## Orange County Employees Retirement System

Actuarial Valuation and Review
as of December 31, 2007

## Copyright © 2009

The Segal Group, Inc.,
the parent of The Segal Company
All rights reserved

100 Montgomery Street, Suite 500 San Francisco, CA 94104
T 415.263.8200 F 415.263.8290 www.segalco.com
January 13, 2009
Board of Retirement
Orange County Employees Retirement System
2223 Wellington Avenue
Santa Ana, CA 92701
Dear Board Members:
We are pleased to submit this Actuarial Valuation and Review as of December 31, 2007. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2009-2010 and analyzes the preceding year's experience. The results of this valuation were prepared using the actuarial assumptions and methods recommended in the December 31, 2007 experience study. All of the assumptions recommended in that study were adopted by the Board, except for the General member retirement probabilities for those plans with improved benefit formulas. The Board decided to leave the current General member retirement probabilities for those plans unchanged in this valuation and to conduct further analysis of that assumption before the next valuation as of December 31, 2008.

The census and the unaudited financial information were provided by the Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice (ASOPs) Nos. 4, 27, 35 and all other relevant ASOPs. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the recommended assumptions are reasonably related to the experience of and the expectations for the Plan. The undersigned are members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

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

## THE SEGAL COMPANY

By:


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


Andy Yeung, ASA, EA, MAAA
Vice President and Associate Actuary
SECTION 1
VALUATION SUMMARY

Purpose $\qquad$ ....i
Significant Issues in Valuation Year ...ii Summary of Key Valuation Results ...iv Summary of Key Valuation

Demographic and Financial Data..v

## SECTION 2 <br> VALUATION RESULTS

A. Member Data $\qquad$
B. Financial Information $\qquad$
C. Actuarial Experience 4
D. Employer and Member Contributions $\qquad$ 12
E. Information Required by the GASB $\qquad$ 22

## SECTION 3

## SUPPLEMENTAL INFORMATION

## EXHIBIT A

Table of Plan Coverage
i. General (other than OCTA)............ 23
ii. General OCTA 24
iii. Safety Law Enforcement ................ 25
iv. Safety Probation Officers ............... 26
v. Safety Fire Authority..................... 27
vi. Total $\quad 28$

## EXHIBIT B

Members in Active Service and
Projected Average Compensation as of December 31, 2007
i. General (other than OCTA)............ 29
ii. General OCTA .............................. 30
iii. Safety Law Enforcement ................ 31
iv. Safety Probation Officers ............... 32
v. Safety Fire Authority..................... 33
vi. Total.

EXHIBIT C
Reconciliation of Member Data -
December 31, 2006 to
December 31, 200735

EXHIBIT D
Summary Statement of Income and
Expenses on an Actuarial Value Basis. 36
EXHIBIT E
Summary Statement of Assets
EXHIBIT F
Actuarial Balance Sheet.
EXHIBIT G
Summary of Reported Asset Information as of December 31, 200739

EXHIBIT H
Development of Unfunded/(Overfunded)
Actuarial Accrued Liability for Year
Ended December 31, 2007 $\qquad$
EXHIBIT I
Section 415 Limitations $\qquad$ 41
EXHIBIT J
Definitions of Pension Terms $\qquad$

## SECTION 4

## REPORTING INFORMATION

EXHIBIT I
Supplementary Information
Required by GASB - Schedule of
Employer Contributions
EXHIBIT II
Supplementary Information
Required by GASB - Schedule of
Funding Progress............................ 4
EXHIBIT III
Supplementary Information
Required by GASB $\qquad$
EXHIBIT IV
Actuarial Assumptions and
Actuarial Cost Method
EXHIBIT V
Summary of Plan Provisions
Appendix A
UAAL Amortization Schedule as of
December 31, 2007
Appendix B
Member Contribution Rates
General Tier 1 Members'
Contribution Rates..
General Tier 2 Members'
Contribution Rates........
Safety Tier 1 Members'
Contribution Rates... .. 77

Contribution Rates.......
Safety Tier 2 Members'
Contribution Rates.. 8 .81

## SECTION 1: Valuation Summary for the Orange County Employees Retirement System

## Purpose

This report has been prepared by The Segal Company to present a valuation of the Orange County Employees Retirement System as of December 31, 2007. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:
> The benefit provisions of the Retirement System, as administered by the Board of Retirement;
> The characteristics of covered active members, inactive vested members, retired members, and beneficiaries as of December 31, 2007, provided by the Retirement System;
> The assets of the Plan as of December 31, 2007, provided by the Retirement System;
> Economic assumptions regarding future salary increases and investment earnings; and
> Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

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

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

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have continued with the Board's funding policy to amortize the outstanding balance of the unfunded actuarial accrued liability from the December 31, 2004 valuation over a declining 27-year period. Any increases or decreases in unfunded actuarial accrued liabilities that arise in future years due to actuarial gains or losses will be amortized over separate 15 -year periods. Any increases or decreases in UAAL due to changes in actuarial assumptions are amortized over a separate 30 -year period. The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2009 through June 30, 2010.

