



ORANGE COUNTY FIRE AUTHORITY AGENDA

Budget and Finance Committee Meeting

Wednesday, July 13, 2016

12:00 Noon

Orange County Fire Authority Regional Fire Operations and Training Center

1 Fire Authority Road

Room AE117

Irvine, California 92602

Vacant, Chair

Beth Swift, Vice Chair

Gene Hernandez Al Murray Tri Ta Ed Sachs

Bruce Channing - Ex Officio

This Agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action or discussion shall be taken on any item not appearing on the following Agenda. Unless legally privileged, all supporting documents, including staff reports, and any writings or documents provided to a majority of the Budget and Finance Committee after the posting of this agenda are available for review at the Orange County Fire Authority Regional Fire Operations & Training Center, 1 Fire Authority Road, Irvine, CA 92602 or you may contact Sherry A.F. Wentz, Clerk of the Authority, at (714) 573-6040 Monday through Thursday, and every other Friday from 8 a.m. to 5 p.m. and available online at <http://www.ocfa.org>

If you wish to speak before the Budget and Finance Committee, please complete a Speaker Form identifying which item(s) you wish to address. Please return the completed form to the Clerk of the Authority. Speaker Forms are available on the counter noted in the meeting room.



In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the Clerk of the Authority at (714) 573-6040. Notification 48 hours prior to the meeting will enable the Authority to make reasonable arrangements to assure accessibility to the meeting.

CALL TO ORDER

PLEDGE OF ALLEGIANCE by Director Murray

ROLL CALL

PUBLIC COMMENTS

Any member of the public may address the Committee on items within the Committee's subject matter jurisdiction but which are not listed on this agenda during PUBLIC COMMENTS. However, no action may be taken on matters that are not part of the posted agenda. We request comments made on the agenda be made at the time the item is considered and that comments be limited to three minutes per person. Please address your comments to the Committee as a whole, and do not engage in dialogue with individual Committee Members, Authority staff, or members of the audience.

ELECTION OF COMMITTEE CHAIR AND (if needed) VICE CHAIR

2. MINUTES

A. Minutes for the May 11, 2016, Budget and Finance Committee Meeting

Submitted by: Sherry Wentz, Clerk of the Authority

Recommended Action:

Approve as submitted.

3. CONSENT CALENDAR

No Items.

4. DISCUSSION CALENDAR

A. Updated Cost Reimbursement Rates

Submitted by: Lori Zeller, Assistant Chief/Business Services Department

Recommended Action:

Review the proposed agenda item and direct staff to place the item on the agenda for the Board of Directors meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors approve and adopt the proposed Cost Reimbursement Rate schedules effective retroactively July 1, 2016.

B. Emergency Command Center Staffing Enhancements Funded by CAL FIRE

Submitted by: Mike Schroeder, Assistant Chief/Support Services Department

Recommended Action:

Review the proposed agenda item and direct staff to place the item on the agenda for the Board of Directors meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors:

1. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Captain position to the Master Position Control list at an approximate cost of \$254,000 annually.
2. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Communications Supervisor to the Master Position Control list at an approximate cost of \$132,000 annually.
3. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Communications Dispatcher to the Master Position Control list at an approximate cost of \$103,000 annually.
4. Approve and authorize the Fire Chief to add one part-time/extra-help Technical Specialist at a cost up to \$11,000 annually.
5. Approve a budget adjustment to the FY 2016/17 General Fund budget increasing revenues and expenditures by \$514,000 for the purposes of this CAL FIRE program.

C. Quarterly Status Update Orange County Employees' Retirement System

Submitted by: Tricia Jakubiak, Treasurer

Recommended Action:

Receive and file the report.

D. Monthly Investment Reports

Submitted by: Tricia Jakubiak, Treasurer

Recommended Action:

Review the proposed agenda item and direct staff to place the item on the agenda for the Executive Committee meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Executive Committee receive and file the reports.

REPORTS

No items.

COMMITTEE MEMBER COMMENTS

ADJOURNMENT – The next regular meeting of the Budget and Finance Committee is scheduled for Wednesday, September 14, 2016, at 12:00 noon.

AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury under the laws of the State of California, that the foregoing Agenda was posted in the lobby and front gate public display case of the Orange County Fire Authority, Regional Training and Operations Center, 1 Fire Authority Road, Irvine, CA, not less than 72 hours prior to the meeting. Dated this 7th day of July 2016.

Sherry A.F. Wentz, CMC
Clerk of the Authority

UPCOMING MEETINGS:

Claims Settlement Committee Meeting

Thursday, July 28, 2016, 5:00 p.m.

Executive Committee Meeting

Thursday, July 28, 2016, 5:30 p.m.

Board of Directors Meeting

Thursday, July 28, 2016, 6:00 p.m.

MINUTES ORANGE COUNTY FIRE AUTHORITY

Budget and Finance Committee Meeting

May 11, 2016

12:00 Noon

Regional Fire Operations and Training Center

Room AE117

1 Fire Authority Road

Irvine, CA 92602

CALL TO ORDER

A regular meeting of the Orange County Fire Authority Budget and Finance Committee was called to order on May 11, 2016, at 12:00 p.m. by Chair McCloskey.

PLEDGE OF ALLEGIANCE

Director Hernandez led the assembly in the Pledge of Allegiance to our Flag.

ROLL CALL

Present:

Gene Hernandez, Yorba Linda
Al Murray, Tustin
Jerry McCloskey, Laguna Niguel
Ed Sachs, Mission Viejo
Elizabeth Swift, Buena Park
Tri Ta, Westminster

Absent:

None

Also present were:

Fire Chief Jeff Bowman
Assistant Chief Lori Smith
Assistant Chief Brian Young
Communications Director Sandy Cooney
Ex-Officio Bruce Channing

Assistant Chief Mike Schroeder
Assistant Chief Dave Thomas
Assistant Chief Lori Zeller
Clerk of the Authority Sherry Wentz

1. PRESENTATIONS

No items.

PUBLIC COMMENTS (F: 12.02B3)

Chair McCloskey opened the Public Comments portion of the meeting.

Stephen Wontrobski, Mission Viejo resident, addressed his continued concerns with audit firm Lance, Soll, and Lunghard (LSL) and provided the Committee with a list of concerns.

Chair McCloskey closed the Public Comments portion of the meeting.

2. MINUTES

A. Minutes for the April 13, 2016, Budget and Finance Committee Meeting (F: 12.02B2)

On motion of Director Murray and second by Director Ta, the Committee voted unanimously by those present to approve the Minutes for the April 13, 2016, Budget and Finance Committee meeting, as submitted.

Director Hernandez was recorded as an abstention due to his absence from the meeting.

3. CONSENT CALENDAR

A. Monthly Investment Reports (F: 11.10D2)

On motion of Vice Chair Swift and second by Director Hernandez, the Committee voted unanimously by those present to direct staff to place the item on the agenda for the Executive Committee meeting of May 26, 2016, with the Budget and Finance Committee's recommendation that the Executive Committee receive and file the reports.

B. Third Quarter Financial Newsletter (F: 15.07)

On motion of Vice Chair Swift and second by Director Hernandez, the Committee voted unanimously by those present to direct staff to place the item on the agenda for the Executive Committee meeting of May 26, 2016, with the Budget and Finance Committee's recommendation that the Executive Committee receive and file the report.

4. DISCUSSION CALENDAR

A. Rosenow Spevacek Group, Inc. Final Property Tax Revenue Projections (F: 15.10)

Assistant Chief Lori Zeller introduced Budget Analyst Stuart Lam who provided a PowerPoint Presentation on the Rosenow Spevacek Group, Inc. Final Property Tax Revenue Projections.

On motion of Director Hernandez and second by Director Ta, the Committee voted unanimously by those present to receive and file the report.

B. Review of the Fiscal Year 2016/17 Proposed Budget (F: 15.04 16/17)

Assistant Chief Lori Zeller provided a PowerPoint Presentation on the Fiscal Year 2016/17 Proposed Budget.

There was an amendment to the recommended action to include the following action:

1. Conduct a Public Hearing

On motion of Director Ta and second by Director Murray, the Committee voted unanimously by those present to direct staff to place the item on the agenda for the Board of Directors meeting of May 26, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors take the following actions:

1. Conduct a Public Hearing
2. Adopt the submitted FY 2016/17 Proposed Budget.
3. Adopt proposed Resolution entitled A RESOLUTION OF THE ORANGE COUNTY FIRE AUTHORITY BOARD OF DIRECTORS ADOPTING AND APPROVING THE APPROPRIATIONS BUDGET FOR THE ORANGE COUNTY FIRE AUTHORITY FOR FISCAL YEAR 2016/17.
4. Approve and authorize the temporary transfer of up to \$45.6 million to the General Fund (Fund 121) from the following Capital Improvement Program (CIP) Funds to cover a projected temporary cash flow shortfall for FY 2016/17 due to timing differences between the receipt of tax revenues and the payment of expenditures:
 - Fund 123 Fire Stations and Facilities - \$14.0 million
 - Fund 124 Communications and Information Systems - \$13.3 million
 - Fund 133 Fire Apparatus - \$18.3 million
5. Approve and authorize the repayment of \$45.6 million borrowed funds from Fund 121 to the above CIP Funds, along with interest, when General Fund revenues become available in FY 2016/17.
6. Approve and authorize a FY 2015/16 budget adjustment to increase General Fund revenues by \$266,787 and decrease appropriations by \$8,033,620.

C. Fiscal Year 2014/15 Backfill/Overtime and Calendar Year 2015 Total Earnings/Compensation Analysis (F: 18.13)

Assistant Chief Lori Zeller introduced Finance Manager/Auditor Jim Ruane who provided a PowerPoint presentation on the FY 2014/15 Backfill/Overtime and Calendar Year 2015 Total Earnings/Compensation Analysis.

On motion of Director Murray and second by Vice Chair Swift, the Committee voted unanimously by those present to place the item on the agenda for the Board of Directors meeting of May 26, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors take the following actions:

1. Direct staff to continue working towards an ability to fill permanent vacancies (exceeding those required by MOU) as quickly as possible after the positions become vacant.
2. Direct staff to continue using overtime to fill temporary vacancies rather than hiring additional personnel, recognizing this as a cost-effective practice for temporary needs.

D. Financial Audit Discussion with Lance, Soll, and Lunghard

Assistant Chief Lori Zeller introduced Rich Kikuchi, LSL Partner, who provided an update on the current Financial Audit.

On motion of Director Hernandez and second by Director Murray, the Committee voted unanimously by those present to receive and file the report.

REPORTS (F: 12.02B6)

There were no items to report.

COMMITTEE MEMBER COMMENTS (F: 12.02B4)

There were no comments by the Committee members.

ADJOURNMENT – Chair McCloskey adjourned the meeting at 1:50 p.m. The next regular meeting of the Budget and Finance Committee is scheduled for Wednesday, June 8, 2016, at 12:00 noon.

Sherry A.F. Wentz, CMC
Clerk of the Authority



Orange County Fire Authority
AGENDA STAFF REPORT

Budget and Finance Committee Meeting
July 13, 2016

Agenda Item No. 4A
Discussion Calendar

Updated Cost Reimbursement Rates

Contact(s) for Further Information

Lori Zeller, Assistant Chief
Business Services Department

lorizeller@ocfa.org

714.573.6020

Jim Ruane, Finance Manager/Auditor

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714.573.6304

Summary

This agenda item is submitted to review and approve the proposed update to the Cost Reimbursement rates.

RECOMMENDED ACTION(S)

Review the proposed agenda item and direct staff to place the item on the agenda for the Board of Directors meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors approve and adopt the proposed Cost Reimbursement Rate schedules effective retroactively July 1, 2016.

Impact to Cities/County

Not Applicable.

Fiscal Impact

The fiscal impact of the new rates will be based on the number of incidents that occur throughout the year and will be incorporated into the mid-year budget update.

Background

The California Fire and Rescue Mutual Aid System Operating Plan outlines the methodologies and formulas participating agencies (including OCFA) are to use when developing cost reimbursement rates. These rates will be used when OCFA resources are ordered by various Federal (Cleveland National Park Forest Service) and State (CAL FIRE) agencies. The California Office of Emergency Services (Cal OES) requires a different method to calculate reimbursement rates for non-suppression personnel only. Both methods are designed to only reimburse OCFA for the marginal cost of providing the resources and are calculated in three separate components: the indirect (overhead) cost rate, personnel rate and equipment rate.

Reimbursement Rate Calculation (Other than Cal OES)

Based on the agreed-upon calculation, OCFA's proposed Indirect Cost Rate for FY 2016/17 is 13.49%, decreasing from the current rate of 13.89%. This change is attributable to reclassifying the entire Geographic Information System (GIS)/Mapping Section's cost as a direct cost. The average percentage decrease in the proposed suppression Personnel Cost Reimbursement Rates is 4.12%. A majority of the rate decrease for each position is a result of the indirect cost rate dropping 0.4% (from 13.89% to 13.49%). The Hand Crew Supervisor's rate was calculated using the suppression rate which is generally lower than the staff rate. As a result, the hourly rate dropped 31.57%. The full list of proposed reimbursement rates by position (including the indirect cost rate) is listed on Attachment 1A.

Equipment rates are not calculated by OCFA, but instead, they are provided to us by the Federal Emergency Management Agency (FEMA) (with the exception of the helicopter rates). The average equipment reimbursement rates (Attachment 2) increase by 9% due to updated FEMA equipment rates. The support vehicle rates remain unchanged at daily rates based on the California Fire Assistance Agreement. The Bell Super Huey helicopter's (acquired as federal excess property and placed in service in 1996) hourly rate increased by 12% due to higher maintenance costs. The Bell 412 helicopter's (acquired in 2008) hourly rate decreased 13% as a result of an increase in average flight hours and a decrease in fuel cost. These rates were calculated based on four year average costs.

Cal OES Reimbursement Rates

The Cal OES rate calculation differs in that it blends all specialty pays (i.e. Paramedic, HazMat, HazMat Specialist, and Technical Rescue Truck pays) when developing the rate calculation to derive one average hourly rate for each suppression classification. For non-suppression staff, it requires both regular and overtime reimbursement rates to be calculated. The Cal OES personnel reimbursement rates are listed as Attachment 1B.

Mutually Beneficial Hourly Rates (Handcrew and Dozer Operator)

These rates, with a methodology originally approved in 2010, are used to recover base salary costs of the handcrew and dozer operators when projects are deemed beneficial to both the requesting entity and OCFA.

