6,012,981	
Undistributed Earnings Reserve							0	
Total Special Reserves								<u>14,777,985</u>
9. Pension Reserves at Actuarial Value (Valuation Assets): [(5) - (8)*(6)]								<b>\$2,285,165,972</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION II  
ASSETS**

**Investment Performance**

The following table calculates the investment related gain/loss for the plan year on both a Market Value and an Actuarial Value basis. The Market Value gain/loss is a useful measure for comparing the actual asset performance to the previous valuations.

<b>TABLE II-4 Asset Gain/(Loss)</b>		
	<b>Market Value</b>	<b>Actuarial Value</b>
<b>January 1, 2013 value</b>	<b>\$ 2,160,415,459</b>	<b>\$ 2,125,700,227</b>
County Contributions	119,494,319	119,494,319
Employee Contributions	22,689,882	22,689,882
Benefit Payments	(155,401,819)	(155,401,819)
Administrative Expenses	(4,134,716)	(4,134,716)
Expected Investment Earnings (7.50%)	161,392,211	158,788,568
Expected Value December 31, 2013	<b>\$ 2,304,455,336</b>	<b>\$ 2,267,136,461</b>
Investment <b>Gain / (Loss)</b>	<u>37,057,026</u>	<u>18,029,511</u>
<b>January 1, 2014 value</b>	<b>2,341,512,362</b>	<b>\$ 2,285,165,972</b>
Return	9.22%	8.45%

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**SECTION II  
ASSETS**

The following table shows the historical annual asset returns on a market value and actuarial value basis, as well in the increase in the Consumer Price Index (CPI) since 1995.

<b>TABLE II-5</b>			
<b>Historical Asset Returns</b>			
<b>Year Ended</b>	<b>Return on</b>	<b>Return on</b>	
<b>December 31</b>	<b>Market Value</b>	<b>Actuarial Value</b>	<b>Increase in CPI*</b>
1995	25.3%	21.7%	2.5%
1996	13.5%	12.2%	3.3%
1997	17.3%	13.9%	1.7%
1998	9.9%	13.3%	1.6%
1999	13.7%	15.1%	2.7%
2000	3.2%	11.5%	3.4%
2001	( 0.1%)	8.8%	1.6%
2002	( 5.5%)	4.7%	2.4%
2003	25.5%	6.8%	1.9%
2004	11.8%	6.6%	3.3%
2005	6.9%	7.2%	3.4%
2006	12.7%	9.6%	2.5%
2007	6.9%	11.2%	4.1%
2008	( 30.1%)	( 14.3%)	( 0.5%)
2009	11.4%	11.6%	2.5%
2010	12.4%	6.4%	1.5%
2011	1.3%	( 1.8%)	3.0%
2012	11.7%	( 0.2%)	1.7%
2013	9.2%	8.5%	1.7%
Compounded 15 Year Average	5.3%	5.9%	2.3%
Compounded 10 Year Average	4.5%	4.2%	2.3%
Compounded 5 Year Average	9.1%	4.8%	2.1%

\* Based on All Urban Consumers - U.S. City Average, December Indices.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION II  
ASSETS**

**Reserve Balances**

The following table shows the Post-1982 Settlement Reserve balances as of January 1, 2014.

<b>TABLE II-6</b>				
<b>Post-1982 Settlement Reserve</b>				
<b>Valuation Date January 1</b>	<b>Number of Recipients</b>	<b>Benefits Payable</b>	<b>Reserve</b>	<b>Estimated Years of Payments</b>
2008	1,896	3,683,939	25,872,222	13
2009	1,856	3,602,904	22,015,055	10
2010	1,800	3,484,762	20,090,654	9
2011	1,738	3,370,636	18,108,660	6
2012	1,679	3,243,068	14,556,866	5
2013	1,709	3,244,009	11,063,855	4
2014	1,662	3,197,416	8,765,004	3

As of January 1, 2014 the total projected liability associated with paying the Post-82 Settlement allowances for the lifetime of the members and beneficiaries is estimated to be \$30,758,928.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION III  
LIABILITIES**

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

- **Disclosure** of System liabilities at January 1, 2013 and January 1, 2014;
- Statement of **changes** in these liabilities during the year.

**Disclosure**

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of Future Benefits:** Used for measuring all future System obligations, represents the amount of money needed today to fully pay off all benefits of the System both earned as of the valuation date and those to be earned in the future by current plan participants, under the current System provisions.
- **Actuarial Liability:** Used for funding calculations and GASB disclosures, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used for this System is called the **Entry Age Normal** (EAN) funding method.
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

Table III-1 below discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus** or an **unfunded actuarial liability**.

<b>TABLE III-1</b>			
<b>Liabilities/Net (Surplus)/Unfunded</b>			
	<b>January 1, 2013</b>	<b>January 1, 2014</b>	
<b><u>Present Value of Future Benefits</u></b>			
Active Participant Benefits	\$ 2,177,849,296	\$ 2,252,362,516	
Retiree and Inactive Benefits	<u>1,896,085,569</u>	<u>2,049,548,704</u>	
<b>Present Value of Future Benefits (PVB)</b>	<b>\$ 4,073,934,865</b>	<b>\$ 4,301,911,220</b>	
<b><u>Actuarial Liability</u></b>			
Present Value of Future Benefits (PVB)	\$ 4,073,934,865	\$ 4,301,911,220	
Present Value of Future Normal Costs (PVFNC)	<u>720,640,653</u>	<u>740,052,164</u>	
<b>Actuarial Liability (AL = PVB – PVFNC)</b>	<b>\$ 3,353,294,212</b>	<b>\$ 3,561,859,056</b>	
Actuarial Value of Assets (AVA)	<u>2,125,700,227</u>	<u>2,285,165,972</u>	
<b>Net (Surplus)/Unfunded (AL – AVA)</b>	<b>\$ 1,227,593,985</b>	<b>\$ 1,276,693,084</b>	



**SECTION III  
LIABILITIES**

**Changes in Liabilities**

Each of the Liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in System assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

<b>TABLE III-2 Changes in Actuarial Liability</b>	
Actuarial Liability at January 1, 2013	\$ 3,353,294,212
Actuarial Liability at January 1, 2014	\$ 3,561,859,056
Liability Increase (Decrease)	208,564,844
Change due to:	
Coding Refinements (Service and COLA)	\$ 50,017,619
Accrual of Benefits	83,842,225
Actual Benefit Payments	(155,401,819)
Interest	252,063,016
Actuarial Liability (Gain)/Loss	(21,956,197)

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION III  
LIABILITIES**

**TABLE III-3  
Development of Actuarial Gain / (Loss)**

1. Unfunded Actuarial Liability at Start of Year (not less than zero)	\$ 1,227,593,985
2. Employer Normal Cost at Start of Year	83,842,225
3. Administrative Expense	4,134,716
4. Interest on 1. 2. and 3. to End of Year	98,509,964
5. Contributions for Prior Year	142,184,201
6. Interest on 5. to End of Year	5,235,516
7. Change in Unfunded Actuarial Liability Due to Coding Refinements	50,017,619
8. Expected Unfunded Actuarial Liability at End of Year [1. + 2. + 3. + 4. - 5. - 6. + 7.]	\$ 1,316,678,792
9. Actual Unfunded Actuarial Liability at End of Year (not less than zero)	1,276,693,084
10. Unfunded Actuarial Liability Gain / (Loss) [8. - 9.]	\$ 39,985,708
11. Actuarial Liability Gain / (Loss)	\$ 21,956,197
12. Actuarial Asset Gain / (Loss) [10. - 11.]	\$ 18,029,511

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**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 is needed to properly maintain the funding status of the System. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this System, the actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the **Entry Age Normal (EAN)** cost method. There are two primary components to the total contribution: the **normal cost rate** (employee and employer), and the **unfunded actuarial liability rate** (UAL rate).

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the System, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a normal cost rate that should remain relatively constant over a member's career. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost rate is reduced by the member contribution rate to produce the employer normal cost rate.

The unfunded actuarial liability is the difference between the EAN actuarial liability and the actuarial value of assets. The UAL rate is based on a 25-year amortization of half of the extraordinary investment loss from 2008 and a 19-year amortization of the remainder of the unfunded actuarial liability as of January 1, 2014, again assuming mid-year payment to reflect the fact that employer contributions are made throughout the year.

The tables below present the employer contributions for the System for this valuation.

<b>TABLE IV-1</b>			
<b>Employer Contribution Rate</b>			
	<b>January 1, 2013</b>	<b>January 1, 2014</b>	
<b>Contributions as a Percentage of Payroll</b>			
Gross Entry Age Normal Cost Rate	24.26%	24.05%	
Employee Contribution Rate	<u>6.20%</u>	<u>6.77%</u>	
Employer Entry Age Normal Cost Rate	18.07%	17.28%	
Employer Normal Cost Rate	18.07%	17.28%	
Administrative Expense	0.95%	0.91%	
Amortization Payment	<u>23.12%</u>	<u>23.74%</u>	
Employer Contribution Rate	42.13%	41.93%	
Annual Required Contribution (Employer)	\$ 152,785,574	\$	157,994,939

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION IV  
CONTRIBUTIONS**

<b>TABLE IV-2</b>			
<b>Development of Employer Contribution Amount</b>			
<b>January 1, 2014</b>			
			<b>% of pay</b>
1. Normal Cost at Middle of Year	\$	\$62,192,886	17.28%
2. Amortization of Unfunded Liability			
a. Actuarial Liability	\$	3,561,859,056	
b. Actuarial Value of Assets		<u>2,285,165,972</u>	
c. Unfunded Liability (a) – (b)	\$	1,276,693,084	
d. Amortization of Unfunded Liability		92,265,452	23.74%
3. Administrative Expense	\$	3,536,601	0.91%
4. Annual Required Contribution	\$	157,994,939	41.93%
(1c) + (2d) + (3)			

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION IV  
CONTRIBUTIONS**

**TABLE IV-3  
Development of Amortization Payment  
For Fiscal Year 2014**

Type of Base	Date Established	Initial Amount	Initial Amortization Years	1/1/2014 Outstanding Balance	Remaining Amortization Years	Amortization Amount
<b>Charges</b>						
1. 2008 Extraordinary Actuarial Loss	1/1/2009	\$ 424,264,899	30	\$ 456,193,327	25	\$ 29,438,425
2. Remaining 2014 UAL	1/1/2014			820,499,757	19	62,827,027
				\$ 1,276,693,084		\$ 92,265,452

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

Statement No. 25 of the Governmental Accounting Standards Board (GASB 25) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The GASB adopted Statement Nos. 67 and 68 which replaces GASB Statement Nos. 25 and 27. GASB 67 is effective for periods beginning after June 15, 2013 (first effective January 1, 2014 for the Plan) and GASB 68 is effective for fiscal years beginning after June 15, 2014 (first effective for the fiscal year July 1, 2014 to June 30, 2015 for the Employer). The following is a brief summary of some of these changes:

- The liabilities would need to be based on the entry age normal cost method (which is the method the System is currently using), and the discount rate assumption might need to be reduced if projected contributions plus assets are not able to cover projected pension benefits.
- The market value of assets would be compared to the liabilities, instead of the smoothed actuarial value of assets, to determine the unfunded liability.
- Unfunded liabilities would be reported directly on the employer's balance sheet.
- The Annual Required Contribution (ARC) would be replaced with Pension Expense which equals: Normal Cost + Interest Cost - Expected Asset Earnings + Amortization of changes in total pension liability + smoothing of asset returns over five years.
- Amortization periods of changes in total pension liability would vary depending upon the basis for the gain or loss. These periods would be immediate for plan changes and expected working lifetime of both active and inactive members for other total pension liability changes.

A separate GASB 67/68 report will be issued once December 31, 2014 asset information is available.

In accordance with GASB 25, we have prepared the following disclosures:

*Schedule of Funding Progress*

The schedule of funding progress compares the assets used for funding purposes to the comparable liabilities to determine how well the System is funded and how this status has changed over the past several years.

The GASB 25 Actuarial Liability is the same as the Actuarial Liability calculated for funding purposes. The GASB 25 liability is compared to the actuarial value of assets to determine the funding ratio.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

*Schedule of Employer Contributions*

The schedule of employer contributions shows whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB 25.

*Solvency Test*

The solvency test shows the portion of actuarial liabilities for active member contributions, inactive members, and the employer financed portion of the active members that are covered by the actuarial value of assets.

The Actuarial Liability under GASB 25 is determined assuming that the System is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.5%.

We have also provided a *Note to Required Supplementary Information* for the financial statements.