## Significant Issues in Valuation Year

The following key findings were the result of this revised actuarial valuation:
> The ratio of the valuation value of assets to actuarial accrued liabilities has increased from $73.77 \%$ to $74.08 \%$. The System's unfunded actuarial accrued liability has increased from $\$ 2.299$ billion as of December 31, 2006 to $\$ 2.550$ billion as of December 31, 2007. The increase in unfunded actuarial accrued liability is mainly due to assumption changes that were implemented after the December 31, 2007 experience study, higher than expected salary increases, and other experience losses, offset to some degree by higher than expected investment return. A reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit H.
> The aggregate employer rate calculated in this valuation has increased from $24.04 \%$ of payroll to $24.32 \%$ of payroll. The reasons for the changes are: (i) assumption changes, (ii) higher than expected individual salary increases, and (iii) other actuarial losses, offset to some degree by favorable investment return. A reconciliation of the System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15).
> The aggregate member rate calculated in this valuation has increased from $10.40 \%$ of payroll to $10.67 \%$ of payroll. The change in member rate is primarily due to the changes in membership demographics and assumption changes. A reconciliation of the System's aggregate member rate is provided in Section 2, Subsection D (see Chart 16).
> The results of this valuation were prepared using the actuarial assumptions and methods recommended in the December 31, 2007 experience study. All of the assumptions recommended in that study were adopted by the Board, except for the General member retirement probabilities for those plans with improved benefit formulas. The Board decided to leave the current General member retirement probabilities for those plans unchanged in this valuation and to conduct further analysis of that assumption before the next valuation as of December 31, 2008. The cost impact of these assumption changes is provided in Section 2, Subsection D (see Charts 15 and 16).
> As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment gain as of December 31, 2007 is $\$ 427,485,000$. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will serve to offset any investment losses that may occur after December 31, 2007. This implies that if the System earns the assumed rate of investment return of $7.75 \%$ per year (net of expenses) on a market value basis, this will result in investment gains on the actuarial value of assets in the next few years.

## SECTION 1: Valuation Summary for the Orange County Employees Retirement System

> Effective December 7, 2007, General members of the Cemetery District, who had been receiving benefits under the nonimproved formula as part of Rate Group \#1, have been granted a benefit improvement for future service only under the " $2.0 \%$ @ 55 " formula, and these General members are now in new Rate Group \#11. Also, Vector Control District terminated its participation at OCERS as of January 4, 2007.
> The actuarial valuation report as of December 31, 2007 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.

## Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:
> difference between actual experience and anticipated experience;
> changes in actuarial assumptions or methods;
> changes in statutory provisions; and
> difference between the contribution rates determined by the valuation and those adopted by the Board.

|  | December 31, 2007 |  | December 31, 2006 |  |
| :---: | :---: | :---: | :---: | :---: |
| Employer Contribution Rates: |  | Estimated |  | Estimated |
| General | Total Rate | Annual Amount ${ }^{(1)}$ | Total Rate | Annual Amount ${ }^{(1)}$ |
| Rate Group \#1 - Plans A and B (non-OCTA) | 14.17\% | \$7,487 | 14.50\% | \$7,662 |
| Rate Group \#2 - Plans I and J ( $2.7 \%$ @ $55-$ non-OCFA) | 21.83 | 202,064 | 22.20 | 205,489 |
| Rate Group \#3 - Plans G and H (2.5\% @ 55) | 21.95 | 11,784 | 21.34 | 11,457 |
| Rate Group \#5-Plans A and B (ОСТА) | 15.02 | 14,520 | 16.02 | 15,486 |
| Rate Group \#9 - Plans M and N (2.0\% @ $55-$ TCA) | 18.73 | 1,135 | 18.04 | 1,095 |
| Rate Group \#10 - Plans I and J (OCFA) | 23.01 | 4,795 | 24.24 | 5,052 |
| Rate Group \#11-Plans M and N, future service (2.0\% @ 55 - Cemetery) | 15.15 | 145 | 15.31 | 146 |
| Safety |  |  |  |  |
| Rate Group \#6-Plans E and F (Probation) | 31.39\% | \$20,642 | 32.25\% | \$21,207 |
| Rate Group \#7-Plans E and F (Law Enforcement) | 39.52 | 65,376 | 36.05 | 59,637 |
| Rate Group \#8-Plans E and F (Fire Authority) | 38.24 | 26,497 | 33.43 | 23,164 |
| All Groups Combined | 24.32\% | \$354,445 | 24.04\% | \$350,395 |
| Average Member Contribution Rates: General | Total Rate | Estimated Annual Amount ${ }^{(1)}$ | Total Rate ${ }^{(2)}$ | Estimated Annual Amount ${ }^{(1)}$ |
| Rate Group \#1 - Plans A and B (non-OCTA) | 7.09\% | \$3,746 | 7.02\% | \$3,709 |
| Rate Group \#2 - Plans I and J ( $2.7 \%$ @ 55 - non-OCFA) | 10.53 | 97,469 | 10.45 | 96,728 |
| Rate Group \#3 - Plans G and H (2.5\% @ 55) | 10.62 | 5,702 | 10.45 | 5,611 |
| Rate Group \#5 - Plans A and B (OCTA) | 8.34 | 8,062 | 8.02 | 7,753 |
| Rate Group \#9 - Plans M and N ( $2.0 \%$ @ $55-\mathrm{TCA})$ | 8.89 | 539 | 8.48 | 514 |
| Rate Group \#10-Plans I and J (OCFA) | 10.84 | 2,259 | 10.71 | 2,232 |
| Rate Group \#11-Plans M and N, future service (2.0\% @ 55 - Cemetery) | 7.69 | 73 | 7.52 | 72 |
| Safety |  |  |  |  |
| Rate Group \#6-Plans E and F (Probation) | 12.56\% | \$8,259 | 11.39\% | \$7,490 |
| Rate Group \#7-Plans E and F (Law Enforcement) | 12.73 | 21,059 | 11.90 | 19,686 |
| Rate Group \#8-Plans E and F (Fire Authority) | 11.94 | 8,273 | 11.10 | 7,691 |
| All Groups Combined | 10.67\% | \$155,441 | 10.40\% | \$151,486 |
| Funded Status: |  |  |  |  |
| Actuarial accrued liability | \$9,838,686 |  | \$8,765,045 |  |
| Valuation value of assets | \$7,288,900 |  | \$6,466,085 |  |
| Funded percentage | 74.08\% |  | 73.77\% |  |
| Unfunded Actuarial Accrued Liability | \$2,549,786 |  | \$2,298,960 |  |
| Key Assumptions: |  |  |  |  |
| Interest rate | 7.75\% |  | 7.75\% |  |
| Inflation rate | 3.50\% |  | 3.50\% |  |
| Across-the-board real salary increase | 0.00\% |  | 0.00\% |  |
| ${ }^{(1)}$ Based on December 31, 2007 projected annual compensation. |  |  |  |  |