Summary

Upon approval of the proposed rates, included as Attachment 1A, 1B and 2, OCFA Finance/Cost Recovery Section will use them for the following activity or program:

- CAL FIRE, Cal OES, Cleveland National Forest Fire/Incident response - Generally referred to as Assistance by Hire (ABH) rates
- Fire/Incident Restitution (including HazMat)
- Special Event Stand-By
- Other Miscellaneous Billings

Attachment(s)

1. Proposed Cost Reimbursement Rates – Personnel
 - a. Proposed Cost Reimbursement Rates – All Agencies except Cal OES
 - b. Proposed Cost Reimbursement Rates – Cal OES
2. Proposed Cost Reimbursement Rates – Equipment

ORANGE COUNTY FIRE AUTHORITY
COST REIMBURSEMENT RATES FOR ALL BILLING AGENCIES (EXCEPT CAL OES)
PERSONNEL
EFFECTIVE JULY 1, 2016

CLASSIFICATION	2015/16 ADOPTED RATE	2016/17 PROPOSED RATE with ICRP	\$ CHANGE	% CHANGE
SUPPRESSION PERSONNEL				
FIRE DIVISION CHIEF	\$149.59	\$146.25	(\$3.34)	-2.23%
FIRE BATTALION CHIEF (SHIFT)	\$90.04	\$89.29	(\$0.75)	-0.83%
FIRE BATTALION CHIEF (STAFF)	n/a	\$129.64	n/a	n/a
FIRE CAPTAIN (FC)	\$69.57	\$68.91	(\$0.66)	-0.95%
FC/HAZMAT	\$73.64	\$72.93	(\$0.71)	-0.97%
FC/HAZMAT PARAMEDIC	n/a	\$78.28	n/a	n/a
FC/HAZMAT SPECIALIST	n/a	\$74.27	n/a	n/a
FC/PARAMEDIC	\$77.73	\$76.94	(\$0.79)	-1.01%
FC/TECH RESCUE TRUCK	n/a	\$72.93	n/a	n/a
FIRE APPARATUS ENGINEER (FAE)	\$60.57	\$59.88	(\$0.69)	-1.14%
FAE/HAZMAT	\$64.64	\$63.89	(\$0.75)	-1.15%
FAE/HAZMAT PARAMEDIC	n/a	\$69.25	n/a	n/a
FAE/HAZMAT SPECIALIST	n/a	\$65.23	n/a	n/a
FAE/PARAMEDIC	\$68.73	\$67.91	(\$0.82)	-1.19%
FAE/TECH RESCUE TRUCK	n/a	\$63.89	n/a	n/a
FIREFIGHTER (FF)	\$52.13	\$51.08	(\$1.04)	-2.00%
FF/HAZMAT	\$56.20	\$55.10	(\$1.10)	-2.00%
FF/HAZMAT PARAMEDIC	\$61.64	\$60.45	(\$1.18)	-1.90%
FF/HAZMAT SPECIALIST	n/a	\$56.44	n/a	n/a
FF/PARAMEDIC	\$60.29	\$59.12	(\$1.17)	-1.94%
FF/TECH RESCUE TRUCK	n/a	\$55.10	n/a	n/a
HAND CREW (FIREFIGHTER)	\$35.26	\$33.59	(\$1.68)	-4.75%
HAND CREW SUPERVISOR (FIRE CAPTAIN)	\$99.92	\$68.47	(\$31.45)	-31.48%
HAND CREW SUPERVISOR (FIRE APP. ENGINEER)	\$85.35	\$60.04	(\$25.30)	-29.65%
HAND CREW SUPERVISOR (FIREFIGHTER)	\$52.13	\$53.54	\$1.41	2.71%
HEAVY FIRE EQUIPMENT OPERATOR	\$94.69	\$91.93	(\$2.76)	-2.91%
FIRE PILOT	\$65.99	\$70.30	\$4.31	6.53%
LEAD FIRE PILOT	\$76.29	\$75.14	(\$1.15)	-1.51%
NON-SUPPRESSION PERSONNEL				
ACCOUNTANT	\$70.53	\$71.62	\$1.09	1.55%
ASSISTANT IT MANAGER	\$83.20	\$82.83	(\$0.37)	-0.45%
ASST. FIRE APPARATUS TECHNICIAN	\$54.75	\$51.60	(\$3.15)	-5.75%
ASST. PURCHASING AGENT	\$62.87	\$73.26	\$10.39	16.52%
BUYER	n/a	\$52.95	n/a	n/a
COMMUNICATIONS TECHNICIAN	\$60.42	\$54.45	(\$5.97)	-9.88%
EMERGENCY TRANSPORTATION TECH.	\$25.61	\$26.51	\$0.90	3.53%
FIRE APPARATUS TECHNICIAN	\$61.28	\$62.62	\$1.33	2.18%
FIRE COMM RELAT/ED SPECIALIST	\$59.88	\$57.99	(\$1.90)	-3.17%
FIRE COMM RELAT/ED SUPERVISOR	\$69.46	\$66.34	(\$3.13)	-4.50%
FIRE COMMUNICATIONS DISPATCHER	\$63.83	\$62.54	(\$1.29)	-2.02%
FIRE COMMUNICATIONS SUPERVISOR	\$71.16	\$71.33	\$0.18	0.25%
FIRE EQUIPMENT TECHNICIAN	\$41.84	\$37.71	(\$4.14)	-9.89%
FIRE HELICOPTER TECHNICIAN	\$77.22	\$77.52	\$0.31	0.40%
FLEET SERVICES COORDINATOR	\$75.01	\$76.18	\$1.17	1.57%
FLEET SERVICES SUPERVISOR	\$78.67	\$76.91	(\$1.76)	-2.23%
GENERAL LABORER	\$32.39	\$32.71	\$0.33	1.01%
GIS ANALYST	\$72.40	\$79.75	\$7.35	10.16%
INFORMATION TECHNOLOGY ANALYST	\$88.63	\$82.80	(\$5.82)	-6.57%
INFORMATION TECHNOLOGY SUPERVISOR	\$112.54	\$117.42	\$4.87	4.33%
MEDICAL DIRECTOR	\$84.44	\$89.60	\$5.16	6.11%
PURCHASING MANAGER	\$84.44	\$89.60	\$5.16	6.11%
RESERVE FIREFIGHTER	\$2.01	\$1.94	(\$0.07)	-3.52%
SERVICE CENTER LEAD	\$69.16	\$70.24	\$1.09	1.57%
SERVICE CENTER SUPERVISOR	\$83.44	\$83.79	\$0.35	0.42%

ORANGE COUNTY FIRE AUTHORITY
COST REIMBURSEMENT RATES FOR ALL BILLING AGENCIES (EXCEPT CAL OES)
PERSONNEL
EFFECTIVE JULY 1, 2016

CLASSIFICATION	2015/16 ADOPTED RATE	2016/17 PROPOSED RATE with ICRP	\$ CHANGE	% CHANGE
SR. ACCOUNTANT	\$61.39	\$59.85	(\$1.54)	-2.50%
SR. COMMUNICATIONS TECHNICIAN	\$68.90	\$69.96	\$1.05	1.53%
SR. FIRE APPARATUS TECHNICIAN	\$65.78	\$64.33	(\$1.45)	-2.21%
SR. FIRE COMMUNICATIONS SUPV.	\$79.28	\$80.50	\$1.22	1.54%
SR. FIRE EQUIPMENT TECHNICIAN	\$55.26	\$56.54	\$1.29	2.33%
SR. FIRE HELICOPTER TECHNICIAN	\$83.90	\$84.30	\$0.40	0.47%
SR. INFO TECHNOLOGY ANALYST	\$105.16	\$102.54	(\$2.62)	-2.49%
WILDLAND FIRE DEFENSE PLANNER	\$81.19	\$82.45	\$1.26	1.55%

MUTUALLY BENEFICIAL RATES:				
HAND CREW (FIREFIGHTER)	\$18.80	\$18.18	(\$0.62)	-3.30%
HAND CREW SUPERVISOR (STAFF FIRE CAPTAIN)	\$53.27	\$37.06	(\$16.21)	-30.43%
HAND CREW SUPERVISOR (STAFF FIRE APP. ENGINEER)	\$45.50	\$32.50	(\$13.00)	-28.57%
HAND CREW SUPERVISOR (STAFF FIREFIGHTER)	\$27.79	\$28.98	\$1.19	4.28%
HEAVY FIRE EQUIPMENT OPERATOR	\$50.48	\$49.76	(\$0.72)	-1.43%
SWAMPER/HAND CREW FF	\$16.71	\$18.18	\$1.47	8.80%

ORANGE COUNTY FIRE AUTHORITY
COST REIMBURSEMENT RATES FOR CAL OES BILLINGS ONLY
PERSONNEL
EFFECTIVE JULY 1, 2016

CLASSIFICATION	2015/16 ADOPTED RATE (1)					2016/17 PROPOSED RATE (1)	\$ CHANGE	% CHANGE
SUPPRESSION POSITIONS								
FIRE DIVISION CHIEF	\$149.59					\$146.25	(\$3.34)	-2.23%
FIRE BATTALION CHIEF	\$90.04					\$109.47	\$19.43	21.58%
FIRE CAPTAIN	\$72.67					\$72.33	(\$0.34)	-0.46%
FIRE APPARATUS ENGINEER	\$61.86					\$61.41	(\$0.45)	-0.73%
FIREFIGHTER	\$56.25					\$55.35	(\$0.90)	-1.60%
HAND CREW (FIREFIGHTER)	\$35.26					\$33.59	(\$1.68)	-4.75%
HAND CREW SUPERVISOR (FIRE CAPTAIN)	\$99.92					\$68.47	(\$31.45)	-31.48%
HAND CREW SUPERVISOR (FIRE APP. ENGINEER)	\$85.35					\$60.04	(\$25.30)	-29.65%
HAND CREW SUPERVISOR (FIREFIGHTER)	\$52.13					\$53.54	\$1.41	2.71%
HEAVY FIRE EQUIPMENT OPERATOR	\$94.69					\$91.93	(\$2.76)	-2.91%
FIRE PILOT	\$65.99					\$70.30	\$4.31	6.53%
LEAD FIRE PILOT	\$76.29					\$75.14	(\$1.15)	-1.51%
NON-SUPPRESSION POSITIONS								
CLASSIFICATION	2015/16 ADOPTED REGULAR RATE (1)	2015/16 ADOPTED OVERTIME RATE	2016/17 PROPOSED REGULAR RATE (1)	\$ CHANGE	% CHANGE	2016/17 PROPOSED OT RATE (1)	\$ CHANGE	% CHANGE
ACCOUNTANT	\$70.73	\$70.53	\$70.36	(\$0.36)	-0.51%	\$71.62	\$1.09	1.55%
ASSISTANT IT MANAGER	\$131.26	\$83.20	\$126.13	(\$5.12)	-3.90%	\$82.83	(\$0.37)	-0.45%
ASST. FIRE APPARATUS TECHNICIAN	\$56.73	\$54.75	\$52.97	(\$3.76)	-6.62%	\$51.60	(\$3.15)	-5.75%
ASST. PURCHASING AGENT	\$63.70	\$62.87	\$71.83	\$8.13	12.76%	\$73.26	\$10.39	16.52%
BUYER	n/a	n/a	\$53.75	n/a	n/a	\$52.95	n/a	n/a
COMMUNICATIONS TECHNICIAN	\$61.46	\$60.42	\$55.08	(\$6.39)	-10.39%	\$54.45	(\$5.97)	-9.88%
EMERGENCY TRANSPORTATION TECH.	\$29.56	\$25.61	\$30.21	\$0.65	2.21%	\$26.51	\$0.90	3.53%
FIRE APPARATUS TECHNICIAN	\$62.72	\$61.28	\$62.78	\$0.06	0.10%	\$62.62	\$1.33	2.18%
FIRE COMM RELAT/ED SPECIALIST	\$60.97	\$59.88	\$58.23	(\$2.73)	-4.48%	\$57.99	(\$1.90)	-3.17%
FIRE COMM RELAT/ED SUPERVISOR	\$69.74	\$69.46	\$65.67	(\$4.07)	-5.84%	\$66.34	(\$3.13)	-4.50%
FIRE COMMUNICATIONS DISPATCHER	\$64.58	\$63.83	\$62.28	(\$2.30)	-3.56%	\$62.54	(\$1.29)	-2.02%
FIRE COMMUNICATIONS SUPV.	\$71.31	\$71.16	\$70.12	(\$1.19)	-1.67%	\$71.33	\$0.18	0.25%
FIRE EQUIPMENT TECHNICIAN	\$44.90	\$41.84	\$40.60	(\$4.30)	-9.57%	\$37.71	(\$4.14)	-9.89%
FIRE HELICOPTER TECHNICIAN	\$77.31	\$77.22	\$76.05	(\$1.26)	-1.63%	\$77.52	\$0.31	0.40%
FLEET SERVICES COORDINATOR	\$74.84	\$75.01	\$74.43	(\$0.40)	-0.54%	\$76.18	\$1.17	1.57%
FLEET SERVICES SUPERVISOR	\$78.65	\$78.67	\$75.50	(\$3.15)	-4.00%	\$76.91	(\$1.76)	-2.23%
GENERAL LABORER	\$36.23	\$32.39	\$36.16	(\$0.08)	-0.21%	\$32.71	\$0.33	1.01%
GIS ANALYST	\$72.43	\$72.40	\$77.61	\$5.18	7.15%	\$79.75	\$7.35	10.16%
INFORMATION TECHNOLOGY ANALYST	\$87.31	\$88.63	\$80.32	(\$6.99)	-8.00%	\$82.80	(\$5.82)	-6.57%
INFORMATION TECHNOLOGY SUPERVISOR	\$109.23	\$112.54	\$111.14	\$1.92	1.76%	\$117.42	\$4.87	4.33%
MEDICAL DIRECTOR	\$133.00	\$84.44	\$135.17	\$2.17	1.63%	\$89.60	\$5.16	6.11%
PURCHASING MANAGER	\$133.00	\$84.44	\$135.17	\$2.17	1.63%	\$89.60	\$5.16	6.11%
RESERVE FIREFIGHTER	\$2.80	\$2.01	\$2.70	(\$0.10)	-3.55%	\$1.94	(\$0.07)	-3.52%
SERVICE CENTER LEAD	\$69.47	\$69.16	\$69.14	(\$0.33)	-0.47%	\$70.24	\$1.09	1.57%
SERVICE CENTER SUPERVISOR	\$83.02	\$83.44	\$81.63	(\$1.39)	-1.68%	\$83.79	\$0.35	0.42%
SR. ACCOUNTANT	\$100.80	\$61.39	\$95.45	(\$5.34)	-5.30%	\$59.85	(\$1.54)	-2.50%
SR. COMMUNICATIONS TECHNICIAN	\$69.23	\$68.90	\$68.88	(\$0.35)	-0.50%	\$69.96	\$1.05	1.53%
SR. FIRE APPARATUS TECHNICIAN	\$66.83	\$65.78	\$64.29	(\$2.54)	-3.80%	\$64.33	(\$1.45)	-2.21%
SR. FIRE COMMUNICATIONS SUPV.	\$78.74	\$79.28	\$78.28	(\$0.46)	-0.59%	\$80.50	\$1.22	1.54%
SR. FIRE EQUIPMENT TECHNICIAN	\$57.19	\$55.26	\$57.37	\$0.18	0.31%	\$56.54	\$1.29	2.33%
SR. FIRE HELICOPTER TECHNICIAN	\$83.44	\$83.90	\$82.08	(\$1.36)	-1.63%	\$84.30	\$0.40	0.47%
SR. INFO TECHNOLOGY ANALYST	\$102.47	\$105.16	\$97.89	(\$4.57)	-4.46%	\$102.54	(\$2.62)	-2.49%
WILDLAND FIRE DEFENSE PLANNER	\$80.50	\$81.19	\$80.02	(\$0.48)	-0.60%	\$82.45	\$1.26	1.55%

Notes:

- 1 Includes OCFA Proposed Indirect Cost Rate of 13.49%. (13.89% for FY 2015/16)
- 2 Adjustment to management positions to reflect overtime as straight time rather than 1.5 x hourly rate.
- 3 Paramedic (\$4.35/hr), HazMat (\$2.17/hr), HazMat Paramedic (\$5.07/hr), HazSpecialist (\$2.90/hr) and Tech Rescue Truck (\$2.17/hr) specialty pays are now included in the FC, FAE and FF average rates per Cal OES approved methodology.

