

Tulare County Employees' Retirement Association

Report on the Experience Study for the Period July 1, 2011 to June 30, 2014

October 22, 2014



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October 22, 2014

Board of Retirement
Tulare County Employees' Retirement Association
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Experience Study for the Period July 1, 2011 to June 30, 2014

Members of the Board:

We are pleased to present our report on the experience study of the Tulare County Employees' Retirement Association for the period July 1, 2011 through June 30, 2014.

The purpose of the experience study is to analyze plan experience during the most recent three-year period, and, based on the results of the experience study, recommend changes to demographic and economic assumptions to be used for future actuarial valuations of the plan, starting with the June 30, 2014 valuation. The experience study is not intended to review actuarial methods or other valuation factors not specifically addressed in this report.

The proposed actuarial assumptions shown in this report are in conformity with generally accepted actuarial principles and practices for measuring pension obligations.

Actuarial calculations shown in this report are based on the data, assumptions (except as noted herein), methods, plan provisions and assets used in the June 30, 2013 and June 30, 2014 actuarial valuations of the plan.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. An analysis of the potential range of such future differences is beyond the scope of this study.

The Board may use this report for purposes of reviewing the assumptions that are used for actuarial valuations of the plan. Use of this report for any other purpose or by anyone other than the Board or TCERA staff may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' prior written consent.

We are each a Fellow of the Society of Actuaries, an Enrolled Actuary and a Member of the American Academy of Actuaries. We meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice.

We look forward to discussing this report with the Board.

Respectfully submitted,



Charles E. Chittenden, FSA, EA, MAAA
Principal and Consulting Actuary



David J. Kershner, FSA, EA, MAAA
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Section I – Executive Summary

A brief summary of the results of our study is presented below. More comprehensive information for each assumption is presented in Section III and the Appendix.

1. The employer contribution rate as of June 30, 2013, as shown in our valuation report dated December 5, 2013, was 14.09%.
2. The June 30, 2013 employer contribution rate, after reflecting the 2014 audit recommendations, decreased from 14.09% to 14.06%.
3. Absent any changes in assumptions, the employer contribution rate as of June 30, 2014 is 14.44%. This reflects new member data collected as of June 30, 2014 and FY2014 asset experience.
4. Changing the investment return assumption from 7.90% to 7.85%, the employer contribution rate as of June 30, 2014 increases from 14.44% to 14.87%.
5. The recommended assumption changes shown in this report have the following effects on the employer contribution rate as of June 30, 2014 (effects shown below are cumulative):
 - a. Salary Increases – Decreases from 14.87% to 12.03%
 - b. Active Member Separation Rates – Decreases from 12.03% to 10.67%
 - c. Mortality Tables – Increases from 10.67% to 11.95%
 - d. Inflation Rate – Increases from 11.95% to 12.31%

Section II – Membership Data

Our experience study was based on the following data that was collected for the June 30, 2011, June 30, 2012, June 30, 2013, and June 30, 2014 actuarial valuations:

SUMMARY OF INACTIVE MEMBERSHIP*				
	6/30/2011	6/30/2012	6/30/2013	6/30/2014
GENERAL				
Number	1,554	1,533	1,637	1,061
SAFETY				
Number	207	209	221	149
TOTAL				
Number	1,761	1,742	1,858	1,210

*Includes unclaimed accounts.

SUMMARY OF RETIRED MEMBERSHIP				
	6/30/2011	6/30/2012	6/30/2013	6/30/2014
GENERAL				
Number	1,961	2,058	2,156	2,279
Total Annual Allowance	\$34,253,416	\$37,246,457	\$40,459,814	\$43,087,370
Average Total Monthly Allowance	\$1,456	\$1,508	\$1,564	\$1,576
SAFETY				
Number	352	366	386	412
Total Annual Allowance	\$10,970,852	\$11,728,355	\$12,777,452	\$13,689,561
Average Total Monthly Allowance	\$2,597	\$2,670	\$2,759	\$2,769
TOTAL				
Number	2,313	2,424	2,542	2,691
Total Annual Allowance	\$45,224,268	\$48,974,812	\$53,237,266	\$56,776,931
Average Total Monthly Allowance	\$1,629	\$1,684	\$1,745	\$1,758

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



Summary of Active Membership				
	6/30/2011	6/30/2012	6/30/2013	6/30/2014
GENERAL TIER 1				
Number	79	68	50	43
Annual Payroll*	\$4,840,859	\$4,158,982	\$3,023,592	\$2,671,335
Average Monthly Salary	\$5,106	\$5,097	\$5,039	\$5,177
Average Age	58.9	59.4	59.6	60.6
Average Service	30.8	31.9	32.8	34.4
GENERAL TIER 2 & 3				
Number	3,304	3,374	3,215	2,751
Annual Payroll*	\$158,496,403	\$160,265,256	\$160,068,219	\$142,671,074
Average Monthly Salary	\$3,998	\$3,958	\$4,149	\$4,322
Average Age	43.9	43.9	44.2	45.0
Average Service	9.0	9.1	9.8	10.8
GENERAL TIER 4				
Number	n/a	n/a	238	518
Annual Payroll*	n/a	n/a	\$7,525,090	\$18,466,582
Average Monthly Salary	n/a	n/a	\$2,635	\$2,971
Average Age	n/a	n/a	33.0	34.3
Average Service	n/a	n/a	0.3	0.7
SAFETY TIER 1				
Number	10	6	4	2
Annual Payroll*	\$920,689	\$597,472	\$369,886	\$216,318
Average Monthly Salary	\$7,672	\$8,298	\$7,706	\$9,013
Average Age	57.9	58.2	59.3	60.8
Average Service	32.2	33.5	34.8	35.8
SAFETY TIER 2 & 3				
Number	804	843	845	761
Annual Payroll*	\$49,534,601	\$51,469,068	\$52,209,188	\$48,757,339
Average Monthly Salary	\$5,134	\$5,088	\$5,149	\$5,339
Average Age	38.7	38.8	38.9	39.8
Average Service	9.1	9.6	10.1	11.0
SAFETY TIER 4				
Number	n/a	n/a	31	81
Annual Payroll*	n/a	n/a	\$1,385,120	\$3,839,543
Average Monthly Salary	n/a	n/a	\$3,723	\$3,950
Average Age	n/a	n/a	31.9	30.8
Average Service	n/a	n/a	0.3	0.8
TOTAL				
Number	4,197	4,291	4,383	4,156
Annual Payroll*	\$213,792,552	\$216,490,778	\$224,581,095	\$216,622,191
Average Monthly Salary	\$4,245	\$4,204	\$4,270	\$4,344
Average Age	43.2	43.2	42.7	42.6
Average Service	9.5	9.6	9.5	9.7

*Represents the annualized amount of active members' pay rates on June 30.