## SECTION 1: Valuation Summary for the Orange County Employees Retirement System

| Summary of Key Valuation Demographic and Financial Data |  |  |  |
| :---: | :---: | :---: | :---: |
|  | December 31, 2007 | December 31, 2006 | Percentage Change |
| Active Members: |  |  |  |
| Number of members | 23,618 | 22,791 | 3.6\% |
| Average age | 43.4 | 43.6 | N/A |
| Average service | 10.7 | 10.8 | N/A |
| Projected total compensation | \$1,457,159,706 | \$1,322,952,280 | 10.1\% |
| Average projected compensation | \$61,697 | \$58,047 | 6.3\% |
| Retired Member and Beneficiaries: |  |  |  |
| Number of members: |  |  |  |
| Service retired | 8,636 | 8,229 | 4.9\% |
| Disability retired | 1,243 | 1,228 | 1.2\% |
| Beneficiaries | 1,542 | 1,458 | 5.8\% |
| Total | 11,421 | 10,915 | 4.6\% |
| Average age | 68.1 | 68.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,640 | \$2,495 | 5.8\% |
| Vested Terminated Members: |  |  |  |
| Number of vested terminated members ${ }^{(2)}$ | 3,646 | 3,195 | 14.1\% |
| Average age | 42.6 | 42.8 | N/A |
| Summary of Financial Data (dollar amounts in thousands): |  |  |  |
| Market value of assets ${ }^{(3)}$ | \$7,719,690 | \$6,817,726 | 13.2\% |
| Return on market value of assets | 11.18\% | 13.17\% | N/A |
| Actuarial value of assets | \$7,292,205 | \$6,474,074 | 12.6\% |
| Return on actuarial value of assets | 10.49\% | 9.71\% | N/A |
| Valuation value of assets | \$7,288,900 | \$6,466,085 | 12.7\% |
| Return on valuation value of assets | 10.45\% | 9.68\% | N/A |

(1) Excludes monthly benefits payable from the RMBR and STAR COLA.
${ }^{(2)}$ This includes members who chose to leave their contributions on deposit even though they have less than five years of service.
${ }^{(3)}$ The December 31, 2007 market value excludes $\$ 174,348,000$ in the County Investment Account and \$108,301,000 in the prepaid employer contributions account. The December 31, 2006 market value excludes $\$ 168,224,000$ in the County Investment Account and $\$ 70,941,000$ in the prepaid employer contributions account.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

## A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups

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

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

## CHART 1

Member Population: 2002-2007

| Year Ended <br> December 31 | Active <br> Members | Vested Terminated <br> Members* | Retired Members <br> and Beneficiaries | Ratio of Non-Actives <br> to Actives |
| :---: | :---: | :---: | :---: | :---: |
| 2002 | 22,723 | 2,177 | 8,688 | 0.48 |
| 2003 | 22,672 | 2,278 | 9,079 | 0.50 |
| 2004 | 22,502 | 1,910 | 9,433 | 0.50 |
| 2005 | 22,467 | 2,466 | 10,218 | 0.56 |
| 2006 | 22,791 | 3,195 | 10,915 | 0.62 |
| 2007 | 23,618 | 3,646 | 11,421 | 0.64 |

*Includes terminated members due a refund of member contributions.

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

## CHART 2 <br> Distribution of Active Members by Age as of December 31, 2007



## Inactive Members

In this year's valuation, there were 3,646 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 3,195 in the prior valuation.

## Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 23,618 active members with an average age of 43.4, average years of service of 10.7 years, and average compensation of $\$ 61,697$. The 22,791 active members in the prior valuation had an average age of 43.6 , average service of 10.8 years, and average compensation of \$58,047.

CHART 3
Distribution of Active Members by Years of Service as of December 31, 2007


## SECTION 2: Valuation Results for the Orange County Employees Retirement System

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

■ Disability

- Regular


## Retired Members and Beneficiaries

As of December 31, 2007, 9,879 retired members and 1,542 beneficiaries were receiving total monthly benefits of $\$ 30,148,000$. For comparison, in the previous valuation, there were 9,457 retired members and 1,458 beneficiaries receiving total monthly benefits of $\$ 27,235,000$. These monthly benefits exclude benefits payable from the Retired Member Benefit Reserve (RMBR) and Supplemental Targeted Adjustment for Retirees Cost of Living Adjustment (STAR COLA)

## CHART 4

## Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2007


 O

## CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2007


## B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D and E.

The chart depicts the components of changes in the actuarial value of assets over the last four years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.Adjustment toward market valueBenefits paid
Net interest and dividends

- Net contributions


## CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2004 - 2007

$\stackrel{H}{4}$ SEGAL

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

The chart shows the determination of the actuarial value of assets as of the valuation date.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets does not have an immediate effect on the actuarial value of assets. The determination of the Actuarial Value of Assets and Valuation Value of Assets is provided below.


## SECTION 2: Valuation Results for the Orange County Employees Retirement System

This chart shows the change in market value, actuarial value and valuation value over the past four years. Notes: Market Value of Assets excludes the County Investment Account and Prepaid Employer Contributions.

- Market Value
——Actuarial Value
$\simeq$ Valuation Value

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

## CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of December 31, 2004 - 2007


## SECTION 2: Valuation Results for the Orange County Employees Retirement System

## C. ACTUARIAL EXPERIENCE

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

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

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

The total experience loss was $\$ 3.3$ million, a gain of $\$ 176.7$ million from investments and a loss of $\$ 180.0$ million from all other sources. This does not include an additional \$237.1 million increase in UAAL from assumption changes. A discussion of the major components of the actuarial experience is on the following pages.

