

## Mendocino County Employees' Retirement Association

Actuarial Valuation and Review as of June 30, 2015

This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Copyright © 2015 by The Segal Group, Inc. All rights reserved.



100 MONTGOMERY STREET, SUITE 500 SAN FRANCISCO, CA 94104 T 415.263.8200 www.segalco.com

November 23, 2015

Board of Retirement Mendocino County Employees' Retirement Association 625-B Kings Court Ukiah, CA 95482-5027

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2015. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2016/2017 and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices, at the request of the Board to assist in administering the Plan. The census and financial information on which our calculations were based were prepared by MCERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of the Segal Group, Inc.

Bv:

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA Vice President and Actuary

JRC/hy

### **SECTION 1**

### VALUATION SUMMARY

Purpose.....i Significant Issues in Valuation Year ...ii Summary of Key Valuation Results ...iv Summary of Key Valuation Demographic and Financial Data..v Important Information about Actuarial Valuations .....vi

### **SECTION 2**

### VALUATION RESULTS

А.	Member Data 1
B.	Financial Information 4
C.	Actuarial Experience7
D.	Employer and Member
	Contributions 12
E.	Funded Ratio21
F	Volatility Ratios 23

### **SECTION 3**

### SUPPLEMENTAL INFORMATION

EXHIBIT A
Table of Plan Coverage
i. General Tier 124
ii. General Tiers 2 and 325
iii. General Tier 426
iv. Safety Tiers 1, 2, and 327
v. Probation Tiers 1, 2, and 3
EXHIBIT B
Members in Active Service and
Projected Average Compensation
i. General Tier 129
ii. General Tiers 2 and 330
iii. General Tier 431
iv. Safety Tiers 1, 2, and 3 32
v. Probation Tiers 1, 2, and 3
EXHIBIT C
Schedule of Average Benefit
Payment Amounts
EXHIBIT D
Average Annual Benefit of Retired
Members and Beneficiaries
i. General Males35
ii. General Females
iii. Safety
iv. Probation
EXHIBIT E
Reconciliation of Member Data 39
EXHIBIT F
Summary Statement of Income and
Expenses - Actuarial Value Basis 40
EXHIBIT G
Summary Statement of Assets 41
EXHIBIT H
Actuarial Balance Sheet42
EXHIBIT I
Development of Unfunded Actuarial
Accrued Liability
EXHIBIT J
Table of Amortization Bases
EXHIBIT K
Section 415 Limitations
EXHIBIT L
Definitions of Pension Terms

## **SECTION 4**

### **REPORTING INFORMATION**

### Purpose

This report has been prepared by Segal Consulting to present a valuation of the Mendocino County Employees' Retirement Association as of June 30, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, retired members and beneficiaries as of June 30, 2015, provided by the Retirement Association;
- > The assets of the Plan as of June 30, 2015, provided by the Retirement Association;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc. that the Board has adopted for the June 30, 2015 valuation.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the Association's liabilities, and that, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a payment or credit to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the Board's funding policy to amortize the outstanding balance of the Association's unfunded actuarial accrued liability (UAAL) from the June 30, 2012 valuation over a declining period, with 24 years remaining as of June 30, 2015. In addition, any new UAAL established after June 30, 2012 has been amortized over separate layers with different amortization periods depending on the source of the layer (gains and losses are amortized over 18 years, as are assumption and method changes). The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2016 through June 30, 2017.



### **Significant Issues in Valuation Year**

The following key findings were the result of this actuarial valuation:

- *Ref: Pg. 22* In the June 30, 2014 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 69.3%. In this June 30, 2015 valuation, this funding ratio has increased to 70.2%. On a market value basis, the funded ratio decreased from 75.7% to 72.8%.
- *Ref: Pg. 43* The Association's unfunded actuarial accrued liability (UAAL) as of June 30, 2014 was \$179.6 million. In this year's valuation, the UAAL has increased to \$182.2 million. A reconciliation of the Association's UAAL is provided in Section 3, Exhibit I.
- *Ref: Pg. 19* The aggregate employer rate calculated in this valuation has decreased from 32.99% of payroll to 32.55% of payroll. The reasons for the change include gains from: (a) change in membership demographics, (b) the anticipated one-year delay in implementing the lower aggregate employer contribution rate developed in the June 30, 2015 valuation until fiscal year 2016/2017, (c) higher than expected return on investments (after smoothing), (d) lower than expected salary increases for General and Probation active members, and (e) amortizing the prior year's UAAL over a larger than expected projected total payroll. These gains were partially offset by other actuarial losses. A reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14).
- *Ref: Pg. 20* The aggregate member rate calculated in this valuation has increased from 9.83% of payroll to 9.86% of payroll. The reason for the increase is due to a change in the membership demographics. A reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection D (see Chart 15).

The individual member rates have been updated to reflect the valuation as of June 30, 2015. These rates are provided in Appendix A of this report.

*Ref: Pg. 5* As indicated in Section 2, Subsection B (see Chart 7), the total unrecognized investment gain as of June 30, 2015 is \$11.5 million (note that in the previous valuation, this amount was a deferred gain of \$33.0 million). This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This implies that if the Association earns the assumed net rate of investment return of 7.25% per year on a **market value** basis, it will result in investment gains on the actuarial value of assets after June 30, 2015.

The deferred gains of \$11.5 million represent 2.6% of the market value of assets as of June 30, 2015. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$11.5 million market gain is expected to have an impact on the Association's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

- If the deferred gains were recognized immediately, and assuming further that the balance in the Contingency Reserve would be included as valuation value of assets, the funded percentage would increase from 70.2% to 72.8%.
- If the deferred gains were recognized immediately, and assuming further that the balance in the Contingency Reserve would be included as valuation value of assets, the aggregate employer rate would decrease from 32.55% to about 30.5% of payroll.
- The actuarial valuation report as of June 30, 2015 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.

### Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:

- 1) difference between actual experience and anticipated experience;
- 2) changes in actuarial assumptions or methods;
- 3) changes in statutory provisions; and
- 4) difference between the contribution rates determined by the valuation and those adopted by the Board.

Summary of Key Valuation Results					
	June	e 30, 2015	June	e 30, 2014	
Employer Contribution Rates:		Estimated		Estimated	
	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate	Annual Amount <sup>(1)</sup>	
General Tier 1	32.22%	\$244,000	32.96%	\$250,000	
General Tier 2/Tier 3	29.12	9,798,000	30.19	10,158,000	
General Tier 4	25.51	3,107,000	26.32	3,206,000	
Safety Tier 1		Not Calcu	lated <sup>(2)</sup>		
Safety Tier 2	56.73	4,412,000	54.16	4,212,000	
Safety Tier 3	47.03	511,000	44.19	480,000	
Probation Tier 1		Not Calcu	lated <sup>(2)</sup>		
Probation Tier 2	32.44	768,000	33.41	791,000	
Probation Tier 3	24.82	72,000	24.17	70,000	
All Categories Combined	32.55	18,912,000	32.99	19,167,000	
Average Member Contribution Rates:		Estimated		Estimated	
	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate	Annual Amount <sup>(1)</sup>	
General Tier 1	0.60%	\$5,000	0.61%	\$5,000	
General Tier 2/Tier 3	10.42	3,506,000	10.44	3,513,000	
General Tier 4	7.34	894,000	7.16	872,000	
Safety Tier 1		Not Calcu	lated <sup>(2)</sup>	,	
Safety Tier 2	11.11	864,000	11.12	865,000	
Safety Tier 3	10.79	117,000	10.63	115,000	
Probation Tier 1		Not Calcu	lated <sup>(2)</sup>	,	
Probation Tier 2	13.23	313,000	13.28	314,000	
Probation Tier 3	9.56	28,000	8.55	25,000	
All Categories Combined	9.86	5,727,000	9.83	5,709,000	
Funded Status:		· · ·			
Actuarial Accrued Liability (AAL) <sup>(3)</sup>	\$610	,381,849	\$584	,428,884	
Valuation Value of Assets (VVA) <sup>(4)</sup>	428	,228,929	404	,855,842	
Market Value of Assets (MVA)	444	,217,356	442	2,308,448	
Funded Percentage on VVA Basis		70.2%		69.3%	
Funded Percentage on MVA Basis		72.8%		75.7%	
Unfunded Actuarial Accrued Liability (UAAL) on VVA Basis	\$182,152,920		\$179,573,042		
Unfunded Actuarial Accrued Liability (UAAL) on MVA Basis	166,164,493		142,120,436		
Key Economic Assumptions:					
Interest Rate		7.25%		7.25%	
Inflation Rate		3.25%	3.25%		
Across-the-Board Salary Increase		0.50%		0.50%	

### с т*7* **X**7 1 4. n 14

(1) Based on June 30, 2015 projected annual compensation.
 (2) There were no Safety Tier 1 or Probation Tier 1 active members reported for the June 30, 2015 valuation.

<sup>(3)</sup> Excludes liabilities held for non-valuation reserves.



<sup>(4)</sup> Excludes Contingency Reserve.

	June 30, 2015	June 30, 2014	Percentage Change
Active Members:	· ·	· ·	
Number of Members	1,107	1,081	2.4%
Average Age	47.2	47.3	N/A
Average Service	9.4	9.8	N/A
Projected Total Compensation	\$58,106,396	\$55,876,248	4.0%
Average Projected Compensation	\$52,490	\$51,689	1.5%
Retired Members and Beneficiaries:			
Number of Members:			
Service Retired	1,057	1,012	4.4%
Disability Retired	170	172	-1.2%
Beneficiaries	152	144	5.6%
Total	1,379	1,328	3.8%
Average Age	68.6	68.3	N/A
Average Monthly Benefit	\$1,768	\$1,708	3.5%
Vested Terminated Members:			
Number of Vested Terminated Members	414	394	5.1%
Average Age	47.6	48.3	N/A
Summary of Financial Data:			
Market Value of Assets	\$444,217,356	\$442,308,448	0.4%
Return on Market Value of Assets*	3.02%	18.10%	N/A
Actuarial Value of Assets	\$432,679,307	\$409,284,122	5.7%
Return on Actuarial Value of Assets	8.59%	9.54%	N/A
Valuation Value of Assets	\$428,228,929	\$404,855,842	5.8%
Return on Valuation Value of Assets	8.68%	9.48%	N/A

\* The rates of return have been calculated on a dollar-weighted basis. It is our understanding that MCERA's investment consultant calculates rates of return on a time-weighted basis, which can produce different results. The rates of return determined by the investment consultant were 3.11% as of June 30, 2015 and 18.07% as of June 30, 2014.

### **Important Information about Actuarial Valuations**

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- Plan of benefits Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- Participant data An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- > <u>Assets</u> This valuation is based on the market value of assets as of the valuation date, as provided by the Association.
- > <u>Actuarial assumptions</u> In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, termination, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- > The valuation is prepared at the request of the Board to assist the sponsors of the Fund in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- > An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

- > If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Retirement Association, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Retirement Association.



### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A-E.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

## CHART 1

Member Population: 2006 – 2015<sup>(1)</sup>

Year Ended	Active	Vested Terminated	<b>Retired Members</b>	Ratio of Non-Actives
June 30	Members	Members <sup>(2)</sup>	and Beneficiaries	to Actives
2006	1,312	445	853	0.99
2007	1,395	407	907	0.94
2008	1,410	411	962	0.97
2009	1,369	412	1,008	1.04
2010	1,254	395	1,083	1.18
2011	1,129	389	1,129	1.34
2012	1,069	356	1,217	1.47
2013	1,072	345	1,287	1.52
2014	1,081	394	1,328	1.59
2015	1,107	414	1,379	1.62

<sup>(1)</sup> Information prior to 2011 has been extracted from the previous actuary's past valuation reports.

<sup>(2)</sup> Includes pending withdrawals and pending disabilities prior to 2011.

### **Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 1,107 active members with an average age of 47.2 years, average years of service of 9.4, and average compensation of \$52,490. The 1,081 active members in the prior valuation had an average age of 47.3 years, average service of 9.8 years, and average compensation of \$51,689.

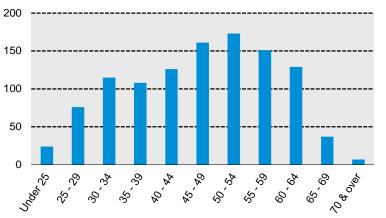
### **Inactive Members**

In this year's valuation, there were 414 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 394 in the prior valuation.

These graphs show a distribution of active members by age and by years of service.