Section III – Analysis of Experience

DEMOGRAPHIC ASSUMPTIONS

Separation from Active Service

- Withdrawal

For General members, rates of withdrawal were higher than expected during the three-year experience period. For Safety members, the opposite was true. Accordingly, we are recommending higher withdrawal rates for General members and lower rates for Safety members.

- Preretirement Death

Pre-retirement mortality experience was lower than expected for General members, and higher than expected for Safety members. Due to the low numbers of deaths, however, the data is not statistically credible for us to draw definitive conclusions. The Society of Actuaries has recently completed an extensive mortality study and has issued new mortality tables (RP-2014) that reflect longer life expectancies, with continued mortality improvements expected in the future via a new mortality projection scale (MP-2014). These new mortality tables tend to be more conservative than recent experience for General and Safety members (i.e., mortality rates in the new tables predict fewer deaths than actual TCERA experience). We recommend adopting these new mortality tables for all members, but increasing the assumed mortality rates in the tables by 12.1% for General and 4.5% for Safety members.

- Ordinary Disability

The incidence of ordinary disability was lower than expected for General males and Safety members, and higher than expected for General females. This is a similar result that we saw in the last experience study. However, due to the small number of actual and expected disabilities, we recommend no changes to this assumption at this time.

- Duty Disability

The incidence of duty disability was lower than expected for all members. As with ordinary disability, however, given the small number of actual and expected disabilities, we recommend no change to this assumption at this time.

- Service Retirement

The number of actual separations due to service retirement was greater than expected for all General members and lower for Safety members, which is consistent with what we saw in the last experience study. We are recommending increases in retirement rates for General members and decreases for Safety members.

The following table provides a summary of the experience (actual) compared with the existing assumptions (expected). A complete list of the current and recommended rates of separation from active service can be found in the Appendix. These rates should be viewed in the aggregate rather than examining each of them separately. This is due to the interdependency of the rates. For example, if turnover were to increase, there would be fewer retirements.

“Expected separations” means the number of terminations that would occur if the current assumed probabilities were applied to the actual workforce over the period being studied.

**SUMMARY OF EXPERIENCE WITH
 RESPECT TO RATES OF SEPARATION FROM ACTIVE SERVICE**

	Actual	Expected	Actual to Expected
Withdrawal			
General Male	217	142.7	152.1%
General Female	490	304.0	161.2%
Safety	85	123.9	68.6%
Pre-retirement Death			
General Male	4	7.6	52.6%
General Female	8	11.9	67.2%
Safety	5	3.5	142.9%
Ordinary Disability			
General Male	4	5.4	74.1%
General Female	15	9.1	164.8%
Safety	3	16.3	18.4%
Duty Disability			
General Male	7	10.4	67.3%
General Female	1	17.7	5.6%
Safety	12	22.8	52.6%
Service Retirement			
General Male	88	71.3	123.4%
General Female	184	125.7	146.4%
Safety	29	48.8	59.4%
All Separations	1,152	921.1	125.1%

Recommendation: We recommend that the Board adopt the new rates of separation shown in Schedule 2 of the Appendix.

Mortality after Retirement

Current Service Retirement Mortality Tables

General Males	RP-2000 Generational Mortality Table for Males, with no collar or age adjustment
General Females	RP-2000 Generational Mortality Table for Females, with no collar or age adjustment
Safety	RP-2000 Generational Mortality Table for Males, with blue collar adjustment, and no age adjustment

In all cases, future longevity improvements are projected using Scale AA, which was developed for use with the RP-2000 Mortality Table.

The generational version of the mortality table uses a different mortality table for each future year of a valuation's calculations. For example, a male participant who will reach age 50 in the year 2020 will have a lower assumed mortality rate at that age than will a current 50-year-old male participant. By using the generational version of the table, we can avoid having to change the mortality table frequently in the future.

The Society of Actuaries has recently completed a major study of recent mortality experience. The result of this study is the creation of new mortality tables along with new mortality improvement projection scales that result in improved (longer) life expectancies for both males and females at all ages. Accordingly, we recommend changing the mortality assumption to reflect these new tables.

Recommended Service Retirement Mortality Tables*

General Males	RP-2014 Generational Mortality Table for Males, with MP-2014 projection
General Females	RP-2014 Generational Mortality Table for Females, with MP-2014 projection
Safety	RP-2014 Generational Mortality Table for Males, with blue collar adjustment and MP-2014 projection

*Healthy lives' mortality rates are increased by 12.1% for General and 4.5% for Safety members to reflect TCERA experience.

Mortality before Retirement

We recommend applying the same tables shown above to non-retired members.

Mortality after Disability Retirement

Current Disability Retirement Mortality Tables

General Males	RP-2000 Disabled Annuitant Mortality Table for Males
General Females	RP-2000 Disabled Annuitant Mortality Table for Females
Safety Males	RP-2000 Disabled Annuitant Mortality Table for Males, with a two-year setback
Safety Females	RP-2000 Disabled Annuitant Mortality Table for Females, with a two-year setback

The actual experience for General and Safety members is too small for either to be credible. Therefore, we recommend changing to the disabled lives' mortality rates under the new Society of Actuaries mortality tables.