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

## CHART 9

Actuarial Experience for Year Ended December 31, 2007 (Dollar Amounts in Thousands)

| 1. | Net gain from investments ${ }^{(1)}$ | $\$ 176,681$ |
| :--- | :--- | :---: |
| 2. | Net gain from other experience ${ }^{(2)}$ | $\underline{(179,955)}$ |
| 3. | Net experience gain/(loss): $(1)+(2)$ | $\$(3,274)$ |

(1) Details in Chart 10.
${ }^{(2)}$ See Section 3, Exhibit H.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

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

## Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the OCERS' investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was $7.75 \%$. The actual rate of return on a valuation basis for the 2007 plan year was $10.45 \%$.

Since the actual return for the year was greater than the assumed return, OCERS experienced an actuarial gain during the year ended December 31, 2007 with regard to its investments.

CHART 10
Investment Experience for Year Ended December 31, 2007 - Valuation Value and Actuarial Value of Assets

| 1. | Actual return | Valuation Value | Actuarial Value |
| :--- | :--- | ---: | ---: |
| 2. | Average value of assets | $\$ 683,212,000$ | $\$ 685,780,000$ |
| 3. | Actual rate of return: $(1) \div(2)$ | $\$ 6,535,887,000$ | $\$ 6,540,250,000$ |
| 4. | Assumed rate of return | $10.45 \%$ | $10.49 \%$ |
| 5. | Expected return: $(2) \mathrm{x}(4)$ | $7.75 \%$ | $7.75 \%$ |
| 6. | Actuarial gain/(loss): $(1)-(5)$ | $\$ 506,531,000$ | $\$ 506,869,000$ |

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial, valuation, and market basis for the last four years.

Based upon this experience, future expectations, and direction from the Board, we maintain the assumed rate of return of $7.75 \%$.

## CHART 11

Investment Return - Actuarial Value, Valuation Value and Market Value: (Dollar Amounts in Thousands)

|  | Valuation Value Investment Return |  | Actuarial Value Investment Return |  | Market Value Investment Return |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| December 31 | Amount | Percent | Amount | Percent | Amount | Percent |
| 2004 | \$411,453 | 8.55\% | \$403,652 | 8.35\% | \$544,457 | 11.26\% |
| 2005 | 449,620 | 8.50\% | 461,972 | 8.72\% | 441,178 | 8.11\% |
| 2006 | 565,491 | 9.68\% | 568,254 | 9.71\% | 787,330 | 13.17\% |
| 2007 | 683,212 | 10.45\% | 685,780 | 10.49\% | 769,613 | 11.18\% |
| Total | \$2,109,776 |  | \$2,119,658 |  | \$2,542,578 |  |

Note: The return on market value is net of the return on the County Investment Account and prepaid employer contributions account.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

This chart illustrates how this leveling effect has actually worked over the years 2004-2007.

- Market Value
——Actuarial Value
$\simeq$ - Valuation Value


## CHART 12

Market, Actuarial, and Valuation Rates of Return for Years Ended December 31, 2004-2007


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

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

## Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:
> actual turnover among the participants,
> retirement experience (earlier or later than expected),
> mortality (more or fewer deaths than expected),
> the number of disability retirements, and
> salary increases different than assumed.
The net loss from this other experience for the year ended December 31, 2007 amounted to $\$ 180.0$ million which is $1.83 \%$ of the actuarial accrued liability. See Exhibit H in Section 3 for a detailed development of the Unfunded Actuarial Accrued Liability.

## D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost

Contribution to the Unfunded
Actuarial Accrued Liability (UAAL)

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation. For Probation Safety members who have prior benefit service in the General OCERS plan, the normal cost rate for their current plan is calculated based on the entry date for their current plan.

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of $3.50 \%$. The outstanding balance of the December 31, 2004 UAAL is being amortized over a declining 27-year period. Any new UAAL that arises in future years due to actuarial gains or losses will be amortized over separate 15 -year periods. The change in UAAL resulting from changes in actuarial assumptions is amortized over a separate 30 -year period.

The recommended employer contributions are provided in Chart 13.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

Member Contributions
Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to:
> $1 / 200$ of Final Average Salary for General Plan A;
> $1 / 120$ of Final Average Salary for General Plan B;
> 1/100 of Final Average Salary for General Plans G, H, I, and J;
> $1 / 120$ of Final Average Salary for General Plans M and N;
> $1 / 200$ of Final Average Salary for Safety Plan E and;
> 1/100 of Final Average Salary for Safety Plan F.
The Annuity age is 60 for General Plans A, B, M, and N, 55 for Plans G, H, I, and J, and 50 for Safety Plans E and F. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits.
Accumulation includes crediting of interest at the assumed investment earnings rate.
Member contribution rates are provided in Appendix A.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

CHART 13
Recommended Employer Contribution Rates as of December 31, 2007 (Dollar Amounts in Thousands)

| General Employers | December 31, 2007 Valuation |  | December 31, 2006 Valuation |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate | Estimated Annual Amount ${ }^{(1)}$ | Rate | $\begin{aligned} & \text { Estimated Annual } \\ & \text { Amount }^{(1)} \end{aligned}$ |
| Rate Group \#1-Plans A and B (non-OCTA) |  |  |  |  |
| Normal Cost | 8.92\% | \$4,713 | 9.19\% | \$4,856 |
| UAAL ${ }^{(2)}$ | 5.25\% | 2,774 | 5.31\% | 2,806 |
| Total Contribution | 14.17\% | \$7,487 | 14.50\% | \$7,662 |
| Rate Group \#2 - Plans I and J (2.7\% @ 55 - non-OCFA) ${ }^{(3)}$ |  |  |  |  |
| Normal Cost | 11.24\% | \$104,041 | 11.36\% | \$105,151 |
| UAAL ${ }^{(2)}$ | 10.59\% | 98,023 | 10.84\% | 100,338 |
| Total Contribution | 21.83\% | \$202,064 | 22.20\% | \$205,489 |
| Rate Group \#3 - Plans G and H (2.5\% @ 55) ${ }^{(3)}$ |  |  |  |  |
| Normal Cost | 10.54\% | \$5,659 | 10.55\% | \$5,664 |
| UAAL ${ }^{(2)}$ | 11.41\% | 6,125 | 10.79\% | 5,793 |
| Total Contribution | 21.95\% | \$11,784 | 21.34\% | \$11,457 |