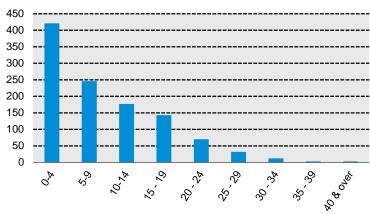
### CHART 2

Distribution of Active Members by Age as of June 30, 2015



### CHART 3

Distribution of Active Members by Years of Service as of June 30, 2015



### **Retired Members and Beneficiaries**

As of June 30, 2015, 1,227 retired members and 152 beneficiaries were receiving total monthly benefits of \$2,437,570. For comparison, in the previous valuation, there were 1,184 retired members and 144 beneficiaries receiving monthly benefits of \$2,268,742.

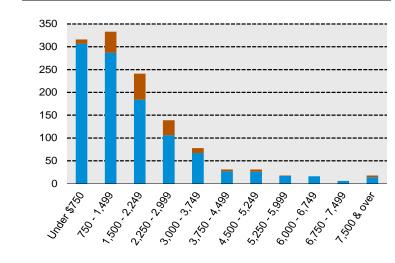
These graphs show a distribution of the current retired members based on their monthly amount and age, by type of pension.

Disability

Service

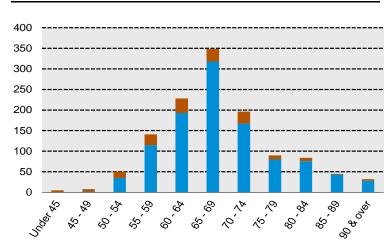


Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of June 30, 2015



### CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of June 30, 2015



### **B. FINANCIAL INFORMATION**

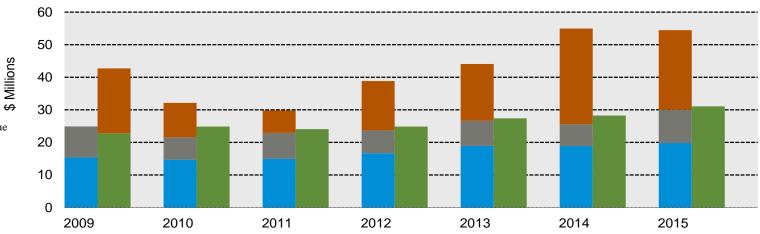
Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits F and G.

### CHART 6

The chart depicts the components of changes in the actuarial value of assets over the last seven years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

- 6
- Adjustment toward market value
- Benefits paid
- Net interest and dividends
- Contributions

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2009 through 2015



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

### CHART 7

### Determination of Actuarial Value of Assets for Year Ended June 30, 2015

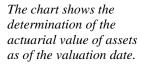
1. Market value of assets: \$444.217.356 Actual Market Expected Market Investment Deferred Deferred Return (net) Gain / (Loss) Return (net) Factor Return 2. Calculation of deferred return: (a) Year ended June 30, 2008 \$(15.554.126) \$28.043.159 \$(43.597.285) (78,104,078) (b) Year ended June 30, 2009 (51, 892, 628)26.211.450 see footnote (1) below Year ended June 30, 2010 38.132.500 21.358.039 16,774,461 (c) Year ended June 30, 2011 0% \$0 (d) 64,075,101 23,640,399 40,434,702 Year ended June 30, 2012 (4,078,489)27,196,991 (31, 275, 480)20% (6,255,096)(e) (f)Year ended June 30, 2013 48.890.492 26,235,422 22.655.070 40% 9.062.028 Year ended June 30, 2014 68,494,950 29,334,150 39,160,800 60% 23,496,480 (g) Year ended June 30, 2015 (h) 13,201,309 31,658,013 (18, 456, 704)80% (14,765,363)Total unrecognized return\* \$11,538,049 (i) 3. Preliminary actuarial value of assets: (1) - (2i) \$432,679,307 4. Adjustment to be within 25% corridor of market value \$0 5. Final actuarial value of assets: (3) + (4)\$432.679.307 6. Actuarial value as a percentage of market value:  $(5) \div (1)$ 97.4% 7. Non-pension reserves: Contingency reserve \$4,450,378 8. Valuation value of assets<sup>\*\*</sup>: (5) - (7)\$428,228,929

(1) Based on action taken by the Board in 2012, the total deferred return through June 30, 2011 of \$2,451,350 was recognized in four level amounts, and this amount has been fully recognized as of the June 30, 2015 valuation.

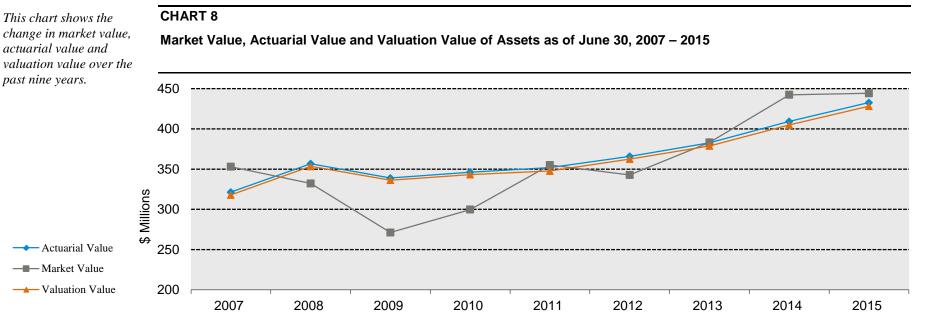
\*The amount of deferred return that will be recognized in each subsequent valuation is as follows (note: amounts may not total exactly due to rounding):

6/30/2016	\$2,416,737	6/30/2018	4,140,819
6/30/2017	8,671,833	6/30/2019	<u>(3,691,341)</u>
		Total	\$11,538,049

\*\* Note that the valuation value of assets for each of the General, Safety, and Probation membership groups has generally been calculated in proportion to the book value reserves maintained by MCERA for those three membership groups.



The market value, actuarial value, and valuation value of assets are representations of MCERA's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation asset value is significant because MCERA's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.



★ Segal Consulting

### C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total experience loss was \$1.8 million, a net gain of \$5.7 million from investments and a loss of \$7.5 million from all other sources. The net experience variation from individual sources other than investments was 1.2% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

### CHART 9

Actuarial Experience for Year Ended June 30, 2015

1.	Net gain/(loss) from investments <sup>(1)</sup>	\$5,722,789
2.	Net gain/(loss) from other experience <sup>(2)</sup>	<u>(7,554,525)</u>
3.	Net experience $gain/(loss)$ : (1) + (2)	\$(1,831,736)

<sup>(1)</sup> Details in Chart 10.

<sup>(2)</sup> See Section 3, Exhibit I.

### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on MCERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.25% for the June 30, 2014 valuation. The actual rate of return on a valuation basis for the 2015 plan year was 8.68%.

Since the actual return for the year was more than the assumed return, MCERA experienced an actuarial gain during the year ended June 30, 2015 with regard to its investments.

# This chart shows the gain/(loss) due to investment experience.

### CHART 10

Investment Experience for Year Ended June 30, 2015 Valuation Value, Actuarial Value, and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$34,665,488	\$34,687,586	\$13,201,309
2. Average value of assets	\$399,209,642	\$403,637,922	\$436,662,248
3. Actual rate of return: $(1) \div (2)$	8.68%	8.59%	3.02%
4. Assumed rate of return	7.25%	7.25%	7.25%
5. Expected return: $(2) x (4)$	\$28,942,699	\$29,263,749	\$31,658,013
6. Actuarial gain/(loss): $(1) - (5)$	<u>\$5,722,789</u>	<u>\$5,423,837</u>	<u>(\$18,456,704)</u>

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on a valuation, actuarial, and market value basis for the last nine years. Based on recommendations adopted by the Board on October 15, 2014, we have maintained the assumed longterm rate of return of 7.25% for the June 30, 2015 valuation.

### CHART 11

Investment Return – Valuation Value, Actuarial Value and Market Value: 2007 – 2015\*

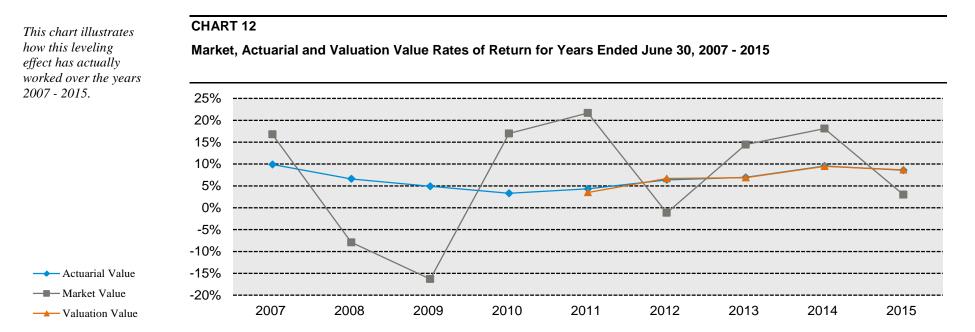
	Valuatio Investme	on Value nt Return	Actuaria Investme		Market Investmen	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent
2007	N/A	N/A	N/A	9.90%	\$50,991,137	16.80%
2008	N/A	N/A	N/A	6.60%	(28,174,415)	(7.90)%
2009	N/A	N/A	N/A	4.90%	(53,511,078)	(16.30)%
2010	N/A	N/A	N/A	3.30%	44,658,046	17.00%
2011	\$11,895,661	3.50%	\$14,809,915	4.33%	64,075,101	21.68%
2012	22,982,960	6.69%	22,205,173	6.38%	(4,078,489)	(1.16)%
2013	24,720,166	6.90%	25,124,178	6.95%	48,890,492	14.44%
2014	35,462,137	9.48%	36,055,066	9.54%	68,494,950	18.10%
2015	34,665,488	8.68%	34,687,586	8.59%	13,201,309	3.02%
Five-Year Average Return		7.03%		7.14%		10.86%
Nine-Year Average Return		N/A		6.70%		6.51%

\* Information prior to 2011 has been extracted from the previous actuary's past valuation reports.

\*\* The rates of return have been calculated on a dollar-weighted basis. It is our understanding that MCERA's investment consultant calculates rates of return on a time-weighted basis, which can produce different results.



Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.



## $\star$ Segal Consulting

### **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- > actual turnover among the participants,
- > retirement experience (earlier or later than expected),
- > mortality (more or fewer deaths than expected),

- > the number of disability retirements, and
- > salary increases different than assumed.

The net loss from this other experience for the year ended June 30, 2015 amounted to \$7.5 million which is 1.2% of the actuarial accrued liability. See Exhibit I for a detailed development of the Unfunded Actuarial Accrued Liability.

### D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost	The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.
Contribution to the Unfunded	
Actuarial Accrued Liability (UAAL)	The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.75% (i.e., 3.25% inflation plus 0.50% across-the-board salary increase).
	Prior to July 1, 2012, the total UAAL was being amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012 (and 24 years remaining as of June 30, 2015). On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.
	Also, under the Board's funding policy adopted on April 17, 2013, in addition to the UAAL contribution rate, an amortization amount equal to the UAAL contribution rate times the covered payroll (as estimated in the actuarial valuation that establishes such UAAL contribution rate) will be calculated for each employer. The final UAAL payment by each employer will be equal to the UAAL contribution rate times the actual covered payroll or the above amortization amount, if greater. This means that

UAAL contribution amounts will be equal to the greater of the UAAL contribution rates developed in Section 2, Chart 13A of this valuation times the actual fiscal year 2016/2017 payroll, or the estimated UAAL annual contribution amounts provided in Section 2, Chart 13B of this valuation. To facilitate the calculation of the minimum UAAL dollar contribution amount, we have provided in Chart 13B a breakdown of the estimated UAAL annual contribution amounts by employer (i.e., County of Mendocino, Mendocino County Superior Court, and Russian River Cemetery District).

On June 19, 2013 the Board adopted an additional change to the actuarial funding policy to anticipate the contribution rate impact that would result from the lag between the date of the actuarial valuation and the date of the contribution rate implementation. In general, the contribution rates determined in an actuarial valuation will apply to the fiscal year beginning 12 months after the valuation date. In compliance with the change in the funding policy, the employer contribution rates developed in this valuation have been adjusted to anticipate the delay in implementing the change in the employer contribution rates determined as of June 30, 2015 for the fiscal year 2016/2017. This adjustment is reflected in the UAAL portion of the June 30, 2015 employer rates.

The recommended employer contribution rates are provided on Chart 13A. The minimum amounts required from each employer to amortize their UAAL are provided in Chart 13B.

Member Contributions:

General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General Tier 1-3 members and for Safety and Probation Tier 1-2 members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary. That age is 60 for General members and 50 for Safety and Probation members. It is assumed that contributions are made annually

	at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. Following practices established by the Association's previous actuary prior to the June 30, 2011 valuation, we have also included a 1.63% of pay offset to the Safety member rates, which is picked up by the County. <u>No</u> other subsidies have been reflected in the member contribution rates.
General Tier 4,	
Safety Tier 3, and	
Probation Tier 3	Pursuant to Section 7522.30(a) of the Government Code, General Tier 4, Safety Tier 3, and Probation Tier 3 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e).
	Accumulation for all members includes semi-annual crediting of interest at the assumed investment earnings rate.