Recommended Disability Retirement Mortality Tables

General Males	RP-2014 Generational Disabled Annuitant Mortality Table for Males, with MP-2014 projection
General Females	RP-2014 Generational Disabled Annuitant Mortality Table for Females, with MP-2014 projection
Safety Males	RP-2014 Generational Disabled Annuitant Mortality Table for Males, with MP-2014 projection
Safety Females	RP-2014 Generational Disabled Annuitant Mortality Table for Females, with MP-2014 projection

Mortality for Employee Contribution Rates

Employee contribution rates are currently based on the following unisex mortality tables:

General	RP-2000 Mortality Table projected with Scale AA to 2021, with no collar or age adjustment, weighted 30% males and 70% females
Safety	RP-2000 Mortality Table projected with Scale AA to 2021, with blue collar adjustment, weighted 75% males and 25% females, with no setback

We recommend adopting the following tables to be consistent with the adoption of new mortality tables for valuation purposes:

General	RP-2014 Mortality Table, projected 10 years beyond experience study date with MP-2014 projection, weighted 30% males and 70% females
Safety	RP-2014 Mortality Table, with blue collar adjustment, projected 10 years beyond experience study date with MP-2014 projection, weighted 75% males and 25% females

ECONOMIC ASSUMPTIONS

Investment Rate of Return

TCERA has elected a long-term investment rate of return of 7.90%, with 0.05% annual decreases, starting in 2014, until 7.0% is reached. We believe this assumption is reasonable for purposes of the actuarial valuation of the plan.

Inflation

One of the most important assumptions used in valuing TCERA's liabilities is the inflation rate. This assumption underlies both the investment return assumption and the salary increase assumption. These in turn directly impact the employer and employee contribution rates.

To aid us in determining an appropriate inflation rate for TCERA, we have reviewed long-term historical inflation averages, recent trends, and the assumptions adopted by other public retirement systems governed by the 1937 Act. It should be noted that we have placed more emphasis on long-term historical averages and long-term future predictions than on the more recent, short-term trends. This helps to minimize fluctuations which are more apparent in short-term trends.

The U.S. Consumer Price Index indicates that annual rates of inflation have been as follows since 2006:

Fiscal Year End	Increase*
2006	4.3%
2007	2.7%
2008	5.0%
2009	-1.4%
2010	1.1%
2011	3.6%
2012	1.7%
2013	1.8%
2014	2.1%

*Based on CPI-U unadjusted 12 month ended June 30 for all items

Over this nine-year period, the U.S. Consumer Price Index (CPI-U) has averaged slightly above 2.3% annually.

Because of the cyclical nature of inflation and the long-term nature of TCERA's liabilities, we believe that it is appropriate to assume that the average inflation rate to be experienced over the next 20 to 50 years (which is approximately the lifetime of the present obligations of TCERA) will be between 2.0% and 4.0%.

Based on this information, we recommend that the current inflation rate assumption of 4.0% be reduced to 3.0%. This change will affect the contribution rate and contribution amount only. It will not affect the actuarial liabilities.

Salary Scale

Average salary increases during the last three years have generally been less than expected, except for the very first few years of service. This was true for General and Safety members. Therefore, we are recommending slight increases in this assumption in the first three and five years of service (General and Safety, respectively), with lower assumed increases thereafter. These lower long-term salary increase assumptions are also consistent with our recommendation to decrease the inflation assumption from 4.0% to 3.0%.

The current and recommended salary increase assumptions are shown in Schedule 3 of the Appendix.

APPENDIX

Schedule 1 – Summary of Actuarial Assumptions

The current (as of June 30, 2013) and recommended (as of June 30, 2014) actuarial assumptions are listed below:

Investment Rate of Return ¹	<p>Current: 7.90% per annum, compounded annually. This rate will be reduced each year by 0.05% (starting June 30, 2014) until it reaches 7.0%. Actuarial costs and liabilities are determined based on the rate in effect on the date of the actuarial valuation.</p> <p>Recommended: No change.</p>
Interest Credited to Employee Accounts	Same as investment rate of return assumption.
Inflation	<p>Current: 4.0% per annum.</p> <p>Recommended: 3.0% per annum.</p>
Salary Increases	See Schedule 3.
Spouses and Dependents	<p>Current: 88% of General male active members, 75% of General female active members and 95% of Safety male active members and 80% of Safety female active members are assumed married at retirement, with wives assumed three years younger than husbands.</p> <p>Recommended: No change.</p>
Rates of Termination of Employment	See Schedule 2.
Mortality Rates – Healthy Lives	<p>Current:</p> <p>General – RP-2000 Generational Mortality Table for Males/Females, with no collar or age adjustment.</p> <p>Safety – RP-2000 Generational Mortality Table for Males, with blue-collar adjustment but no age adjustment.</p> <p>Recommended:</p> <p>General – RP-2014 Generational Mortality Table for Males/Females, with MP-2014 projection.</p> <p>Safety – RP-2014 Generational Mortality Table for Males, with blue-collar adjustment and MP-2014 projection.</p> <p>Mortality rates are increased by 12.1% for General and 4.5% for Safety members to reflect TCERA experience.</p>

¹ Selected by TCERA



Mortality Rates – Disabled Lives

Current:

General – RP-2000 Disabled Annuitant Mortality Table for Males/Females, with no age adjustment.

Safety – RP-2000 Disabled Annuitant Mortality Table for Males/Females, with a 2-year age setback.

Recommended:

General – RP-2014 Generational Disabled Annuitant Mortality Table for Males/Females, with MP-2014 projection.

Safety – RP-2014 Generational Disabled Annuitant Mortality Table for Males/Females, with MP-2014 projection.

Duty-Related Deaths

Percentages of deaths assumed to be duty-related are:

CURRENT		RECOMMENDED	
Age	Percentage	Age	Percentage
20-24	36.59%	20-24	37%
25-30	42.22%	25-30	42%
31-33	45.83%	31-33	45%
34	45.45%	34	45%
35-36	49.15%	35-36	50%
37-38	48.48%	37-38	50%
39	50.72%	39	50%
40	48.28%	40	50%
41-42	50.33%	41-42	50%
43	50.00%	43	50%
44	52.33%	44	52%
45	51.61%	45	52%
46	53.61%	46	54%
47	53.14%	47	54%
48	56.11%	48	56%
49	56.79%	49	56%
50	57.58%	50	58%
51	57.14%	51	58%
52	57.81%	52	58%
53	57.41%	53	58%
54	57.99%	54	58%
55	59.24%	55	60%
56	60.45%	56	60%
57	61.36%	57	62%
58	62.28%	58	62%
59	62.96%	59	63%

**Mortality Rates After Retirement for Employee
Contribution Rate Purposes**

Current:

The basic employee contribution rates for General members are calculated on a unisex basis using the RP-2000 Mortality Table projected with Scale AA to 2021 (weighted 30% male and 70% female), with no collar or age adjustment.