${ }^{(1)}$ See page 15 for projected annual compensation.
${ }^{(2)}$ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation.
${ }^{(3)}$ For employers with future service only benefit improvements, refer to the employer rate adjustment on page 17.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

| CHART 13 (Continued) |  |  |  |
| :--- | :--- | :--- | :--- |
| Recommended Employer Contribution Rates as of December 31, |  |  |  |
| General Employers |  |  |  |

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

| CHART 13 (Continued) |  |  |  |
| :--- | :--- | :--- | :--- |
| Recommended Employer Contribution Rates as of December |  |  |  |
| Safety Employers |  |  |  |


| CHART 13 (Continued) |  |  |
| :---: | :---: | :---: |
| Recommended Employer Contribution Rates as of December 31, 2007 (Dollar Amounts in Thousands) |  |  |
| December 31, 2007 Rate Adjustment for General Employers with 2.7\% @ 55 - Rate Group \#2 Future Service Only Benefit Improvement (Plans I and J) |  |  |
| Reduction to UAAL Rate Calculated in December 31, 2007 Valuation | Rate | Estimated Annual Amount ${ }^{(1)}$ |
| Reduction to Total Contribution | -2.57\% | -\$87 |
| ${ }^{(1)}$ Based on December 31, 2007 projected annual compensation (also in thousands): |  |  |
| Retirement System \$1,346 |  |  |
| Local Agency Formation Commission 399 |  |  |
| Children \& Family Commission 1,622 |  |  |
| Total \$3,367 |  |  |
| December 31, 2007 Rate Adjustment for General Employers with 2.5\% @ 55 - Rate Group \#3 Future Service Only Benefit Improvement (Plans G and H) |  |  |
|  |  |  |
| Reduction to UAAL Rate Calculated in December 31, 2007 Valuation | Rate | Estimated Annual $\underline{\text { mmount }^{(2)}}$ |
| Reduction to Total Contribution | -3.99\% | -\$45 |
| ${ }^{(2)}$ Based on December 31, 2007 projected annual compensation (also in th Law Library $\$ 1,116$ |  |  |

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

## CHART 14 <br> "Pick - Up" - Discount Percentages

For every dollar of member contribution "picked up" by the employer and not deposited in the member's contribution account, the employer can contribute less than a dollar. This is because the "pick-up" amount is not deposited in the member's contribution account and so is not payable to a member who withdraws his or her contributions following termination of employment, and is not payable as an additional death benefit. The contribution discount percentages are as follows:

December 31, 2007 Valuation
Pick-Up Percentage
Pick-Up Percentage

## General Members

| Rate Group \#1 (non-OCTA) | Plan A: $100.00 \%$ | Plan B: $96.27 \%$ | Plan A:100.00\% | Plan B: $97.29 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| Rate Group \#2 (2.7\% @ 55 - non-OCFA) | Plan I: $99.57 \%$ | Plan J: $96.96 \%$ | Plan I: $99.61 \%$ | Plan J: $97.46 \%$ |
| Rate Group \#3 (2.5\% @ 55) | Plan G: $99.38 \%$ | Plan H: $97.86 \%$ | Plan G: $99.48 \%$ | Plan H: $98.14 \%$ |
| Rate Group \#5 (OCTA) | Plan A: $99.59 \%$ | Plan B: $97.02 \%$ | Plan A: $99.65 \%$ | Plan B: $97.62 \%$ |
| Rate Group \#9 (2.0\% @ 55 - TCA) | Plan M: $97.42 \%$ | Plan N: $97.42 \%$ | Plan M: $97.74 \%$ | Plan N: $97.74 \%$ |
| Rate Group \#10 (2.7\% @ 55 - OCFA) | Plan I: $99.56 \%$ | Plan J: $97.41 \%$ | Plan I: $100.00 \%$ | Plan J: $97.70 \%$ |
| Rate Group \#11 (2.0\% @ 55 - Cemetery) | Plan M: $97.42 \%$ | Plan N: $97.42 \%$ | Plan M: $97.74 \%$ | Plan N: $97.74 \%$ |
| Rate Group \#6 (Probation) |  |  |  |  |
| Rate Group \#7 (Law Enforcement) | Plan E: $98.70 \%$ | Plan F: $95.86 \%$ | Plan E: $99.03 \%$ | Plan F: $96.64 \%$ |
| Rate Group \#8 (Fire Authority) | Plan E: $100.00 \%$ | Plan F: $99.70 \%$ | Plan E: $100.00 \%$ | Plan F: $99.58 \%$ |
|  | Plan E: $100.00 \%$ | Plan F: $99.70 \%$ | Plan E: $100.00 \%$ | Plan F: $99.56 \%$ |

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

## CHART 14 (Continued) <br> "Pick - Up" - Average Entry Age

The following table provides the average entry age by employer used in determining the "pick-up" contributions under Section 31581.1.

| Employer | Code | Average Entry Age |
| :---: | :---: | :---: |
| General |  |  |
| Orange County | 101 | 33 |
| Cemetery District | 102 | 32 |
| Law Library | 103 | 43 |
| Retirement System | 105 | 36 |
| Fire Authority | 106 | 34 |
| Department of Education | 108 | 26 |
| Transportation Corridor Agency | 109 | 40 |
| City of San Juan Capistrano | 110 | 34 |
| Sanitation District | 111 | 34 |
| OCTA | 112 | 37 |
| U.C.I. (Bi-weekly) | 113 | 23 |
| U.C.I. (Monthly) | 114 | 21 |
| Children \& Families Commission | 118 | 31 |
| Local Agency Formation Commission | 119 | 33 |
| Superior Court | 121 | 33 |
| IHSS Public Authority | 122 | 43 |
| Safety |  |  |
| Probation | 101 | 28 |
| Law Enforcement | 101 | 27 |
| Fire Authority | 106 | 27 |

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

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

The contribution rates as of December 31, 2007 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions or methods.