<b>Table V-1</b>							
<b>Schedule of Funding Progress</b>							
<b>(Dollars in Thousands)</b>							
<b>Valuation Date January 1,</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Liability (AL)</b>	<b>Funded Ratio</b>	<b>Unfunded AL (UAL)</b>	<b>Covered Payroll</b>	<b>UAL as a Percentage of Payroll</b>	
2014	\$ 2,285,166	\$ 3,561,859	64.2%	\$ 1,276,693	\$388,691	328.5%	
2013	2,125,700	3,353,294	63.4%	1,227,594	365,892	335.5%	
2012	2,130,053	3,048,321	69.9%	918,268	356,419	257.6%	
2011	2,120,384	2,917,688	72.7%	797,304	367,344	217.0%	
2010	1,949,011	2,769,612	70.4%	820,601	385,442	212.9%	
2009	1,821,357	2,510,925	72.5%	689,568	377,559	182.6%	
2008	2,029,949	2,334,521	87.0%	304,572	367,361	82.9%	
2007	1,869,717	2,149,938	87.0%	280,221	340,828	82.2%	
2006	1,727,033	1,935,818	89.2%	208,785	309,692	67.4%	
2005	1,614,979	1,769,507	91.3%	154,528	296,473	52.1%	
2004	1,531,288	1,621,060	94.5%	89,772	286,429	31.3%	
2003	1,448,905	1,418,209	102.2%	(30,696)	259,812	-11.8%	
2002	1,357,409	1,266,747	107.2%	(90,662)	243,327	-37.3%	

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**SECTION V**  
**ACCOUNTING STATEMENT INFORMATION**

<b>Table V-2</b>				
<b>Schedule of Employer Contributions</b>				
<b>(Dollars in Thousands)</b>				
<b>Annual</b>				
<b>Year Ending December 31,</b>	<b>Required Contribution</b>	<b>Actual Contribution</b>	<b>Percentage Contributed</b>	
2013	\$ 119,494	\$ 119,494	100.0%	
2012	108,063	108,063	100.0%	
2011	112,892	112,892	100.0%	
2010	104,452	104,452	100.0%	
2009	97,806	97,806	100.0%	
2008	94,163	94,163	100.0%	
2007	85,869	85,869	100.0%	
2006	73,612	73,612	100.0%	
2005	62,509	62,509	100.0%	
2004	42,688	42,688	100.0%	
2003	34,784	34,784	100.0%	
2002	25,016	25,016	100.0%	
2001	22,642	22,642	100.0%	

<b>Table V-3</b>							
<b>Solvency Test</b>							
<b>Aggregate Actuarial Liabilities for</b>							
<b>Valuation Date January 1,</b>	<b>Active Member Contributions</b>	<b>Retirees &amp; Beneficiaries</b>	<b>Active Members*</b>	<b>Actuarial Value of Assets</b>	<b>Portion of Actuarial Liabilities Covered by</b>		
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>		<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
2014	\$ 258,198,240	\$1,956,930,619	\$1,346,730,197	\$2,285,165,972	100%	100%	5%
2013	209,987,230	1,810,775,897	1,332,531,085	2,125,700,227	100%	100%	8%
2012	202,924,928	1,627,338,404	1,218,058,024	2,130,052,649	100%	100%	25%
2011	193,612,757	1,495,665,075	1,228,410,127	2,120,384,183	100%	100%	35%
2010	187,986,706	1,373,256,766	1,208,368,072	1,949,011,498	100%	100%	32%
2009	176,235,961	1,231,647,623	1,103,041,755	1,821,357,079	100%	100%	37%
2008	166,804,000	1,119,690,000	1,048,027,000	2,029,949,000	100%	100%	71%
2007	159,100,000	1,023,296,000	967,542,000	1,869,717,000	100%	100%	71%
2006	147,953,000	904,208,000	883,657,000	1,727,033,000	100%	100%	76%
2005	140,800,000	805,878,000	822,829,000	1,614,979,000	100%	100%	81%
2004	129,606,000	726,382,000	739,749,000	1,531,288,000	100%	100%	91%
2003	137,209,000	643,984,000	637,016,000	1,448,905,000	100%	100%	100%
2002	132,004,000	541,321,000	593,423,000	1,357,409,000	100%	100%	100%

\* Includes terminated vested members.



**SECTION V  
ACCOUNTING STATEMENT INFORMATION**

**Table V-4  
Note To Required Supplementary Information**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	January 1, 2014
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll with separate amortization for Extraordinary Actuarial Gains or Losses
Remaining amortization period	25 years for 2008 Extraordinary Loss, closed period of 19 years for remaining UAL. (21 year Single Equivalent Period)
Asset valuation method	Actuarial value: Excess earnings smoothed over five years, 80%/120% corridor around market value
Actuarial assumptions:	
Investment rate of return	7.50%
Projected salary increases*	3.25%, plus service-based rates
* includes inflation at	3.00%
Cost of living adjustments	2.60% per year assumed

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

The data for this valuation was provided by the San Joaquin County staff as of January 1, 2014. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

**Summary of Participant Data as of January 1, 2014**

	General	Safety	Total
<b>Active Participants</b>			
Number	4,748	805	5,553
Average Age	47.29	41.67	46.47
Average Benefit Service	11.40	12.37	11.54
Average Vesting Service	11.54	12.64	11.70
Average Pay	\$66,741	\$81,540	\$68,886
<b>Service Retired</b>			
Number	3,227	516	3,743
Average Age	69.87	65.11	69.21
Average Annual Base Benefit	\$2,144	\$907	\$1,973
Average Annual Total Benefit	\$28,702	\$57,734	\$32,704
<b>Beneficiaries</b>			
Number	557	154	711
Average Age	73.25	66.90	71.88
Average Annual Base Benefit	\$34	\$0	\$27
Average Annual Total Benefit	\$15,608	\$25,267	\$17,700
<b>Duty Disabled</b>			
Number	227	186	413
Average Age	62.62	59.70	61.31
Average Annual Base Benefit	\$0	\$0	\$0
Average Annual Total Benefit	\$23,864	\$47,217	\$34,381
<b>Non-Duty Disabled</b>			
Number	161	13	174
Average Age	63.33	65.77	63.51
Average Annual Base Benefit	\$0	\$0	\$0
Average Annual Total Benefit	\$15,067	\$24,264	\$15,754
<b>Total Receiving Benefits</b>			
Number	4,172	869	5,041
Average Age	69.68	64.28	68.75
Average Annual Base Benefit	\$1,663	\$539	\$1,469
Average Annual Total Benefit	\$26,164	\$49,229	\$30,140

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Summary of Participant Data as of January 1, 2014**

	General	Safety	Total
<b>Deferred Vested</b>			
Number	425	39	464
Average Age	49.00	44.51	48.63
Average Service	8.25	5.90	8.05
<b>Transfers and DROs</b>			
Number	354	86	440
Average Age	49.81	42.92	48.46
Average Service	5.99	4.81	5.76
<b>Funds on Account</b>			
Number	480	27	507
Average Age	44.39	37.19	44.01
Average Service	1.56	1.40	1.55
<b>Total Inactive</b>			
Number	1,259	152	1,411
Average Age	47.47	42.31	46.92
Average Service	5.06	4.49	5.00

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator on electronic media. As is usual in studies of this type, Member data was neither verified nor audited.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Changes in Plan Membership: General**

	Actives	Transfers/ DROS	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
January 1, 2013	<b>4,492</b>	<b>348</b>	<b>478</b>	<b>416</b>	<b>165</b>	<b>222</b>	<b>3113</b>	<b>541</b>	<b>9,775</b>
New Entrants	572	0	0	0	0	0	0	0	572
Rehires	72	(5)	(23)	(10)	0	0	0	0	34
Duty Disabilities	(4)	0	0	0	0	4	0	0	0
Non-Duty Disabilities	(3)	0	0	0	4	0	0	0	1
Retirements	(154)	(20)	(1)	(26)	0	0	201	1	1
Vested Terminations	(59)	0	0	59	0	0	0	0	0
Retirements from Safety with General Service	0	0	0	0	0	1	2	0	3
Died, With Beneficiaries' Benefit Payable	(4)	0	0	0	(5)	(3)	(31)	43	0
Died, Without Beneficiary, and Other Terminations	(60)	0	59	0	(7)	(5)	(47)	0	(60)
Transfers	(27)	33	(2)	(4)	0	0	0	0	0
Redeposits – AB 2766	0	0	0	0	0	0	0	0	0
Withdrawals Paid	(77)	(5)	(30)	(10)	0	0	0	0	(122)
Beneficiary Deaths	0	0	0	0	0	0	0	(36)	(36)
Domestic Relations Orders	0	4	0	0	0	0	0	6	10
Data Corrections	0	(1)	(1)	0	4	8	(11)	2	1
January 1, 2014	<b>4,748</b>	<b>354</b>	<b>480</b>	<b>425</b>	<b>161</b>	<b>227</b>	<b>3227</b>	<b>557</b>	<b>10,179</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A**  
**MEMBERSHIP INFORMATION**

**Changes in Plan Membership: Safety**

	Actives	Transfers/ DROS	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
January 1, 2013	<b>803</b>	<b>89</b>	<b>27</b>	<b>42</b>	<b>13</b>	<b>182</b>	<b>514</b>	<b>147</b>	<b>1,817</b>
New Entrants	30	0	0	0	0	0	0	0	30
Rehires	5	0	(3)	(1)	0	0	(1)	0	0
Duty Disabilities	(5)	0	0	0	0	5	0	0	0
Non-Duty Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(11)	(7)	0	(2)	0	0	18	2	0
Vested Terminations	(2)	0	0	2	0	0	0	0	0
Retirements from Safety with General Service	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(7)	8	0
Died, Without Beneficiary, and Other Terminations	(2)	(1)	3	0	0	(5)	(3)	0	(8)
Transfers	(5)	5	0	0	0	0	0	0	0
Redeposits – AB 2766	0	0	0	1	0	0	0	0	1
Withdrawals Paid	(8)	(3)	(1)	(3)	0	0	0	0	(15)
Beneficiary Deaths	0	0	0	0	0	0	0	(4)	(4)
Domestic Relations Orders	0	2	0	0	0	0	0	1	3
Data Corrections	0	1	1	0	0	5	(5)	0	2
January 1, 2014	<b>805</b>	<b>86</b>	<b>27</b>	<b>39</b>	<b>13</b>	<b>186</b>	<b>516</b>	<b>154</b>	<b>1,826</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Changes in Plan Membership: All Groups**

	Actives	Transfers/ DROS	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
January 1, 2013	<b>5,295</b>	<b>437</b>	<b>505</b>	<b>458</b>	<b>178</b>	<b>404</b>	<b>3627</b>	<b>688</b>	<b>11,592</b>
New Entrants	602	0	0	0	0	0	0	0	602
Rehires	77	(5)	(26)	(11)	0	0	(1)	0	34
Duty Disabilities	(9)	0	0	0	0	9	0	0	0
Non-Duty Disabilities	(3)	0	0	0	4	0	0	0	1
Retirements	(165)	(27)	(1)	(28)	0	0	219	3	1
Vested Terminations	(61)	0	0	61	0	0	0	0	0
Retirements from Safety with General Service	0	0	0	0	0	1	2	0	3
Died, With Beneficiaries' Benefit Payable	(4)	0	0	0	(5)	(4)	(38)	51	0
Died, Without Beneficiary, and Other Terminations	(62)	(1)	62	0	(7)	(10)	(50)	0	(68)
Transfers	(32)	38	(2)	(4)	0	0	0	0	0
Redeposits – AB 2766	0	0	0	1	0	0	0	0	1
Withdrawals Paid	(85)	(8)	(31)	(13)	0	0	0	0	(137)
Beneficiary Deaths	0	0	0	0	0	0	0	(40)	(40)
Domestic Relations Orders	0	6	0	0	0	0	0	7	13
Data Corrections	0	0	0	0	4	13	(16)	2	3
January 1, 2014	<b>5,553</b>	<b>440</b>	<b>507</b>	<b>464</b>	<b>174</b>	<b>413</b>	<b>3743</b>	<b>711</b>	<b>12,005</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Active Member Data by Plan**