ORANGE COUNTY FIRE AUTHORITY
COST REIMBURSEMENT RATES
EQUIPMENT
EFFECTIVE JULY 1, 2016

DESCRIPTION	2015/16 RATE	2016/17 RATE	\$ CHANGE	% CHANGE	SOURCE	Hourly / Daily
TYPE 1 ENGINE	\$85.00	\$91.00	\$6.00	7.06%	FEMA	Hourly
TYPE 2 ENGINE	\$70.00	\$80.00	\$10.00	14.29%	FEMA	Hourly
TYPE 3 ENGINE	\$70.00	\$80.00	\$10.00	14.29%	FEMA	Hourly
TRUCK/QUINT	\$85.00	\$91.00	\$6.00	7.06%	FEMA	Hourly
PATROL UNIT (Type 6/ Swift Water Rescue)	\$70.00	\$80.00	\$10.00	14.29%	FEMA	Hourly
AIRPORT CRASH UNIT	\$85.00	\$91.00	\$6.00	7.06%	FEMA	Hourly
CREW CARRYING VEHICLE	\$20.00	\$21.75	\$1.75	8.75%	FEMA	Hourly
DOZER TRANSPORT	\$65.25	\$73.25	\$8.00	12.26%	FEMA	Hourly
DOZER	\$65.00	\$72.50	\$7.50	11.54%	FEMA	Hourly
DOZER TRAILER	\$12.50	\$14.00	\$1.50	12.00%	FEMA	Hourly
DOZER TENDER	\$20.00	\$26.00	\$6.00	30.00%	FEMA	Hourly
GRADER	\$58.00	\$54.50	(\$3.50)	-6.03%	FEMA	Hourly
LOADER	\$40.00	\$44.00	\$4.00	10.00%	FEMA	Hourly
DUMP TRUCK	\$65.00	\$77.25	\$12.25	18.85%	FEMA	Hourly
CHIPPER	\$21.75	\$25.00	\$3.25	14.94%	FEMA	Hourly
COMPACT TRACK LOADER	\$22.00	\$26.50	\$4.50	20.45%	FEMA	Hourly
MEDIC UNIT	\$96.00	\$96.00	\$0.00	0.00%	Cal OES	Daily
MECHANIC SERVICE TRUCK	\$96.00	\$96.00	\$0.00	0.00%	Cal OES	Daily
WATER TENDER	\$31.00	\$36.75	\$5.75	18.55%	FEMA	Hourly
FUEL TENDER	\$31.00	\$36.75	\$5.75	18.55%	FEMA	Hourly
AIR/LIGHT UTILITY	\$24.00	\$29.00	\$5.00	20.83%	FEMA	Hourly
FIRE COMMAND UNIT	\$20.00	\$21.75	\$1.75	8.75%	FEMA	Hourly
SPORT UTILITY VEHICLE	\$96.00	\$96.00	\$0.00	0.00%	Cal OES	Daily
PICKUP (less than 3/4 ton)	\$96.00	\$86.00	(\$10.00)	-10.42%	Cal OES	Daily
SEDAN	\$47.00	\$47.00	\$0.00	0.00%	Cal OES	Daily
VAN	\$109.00	\$109.00	\$0.00	0.00%	Cal OES	Daily
OTHER (3/4 ton and above)	\$96.00	\$96.00	\$0.00	0.00%	Cal OES	Daily
HAZMAT (Unit 4)	\$85.00	\$91.00	\$6.00	7.06%	FEMA	Hourly
HAZMAT (Unit 79)	\$85.00	\$91.00	\$6.00	7.06%	FEMA	Hourly
HAZMAT (Unit 204)	\$20.00	\$24.25	\$4.25	21.25%	FEMA	Hourly
HELICOPTER - BELL SUPER HUEY (1)	\$1,187.68	\$1,329.74	\$142.06	11.96%	OCFA	Hourly
HELICOPTER - BELL 412 (1)	\$4,817.79	\$4,191.13	(\$626.66)	-13.01%	OCFA	Hourly

Notes:

1. Helicopter rates are based on 20 years useful life without the pilot and crew chief (Captain). The new rate reflects average usage for the past four years.



Orange County Fire Authority
AGENDA STAFF REPORT

Budget and Finance Committee Meeting
July 13, 2016

Agenda Item No. 4B
Discussion Calendar

Emergency Command Center
Staffing Enhancements Funded by CAL FIRE

Contact(s) for Further Information

Mike Schroeder, Assistant Chief michaelschroeder@ocfa.org 714.573.6008
Support Services Department

Dave Anderson, Division Chief
Operations Department, Division 6 daveanderson@ocfa.org 714.567.3234

Summary

This item is submitted to authorize the Fire Chief or his designee to add three limited-term, and one extra-help CAL FIRE funded positions to the Emergency Command Center to enhance command and control functions.

Prior Board/Committee Action

Not Applicable.

RECOMMENDED ACTION(S)

Review the proposed agenda item and direct staff to place the item on the agenda for the Board of Directors meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Board of Directors:

1. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Captain position to the Master Position Control list at an approximate cost of \$254,000 annually.
2. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Communications Supervisor to the Master Position Control list at an approximate cost of \$132,000 annually.
3. Approve and authorize the Fire Chief to add one limited-term Administrative Fire Communications Dispatcher to the Master Position Control list at an approximate cost of \$103,000 annually.
4. Approve and authorize the Fire Chief to add one part-time/extra-help Technical Specialist at a cost up to \$11,000 annually.
5. Approve a budget adjustment to the FY 2016/17 General Fund budget increasing revenues and expenditures by \$514,000 for the purposes of this CAL FIRE program.

Impact to Cities/County

This recommended action positively impacts services provided to our member agencies.

Fiscal Impact

Funding for the salaries and benefits for the positions is proposed to be fully reimbursed through CAL FIRE Gray Book funding starting FY 2016/17, through FY 2021/22. Any overtime required to maintain staffing levels will be the responsibility of OCFA.

CAL FIRE has included \$14,000 in the first year to cover startup costs. To the extent required, incidental program costs such as uniforms, PCs or laptops, etc. will need to be absorbed by OCFA's proposed budget, which staff believes is feasible. An existing pool vehicle will be assigned to the Administrative Fire Captain to support OCFA's safety officer call-back program.

The Personnel and Salary Resolution (PSR) of the OCFA revised and approved by the Board on June 25, 2015, contains a provision for limited-term positions. In the PSR, a limited-term position is defined as a position "that the Authority has determined has no anticipated long-range funding or has uncertain future funding." As such, if funding is altered or eliminated at any time during the years proposed to be funded, the positions will be re-evaluated for need and may be eliminated. As described in Article IV, Section 2, Limited-term employees enjoy all the same benefits as regular employees, except those contained in the Layoff Procedure. Regular employees, who choose to transfer, promote or reduce to a limited-term position voluntarily, become limited-term employees. Regular employees who transfer, promote, or reduce to limited-term positions at the direction of the Fire Chief shall retain their former status and retain their layoff benefits in their former layoff unit.

Background

Contract County

The California Department of Forestry and Fire Protection Fire Plan provides a system of fire protection resources to protect State Responsibility Area (SRA) lands. As a part of that plan, Public Resources Code (PRC) 4133 and Government Code (GC) 55607 permit the CAL FIRE Director to contract with counties for the protection of SRA. OCFA is one of six contract counties in California and provides protection to 107,800 acres of SRA lands.

Background/History

The first step taken to fulfill the mission of the OCFA and CAL FIRE is initiated by the Emergency Command Center (ECC). Dispatchers receive reports of emergencies, allocate resources based on preplanned response criteria, coordinate interagency incident activities, maintain resource and personnel accountability, provide incident support, coordinate movement of resources to ensure operational readiness, provide internal and external information, and document resource and incident activity. The critical functions provided by the ECC are essential for firefighter and public safety.

Gray Book Funding

On May 17, 2016, the Fire Chief signed the FY 2016/17 CAL FIRE Operating Plan, which is an agreement between the OCFA and CAL FIRE to protect SRA lands. The "Gray Book" portion of the agreement identifies compensation to the OCFA for fire prevention activities, pre-suppression force preparedness, and basic initial attack options. Starting FY 2016/17 and projected through FY 2021/22, CAL FIRE has allocated \$500,000 each year to enhance command and control functions. The proposed positions in this staff report are intended to support the state's mission.

Attachment(s)

None.



Orange County Fire Authority
AGENDA STAFF REPORT

Budget and Finance Committee Meeting
July 13, 2016

Agenda Item No. 4C
Discussion Calendar

Quarterly Status Update
Orange County Employees' Retirement System

Contact(s) for Further Information

Lori Zeller, Assistant Chief lorizeller@ocfa.org 714.573.6020
Business Services Department

Tricia Jakubiak, Treasurer triciajakubiak@ocfa.org 714.573.6301
Treasury & Financial Planning

Summary

This agenda item is a routine quarterly transmittal to the Committee to provide a report on actions taken by the Orange County Employees' Retirement System (OCERS) relating to financial issues, procedures, and business practices.

Prior Board/Committee Action

Not Applicable.

RECOMMENDED ACTION(S)

Receive and file the report.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Based on the 2015 Actuarial Valuation, OCFA's Unfunded Actuarial Accrued Liability (UAAL) has declined by \$23 million from \$442 million to \$419 million. Contribution rate impacts are further described herein.

Background

Actions Taken/Financial Policies & Practices May – June 2016 (an interim report was previously provided covering the month of April 2016)

OCERS BOARD OF RETIREMENT MEETING June 22, 2016:

At the June 22 OCERS Retirement Board meeting, Mr. Paul Angelo of Segal reviewed the results of the December 31, 2015 actuarial valuation study (Attachment). The study indicated that in spite of a year with a return of only 0.10%, compared to the assumed rate of 7.25%, the total dollar value of the system-wide UAAL declined for a third year in a row. OCERS is now 71.7% funded, slightly up from 69.8% funded in the prior year (see page 38 of Attachment).

Despite that decline in UAAL, actual employer contribution rates have risen, to a lesser extent for general members than for safety members (see page 6 of Attachment). It is an anomaly to have a lower UAAL yet rising contribution rates. The building blocks for the rate changes are

located on pages 30-32 of the Attachment. The primary driver for the rise in general employer rates was that payroll in 2015 did not grow at the assumed rate (it actually dropped by about 1%), thus the UAAL, though lower, had to be spread over a shrinking payroll. For safety members, it was both the slower than assumed growth in payroll as well as the 3-year phase-in of cost impact resulting from the Triennial Study changes made to actuarial assumptions for safety members.

Last year, OCFA chose not to utilize the 3-year phase-in and instead, paid the higher contribution rate. Furthermore, the rate calculations for OCFA's general and safety members both show a positive impact resulting from OCFA's Accelerated Pension Paydown Plan. Pages 31 and 32 (line item 5.c) of the Attachment show the "effect of additional UAAL contributions from OCFA," indicating an offsetting reduction of -0.80% for general rates and -0.99% for safety rates.

Although the actuarial calculation shows reductions to OCFA's required rates as a result of our additional UAAL contributions, part of OCFA's Accelerated Pension Paydown Plan is to continue paying towards the UAAL without taking advantage of this offsetting reduction. This voluntary action is what results in the "snowball effect" of the Plan, causing the acceleration to continue increasing at a faster pace over the latter years of the Plan.

After adjusting for the fact that OCFA chose not to utilize the 3-year phase-in last year and instead, paid the higher contribution rates, combined with our Accelerated Pension Paydown Plan which has OCFA paying greater contributions without taking advantage of offsetting reductions that resulted from our Accelerated Plan, the rate changes for OCFA are as follows:

	OCFA General Rate Group #10	OCFA Safety Rate Group #8
FY 2016/17 Rate excluding Phase-in of Triennial Cost Impact	32.97%	50.60%
FY 2017/18 Rate w/voluntary exclusion of rate reduction from additional UAAL payments	33.84%	50.78%
FY 2017/18 Employer Rate Increases for OCFA	0.87%	0.18%

The attached Segal presentation was informational only. The final actuarial valuation report will return to the OCERS Board at its July 18 meeting for approval. OCERS undertakes this two-step process to allow stakeholders an opportunity to review the materials and raise issues or concerns prior to the valuation's final approval.

OCFA staff will continue to monitor actions taken by OCERS and will report back in October regarding actions taken during the next quarter.