The member contribution rates are provided in Appendix A.

### CHART 13A

Recommended Employer Contribution Rates (Estimated Annual Amounts in \$000's)

			June	30, 2015			June	30, 2014
	В	ASIC	C	DLA	ТО	TAL		AND COLA IBINED
	Rate	Estimated Annual <u>Amount</u> <sup>(1)</sup>	<u>Rate</u>	Estimated Annual <u>Amount<sup>(1)</sup></u>	Rate	Estimated Annual <u>Amount<sup>(1)</sup></u>	<u>Rate</u>	Estimated Annual <u>Amount<sup>(1)</sup></u>
General Tier 1 Members								
Normal Cost	10.59%	\$80	3.46%	\$26	14.05%	\$106	13.80%	\$105
UAAL	<u>13.39%</u>	<u>102</u>	4.78%	<u>36</u>	<u>18.17%</u>	<u>138</u>	<u>19.16%</u>	<u>145</u>
Total Contribution	23.98%	\$182	8.24%	\$62	32.22%	\$244	32.96%	\$250
General Tier 2 / Tier 3 Members								
Normal Cost	8.32%	\$2,800	2.63%	\$885	10.95%	\$3,685	11.03%	\$3,711
UAAL	<u>13.39%</u>	4,505	4.78%	<u>1,608</u>	<u>18.17%</u>	<u>6,113</u>	<u>19.16%</u>	<u>6,447</u>
Total Contribution	21.71%	\$7,305	7.41%	\$2,493	29.12%	\$9,798	30.19%	\$10,158
General Tier 4 Members								
Normal Cost	7.34%	\$894	0.00%	\$0	7.34%	\$894	7.16%	\$872
UAAL	<u>13.39%</u>	<u>1,631</u>	4.78%	<u>582</u>	<u>18.17%</u>	2,213	<u>19.16%</u>	2,334
Total Contribution	20.73%	\$2,525	4.78%	\$582	25.51%	\$3,107	26.32%	\$3,206
Safety Tier 1 Members								
Normal Cost								
UAAL				Not Calcu	ulated*			
Total Contribution								
Safety Tier 2 Members								
Normal Cost	14.25%	\$1,108	6.24%	\$485	20.49%	\$1,593	20.60%	\$1,602
UAAL	<u>21.55%</u>	<u>1,676</u>	<u>14.69%</u>	<u>1,143</u>	36.24%	<u>2,819</u>	<u>33.56%</u>	<u>2,610</u>
Total Contribution	35.80%	\$2,784	20.93%	\$1,628	56.73%	\$4,412	54.16%	\$4,212

\* There were no Safety Tier 1 active members reported for the June 30, 2015 valuation.



### CHART 13A

Recommended Employer Contribution Rates (Estimated Annual Amounts in \$000's) - continued

			June	30, 2015			June	30, 2014
	BASIC		C	COLA T		TAL		AND COLA IBINED
	Rate	Estimated Annual <u>Amount</u> <sup>(1)</sup>	<u>Rate</u>	Estimated Annual <u>Amount<sup>(1)</sup></u>	Rate	Estimated Annual <u>Amount<sup>(1)</sup></u>	Rate	Estimated Annual <u>Amount<sup>(1)</sup></u>
Safety Tier 3 Members								
Normal Cost	10.79%	\$117	0.00%	\$0	10.79%	\$117	10.63%	\$115
UAAL	<u>21.55%</u>	<u>234</u>	<u>14.69%</u>	<u>160</u>	36.24%	<u>394</u>	<u>33.56%</u>	<u>365</u>
Total Contribution	32.34%	\$351	14.69%	\$160	47.03%	\$511	44.19%	\$480
Probation Tier 1 Members								
Normal Cost								
UAAL				Not Calcu	ulated*			
Total Contribution								
Probation Tier 2 Members								
Normal Cost	12.67%	\$300	4.51%	\$107	17.18%	\$407	17.79%	\$421
UAAL	<u>13.03%</u>	<u>308</u>	2.23%	<u>53</u>	15.26%	<u>361</u>	<u>15.62%</u>	<u>370</u>
Total Contribution	25.70%	\$608	6.74%	\$160	32.44%	\$768	33.41%	\$791
Probation Tier 3 Members								
Normal Cost	9.56%	\$28	0.00%	\$0	9.56%	\$28	8.55%	\$25
UAAL	<u>13.03%</u>	<u>37</u>	2.23%	<u>7</u>	15.26%	<u>44</u>	15.62%	<u>45</u>
Total Contribution	22.59%	\$65	2.23%	\$7	24.82%	\$72	24.17%	\$70

\* There were no Probation Tier 1 active members reported for the June 30, 2015 valuation.

### CHART 13A

### Recommended Employer Contribution Rates (Estimated Annual Amounts in \$000's) - continued

			June	30, 2015			June 3	0, 2014
	В	ASIC	C	OLA	то	TAL	BASIC AN COME	
	Rate	Estimated Annual <u>Amount<sup>(1)</sup></u>	<u>Rate</u>	Estimated Annual <u>Amount</u> <sup>(1)</sup>	Rate	Estimated Annual <u>Amount<sup>(1)</sup></u>	<u>Rate</u>	Estimated Annual <u>Amount<sup>(1)</sup></u>
All Members Combined								
Normal Cost	9.17%	\$5,327	2.58%	\$1,503	11.75%	\$6,830	11.79%	\$6,851
UAAL	<u>14.61%</u>	<u>8,493</u>	<u>6.19%</u>	<u>3,589</u>	20.80%	12,082	<u>21.20%</u>	<u>12,316</u>
Total Contribution	23.78%	\$13,820	8.77%	\$5,092	32.55%	\$18,912	32.99%	\$19,167

<sup>(1)</sup> Amounts are based on the following June 30, 2015 projected annual compensation:

General Tier 1	\$757,752
General Tier 2 / Tier 3	33,648,551
General Tier 4	12,181,432
Safety Tier 1	0
Safety Tier 2	7,776,909
Safety Tier 3	1,085,912
Probation Tier 1	0
Probation Tier 2	2,367,098
Probation Tier 3	288,742
Total	\$58,106,396

Note that a breakdown of the employer minimum dollar contribution to amortize the UAAL by membership group (General/Safety/Probation) and employer (County of Mendocino/Mendocino County Superior Court/Russian River Cemetery District) is provided on the next page.

### CHART 13B

Recommended Minimum Dollar Employer Contribution To Amortize the UAAL (Estimated Annual Amounts in \$000's)

		June 30, 2015	
	Est	timated UAAL Annual Amour	nt <sup>(1)</sup>
	BASIC	COLA	TOTAL
General Members			
County	\$5,837	\$2,083	\$7,920
Courts	372	133	505
Cemetery District	<u>29</u>	<u>10</u>	<u>39</u>
Total	\$6,238	\$2,226	\$8,464
Safety Members			
County	<u>\$1,910</u>	<u>\$1,303</u>	\$3,213
Total	\$1,910	\$1,303	\$3,213
Probation Members			
County	<u>\$345</u>	<u>\$60</u>	<u>\$405</u>
Total	\$345	\$60	\$405
All Members Combined			
County	\$8,092	\$3,446	\$11,538
Courts	372	133	505
Cemetery District	<u>29</u>	<u>10</u>	<u>39</u>
Total	\$8,493	\$3,589	\$12,082
Amounts are based on the following Ju	ne 30, 2015 projected annual compensa	tion:	
General County	\$43,593,694		
General Courts	2,777,478		
General Cemetery District	216,563		
Safety County	8,862,821		
Probation County	2,655,840		
Total	\$58,106,396		



The employer contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### **Reconciliation of Recommended Employer Contribution**

The chart below details the changes in the recommended employer contribution from the prior valuation to the current year's valuation.

### CHART 14

The chart reconciles the employer contribution from the prior valuation to the amount determined in this valuation.

	Contribution Rate	Estimated Amount <sup>(1)</sup>
Recommended Contribution Rate as of June 30, 2014	32.99%	\$19,167,000
Effect of actuarial experience during fiscal year 2015:		
1. Effect of change in membership demographics	(0.04)%	\$(23,000)
<ol> <li>Effect of anticipated one-year delay in implementing the lower aggregate employer contribution rate developed in the June 30, 2015 valuation until fiscal year 2016/2017</li> <li>Effect of investment gain</li> </ol>	(0.03)% (0.74)%	(17,000) (430,000)
4. Effect of lower than expected salary increases for General and Probation actives	(0.23)%	(134,000)
5. Effect of amortizing prior year's UAAL over a larger than expected projected total payroll	(0.05)%	(29,000)
6. Effect of other experience losses <sup>(2)</sup>	0.65%	378,000
Subtotal	(0.44)%	\$(255,000)
Recommended Contribution Rate as of June 30, 2015	32.55%	\$18,912,000

<sup>(1)</sup> Based on June 30, 2015 projected compensation.

<sup>(2)</sup> Roughly one-third of the experience losses are due to mortality losses from members in pay status as of last year's valuation date.

The member contribution rates as of June 30, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### **Reconciliation of Recommended Member Contribution Rate**

The chart below details the changes in the recommended member contribution rate from the prior valuation to the current year's valuation.

### CHART 15

The chart reconciles the member contribution from the prior valuation to the amount determined in this valuation.

## Reconciliation of Recommended Member Contribution from June 30, 2014 to June 30, 2015

	Contribution Rate	Estimated Amount*
Average Contribution Rate as of June 30, 2014	9.83%	\$5,709,000
Effect of actuarial experience during fiscal year 2015:		
1. Effect of change in membership demographics	0.03%	\$18,000
Subtotal	0.03%	\$18,000
Average Contribution Rate as of June 30, 2015	9.86%	\$5,727,000

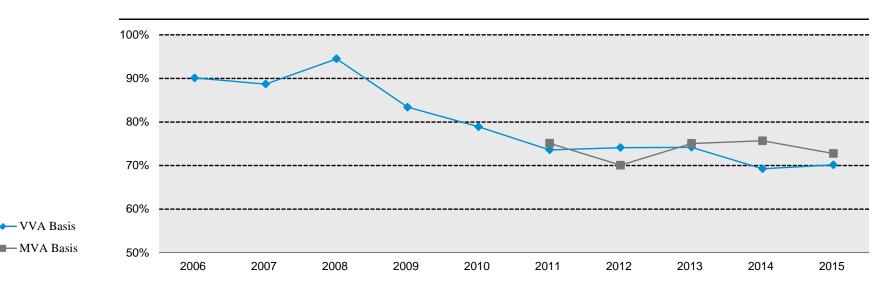
\* Based on June 30, 2015 projected compensation.

### E. FUNDED RATIO

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. The chart below depicts a history of the funded ratios for this plan.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of setting the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the valuation value or market value of assets is used.





### Funded Ratio for Plan Years Ending June 30, 2006 - 2014

### CHART 17

Schedule of Funding Progress<sup>(1)</sup>

Actuarial Valuation Date	Valuation Value of Assets <sup>(2)</sup> (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll <sup>(3)</sup> (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
6/30/2006	\$288,461,000	\$320,123,000	\$31,662,000	90.1%	\$57,665,172	54.9%
6/30/2007	317,936,703	358,259,082	40,322,379	88.7	65,879,000	61.2
6/30/2008	353,420,714	373,832,395	20,411,681	94.5	70,880,333	28.8
6/30/2009	336,262,500	403,195,980	66,933,480	83.4	72,235,097	92.7
6/30/2010	343,201,920	434,986,533	91,784,613	78.9	69,004,002	133.0
6/30/2011	347,731,607	472,644,283	124,912,676	73.6	64,143,765	194.7
6/30/2012	362,487,345	489,014,364	126,527,019	74.1	56,596,088	223.6
6/30/2013	378,777,024	510,461,279	131,684,255	74.2	56,463,983	233.2
6/30/2014	404,855,842	584,428,884	179,573,042	69.3	55,876,248	321.4
6/30/2015	428,228,929	610,381,849	182,152,920	70.2	58,106,396	313.5

<sup>(1)</sup> Information prior to 2011 has been extracted from the previous actuary's past valuation reports.

<sup>(2)</sup> Excludes assets for non-valuation reserves.

<sup>(3)</sup> Beginning 6/30/2011, payroll includes a projection for expected salary increases during the year following the valuation date under the actuarial assumptions used in the valuation.

### F. VOLATILITY RATIOS

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For MCERA, the current AVR is about 7.6. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 7.6% of one-year's payroll. Since MCERA amortizes actuarial gains and losses over an 18-year period, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For MCERA, the current LVR is about 10.5. This is about 38% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

### This chart shows how the asset and liability volatility ratios have

volatility ratios have varied over time.