Valuation at Year End	Plan Type	Member Count	Annual Payroll	Average Annual Salary	Average Salary Increase
<b>2006</b>	General	5,234	\$288,178,806	\$55,059	18.22%
	Safety	820	\$56,293,820	\$68,651	15.52%
	<b>Total</b>	<b>6,054</b>	<b>\$344,472,626</b>	<b>\$56,900</b>	<b>17.68%</b>
<b>2007</b>	General	5,353	\$308,773,122	\$57,682	4.76%
	Safety	871	\$62,988,014	\$72,317	5.34%
	<b>Total</b>	<b>6,224</b>	<b>\$371,761,136</b>	<b>\$59,730</b>	<b>4.97%</b>
<b>2008</b>	General	5,180	\$315,202,954	\$60,850	5.49%
	Safety	900	\$67,127,759	\$74,586	3.14%
	<b>Total</b>	<b>6,080</b>	<b>\$382,330,713</b>	<b>\$62,883</b>	<b>5.28%</b>
<b>2009</b>	General	4,990	\$320,526,792	\$64,234	5.56%
	Safety	925	\$70,801,157	\$76,542	2.62%
	<b>Total</b>	<b>5,915</b>	<b>\$391,327,949</b>	<b>\$66,159</b>	<b>5.21%</b>
<b>2010</b>	General	4,643	\$308,183,424	\$66,376	3.33%
	Safety	830	\$64,817,396	\$78,093	2.03%
	<b>Total</b>	<b>5,473</b>	<b>\$373,000,820</b>	<b>\$68,153</b>	<b>3.01%</b>
<b>2011</b>	General	4,441	\$298,308,687	\$67,172	1.20%
	Safety	813	\$64,041,814	\$78,772	0.87%
	<b>Total</b>	<b>5,254</b>	<b>\$362,350,501</b>	<b>\$68,967</b>	<b>1.19%</b>
<b>2012</b>	General	4,492	\$301,505,122	\$67,120	-0.08%
	Safety	803	\$64,386,900	\$80,183	1.79%
	<b>Total</b>	<b>5,295</b>	<b>\$365,892,023</b>	<b>\$69,101</b>	<b>0.19%</b>
<b>2013</b>	General	4,748	\$316,885,044	\$66,741	-0.57%
	Safety	805	\$65,640,055	\$81,540	1.69%
	<b>Total</b>	<b>5,553</b>	<b>\$382,525,098</b>	<b>\$68,886</b>	<b>-0.31%</b>

Payroll figures represent active member's annualized pay rates on December 31. Prior to 2006, payroll was not annualized, which explains the large apparent increases in average salary from 2005 to 2006.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A**  
**MEMBERSHIP INFORMATION**

**Schedule of Retirees and Beneficiaries Valuation Data**

Valuation at Year End	Plan Type	Member Retirements	Beneficiary Continuance	Members and Beneficiaries Removed	Total Retirees on Payroll	Annual Retirement Payroll	Average Annual Allowance	Average Allowance Increase
<b>2006</b>	General	190	41	102	3,107	58,634,478	18,872	3.96%
	Safety	31	8	11	632	25,003,422	39,562	2.14%
	<b>Total</b>	<b>221</b>	<b>49</b>	<b>113</b>	<b>3,739</b>	<b>83,637,900</b>	<b>22,369</b>	<b>3.45%</b>
<b>2007</b>	General	199	31	99	3,238	65,213,731	20,140	6.72%
	Safety	38	6	8	668	27,396,329	41,012	3.67%
	<b>Total</b>	<b>237</b>	<b>37</b>	<b>107</b>	<b>3,906</b>	<b>92,610,060</b>	<b>23,710</b>	<b>5.99%</b>
<b>2008</b>	General	203	30	83	3,388	71,488,335	21,100	4.77%
	Safety	50	10	18	710	30,575,540	43,064	5.00%
	<b>Total</b>	<b>253</b>	<b>40</b>	<b>101</b>	<b>4,098</b>	<b>102,063,875</b>	<b>24,906</b>	<b>5.04%</b>
<b>2009</b>	General	207	31	104	3,522	78,988,070	22,427	6.29%
	Safety	24	7	11	730	32,575,964	44,625	3.62%
	<b>Total</b>	<b>231</b>	<b>38</b>	<b>115</b>	<b>4,252</b>	<b>111,564,034</b>	<b>26,238</b>	<b>5.35%</b>
<b>2010</b>	General	242	35	102	3,697	85,931,078	23,243	3.64%
	Safety	65	5	8	792	36,354,738	45,902	2.86%
	<b>Total</b>	<b>307</b>	<b>40</b>	<b>110</b>	<b>4,489</b>	<b>122,285,816</b>	<b>27,241</b>	<b>3.82%</b>
<b>2011</b>	General	240	42	108	3,871	92,938,361	24,009	3.30%
	Safety	32	4	14	814	38,098,866	46,805	1.97%
	<b>Total</b>	<b>272</b>	<b>46</b>	<b>122</b>	<b>4,685</b>	<b>131,037,227</b>	<b>27,970</b>	<b>2.68%</b>
<b>2012</b>	General	278	27	135	4,041	102,025,575	25,248	5.16%
	Safety	52	12	20	856	42,008,598	49,075	4.85%
	<b>Total</b>	<b>330</b>	<b>39</b>	<b>155</b>	<b>4,897</b>	<b>144,034,172</b>	<b>29,413</b>	<b>5.16%</b>
<b>2013</b>	General	213	52	134	4,172	109,869,721	26,335	4.31%
	Safety	22	11	20	869	43,548,028	50,113	2.11%
	<b>Total</b>	<b>235</b>	<b>63</b>	<b>154</b>	<b>5,041</b>	<b>153,411,632</b>	<b>30,433</b>	<b>3.47%</b>

Payroll figures represent year end monthly retirement benefits annualized and exclude Post-Employment Healthcare benefit and benefits under the Class Action Settlement.



SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Retirants and Beneficiaries Added to and Removed from Retiree Payroll**

<b>Fiscal Year</b>	<b>Beginning of Year</b>	<b>Added During Year</b>	<b>Allowances Added (in 000s)<sup>1</sup></b>	<b>Removed During Year</b>	<b>Allowances Removed</b>	<b>End of Year</b>	<b>Annual Retirement Payroll (in 000s)</b>	<b>Average Allowance Percentage Increase</b>	<b>Average Annual Allowance</b>
2010	4,252	353	12,918	116	2,196	4,489	122,286	3.82%	27,241
2011	4,489	318	11,544	122	2,793	4,685	131,037	2.67%	27,969
2012	4,685	361	16,400	149	3,403	4,897	144,034	5.16%	29,413
2013	4,897	297	12,908	153	3,530	5,041	153,412	3.47%	30,433

[1] Includes COLA amounts not included in previous year's Annual Allowance totals.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Schedule of Average Monthly Benefit Payments**

Retirement Effective Date	<u>Number of Years of Service Credit</u>						
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
<b>1/2/11 to 1/1/12</b>							
<b>Retirants</b>							
General Members							
Average Benefits	\$470	\$1,205	\$1,464	\$2,615	\$3,302	\$3,968	\$4,670
Average Final Compensation	\$5,518	\$5,903	\$4,928	\$6,463	\$6,110	\$5,541	\$5,570
Count	12	26	56	27	41	16	39
Safety Members							
Average Benefits	\$922	\$1,112	\$2,551	\$3,970	\$7,499	\$7,790	\$10,586
Average Final Compensation	\$9,746	\$4,483	\$5,290	\$7,767	\$10,430	\$9,162	\$10,797
Count	2	6	3	3	4	5	3
<b>Survivors/QDROs</b>							
General Members							
Average Benefits	\$622	\$890	\$773	\$1,367	\$1,838	\$2,039	\$3,281
Average Final Compensation	\$9,807	\$4,816	\$3,578	\$4,371	\$4,108	\$3,364	\$5,366
Count	5	9	11	10	5	5	5
Safety Members							
Average Benefits	\$825	\$859	\$1,591	\$3,334	\$0	\$0	\$3,829
Average Final Compensation	\$9,779	\$4,960	\$2,795	\$9,010	\$0	\$0	\$5,257
Count	1	1	2	1	0	0	1
<b>1/2/12 to 1/1/13</b>							
<b>Retirants</b>							
General Members							
Average Benefits	\$517	\$1,077	\$1,481	\$2,129	\$2,729	\$4,198	\$6,317
Average Final Compensation	\$7,532	\$5,925	\$5,233	\$4,900	\$5,338	\$6,449	\$7,295
Count	19	31	56	36	42	30	44
Safety Members							
Average Benefits	\$429	\$2,194	\$3,026	\$4,186	\$5,302	\$9,183	\$13,206
Average Final Compensation	\$6,793	\$5,812	\$6,636	\$8,124	\$7,306	\$13,360	\$13,606
Count	4	5	7	3	14	11	5
<b>Survivors/QDROs</b>							
General Members							
Average Benefits	\$331	\$1,189	\$1,017	\$1,525	\$1,274	\$3,105	\$2,783
Average Final Compensation	\$4,482	\$3,558	\$2,664	\$2,604	\$3,639	\$4,794	\$3,940
Count	4	4	8	3	1	2	4
Safety Members							
Average Benefits	\$0	\$1,039	\$2,423	\$3,450	\$3,573	\$3,206	\$4,887
Average Final Compensation	\$0	\$6,972	\$7,561	\$1,358	\$1,776	\$3,836	\$6,169
Count	0	2	2	2	1	3	2

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Schedule of Average Monthly Benefit Payments**

Retirement Effective Date	Number of Years of Service Credit						
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
<b>1/2/13 to 1/1/14</b>							
<b>Retirants</b>							
General Members							
Average Benefits	\$433	\$1,410	\$1,589	\$2,556	\$3,149	\$4,241	\$5,837
Average Final Compensation	\$7,695	\$7,279	\$5,787	\$6,125	\$6,132	\$6,467	\$6,718
Count	10	25	40	35	35	26	29
Safety Members							
Average Benefits	\$1,165	\$1,435	\$2,621	\$3,501	\$4,260	\$11,134	\$9,279
Average Final Compensation	\$9,478	\$7,434	\$6,316	\$7,044	\$5,599	\$13,945	\$9,670
Count	3	2	7	4	1	2	2
<b>Survivors/QDROs</b>							
General Members							
Average Benefits	\$687	\$1,000	\$883	\$1,182	\$2,063	\$1,572	\$2,985
Average Final Compensation	\$3,804	\$4,531	\$3,953	\$3,163	\$3,722	\$1,821	\$3,681
Count	6	9	15	7	5	2	5
Safety Members							
Average Benefits	\$650	\$3,101	\$1,385	\$2,012	\$1,918	\$3,745	\$4,936
Average Final Compensation	\$4,955	\$10,868	\$2,506	\$3,966	\$2,525	\$6,184	\$5,381
Count	3	1	2	1	2	1	1

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**DISTRIBUTION OF GENERAL ACTIVE MEMBERS  
BY AGE AND SERVICE AS OF JANUARY 1, 2014**

**COUNTS BY AGE/SERVICE**

Age	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 & up	
<b>Under 25</b>	19	11	0	0	0	0	0	0	0	0	<b>30</b>
<b>25 to 29</b>	78	102	37	0	0	0	0	0	0	0	<b>217</b>
<b>30 to 34</b>	70	132	196	35	0	0	0	0	0	0	<b>433</b>
<b>35 to 39</b>	49	141	228	168	27	0	0	0	0	0	<b>613</b>
<b>40 to 44</b>	56	83	195	209	89	19	2	0	0	0	<b>653</b>
<b>45 to 49</b>	38	78	143	176	100	69	26	1	0	0	<b>631</b>
<b>50 to 54</b>	30	73	136	182	113	119	80	20	2	0	<b>755</b>
<b>55 to 59</b>	23	64	102	159	116	99	90	65	29	0	<b>747</b>
<b>60 to 64</b>	14	30	81	91	71	65	63	42	22	5	<b>484</b>
<b>65 to 69</b>	4	9	34	42	27	18	14	5	1	3	<b>157</b>
<b>70 &amp; up</b>	0	2	6	9	5	2	3	0	1	0	<b>28</b>
<b>Total</b>	<b>381</b>	<b>725</b>	<b>1,158</b>	<b>1,071</b>	<b>548</b>	<b>391</b>	<b>278</b>	<b>133</b>	<b>55</b>	<b>8</b>	<b>4,748</b>

Average Age = 47.29

Average Service = 11.40

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A**  
**MEMBERSHIP INFORMATION**