## Reconciliation of Recommended Contribution

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

CHART 15
Reconciliation of Recommended Employer Contribution Rate from December 31, 2006 to December 31, 2007 (Dollar Amounts in Thousands)

|  | Contribution <br> Rate | Estimated <br> Amount ${ }^{(1)}$ |
| :--- | ---: | ---: |
| Average Recommended Contribution Rate as of December 31, 2006 | $24.04 \%$ | $\$ 350,395$ |
| Effect of investment gain | $-1.11 \%$ | $-\$ 16,174$ |
| Effect of higher than expected individual salary increases | $0.85 \%$ | 12,386 |
| Effect of total payroll increase more than $3.5 \%$ | $-0.61 \%$ | $-8,889$ |
| Effect of change in assumptions | $1.05 \%$ | 15,482 |
| Effect of other experience (gain)/loss | $\underline{0.10 \%}$ | $\underline{1,245}$ |
| Subtotal | $0.28 \%$ | $\$ 4,050$ |
| Average Recommended Contribution Rate as of December 31, 2007 | $24.32 \%$ | $\$ 354,445$ |

${ }^{(1)}$ Based on December 31, 2007 projected compensation of $\$ 1,457,159,000$.

## SECTION 2: Valuation Results for the Orange County Employees Retirement System

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

The member contribution rates as of December 31, 2007 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions or methods.

## Reconciliation of Recommended Contribution Rate

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

## CHART 16 <br> Reconciliation of Average Recommended Member Contribution from December 31, 2006 to December 31, 2007 (Dollar Amounts in Thousands)

|  | Contribution <br> Rate | Estimated <br> Amount ${ }^{(1)}$ |
| :--- | ---: | ---: |
| Average Recommended Contribution Rate as of December 31, 2006 ${ }^{(2)}$ | $10.40 \%$ | $\$ 151,486$ |
| Effect of change in demographics | $0.01 \%$ | 146 |
| Effect of change in assumptions | $\underline{0.26 \%}$ | $\underline{3,809}$ |
| Average Recommended Contribution Rate as of December 31, 2007 | $10.67 \%$ | $\$ 155,441$ |

${ }^{(1)}$ Based on December 31, 2007 projected annual compensation of \$1,457,159,000.
${ }^{(2)}$ Rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2006 valuation to the System membership as of December 31, 2007.

These graphs show key GASB information.

## E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contributions to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with GASB funding requirements. Chart 17 below presents a graphical representation of this information for the Plan.

## CHART 17

Required Versus Actual Contributions


The other critical piece of information regarding the Plan's financial status is the funded ratio shown in Chart 18 below. This ratio compares the valuation value of assets to the actuarial accrued liabilities of the plan as calculated under the GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes. The 2007 funded ratio is $74.08 \%$, compared to $73.77 \%$ in 2006.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits I, II, and III.

## CHART 18

Funded Ratio


## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

| EXHIBIT A |  |  |  |
| :---: | :---: | :---: | :---: |
| Table of Plan Coverage |  |  |  |
| i. General (other than OCTA) |  |  |  |
| Category | Year Ended December 31 |  | Change From Prior Year |
|  | 2007 | 2006 |  |
| Active members in valuation |  |  |  |
| Number | 17,791 | 17,168 | 3.6\% |
| Average age | 43.7 | 43.9 | N/A |
| Average service | 10.2 | 10.3 | N/A |
| Projected total compensation | \$1,060,016,770 | \$956,878,105 | 10.8\% |
| Projected average compensation | \$59,582 | \$55,736 | 6.9\% |
| Account balances | \$880,726,620 | \$776,562,916 | 13.4\% |
| Total active vested members | 12,014 | 11,850 | 1.4\% |
| Vested terminated members |  |  |  |
| Number | 2,938 | 2,566 | 14.5\% |
| Average age | 42.7 | 42.8 | N/A |
| Retired members |  |  |  |
| Number in pay status | 7,117 | 6,835 | 4.1\% |
| Average age | 69.7 | 69.6 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,578 | \$2,447 | 5.4\% |
| Disabled members |  |  |  |
| Number in pay status | 631 | 642 | -1.7\% |
| Average age | 63.2 | 63.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,937 | \$1,861 | 4.1\% |
| Beneficiaries |  |  |  |
| Number in pay status | 1,303 | 1,243 | 4.8\% |
| Average age | 72.0 | 71.8 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,289 | \$1,216 | 6.0\% |

[^0]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT A

Table of Plan Coverage
ii. General OCTA

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2007 | 2006 |  |
| Active members in valuation |  |  |  |
| Number | 2,012 | 1,961 | 2.6\% |
| Average age | 46.5 | 46.4 | N/A |
| Average service | 9.5 | 9.3 | N/A |
| Projected total compensation | \$96,668,172 | \$92,217,365 | 4.8\% |
| Projected average compensation | \$48,046 | \$47,026 | 2.2\% |
| Account balances | \$82,344,406 | \$75,815,873 | 8.6\% |
| Total active vested members | 1,269 | 1,174 | 8.1\% |
| Vested terminated members |  |  |  |
| Number | 414 | 360 | 15.0\% |
| Average age | 45.2 | 45.9 | N/A |
| Retired members |  |  |  |
| Number in pay status | 463 | 431 | 7.4\% |
| Average age | 66.5 | 66.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,819 | \$1,713 | 6.2\% |
| Disabled members |  |  |  |
| Number in pay status | 214 | 207 | 3.4\% |
| Average age | 60.0 | 59.4 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,959 | \$1,907 | 2.7\% |
| Beneficiaries |  |  |  |
| Number in pay status | 105 | 93 | 12.9\% |
| Average age | 67.2 | 67.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$992 | \$960 | 3.3\% |