The basic employee contribution rates for Safety members are based on the RP-2000 Mortality Table projected with Scale AA to 2021 (weighted 75% male and 25% female), with adjustment for blue-collar workers.

Recommended:

The basic employee contribution rates for General members are calculated on a unisex basis using the RP-2014 Mortality Table (weighted 30% male and 70% female), projected 10 years beyond experience study date with MP-2014 projection.

The basic employee contribution rates for Safety members are based on the RP-2014 Mortality Table (weighted 75% male and 25% female), with adjustment for blue-collar workers, projected 10 years beyond experience study date with MP-2014 projection.

Reciprocity Assumption

Current: 65% of members who terminate with a vested benefit are assumed to enter a reciprocal system. Salaries assumed to increase by 5.0% per year.

Recommended: No change.

Deferral Age for Vested Terminations

Current: Age 60 for General members; age 53 for Safety members.

Recommended: No change.



Schedule 2 – Probability of Separation from Active Service

GENERAL MALES – CURRENT ASSUMPTIONS

Age	Withdrawal svc < 3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15-19.99	Service Retirement svc 20+
20	0.15000	0.09000	0.05000	0.00000	0.00000			
21	0.15000	0.09000	0.05000	0.00000	0.00010			
22	0.15000	0.09000	0.05000	0.00000	0.00010			
23	0.15000	0.09000	0.05000	0.00000	0.00010			
24	0.15000	0.09000	0.05000	0.00000	0.00010			
25	0.15000	0.09000	0.05000	0.00010	0.00010			
26	0.15000	0.09000	0.05000	0.00010	0.00010			
27	0.15000	0.09000	0.05000	0.00010	0.00010			
28	0.15000	0.09000	0.05000	0.00010	0.00010			
29	0.15000	0.09000	0.05000	0.00010	0.00010			
30	0.15000	0.09000	0.04000	0.00020	0.00010			
31	0.15000	0.09000	0.04000	0.00020	0.00010			
32	0.15000	0.09000	0.04000	0.00020	0.00010			
33	0.15000	0.09000	0.04000	0.00020	0.00010			
34	0.15000	0.09000	0.04000	0.00020	0.00010			
35	0.15000	0.10000	0.03000	0.00030	0.00010			
36	0.15000	0.10000	0.03000	0.00030	0.00020			
37	0.15000	0.10000	0.03000	0.00030	0.00020			
38	0.15000	0.10000	0.03000	0.00040	0.00020			
39	0.15000	0.10000	0.03000	0.00040	0.00030			
40	0.09000	0.10000	0.02000	0.00040	0.00040			
41	0.09000	0.10000	0.02000	0.00050	0.00050			
42	0.09000	0.10000	0.02000	0.00050	0.00060			
43	0.09000	0.10000	0.02000	0.00060	0.00070			
44	0.09000	0.10000	0.02000	0.00060	0.00080			
45	0.09000	0.07500	0.01000	0.00080	0.00100			
46	0.09000	0.07500	0.01000	0.00090	0.00120			
47	0.09000	0.07500	0.01000	0.00100	0.00140			
48	0.09000	0.07500	0.01000	0.00110	0.00160			
49	0.09000	0.07500	0.01000	0.00120	0.00180			
50	0.09000	0.07500	0.00700	0.00140	0.00200	0.0300	0.0240	0.0330
51	0.09000	0.07500	0.00700	0.00160	0.00250	0.0300	0.0240	0.0330
52	0.09000	0.07500	0.00700	0.00180	0.00300	0.0300	0.0240	0.0330
53	0.09000	0.07500	0.00700	0.00200	0.00350	0.0300	0.0240	0.0330
54	0.09000	0.07500	0.00700	0.00220	0.00400	0.0300	0.0240	0.0330
55	0.09000	0.07500	0.00450	0.00240	0.00450	0.0800	0.0640	0.0880
56	0.09000	0.07500	0.00450	0.00260	0.00500	0.0800	0.0640	0.0880
57	0.09000	0.07500	0.00450	0.00280	0.00550	0.0800	0.0640	0.0880
58	0.09000	0.07500	0.00450	0.00300	0.00600	0.0800	0.0640	0.0880
59	0.09000	0.07500	0.00450	0.00320	0.00650	0.0800	0.0640	0.0880
60	0.09000	0.07500	0.00300	0.00340	0.00700	0.1400	0.1120	0.1540
61	0.09000	0.07500	0.00300	0.00360	0.00750	0.1400	0.1120	0.1540
62	0.09000	0.07500	0.00300	0.00380	0.00800	0.1400	0.1120	0.1540
63	0.09000	0.07500	0.00300	0.00400	0.00850	0.1400	0.1120	0.1540
64	0.09000	0.07500	0.00300	0.00420	0.00900	0.1400	0.1120	0.1540
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.1600	0.2200
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.1600	0.2200
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.1600	0.2200
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.1600	0.2200
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.1600	0.2200
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.2400	0.3300
71	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.2400	0.3300
72	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.2400	0.3300
73	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.2400	0.3300
74	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.2400	0.3300
75	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000	1.0000