**DISTRIBUTION OF SAFETY ACTIVE MEMBERS**  
**BY AGE AND SERVICE AS OF JANUARY 1, 2014**

**COUNTS BY AGE/SERVICE**

Age	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 & up	
Under 25	1	4	0	0	0	0	0	0	0	0	5
25 to 29	2	22	33	0	0	0	0	0	0	0	57
30 to 34	5	15	102	23	0	0	0	0	0	0	145
35 to 39	1	12	52	71	10	0	0	0	0	0	146
40 to 44	1	4	35	68	53	1	0	0	0	0	162
45 to 49	1	0	12	28	35	22	14	0	0	0	112
50 to 54	1	3	11	11	13	24	31	4	0	0	98
55 to 59	0	2	2	7	11	10	18	2	1	0	53
60 to 64	0	0	4	5	5	3	5	0	0	0	22
65 to 69	0	0	0	3	2	0	0	0	0	0	5
70 & up	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>62</b>	<b>251</b>	<b>216</b>	<b>129</b>	<b>60</b>	<b>68</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>805</b>

Average Age = 41.67

Average Service = 12.37

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**PAYROLL DISTRIBUTION OF GENERAL ACTIVE PARTICIPANTS  
BY AGE AND SERVICE AS OF JANUARY 1, 2014**

**COUNTS BY AGE/SERVICE**

Age	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 & up		
<b>Under 25</b>	43,422	52,132	0	0	0	0	0	0	0	0	0	<b>46,616</b>
<b>25 to 29</b>	48,553	56,908	49,211	0	0	0	0	0	0	0	0	<b>52,592</b>
<b>30 to 34</b>	48,764	63,890	57,433	58,361	0	0	0	0	0	0	0	<b>58,075</b>
<b>35 to 39</b>	55,680	65,305	66,018	64,436	66,740	0	0	0	0	0	0	<b>64,626</b>
<b>40 to 44</b>	49,755	77,439	68,838	64,415	70,896	54,752	80,327	0	0	0	0	<b>66,785</b>
<b>45 to 49</b>	46,587	71,611	66,225	67,110	69,740	69,567	71,789	51,667	0	0	0	<b>67,083</b>
<b>50 to 54</b>	54,339	54,954	65,111	66,200	62,719	76,069	79,345	73,038	76,015	0	0	<b>67,080</b>
<b>55 to 59</b>	50,115	79,295	64,850	65,277	67,332	75,091	85,548	78,092	72,525	0	0	<b>71,411</b>
<b>60 to 64</b>	58,404	84,519	67,805	66,804	64,239	73,416	75,340	95,233	84,947	66,989	0	<b>72,743</b>
<b>65 to 69</b>	54,095	149,815	73,100	65,796	75,851	72,453	84,132	110,338	142,792	54,610	0	<b>77,719</b>
<b>70 &amp; up</b>	0	144,611	76,721	61,169	49,673	121,021	42,777	0	54,182	0	0	<b>70,464</b>
<b>Total</b>	<b>50,203</b>	<b>67,989</b>	<b>64,707</b>	<b>65,324</b>	<b>67,228</b>	<b>73,260</b>	<b>79,592</b>	<b>83,758</b>	<b>78,565</b>	<b>62,347</b>	<b>0</b>	<b>66,741</b>

Average Salary = \$66,741

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**PAYROLL DISTRIBUTION OF SAFETY ACTIVE PARTICIPANTS  
BY AGE AND SERVICE AS OF JANUARY 1, 2014**

**COUNTS BY AGE/SERVICE**

Age	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 & up		
Under 25	41,295	70,747	0	0	0	0	0	0	0	0	0	64,857
25 to 29	48,963	53,775	78,985	0	0	0	0	0	0	0	0	68,202
30 to 34	43,744	57,700	76,149	73,978	0	0	0	0	0	0	0	72,779
35 to 39	44,907	60,451	72,540	77,428	75,060	0	0	0	0	0	0	73,907
40 to 44	47,994	58,024	76,466	79,628	82,495	105,862	0	0	0	0	0	79,316
45 to 49	72,449	0	71,849	76,493	87,559	112,210	127,386	0	0	0	0	92,795
50 to 54	86,902	93,795	69,240	75,305	79,118	100,636	118,149	144,336	0	0	0	98,388
55 to 59	0	103,290	63,914	73,899	82,614	89,401	99,747	82,822	285,980	0	0	92,482
60 to 64	0	0	95,725	78,624	75,348	78,494	111,519	0	0	0	0	88,447
65 to 69	0	0	0	66,039	77,587	0	0	0	0	0	0	70,658
70 & up	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>50,849</b>	<b>60,920</b>	<b>75,525</b>	<b>77,279</b>	<b>82,610</b>	<b>101,988</b>	<b>114,692</b>	<b>123,832</b>	<b>285,980</b>	<b>0</b>	<b>0</b>	<b>81,540</b>

Average Salary = \$81,540

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Service Retired Benefits**

Current Age	General		Safety		Total	
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	\$0	0	\$0	0	\$0
25-29	0	\$0	0	\$0	0	\$0
30-34	0	\$0	0	\$0	0	\$0
35-39	0	\$0	0	\$0	0	\$0
40-44	0	\$0	0	\$0	0	\$0
45-49	0	\$0	4	\$42,006	4	\$42,006
50-54	90	\$14,557	48	\$50,964	138	\$27,220
55-59	284	\$22,125	87	\$66,032	371	\$32,422
60-64	583	\$34,106	105	\$63,916	688	\$38,656
65-69	800	\$34,321	128	\$62,189	928	\$38,165
70-74	593	\$28,713	77	\$47,757	670	\$30,901
75-79	365	\$25,098	37	\$40,193	402	\$26,487
80-84	246	\$24,007	20	\$47,860	266	\$25,800
85-89	148	\$23,482	10	\$63,861	158	\$26,039
90-94	101	\$18,103	0	\$0	101	\$18,103
95+	17	\$16,992	0	\$0	17	\$16,992
<b>All Ages</b>	<b>3227</b>	<b>\$28,702</b>	<b>516</b>	<b>\$57,733</b>	<b>3743</b>	<b>\$32,704</b>

**Non-Duty Disabled Benefits**

Current Age	General		Safety		Total	
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	\$0	0	\$0	0	\$0
25-29	0	\$0	0	\$0	0	\$0
30-34	0	\$0	0	\$0	0	\$0
35-39	1	\$24,241	0	\$0	1	\$24,241
40-44	4	\$15,358	0	\$0	4	\$15,358
45-49	6	\$17,790	0	\$0	6	\$17,790
50-54	11	\$17,164	1	\$2,838	12	\$15,970
55-59	32	\$16,916	2	\$35,929	34	\$18,034
60-64	38	\$14,068	4	\$19,305	42	\$14,567
65-69	33	\$13,756	1	\$12,465	34	\$13,718
70-74	18	\$14,659	3	\$37,540	21	\$17,928
75-79	11	\$15,454	1	\$19,167	12	\$15,763
80-84	2	\$15,189	1	\$19,264	3	\$16,548
85-89	3	\$8,600	0	\$0	3	\$8,600
90-94	2	\$12,365	0	\$0	2	\$12,365
95+	0	\$0	0	\$0	0	\$0
<b>All Ages</b>	<b>161</b>	<b>\$15,067</b>	<b>13</b>	<b>\$24,264</b>	<b>174</b>	<b>\$15,754</b>



**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Duty Disabled Benefits**

Current Age	General		Safety		Total	
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	\$0	0	\$0	0	\$0
25-29	0	\$0	0	\$0	0	\$0
30-34	0	\$0	1	\$27,041	1	\$27,041
35-39	0	\$0	3	\$31,557	3	\$31,557
40-44	10	\$11,980	12	\$33,463	22	\$23,698
45-49	5	\$12,427	13	\$39,327	18	\$31,855
50-54	23	\$20,280	33	\$47,454	56	\$36,293
55-59	39	\$21,496	28	\$41,890	67	\$30,019
60-64	59	\$22,999	32	\$51,622	91	\$33,064
65-69	43	\$26,102	34	\$56,928	77	\$39,713
70-74	28	\$32,850	15	\$42,398	43	\$36,181
75-79	12	\$24,753	8	\$47,343	20	\$33,791
80-84	5	\$25,432	3	\$65,189	8	\$40,335
85-89	2	\$42,988	3	\$54,829	5	\$50,092
90-94	1	\$21,195	1	\$46,625	2	\$33,935
95+	0	\$0	0	\$0	0	\$0
<b>All Ages</b>	<b>227</b>	<b>\$23,864</b>	<b>186</b>	<b>\$47,216</b>	<b>413</b>	<b>\$34,381</b>

**Surviving Beneficiary Benefits (all benefit types)**

Current Age	General		Safety		Total	
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	6	\$6,708	0	\$0	6	\$6,708
25-29	2	\$8,115	0	\$0	2	\$8,115
30-34	1	\$10,875	0	\$0	1	\$10,875
35-39	1	\$7,618	0	\$0	1	\$7,618
40-44	6	\$16,956	3	\$29,723	9	\$21,212
45-49	5	\$9,492	9	\$17,917	14	\$14,908
50-54	15	\$14,897	15	\$15,154	30	\$15,025
55-59	45	\$15,164	21	\$28,126	66	\$19,288
60-64	64	\$17,163	18	\$37,057	82	\$21,530
65-69	71	\$17,033	22	\$33,328	93	\$20,887
70-74	75	\$17,503	24	\$32,746	99	\$21,197
75-79	70	\$16,112	13	\$32,650	83	\$18,701
80-84	63	\$17,430	17	\$37,621	80	\$21,718
85-89	61	\$17,536	12	\$28,422	73	\$19,332
90-94	49	\$20,748	0	\$0	49	\$20,748
95+	23	\$14,928	0	\$0	23	\$14,928
<b>All Ages</b>	<b>557</b>	<b>\$16,887</b>	<b>154</b>	<b>\$30,251</b>	<b>711</b>	<b>\$19,783</b>

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Assumed Probabilities of Separation from Active Membership**

Age	Non-Duty Death	Ordinary Disability	Service Retirement <sup>1</sup>	Duty Death	Duty Disability
<b>General Members – Male</b>					
20	0.0003	0.000	0.000	0.000	0.001
25	0.0003	0.001	0.000	0.000	0.001
30	0.0004	0.001	0.000	0.000	0.001
35	0.0007	0.001	0.000	0.000	0.001
40	0.0010	0.001	0.000	0.000	0.004
45	0.0014	0.002	0.000	0.000	0.004
50	0.0019	0.002	0.050	0.000	0.002
55	0.0033	0.003	0.050	0.000	0.002
60	0.0052	0.003	0.150	0.000	0.002
65	0.0082	0.004	0.300	0.000	0.002
<b>General Members – Female</b>					
20	0.0002	0.000	0.000	0.000	0.000
25	0.0002	0.001	0.000	0.000	0.000
30	0.0002	0.001	0.000	0.000	0.000
35	0.0004	0.001	0.000	0.000	0.001
40	0.0006	0.001	0.000	0.000	0.001
45	0.0010	0.002	0.000	0.000	0.001
50	0.0015	0.002	0.020	0.000	0.001
55	0.0023	0.003	0.040	0.000	0.002
60	0.0035	0.004	0.100	0.000	0.002
65	0.0063	0.005	0.250	0.000	0.003

<sup>1</sup> Lower rates assumed for members with less than 10 years of service, and higher rates assumed for members with at least 30 years of service.