[Attachment\(s\)](#)

Segal Consulting Presentation from June 22, 2016 - December 31, 2015 Actuarial Valuation



Orange County Employees Retirement System

December 31, 2015 Actuarial Valuation

June 22, 2016

*Prepared by: Paul Angelo and Andy Yeung
Segal Consulting
San Francisco*

5437539v1

Agenda

- Changes Since Last Valuation
- Plans of Benefit Offered at OCERS
- Contribution Rates for Employers and Members
- Calculation of Net Market, Actuarial and Valuation Value of Assets
- Unfunded Actuarial Accrued Liability and Funded Ratio
- Summary of Active and Retired Membership

Changes Since Last Valuation

- The results of this valuation reflect demographic data reported using the System's new Vitech Pension Administration System.
- The Board approved a three-year phase-in of the employer cost impact due to assumption changes for the Safety Rate Groups starting with the December 31, 2014 valuation.
 - This is the second year of the phase-in. The first 1/3 of the cost impact was reflected in the rates based on the December 31, 2014 valuation
 - The employer contribution rates for Safety Rate Groups shown as of December 31, 2014 and 2015 have been adjusted to reflect the phase-in.
- Plan W was adopted by San Juan Capistrano effective January 1, 2016.
- The Board approved a policy for use in determining UAAL contribution rate for employers with declining payroll.
 - Applies to U.C. Irvine and Department of Education

Plans of Benefit Offered at OCERS

➤ General Plans

- Plan A (§31676.12) – 2% @ 57
- Plan B (§31676.1) – 1.67% @ 57.5
- Plans G and H (§31676.18) – 2.5% @ 55
- Plans I and J (§31676.19) – 2.7% @ 55
- Plans M and N (§31676.16) – 2% @ 55
- Plans O and P (§31676.01) – 1.62% @ 65
- Plan S (§31676.12) – 2% @ 57
- Plan T (§31676.01) – 1.62% @ 65 CalPEPRA
- Plan U (§7522.20(a)) – 2.5% @ 67 CalPEPRA
- Plan W (§31676.01) – 1.62% @ 65 CalPEPRA

➤ Safety Plans

- Plans E and F (§31664.1) – 3% @ 50
- Plans Q and R (§31664.2) – 3% @ 55
- Plan V (§7522.25(d)) – 2.7% @ 57 CalPEPRA

Employer Contributions

- The sum of:
 - Normal Cost
 - Level percentage of payroll amortization of:
 - Balance of December 31, 2012 UAAL combined and re-amortized over 20 years as of December 31, 2013
 - New UAAL established after December 31, 2012 amortized over separate 20-year periods
 - Adjustment to reflect 18-month delay between date of valuation and date of rate implementation
- Expressed as percent of pay

Employer Contribution Rates – Fiscal Years Beginning July 1, 2016 and July 1, 2017 (% of payroll)

	FY 17-18	FY 16-17 ⁽¹⁾	Difference
Rate Group #1			
General Plans A, B and U (non-OCTA, non-OCSD)	18.57% ⁽²⁾	18.01% ⁽²⁾	0.56%
Rate Group #2			
General Plans I, J, O, P, S, T and U (County et al.)	34.70%	34.00%	0.70%
Rate Group #3			
General Plans B, G, H and U (Law Library, OCSD)	13.63%	12.91% ⁽³⁾	0.72%
Rate Group #5			
General Plans A, B and U (OCTA)	26.20%	25.15%	1.05%
Rate Group #9			
General Plans M, N and U (TCA)	26.42%	25.32%	1.10%
Rate Group #10			
General Plans I, J, M, N and U (OCFA)	33.04% ⁽⁴⁾	32.97% ⁽⁵⁾	0.07%
Rate Group #11			
General Plans M and N, future service, and U (Cemetery)	11.40%	11.79%	-0.39%
Rate Group #6⁽⁶⁾			
Safety Plans E, F and V (Probation)	44.97%	42.73%	2.24%
Rate Group #7⁽⁶⁾			
Safety Plans E, F, Q, R and V (Law Enforcement)	61.89%	58.30%	3.59%
Rate Group #8⁽⁶⁾			
Safety Plans E, F, Q, R and V (Fire Authority)	<u>48.38%</u> ⁽⁴⁾	<u>47.78%</u> ⁽⁵⁾	<u>0.60%</u>
Aggregate Total	37.25%	36.14%	1.11%

(1) The FY 16-17 composite rates for some Rate Groups have changed due to payroll shifting among plans within the Rate Groups.

(2) These rates are before adjustments to reflect the UAAL rates for employers with declining payroll.

(3) These rates are after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions.

(4) These rates are after adjustment to the contribution rates for FY 17-18 for additional UAAL contributions made during calendar year 2015.

(5) These rates are after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions made during calendar year 2014.

(6) These rates reflect the phase-in of changes in actuarial assumptions starting with the December 31, 2014 valuation.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #1	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans A and B</i>		
Normal Cost	9.58%	9.67%
UAAL	<u>9.22%</u> ⁽¹⁾	<u>8.62%</u> ⁽²⁾
Total	18.80%	18.29%
<i>Plan U</i>		
Normal Cost	8.92%	8.87%
UAAL	<u>9.22%</u> ⁽¹⁾	<u>8.62%</u> ⁽²⁾
Total	18.14%	17.49%
<i>Rate Group 1 combined</i>		
Normal Cost	9.35%	9.39%
UAAL	<u>9.22%</u> ⁽¹⁾	<u>8.62%</u> ⁽²⁾
Total	18.57%	18.01%

⁽¹⁾ For FY 17-18, the net UAAL contribution rate for County and IHSS Public Authority after reflecting Board's new UAAL contribution rate policy for employers with declining payroll (i.e., U.C.I. and DOE) is 5.57%.

⁽²⁾ For FY 16-17, the net UAAL contribution rate for County and IHSS Public Authority after reflecting Board's new UAAL contribution rate policy for employers with declining payroll (i.e., U.C.I. and DOE) is 5.67%.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #1 (Continued)	Sample Member Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans A and B</i>		
<u>TIER 1</u>		
Entry Age: 30	6.13%	6.14%
Entry Age: 35	6.70%	6.70%
Entry Age: 40	7.33%	7.34%
<u>TIER 2</u>		
Entry Age: 30	8.27%	8.28%
Entry Age: 35	9.03%	9.04%
Entry Age: 40	9.89%	9.89%
<i>Plan U</i>		
Entry Age: 30	8.22%	8.21%
Entry Age: 35	8.97%	8.96%
Entry Age: 40	9.80%	9.78%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #2	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans I and J</i>		
Normal Cost	13.19%	13.22%
UAAL ⁽¹⁾	<u>22.45%</u>	<u>21.72%</u>
Total	35.64%	34.94%
<i>Plans O and P</i>		
Normal Cost	5.46%	5.49%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	27.91%	27.21%
<i>Plan S</i>		
Normal Cost	11.40%	10.54%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	33.85%	32.26%

⁽¹⁾ Before adjustments for future benefit improvements.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #2 (continued)	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plan T</i>		
Normal Cost	6.56%	6.61%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	29.01%	28.33%
<i>Plan U</i>		
Normal Cost	8.35%	8.33%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	30.80%	30.05%
<i>Plan W ⁽¹⁾</i>		
Normal Cost	6.68%	6.68%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	29.13%	28.40%
<i>Rate Group 2 combined</i>		
Normal Cost	12.25%	12.28%
UAAL	<u>22.45%</u>	<u>21.72%</u>
Total	34.70%	34.00%

⁽¹⁾ No active members yet as the plan became effective on January 1, 2016.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #2 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans I and J</i>		
<u>TIER 1</u>		
Entry Age: 30	12.35%	12.35%
Entry Age: 35	13.52%	13.52%
Entry Age: 40	14.77%	14.77%
<u>TIER 2</u>		
Entry Age: 30	11.75%	11.75%
Entry Age: 35	12.86%	12.86%
Entry Age: 40	13.97%	13.97%
<i>Plan P</i>		
<u>TIER 2</u>		
Entry Age: 30	7.62%	7.62%
Entry Age: 35	8.32%	8.32%
Entry Age: 40	9.10%	9.11%
<i>Plan S</i>		
<u>TIER 2</u>		
Entry Age: 30	9.99%	9.99%
Entry Age: 35	10.91%	10.90%
Entry Age: 40	11.94%	11.93%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #2 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plan T</i>		
Entry Age: 30	5.93%	5.94%
Entry Age: 35	6.48%	6.49%
Entry Age: 40	7.10%	7.11%
<i>Plan U</i>		
Entry Age: 30	7.68%	7.59%
Entry Age: 35	8.38%	8.28%
Entry Age: 40	9.15%	9.04%
<i>Plan W ⁽¹⁾</i>		
Entry Age: 30	6.00%	6.00%
Entry Age: 35	6.55%	6.55%
Entry Age: 40	7.18%	7.18%

⁽¹⁾ No active members yet as the plan became effective on January 1, 2016.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #3	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans G and H – OCSD</i>		
Normal Cost	12.33%	12.40%
UAAL	<u>1.42%</u>	<u>0.69%</u> ⁽¹⁾
Total	13.75%	13.09%
<i>Plans G and H – Law Library</i>		
Normal Cost	12.33%	12.40%
UAAL ⁽²⁾	<u>22.08%</u>	<u>20.21%</u>
Total	34.41%	32.61%
<i>Plan B – OCSD</i>		
Normal Cost	10.30%	10.30%
UAAL	<u>1.42%</u>	<u>0.69%</u> ⁽¹⁾
Total	11.72%	10.99%

(1) This rate is after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions.

(2) Before adjustments for future benefit improvements.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #3 (continued)	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plan U – OCSD</i>		
Normal Cost	9.25%	9.00%
UAAL	<u>1.42%</u>	<u>0.69%</u> ⁽¹⁾
Total	10.67%	9.69%
<i>Plan U – Law Library</i>		
Normal Cost	9.25%	9.00%
UAAL ⁽²⁾	<u>22.08%</u>	<u>20.21%</u>
Total	31.33%	29.21%
<i>Rate Group 3 combined</i>		
Normal Cost	11.83%	11.86%
UAAL	<u>1.80%</u>	<u>1.05%</u>
Total	13.63%	12.91%

(1) This rate is after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions.

(2) Before adjustments for future benefit improvements.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #3 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans G and H</i>		
<u>TIER 1</u>		
Entry Age: 30	12.16%	12.16%
Entry Age: 35	13.31%	13.32%
Entry Age: 40	14.54%	14.54%
<u>TIER 2</u>		
Entry Age: 30	11.57%	11.57%
Entry Age: 35	12.66%	12.67%
Entry Age: 40	13.76%	13.76%
<i>Plan B</i>		
<u>TIER 2</u>		
Entry Age: 30	8.35%	8.34%
Entry Age: 35	9.12%	9.11%
Entry Age: 40	9.98%	9.97%
<i>Plan U</i>		
Entry Age: 30	7.95%	7.95%
Entry Age: 35	8.68%	8.68%
Entry Age: 40	9.47%	9.47%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #5	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans A and B</i>		
Normal Cost	10.70%	10.78%
UAAL	<u>15.52%</u>	<u>14.40%</u>
Total	26.22%	25.18%
<i>Plan U</i>		
Normal Cost	10.12%	10.04%
UAAL	<u>15.52%</u>	<u>14.40%</u>
Total	25.64%	24.44%
<i>Rate Group 5 combined</i>		
Normal Cost	10.68%	10.75%
UAAL	<u>15.52%</u>	<u>14.40%</u>
Total	26.20%	25.15%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #5 (Continued)	Sample Member Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans A and B</i>		
<u>TIER 1</u>		
Entry Age: 30	6.25%	6.26%
Entry Age: 35	6.82%	6.84%
Entry Age: 40	7.47%	7.49%
<u>TIER 2</u>		
Entry Age: 30	8.39%	8.40%
Entry Age: 35	9.15%	9.17%
Entry Age: 40	10.02%	10.03%
<i>Plan U</i>		
Entry Age: 30	8.70%	8.23%
Entry Age: 35	9.49%	8.98%
Entry Age: 40	10.37%	9.81%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #9	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans M and N</i>		
Normal Cost	13.44%	13.59%
UAAL	<u>13.79%</u>	<u>12.78%</u>
Total	27.23%	26.37%
<i>Plan U</i>		
Normal Cost	10.57%	9.85%
UAAL	<u>13.79%</u>	<u>12.78%</u>
Total	24.36%	22.63%
<i>Rate Group 9 combined</i>		
Normal Cost	12.63%	12.54%
UAAL	<u>13.79%</u>	<u>12.78%</u>
Total	26.42%	25.32%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #9 (Continued)	Sample Member Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans M and N</i>		
<u>TIER 2</u>		
Entry Age: 30	8.75%	8.77%
Entry Age: 35	9.55%	9.57%
Entry Age: 40	10.45%	10.48%
<i>Plan U</i>		
Entry Age: 30	7.87%	7.71%
Entry Age: 35	8.59%	8.41%
Entry Age: 40	9.37%	9.18%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #10	Employer Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans I and J</i>		
Normal Cost	13.44%	13.53%
UAAL	<u>20.53%</u> ⁽¹⁾	<u>20.28%</u> ⁽²⁾
Total	33.97%	33.81%
<i>Plans M and N</i>		
Normal Cost	12.72%	12.47%
UAAL	<u>20.53%</u> ⁽¹⁾	<u>20.28%</u> ⁽²⁾
Total	33.25%	32.75%
<i>Plan U</i>		
Normal Cost	8.81%	9.63%
UAAL	<u>20.53%</u> ⁽¹⁾	<u>20.28%</u> ⁽²⁾
Total	29.34%	29.91%
<i>Rate Group 10 combined</i>		
Normal Cost	12.51%	12.69%
UAAL	<u>20.53%</u> ⁽¹⁾	<u>20.28%</u> ⁽²⁾
Total	33.04%	32.97%

⁽¹⁾ These rates are after adjustment to the contribution rates for FY 17-18 for additional UAAL contributions made during calendar year 2015.