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



GENERAL FEMALES – CURRENT ASSUMPTIONS

Age	Withdrawal svc <3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15+
20	0.13000	0.10000	0.04000	0.00000	0.00010		
21	0.13000	0.10000	0.04000	0.00000	0.00010		
22	0.13000	0.10000	0.04000	0.00000	0.00010		
23	0.13000	0.10000	0.04000	0.00000	0.00010		
24	0.13000	0.10000	0.04000	0.00000	0.00010		
25	0.13000	0.10000	0.04000	0.00010	0.00010		
26	0.13000	0.10000	0.04000	0.00010	0.00010		
27	0.13000	0.10000	0.04000	0.00010	0.00010		
28	0.13000	0.10000	0.04000	0.00010	0.00010		
29	0.13000	0.10000	0.04000	0.00010	0.00010		
30	0.13000	0.10000	0.04000	0.00010	0.00010		
31	0.13000	0.10000	0.04000	0.00010	0.00010		
32	0.13000	0.10000	0.04000	0.00010	0.00010		
33	0.13000	0.10000	0.04000	0.00010	0.00010		
34	0.13000	0.10000	0.04000	0.00010	0.00010		
35	0.13000	0.10000	0.02500	0.00070	0.00010		
36	0.13000	0.10000	0.02500	0.00070	0.00010		
37	0.13000	0.10000	0.02500	0.00070	0.00010		
38	0.13000	0.10000	0.02500	0.00110	0.00010		
39	0.13000	0.10000	0.02500	0.00110	0.00010		
40	0.09000	0.09000	0.01500	0.00120	0.00010		
41	0.09000	0.09000	0.01500	0.00130	0.00010		
42	0.09000	0.09000	0.01500	0.00140	0.00010		
43	0.09000	0.09000	0.01500	0.00140	0.00010		
44	0.09000	0.09000	0.01500	0.00150	0.00020		
45	0.09000	0.09000	0.01500	0.00160	0.00020		
46	0.09000	0.09000	0.01500	0.00180	0.00030		
47	0.09000	0.09000	0.01500	0.00200	0.00030		
48	0.09000	0.09000	0.01500	0.00240	0.00040		
49	0.09000	0.09000	0.01500	0.00260	0.00050		
50	0.09000	0.09000	0.01400	0.00280	0.00060	0.0300	0.0500
51	0.09000	0.09000	0.01000	0.00300	0.00070	0.0300	0.0500
52	0.09000	0.09000	0.01000	0.00320	0.00080	0.0300	0.0500
53	0.09000	0.09000	0.01000	0.00340	0.00100	0.0300	0.0500
54	0.09000	0.09000	0.01000	0.00380	0.00110	0.0300	0.0500
55	0.09000	0.09000	0.01000	0.00420	0.00120	0.0420	0.0700
56	0.09000	0.09000	0.01000	0.00440	0.00130	0.0420	0.0700
57	0.09000	0.09000	0.01000	0.00460	0.00140	0.0420	0.0700
58	0.09000	0.09000	0.01000	0.00480	0.00150	0.0420	0.0700
59	0.09000	0.09000	0.01000	0.00500	0.00160	0.0420	0.0700
60	0.09000	0.09000	0.00000	0.00520	0.00180	0.0780	0.1300
61	0.09000	0.09000	0.00000	0.00540	0.00200	0.0780	0.1300
62	0.09000	0.09000	0.00000	0.00580	0.00220	0.0780	0.1300
63	0.09000	0.09000	0.00000	0.00600	0.00240	0.0780	0.1300
64	0.09000	0.09000	0.00000	0.00620	0.00260	0.0780	0.1300
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.1320	0.2200
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.1320	0.2200
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.1320	0.2200
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.1320	0.2200
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.1320	0.2200
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.1800	0.3000
71	0.00000	0.00000	0.00000	0.00000	0.00000	0.1800	0.3000
72	0.00000	0.00000	0.00000	0.00000	0.00000	0.1800	0.3000
73	0.00000	0.00000	0.00000	0.00000	0.00000	0.1800	0.3000
74	0.00000	0.00000	0.00000	0.00000	0.00000	0.1800	0.3000
75	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



SAFETY – CURRENT ASSUMPTIONS

Age	Withdrawal svc < 3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15- 19.99	Service Retirement svc 20+
20	0.20000	0.08000	0.04500	0.00000	0.00110			
21	0.20000	0.08000	0.04500	0.00000	0.00120			
22	0.20000	0.08000	0.04500	0.00000	0.00130			
23	0.20000	0.08000	0.04500	0.00000	0.00150			
24	0.20000	0.08000	0.04500	0.00000	0.00180			
25	0.20000	0.08000	0.04500	0.00050	0.00230			
26	0.20000	0.08000	0.04500	0.00050	0.00280			
27	0.20000	0.08000	0.04500	0.00050	0.00320			
28	0.20000	0.08000	0.04500	0.00050	0.00320			
29	0.20000	0.08000	0.04500	0.00050	0.00400			
30	0.20000	0.08000	0.03500	0.00070	0.00500			
31	0.20000	0.08000	0.03500	0.00070	0.00570			
32	0.20000	0.08000	0.03500	0.00070	0.00600			
33	0.20000	0.08000	0.03500	0.00070	0.00620			
34	0.20000	0.08000	0.03500	0.00070	0.00640			
35	0.20000	0.08000	0.03400	0.00090	0.00640			
36	0.20000	0.08000	0.01000	0.00090	0.00650			
37	0.20000	0.08000	0.01000	0.00090	0.00660			
38	0.20000	0.08000	0.01000	0.00090	0.00670			
39	0.20000	0.08000	0.01000	0.00090	0.00670			
40	0.20000	0.08000	0.01000	0.00120	0.00680			
41	0.20000	0.08000	0.01000	0.00120	0.00690			
42	0.20000	0.08000	0.01000	0.00120	0.00690			
43	0.20000	0.08000	0.01000	0.00140	0.00700			
44	0.20000	0.08000	0.01000	0.00160	0.00710			
45	0.10000	0.06000	0.01000	0.00190	0.00980	0.0300	0.0500	0.1300
46	0.10000	0.06000	0.01000	0.00210	0.00980	0.0300	0.0500	0.1300
47	0.10000	0.06000	0.01000	0.00260	0.00980	0.0300	0.0500	0.1300
48	0.10000	0.06000	0.01000	0.00300	0.00980	0.0300	0.0500	0.1300
49	0.10000	0.06000	0.01000	0.00350	0.00980	0.0300	0.0500	0.1300
50	0.10000	0.06000	0.00000	0.00400	0.01000	0.0300	0.0500	0.1300
51	0.10000	0.06000	0.00000	0.00440	0.01250	0.0300	0.0500	0.1300
52	0.10000	0.06000	0.00000	0.00490	0.01500	0.0300	0.0500	0.1300
53	0.10000	0.06000	0.00000	0.00540	0.01750	0.0300	0.0500	0.1300
54	0.10000	0.06000	0.00000	0.00580	0.02000	0.0150	0.0250	0.0650
55	0.05000	0.06000	0.00000	0.00650	0.02250	0.0600	0.1000	0.2600
56	0.05000	0.06000	0.00000	0.00750	0.02380	0.0384	0.0640	0.1664
57	0.05000	0.06000	0.00000	0.00840	0.02510	0.0384	0.0640	0.1664
58	0.05000	0.06000	0.00000	0.00960	0.02650	0.0384	0.0640	0.1664
59	0.05000	0.06000	0.00000	0.01100	0.02810	0.0450	0.0750	0.1950
60	0.00000	0.00000	0.00000	0.00000	0.00000	0.0600	0.1000	0.2600
61	0.00000	0.00000	0.00000	0.00000	0.00000	0.0600	0.1000	0.2600
62	0.00000	0.00000	0.00000	0.00000	0.00000	0.0600	0.1000	0.2600
63	0.00000	0.00000	0.00000	0.00000	0.00000	0.0600	0.1000	0.2600
64	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500	0.6500
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500	0.6500
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500	0.6500
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500	0.6500
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.5000	1.0000
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.5000	1.0000
70	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000	1.0000