### CHART 18

Volatility Ratios for Years Ended June 30, 2010 – 2015\*

	Asset Volatility Ratios			Liability Volatility Ratios				
Year Ended June 30	General	Safety	Probation	Total	General	Safety	Probation	Total
2010	4.1	5.8	5.3	4.3	5.7	10.0	6.1	6.3
2011	5.0	8.7	5.9	5.5	6.7	11.6	7.7	7.4
2012	5.6	8.7	5.6	6.1	8.1	12.3	7.8	8.6
2013	6.3	9.6	6.4	6.8	8.4	12.9	7.8	9.0
2014	7.4	10.6	7.9	7.9	9.7	14.6	9.6	10.5
2015	7.1	10.4	8.2	7.6	9.6	15.2	10.3	10.5

\* Information for year ended June 30, 2010 has been derived based on information from the previous actuary's past valuation report.

### SECTION 3: Supplemental Information for the Mendocino County Employees' Retirement Association

	Year Ende	Year Ended June 30			
Category	2015	2014	- Change From Prior Year		
Active members in valuation					
Number	11	15	-26.7%		
Average age	60.8	59.5	N/A		
Average service	34.4	32.1	N/A		
Projected total compensation	\$757,752	\$1,063,211	-28.7%		
Projected average compensation	\$68,887	\$70,881	-2.8%		
Member account balances	\$2,404,466	\$2,920,057	-17.7%		
Total active vested members	11	15	-26.7%		
Vested terminated members					
Number	6	7	-14.3%		
Average age	60.1	59.4	N/A		
Retired members					
Number in pay status	331	337	-1.8%		
Average age	74.9	74.4	N/A		
Average monthly benefit	\$2,300	\$2,206	4.3%		
Disabled members					
Number in pay status	31	32	-3.1%		
Average age	70.9	70.1	N/A		
Average monthly benefit	\$1,886	\$1,875	0.6%		
Beneficiaries					
Number in pay status	81	80	1.3%		
Average age	80.2	79.5	N/A		
Average monthly benefit	\$1,261	\$1,212	4.0%		

EXHIBIT A

### SECTION 3: Supplemental Information for the Mendocino County Employees' Retirement Association

EXHIBIT A			
Table of Plan Coverage			
ii. General Tiers 2 and 3			
	Year Ende	ed June 30	
Category	2015	2014	Change Fron Prior Year
Active members in valuation			
Number	634	709	-10.6%
Average age	50.8	49.9	N/A
Average service	12.1	11.1	N/A
Projected total compensation	\$33,648,551	\$36,407,022	-7.6%
Projected average compensation	\$53,073	\$51,350	3.4%
Member account balances	\$37,740,834	\$37,660,732	0.2%
Total active vested members	539	591	-8.8%
Vested terminated members			
Number	308	312	-1.3%
Average age	49.4	49.3	N/A
Retired members			
Number in pay status	613	573	7.0%
Average age	65.9	65.3	N/A
Average monthly benefit	\$1,291	\$1,235	4.5%
Disabled members			
Number in pay status	80	81	-1.2%
Average age	61.7	61.0	N/A
Average monthly benefit	\$1,561	\$1,510	3.4%
Beneficiaries			
Number in pay status	38	34	11.8%
Average age	63.4	62.5	N/A
Average monthly benefit	\$890	\$888	0.2%

### SECTION 3: Supplemental Information for the Mendocino County Employees' Retirement Association

Category	Year Ended June 30		
	2015	2014	– Change From Prior Year
Active members in valuation			
Number	285	176	61.9%
Average age	41.3	40.2	N/A
Average service	1.1	0.7	N/A
Projected total compensation	\$12,181,432	\$7,201,851	69.1%
Projected average compensation	\$42,742	\$40,920	4.5%
Member account balances	\$869,019	\$304,314	185.6%
Total active vested members	0	0	N/A
Vested terminated members			
Number	48	28	71.4%
Average age	40.4	44.3	N/A
Retired members			
Number in pay status	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
Number in pay status	N/A	N/A	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

EXHIBIT A

EXHIBIT A			
Table of Plan Coverage			
iv. Safety Tiers 1, 2, and 3			
	Year Ende	d June 30	
Category	2015	2014	Change From Prior Year
Active members in valuation			
Number*	125	129	-3.1%
Average age	43.4	43.5	N/A
Average service	12.7	12.5	N/A
Projected total compensation	\$8,862,821	\$8,509,082	4.2%
Projected average compensation	\$70,903	\$65,962	7.5%
Member account balances	\$6,861,256	\$6,880,199	-0.3%
Total active vested members	97	104	-6.7%
Vested terminated members			
Number	41	38	7.9%
Average age	43.0	43.1	N/A
Retired members			
Number in pay status	82	73	12.3%
Average age	65.1	65.2	N/A
Average monthly benefit	\$2,904	\$2,836	2.4%
Disabled members			
Number in pay status	56	56	0.0%
Average age	65.8	65.8	N/A
Average monthly benefit	\$3,241	\$3,079	5.3%
Beneficiaries			
Number in pay status	31	29	6.9%
Average age	66.9	68.9	N/A
Average monthly benefit	\$1,626	\$1,511	7.6%

\* Includes 21 Safety Tier 3 members as of June 30, 2015 and 18 as of June 30, 2014.

v. Probation Tiers 1, 2, and 3	Year Ende	d June 30	
0-1			Change From
Category Active members in valuation	2015	2014	Prior Year
	50	50	0.00/
Number*	52	52	0.0%
Average age	41.6	42.0	N/A
Average service	9.6	9.6	N/A
Projected total compensation	\$2,655,840	\$2,695,082	-1.5%
Projected average compensation	\$51,074	\$51,828	-1.5%
Member account balances	\$3,252,767	\$3,238,955	0.4%
Total active vested members	37	40	-7.5%
Vested terminated members			
Number	11	9	22.2%
Average age	38.5	37.3	N/A
Retired members			
Number in pay status	31	29	6.9%
Average age	64.1	63.2	N/A
Average monthly benefit	\$2,833	\$2,718	4.2%
Disabled members			
Number in pay status	3	3	0.0%
Average age	55.8	54.8	N/A
Average monthly benefit	\$1,954	\$1,906	2.5%
Beneficiaries			
Number in pay status	2	1	100.0%
Average age	70.4	64.8	N/A
Average monthly benefit	\$997	\$495	101.4%

\* Includes 7 Probation Tier 3 members as of June 30, 2015 and 5 as of June 30, 2014.

EXHIBIT A

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2015

#### i. General Tier 1

				Year	s of Servi	се			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25									
25 - 29									
30 - 34									
35 - 39									
40 - 44									
45 - 49									
50 - 54									
55 – 59	2			1				1	
	\$38,505			\$37,145				\$39,864	
60 - 64	9							3	6
	75,638							91,418	\$67,748
65 - 69									
70 & over									
Total	11			1				4	
	\$68,887			\$37,145				\$78,530	\$67,748

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2015

ii. General Tiers 2 and 3

				Year	s of Servi	се			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	2	2							
	\$38,786	\$38,786							
25 - 29	14	7	6	1					
	45,993	46,612	\$46,599	\$38,020					
30 - 34	39	19	15	4	1				
	48,889	49,372	47,870	49,106	\$54,145				
35 - 39	58	15	20	15	8				
	52,117	51,666	52,216	52,403	52,176				
40 - 44	69	8	22	22	13	4			
	54,080	48,346	55,184	55,698	48,544	\$68,573			
45 - 49	95	14	25	24	15	12	5		
	50,388	52,301	43,703	50,070	55,397	54,723	\$54,549		
50 - 54	109	11	30	30	21	9	5	3	
	54,165	52,643	50,478	56,304	54,296	49,279	53,921	\$89,372	
55 - 59	115	9	32	22	29	14	7	2	
	56,980	70,349	53,023	52,139	58,721	56,113	68,405	54,214	
60 - 64	94	7	36	16	15	16	4		
	52,186	61,212	49,019	50,930	51,538	55,766	58,030		
65 - 69	33	1	14	10	5	2	1		
	54,677	46,306	52,546	59,388	46,639	51,864	91,583		
70 & over	6	1	3	1		1			
	52,125	54,071	42,732	63,364		67,121			
Total	634	94	203	145	107	58	22	5	
1 otur	\$53,073	\$52,947	\$50,188	\$53,488	\$54,046	\$55,572	\$61,131	\$75,309	

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2015

## iii. General Tier 4

				Year	s of Servi	се			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	15	15						-	
	\$35,270	\$35,270						-	
25 - 29	44	44						-	
	38,715	38,715						-	
30 - 34	52	52						-	
	41,616	41,616						-	
35 - 39	28	28						-	
	41,487	41,487						-	
40 - 44	34	34						-	
	39,202	39,202						-	
45 - 49	32	32						-	
	47,023	47,023						-	
50 - 54	37	37						-	
	45,300	45,300						-	
55 - 59	24	24						-	
	49,795	49,795						-	
60 - 64	16	15		1*				-	
	45,671	46,472		\$33,654				-	
65 - 69	2	2						-	
	51,854	51,854						-	
70 & over	1	1						-	
	80,019	80,019						-	
Total	285	284		1				-	
1000	\$42,742	\$42,774		\$33,654				-	

\* Member purchased additional years of service.

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2015

## iv. Safety Tiers 1, 2, and 3

				Years of	Service			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over
Under 25	6	6						
	\$48,071	\$48,071						-
25 - 29	11	8	3					-
	57,189	53,144	\$67,976					-
30 - 34	14	9	5					-
	59,095	54,978	66,506					-
35 - 39	11	1	5	2	3			-
	68,378	52,274	62,362	\$76,211	\$78,552			-
40 - 44	19	2	4	6	7			-
	75,314	56,769	70,315	71,725	86,546			-
45 - 49	28		2	5	13	5	3	-
	74,822		59,047	66,732	72,487	\$88,632	\$85,926	-
50 - 54	23	2	3	6	3	3	4	
	84,868	78,940	90,053	71,445	66,841	88,772	100,136	\$113,93
55 - 59	5		1	2			1	
	67,685		56,380	58,223			73,192	92,40
60 - 64	7		1	2	2	1	1	-
	67,917		70,713	61,186	72,298	57,421	80,319	-
65 - 69	1		1					-
	74,029		74,029					-
70 & over								-
								-
Total	125	28	25	23	28	9	9	
roun	\$70,903	\$54,717	\$68,756	\$68,866	\$76,033	\$85,211	\$90,204	\$106,75

Members in Active Service and Projected Average Compensation By Age, Years of Service as of June 30, 2015

## v. Probation Tiers 1, 2, and 3

				Years of	Service			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over
Under 25	1	1						-
	\$38,884	\$38,884						-
25 - 29	7	7						-
	44,412	44,412						-
30 - 34	10	2	7	1				
	47,995	39,366	\$49,853	\$52,253				-
35 - 39	11	3	5	3				
	47,400	42,229	45,971	54,952				
40 - 44	4	1		1	2			
	55,699	44,543		56,130	\$61,062			
45 - 49	6		1		4	1		
	53,062		57,489		51,933	\$53,154		
50 - 54	4			1	1	1	1	
	61,623			59,665	51,608	53,578	\$81,640	
55 - 59	5		3	1	1			
	52,071		54,308	54,328	43,102			
60 - 64	3	1	1			1		
	68,036	52,474	42,382			109,251		
65 - 69	1		1					
	52,596		52,596					
70 & over								
Total	52	15	18	7	8	3	1	
rotur	\$51,074	\$43,480	\$49,679	\$55,319	\$53,071	\$71,994	\$81,640	

		Nun	iber of Yea	ars Since R	etirement		
-	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Valuation date: 6/30/2010							
Average Monthly Benefit of Retirees and Beneficiaries	\$1,699	\$1,363	\$1,361	\$1,429	\$1,280	\$1,324	\$1,123
Number of Retirees and Beneficiaries	387	243	152	123	82	57	39
Valuation date: 6/30/2011							
Average Monthly Benefit of Retirees	\$1,872	\$1,637	\$1,454	\$1,502	\$1,433	\$1,501	\$981
Number of Retirees	351	236	137	111	74	51	33
Average Monthly Benefit of Beneficiaries	\$1,043	\$1,172	\$864	\$1,380	\$1,402	\$1,069	\$947
Number of Beneficiaries	45	35	20	15	9	5	7
Valuation date: 6/30/2012							
Average Monthly Benefit of Retirees	\$1,841	\$1,752	\$1,420	\$1,462	\$1,640	\$1,336	\$1,356
Number of Retirees	382	277	132	99	85	62	38
Average Monthly Benefit of Beneficiaries	\$1,167	\$1,230	\$806	\$1,385	\$1,324	\$1,150	\$975
Number of Beneficiaries	44	42	19	14	8	8	7
Valuation date: 6/30/2013							
Average Monthly Benefit of Retirees	\$1,874	\$1,870	\$1,391	\$1,480	\$1,706	\$1,377	\$1,458
Number of Retirees	407	300	148	106	86	52	44
Average Monthly Benefit of Beneficiaries	\$1,207	\$1,236	\$882	\$1,248	\$1,442	\$1,177	\$871
Number of Beneficiaries	46	38	19	20	7	8	6
Valuation date: 6/30/2014							
Average Monthly Benefit of Retirees	\$1,928	\$1,916	\$1,433	\$1,575	\$1,668	\$1,517	\$1,481
Number of Retirees	411	318	155	112	90	50	48
Average Monthly Benefit of Beneficiaries	\$1,265	\$1,228	\$1,064	\$954	\$1,786	\$1,300	\$699
Number of Beneficiaries	41	39	22	19	8	9	6
Valuation date: 6/30/2015							
Average Monthly Benefit of Retirees	\$1,986	\$2,006	\$1,587	\$1,570	\$1,753	\$1,457	\$1,610
Number of Retirees	391	329	200	110	94	51	52
Average Monthly Benefit of Beneficiaries	\$1,308	\$1,208	\$1,184	\$961	\$1,654	\$1,226	\$1,091
Number of Beneficiaries	46	40	23	16	12	8	7

<sup>(1)</sup> Information as of 6/30/2010 has been extracted from the previous actuary's valuation reports. Note: Final Average Salary is not available.