⁽²⁾ These rates are after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions made during calendar year 2014.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #10 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans I and J</i>		
<u>TIER 1</u>		
Entry Age: 30	12.36%	12.36%
Entry Age: 35	13.53%	13.54%
Entry Age: 40	14.78%	14.79%
<u>TIER 2</u>		
Entry Age: 30	11.76%	11.77%
Entry Age: 35	12.87%	12.88%
Entry Age: 40	13.98%	13.99%
<i>Plan N</i>		
<u>TIER 2</u>		
Entry Age: 30	8.74%	8.73%
Entry Age: 35	9.54%	9.53%
Entry Age: 40	10.45%	10.43%
<i>Plan U</i>		
Entry Age: 30	8.04%	8.15%
Entry Age: 35	8.77%	8.90%
Entry Age: 40	9.58%	9.72%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #11	Employer Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans M and N</i>		
Normal Cost	11.33%	11.79%
UAAL	<u>0.00%</u>	<u>0.00%</u>
Total	11.33%	11.79%
<i>Plan U</i>		
Normal Cost	12.23%	11.81%
UAAL	<u>0.00%</u>	<u>0.00%</u>
Total	12.23%	11.81%
<i>Rate Group 11 combined</i>		
Normal Cost	11.40%	11.79%
UAAL	<u>0.00%</u>	<u>0.00%</u>
Total	11.40%	11.79%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #11 (Continued)	Sample Member Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans M and N</i>		
<u>TIER 2</u>		
Entry Age: 30	8.75%	8.77%
Entry Age: 35	9.55%	9.57%
Entry Age: 40	10.45%	10.48%
<i>Plan U</i>		
Entry Age: 30	8.57%	8.30%
Entry Age: 35	9.35%	9.06%
Entry Age: 40	10.21%	9.89%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #6	Employer Rates ⁽¹⁾	
	FY 17 – 18	FY 16 – 17 ⁽²⁾
<i>Plans E and F</i>		
Normal Cost	21.92%	22.17%
UAAL	<u>23.15%</u>	<u>20.67%</u>
Total	45.07%	42.84%
<i>Plan V</i>		
Normal Cost	15.00%	15.25%
UAAL	<u>23.20%</u>	<u>20.77%</u>
Total	38.20%	36.02%
<i>Rate Group 6 combined</i>		
Normal Cost	21.82%	22.06%
UAAL	<u>23.15%</u>	<u>20.67%</u>
Total	44.97%	42.73%

⁽¹⁾ These rates reflect the phase-in of changes in actuarial assumptions starting with the December 31, 2014 valuation.

⁽²⁾ Please see the December 31, 2014 CAFR Actuarial Certificate for detailed employer rates after the phase-in adjustments for FY 16-17.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #6 (Continued)	Sample Member Rates	
	FY 17 – 18	FY 16 – 17
<i>Plans E and F</i>		
<u>TIER 1</u>		
Entry Age: 30	12.30%	12.23%
Entry Age: 35	13.26%	13.18%
Entry Age: 40	14.40%	14.31%
<u>TIER 2</u>		
Entry Age: 30	16.86%	16.79%
Entry Age: 35	18.10%	18.03%
Entry Age: 40	19.48%	19.40%
<i>Plan V</i>		
Entry Age: 30	15.58%	15.99%
Entry Age: 35	16.70%	17.14%
Entry Age: 40	17.97%	18.44%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #7	Employer Rate ⁽¹⁾	
	FY 17 – 18	FY 16 – 17 ⁽²⁾
<i>Plans E and F</i>		
Normal Cost	25.56%	25.79%
UAAL	<u>36.99%</u>	<u>33.13%</u>
Total	62.55%	58.92%
<i>Plans Q and R</i>		
Normal Cost	23.24%	23.55%
UAAL	<u>37.10%</u>	<u>33.33%</u>
Total	60.34%	56.88%
<i>Plan V</i>		
Normal Cost	20.04%	20.10%
UAAL	<u>37.38%</u>	<u>33.91%</u>
Total	57.42%	54.01%
<i>Rate Group 7 combined</i>		
Normal Cost	24.86%	25.09%
UAAL	<u>37.03%</u>	<u>33.21%</u>
Total	61.89%	58.30%

⁽¹⁾ These rates reflect the phase-in of changes in actuarial assumptions starting with the December 31, 2014 valuation.

⁽²⁾ Please see the December 31, 2014 CAFR Actuarial Certificate for detailed employer rates after the phase-in adjustments for FY 16-17.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #7 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans E and F</i>		
<u>TIER 1</u>		
Entry Age: 30	13.31%	13.26%
Entry Age: 35	14.34%	14.29%
Entry Age: 40	15.56%	15.51%
<u>TIER 2</u>		
Entry Age: 30	17.92%	17.88%
Entry Age: 35	19.23%	19.18%
Entry Age: 40	20.64%	20.59%
<i>Plan R</i>		
<u>TIER 2</u>		
Entry Age: 30	16.82%	16.86%
Entry Age: 35	18.04%	18.09%
Entry Age: 40	19.37%	19.41%
<i>Plan V</i>		
Entry Age: 30	18.57%	18.53%
Entry Age: 35	19.91%	19.86%
Entry Age: 40	21.42%	21.37%

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #8	Employer Rate ⁽¹⁾	
	FY 17 – 18	FY 16 – 17 ⁽²⁾
<i>Plans E and F</i>		
Normal Cost	26.87%	27.05%
UAAL	<u>22.37%</u> ⁽³⁾	<u>21.55%</u> ⁽⁴⁾
Total	49.24%	48.60%
<i>Plans Q and R</i>		
Normal Cost	22.10%	22.38%
UAAL	<u>22.37%</u> ⁽³⁾	<u>21.55%</u> ⁽⁴⁾
Total	44.47%	43.93%
<i>Plan V</i>		
Normal Cost	15.30%	15.71%
UAAL	<u>22.79%</u> ⁽³⁾	<u>22.37%</u> ⁽⁴⁾
Total	38.09%	38.08%
<i>Rate Group 8 combined</i>		
Normal Cost	25.98%	26.18%
UAAL	<u>22.40%</u> ⁽³⁾	<u>21.60%</u> ⁽⁴⁾
Total	48.38%	47.78%

(1) These rates reflect the phase-in of changes in actuarial assumptions starting with the December 31, 2014 valuation.

(2) Please see the December 31, 2014 CAFR Actuarial Certificate for detailed employer rates after the phase-in adjustments for FY 16-17.

(3) These rates are after adjustment to the contribution rates for FY 17-18 for additional UAAL contributions made during calendar year 2015.

(4) These rates are after adjustment to the contribution rates for FY 16-17 for additional UAAL contributions made during calendar year 2014.

Contribution Rates - Fiscal Years Beginning July 1, 2016 and July 1, 2017

Rate Group #8 (Continued)	Sample Member Rate	
	FY 17 – 18	FY 16 – 17
<i>Plans E and F</i>		
<u>TIER 1</u>		
Entry Age: 30	12.70%	12.69%
Entry Age: 35	13.69%	13.68%
Entry Age: 40	14.88%	14.87%
<u>TIER 2</u>		
Entry Age: 30	17.32%	17.31%
Entry Age: 35	18.61%	18.60%
Entry Age: 40	20.04%	20.02%
<i>Plan R</i>		
<u>TIER 2</u>		
Entry Age: 30	16.52%	16.56%
Entry Age: 35	17.75%	17.80%
Entry Age: 40	19.11%	19.16%
<i>Plan V</i>		
Entry Age: 30	15.39%	15.66%
Entry Age: 35	16.49%	16.78%
Entry Age: 40	17.74%	18.06%

Reconciliation of Aggregate Employer Contributions (\$000)

	Contribution Rate	Estimated Amount ⁽¹⁾
1. Aggregate Recommended Contribution Rate as of December 31, 2014 (before UAAL credit)	37.24%	\$608,127
2. Adjustment for FY16-17 for additional UAAL contributions from OCSD	-0.21%	-\$3,515
3. Effect of 3-year phase-in of changes in actuarial assumptions for Safety Rate Groups	<u>-0.89%</u>	<u>-\$14,496</u>
4. Aggregate Recommended Contribution Rate as of December 31, 2014 (after UAAL credit)	36.14%	\$590,116
5. Actuarial (gain)/loss items:		
a) Effect of recognizing one-third of 3-year phase-in of changes in actuarial assumptions for Safety rate groups (another 1/3 remains to be recognized)	0.45%	\$7,349
b) Effect of investment loss (after smoothing)	1.00%	\$16,331
c) Effect of additional UAAL contributions from OCFA	-0.08%	-\$1,306
d) Effect of difference in actual versus expected contributions	0.18%	\$2,940
e) Effect of difference in actual versus expected COLA increases	-0.52%	-\$8,492
f) Effect of difference in actual versus expected salary increases	-1.23%	-\$20,087
g) Effect of growth in total payroll less than expected	0.96%	\$15,678
h) Effect of difference in actual versus expected retirement experience	0.27%	\$4,409
i) Effect of other experience (gain)/loss	<u>0.08%</u> ⁽²⁾	<u>\$1,371</u>
j) Subtotal	1.11%	\$18,193
6. Aggregate Recommended Contribution Rate as of December 31, 2015	37.25%	\$608,309

⁽¹⁾ Based on December 31, 2015 projected compensation of \$1,633,112,000.

⁽²⁾ Net of an adjustment of 0.04% to reflect 18-month delay between date of valuation and date of rate implementation for all actuarial experience.

Reconciliation of Employer Contributions for General Members

	RG #1	RG #2	RG #3	RG #5	RG #9	RG #10	RG #11
1. Aggregate Recommended Contribution Rate as of December 31, 2014 (before UAAL credit)	18.01% ⁽¹⁾	34.00%	18.38%	25.15%	25.32%	32.97%	11.79%
2. Adjustment for FY16-17 for additional UAAL contributions from OCSD	0.00%	0.00%	-5.47%	0.00%	0.00%	0.00%	0.00%
3. Effect of 3-year phase-in of changes in actuarial assumptions for Safety Rate Groups	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
4. Aggregate Recommended Contribution Rate as of December 31, 2014 (after UAAL credit)	18.01% ⁽¹⁾	34.00%	12.91%	25.15%	25.32%	32.97%	11.79%
5. Actuarial (gain)/loss items:							
a) Effect of recognizing one-third of 3-year phase-in of changes in actuarial assumptions for Safety rate groups (another 1/3 remains to be recognized)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
b) Effect of investment loss (after smoothing)	0.61%	0.91%	1.20% ⁽²⁾	0.82%	0.56%	0.76%	N/A ⁽³⁾
c) Effect of additional UAAL contributions from OCFA	0.00%	0.00%	0.00%	0.00%	0.00%	-0.80%	N/A ⁽³⁾
d) Effect of difference in actual versus expected contributions	-0.08%	0.09%	-0.28%	0.13%	0.10%	-0.19%	N/A ⁽³⁾
e) Effect of difference in actual versus expected COLA increases	-0.31%	-0.48%	-0.44%	-0.39%	-0.24%	-0.34%	N/A ⁽³⁾
f) Effect of difference in actual versus expected salary increases	-0.51%	-1.42%	-0.60%	-0.99%	-0.07%	-0.51%	N/A ⁽³⁾
g) Effect of growth in total payroll less than expected	0.31%	0.98%	0.42%	0.99%	0.02%	-0.15%	N/A ⁽³⁾
h) Effect of difference in actual versus expected retirement experience	0.15%	0.36%	0.51%	0.63%	1.02%	1.08%	N/A ⁽³⁾
i) Effect of other experience (gain)/loss ⁽⁴⁾⁽⁵⁾	<u>0.39%</u>	<u>0.26%</u>	<u>-0.09%</u>	<u>-0.14%</u>	<u>-0.29%</u>	<u>0.22%</u>	<u>-0.39%</u>
j) Subtotal	0.56%	0.70%	0.72%	1.05%	1.10%	0.07%	-0.39%
6. Aggregate Recommended Contribution Rate as of December 31, 2015	18.57% ⁽⁶⁾	34.70%	13.63%	26.20%	26.42%	33.04%	11.40%

⁽¹⁾ As of December 31, 2014, the net contribution rate for County and IHSS Public Authority after reflecting Board's new UAAL contribution rate policy for employers with declining payroll (i.e., U.C.I. and DOE) is 15.06%.

⁽²⁾ Investment loss for Rate Group #3 is bigger than the other General Rate Groups because as that Rate Group gets better funded (through additional UAAL contributions), it is more impacted by adverse or favorable investment experience.

⁽³⁾ N/A because RG #11 has become overfunded and under CalPEPRA, the employer's contribution rate cannot be less than the Normal Cost unless the funded ratio is over 120% and other conditions in CalPEPRA are met. If that restriction did not apply, the UAAL rate would have been -0.54% if the overfunded amount is amortized over 30 years.

⁽⁴⁾ Net of an adjustment to reflect 18-month delay between date of valuation and date of rate implementation for all actuarial experience.

⁽⁵⁾ Includes changes in form of payment for retirees provided using new Vitech Pension Administration System, application of additional cashout assumption to current deferred vested members, effect of additional cashout assumptions on estimating rates of retirement from active employment, etc.

⁽⁶⁾ As of December 31, 2015, the net contribution rate for County and IHSS Public Authority after reflecting Board's new UAAL contribution rate policy for employers with declining payroll (i.e., U.C.I. and DOE) is 14.92%.

Reconciliation of Employer Contributions for Safety Members

	RG #6	RG #7	RG #8
1. Aggregate Recommended Contribution Rate as of December 31, 2014 (before UAAL credit)	47.07%	62.55%	50.60%
2. Adjustment for FY16-17 for additional UAAL contributions from OCSD	0.00%	0.00%	0.00%
3. Effect of 3-year phase-in of changes in actuarial assumptions for Safety Rate Groups	<u>-4.34%</u>	<u>-4.25%</u>	<u>-2.82%</u>
4. Aggregate Recommended Contribution Rate as of December 31, 2014 (after UAAL credit)	42.73%	58.30%	47.78%
5. Actuarial (gain)/loss items:			
a) Effect of recognizing one-third of 3-year phase-in of changes in actuarial assumptions for Safety rate groups (another 1/3 remains to be recognized)	2.17%	2.13%	1.41%
b) Effect of investment loss (after smoothing)	1.03%	1.52%	1.25%
c) Effect of additional UAAL contributions from OCFA	0.00%	0.00%	-0.99%
d) Effect of difference in actual versus expected contributions	0.87%	0.65%	0.40%
e) Effect of difference in actual versus expected COLA increases	-0.39%	-0.91%	-0.59%
f) Effect of difference in actual versus expected salary increases	-2.73%	-0.46%	-1.47%
g) Effect of growth in total payroll less than expected	1.95%	1.09%	0.93%
h) Effect of difference in actual versus expected retirement experience	-0.23%	-0.31%	0.24%
i) Effect of other experience (gain)/loss ⁽¹⁾⁽²⁾	<u>-0.43%</u>	<u>-0.12%</u>	<u>-0.58%</u>
j) Subtotal	2.24%	3.59%	0.60%
6. Aggregate Recommended Contribution Rate as of December 31, 2015	44.97%	61.89%	48.38%

(1) Net of an adjustment to reflect 18-month delay between date of valuation and date of rate implementation for all actuarial experience.

(2) Includes changes in form of payment for retirees provided using new Vitech Pension Administration System, application of additional cashout assumption to current deferred vested members, effect of additional cashout assumptions on estimating rates of retirement from active employment, etc.

Reconciliation of Aggregate Member Contributions (\$000)

	Contribution Rate	Estimated Amount ⁽¹⁾
Aggregate Recommended Contribution Rate as of December 31, 2014	12.21%	\$199,335
Effect of changes in demographics	<u>0.00%</u>	<u>\$109</u>
Subtotal	0.00%	\$109
Aggregate Recommended Contribution Rate as of December 31, 2015	12.21%	\$199,444

⁽¹⁾ Based on December 31, 2015 projected compensation of \$1,633,112,000.