In addition, rates of termination among members who elect a deferred pension are a percentage of the current withdrawal rates given above by age. The percentages vary by service as shown below:

	Years of Service at Termination			
	5 - 9.99	10 – 14.99	15 – 19.99	20 and Over
General Males	5%	5%	25%	75%
General Females	5%	5%	30%	80%
Safety	5%	10%	50%	100%

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



GENERAL MALES – RECOMMENDED ASSUMPTIONS

Age	Withdrawal svc < 3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15-19.99	Service Retirement svc 20+
20	0.20000	0.13000	0.10000	0.00000	0.00000			
21	0.20000	0.13000	0.10000	0.00000	0.00010			
22	0.20000	0.13000	0.10000	0.00000	0.00010			
23	0.20000	0.13000	0.10000	0.00000	0.00010			
24	0.20000	0.13000	0.10000	0.00000	0.00010			
25	0.15000	0.13000	0.10000	0.00010	0.00010			
26	0.15000	0.13000	0.10000	0.00010	0.00010			
27	0.15000	0.13000	0.10000	0.00010	0.00010			
28	0.15000	0.13000	0.10000	0.00010	0.00010			
29	0.15000	0.13000	0.10000	0.00010	0.00010			
30	0.15000	0.13000	0.08000	0.00010	0.00010			
31	0.15000	0.13000	0.08000	0.00010	0.00010			
32	0.15000	0.13000	0.08000	0.00010	0.00010			
33	0.15000	0.13000	0.08000	0.00010	0.00010			
34	0.15000	0.13000	0.08000	0.00010	0.00010			
35	0.15000	0.15000	0.08000	0.00020	0.00020			
36	0.15000	0.15000	0.08000	0.00020	0.00020			
37	0.15000	0.15000	0.08000	0.00020	0.00020			
38	0.15000	0.15000	0.08000	0.00030	0.00030			
39	0.15000	0.15000	0.08000	0.00030	0.00030			
40	0.11000	0.08000	0.08000	0.00030	0.00030			
41	0.11000	0.08000	0.08000	0.00040	0.00045			
42	0.11000	0.08000	0.08000	0.00040	0.00045			
43	0.11000	0.08000	0.08000	0.00040	0.00045			
44	0.11000	0.08000	0.08000	0.00050	0.00050			
45	0.10000	0.07000	0.07000	0.00050	0.00055			
46	0.10000	0.07000	0.07000	0.00050	0.00060			
47	0.10000	0.07000	0.07000	0.00060	0.00070			
48	0.10000	0.07000	0.07000	0.00070	0.00080			
49	0.10000	0.07000	0.07000	0.00080	0.00090			
50	0.10000	0.06000	0.06000	0.00090	0.00100	0.0500	0.0400	0.0450
51	0.10000	0.06000	0.06000	0.00100	0.00150	0.0500	0.0400	0.0450
52	0.10000	0.06000	0.06000	0.00120	0.00200	0.0500	0.0400	0.0450
53	0.10000	0.06000	0.06000	0.00140	0.00250	0.0500	0.0400	0.0450
54	0.10000	0.06000	0.06000	0.00160	0.00300	0.0500	0.0400	0.0450
55	0.10000	0.05000	0.05000	0.00180	0.00350	0.1000	0.0500	0.0900
56	0.10000	0.05000	0.05000	0.00200	0.00400	0.1000	0.0500	0.0900
57	0.10000	0.05000	0.05000	0.00220	0.00450	0.1000	0.0500	0.0900
58	0.10000	0.05000	0.05000	0.00240	0.00500	0.1000	0.0500	0.0900
59	0.10000	0.05000	0.05000	0.00260	0.00550	0.1000	0.0500	0.0900
60	0.10000	0.05000	0.04000	0.00280	0.00600	0.1200	0.1000	0.1500
61	0.10000	0.05000	0.04000	0.00300	0.00650	0.1200	0.1100	0.1500
62	0.10000	0.05000	0.04000	0.00320	0.00700	0.1200	0.1100	0.1500
63	0.10000	0.05000	0.04000	0.00340	0.00750	0.1200	0.1100	0.1500
64	0.10000	0.05000	0.04000	0.00360	0.00800	0.1200	0.1100	0.1500
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.1500	0.2500
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.1500	0.2500
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.1500	0.2500
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.1500	0.2500
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.1500	0.2500
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.4000	0.2000	0.3000
71	0.00000	0.00000	0.00000	0.00000	0.00000	0.4000	0.2000	0.3000
72	0.00000	0.00000	0.00000	0.00000	0.00000	0.4000	0.2000	0.3000
73	0.00000	0.00000	0.00000	0.00000	0.00000	0.4000	0.2000	0.3000
74	0.00000	0.00000	0.00000	0.00000	0.00000	0.4000	0.2000	0.3000
75	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000	1.0000