The probabilities for each cause of separation represent the likelihood that a given member will separate at a particular age for the indicated reason. As an example, if the probability of separation of a male general member at age 20 is 0.036, that indicates that 3.6% of active general members are expected to separate from service during the year.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Assumed Probabilities of Separation from Active Membership**

Age	Non-Duty Death	Ordinary Disability	Service Retirement <sup>1</sup>	Duty Death	Duty Disability
<b>Safety Members – Male</b>					
20	0.0002	0.000	0.000	0.0002	0.000
25	0.0002	0.000	0.000	0.0002	0.001
30	0.0002	0.000	0.000	0.0002	0.001
35	0.0004	0.000	0.000	0.0002	0.002
40	0.0006	0.000	0.000	0.0003	0.004
45	0.0009	0.001	0.050	0.0004	0.008
50	0.0014	0.001	0.150	0.0005	0.014
55	0.0026	0.002	0.300	0.0007	0.023
<b>Safety Members – Female</b>					
20	0.0001	0.000	0.000	0.0001	0.000
25	0.0001	0.000	0.000	0.0001	0.001
30	0.0001	0.000	0.000	0.0001	0.001
35	0.0002	0.000	0.000	0.0002	0.002
40	0.0003	0.000	0.000	0.0003	0.004
45	0.0006	0.001	0.050	0.0004	0.008
50	0.0010	0.003	0.150	0.0005	0.014
55	0.0017	0.005	0.300	0.0006	0.023

<sup>1</sup> Lower rates assumed for members with less than 20 years of service.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX A**  
**MEMBERSHIP INFORMATION**

**Salary Increase, Termination and Withdrawal Assumptions**

<b>Years of Service</b>	<b>Salary Increase: General</b>	<b>Salary Increase: Safety</b>	<b>Withdrawal: General</b>	<b>Withdrawal: Safety</b>	<b>Termination: General</b>	<b>Termination: Safety</b>
0	0.0724	0.0824	0.064	0.018	0.064	0.070
1	0.0724	0.0824	0.050	0.016	0.050	0.062
2	0.0724	0.0824	0.050	0.012	0.050	0.046
3	0.0724	0.0824	0.039	0.006	0.039	0.022
4	0.0724	0.0824	0.024	0.006	0.024	0.022
5	0.0424	0.0524	0.016	0.002	0.029	0.018
6	0.0424	0.0524	0.016	0.002	0.029	0.018
7	0.0424	0.0524	0.016	0.002	0.029	0.018
8	0.0424	0.0524	0.013	0.002	0.024	0.018
9	0.0424	0.0524	0.011	0.002	0.020	0.018
10	0.0424	0.0524	0.007	0.001	0.013	0.009
11	0.0424	0.0524	0.007	0.001	0.013	0.009
12	0.0424	0.0524	0.007	0.001	0.013	0.009
13	0.0424	0.0524	0.007	0.001	0.013	0.009
14	0.0424	0.0524	0.007	0.001	0.013	0.009
15	0.0424	0.0524	0.000	0.000	0.020	0.010
16	0.0424	0.0524	0.000	0.000	0.020	0.010
17	0.0424	0.0524	0.000	0.000	0.020	0.010
18	0.0424	0.0524	0.000	0.000	0.020	0.010
19	0.0424	0.0524	0.000	0.000	0.020	0.010
20	0.0424	0.0524	0.000	0.000	0.010	0.000
21	0.0424	0.0524	0.000	0.000	0.010	0.000
22	0.0424	0.0524	0.000	0.000	0.010	0.000
23	0.0424	0.0524	0.000	0.000	0.010	0.000
24	0.0424	0.0524	0.000	0.000	0.010	0.000
25	0.0424	0.0524	0.000	0.000	0.010	0.000
26	0.0424	0.0524	0.000	0.000	0.010	0.000
27	0.0424	0.0524	0.000	0.000	0.010	0.000
28	0.0424	0.0524	0.000	0.000	0.010	0.000
29	0.0424	0.0524	0.000	0.000	0.010	0.000
30+	0.0325	0.0524	0.000	0.000	0.000	0.000

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX B**  
**STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS**

The assumptions and methods used in the actuarial valuation as of January 1, 2014 are:

**Actuarial Assumptions**

**1. Rate of Return**

Assets are assumed to earn 7.50% net of investment expenses.

**2. Cost of Living**

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.00% per year.

**3. Post Retirement COLA**

Benefits are assumed to increase after retirement at the rate of 2.6% per year.

**4. Increases in Pay**

Assumed pay increases for active Members consist of increases due to base salary adjustments plus service-based increase due to longevity and promotion, as shown below:

<b>Pay Increases</b>			
	<b>Years of Service</b>		
	<5	5-29	30+
<b>Base Increase</b>	3.25%	3.25%	3.25%
<b>Longevity &amp; Promotion</b>			
<b>General</b>	3.86%	0.96%	0.00%
<b>Safety</b>	4.83%	1.93%	1.93%
<b>Total (Compound)</b>			
<b>General</b>	7.24%	4.24%	3.25%
<b>Safety</b>	8.24%	5.24%	5.24%

**5. Family Composition**

Percentage married for all active members who retire, become disabled, or die during active service is shown in the following table. Women are assumed to be three years younger than men.

<b>Percentage Married</b>	
<b>Gender</b>	<b>Percentage</b>
Males	70%
Females	50%

**APPENDIX B  
STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS**

**6. Rates of Termination**

Sample rates of termination are show in the following table.

<b>Rates of Termination*</b>		
<b>Years of Service</b>	<b>General</b>	<b>Safety</b>
0	12.75%	8.75%
1	10.00%	7.75%
2	10.00%	5.75%
3	7.75%	2.75%
4	4.75%	2.75%
5	4.50%	2.00%
6	4.50%	2.00%
7	4.50%	2.00%
8	3.75%	2.00%
9	3.00%	2.00%
10-19	2.00%	1.00%
20-29	1.00%	0.00%
30+	0.00%	0.00%

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

**7. Withdrawal**

Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits.

50% of all General Member terminations with less than five years of service are assumed to take a refund of contributions, as well as 35% of those with five to fourteen years of service.

20% of all Safety Member terminations with less than five years of service are assumed to take a refund of contributions and 10% of those between five and fourteen years are assumed to take a refund.

**8. Vested Termination and Reciprocal Transfers**

Rates of vested termination apply to active Members who terminate their employment and leave their member contributions on deposit with the Plan.

50% of all General Member terminations with less than five years of service are assumed to leave their contributions on deposit, as well as 65% of those with five to fourteen years of service, and 100% of those with fifteen or more years of service.

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX B  
STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS**

80% of all Safety Member terminations with less than five years of service are assumed to leave their contributions on deposit, as well as 90% of those between five and fourteen years of service and 100% of those with fifteen or more years of service.

Vested terminated General Members are assumed to begin receiving benefits at age 58; terminated Safety Members are assumed to begin receiving benefits at age 53.

25% of vested terminated General Members and 50% of vested terminated Safety Members are assumed to be reciprocal.

Final average pay for General Members who terminate with reciprocity is assumed to increase by 4.25% per year until their assumed retirement date. Final average pay for Safety Members who terminate with reciprocity is assumed to increase by 5.25% per year until their assumed retirement date.

**9. Rates of Service-Connected Disability**

Sample service-connected disability rates of active participants are provided in the table below.

<b>Rates of Svc Disability</b>			
	<b>General General</b>		
<b>Age</b>	<b>Male</b>	<b>Female</b>	<b>Safety</b>
22	0.066%	0.022%	0.050%
27	0.066%	0.030%	0.088%
32	0.066%	0.051%	0.165%
37	0.066%	0.073%	0.302%
42	0.380%	0.094%	0.566%
47	0.380%	0.123%	0.995%
52	0.226%	0.159%	1.713%
57	0.226%	0.204%	2.633%
62	0.226%	0.249%	0.000%

**APPENDIX B  
STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS**

**10. Rates of Nonservice-Connected Disability**

Sample nonservice-connected disability rates of active participants are provided in the table below.

<b>Rates of Non-Svc Disability</b>				
<b>Age</b>	<b>General Male</b>	<b>General Female</b>	<b>Safety Male</b>	<b>Safety Female</b>
22	0.051%	0.053%	0.000%	0.000%
27	0.068%	0.067%	0.003%	0.006%
32	0.086%	0.081%	0.005%	0.010%
37	0.108%	0.102%	0.009%	0.019%
42	0.138%	0.138%	0.028%	0.057%
47	0.178%	0.197%	0.082%	0.164%
52	0.225%	0.267%	0.167%	0.334%
57	0.286%	0.337%	0.265%	0.529%
62	0.362%	0.408%	0.000%	0.000%

**11. Rates of Mortality for Healthy Lives**

Mortality rates for active members, retirees, beneficiaries, terminated vested, and reciprocal members are based on the sex distinct Retired Pensioner (RP) 2000 Combined Healthy Tables, published by the Society of Actuaries, with Generational Projection using Projection Scale BB.

**12. Rates of Mortality for Disabled Retirees**

Mortality rates for active members, retirees, beneficiaries, terminated vested, and reciprocal members are based on the sex distinct Retired Pensioner (RP) 2000 Combined Healthy Tables, published by the Society of Actuaries, with Generational Projection using Projection Scale BB, set-forward eight years for males and females.



SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX B**  
**STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS**

**13. Rates of Retirement**

Rates of retirement are based on age according to the following table.

<b>Rates of Retirement</b>								
<b>Age</b>	<b>General Male Years of Service</b>			<b>General Female Years of Service</b>			<b>Safety Years of Service</b>	
	<b>5-9</b>	<b>10-29</b>	<b>30+</b>	<b>5-9</b>	<b>10-29</b>	<b>30+</b>	<b>10-29</b>	<b>20+</b>
45	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%
46	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%
47	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%
48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%
50	5.00%	5.00%	5.00%	5.00%	2.00%	7.00%	10.00%	15.00%
51	5.00%	5.00%	5.00%	5.00%	2.00%	7.00%	5.00%	10.00%
52	5.00%	5.00%	5.00%	5.00%	2.00%	7.00%	5.00%	10.00%
53	5.00%	5.00%	5.00%	5.00%	2.00%	7.00%	5.00%	20.00%
54	5.00%	5.00%	5.00%	5.00%	3.00%	7.00%	5.00%	20.00%
55	5.00%	5.00%	15.00%	5.00%	4.00%	15.00%	5.00%	30.00%
56	5.00%	5.00%	15.00%	5.00%	7.00%	15.00%	5.00%	20.00%
57	5.00%	5.00%	15.00%	5.00%	7.00%	15.00%	5.00%	20.00%
58	5.00%	7.50%	20.00%	5.00%	10.00%	20.00%	5.00%	20.00%
59	5.00%	7.50%	25.00%	5.00%	10.00%	25.00%	5.00%	20.00%
60	7.50%	15.00%	25.00%	7.50%	10.00%	25.00%	5.00%	20.00%
61	7.50%	20.00%	35.00%	7.50%	15.00%	35.00%	25.00%	25.00%
62	7.50%	25.00%	40.00%	7.50%	25.00%	35.00%	25.00%	50.00%
63	7.50%	25.00%	35.00%	7.50%	25.00%	35.00%	25.00%	50.00%
64	7.50%	25.00%	35.00%	7.50%	25.00%	35.00%	25.00%	50.00%
65	15.00%	30.00%	50.00%	15.00%	25.00%	50.00%	100.00%	100.00%
66	15.00%	30.00%	50.00%	15.00%	25.00%	50.00%	100.00%	100.00%
67	15.00%	30.00%	40.00%	15.00%	35.00%	40.00%	100.00%	100.00%
68	15.00%	30.00%	30.00%	15.00%	35.00%	30.00%	100.00%	100.00%
69	15.00%	30.00%	30.00%	15.00%	35.00%	30.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**A. Definitions**

**Compensation:** Compensation means the cash remuneration for services paid by the employer. It includes base pay and certain differential, incentive, and special pay allowances defined by the Board of Retirement. Overtime is excluded, with the exception of overtime paid under the Fair Labor Standards Act that is regular and recurring.

PEPRA: For members joining the Plan on and after January 1, 2013 (Tier II Members), only pensionable compensation up to the Social Security Taxable Wage Base (\$117,000 for 2014) will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security. For those not participating in Social Security, the compensation cap is 120% of the Taxable Wage Base (\$140,400 for 2014.) In addition, it is possible that some sources of compensation, such as any payments deemed to be terminal or special pays, may be excluded from benefit and contribution computations for Tier II Members.

**Credited Service:** In general, Credited Service is earned for the period during which Member Contributions are paid.

Temporary service for which the Member was not credited, or service for which the Member withdrew his or her Member Contributions, may be purchased by paying or repaying the Member Contributions with interest. Credit for up to 12 months of a medical leave of absence and all military leaves of absence may also be purchased.

Public Service (see below) is part of Credited Service for the computation of benefits only, not for eligibility for benefits or for vesting.

**Final**

**Compensation:** Final Compensation means the highest average Compensation earned during any 12 consecutive months of the Member's employment.

PEPRA: For Tier II Members, highest average Compensation will be based on the highest 36 consecutive months, rather than 12 months.

**General Member:** Any Member who is not a Safety Member is a General Member.

**Public Service:** The Member may elect to purchase Public Service for time spent while employed in another recognized public agency. The public agency must have a reciprocal agreement with the Plan or be one of several specified municipalities, counties, special districts, or State or Federal agencies.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

Public Service cannot be purchased if it is used for eligibility for another pension.

The cost to purchase Public Service is twice the Member Contributions and interest applicable for the period of time purchased. Public Service is used to compute benefits, but does not count toward eligibility for benefits or vesting.

Safety Member: Any sworn Member engaged in law enforcement, probation, or fire suppression is a Safety Member.

**B. Membership**

Eligibility: All full-time, permanent employees of San Joaquin County and other participating special districts become Members on their date of appointment. Membership is mandatory; only elected officials and members who are age 60 or older at the time of employment in a position requiring membership in SJCERA may choose not to participate.