Calculation of Net Market, Actuarial and Valuation Value of Assets

- Net market value of Pension Fund is total market value reduced by:
 - Obligations under securities lending program including securities purchased
 - Unearned contributions, retiree payroll payable and other liabilities
 - County investment account
 - Amount held in Health Care Fund
- Actuarial value is a “smoothed” value to dampen effect of market volatility
 - Based on spreading any difference between actual market return and expected market return (7.25% starting in 2013) over 5 years
 - Return for 2015 on market value was -0.45%.
 - Return for 2015 on actuarial value was 5.26%.
 - As of December 31, 2015, there were \$679.6 million in net deferred investment losses or about 6% of the net market value.
 - Prior year: \$21.8 million in net deferred investment losses or less than 1% of net market value
- Valuation value is actuarial value reduced by non-valuation reserves:
 - Medicare medical insurance reserve (only \$89,000 as of December 31, 2015)

Market, Actuarial and Valuation Value of Assets (\$000)

Valuation Date	Net Market Value of Assets ⁽¹⁾⁽²⁾	Actuarial Value of Assets ⁽²⁾	Valuation Value of Assets
December 31, 2006	\$6,817,726	\$6,474,074	\$6,466,085
December 31, 2007	\$7,719,690	\$7,292,205	\$7,288,900
December 31, 2008	\$6,248,558	\$7,750,751	\$7,748,380
December 31, 2009	\$7,464,761	\$8,155,654	\$8,154,687
December 31, 2010	\$8,357,835	\$8,673,473	\$8,672,592
December 31, 2011	\$8,465,593	\$9,064,580	\$9,064,355
December 31, 2012	\$9,566,874	\$9,469,423	\$9,469,208
December 31, 2013	\$10,679,507	\$10,417,340	\$10,417,125
December 31, 2014	\$11,428,223	\$11,450,001	\$11,449,911
December 31, 2015	\$11,548,529	\$12,228,098	\$12,228,009

⁽¹⁾ Net of amounts in County investment account and prepaid employer contributions.

⁽²⁾ Includes amounts in unclaimed member reserve and Medicare medical insurance reserve.

History of Return on Assets

	Market	Valuation	Expected
December 31, 2006	13.17%	9.68%	7.75%
December 31, 2007	11.18%	10.45%	7.75%
December 31, 2008	-20.76%	4.25%	7.75%
December 31, 2009	17.32%	3.62%	7.75%
December 31, 2010	10.47%	5.02%	7.75%
December 31, 2011	0.04%	3.29%	7.75%
December 31, 2012	11.92%	3.49%	7.75%
December 31, 2013	10.73%	9.11%	7.25%
December 31, 2014	4.52%	7.34%	7.25%
December 31, 2015	-0.45%	5.26%	7.25%
Annualized 5-Year Average	5.22%	5.67%	
Annualized 10-Year Average	5.24%	6.12%	

Unfunded Actuarial Accrued Liability (\$000) and Funded Ratio

	December 31, 2015	December 31, 2014
Actuarial Accrued Liability	\$17,050,357	\$16,413,124
Valuation Value of Assets ⁽¹⁾	12,228,009	11,449,911
Unfunded Actuarial Accrued Liability	4,822,348	4,963,213
Percent Funded on Valuation Value	71.72%	69.76%
Market Value of Assets ⁽¹⁾	\$11,548,440	\$11,428,133
Percent Funded on Market Value	67.73%	69.63%

⁽¹⁾ Excludes County investment account, prepaid employer contributions and Medicare medical insurance reserve.

Unfunded Actuarial Accrued Liability (\$000) and Funded Ratio

Valuation Date	UAAL	Valuation Value Funded Ratio	Market Value Funded Ratio
December 31, 2006	\$2,298,960	73.8%	77.7%
December 31, 2007	\$2,549,786	74.1%	78.4%
December 31, 2008	\$3,112,335	71.3%	57.5%
December 31, 2009	\$3,703,891	68.8%	62.9%
December 31, 2010	\$3,753,281	69.8%	67.3%
December 31, 2011	\$4,458,623	67.0%	62.6%
December 31, 2012	\$5,675,680	62.5%	63.2%
December 31, 2013	\$5,367,917	66.0%	67.7%
December 31, 2014	\$4,963,213	69.8%	69.6%
December 31, 2015	\$4,822,348	71.7%	67.7%

Changes in UAAL since December 31, 2014 Valuation

➤ December 31, 2014 valuation

- Total UAAL \$4,963 million

➤ Changes during calendar year 2015

- Interest minus expected payments to UAAL -\$20 million
- Difference in actual versus expected contributions \$45 million
- Investment loss \$229 million
- Additional UAAL payments from Sanitation and OCFA -\$70 million
- Difference in actual versus expected salary increases -\$283 million
- Difference in actual versus expected COLA increases -\$119 million
- Difference in actual versus expected retirement experiences \$62 million
- Other (gains)/losses \$15 million

➤ December 31, 2015 valuation

- Total UAAL \$4,822 million

Questions and Discussion

Summary of Active Membership

Rate Group #1 General – non-OCTA, non-OCSD	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	1,535	1,542	-0.5%
Average age	42.9	42.9	N/A
Average service	9.3	9.2	N/A
Projected total compensation	\$74,473,543	\$74,474,442	0.0%
Projected average compensation	\$48,517	\$48,297	0.5%

Summary of Active Membership

Rate Group #2 General Plans I, J, O, P, S, T and U	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	13,957	13,761	1.4%
Average age	46.0	46.1	N/A
Average service	13.1	13.2	N/A
Projected total compensation	\$984,353,085	\$993,682,493	-0.9%
Projected average compensation	\$70,528	\$72,210	-2.3%

Summary of Active Membership

Rate Group #3 General – Law Library, OCSD	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	588	611	-3.8%
Average age	48.4	48.3	N/A
Average service	13.6	13.5	N/A
Projected total compensation	\$64,298,889	\$66,009,510	-2.6%
Projected average compensation	\$109,352	\$108,035	1.2%

Summary of Active Membership

Rate Group #5 General – OCTA	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	1,413	1,454	-2.8%
Average age	50.0	50.1	N/A
Average service	13.5	13.6	N/A
Projected total compensation	\$100,471,246	\$103,650,844	-3.1%
Projected average compensation	\$71,105	\$71,287	-0.3%

Summary of Active Membership

Rate Group #9 General – TCA	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	63	65	-3.1%
Average age	49.3	50.0	N/A
Average service	9.9	10.0	N/A
Projected total compensation	\$6,389,323	\$6,182,268	3.3%
Projected average compensation	\$101,418	\$95,112	6.6%

Summary of Active Membership

Rate Group #10 General – OCFA	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	262	251	4.4%
Average age	45.4	46.8	N/A
Average service ⁽¹⁾	11.9	12.9	N/A
Projected total compensation	\$23,245,637	\$22,290,639	4.3%
Projected average compensation	\$88,724	\$88,807	-0.1%

⁽¹⁾ For some former Santa Ana Members, service used in calculating the average above is only used for vesting purposes. Benefit service starts to accrue only effective April 2012.

Summary of Active Membership

Rate Group #11 General – Cemetery District	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	21	21	0.0%
Average age	49.0	47.3	N/A
Average service	17.4	15.9	N/A
Projected total compensation	\$1,289,124	\$1,292,021	-0.2%
Projected average compensation	\$61,387	\$61,525	-0.2%

Summary of Active Membership

Rate Group #6 Safety – Probation Officers	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	821	843	-2.6%
Average age	43.2	42.8	N/A
Average service	15.7	15.1	N/A
Projected total compensation	\$61,360,251	\$64,020,760	-4.2%
Projected average compensation	\$74,738	\$75,944	-1.6%

Summary of Active Membership

Rate Group #7 Safety – Law Enforcement	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	1,902	1,949	-2.4%
Average age	41.6	41.2	N/A
Average service	14.2	13.9	N/A
Projected total compensation	\$201,875,372	\$200,833,715	0.5%
Projected average compensation	\$106,138	\$103,044	3.0%

Summary of Active Membership

Rate Group #8 Safety – Fire Authority	Year Ended December 31		Change from Prior Year
	2015	2014	
Number	963	962	0.1%
Average age	44.0	43.9	N/A
Average service ⁽¹⁾	14.2	14.2	N/A
Projected total compensation	\$115,354,130	\$115,723,757	-0.3%
Projected average compensation	\$119,786	\$120,295	-0.4%

⁽¹⁾ For some former Santa Ana Members, service used in calculating the average above is only used for vesting purposes. Benefit service starts to accrue only effective April 2012.

Summary of Retired Members and Beneficiaries

Rate Group #1 General – non-OCTA, non-OCSD	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	604	592	2.0%
Average monthly benefit ⁽¹⁾	\$2,611	\$2,556	2.2%
Disabled members			
Number in pay status	38	36	5.6%
Average monthly benefit ⁽¹⁾	\$2,203	\$2,228	-1.1%
Beneficiaries			
Number in pay status	90	84	7.1%
Average monthly benefit ⁽¹⁾	\$1,365	\$1,378	-0.9%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #2 General Plans I, J, O, P, S, T and U	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	8,475	8,172	3.7%
Average monthly benefit ⁽¹⁾	\$3,445	\$3,343	3.1%
Disabled members			
Number in pay status	572	567	0.9%
Average monthly benefit ⁽¹⁾	\$2,391	\$2,362	1.2%
Beneficiaries			
Number in pay status	1,395	1,348	3.5%
Average monthly benefit ⁽¹⁾	\$1,743	\$1,674	4.1%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #3 General – Law Library, OCSD	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	344	317	8.5%
Average monthly benefit ⁽¹⁾	\$4,854	\$4,691	3.5%
Disabled members			
Number in pay status	12	12	0.0%
Average monthly benefit ⁽¹⁾	\$3,126	\$3,074	1.7%
Beneficiaries			
Number in pay status	63	56	12.5%
Average monthly benefit ⁽¹⁾	\$2,127	\$1,982	7.3%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #5 General – OCTA	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	818	761	7.5%
Average monthly benefit ⁽¹⁾	\$2,343	\$2,287	2.4%
Disabled members			
Number in pay status	254	253	0.4%
Average monthly benefit ⁽¹⁾	\$2,220	\$2,184	1.6%
Beneficiaries			
Number in pay status	158	157	0.6%
Average monthly benefit ⁽¹⁾	\$1,298	\$1,225	6.0%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #9 General – TCA	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	39	33	18.2%
Average monthly benefit ⁽¹⁾	\$2,786	\$2,755	1.1%
Disabled members			
Number in pay status	0	0	N/A
Average monthly benefit ⁽¹⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	2	2	0.0%
Average monthly benefit ⁽¹⁾	\$322	\$318	1.3%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #10 General – OCFA	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	131	116	12.9%
Average monthly benefit ⁽¹⁾	\$4,220	\$4,106	2.8%
Disabled members			
Number in pay status	10	9	11.1%
Average monthly benefit ⁽¹⁾	\$2,448	\$2,536	-3.5%
Beneficiaries			
Number in pay status	8	7	14.3%
Average monthly benefit ⁽¹⁾	\$1,419	\$1,327	6.9%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #11 General – Cemetery District	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	5	5	0.0%
Average monthly benefit ⁽¹⁾	\$2,383	\$2,347	1.5%
Disabled members			
Number in pay status	0	0	N/A
Average monthly benefit ⁽¹⁾	N/A	N/A	N/A
Beneficiaries			
Number in pay status	4	4	0.0%
Average monthly benefit ⁽¹⁾	\$1,552	\$1,529	1.5%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #6 Safety – Probation Officers	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	262	241	8.7%
Average monthly benefit ⁽¹⁾	\$5,499	\$5,495	0.1%
Disabled members			
Number in pay status	25	22	13.6%
Average monthly benefit ⁽¹⁾	\$2,778	\$2,679	3.7%
Beneficiaries			
Number in pay status	24	21	14.3%
Average monthly benefit ⁽¹⁾	\$2,407	\$2,580	-6.7%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #7 Safety – Law Enforcement	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	1,216	1,158	5.0%
Average monthly benefit ⁽¹⁾	\$6,652	\$6,529	1.9%
Disabled members			
Number in pay status	343	332	3.3%
Average monthly benefit ⁽¹⁾	\$4,711	\$4,521	4.2%
Beneficiaries			
Number in pay status	305	292	4.5%
Average monthly benefit ⁽¹⁾	\$2,827	\$2,781	1.7%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.

Summary of Retired Members and Beneficiaries

Rate Group #8 Safety – Fire Authority	Year Ended December 31		Change from Prior Year
	2015	2014	
Retired members			
Number in pay status	377	364	3.6%
Average monthly benefit ⁽¹⁾	\$7,694	\$7,423	3.7%
Disabled members			
Number in pay status	150	133	12.8%
Average monthly benefit ⁽¹⁾	\$6,531	\$6,192	5.5%
Beneficiaries			
Number in pay status	86	75	14.7%
Average monthly benefit ⁽¹⁾	\$2,949	\$2,823	4.5%

⁽¹⁾ Excludes monthly benefits payable from the STAR COLA.



Orange County Fire Authority
AGENDA STAFF REPORT

Budget and Finance Committee Meeting
July 13, 2016

Agenda Item No. 4D
Discussion Calendar

Monthly Investment Reports

Contact(s) for Further Information

Tricia Jakubiak, Treasurer Treasury & Financial Planning	triciajakubiak@ocfa.org	714.573.6301
Jane Wong, Assistant Treasurer	janewong@ocfa.org	714.573.6305

Summary

This agenda item is a routine transmittal of the monthly investment reports submitted to the Committee in compliance with the investment policy of the Orange County Fire Authority and with Government Code Section 53646.

Prior Board/Committee Action

Not Applicable.

RECOMMENDED ACTION(S)

Review the proposed agenda item and direct staff to place the item on the agenda for the Executive Committee meeting of July 28, 2016, with the Budget and Finance Committee's recommendation that the Executive Committee receive and file the reports.

Impact to Cities/County

Not Applicable.

Fiscal Impact

Not Applicable.

Background

Attached is the final monthly investment report for the month ended May 31, 2016. A preliminary investment report as of June 24, 2016, is also provided as the most complete report that was available at the time this agenda item was prepared.