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



GENERAL FEMALES – RECOMMENDED ASSUMPTIONS

Age	Withdrawal svc <3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15+
20	0.15000	0.12000	0.06000	0.00000	0.00010		
21	0.15000	0.12000	0.06000	0.00000	0.00010		
22	0.15000	0.12000	0.06000	0.00000	0.00010		
23	0.15000	0.12000	0.06000	0.00000	0.00010		
24	0.15000	0.12000	0.06000	0.00000	0.00010		
25	0.15000	0.12000	0.06000	0.00010	0.00010		
26	0.15000	0.12000	0.06000	0.00010	0.00010		
27	0.15000	0.12000	0.06000	0.00010	0.00010		
28	0.15000	0.12000	0.06000	0.00010	0.00010		
29	0.15000	0.12000	0.06000	0.00010	0.00010		
30	0.15000	0.12000	0.06000	0.00010	0.00010		
31	0.15000	0.12000	0.06000	0.00010	0.00010		
32	0.15000	0.12000	0.06000	0.00010	0.00010		
33	0.15000	0.12000	0.06000	0.00010	0.00010		
34	0.15000	0.12000	0.06000	0.00010	0.00010		
35	0.15000	0.12000	0.05500	0.00080	0.00010		
36	0.15000	0.12000	0.05500	0.00080	0.00010		
37	0.15000	0.12000	0.05500	0.00080	0.00010		
38	0.15000	0.12000	0.05500	0.00120	0.00010		
39	0.15000	0.12000	0.05500	0.00130	0.00010		
40	0.12000	0.09000	0.05000	0.00140	0.00010		
41	0.12000	0.09000	0.05000	0.00160	0.00010		
42	0.12000	0.09000	0.05000	0.00170	0.00010		
43	0.12000	0.09000	0.05000	0.00180	0.00010		
44	0.12000	0.09000	0.05000	0.00190	0.00010		
45	0.12000	0.09000	0.05000	0.00200	0.00010		
46	0.12000	0.09000	0.05000	0.00220	0.00010		
47	0.12000	0.09000	0.05000	0.00240	0.00010		
48	0.12000	0.09000	0.05000	0.00260	0.00010		
49	0.12000	0.09000	0.05000	0.00280	0.00010		
50	0.12000	0.09000	0.04000	0.00300	0.00020	0.0400	0.0400
51	0.12000	0.09000	0.04000	0.00320	0.00020	0.0400	0.0400
52	0.12000	0.09000	0.04000	0.00340	0.00030	0.0400	0.0400
53	0.12000	0.09000	0.04000	0.00360	0.00030	0.0400	0.0400
54	0.12000	0.09000	0.04000	0.00380	0.00040	0.0400	0.0400
55	0.12000	0.09000	0.04000	0.00400	0.00040	0.0450	0.0500
56	0.12000	0.09000	0.04000	0.00420	0.00050	0.0450	0.0500
57	0.12000	0.09000	0.04000	0.00440	0.00050	0.0450	0.0500
58	0.12000	0.09000	0.04000	0.00480	0.00060	0.0450	0.0500
59	0.12000	0.09000	0.04000	0.00520	0.00060	0.0450	0.0500
60	0.12000	0.09000	0.00000	0.00540	0.00070	0.0800	0.1500
61	0.12000	0.09000	0.00000	0.00560	0.00070	0.0800	0.1500
62	0.12000	0.09000	0.00000	0.00600	0.00080	0.0800	0.1500
63	0.12000	0.09000	0.00000	0.00620	0.00080	0.0800	0.1500
64	0.12000	0.09000	0.00000	0.00640	0.00080	0.0800	0.1500
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.1500	0.2500
70	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.4000
71	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.4000
72	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.4000
73	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.4000
74	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.4000
75	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000