PEPRA: A New Member is any Member joining the Plan for the first time on or after January 1, 2013. Employees who transfer from and are eligible for reciprocity with another public employer will not be Tier II Members if their service in the reciprocal system was under a pre-PEPRA tier. Employees who were Members of SJCERA prior to January 1, 2013 and experienced a break in service of more than six months and then were reemployed by a *different* SJCERA-participating employer on or after January 1, 2013 will be considered Tier II Members for all subsequent service.

Member

Contributions: Each Member contributes a percentage of Compensation to the Plan through payroll deduction. The percentage contributed depends on the Member's age upon joining the Plan. Representative rates are shown in Table 1 on the next page (complete rate tables in appendix).

Members covered by Social Security have their contributions reduced by one-third on the first \$161.54 of biweekly Compensation. General Members who joined the Plan prior to March 7, 1973 and who have earned 30 years of Credited Service do not contribute; Safety Members do not contribute after earning 30 years of Credited Service.

APPENDIX C  
 SUMMARY OF PLAN PROVISIONS

**Table 1: Tier I Member Contribution Rates (Basic Rates)**

Entry Age	General Member Rate		Safety Member Rate	
	1 <sup>st</sup> \$350/month	Over \$350	1 <sup>st</sup> \$350/month	Over \$350
20	1.83%	2.74%	3.00%	4.50%
25	2.07%	3.11%	3.19%	4.78%
30	2.27%	3.40%	3.39%	5.08%
35	2.48%	3.72%	3.61%	5.41%
40	2.71%	4.07%	3.86%	5.79%
45	2.99%	4.48%	4.13%	6.20%
50	3.27%	4.91%	4.07%	6.11%

PEPRA: Tier II Members must contribute half of the normal cost of the Plan. Contributions for these Members will be based on the Normal Cost associated with their benefits; General and Safety members will pay different rates.

Tier II Members will pay a single contribution rate, not a rate based on entry age. All Tier II Members are expected to continue contributing after earning 30 years of service.

**Table 2: Tier II Member Contribution Rates**

General Member Rate	Safety Member Rate
9.38%	15.59%

Interest is credited semiannually to each Member's accumulated contributions. The crediting rate is set by the Board; the semi-annual rate is 3.68%, for an effective annual rate of 7.50%. The annual crediting rate was 7.75% during 2013.

**C. Service Retirement:**

Eligibility: General Members are eligible to retire at age 50 if they have earned five years of Credited Service and have passed the tenth anniversary of their membership in the Plan. Alternatively, General Members are eligible to retire at any age after having earned 30 years of Credited Service, or upon reaching age 70 with no service requirement.

Safety Members are eligible to retire at age 50 if they have earned five years of Credited Service and have passed the tenth anniversary of their membership in the Plan. Alternatively, Safety Members are eligible to retire at any age after having earned 20 years of Credited Service.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

PEPRA: Tier II General Members are eligible to retire upon attaining age 52 and completing five or more years of service. Tier II Safety Members are eligible to retire upon attaining age 50 and completing five or more years of service. Tier II Members are eligible to retire, regardless of service, after attaining age 70.

**Benefit Amount:** The Service Retirement Benefit payable to General Members is equal to the percentage in Table 3 below multiplied by the Member's Final Compensation. The Service Retirement Benefit payable to Safety Members is equal to the percentage in Table 4 below multiplied by the Member's Final Compensation. The percentage of Final Compensation may not exceed 100%.

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX C  
SUMMARY OF PLAN PROVISIONS**

**Table 3: General Members (CERL Section 31676.14)**

Service	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
10					14.75	15.67	16.67	17.41	18.41	19.48	20.61	21.82	22.68	23.54	24.40	25.26	26.11	26.11	26.11	26.11
11					16.23	17.23	18.33	19.15	20.25	21.42	22.67	24.00	24.95	25.89	26.84	27.78	28.72	28.72	28.72	28.72
12					17.70	18.80	20.00	20.89	22.10	23.37	24.73	26.19	27.22	28.25	29.28	30.31	31.34	31.34	31.34	31.34
13					19.18	20.36	21.67	22.64	23.94	25.32	26.79	28.37	29.48	30.60	31.72	32.83	33.95	33.95	33.95	33.95
14					20.65	21.93	23.33	24.38	25.78	27.27	28.85	30.55	31.75	32.95	34.16	35.36	36.56	36.56	36.56	36.56
15					22.13	23.50	25.00	26.12	27.62	29.22	30.91	32.73	34.02	35.31	36.60	37.88	39.17	39.17	39.17	39.17
16					23.60	25.06	26.67	27.86	29.46	31.16	32.97	34.92	36.29	37.66	39.04	40.41	41.78	41.78	41.78	41.78
17					25.08	26.63	28.33	29.60	31.30	33.11	35.03	37.10	38.56	40.01	41.47	42.93	44.39	44.39	44.39	44.39
18					26.55	28.20	30.00	31.34	33.14	35.06	37.09	39.28	40.82	42.37	43.91	45.46	47.00	47.00	47.00	47.00
19					28.03	29.76	31.67	33.08	34.98	37.01	39.16	41.46	43.09	44.72	46.35	47.98	49.61	49.61	49.61	49.61
20					29.50	31.33	33.33	34.82	36.83	38.95	41.22	43.64	45.36	47.08	48.79	50.51	52.23	52.23	52.23	52.23
21					30.98	32.90	35.00	36.57	38.67	40.90	43.28	45.83	47.63	49.43	51.23	53.04	54.84	54.84	54.84	54.84
22					32.45	34.46	36.67	38.31	40.51	42.85	45.34	48.01	49.90	51.78	53.67	55.56	57.45	57.45	57.45	57.45
23					33.93	36.03	38.33	40.05	42.35	44.80	47.40	50.19	52.16	54.14	56.11	58.09	60.06	60.06	60.06	60.06
24					35.40	37.60	40.00	41.79	44.19	46.74	49.46	52.37	54.43	56.49	58.55	60.61	62.67	62.67	62.67	62.67
25					36.88	39.16	41.67	43.53	46.03	48.69	51.52	54.56	56.70	58.85	60.99	63.14	65.28	65.28	65.28	65.28
26					38.35	40.73	43.33	45.27	47.87	50.64	53.58	56.74	58.97	61.20	63.43	65.66	67.89	67.89	67.89	67.89
27					39.83	42.30	45.00	47.01	49.72	52.59	55.64	58.92	61.24	63.55	65.87	68.19	70.51	70.51	70.51	70.51
28					41.30	43.86	46.67	48.75	51.56	54.54	57.70	61.10	63.50	65.91	68.31	70.71	73.12	73.12	73.12	73.12
29					42.78	45.43	48.33	50.49	53.40	56.48	59.76	63.28	65.77	68.26	70.75	73.24	75.73	75.73	75.73	75.73
30	35.28	37.27	39.41	41.73	44.25	47.00	50.00	52.24	55.24	58.43	61.82	65.47	68.04	70.61	73.19	75.77	78.34	78.34	78.34	78.34
31		38.51	40.72	43.12	45.73	48.56	51.67	53.98	57.08	60.38	63.88	67.65	70.31	72.97	75.63	78.29	80.95	80.95	80.95	80.95
32			42.04	44.51	47.20	50.13	53.33	55.72	58.92	62.33	65.95	69.83	72.58	75.32	78.07	80.82	83.56	83.56	83.56	83.56
33				45.90	48.68	51.69	55.00	57.46	60.76	64.27	68.01	72.01	74.84	77.68	80.51	83.34	86.17	86.17	86.17	86.17
34					50.15	53.26	56.67	59.20	62.60	66.22	70.07	74.19	77.11	80.03	82.95	85.87	88.78	88.78	88.78	88.78
35						54.83	58.33	60.94	64.45	68.17	72.13	76.38	79.38	82.38	85.39	88.39	91.40	91.40	91.40	91.40
36							60.00	62.68	66.29	70.12	74.19	78.56	81.65	84.74	87.83	90.92	94.01	94.01	94.01	94.01
37								64.42	68.13	72.06	76.25	80.74	83.92	87.09	90.27	93.44	96.62	96.62	96.62	96.62
38									69.97	74.01	78.31	82.92	86.18	89.44	92.71	95.97	99.23	99.23	99.23	99.23
39										75.96	80.37	85.11	88.45	91.80	95.15	98.49	100	100	100	100
40											82.43	87.29	90.72	94.15	97.59	100				
41												89.47	92.99	96.51	100					
42													95.26	98.86						
43														100						

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX C  
SUMMARY OF PLAN PROVISIONS**

**Table 4: Safety Members (CERL Section 31664.1)**

Service	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
10										30.00	30.00	30.00	30.00	30.00	30.00
11										33.00	33.00	33.00	33.00	33.00	33.00
12										36.00	36.00	36.00	36.00	36.00	36.00
13										39.00	39.00	39.00	39.00	39.00	39.00
14										42.00	42.00	42.00	42.00	42.00	42.00
15										45.00	45.00	45.00	45.00	45.00	45.00
16										48.00	48.00	48.00	48.00	48.00	48.00
17										51.00	51.00	51.00	51.00	51.00	51.00
18										54.00	54.00	54.00	54.00	54.00	54.00
19										57.00	57.00	57.00	57.00	57.00	57.00
20	37.55	39.75	42.02	44.38	46.83	49.36	52.07	54.51	57.13	60.00	60.00	60.00	60.00	60.00	60.00
21		41.74	44.13	46.6	49.17	51.82	54.67	57.24	59.99	63.00	63.00	63.00	63.00	63.00	63.00
22			46.23	48.82	51.51	54.29	57.27	59.96	62.85	66.00	66.00	66.00	66.00	66.00	66.00
23				51.04	53.85	56.76	59.88	62.69	65.7	69.00	69.00	69.00	69.00	69.00	69.00
24					56.2	59.23	62.48	65.41	68.56	72.00	72.00	72.00	72.00	72.00	72.00
25						61.7	65.09	68.14	71.42	75.00	75.00	75.00	75.00	75.00	75.00
26							67.69	70.86	74.27	78.00	78.00	78.00	78.00	78.00	78.00
27								73.59	77.13	81.00	81.00	81.00	81.00	81.00	81.00
28									79.98	84.00	84.00	84.00	84.00	84.00	84.00
29										87.00	87.00	87.00	87.00	87.00	87.00
30										90.00	90.00	90.00	90.00	90.00	90.00
31										93.00	93.00	93.00	93.00	93.00	93.00
32										96.00	96.00	96.00	96.00	96.00	96.00
33										99.00	99.00	99.00	99.00	99.00	99.00
34										100.00	100.00	100.00	100.00	100.00	100.00
35											100.00	100.00	100.00	100.00	100.00
36												100.00	100.00	100.00	100.00
37													100.00	100.00	100.00
38														100.00	100.00
39															100.00

APPENDIX C  
 SUMMARY OF PLAN PROVISIONS

**Table 5: Social Security Adjustment**

<b>Age at Retirement</b>	<b>General Member Reduction</b>	<b>Safety Member Reduction</b>
46	\$1.372	\$2.879
47	\$1.449	\$3.037
48	\$1.533	\$3.180
49	\$1.623	\$3.333
50	\$1.721	\$3.500
51	\$1.828	\$3.500
52	\$1.944	\$3.500
53	\$2.031	\$3.500
54	\$2.148	\$3.500
55	\$2.272	\$3.500
56	\$2.404	\$3.500
57	\$2.546	\$3.500
58	\$2.646	\$3.500
59	\$2.746	\$3.500
60	\$2.846	\$3.500
61	\$2.946	\$3.500
62	\$3.046	\$3.500
63	\$3.046	\$3.500
64	\$3.046	\$3.500
65	\$3.046	\$3.500

PEPRA: For Tier II General Members, the benefit multiplier is 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. For Tier II Safety Members, the benefit multiplier is 2% at age 50, increasing by 0.1% for each year of age to 2.7% at age 57. In between exact ages, the multiplier increases by 0.025% for each quarter year increase in age.

Form of Benefit: The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the Member. If the member selects the unmodified benefit form, in the event of the Member's death 60% of the benefit will continue for the life of the Member's spouse, or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.



**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are “banked” and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

PEPRA: No change.

**D. Service-Connected Disability**

**Eligibility:** Members are eligible for Service-Connected Disability Retirement benefits at any age if they are permanently disabled as a result of injuries or illness sustained in the line of duty.

PEPRA: No change.

**Benefit Amount:** The Service-Connected Disability Retirement Benefit payable to Members is equal to the greater of 50% of their Final Compensation or – if the Member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member’s total income up to the current pay for his or her position at the time of disability. The Supplemental Disability Allowance may not exceed the Service-Connected Disability Retirement benefit.