Attachment(s)

Final Investment Report – May 2016/Preliminary Report – June 2016

Orange County Fire Authority Monthly Investment Report



Final Report – May 2016

Preliminary Report – June 2016



Monthly Investment Report Table of Contents

<i>Final Investment Report – May 31, 2016.....</i>	<i>1</i>
<i>Executive Summary.....</i>	<i>2</i>
<i>Benchmark Comparison</i>	<i>3</i>
<i>Portfolio Size, Yield, & Duration</i>	<i>3</i>
<i>Portfolio Summary.....</i>	<i>4</i>
<i>Portfolio Details</i>	<i>5</i>
<i>Aging Report.....</i>	<i>8</i>
<i>Notes to Portfolio Management Report.....</i>	<i>9</i>
<i>Local Agency Investment Fund.....</i>	<i>10</i>
 <i>Preliminary Investment Report – June 24, 2016.....</i>	 <i>12</i>
<i>Portfolio Summary.....</i>	<i>13</i>
<i>Portfolio Details</i>	<i>14</i>
<i>Aging Report.....</i>	<i>17</i>
<i>Notes to Portfolio Management Report.....</i>	<i>18</i>
 <i>Glossary.....</i>	 <i>19</i>



Orange County Fire Authority

Final Investment Report

May 31, 2016



EXECUTIVE SUMMARY

Portfolio Activity & Earnings

During the month of May 2016, the size of the portfolio decreased by \$9.2 million to \$219.4 million. Significant receipts for the month included various apportionments of property taxes, intergovernmental agency contract and grant payments, and charges for current services for a total of \$11.7 million. Significant disbursements for the month included primarily two biweekly payrolls, which were approximately \$9.7 million each with related benefits. Total May cash outflows for operating expenditures amounted to approximately \$21.7 million. The portfolio's balance is expected to decrease significantly in the following month as the repayment of the FY2015/16 TRANs (Tax and Revenue Anticipation Notes) will take place at the end of June.

In May, the portfolio's yield to maturity (365-day equivalent) stayed unchanged at 0.56%. The effective rate of return, on the other hand, increased by 3 basis points to 0.63% for the month, and rose by 2 basis points to 0.46% for the fiscal year-to-date. The average maturity of the portfolio shortened by 39 days to 147 days to maturity.

Economic News

U.S. economic activity continued to stay moderate and mixed in May 2016. Employment conditions weakened noticeably; there were only 38,000 new jobs created in May, a much weaker number than expected for the month. The unemployment rate, on the other hand, improved further declining to 4.7% from 5.0% previously. Retail sales continued to increase better than expected in May even though consumer confidence remained mixed. Manufacturing activity picked up modestly while non-manufacturing activity pulled back slightly. The CPI (Consumer Price Index) increased by 0.2%, less than expected for the month. Housing activity was mixed; existing home sales continued to increase while new home sales dropped, but less than expected, after a strong month in April. Industrial production reversed and declined. On June 15, 2016, the Federal Open Market Committee met and voted to keep the federal funds rate unchanged at a target range of 0.25% – 0.50%. Following the Fed's June meeting statement, expectations were that the Fed would likely raise rates at their September meeting. However, due to Britain's recent successful "Brexit" ("Leave" the European Union) vote and its potential impact to the global financial markets, current expectations are that the Fed will likely raise rates at their December meeting instead.

**BENCHMARK COMPARISON AS OF MAY 31, 2016**

<i>3 Month T-Bill:</i>	<i>0.28%</i>	<i>1 Year T-Bill:</i>	<i>0.59%</i>
<i>6 Month T-Bill:</i>	<i>0.42%</i>	<i>LAIF:</i>	<i>0.55%</i>
<i>OCFA Portfolio: 0.63%</i>			

PORTFOLIO SIZE, YIELD, & DURATION

	<u><i>Current Month</i></u>	<u><i>Prior Month</i></u>	<u><i>Prior Year</i></u>
<i>Book Value-</i>	<i>\$219,421,789</i>	<i>\$228,589,030</i>	<i>\$203,983,755</i>
<i>Yield to Maturity (365 day)</i>	<i>0.56%</i>	<i>0.56%</i>	<i>0.28%</i>
<i>Effective Rate of Return</i>	<i>0.63%</i>	<i>0.60%</i>	<i>0.28%</i>
<i>Days to Maturity</i>	<i>147</i>	<i>186</i>	<i>112</i>



ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Summary
May 31, 2016

Orange County Fire Authority
 1 Fire Authority Road
 Irvine, CA 92602
 (714)573-6301

(See Note 1 on page 9)

(See Note 2 on page 9)

Investments	Par Value	Market Value	Book Value	% of Portfolio	Term	Days to Maturity	YTM/C 360 Equiv.	YTM/C 365 Equiv.
Money Mkt Mutual Funds/Cash	8,669,452.49	8,669,452.49	8,669,452.49	3.96	1	1	0.001	0.001
Federal Agency Coupon Securities	52,000,000.00	51,983,730.00	52,021,619.38	23.78	894	537	0.967	0.981
Federal Agency Disc. -Amortizing	84,000,000.00	83,962,650.00	83,963,719.99	38.38	107	45	0.365	0.370
Treasury Coupon Securities	10,000,000.00	10,010,200.00	10,007,700.32	4.57	195	29	0.523	0.530
Local Agency Investment Funds	64,108,240.28	64,122,412.05	64,108,240.28	29.30	1	1	0.544	0.552
Investments	218,777,692.77	218,748,444.54	218,770,732.46	100.00%	263	147	0.554	0.561
Cash and Accrued Interest								
Passbook/Checking (not included in yield calculations)	642,876.10	642,876.10	642,876.10		1	1	0.000	0.000
Accrued Interest at Purchase		27,616.67	27,616.67					
Subtotal		670,492.77	670,492.77					
Total Cash and Investments	219,420,568.87	219,418,937.31	219,441,225.23		263	147	0.554	0.561

Total Earnings	May 31 Month Ending	Fiscal Year To Date
Current Year	117,735.15	750,757.99
Average Daily Balance	221,656,316.06	175,717,904.36
Effective Rate of Return	0.63%	0.46%

"I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2016. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months."

Patricia Jakubiak 6/3/16
 Patricia Jakubiak, Treasurer

Cash and Investments with GASB 31 Adjustment:

Book Value of Cash & Investments before GASB 31 (Above)

\$ 219,441,225.23

GASB 31 Adjustment to Books (See Note 3 on page 9)

\$ (19,436.11)

Total

\$ 219,421,789.12

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Investments
May 31, 2016

(See Note 1 on page 9)

(See Note 2 on page 9)

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity	Maturity Date
Money Mkt Mutual Funds/Cash											
SYS528	528	Federated Treasury Obligations			8,669,452.49	8,669,452.49	8,669,452.49	0.001	0.001	1	
Subtotal and Average			15,855,710.56		8,669,452.49	8,669,452.49	8,669,452.49		0.001	1	
Federal Agency Coupon Securities											
3133EEA75	861	Federal Farm Credit Bank		04/23/2015	9,000,000.00	8,983,530.00	9,000,000.00	0.990	0.998	600	01/22/2018
3133EFJP3	869	Federal Farm Credit Bank Callable anytime		10/15/2015	10,000,000.00	9,974,900.00	10,000,000.00	1.100	1.054	866	10/15/2018
3133EFAZ0	889	Federal Farm Credit Bank Callable 9-6-16		04/21/2016	8,000,000.00	8,004,480.00	8,009,739.26	1.280	1.206	827	09/06/2018
3134G7FK2	863	Fed Home Loan Mtg Corp		06/30/2015	9,000,000.00	9,012,060.00	9,000,000.00	1.100	1.065	660	03/23/2018
3134G3W63	892	Fed Home Loan Mtg Corp Callable 8-28-16		05/26/2016	10,000,000.00	10,005,400.00	10,004,917.39	1.030	0.827	88	11/28/2017
3130A67K7	884	Fed Home Loan Bank Callable 8-10-16		04/20/2016	6,000,000.00	6,003,360.00	6,006,962.73	1.270	0.662	70	08/10/2018
Subtotal and Average			51,364,646.57		52,000,000.00	51,983,730.00	52,021,619.38		0.981	537	
Federal Agency Disc. -Amortizing											
313396XR9	882	Freddie Mac		12/18/2015	9,000,000.00	8,999,910.00	8,999,740.00	0.520	0.536	2	06/03/2016
313396YF4	883	Freddie Mac		12/18/2015	9,000,000.00	8,999,100.00	8,997,900.00	0.525	0.541	16	06/17/2016
313396G98	888	Freddie Mac		04/21/2016	9,000,000.00	8,988,030.00	8,990,310.00	0.340	0.350	114	09/23/2016
313384YU7	885	Fed Home Loan Bank		04/21/2016	20,000,000.00	19,996,400.00	19,995,408.33	0.285	0.293	29	06/30/2016
313384YV5	886	Fed Home Loan Bank		04/21/2016	9,000,000.00	8,997,480.00	8,997,825.00	0.290	0.298	30	07/01/2016
313384ZZ5	887	Fed Home Loan Bank		04/21/2016	9,000,000.00	8,995,230.00	8,995,650.00	0.300	0.309	58	07/28/2016
313384ZK8	890	Fed Home Loan Bank		05/12/2016	9,000,000.00	8,996,400.00	8,996,920.00	0.280	0.288	44	07/15/2016
313384D55	891	Fed Home Loan Bank		05/24/2016	10,000,000.00	9,990,100.00	9,989,966.66	0.420	0.432	86	08/26/2016
Subtotal and Average			80,316,036.41		84,000,000.00	83,962,660.00	83,963,719.99		0.370	45	
Treasury Coupon Securities											
91282QR4	877	Treasury Note		12/18/2015	10,000,000.00	10,010,200.00	10,007,700.32	1.500	0.530	29	06/30/2016
Subtotal and Average			10,011,683.24		10,000,000.00	10,010,200.00	10,007,700.32		0.530	29	
Local Agency Investment Funds											
SYS336	336	Local Agency Investmt Fund			64,108,240.28	64,122,412.05	64,108,240.28	0.552	0.552	1	
Subtotal and Average			64,108,240.28		64,108,240.28	64,122,412.05	64,108,240.28		0.552	1	

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Investments
May 31, 2016

(See Note 1 on page 9)

(See Note 2 on page 9)

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity
Total and Average			221,656,316.06		218,777,692.77	218,748,444.54	218,770,732.46		0.561	147

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Cash
May 31, 2016

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity
Money Mkt Mutual Funds/Cash										
SYS10033	10033	Revolving Fund		07/01/2015	20,000.00	20,000.00	20,000.00		0.000	1
SYS4	4	Union Bank		07/01/2015	622,876.10	622,876.10	622,876.10		0.000	1
Average Balance			0.00	Accrued Interest at Purchase		27,616.67	27,616.67			1
				Subtotal		670,492.77	670,492.77			
Total Cash and Investments			221,656,316.06		219,420,568.87	219,418,937.31	219,441,225.23		0.561	147



ORANGE COUNTY FIRE AUTHORITY
Aging Report
By Maturity Date
As of June 1, 2016

Orange County Fire Authority
 1 Fire Authority Road
 Irvine, Irvine, CA 92602
 (714)573-6301

					Maturity Par Value	Percent of Portfolio	Current Book Value	Current Market Value
Aging Interval:	0 days	(06/01/2016 - 06/01/2016)	4 Maturities	0 Payments	73,420,568.87	33.46%	73,420,568.87	73,434,740.64
Aging Interval:	1 - 30 days	(06/02/2016 - 07/01/2016)	5 Maturities	0 Payments	57,000,000.00	25.98%	56,998,573.65	57,003,090.00
Aging Interval:	31 - 60 days	(07/02/2016 - 07/31/2016)	2 Maturities	0 Payments	18,000,000.00	8.20%	17,992,570.00	17,991,630.00
Aging Interval:	61 - 91 days	(08/01/2016 - 08/31/2016)	1 Maturities	0 Payments	10,000,000.00	4.55%	9,989,966.66	9,990,100.00
Aging Interval:	92 - 121 days	(09/01/2016 - 09/30/2016)	1 Maturities	0 Payments	9,000,000.00	4.10%	8,990,310.00	8,988,030.00
Aging Interval:	122 - 152 days	(10/01/2016 - 10/31/2016)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	153 - 183 days	(11/01/2016 - 12/01/2016)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	184 - 274 days	(12/02/2016 - 03/02/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	275 - 365 days	(03/03/2017 - 06/01/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval:	366 - 1095 days	(06/02/2017 - 06/01/2019)	6 Maturities	0 Payments	52,000,000.00	23.71%	52,021,619.38	51,983,730.00
Aging Interval:	1096 days and after	(06/02/2019 -)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Total for			19 Investments	0 Payments		100.00	219,413,608.56	219,391,320.64



NOTES TO PORTFOLIO MANAGEMENT REPORT

- Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The MUFG Union Bank (formerly Union Bank) Trust Department provides market values of the remaining investments.
- Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.
- Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/ (losses) as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2015 includes an increase of \$18,799 to the LAIF investment and a decrease of (\$38,235) to the remaining investments.
- Note 4: The Federated Treasury Obligations money market mutual fund functions as the Authority's sweep account. Funds are transferred to and from the sweep account to/from OCFA's checking account in order to maintain a target balance of \$1,000,000 in checking. Since this transfer occurs at the beginning of each banking day, the checking account sometimes reflects a negative balance at the close of the banking day. The negative closing balance is not considered an overdraft since funds are available in the money market mutual fund. The purpose of the sweep arrangement is to provide sufficient liquidity to cover outstanding checks, yet allow that liquidity to be invested while payment of the outstanding checks is pending.



Local Agency Investment Fund (LAIF)

As of May 31, 2016, OCFA has \$64,108,240 invested in LAIF. The fair value of OCFA's LAIF investment is calculated using a participant fair value factor provided by LAIF on a quarterly basis. The fair value factor as of March 31, 2016 is 1.00022106. When applied to OCFA's LAIF investment, the fair value is \$64,122,412 or \$14,172 above cost. Although the fair value of the LAIF investment is higher than cost, OCFA can withdraw the actual amount invested at any time.

LAIF is included in the State Treasurer's Pooled Money Investment Account (PMIA) for investment purposes. The PMIA market valuation at May 31, 2016 is included on the following page.