${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT A

Table of Plan Coverage
iii. Safety Law Enforcement

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2007 | 2006 |  |
| Active members in valuation |  |  |  |
| Number | 1,913 | 1,850 | 3.4\% |
| Average age | 41.0 | 41.2 | N/A |
| Average service | 14.3 | 14.5 | N/A |
| Projected total compensation | \$165,425,531 | \$149,765,969 | 10.5\% |
| Projected average compensation | \$86,474 | \$80,955 | 6.8\% |
| Account balances | \$134,811,644 | \$125,279,223 | 7.6\% |
| Total active vested members | 1,644 | 1,618 | 1.6\% |
| Vested terminated members |  |  |  |
| Number | 140 | 131 | 6.9\% |
| Average age | 40.9 | 41.3 | N/A |
| Retired members |  |  |  |
| Number in pay status | 728 | 684 | 6.4\% |
| Average age | 63.4 | 63.5 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$5,535 | \$5,280 | 4.8\% |
| Disabled members |  |  |  |
| Number in pay status | 310 | 301 | 3.0\% |
| Average age | 57.3 | 56.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,555 | \$3,439 | 3.4\% |
| Beneficiaries |  |  |  |
| Number in pay status | 118 | 110 | 7.3\% |
| Average age | 70.1 | 69.5 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,278 | \$2,229 | 2.2\% |

${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT A

Table of Plan Coverage iv. Safety Probation Officers

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2007 | 2006 |  |
| Active members in valuation |  |  |  |
| Number | 1,078 | 998 | 8.0\% |
| Average age | 37.2 | 37.5 | N/A |
| Average service | 9.2 | 9.5 | N/A |
| Projected total compensation | \$65,756,858 | \$58,098,566 | 13.2\% |
| Projected average compensation | \$60,999 | \$58,215 | 4.8\% |
| Account balances | \$53,217,912 | \$46,385,156 | 14.7\% |
| Total active vested members | 745 | 708 | 5.2\% |
| Vested terminated members |  |  |  |
| Number | 140 | 123 | 13.8\% |
| Average age | 34.9 | 34.3 | N/A |
| Retired members |  |  |  |
| Number in pay status | 136 | 125 | 8.8\% |
| Average age | 61.3 | 60.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$4,811 | \$4,610 | 4.4\% |
| Disabled members |  |  |  |
| Number in pay status | 9 | 8 | 12.5\% |
| Average age | 43.0 | 42.2 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,321 | \$2,604 | -10.9\% |
| Beneficiaries |  |  |  |
| Number in pay status | 5 | 3 | 66.7\% |
| Average age | 49.7 | 48.6 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$862 | \$636 | 35.5\% |

[^1]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT A

Table of Plan Coverage
v. Safety Fire Authority

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2007 | 2006 |  |
| Active members in valuation |  |  |  |
| Number | 824 | 814 | 1.2\% |
| Average age | 43.1 | 43.7 | N/A |
| Average service | 16.3 | 17.1 | N/A |
| Projected total compensation | \$69,292,375 | \$65,992,275 | 5.0\% |
| Projected average compensation | \$84,093 | \$81,072 | 3.7\% |
| Account balances | \$64,724,356 | \$63,760,406 | 1.5\% |
| Total active vested members | 676 | 685 | -1.3\% |
| Vested terminated members |  |  |  |
| Number | 14 | 15 | -6.7\% |
| Average age | 44.3 | 44.3 | N/A |
| Retired members |  |  |  |
| Number in pay status | 192 | 154 | 24.7\% |
| Average age | 59.9 | 59.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$5,514 | \$4,986 | 10.6\% |
| Disabled members |  |  |  |
| Number in pay status | 79 | 70 | 12.9\% |
| Average age | 58.8 | 57.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$4,459 | \$4,147 | 7.5\% |
| Beneficiaries |  |  |  |
| Number in pay status | 11 | 9 | 22.2\% |
| Average age | 55.0 | 53.2 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$4,069 | \$3,565 | 14.1\% |

[^2]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT A <br> Table of Plan Coverage

vi. Total
$\left.\begin{array}{lrrr}\hline & & \text { Year Ended December 31 } & \\ \text { Category } & & \mathbf{c} \\ \hline \text { Change From } \\ \text { Prior Year }\end{array}\right]$
${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service
i. General (other than OCTA)