## EXHIBIT D

Average Annual Benefit of Retired Members and Beneficiaries By Age, Years in Retirement as of June 30, 2015

## i. General Males

	Years in Retirement												
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & ovei					
Under 45	1		1										
	\$908		\$908										
45 - 49													
50 - 54	8	6	2										
	14,275	\$13,386	16,941										
55 - 59	48	28	16	1		2		1					
	15,464	16,847	12,802	\$10,711		\$19,688		\$15,623					
60 - 64	80	34	28	16		2							
	20,321	24,994	19,472	12,252		17,305							
65 - 69	131	41	51	23	10	4	1	1					
	26,179	23,630	35,143	17,189	\$12,532	25,216	\$27,237	19,537					
70 - 74	64	7	14	19	12	8	2	2					
	23,772	25,414	25,173	29,819	17,902	15,666	24,201	17,995					
75 - 79	45	7	6	13	10	6	3						
	21,024	15,830	11,241	30,389	19,169	26,189	7,972						
80 - 84	39	1	1	3	9	17	6	2					
	22,766	6,820	23,941	3,862	29,905	27,752	12,988	13,333					
85 & over	40	3	5	1	4	4	8	15					
	18,999	21,607	5,554	13,251	12,699	14,874	24,960	22,945					
Total	456	127	124	76	45	43	20	21					
	\$21,991	\$21,504	\$24,586	\$20,902	\$18,928	\$22,990	\$18,858	\$21,047					

# EXHIBIT D

Average Annual Benefit of Retired Members and Beneficiaries By Age, Years in Retirement as of June 30, 2015

#### ii. General Females

				Years in	Retirement			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over
Under 45	2	1			1			
	\$14,895	\$20,434			\$9,356			
45 - 49	4	2	1			1		
	15,003	9,857	\$21,828			\$18,472		
50 - 54	37	26	7	2		2		
	12,523	11,742	11,534	\$18,922		19,730		
55 - 59	87	49	30	5		2	1	
	13,825	14,696	12,255	15,064		15,757	\$8,154	
60 - 64	145	71	43	24	5	1		1
	21,942	28,323	17,518	10,634	22,633	24,084		\$24,896
65 - 69	183	76	55	41	10	1		
	19,278	23,522	20,553	12,437	8,506	14,806		
70 - 74	102	22	38	21	13	6	2	
	16,441	17,350	18,286	15,962	15,209	6,881	13,094	
75 - 79	44	3	7	14	9	7	2	2
	13,301	15,805	11,950	16,238	13,662	8,822	4,833	16,229
80 - 84	53	3	5	7	10	15	9	4
	14,570	12,158	16,576	17,965	13,766	16,947	12,680	5,283
85 & over	61	5	2	4	8	11	12	19
	15,324	14,233	25,814	19,309	12,055	22,775	13,069	12,156
Total	718	258	188	118	56	46	26	26
	\$17,318	\$20,934	\$17,377	\$13,930	\$13,613	\$16,003	\$12,114	\$11,902

## EXHIBIT D

Average Annual Benefit of Retired Members and Beneficiaries By Age, Years in Retirement as of June 30, 2015

## iii. Safety

				Years in	Retirement			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over
Under 45	7	5	2					
	\$24,352	\$25,870	\$20,556					
45 - 49	3	1	2					
	30,932	26,532	33,133					
50 - 54	17	12	2		2	1		
	28,131	29,826	21,266		\$27,137	\$23,515		
55 - 59	21	13	6	1	1			
	46,982	54,297	39,239	\$30,546	14,779			
60 - 64	23	2	14	1	2	2		2
	43,337	20,286	57,112	36,386	16,644	23,216		\$20,254
65 - 69	37	5	7	10	9	4	1	1
	29,330	33,029	45,519	23,829	23,963	23,709	\$26,834	25,822
70 - 74	32	1	4	6	9	2	7	3
	28,379	22,006	34,076	27,832	29,623	25,514	26,628	26,261
75 - 79	15		4	2		4	3	2
	35,728		50,993	27,940		28,516	26,078	41,889
80 - 84	12		1	1	2	4	1	3
	29,235		9,270	16,827	28,898	40,180	17,219	29,662
85 & over	2						1	1
	17,712						8,665	26,759
Total	169	39	42	21	25	17	13	12
	\$33,375	\$37,112	\$44,121	\$25,949	\$25,696	\$28,858	\$24,411	\$28,720

# EXHIBIT D

Average Annual Benefit of Retired Members and Beneficiaries By Age, Years in Retirement as of June 30, 2015

# iv. Probation

				Years in	Retirement			
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & over
Under 45	1			1				
	\$26,773			\$26,773				
45 - 49								
50 - 54								
55 - 59	9	5	4					
	36,525	\$54,497	\$14,061					
60 - 64	9	3	5	1				
	27,658	32,176	25,491	24,941				
65 - 69	13	4	5	4				
	36,370	18,766	27,510	65,049				
70 - 74	3	1		2				
	21,195	17,846		22,870				
75 - 79								
80 - 84	1		1					
	7,349		7,349					
85 & over								
Total	36	13	15	8				
	\$31,894	\$35,533	\$21,906	\$44,706				

#### EXHIBIT E

	Active Members	Vested Terminated Members	Pensioners	Disableds	Beneficiaries	Total
Number as of June 30, 2014	1,081	394	1,012	172	144	2,803
New members	166	0	0	0	13	179
Terminations – with vested rights	-46	49	-3	0	0	0
Contributions refunds	-50	-20	0	0	0	-70
Retirements	-45	-22	68	-1	0	0
New disabilities	-2	0	-2	4	0	0
Return to work	6	-6	0	0	0	0
Died with or without beneficiary	-3	-1	-18	-5	-5	-32
Data adjustments	0	20*	0	0	0	20
Number as of June 30, 2015	1,107	414	1,057	170	152	2,900

Reconciliation of Member Data – June 30, 2014 to June 30, 2015

\* Includes 12 members entitled to a refund only.

## EXHIBIT F

# Summary Statement of Income and Expenses - Actuarial Value Basis

	Year Ended June 30,				
	2015		201	4	
Contribution Income:					
Employer Contributions	\$15,164,044		\$14,324,752		
Employee Contributions	4,651,960		<u>4,575,895</u>		
Contribution Income		\$19,816,004		\$18,900,647	
Investment Income:					
Interest, Dividends and Other Income	\$10,758,646		\$7,178,116		
Adjustment Toward Market Value	24,494,040		29,380,192		
Less Investment Expenses	(565,100)		(503,242)		
Net Investment Income		<u>\$34,687,586</u>		<u>\$36,055,066</u>	
Total Income Available for Benefits		\$54,503,590		\$54,955,713	
Less Benefit Payments:					
Benefit Payments and Refunds	\$(30,049,133)		\$(27,353,529)		
Administrative Expenses	<u>(1,059,272)</u>		(930,437)		
Net Benefit Payments		\$(31,108,405)		\$(28,283,966)	
Change in Reserve for Future Benefits		\$23,395,185		\$26,671,747	

## EXHIBIT G

# Summary Statement of Assets

	Year Ended June 30,					
ASSETS	2015		201	4		
Cash and Cash Equivalents		\$1,398,150		\$4,966,310		
Accounts Receivable:						
Employer Contributions	\$545,830		\$328,334			
Member Contributions	113,026		104,280			
Total Accounts Receivable		\$658,856		\$432,614		
Other Assets		146,739		6,468		
Investments:						
Public Equity Securities	\$53,190,622		\$52,733,876			
Real Estate and Real Estate Partnerships	41,634,670		37,533,201			
Mutual Funds	347,937,529		347,155,558			
Total Investments at Market Value		\$442,762,821		<u>\$437,422,635</u>		
Total Assets		\$444,966,566		\$442,828,027		
Less Liabilities:						
Accounts Payable	\$(365,017)		\$(204,392)			
Accrued Expenses and Other Liabilities	(384,193)		(315,187)			
Total Liabilities		\$(749,210)		\$(519,579)		
NET ASSETS						
Net Assets at Market Value		<u>\$444,217,356</u>		<u>\$442,308,448</u>		
Net Assets at Actuarial Value		\$432,679,307		<u>\$409,284,122</u>		
Net Assets at Valuation Value		<u>\$428,228,929</u>		<u>\$404,855,842</u>		

Note: Results may not total properly due to rounding.

#### **EXHIBIT H**

#### **Actuarial Balance Sheet**

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan. Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments.

#### **Actuarial Balance Sheet**

Assets	Basic	COLA	Total
1. Total valuation assets	\$264,704,318	\$163,524,611	\$428,228,929
2. Present value of future contributions by members	25,089,514	6,426,894	31,516,408
3. Present value of future employer contributions for:			
a. entry age normal cost	29,238,976	8,339,167	37,578,143
b. unfunded actuarial accrued liability	126,449,612	55,703,308	182,152,920
4. Total current and future assets	\$445,482,420	\$233,993,980	\$679,476,400
Liabilities			
5. Present value of benefits already granted to present retirees and beneficiaries	\$231,071,152	\$162,327,142	\$393,398,294
6. Present value of benefits to be granted to present non-retired members	214,411,268	71,666,838	286,078,106
7. Total liabilities	\$445,482,420	\$233,993,980	\$679,476,400

## EXHIBIT I

#### Development of Unfunded Actuarial Accrued Liability as of June 30, 2015

1.	Unfunded actuarial accrued liability at beginning of year:	\$179,573,042
2.	Gross normal cost at beginning of year	12,058,526
3.	Expected employer and member contributions	(24,322,000)
4.	Interest (whole year on $(1) + (2)$ plus half year on $(3)$ )	<u>13,011,616</u>
5.	Expected unfunded actuarial accrued liability at end of year	\$180,321,184
6.	Actuarial (gain)/loss due to all changes:*	
	a. (Gain)/loss from investments as recognized on June 30, 2015	\$(5,722,789)
	b. (Gain)/loss from lower than expected salary increases for General and Probation actives	(1,751,806)
	c. (Gain)/loss due to one-year delay from implementing employer contribution rates in	
	June 30, 2014 valuation (with interest to end of year)**	4,268,808
	d. Other experience (gains)/losses***	<u>5,037,523</u>
	e. Subtotal	\$1,831,736
7.	Actual unfunded actuarial accrued liability at end of year (5) + (6e)	\$182,152,920

\* The "net gain/(loss) from other experience" of \$(7,554,525) from Chart 9 is equal to the sum of items 6b, 6c, and 6d.

\*\* The additional employer contribution rate attributable to this loss is already included in the employer rate determined in the 2014 valuation.

\*\*\* Roughly one-third of the experience losses are due to mortality losses from members in pay status as of last year's valuation date (note that the average number of deaths from payee status over the prior three years ended June 30, 2014 was 33 per year, compared to the 28 deaths experienced during the year ended June 30, 2015).