Fair Value Including Accrued Interest	\$	70,178,507,700.71
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Page 11



Orange County Fire Authority
Preliminary Investment Report
June 24, 2016



ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Summary
June 24, 2016

Orange County Fire Authority
 1 Fire Authority Road
 Irvine, CA 92602
 (714)573-6301

(See Note 1 on page 18)

(See Note 2 on page 18)

Investments	Par Value	Market Value	Book Value	% of Portfolio	Term	Days to Maturity	YTM/C 360 Equiv.	YTM/C 365 Equiv.
Money Mkt Mutual Funds/Cash	9,614,577.87	9,614,577.87	9,614,577.87	4.54	1	1	0.001	0.001
Federal Agency Coupon Securities	52,000,000.00	52,065,270.00	52,015,380.59	24.57	894	513	0.967	0.981
Federal Agency Disc. -Amortizing	76,000,000.00	75,972,830.00	75,968,962.21	35.88	93	41	0.328	0.333
Treasury Coupon Securities	10,000,000.00	10,001,100.00	10,001,327.64	4.72	195	5	0.523	0.530
Local Agency Investment Funds	64,108,240.28	64,122,412.05	64,108,240.28	30.28	1	1	0.544	0.552
Investments	211,722,818.15	211,776,189.92	211,708,488.59	100.00%	262	141	0.545	0.553
Cash and Accrued Interest								
Passbook/Checking (not included in yield calculations)	403,997.25	403,997.25	403,997.25		1	1	0.000	0.000
Accrued Interest at Purchase		27,616.67	27,616.67					
Subtotal		431,613.92	431,613.92					
Total Cash and Investments	212,126,815.40	212,207,803.84	212,140,102.51		262	141	0.545	0.553

Total Earnings	June 24 Month Ending	Fiscal Year To Date
Current Year	77,110.02	827,868.01
Average Daily Balance	217,941,754.79	178,532,827.73
Effective Rate of Return	0.54%	0.47%

"I certify that this investment report accurately reflects all pooled investments and is in compliance with the investment policy adopted by the Board of Directors to be effective on January 1, 2016. A copy of this policy is available from the Clerk of the Authority. Sufficient investment liquidity and anticipated revenues are available to meet budgeted expenditure requirements for the next thirty days and the next six months."

Patricia Jakubiak, Treasurer

Cash and Investments with GASB 31 Adjustment:

Book Value of Cash & Investments before GASB 31 (Above)

GASB 31 Adjustment to Books (See Note 3 on page 18)

Total

\$	212,140,102.51
\$	(19,436.11)
\$	<u>212,120,666.40</u>

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Investments
June 24, 2016

(See Note 1 on page 18) (See Note 2 on page 18)

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity	Maturity Date
Money Mkt Mutual Funds/Cash											
SYS528	528	Federated Treasury Obligations			9,614,577.87	9,614,577.87	9,614,577.87	0.001	0.001	1	
Subtotal and Average			12,429,305.84		9,614,577.87	9,614,577.87	9,614,577.87		0.001	1	
Federal Agency Coupon Securities											
3133EEA75	861	Federal Farm Credit Bank		04/23/2015	9,000,000.00	9,000,090.00	9,000,000.00	0.990	0.998	576	01/22/2018
3133EFJP3	869	Federal Farm Credit Bank Callable anytime		10/15/2015	10,000,000.00	10,000,100.00	10,000,000.00	1.100	1.054	842	10/15/2018
3133EFAZ0	889	Federal Farm Credit Bank Callable 9-6-16		04/21/2016	8,000,000.00	8,008,800.00	8,007,278.81	1.280	1.206	803	09/08/2018
3134G7FK2	863	Fed Home Loan Mtg Corp		06/30/2015	9,000,000.00	9,046,800.00	9,000,000.00	1.100	1.065	636	03/23/2018
3134G3W63	892	Fed Home Loan Mtg Corp Callable 8-28-16		05/26/2016	10,000,000.00	10,007,700.00	10,003,560.87	1.030	0.827	64	11/28/2017
3130A67K7	884	Fed Home Loan Bank Callable 8-10-16		04/20/2016	6,000,000.00	6,003,780.00	6,004,540.91	1.270	0.662	46	08/10/2018
Subtotal and Average			52,018,370.01		52,000,000.00	52,065,270.00	52,015,380.59		0.981	513	
Federal Agency Disc. -Amortizing											
313396G98	888	Freddie Mac		04/21/2016	9,000,000.00	8,992,530.00	8,992,350.00	0.340	0.350	90	08/23/2016
313384YU7	885	Fed Home Loan Bank		04/21/2016	20,000,000.00	19,999,600.00	19,999,208.33	0.285	0.293	5	06/30/2016
313384YV5	886	Fed Home Loan Bank		04/21/2016	9,000,000.00	8,999,730.00	8,999,565.00	0.290	0.298	6	07/01/2016
313384ZZ5	887	Fed Home Loan Bank		04/21/2016	9,000,000.00	8,997,840.00	8,997,450.00	0.300	0.309	34	07/29/2016
313384ZK8	890	Fed Home Loan Bank		05/12/2016	9,000,000.00	8,998,830.00	8,998,600.00	0.280	0.288	20	07/15/2016
313384D55	891	Fed Home Loan Bank		05/24/2016	10,000,000.00	9,994,500.00	9,992,786.66	0.420	0.432	62	08/26/2016
313384J75	893	Fed Home Loan Bank		06/09/2016	10,000,000.00	9,989,800.00	9,989,022.22	0.380	0.391	104	10/07/2016
Subtotal and Average			79,381,457.46		76,000,000.00	75,972,830.00	75,968,962.21		0.333	41	
Treasury Coupon Securities											
912828QR4	877	Treasury Note		12/18/2015	10,000,000.00	10,001,100.00	10,001,327.64	1.500	0.530	5	06/30/2016
Subtotal and Average			10,004,381.22		10,000,000.00	10,001,100.00	10,001,327.64		0.530	5	
Local Agency Investment Funds											
SYS336	336	Local Agency Invstmt Fund			64,108,240.28	64,122,412.05	64,108,240.28	0.552	0.552	1	
Subtotal and Average			64,108,240.28		64,108,240.28	64,122,412.05	64,108,240.28		0.552	1	
Total and Average			217,941,754.79		211,722,818.16	211,776,189.92	211,708,488.59		0.553	141	

ORANGE COUNTY FIRE AUTHORITY
Portfolio Management
Portfolio Details - Cash
June 24, 2016

CUSIP	Investment #	Issuer	Average Balance	Purchase Date	Par Value	Market Value	Book Value	Stated Rate	YTM/C 365	Days to Maturity
Money Mkt Mutual Funds/Cash										
SYS10033	10033	Revolving Fund		07/01/2015	20,000.00	20,000.00	20,000.00		0.000	1
SYS4	4	Union Bank		07/01/2015	383,997.25	383,997.25	383,997.25		0.000	1
Average Balance			0.00	Accrued Interest at Purchase		27,616.67	27,616.67			1
				Subtotal		431,613.92	431,613.92			
Total Cash and Investments			217,941,754.79		212,126,815.40	212,207,803.84	212,140,102.51		0.553	141

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ORANGE COUNTY FIRE AUTHORITY
Aging Report
By Maturity Date
As of June 25, 2016

Orange County Fire Authority
 1 Fire Authority Road
 Irvine, Irvine, CA 92602
 (714)573-6301

				Maturity Par Value	Percent of Portfolio	Current Book Value	Current Market Value
Aging Interval: 0 days	(06/25/2016 - 06/25/2016)	4 Maturities	0 Payments	74,126,815.40	34.95%	74,126,815.40	74,140,987.17
Aging Interval: 1 - 30 days	(06/26/2016 - 07/25/2016)	4 Maturities	0 Payments	48,000,000.00	22.63%	47,998,700.97	47,999,260.00
Aging Interval: 31 - 60 days	(07/26/2016 - 08/24/2016)	1 Maturities	0 Payments	9,000,000.00	4.24%	8,997,450.00	8,997,840.00
Aging Interval: 61 - 91 days	(08/25/2016 - 09/24/2016)	2 Maturities	0 Payments	19,000,000.00	8.95%	18,985,116.86	18,987,030.00
Aging Interval: 92 - 121 days	(09/25/2016 - 10/24/2016)	1 Maturities	0 Payments	10,000,000.00	4.71%	9,989,022.22	9,989,800.00
Aging Interval: 122 - 152 days	(10/25/2016 - 11/24/2016)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval: 153 - 183 days	(11/25/2016 - 12/25/2016)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval: 184 - 274 days	(12/26/2016 - 03/26/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval: 275 - 365 days	(03/27/2017 - 06/25/2017)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Aging Interval: 366 - 1095 days	(06/26/2017 - 06/25/2019)	6 Maturities	0 Payments	52,000,000.00	24.52%	52,015,380.59	52,065,270.00
Aging Interval: 1096 days and after	(06/26/2019 -)	0 Maturities	0 Payments	0.00	0.00%	0.00	0.00
Total for		18 Investments	0 Payments		100.00	212,112,485.84	212,180,187.17



NOTES TO PORTFOLIO MANAGEMENT REPORT

- Note 1: Market value of the LAIF investment is calculated using a fair value factor provided by LAIF. The MUFG Union Bank Trust Department provides market values of the remaining investments.
- Note 2: Book value reflects the cost or amortized cost before the GASB 31 accounting adjustment.
- Note 3: GASB 31 requires governmental entities to report investments at fair value in the financial statements and to reflect the corresponding unrealized gains/ (losses) as a component of investment income. The GASB 31 adjustment is recorded only at fiscal year end. The adjustment for June 30, 2015 includes an increase of \$18,799 to the LAIF investment and a decrease of (\$38,235) to the remaining investments.
- Note 4: The Federated Treasury Obligations money market mutual fund functions as the Authority's sweep account. Funds are transferred to and from the sweep account to/from OCFA's checking account in order to maintain a target balance of \$1,000,000 in checking. Since this transfer occurs at the beginning of each banking day, the checking account sometimes reflects a negative balance at the close of the banking day. The negative closing balance is not considered an overdraft since funds are available in the money market mutual fund. The purpose of the sweep arrangement is to provide sufficient liquidity to cover outstanding checks, yet allow that liquidity to be invested while payment of the outstanding checks is pending.

GLOSSARY

INVESTMENT TERMS

Basis Point. Measure used in quoting yields on bonds and notes. One basis point is .01% of yield.

Book Value. This value may be the original cost of acquisition of the security, or original cost adjusted by the amortization of a premium or accretion of a discount. The book value may differ significantly from the security's current value in the market.

Commercial Paper. Unsecured short-term promissory notes issued by corporations, with maturities ranging from 2 to 270 days; may be sold on a discount basis or may bear interest.

Coupon Rate. Interest rate, expressed as a percentage of par or face value, that issuer promises to pay over lifetime of debt security.

Discount. The amount by which a bond sells under its par (face) value.

Discount Securities. Securities that do not pay periodic interest. Investors earn the difference between the discount issue price and the full face value paid at maturity. Treasury bills, bankers' acceptances and most commercial paper are issued at a discount.

Effective Rate of Return. Rate of return on a security, based on its purchase price, coupon rate, maturity date, and the period between interest payments.

Federal Agency Securities. Securities issued by agencies such as the Federal National Mortgage Association and the Federal Farm Credit Bank. Though not general obligations of the US Treasury, such securities are sponsored by the government and therefore have high credit ratings. Some are issued on a discount basis and some are issued with coupons.

Federal Funds. Funds placed in Federal Reserve banks by depository institutions in excess of current reserve requirements. These depository institutions may lend fed funds to each other overnight or on a longer basis. They may also transfer funds among each other on a same-day basis through the Federal Reserve banking system. Fed Funds are considered to be immediately available funds.

Fed Funds Rate. The interest rate charged by one institution lending federal funds to another.

Federal Open Market Committee. The branch of the Federal Reserve Board that determines the direction of monetary policy.

Local Agency Investment Fund (LAIF). A California State Treasury fund which local agencies may use to deposit funds for investment and for reinvestment with a maximum of \$50 million for any agency (*excluding bond funds, which have no maximum*). It offers high liquidity because

deposits can be converted to cash in 24 hours and no interest is lost. Interest is paid quarterly and the State's administrative fee cannot to exceed 1/4 of a percent of the earnings.

Market value. The price at which the security is trading and could presumably be purchased or sold.

Maturity Date. The specified day on which the issuer of a debt security is obligated to repay the principal amount or face value of security.

Money Market Mutual Fund. Mutual funds that invest solely in money market instruments (short-term debt instruments, such as Treasury bills, commercial paper, bankers' acceptances, repurchase agreements and federal funds).

Par. Face value or principal value of a bond typically \$1,000 per bond.

Rate of Return. The amount of income received from an investment, expressed as a percentage. A *market rate of return* is the yield that an investor can expect to receive in the current interest-rate environment utilizing a buy-and-hold to maturity investment strategy.

Treasury Bills. Short-term U.S. government non-interest bearing debt securities with maturities of no longer than one year. The yields on these bills are monitored closely in the money markets for signs of interest rate trends.

Treasury Notes. Intermediate U.S. government debt securities with maturities of one to 10 years.

Treasury bonds. Long-term U.S. government debt securities with maturities of 10 years or longer.

Yield. Rate of return on a bond.

Yield-to-maturity. Rate of return on a bond taking into account the total annual interest payments, the purchase price, the redemption value and the amount of time remaining until maturity.

ECONOMIC TERMS

Conference Board Consumer Confidence Index A survey that measures how optimistic or pessimistic consumers are with respect to the economy in the near future.

Consumer Price Index (CPI). A measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. Changes in CPI are used to assess price changes associated with the cost of living.

• **Durable Goods Orders.** An economic indicator released monthly that reflects new orders placed with domestic manufacturers for delivery of factory durable goods such as autos and appliances in the near term or future.

• **Gross Domestic Product.** The monetary value of all the finished goods and services produced within a country's borders in a specific time period. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

• **Industrial Production.** An economic indicator that is released monthly by the Federal Reserve Board. The indicator measures the amount of output from the manufacturing, mining, electric and gas industries.

• **ISM Institute for Supply Management (ISM) Manufacturing Index.** A monthly index that monitors employment, production inventories, new orders and supplier deliveries.

• **ISM Non-manufacturing Index.** An index based on surveys of non-manufacturing firms' purchasing and supply executives. It tracks economic data for the service sector.

• **Leading Economic Index.** A monthly index used to predict the direction of the economy's movements in the months to come. The index is made up of 10 economic components, whose changes tend to precede changes in the overall economy.

• **National Federation of Independent Business Small Business Optimism Index.** An index based on surveys of small business owners' plans and expectations regarding employment, capital, inventories, economic improvement, credit conditions, expansion, and earnings trends in the near term or future.

• **Producer Price Index.** An index that measures the average change over time in the selling prices received by domestic producers for their output.

• **University of Michigan Consumer Sentiment Index.** An index that measures the overall health of the economy as determined by consumer opinion. It takes into account an individual's feelings toward his or her own current financial health, the health of the economy in the short term and the prospects for longer term economic growth.