PEPRA: No change.

**Form of Benefit:** The Service-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the Member; in the event of the Member’s death, 100% of the benefit will continue for the life of the Member’s spouse, or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member’s accumulated contributions will be paid to the Member’s designated beneficiary.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

**E. Nonservice-Connected Disability**

**Eligibility:** Members are eligible for Nonservice-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service or after becoming eligible for a deferred vested benefit.

PEPRA: No change.

**Benefit Amount:** The Nonservice-Connected Disability Retirement Benefit payable to General Members is equal to the greatest of:

- 1.5% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.5% of Final Compensation at disability multiplied by years of Credited Service projected to age 65, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Safety Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 55, but not to exceed one-third of Final Compensation; or

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member's total income up to the current pay for his or her position at the time of disability. The Supplemental Disability Allowance may not exceed the Nonservice-Connected Disability Retirement benefit.

PEPRA: The Nonservice-Connected Disability Retirement Benefit for Tier II Members will be based on the definitions of Pensionable Compensation and Final Compensation applicable to Tier II Members.

Form of Benefit: The Nonservice-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement, and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

**F. Service-Connected Death**

Eligibility: A Member's survivors are eligible to receive Service-Connected Death benefits if the Member's death resulted from injury or illness sustained in connection with the Member's duties.

PEPRA: No change.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**Benefit Amount:** The Service-Connected Death benefit payable to a surviving spouse or minor children will be 50% of the Member's Final Compensation.

In the event the Member's death was caused by external violence or physical force, an additional benefit of 25% of the above basic benefit will be paid for the first minor child, 15% for the second, and 10% for the third.

Furthermore, for Safety Members only, there will be an additional lump sum benefit of 12 months of pay at the time of death.

PEPRA: The Service-Connected Death Benefit for Tier II Members will be based on the definitions of Pensionable Compensation and Final Compensation applicable to Tier II Members.

**Form of Benefit:** The Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

**G. Nonservice-Connected Death**

**Eligibility:** A Member's survivors are eligible to receive Nonservice-Connected Death benefits if the Member's death arose from causes unrelated to the Member's duties.

PEPRA: No change.

**Benefit Amount:** In the event the Member had earned fewer than five years of Credited Service and has no or insufficient reciprocity service from another system, the Nonservice-Connected Death benefit will be a refund of the Member's accumulated contributions with interest plus a payment of one month of Final Compensation for each year of Credited Service, not to exceed six months.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

In the event the Member had earned five or more years of Credited Service, the Nonservice-Connected Death benefit payable to a surviving spouse or minor children will be 60% of the amount the Member would have received as a Nonservice-Connected Disability Retirement Benefit on the date of death.

PEPRA: The Nonservice-Connected Death Benefit for Tier II Members will be based on the definitions of Pensionable Compensation and Final Compensation applicable to Tier II Members.

Form of Benefit: For Members who had earned fewer than five years of Credited Service at death, the benefit will be paid as a lump sum.

For Members with five or more years of Credited Service, the Nonservice-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

**H. Withdrawal Benefit:**

Eligibility: A Member is eligible for a Withdrawal Benefit upon termination of employment.

Benefit Amount: The Withdrawal Benefit is a refund of the Member's accumulated Contributions with interest. Upon receipt of the Withdrawal Benefit the Member forfeits all Credited Service.

Form of Benefit: The Withdrawal Benefit is paid in a lump sum upon election by the Member.

**I. Deferred Vested Benefit:**

Eligibility: A Member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service, including reciprocity service from another system. The Member must leave his or her Member Contributions with interest on deposit with the Plan.

**APPENDIX C**  
**SUMMARY OF PLAN PROVISIONS**

**Benefit Amount:** The Deferred Vested Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service and Final Compensation on the date of termination.

Tables 2 and 3 are extended for service under ten years using benefit multipliers of one-sixtieth per year of Credited Service at age 52 (General) or 3% per year of Credited Service at age 50 (Safety), with adjustments for earlier or later retirement under Sections 31676.14 and 31664.1, respectively, of the County Employees Retirement Law of 1937.

PEPRA: For Tier II Members, the Deferred Vested Benefit will be based on the new benefit formulas, and will be based on the definitions of Pensionable Compensation and Final Compensation applicable to Tier II Members.

**Form of Benefit:** The Deferred Vested Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

PEPRA: For Tier II Members, the Deferred Vested Benefit may commence at the service retirement eligibility criteria (age 52 for General, age 50 for Safety.)

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

APPENDIX C  
SUMMARY OF PLAN PROVISIONS

**J. Reciprocal Benefit:**

**Eligibility:** A Member is eligible for a Reciprocal Benefit upon termination of employment and entry, within a specified period of time, into another retirement system recognized as a reciprocal system by the Plan. In addition, the Member must leave his or her Member Contributions with interest on deposit with the Plan.

**Benefit Amount:** The Reciprocal Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service on the date of termination and Final Compensation on the date of retirement; Final Compensation is based on the highest of the Compensation earned under this Plan or the reciprocal plan.

PEPRA: For Tier II Members, the Reciprocal Benefit will be based on the new benefit formulas, and will be based on the definitions of Pensionable Compensation and Final Compensation applicable to Tier II Members.

**Form of Benefit:** The Reciprocal Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

PEPRA: For Tier II Members, the Reciprocal Benefit may commence at the service retirement eligibility criteria (age 52 for General, age 50 for Safety.)

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are adjusted to reflect changes in the CPI for the San Francisco Bay Area. Annual adjustments may not exceed 3%, but changes in CPI in excess of 3% are "banked" and used for future adjustments when changes in CPI are less than 3%.

In addition, ad hoc cost of living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit may be payable upon the death of a retired Member by the last system under which the Member's service was covered.

**SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014**

**APPENDIX D  
401(H) REPAYMENT SCHEDULE**

As of January 1, 2014 a separate amortization layer was established for the repayment of funds originally transferred to a retiree health reserve. This schedule was prepared in compliance with an approved Voluntary Correction Program that SJCERA submitted to the IRS. The original balance of the amortization layer (\$48.0 million) is being amortized using the same methodology and assumptions as the UAL - as a level percentage of payroll over a 19 year period - after an initial payment of \$19.8 million.

<b>Date</b>	<b>Outstanding Balance</b>	<b>Years Remaining</b>	<b>Initial Payment</b>	<b>End of Year Payment</b>
1/1/2014	\$48,000,000	19	\$19,800,000	\$2,238,831
1/1/2015	\$28,076,169	18		\$2,311,593
1/1/2016	\$27,870,288	17		\$2,386,720
1/1/2017	\$27,573,839	16		\$2,464,289
1/1/2018	\$27,177,588	15		\$2,544,378
1/1/2019	\$26,671,529	14		\$2,627,070
1/1/2020	\$26,044,824	13		\$2,712,450
1/1/2021	\$25,285,736	12		\$2,800,605
1/1/2022	\$24,381,561	11		\$2,891,624
1/1/2023	\$23,318,554	10		\$2,985,602
1/1/2024	\$22,081,843	9		\$3,082,634
1/1/2025	\$20,655,347	8		\$3,182,820
1/1/2026	\$19,021,678	7		\$3,286,262
1/1/2027	\$17,162,042	6		\$3,393,065
1/1/2028	\$15,056,131	5		\$3,503,340
1/1/2029	\$12,682,001	4		\$3,617,198
1/1/2030	\$10,015,953	3		\$3,734,757
1/1/2031	\$7,032,392	2		\$3,856,137
1/1/2032	\$3,703,685	1		\$3,981,461
1/1/2033	\$0	0		\$4,110,859



**APPENDIX E  
GLOSSARY**

**1. Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

**2. Actuarial Cost Method**

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

**3. Actuarial Gain (Loss)**

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

**4. Actuarial Liability**

The portion of the Actuarial Present Value of Projected Benefits which will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

**5. Actuarial Present Value (Present Value)**

The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

**6. Actuarial Valuation**

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

**APPENDIX E  
GLOSSARY**

**7. Actuarial Value of Assets**

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

**8. Actuarially Equivalent**

Of equal Actuarial Present Value, determined as of a given date, with each value based on the same set of actuarial assumptions.

**9. Amortization Payment**

The portion of the pension plan contribution which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

**10. Entry Age Normal Actuarial Cost Method**

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

**11. Funded Ratio**

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

**12. Normal Cost**

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

**13. Projected Benefits**

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as increases in future compensation and service credits.

**14. Unfunded Actuarial Liability**

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

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX F  
GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES**

**Tier I Contribution Rates for General and Safety (no COLA Cost-Sharing)**

Separate rates for General and Safety members are shown below. These rates are applicable for employment groups that have not implemented equal sharing of the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873.

As of January 1, 2013				As of January 1, 2014			
	General	Safety	Total		General	Safety	Total
<b>Employer Normal Cost</b>				<b>Employer Normal Cost</b>			
Basic	12.54%	21.68%	14.17%	Basic	12.38%	21.50%	14.06%
COL	4.44%	8.33%	5.13%	COL	4.83%	8.90%	5.58%
Total	16.98%	30.01%	19.30%	Total	17.21%	30.40%	19.64%
<b>UAL Amortization Cost</b>				<b>UAL Amortization Cost</b>			
Basic	15.17%	28.15%	17.45%	Basic	15.80%	29.30%	18.25%
COL	1.75%	4.17%	2.18%	COL	4.29%	9.10%	5.17%
Total	16.92%	32.32%	19.63%	Total	20.09%	38.40%	23.42%
<b>Total Cost</b>				<b>Total Cost</b>			
Basic	27.71%	49.83%	31.62%	Basic	28.18%	50.80%	32.31%
COL	6.19%	12.50%	7.31%	COL	9.12%	18.00%	10.75%
Total	33.90%	62.33%	38.93%	Total	37.30%	68.80%	43.06%

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX F  
GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES**

**Tier I Contribution Rates for General and Safety (Employer Cost with additional 14% / 33% Normal Rates by members without COLA Cost-sharing)**

Separate rates for General and Safety members contributing an additional 14% / 33% of Normal Rates are shown below.

As of January 1, 2013				As of January 1, 2014			
	General	Safety	Total		General	Safety	Total
<b>Employer Normal Cost</b>				<b>Employer Normal Cost</b>			
Basic	12.07%	20.27%	13.54%	Basic	11.91%	20.02%	13.40%
COL	4.44%	8.33%	5.13%	COL	4.83%	8.90%	5.58%
Total	16.51%	28.60%	18.67%	Total	16.74%	28.92%	18.98%
<b>UAL Amortization Cost</b>				<b>UAL Amortization Cost</b>			
Basic	15.17%	28.15%	17.49%	Basic	15.80%	29.30%	18.25%
COL	1.75%	4.17%	2.18%	COL	4.29%	9.10%	5.17%
Total	16.92%	32.32%	19.67%	Total	20.09%	38.40%	23.42%
<b>Total Cost</b>				<b>Total Cost</b>			
Basic	27.24%	48.42%	31.02%	Basic	27.71%	49.32%	31.65%
COL	6.19%	12.50%	7.32%	COL	9.12%	18.00%	10.75%
Total	33.43%	60.92%	38.34%	Total	36.83%	67.32%	42.40%

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX F  
GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES**

**Tier I Contribution Rates for General and Safety (with COLA Cost-sharing)**

Separate rates for General and Safety members contributing Normal Rates plus COLA Cost-sharing are shown below.

As of January 1, 2013				As of January 1, 2014			
	General	Safety	Total		General	Safety	Total
<b>Employer Normal Cost</b>				<b>Employer Normal Cost</b>			
Basic	12.54%	21.68%	14.17%	Basic	12.38%	21.50%	14.06%
COL	2.35%	4.57%	2.75%	COL	2.64%	4.70%	3.02%
Total	14.89%	26.25%	16.92%	Total	15.02%	26.20%	17.08%
<b>UAL Amortization Cost</b>				<b>UAL Amortization Cost</b>			
Basic	15.17%	28.15%	17.49%	Basic	15.80%	29.30%	18.25%
COL	1.75%	4.17%	2.18%	COL	4.29%	9.10%	5.17%
Total	16.92%	32.32%	19.67%	Total	20.09%	38.40%	23.42%
<b>Total Cost</b>				<b>Total Cost</b>			
Basic	27.71%	49.83%	31.66%	Basic	28.18%	50.80%	32.31%
COL	4.10%	8.74%	4.93%	COL	6.93%	13.80%	8.19%
Total	31.81%	58.57%	36.58%	Total	35.11%	64.60%	40.50%

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX F  
GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES**

**Tier I Contribution Rates for General and Safety (Employer Cost with additional 14% / 33% Normal Rates by members and COLA Cost-sharing)**

Separate rates for General and Safety members contributing an additional 14% / 33% of Normal Rates and COLA Cost-sharing are shown below.