#### EXHIBIT J

# **Table of Amortization Bases**

Туре	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment*
General						
Combined Base	6/30/2012	27	\$96,509,955	\$100,639,572	24	\$6,213,193
Experience Loss	6/30/2013	18	1,308,206	1,294,189	16	106,494
Experience Gain	6/30/2014	18	(10,922,004)	(10,863,710)	17	(854,135)
Change in Assumptions/Method	6/30/2014	18	41,158,191	40,938,516	17	3,218,700
Experience Gain	6/30/2015	18	(2,476,999)	(2,476,999)	18	(186,708)
Total				\$129,531,568		\$8,497,544
Safety						
Combined Base	6/30/2012	27	\$24,941,466	\$26,008,700	24	\$1,605,701
Experience Loss	6/30/2013	18	2,713,369	2,684,297	16	220,880
Experience Gain	6/30/2014	18	(489,900)	(487,285)	17	(38,312)
Change in Assumptions/Method	6/30/2014	18	13,983,439	13,908,805	17	1,093,549
Experience Loss	6/30/2015	18	4,163,162	4,163,162	18	313,805
Total				\$46,277,679		\$3,195,623
Probation						
Combined Base	6/30/2012	27	\$5,075,598	\$5,292,780	24	\$326,761
Experience Gain	6/30/2013	18	(964,299)	(953,967)	16	(78,498)
Experience Gain	6/30/2014	18	(834,449)	(829,995)	17	(65,257)
Change in Assumptions/Method	6/30/2014	18	3,045,283	3,029,029	17	238,151
Experience Gain	6/30/2015	18	(194,174)	(194,174)	18	(14,636)
Total				\$6,343,673		\$406,521
Total						
Combined Base	6/30/2012	27	\$126,527,019	\$131,941,052	24	\$8,145,655
Experience Loss	6/30/2013	18	3,057,276	3,024,519	16	248,876
Experience Gain	6/30/2014	18	(12,246,353)	(12,180,990)	17	(957,704)
Change in Assumptions/Method	6/30/2014	18	58,186,913	57,876,350	17	4,550,400
Experience Loss	6/30/2015	18	1,491,989	1,491,989	18	112,461
Total				\$182,152,920		\$12,099,688

\* Level percentage of payroll.

Note: The equivalent single amortization period is about 22 years.

# EXHIBIT K

## Section 415 Limitations

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of \$160,000 indexed for inflation. That limit is \$210,000 for 2015 and 2016. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must generally be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits for members in non-CalPEPRA tiers in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contributions rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

## EXHIBIT L

Normal Cost:

For Actives:

For Pensioners:

**Accrued Liability:** 

Actuarial Accrued Liability

Actuarial Accrued Liability

**Unfunded** (Overfunded) Actuarial

#### **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader:

# Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age; and
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

The amount of contributions required to fund the level cost allocated to the current year of service.

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There are many approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability.
Investment Return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

# EXHIBIT I

# **Summary of Actuarial Valuation Results**

The valuation was made with respect to the following data supplied to us:		
1. Retired members as of the valuation date (including 152 beneficiaries in pay status)		1,379
2. Members inactive during year ended June 30, 2015 with vested rights		414
3. Members active during the year ended June 30, 2015		1,107
The actuarial factors as of the valuation date are as follows:		
1. Normal cost		\$12,557,000
2. Present value of future benefits		679,476,400
3. Present value of future normal costs		69,094,551
4. Actuarial accrued liability*		610,381,849
Retired members and beneficiaries	\$393,398,294	
Inactive members with vested rights	30,949,665	
Active members	186,033,890	
5. Valuation value of assets* (\$444,217,356 at market value as reported by Retirement Association)		428,228,929
5. Unfunded actuarial accrued liability		\$182,152,920

\* Excludes non-pension reserves.

## EXHIBIT I (continued)

## **Summary of Actuarial Valuation Results**

The determination of the recommended average employer contribution is as follows:

		<b>Dollar Amount</b>	% of Payroll
1.	Total normal cost	\$12,557,000	21.61%
2.	Expected employee contributions	-5,727,000	<u>-9.86%</u>
3.	Employer normal cost: $(1) + (2)$	\$6,830,000	11.75%
4.	Amortization of unfunded actuarial accrued liability	<u>12,082,000</u> *	<u>20.80%</u>
5.	Total recommended average employer contribution: $(3) + (4)$	\$18,912,000	32.55%
6.	Projected compensation	\$58,106,396	

\* Based on the total annual payment in Section 3, Exhibit J plus an amount associated with the anticipated contribution rate impact resulting from the 12month lag between the date of the valuation and the date of the contribution rate implementation.

## EXHIBIT II

# Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions:The information and analysis used in selecting each assumption that h effect on this actuarial valuation is shown in the July 1, 2011 through Actuarial Experience Study dated October 7, 2014. Unless otherwise n actuarial assumptions and methods shown below apply to all members General, Safety, and Probation) and tiers. These assumptions were add Board.		
<b>Demographic Assumptions:</b>		
Post-Retirement Mortality Rates		
Healthy Members and		
All Beneficiaries:	For all members and all beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.	
Disabled Members:	For all members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward four years for both males and females.	
	The above mortality tables contain a margin in excess of 10%, based on actual to expected deaths, as a provision appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.	
Employee Contribution Rates:	For General members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 30% male and 70% female.	
	For Safety and Probation members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 80% male and 20% female.	

# **Termination Rates Before Retirement:**

	Rate (%)						
	Death						
	Gen	eral <sup>(1)</sup>	Safety and	Probation <sup>(2)</sup>			
Age	Male	Female	Male	Female			
25	0.04	0.02	0.04	0.02			
30	0.04	0.02	0.04	0.02			
35	0.07	0.04	0.07	0.04			
40	0.10	0.07	0.10	0.07			
45	0.13	0.11	0.13	0.11			
50	0.19	0.16	0.19	0.16			
55	0.30	0.25	0.30	0.25			
60	0.53	0.41	0.53	0.41			
65	0.90	0.76	0.90	0.76			

<sup>(1)</sup> 10% of General deaths are assumed to be service connected deaths. The other 90% are assumed to be non-service connected deaths.

(2) 50% of Safety and Probation deaths are assumed to be service connected deaths. The other 50% are assumed to be non-service connected deaths. **Termination Rates Before Retirement (continued):** 

	Rate (%) Disability				
Age	General <sup>(1)</sup>	Safety <sup>(2)</sup>	Probation <sup>(2)</sup>		
20	0.01	0.10	0.10		
25	0.01	0.13	0.13		
30	0.01	0.18	0.18		
35	0.02	0.53	0.53		
40	0.13	1.05	1.05		
45	0.38	1.40	1.40		
50	0.53	2.25	2.25		
55	0.58	2.75	2.75		
60	0.63	0.00	0.00		

(1) 40% of General disabilities are assumed to be service connected disabilities. The other 60% are assumed to be non-service connected disabilities.

(2) 90% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 10% are assumed to be non-service connected disabilities. **Termination Rates Before Retirement (continued):** 

		Rate (%)		
	Termination (Less Than 5 Years of Service) <sup>(1)</sup>			
Years of Service	General Safety Probation			
0	18.00	13.50	13.50	
1	16.00	11.50	11.50	
2	14.00	9.50	9.50	
3	12.00	7.50	7.50	
4	10.00	5.50	5.50	

# Rate (%)

	Termination (5+ Years of Service) <sup>(2)</sup>			
Age	General	Safety	Probation	
20	6.50	5.00	5.00	
25	6.50	4.70	4.70	
30	6.50	4.20	4.20	
35	6.50	3.70	3.70	
40	6.50	3.20	3.20	
45	6.50	2.70	2.70	
50	6.50	1.30	1.30	
55	5.90	0.20	0.20	
60	4.90	0.00	0.00	

<sup>(1)</sup> 85% of all terminated members will choose a refund of contributions and 15% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

<sup>(2)</sup> 25% of all terminated members will choose a refund of contributions and 75% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

# SECTION 4: Reporting Information for the Mendocino County Employees' Retirement Association

# **Retirement Rates:**

Rate (%)						
Age	General Tiers 1, 2, & 3	General Tier 4	Safety Tiers 1 & 2	Safety Tier 3	Probation Tiers 1 & 2	Probation Tier 3
50	6.00	0.00	8.00	3.00	5.00	4.00
51	6.00	0.00	8.00	3.00	5.00	4.00
52	6.00	6.00	8.00	3.00	5.00	4.00
53	6.00	3.00	8.00	3.00	5.00	4.00
54	6.00	3.00	8.00	3.00	5.00	4.00
55	10.00	5.00	9.00	4.00	24.00	14.00
56	10.00	5.00	9.00	6.00	24.00	25.00
57	10.00	5.00	10.00	7.00	24.00	25.00
58	10.00	5.00	20.00	9.00	24.00	25.00
59	10.00	5.00	30.00	30.00	24.00	25.00
60	12.00	6.00	100.00	100.00	100.00	100.00
61	20.00	9.00	100.00	100.00	100.00	100.00
62	26.00	12.00	100.00	100.00	100.00	100.00
63	20.00	14.00	100.00	100.00	100.00	100.00
64	20.00	12.00	100.00	100.00	100.00	100.00
65	45.00	32.00	100.00	100.00	100.00	100.00
66	45.00	32.00	100.00	100.00	100.00	100.00
67	45.00	32.00	100.00	100.00	100.00	100.00
68	45.00	32.00	100.00	100.00	100.00	100.00
69	45.00	32.00	100.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00

Retirement Age and Benefit for Deferred Vested Members:	For deferred vested members, retirement age assumptions are as follows:	
	General Age:60Safety and Probation Age:55	
	For deferred vested members who terminate with less than five years of service and are not vested, it is assumed they will retire at age 70 if they decide to leave their contributions on deposit.	
	It is assumed that 60% of future deferred vested members will continue to work for a reciprocal employer. For reciprocals, 4.25% compensation increases per annum are assumed.	
Future Benefit Accruals:	1.0 year of service per year of employment plus 0.019 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.	
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.	
Inclusion of Deferred Vested Members:	All deferred vested members are included in the valuation.	
Percent Married:	75% of male members; 50% of female members.	
Age of Spouse:	Female (or male) spouses are 3 years younger (or older) than their spouse.	
Economic Assumptions:		
Net Investment Return:	7.25% per annum.	
Employee Contribution Crediting Rate:	7.25% per annum.	

Consumer Price Index:	and 3, Safety Tiers 1 and 2	, and Probation Tiers 1	es due to CPI for General Tiers 1, 2, and 2 subject to a 3% maximum Tier 4, Safety Tier 3, or Probation	
Salary Increases:	Annual Rate of Compensation Increase (%) Inflation: 3.25%; plus additional 0.50% "across the board" salary increases (other than inflation); plus the following Merit and Promotional increases based on years of service.			
	0-1	5.00%	5.00%	
	1-2	3.75%	3.75%	
	2-3	3.50%	3.00%	
	3-4	2.75%	2.25%	
	4-5	2.25%	1.00%	
	5+	0.50%	0.50%	
Actuarial Value of Assets:	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five year period. The actuarial value of assets cannot be less than 75% or greater than 125% of the market value of assets.			
Valuation Value of Assets:	The Actuarial Value of Ass	sets reduced by the value	ue of the non-valuation reserves.	
Actuarial Cost Method:	Entry Age Cost Method. Entry Age is the age at the member's hire date. The Normal Cost is calculated on an individual basis where the Entry Age Normal Cost for each membership tier is calculated as the sum of the individual Normal Costs for members in the membership tier. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation.			
			mortized on a 30-year decreasing 12 (and 24 years remaining as of	

Actuarial Cost Method (continued): June 30, 2015). On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18year periods.

## EXHIBIT III

# **Summary of Plan Provisions**

This exhibit summarizes the major provisions of MCERA included in the valuation as of June 30, 2015. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	Membership with MCERA usually begins with the first day of the pay period following the date of entrance into service.
General Tier 1	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired prior to July 1, 1984.
General Tier 2	General Tier 2 has been replaced by General Tier 3.
General Tier 3	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after July 1, 1984 and prior to January 1, 2013.
General Tier 4	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after January 1, 2013.
Safety Tier 1	All employees appointed to a position in active law enforcement who were hired prior to June 1, 1982.
Safety Tier 2	All employees appointed to a position in active law enforcement who were hired on or after June 1, 1982 and prior to January 1, 2013.
Safety Tier 3	All employees appointed to a position in active law enforcement who were hired on or after January 1, 2013.
Probation Tier 1	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired prior to July 1, 1984.