**Tulare County Employees' Retirement Association
Experience Study as of June 30, 2014**



SAFETY – RECOMMENDED ASSUMPTIONS

Age	Withdrawal svc < 3	Withdrawal svc 3-4.99	Withdrawal svc >=5	Ordinary Disability	Duty Disability	Service Retirement svc < 15	Service Retirement svc 15- 19.99	Service Retirement svc 20+
20	0.15000	0.07000	0.05000	0.00000	0.00110			
21	0.15000	0.07000	0.05000	0.00000	0.00120			
22	0.15000	0.07000	0.05000	0.00000	0.00130			
23	0.15000	0.07000	0.05000	0.00000	0.00140			
24	0.15000	0.07000	0.05000	0.00000	0.00150			
25	0.15000	0.07000	0.05000	0.00050	0.00170			
26	0.15000	0.07000	0.05000	0.00050	0.00200			
27	0.15000	0.07000	0.05000	0.00050	0.00250			
28	0.15000	0.07000	0.05000	0.00050	0.00300			
29	0.15000	0.07000	0.05000	0.00050	0.00350			
30	0.15000	0.07000	0.04000	0.00050	0.00400			
31	0.15000	0.07000	0.04000	0.00050	0.00450			
32	0.15000	0.07000	0.04000	0.00050	0.00500			
33	0.15000	0.07000	0.04000	0.00050	0.00520			
34	0.15000	0.07000	0.04000	0.00050	0.00540			
35	0.15000	0.07000	0.03500	0.00050	0.00560			
36	0.15000	0.07000	0.03500	0.00050	0.00580			
37	0.15000	0.07000	0.03500	0.00050	0.00600			
38	0.15000	0.07000	0.03500	0.00050	0.00620			
39	0.15000	0.07000	0.03500	0.00050	0.00640			
40	0.15000	0.07000	0.03500	0.00075	0.00660			
41	0.15000	0.07000	0.03500	0.00075	0.00670			
42	0.15000	0.07000	0.03500	0.00080	0.00680			
43	0.15000	0.07000	0.03500	0.00085	0.00690			
44	0.15000	0.07000	0.03500	0.00090	0.00700			
45	0.10000	0.06000	0.03500	0.00095	0.00750	0.0300	0.0500	0.1000
46	0.10000	0.06000	0.03500	0.00100	0.00800	0.0300	0.0500	0.1000
47	0.10000	0.06000	0.03500	0.00150	0.00850	0.0300	0.0500	0.1000
48	0.10000	0.06000	0.03500	0.00200	0.00900	0.0300	0.0500	0.1000
49	0.10000	0.06000	0.03500	0.00250	0.00950	0.0300	0.0500	0.1000
50	0.10000	0.06000	0.00000	0.00300	0.01000	0.0300	0.0500	0.1000
51	0.10000	0.06000	0.00000	0.00350	0.01250	0.0300	0.0500	0.1000
52	0.10000	0.06000	0.00000	0.00400	0.01500	0.0300	0.0500	0.1000
53	0.10000	0.06000	0.00000	0.00450	0.01750	0.0300	0.0500	0.1000
54	0.10000	0.06000	0.00000	0.00500	0.02000	0.0300	0.0550	0.1000
55	0.05000	0.06000	0.00000	0.00550	0.02250	0.0750	0.0750	0.1500
56	0.05000	0.06000	0.00000	0.00600	0.02300	0.0750	0.0750	0.1500
57	0.05000	0.06000	0.00000	0.00650	0.02350	0.0750	0.0750	0.1500
58	0.05000	0.06000	0.00000	0.00700	0.02400	0.0750	0.0750	0.1500
59	0.05000	0.06000	0.00000	0.00750	0.02450	0.0750	0.0750	0.1500
60	0.00000	0.00000	0.00000	0.00000	0.00000	0.0800	0.0850	0.3000
61	0.00000	0.00000	0.00000	0.00000	0.00000	0.0800	0.0850	0.3000
62	0.00000	0.00000	0.00000	0.00000	0.00000	0.0800	0.0850	0.3000
63	0.00000	0.00000	0.00000	0.00000	0.00000	0.0800	0.0850	0.3000
64	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.2500	0.7500
65	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.2500	0.7500
66	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.2500	0.7500
67	0.00000	0.00000	0.00000	0.00000	0.00000	0.2000	0.2500	0.7500
68	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.4000	1.0000
69	0.00000	0.00000	0.00000	0.00000	0.00000	0.3000	0.4000	1.0000
70	0.00000	0.00000	0.00000	0.00000	0.00000	1.0000	1.0000	1.0000

In addition, rates of termination among members who elect a deferred pension are a percentage of the recommended withdrawal rates given above by age. The percentages vary by service as shown below:

	Years of Service at Termination			
	5 - 9.99	10 – 14.99	15 – 19.99	20 and Over
General Males	5%	5%	25%	75%
General Females	5%	5%	30%	80%
Safety	5%	10%	50%	100%

Schedule 3 – Salary Increase Assumption

CURRENT ASSUMPTIONS

Years of Service	General Members	Safety Members
0	6.00%	6.30%
1	5.80%	6.15%
2	5.80%	6.15%
3	5.75%	6.10%
4	5.75%	6.10%
5	5.75%	6.00%
6	5.75%	6.00%
7	5.75%	6.00%
8	5.70%	6.00%
9	5.70%	6.00%
10	5.70%	6.00%
11	5.70%	6.00%
12	5.70%	6.00%
13	5.70%	5.95%
14	5.70%	5.95%
15	5.70%	5.95%
16	4.35%	5.95%
17	4.35%	5.95%
18	4.35%	5.95%
19	4.35%	5.95%
20 or more	4.35%	4.40%

For those who terminate and enter a reciprocal system, salaries are assumed to increase at a rate of 5.0% per year.

RECOMMENDED ASSUMPTIONS

Years of Service	General Members	Safety Members
0	8.00%	9.00%
1	7.50%	8.75%
2	7.00%	8.50%
3	5.50%	7.50%
4	5.25%	7.25%
5	5.00%	7.00%
6	4.75%	6.50%
7	4.50%	6.00%
8	4.00%	5.50%
9	3.50%	5.00%
10	3.50%	4.50%
11	3.50%	4.00%
12	3.50%	3.50%
13	3.50%	3.50%
14	3.50%	3.50%
15	3.50%	3.50%
16	3.50%	3.50%
17	3.50%	3.50%
18	3.50%	3.50%
19	3.50%	3.50%
20 or more	3.50%	3.50%

For those who terminate and enter a reciprocal system, salaries are assumed to increase at a rate of 5.0% per year.

Schedule 4 – Cost Analysis

Prior to the Experience Study

	2013 Valuation	2013 Valuation After Audit Changes	2014 Valuation 7.9%	2014 Valuation 7.85%
Entry Age Normal Actuarial Accrued Liability	1,186,057,453	1,181,828,435	1,243,474,274	1,251,208,390
Funded Status (Actuarial Value of Assets)	88.37%	88.69%	88.62%	88.07%
Funded Status (Market Value of Assets)	89.78%	90.10%	89.21%	88.66%
Employer Contribution Rate (%)	14.09%	14.06%	14.44%	14.87%
Employer Contribution (\$)	32,542,000	32,472,000	33,842,000	34,856,000

Recommended Assumption Changes due to Experience Study

	1	2	3	4
Entry Age Normal Actuarial Accrued Liability	1,224,025,855	1,215,733,906	1,247,420,125	1,247,420,125
Funded Status (Actuarial Value of Assets)	90.03%	90.64%	88.34%	88.34%
Funded Status (Market Value of Assets)	90.63%	91.25%	88.93%	88.93%
Employer Contribution Rate (%)	12.03%	10.67%	11.95%	12.31%
Employer Contribution (\$)	28,207,000	25,023,000	28,023,000	28,870,000

Experience Study Assumption Changes:

- 1 Change in salary scale
- 2 Change demographic assumptions
- 3 Change mortality tables
- 4 Change inflation assumption