As of January 1, 2013				As of January 1, 2014			
	General	Safety	Total		General	Safety	Total
<b>Employer Normal Cost</b>				<b>Employer Normal Cost</b>			
Basic	12.07%	20.27%	13.54%	Basic	11.91%	20.02%	13.40%
COL	2.35%	4.57%	2.75%	COL	2.64%	4.70%	3.02%
Total	14.42%	24.84%	16.28%	Total	14.55%	24.72%	16.42%
<b>UAL Amortization Cost</b>				<b>UAL Amortization Cost</b>			
Basic	15.17%	28.15%	17.49%	Basic	15.80%	29.30%	18.25%
COL	1.75%	4.17%	2.18%	COL	4.29%	9.10%	5.17%
Total	16.92%	32.32%	19.67%	Total	20.09%	38.40%	23.42%
<b>Total Cost</b>				<b>Total Cost</b>			
Basic	27.24%	48.42%	31.02%	Basic	27.71%	49.32%	31.65%
COL	4.10%	8.74%	4.93%	COL	6.93%	13.80%	8.19%
Total	31.34%	57.16%	35.95%	Total	34.64%	63.12%	39.84%

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX F  
GENERAL AND SAFETY EMPLOYER CONTRIBUTION RATES**

**Tier II Contribution Rates for General and Safety (PEPRA Members)**

Separate rates for General and Safety members are shown below. These rates are applicable for employment groups that are subject to Government Code Section 7522.30.

As of January 1, 2013				As of January 1, 2014			
	General	Safety	Total		General	Safety	Total
<b>Employer Normal Cost</b>				<b>Employer Normal Cost</b>			
Basic	6.88%	10.84%	7.59%	Basic	7.28%	11.62%	7.44%
COL	1.94%	3.65%	2.21%	COL	2.10%	3.97%	2.16%
Total	8.82%	14.49%	9.80%	Total	9.38%	15.59%	9.60%
<b>UAL Amortization Cost</b>				<b>UAL Amortization Cost</b>			
Basic	15.17%	28.15%	17.45%	Basic	15.80%	29.30%	16.28%
COL	1.75%	4.17%	2.18%	COL	4.29%	9.10%	4.46%
Total	16.92%	32.32%	19.63%	Total	20.09%	38.40%	20.74%
<b>Total Cost</b>				<b>Total Cost</b>			
Basic	22.05%	38.99%	25.04%	Basic	23.08%	40.92%	23.72%
COL	3.69%	7.82%	4.39%	COL	6.39%	13.07%	6.62%
Total	25.74%	46.81%	29.43%	Total	29.47%	53.99%	30.34%

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX G  
MEMBER CONTRIBUTION RATES**

**General Member Contribution Rates**

**Basic Half Rate (Government Code Section 31621.3)**

Entry Age	<u>Basic Rate</u>		<u>COLA Cost-Sharing Rate<sup>1</sup></u>	
	1st \$350/month	Over \$350	1st \$350/month	Over \$350
16	1.63%	2.45%	1.14%	1.71%
17	1.68%	2.52%	1.14%	1.71%
18	1.73%	2.59%	1.14%	1.71%
19	1.77%	2.66%	1.14%	1.71%
20	1.83%	2.74%	1.14%	1.71%
21	1.87%	2.81%	1.17%	1.76%
22	1.93%	2.89%	1.21%	1.82%
23	1.98%	2.97%	1.25%	1.87%
24	2.03%	3.05%	1.29%	1.93%
25	2.07%	3.11%	1.32%	1.98%
26	2.11%	3.17%	1.35%	2.03%
27	2.15%	3.22%	1.39%	2.08%
28	2.19%	3.28%	1.41%	2.12%
29	2.23%	3.34%	1.44%	2.16%
30	2.27%	3.40%	1.47%	2.20%
31	2.31%	3.46%	1.49%	2.24%
32	2.35%	3.53%	1.52%	2.28%
33	2.39%	3.59%	1.55%	2.32%
34	2.43%	3.65%	1.58%	2.37%
35	2.48%	3.72%	1.61%	2.41%
36	2.53%	3.79%	1.65%	2.47%
37	2.57%	3.86%	1.68%	2.52%
38	2.62%	3.93%	1.72%	2.58%
39	2.67%	4.00%	1.77%	2.65%
40	2.71%	4.07%	1.81%	2.72%
41	2.77%	4.15%	1.83%	2.75%
42	2.81%	4.22%	1.86%	2.79%
43	2.87%	4.30%	1.89%	2.83%
44	2.93%	4.39%	1.91%	2.86%
45	2.99%	4.48%	1.95%	2.92%
46	3.05%	4.57%	1.97%	2.96%
47	3.11%	4.67%	1.99%	2.99%
48	3.19%	4.78%	2.01%	3.01%
49	3.27%	4.90%	2.02%	3.03%
50	3.27%	4.91%	2.02%	3.03%
51	3.27%	4.91%	2.03%	3.04%
52	3.28%	4.92%	2.01%	3.02%
53	3.28%	4.92%	1.98%	2.97%
54+	3.29%	4.93%	1.94%	2.91%

<sup>1</sup> Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.



SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX G  
MEMBER CONTRIBUTION RATES**

**General Member Contribution Rates**

**Basic Half Rate (Government Code Section 31621.3) + 14%, not greater than 1/2 Normal Cost**

Entry Age	<u>Basic Rate</u>		<u>COLA Cost-Sharing Rate<sup>1</sup></u>	
	1st \$350/month	Over \$350	1st \$350/month	Over \$350
16	1.86%	2.79%	1.14%	1.71%
17	1.91%	2.87%	1.14%	1.71%
18	1.97%	2.95%	1.14%	1.71%
19	2.02%	3.03%	1.14%	1.71%
20	2.08%	3.12%	1.14%	1.71%
21	2.13%	3.20%	1.18%	1.77%
22	2.19%	3.29%	1.21%	1.82%
23	2.26%	3.39%	1.25%	1.88%
24	2.32%	3.48%	1.29%	1.93%
25	2.37%	3.55%	1.32%	1.98%
26	2.41%	3.61%	1.35%	2.03%
27	2.45%	3.67%	1.39%	2.08%
28	2.49%	3.74%	1.41%	2.12%
29	2.54%	3.81%	1.45%	2.17%
30	2.59%	3.88%	1.47%	2.20%
31	2.63%	3.94%	1.50%	2.25%
32	2.68%	4.02%	1.52%	2.28%
33	2.73%	4.09%	1.55%	2.32%
34	2.77%	4.16%	1.58%	2.37%
35	2.83%	4.24%	1.61%	2.42%
36	2.88%	4.32%	1.65%	2.47%
37	2.93%	4.40%	1.69%	2.53%
38	2.99%	4.48%	1.73%	2.59%
39	3.04%	4.56%	1.77%	2.65%
40	3.09%	4.64%	1.81%	2.72%
41	3.15%	4.73%	1.84%	2.76%
42	3.21%	4.81%	1.87%	2.80%
43	3.27%	4.90%	1.89%	2.83%
44	3.33%	5.00%	1.91%	2.86%
45	3.41%	5.11%	1.95%	2.93%
46	3.47%	5.21%	1.98%	2.97%
47	3.55%	5.32%	1.99%	2.99%
48	3.63%	5.45%	2.01%	3.01%
49	3.73%	5.59%	2.02%	3.03%
50	3.73%	5.60%	2.02%	3.03%
51	3.73%	5.60%	2.03%	3.04%
52	3.74%	5.61%	2.01%	3.02%
53	3.74%	5.61%	1.98%	2.97%
54+	3.75%	5.62%	1.94%	2.91%

<sup>1</sup> Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX G  
MEMBER CONTRIBUTION RATES**

**Safety Member Contribution Rates**

**Basic Half Rate (Government Code Section 31639.5)**

Entry Age	<u>Basic Rate</u>		<u>COLA Cost-Sharing Rate<sup>1</sup></u>	
	1st \$350/month	Over \$350	1st \$350/month	Over \$350
16	2.85%	4.28%	2.85%	4.27%
17	2.89%	4.34%	2.85%	4.27%
18	2.93%	4.39%	2.85%	4.27%
19	2.96%	4.44%	2.85%	4.27%
20	3.00%	4.50%	2.85%	4.27%
21	3.03%	4.55%	2.87%	4.31%
22	3.07%	4.61%	2.91%	4.36%
23	3.11%	4.66%	2.93%	4.40%
24	3.15%	4.72%	2.96%	4.44%
25	3.19%	4.78%	2.99%	4.49%
26	3.23%	4.84%	3.03%	4.54%
27	3.27%	4.90%	3.05%	4.58%
28	3.31%	4.96%	3.08%	4.62%
29	3.35%	5.02%	3.11%	4.66%
30	3.39%	5.08%	3.13%	4.69%
31	3.43%	5.14%	3.16%	4.74%
32	3.47%	5.21%	3.19%	4.78%
33	3.51%	5.27%	3.23%	4.84%
34	3.56%	5.34%	3.23%	4.84%
35	3.61%	5.41%	3.24%	4.86%
36	3.65%	5.48%	3.22%	4.83%
37	3.70%	5.55%	3.23%	4.85%
38	3.75%	5.63%	3.25%	4.88%
39	3.81%	5.71%	3.28%	4.92%
40	3.86%	5.79%	3.31%	4.96%
41	3.92%	5.88%	3.27%	4.90%
42	3.99%	5.98%	3.30%	4.95%
43	4.06%	6.09%	3.31%	4.96%
44	4.15%	6.22%	3.33%	5.00%
45	4.13%	6.20%	3.36%	5.04%
46	4.11%	6.17%	3.40%	5.10%
47	4.10%	6.15%	3.44%	5.16%
48	4.09%	6.13%	3.48%	5.22%
49+	4.07%	6.11%	3.51%	5.27%

<sup>1</sup> Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.

SAN JOAQUIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014

**APPENDIX G  
MEMBER CONTRIBUTION RATES**

**Safety Member Contribution Rates**

**Basic Half Rate (Government Code Section 31639.5) + 33%, not greater than 1/2 Normal Cost**

Entry Age	<u>Basic Rate</u>		<u>COLA Cost-Sharing Rate<sup>1</sup></u>	
	1st \$350/month	Over \$350	1st \$350/month	Over \$350
16	3.79%	5.69%	2.85%	4.27%
17	3.85%	5.77%	2.85%	4.27%
18	3.89%	5.84%	2.85%	4.27%
19	3.94%	5.91%	2.85%	4.27%
20	3.99%	5.99%	2.85%	4.27%
21	4.03%	6.05%	2.87%	4.31%
22	4.09%	6.13%	2.91%	4.36%
23	4.13%	6.20%	2.93%	4.40%
24	4.19%	6.28%	2.96%	4.44%
25	4.24%	6.36%	3.00%	4.50%
26	4.29%	6.44%	3.03%	4.54%
27	4.35%	6.52%	3.05%	4.58%
28	4.40%	6.60%	3.09%	4.63%
29	4.45%	6.68%	3.11%	4.66%
30	4.51%	6.76%	3.13%	4.69%
31	4.56%	6.84%	3.16%	4.74%
32	4.62%	6.93%	3.19%	4.79%
33	4.67%	7.01%	3.23%	4.84%
34	4.73%	7.10%	3.23%	4.85%
35	4.80%	7.20%	3.24%	4.86%
36	4.86%	7.29%	3.22%	4.83%
37	4.92%	7.38%	3.23%	4.85%
38	4.99%	7.49%	3.25%	4.88%
39	5.06%	7.59%	3.28%	4.92%
40	5.13%	7.70%	3.31%	4.96%
41	5.21%	7.82%	3.27%	4.91%
42	5.30%	7.95%	3.30%	4.95%
43	5.40%	8.10%	3.31%	4.96%
44	5.51%	8.27%	3.34%	5.01%
45	5.50%	8.25%	3.36%	5.04%
46	5.47%	8.21%	3.40%	5.10%
47	5.45%	8.18%	3.44%	5.16%
48	5.43%	8.15%	3.48%	5.22%
49+	5.42%	8.13%	3.52%	5.28%

<sup>1</sup> Some members and employers share equally the contributions required for post-retirement cost-of-living adjustments (COLA) in accordance with Government Code Section 31873. For other members, the employers pay all of the contributions required for post-retirement COLA.