# Membership Eligibility (continued):

Probation Tier 2	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after July 1, 1984 and prior to January 1, 2013.	
Probation Tier 3	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after January 1, 2013.	
Final Compensation for Benefit Determination:		
General Tier 1, Safety Tier 1, and Probation Tier 1	Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).	
General Tiers 2 and 3, Safety Tier 2, and Probation Tier 2	Highest consecutive thirty-six months of compensation earnable (§31462) (FAS3).	
<i>General Tier 4, Safety</i> <i>Tier 3, and Probation Tier 3</i>	Highest consecutive thirty-six months of pensionable compensation (§7522.10(c), §7522.32, §7522.34) (FAS3).	
Service:	Years of service (Yrs).	
Service Retirement Eligibility:		
General Tiers 1, 2, and 3	Age 50 with 5 years of service and 10 years of membership, or age 70 and vested or after 30 years of service regardless of age (§31672).	
General Tier 4	Age 52 with 5 years of service, or age 70 and vested (§7522.20(a)).	
Safety and Probation Tiers 1 and 2	2 Age 50 with 5 years of service and 10 years of membership, or age 70 and vested, or after 20 years of service regardless of age (§31663.25).	
Safety and Probation Tier 3	Age 50 with 5 years of service, or age 70 and vested (§7522.25(d)).	

# **Benefit Formula:**

	<b>Retirement Age</b>	Benefit Formula
General Tier 1 (§31676.12)*	50	(1.34% x FAS1 – 1/3 x 1.34% x \$350 x 12) x Yrs
	55	(1.77% x FAS1 – 1/3 x 1.77% x \$350 x 12) x Yrs
	60	(2.34% x FAS1 – 1/3 x 2.34% x \$350 x 12) x Yrs
	62 or later	(2.62% x FAS1 – 1/3 x 2.62% x \$350 x 12) x Yrs
General Tier 2 and		
General Tier 3 (§31676.12)*	50	(1.34% x FAS3 – 1/3 x 1.34% x \$350 x 12) x Yrs
	55	(1.77% x FAS3 – 1/3 x 1.77% x \$350 x 12) x Yrs
	60	(2.34% x FAS3 – 1/3 x 2.34% x \$350 x 12) x Yrs
	62 or later	(2.62% x FAS3 – 1/3 x 2.62% x \$350 x 12) x Yrs
General Tier 4 (§7522.20(a))	52	1.00% x FAS3 x Yrs
	55	1.30% x FAS3 x Yrs
	60	1.80% x FAS3 x Yrs
	62	2.00% x FAS3 x Yrs
	65	2.30% x FAS3 x Yrs
	67 or later	2.50% x FAS3 x Yrs

\* For members in Bargaining Groups 01 and 101 who have service prior to October 1, 2003 and who have not purchased this service to be covered under Section 31676.12, their prior service will be covered under Section 31676.11 for Tier 1 and 31676.1 for Tier 2 and Tier 3. For all other Bargaining Groups, the prior service date is January 1, 2002 (instead of October 1, 2003).

	<b>Retirement Age</b>	Benefit Formula
Safety Tier 1 (§31664.2)	50	(2.29% x FAS1 – 1/3 x 2.29% x \$350 x 12) x Yrs
	55 or later	(3.00% x FAS1 – 1/3 x 3.00% x \$350 x 12) x Yrs
Safety Tier 2 (§31664.2)	50	(2.29% x FAS3 – 1/3 x 2.29% x \$350 x 12) x Yrs
	55 or later	(3.00% x FAS3 – 1/3 x 3.00% x \$350 x 12) x Yrs

# **Benefit Formula (continued):**

	<b>Retirement Age</b>	Benefit Formula
Safety Tier 3 (§7522.25(d))	50	2.00% x FAS3 x Yrs
	55	2.50% x FAS3 x Yrs
	57 or later	2.70% x FAS3 x Yrs
Probation Tier 1 (§31664)	50	(2.00% x FAS1 – 1/3 x 2.00% x \$350 x 12) x Yrs
	55 or later	(2.62% x FAS1 – 1/3 x 2.62% x \$350 x 12) x Yrs
Probation Tier 2 (§31664)	50	(2.00% x FAS3 – 1/3 x 2.00% x \$350 x 12) x Yrs
	55 or later	(2.62% x FAS3 – 1/3 x 2.62% x \$350 x 12) x Yrs
<i>Probation Tier 3 (§7522.25(d))</i>	50	2.00% x FAS3 x Yrs
	55	2.50% x FAS3 x Yrs
	57 or later	2.70% x FAS3 x Yrs
Maximum Benefit:		
General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2	100% of Highest Aver	rage Compensation (§31676.12, §31664.2, and §31664).
<i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>	None (§7522.20(a) and §7522.25(d)).	
Non-Service Connected Disability:		
Eligibility	Five years of service (	\$31720).
Benefit Formula	1.8% of Final Compensation per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62 for General members and to 55 for Safety and Probation members, but the total benefit cannot be more than one-third of Final Compensation (§31727.1 and §31727.2).	

vice Connected Disability:	
<u>All Members</u>	
Eligibility	No age or service requirements (§31720).
Benefit Formula	50% of the Final Compensation or 100% of Service Retirement benefit, if greate (§31727.4).
e-Retirement Death:	
<u>All Members</u>	
Eligibility	None.
Basic lump sum benefit	Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six month's compensation (§31781).
Death in line-of-duty	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse* or minor children (§31787).
	OR
Vested Members	
Eligibility	Five years of service.
Basic benefit	60% of the greater of Service Retirement or Non-Service Connected Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), is lieu of the basic lump sum benefit above.
Death in line-of-duty	50% of Final compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).

# SECTION 4: Reporting Information for the Mendocino County Employees' Retirement Association

\* In this summary, continuance benefit payable to spouse is also available to eligible domestic partner.

All Members				
Service or Non-Service Connected Disability Retirement	60% of member's unmodified allowance continued to eligible spouse (§31760.1). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1).			
Service Connected Disability	100% of member's allowance continued to eligible spouse (§31786).			
Withdrawal Benefits:				
Less than Five Years of Service	Refund of accumulated employee contributions with interest (§31628).			
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any tin after eligible to retire (§31700).			
Post-retirement Cost-of-Living Benefits:				
General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2	Future changes based on Consumer Price Index to a maximum of 3% per year; excess "banked" (§31870.1)			
<i>General Tier 4, Safety Tier 3, and Probation Tier 3</i>	None.			
Member Contributions:	Please refer to Appendix A for specific rates.			
General Tier 1				
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAS1 (§31621.2).			
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.			

#### SECTION 4: Reporting Information for the Mendocino County Employees' Retirement Association

\* 100% of the COLA benefit is continued to the survivor upon the member's death for a member who retired prior to September 17, 2014 for service or non-service connected disability and chose the unmodified option at retirement.

#### Member Contributions (continued):

Plan Amendment:	None during July 1, 2014 to June 30, 2015.
Other Information:	All non-CalPEPRA members with 30 or more years of service are exempt from paying member contributions.
Safety Tier 3 and Probation Tier 3	50% of the total Normal Cost rate.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs. Safety Tier 2 cost-of-living member rates are offset by 1.63% of pay, which is picked up by the County.
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAS3 (§31639.25).
Safety Tier 2 and Probation Tier 2	
Cost-of-Living	Provide for one-half of future Cost-of-Living costs. Safety Tier 1 cost-of-living member rates are offset by 1.63% of pay, which is picked up by the County.
Basic	Provide for an average annuity at age 50 equal to 1/100 of FAS1 (§31639.25).
Safety Tier 1 and Probation Tier 1	
General Tier 4	50% of the total Normal Cost rate.
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAS3 (§31621.2).
General Tier 2 and General Tier 3	

**NOTE:** The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so that both parties can be sure the proper provisions are valued.

**Member Contribution Rates** 

		(as a	a percentage of pay	1011)		
	Basic	c Only	COLA	Only	Т	otal
Entry Age	<u>First \$161.54</u>	Over \$161.54	<u>First \$161.54</u>	<u>Over \$161.54</u>	First \$161.54	Over \$161.54
15	3.77%	5.65%	1.31%	1.96%	5.08%	7.61%
16	3.77%	5.65%	1.31%	1.96%	5.08%	7.61%
17	3.83%	5.74%	1.33%	1.99%	5.16%	7.73%
18	3.89%	5.84%	1.35%	2.03%	5.24%	7.87%
19	3.96%	5.94%	1.37%	2.06%	5.33%	8.00%
20	4.03%	6.05%	1.40%	2.10%	5.43%	8.15%
21	4.10%	6.15%	1.42%	2.13%	5.52%	8.28%
22	4.17%	6.25%	1.45%	2.17%	5.62%	8.42%
23	4.24%	6.36%	1.47%	2.21%	5.71%	8.57%
24	4.31%	6.47%	1.49%	2.24%	5.80%	8.71%
25	4.39%	6.58%	1.52%	2.28%	5.91%	8.86%
26	4.46%	6.69%	1.55%	2.32%	6.01%	9.01%
27	4.53%	6.80%	1.57%	2.36%	6.10%	9.16%
28	4.61%	6.92%	1.60%	2.40%	6.21%	9.32%
29	4.69%	7.03%	1.63%	2.44%	6.32%	9.47%
30	4.77%	7.15%	1.65%	2.48%	6.42%	9.63%
31	4.85%	7.27%	1.68%	2.52%	6.53%	9.79%
32	4.93%	7.39%	1.71%	2.56%	6.64%	9.95%
33	5.01%	7.51%	1.73%	2.60%	6.74%	10.11%
34	5.09%	7.63%	1.77%	2.65%	6.86%	10.28%
35	5.17%	7.76%	1.79%	2.69%	6.96%	10.45%
36	5.26%	7.89%	1.83%	2.74%	7.09%	10.63%
37	5.35%	8.02%	1.85%	2.78%	7.20%	10.80%
38	5.43%	8.15%	1.89%	2.83%	7.32%	10.98%
39	5.52%	8.28%	1.91%	2.87%	7.43%	11.15%

### General Tier 1 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (as a percentage of payroll)



Member Contribution Rates (Continued)

		(as a	a percentage of pay	roll)		
	Basic	c Only	COLA	Only	Т	otal
Entry Age	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	<u>Over \$161.54</u>
40	5.61%	8.42%	1.95%	2.92%	7.56%	11.34%
41	5.71%	8.56%	1.98%	2.97%	7.69%	11.53%
42	5.80%	8.70%	2.01%	3.02%	7.81%	11.72%
43	5.89%	8.84%	2.05%	3.07%	7.94%	11.91%
44	5.99%	8.99%	2.08%	3.12%	8.07%	12.11%
45	6.09%	9.14%	2.11%	3.17%	8.20%	12.31%
46	6.20%	9.30%	2.15%	3.23%	8.35%	12.53%
47	6.30%	9.45%	2.19%	3.28%	8.49%	12.73%
48	6.41%	9.62%	2.23%	3.34%	8.64%	12.96%
49	6.53%	9.79%	2.27%	3.40%	8.80%	13.19%
50	6.64%	9.96%	2.30%	3.45%	8.94%	13.41%
51	6.77%	10.15%	2.35%	3.52%	9.12%	13.67%
52	6.90%	10.35%	2.39%	3.59%	9.29%	13.94%
53	7.05%	10.57%	2.45%	3.67%	9.50%	14.24%
54	7.21%	10.81%	2.50%	3.75%	9.71%	14.56%
55	7.27%	10.91%	2.52%	3.78%	9.79%	14.69%
56	7.33%	10.99%	2.54%	3.81%	9.87%	14.80%
57	7.33%	11.00%	2.54%	3.81%	9.87%	14.81%
58	7.34%	11.01%	2.55%	3.82%	9.89%	14.83%
59 & Over	7.29%	10.93%	2.53%	3.79%	9.82%	14.72%
Interest:	7.2	5% per annum				
COLA: Mortality:	3.0	0%	y Mortality Table project	ted with Scale BB to 20	020, set back 1 year fo	Dr

# General Tier 1 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (continued) (as a percentage of payroll)

COLA:	3.00%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for
	males and with no setback for females, weighted 30% male and 70% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	34.68%



Member Contribution Rates (Continued)

		(a	as a percentage of j	payroll)		
	Basi	c Only	COLA	A Only	Тс	otal
Entry Age	First \$161.54	<u>Over \$161.54</u>	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	<u>Over \$161.54</u>
15	3.61%	5.42%	1.25%	1.88%	4.86%	7.30%
16	3.61%	5.42%	1.25%	1.88%	4.86%	7.30%
17	3.67%	5.51%	1.27%	1.91%	4.94%	7.42%
18	3.74%	5.61%	1.30%	1.95%	5.04%	7.56%
19	3.80%	5.70%	1.32%	1.98%	5.12%	7.68%
20	3.87%	5.80%	1.34%	2.01%	5.21%	7.81%
21	3.93%	5.90%	1.37%	2.05%	5.30%	7.95%
22	4.00%	6.00%	1.39%	2.08%	5.39%	8.08%
23	4.07%	6.10%	1.41%	2.12%	5.48%	8.22%
24	4.14%	6.21%	1.43%	2.15%	5.57%	8.36%
25	4.21%	6.31%	1.46%	2.19%	5.67%	8.50%
26	4.28%	6.42%	1.49%	2.23%	5.77%	8.65%
27	4.35%	6.53%	1.51%	2.26%	5.86%	8.79%
28	4.43%	6.64%	1.53%	2.30%	5.96%	8.94%
29	4.50%	6.75%	1.56%	2.34%	6.06%	9.09%
30	4.57%	6.86%	1.59%	2.38%	6.16%	9.24%
31	4.65%	6.97%	1.61%	2.42%	6.26%	9.39%
32	4.73%	7.09%	1.64%	2.46%	6.37%	9.55%
33	4.81%	7.21%	1.67%	2.50%	6.48%	9.71%
34	4.89%	7.33%	1.69%	2.54%	6.58%	9.87%
35	4.97%	7.45%	1.72%	2.58%	6.69%	10.03%
36	5.05%	7.57%	1.75%	2.63%	6.80%	10.20%
37	5.13%	7.70%	1.78%	2.67%	6.91%	10.37%
38	5.21%	7.82%	1.81%	2.71%	7.02%	10.53%
39	5.30%	7.95%	1.84%	2.76%	7.14%	10.71%

General Tier 2 and Tier 3 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (as a percentage of payroll)



**Member Contribution Rates (Continued)** 

General Tier 2 and Tier 3 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (continued) (as a percentage of payroll)

	Basic Only		COL	A Only	Total	
Entry Age	First \$161.54	<i>,</i>	First \$161.54	<u>Over \$161.54</u>	First \$161.54	<u>Over \$161.54</u>
40	5.39%	8.08%	1.87%	2.80%	7.26%	10.88%
41	5.47%	8.21%	1.90%	2.85%	7.37%	11.06%
42	5.57%	8.35%	1.93%	2.90%	7.50%	11.25%
43	5.66%	8.49%	1.96%	2.94%	7.62%	11.43%
44	5.75%	8.63%	1.99%	2.99%	7.74%	11.62%
45	5.85%	8.77%	2.03%	3.04%	7.88%	11.81%
46	5.95%	8.92%	2.06%	3.09%	8.01%	12.01%
47	6.05%	9.07%	2.10%	3.15%	8.15%	12.22%
48	6.15%	9.23%	2.13%	3.20%	8.28%	12.43%
49	6.26%	9.39%	2.17%	3.26%	8.43%	12.65%
50	6.37%	9.56%	2.21%	3.32%	8.58%	12.88%
51	6.49%	9.74%	2.25%	3.38%	8.74%	13.12%
52	6.62%	9.93%	2.29%	3.44%	8.91%	13.37%
53	6.73%	10.09%	2.33%	3.50%	9.06%	13.59%
54	6.80%	10.20%	2.36%	3.54%	9.16%	13.74%
55	6.83%	10.24%	2.37%	3.55%	9.20%	13.79%
56	6.83%	10.25%	2.37%	3.55%	9.20%	13.80%
57	6.81%	10.22%	2.36%	3.54%	9.17%	13.76%
58	7.05%	10.57%	2.45%	3.67%	9.50%	14.24%
59 & Over	7.29%	10.93%	2.53%	3.79%	9.82%	14.72%
Interest:	Interest: 7.25% per annum					
COLA:	I					
Mortality:		RP-2000 Combined Health and with no setback for fem			020, set back 1 year for	males
Salary Increase:		Inflation (3.25%) + Across	-the-Board Increases (0	.50%) + Merit/Promotio	n (see Exhibit II)	
COLA Loading	Factor:	34.68%				



Appendix A		
Iember Contribution Rates (Co	ontinued)	
General Tier 4 Mer	mbers' Contribution Rates - Based on the Ja (as a percentage of eligible payro	·
	Basic Only	Total
		E1: 11 B
	Eligible Pay	Eligible Pay

#### **SECTION 4:** Reporting Information for the Mendocino County Employees' Retirement Association

All General Tier 4 Members

Interest:	7.25% per annum
COLA:	0%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for males and with no setback for females, weighted 30% male and 70% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	0%

\* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2015 is equal to \$117,020. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$117,020, or \$140,424.) (reference: Section 7522.10.) These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2015. (reference: Section 7522.10(d).)

Member Contribution Rates (Continued)

	·	(a	as a percentage of ]	payroll)		
	Basic Only		COLA Only*		Total	
Entry Age	First \$161.54	<u>Over \$161.54</u>	First \$161.54	Over \$161.54	First \$161.54	Over \$161.54
15	4.72%	7.08%	0.91%	2.18%	5.63%	9.26%
16	4.72%	7.08%	0.91%	2.18%	5.63%	9.26%
17	4.80%	7.20%	0.95%	2.25%	5.75%	9.45%
18	4.88%	7.32%	1.00%	2.31%	5.88%	9.63%
19	4.96%	7.44%	1.04%	2.38%	6.00%	9.82%
20	5.04%	7.56%	1.08%	2.44%	6.12%	10.00%
21	5.13%	7.69%	1.13%	2.51%	6.26%	10.20%
22	5.21%	7.82%	1.18%	2.58%	6.39%	10.40%
23	5.30%	7.95%	1.22%	2.65%	6.52%	10.60%
24	5.39%	8.08%	1.27%	2.72%	6.66%	10.80%
25	5.47%	8.21%	1.32%	2.79%	6.79%	11.00%
26	5.56%	8.34%	1.36%	2.86%	6.92%	11.20%
27	5.65%	8.48%	1.41%	2.94%	7.06%	11.42%
28	5.75%	8.62%	1.47%	3.01%	7.22%	11.63%
29	5.84%	8.76%	1.51%	3.09%	7.35%	11.85%
30	5.93%	8.90%	1.56%	3.16%	7.49%	12.06%
31	6.03%	9.04%	1.62%	3.24%	7.65%	12.28%
32	6.13%	9.19%	1.67%	3.32%	7.80%	12.51%
33	6.23%	9.34%	1.72%	3.40%	7.95%	12.74%
34	6.33%	9.49%	1.78%	3.48%	8.11%	12.97%
35	6.43%	9.65%	1.83%	3.57%	8.26%	13.22%
36	6.54%	9.81%	1.89%	3.65%	8.43%	13.46%
37	6.65%	9.97%	1.95%	3.74%	8.60%	13.71%
38	6.76%	10.14%	2.01%	3.83%	8.77%	13.97%
39	6.87%	10.31%	2.07%	3.92%	8.94%	14.23%

Safety Tier 2 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation



Member Contribution Rates (Continued)

## Safety Tier 2 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (continued) (as a percentage of payroll)

	Basic	c Only	COLA	Only*	То	otal
Entry Age	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	Over \$161.54	First \$161.54	Over \$161.54
40	6.99%	10.49%	2.13%	4.02%	9.12%	14.51%
41	7.11%	10.67%	2.20%	4.11%	9.31%	14.78%
42	7.25%	10.87%	2.27%	4.22%	9.52%	15.09%
43	7.37%	11.06%	2.34%	4.32%	9.71%	15.38%
44	7.48%	11.22%	2.40%	4.41%	9.88%	15.63%
45	7.54%	11.31%	2.43%	4.46%	9.97%	15.77%
46	7.56%	11.34%	2.44%	4.48%	10.00%	15.82%
47	7.54%	11.31%	2.43%	4.46%	9.97%	15.77%
48	7.80%	11.70%	2.57%	4.67%	10.37%	16.37%
49 & over	8.07%	12.11%	2.71%	4.89%	10.78%	17.00%

Interest:	7.25% per annum
COLA:	3.00%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for males and with no setback for females, weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	53.84%

\* COLA rate is offset by 1.63%, which is picked up by the County.

Appendix A		
Member Contribution Rates (Con	tinued)	
Safety Tier 3 Memb	ers' Contribution Rates - Based on the Ju	ne 30, 2015 Actuarial Valuation
	(as a percentage of eligible payro	ll)*
	Basic Only	Total
	Eligible Pay	Eligible Pay
All Safety Tier 3 Members	10.79%	10.79%

#### SECTION 4: Reporting Information for the Mendocino County Employees' Retirement Association

Interest:	7.25% per annum
COLA:	0%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for males and with no setback for females, weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	0%

\* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2015 is equal to \$117,020. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$117,020, or \$140,424.) (reference: Section 7522.10.) These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2015. (reference: Section 7522.10(d).)

Member Contribution Rates (Continued)

(as a percentage of payroll)						
	Basic	c Only	COLA	A Only	Тс	tal
Entry Age	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	Over \$161.54
15	4.72%	7.08%	2.14%	3.21%	6.86%	10.29%
16	4.72%	7.08%	2.14%	3.21%	6.86%	10.29%
17	4.80%	7.20%	2.18%	3.27%	6.98%	10.47%
18	4.88%	7.32%	2.21%	3.32%	7.09%	10.64%
19	4.96%	7.44%	2.25%	3.38%	7.21%	10.82%
20	5.04%	7.56%	2.29%	3.43%	7.33%	10.99%
21	5.13%	7.69%	2.33%	3.49%	7.46%	11.18%
22	5.21%	7.82%	2.37%	3.55%	7.58%	11.37%
23	5.30%	7.95%	2.41%	3.61%	7.71%	11.56%
24	5.39%	8.08%	2.45%	3.67%	7.84%	11.75%
25	5.47%	8.21%	2.49%	3.73%	7.96%	11.94%
26	5.56%	8.34%	2.53%	3.79%	8.09%	12.13%
27	5.65%	8.48%	2.57%	3.85%	8.22%	12.33%
28	5.75%	8.62%	2.61%	3.91%	8.36%	12.53%
29	5.84%	8.76%	2.65%	3.98%	8.49%	12.74%
30	5.93%	8.90%	2.69%	4.04%	8.62%	12.94%
31	6.03%	9.04%	2.73%	4.10%	8.76%	13.14%
32	6.13%	9.19%	2.78%	4.17%	8.91%	13.36%
33	6.23%	9.34%	2.83%	4.24%	9.06%	13.58%
34	6.33%	9.49%	2.87%	4.31%	9.20%	13.80%
35	6.43%	9.65%	2.92%	4.38%	9.35%	14.03%
36	6.54%	9.81%	2.97%	4.45%	9.51%	14.26%
37	6.65%	9.97%	3.02%	4.53%	9.67%	14.50%
38	6.76%	10.14%	3.07%	4.60%	9.83%	14.74%
39	6.87%	10.31%	3.12%	4.68%	9.99%	14.99%

## Probation Tier 2 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation

Member Contribution Rates (Continued)

Probation Tier 2 Members' Contribution Rates - Based on the June 30, 2015 Actuarial Valuation (continued) (as a percentage of payroll)

	Basic	c Only	COLA	A Only	То	tal
Entry Age	<u>First \$161.54</u>	<u>Over \$161.54</u>	<u>First \$161.54</u>	Over \$161.54	<u>First \$161.54</u>	Over \$161.54
40	6.99%	10.49%	3.17%	4.76%	10.16%	15.25%
41	7.11%	10.67%	3.23%	4.84%	10.34%	15.51%
42	7.25%	10.87%	3.29%	4.93%	10.54%	15.80%
43	7.37%	11.06%	3.35%	5.02%	10.72%	16.08%
44	7.48%	11.22%	3.39%	5.09%	10.87%	16.31%
45	7.54%	11.31%	3.42%	5.13%	10.96%	16.44%
46	7.56%	11.34%	3.43%	5.15%	10.99%	16.49%
47	7.54%	11.31%	3.42%	5.13%	10.96%	16.44%
48	7.80%	11.70%	3.54%	5.31%	11.34%	17.01%
49 & over	8.07%	12.11%	3.67%	5.50%	11.74%	17.61%

Interest:	7.25% per annum
COLA:	3.00%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for males and with no setback for females, weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	45.40%

ppendix A		
lember Contribution Rates (Cont	inued)	
<b>Probation Tier 3 Mem</b>	bers' Contribution Rates - Based on the	June 30, 2015 Actuarial Valuation
	(as a percentage of eligible payro	II)*
	Basic Only	Total
	Eligible Pay	Eligible Pay
All Probation Tier 3 Members	9.56%	9.56%

#### **SECTION 4:** Reporting Information for the Mendocino County Employees' Retirement Association

Interest:	7.25% per annum
COLA:	0%
Mortality:	RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back 1 year for males and with no setback for females, weighted 80% male and 20% female
Salary Increase:	Inflation (3.25%) + Across-the-Board Increases (0.50%) + Merit/Promotion (see Exhibit II)
COLA Loading Factor:	0%

\* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2015 is equal to \$117,020. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$117,020, or \$140,424.) (reference: Section 7522.10.) These amounts should be adjusted for changes to the Consumer Price Index for All *Urban Consumers after 2015. (reference: Section 7522.10(d).)* 

#### 5384813v5/13459.002