| Age | Years of Service |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 720 | 711 | 9 | -- | -- | -- | -- | -- | -- | -- |
|  | \$36,222 | \$36,119 | \$44,359 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 1,737 | 1,385 | 348 | 4 | -- | -- | -- | -- | -- | -- |
|  | 45,133 | 44,455 | 47,779 | \$49,608 | -- | -- | -- | -- | -- | -- |
| 30-34 | 2,195 | 1,146 | 886 | 160 | 3 | -- | -- | -- | -- | -- |
|  | 52,388 | 49,445 | 55,645 | 55,575 | \$44,686 | -- | -- | -- | -- | -- |
| 35-39 | 2,449 | 833 | 874 | 454 | 285 | 3 | -- | -- | -- | -- |
|  | 58,535 | 52,837 | 60,969 | 63,911 | 59,186 | \$56,125 | -- | -- | -- | -- |
| 40-44 | 2,453 | 603 | 677 | 430 | 597 | 140 | 6 | - | -- | -- |
|  | 62,354 | 54,640 | 61,776 | 68,388 | 66,092 | 63,500 | \$71,549 | -- | -- | -- |
| 45-49 | 2,564 | 505 | 531 | 376 | 624 | 340 | 180 | 8 | -- | -- |
|  | 64,675 | 56,622 | 60,446 | 65,965 | 69,875 | 71,186 | 66,859 | \$61,483 | -- | -- |
| 50-54 | 2,419 | 358 | 482 | 323 | 512 | 347 | 283 | 108 | 6 | -- |
|  | 67,359 | 55,570 | 62,770 | 65,546 | 68,002 | 78,411 | 75,515 | 73,614 | \$45,771 | -- |
| 55-59 | 1,770 | 252 | 404 | 219 | 384 | 210 | 178 | 105 | 18 | -- |
|  | 68,135 | 57,023 | 63,215 | 64,462 | 70,450 | 74,185 | 76,672 | 85,769 | 71,556 | -- |
| 60-64 | 1,017 | 125 | 239 | 167 | 241 | 116 | 62 | 40 | 26 | 1 |
|  | 65,898 | 64,975 | 61,342 | 65,057 | 63,233 | 69,873 | 66,724 | 86,760 | 90,158 | \$75,765 |
| 65-69 | 347 | 40 | 73 | 60 | 93 | 54 | 16 | 6 | 4 | 1 |
|  | 59,350 | 67,389 | 57,416 | 67,474 | 52,159 | 62,611 | 48,993 | 49,427 | 74,055 | 50,782 |
| 70 \& over | 120 | 9 | 20 | 20 | 36 | 15 | 15 | 4 | 1 | -- |
|  | 60,548 | 41,012 | 44,841 | 62,583 | 73,831 | 65,353 | 55,586 | 61,125 | 31,636 | -- |
| Total | 17,791 | 5,967 | 4,543 | 2,213 | 2,775 | 1,225 | 740 | 271 | 55 | 2 |
|  | \$59,582 | \$49,426 | \$59,229 | \$64,966 | \$66,551 | \$72,257 | \$71,942 | \$79,185 | \$76,993 | \$63,124 |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service
ii. General OCTA

| Age | Years of Service |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 24 | 24 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$33,390 | \$33,390 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 132 | 108 | 23 | 1 | -- | -- | -- | -- | -- | -- |
|  | 37,906 | 35,634 | \$48,383 | \$42,270 | -- | -- | -- | -- | -- | -- |
| 30-34 | 177 | 104 | 68 | 5 | -- | -- | -- | -- | -- | -- |
|  | 42,665 | 39,981 | 46,540 | 45,790 | -- | -- | -- | -- | -- | -- |
| 35-39 | 218 | 108 | 87 | 15 | 8 | -- | -- | -- | -- | -- |
|  | 45,554 | 43,225 | 47,119 | 47,822 | \$55,724 | -- | -- | -- | -- | -- |
| 40-44 | 283 | 123 | 97 | 25 | 30 | 7 | 1 | -- | -- | -- |
|  | 47,131 | 39,780 | 50,502 | 54,358 | 58,645 | \$53,214 | \$55,506 | -- | -- | -- |
| 45-49 | 368 | 120 | 122 | 30 | 55 | 29 | 12 | -- | -- | -- |
|  | 49,897 | 44,606 | 48,318 | 60,314 | 56,387 | 54,630 | 51,645 | -- | -- | -- |
| 50-54 | 356 | 90 | 90 | 30 | 50 | 37 | 47 | 12 | -- | -- |
|  | 51,238 | 46,934 | 46,283 | 60,637 | 55,594 | 55,997 | 53,277 | \$56,377 | -- | -- |
| 55-59 | 258 | 48 | 70 | 21 | 41 | 23 | 31 | 24 | -- | -- |
|  | 51,436 | 47,125 | 52,571 | 47,127 | 49,935 | 54,924 | 53,976 | 56,459 | - | -- |
| 60-64 | 149 | 25 | 42 | 17 | 27 | 8 | 17 | 13 | -- | -- |
|  | 53,464 | 49,169 | 53,333 | 49,926 | 48,765 | 78,060 | 59,094 | 54,032 | - | -- |
| 65-69 | 42 | 9 | 12 | 6 | 5 | 2 | 6 | 2 | -- | -- |
|  | 47,012 | 38,499 | 40,881 | 44,881 | 54,389 | 51,054 | 65,082 | 51,807 | -- | -- |
| 70 \& over | 5 |  | 1 | -- | 2 | 1 |  | -- | -- | -- |
|  | 45,770 | 44,596 | 44,234 | -- | 46,142 | 47,734 | -- | -- | -- | -- |
| Total | 2,012 | 760 | 612 | 150 | 218 | 107 | 114 | 51 | - | -- |
|  | \$48,046 | \$41,879 | \$48,677 | \$53,892 | \$54,194 | \$56,694 | \$54,804 | \$55,639 | -- | -- |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service

|  | Years of Service |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 45 | 45 | -- | -- | -- | -- | -- | -- | - | -- |
|  | \$61,359 | \$61,359 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 162 | 116 | 44 | 2 | -- | -- | -- | -- | - | -- |
|  | 70,046 | 66,898 | \$78,220 | \$72,817 | -- | -- | -- | -- | -- | -- |
| 30-34 | 258 | 62 | 149 | 47 | -- | -- | -- | -- | -- | -- |
|  | 79,139 | 68,898 | 81,404 | 85,470 | -- | -- | -- | -- | -- | -- |
| 35-39 | 392 | 59 | 107 | 176 | 48 | 2 | -- | -- | -- | -- |
|  | 82,993 | 79,442 | 81,045 | 84,501 | \$85,719 | \$93,860 | -- | -- | -- | -- |
| 40-44 | 437 | 30 | 62 | 83 | 173 | 88 | 1 | -- | -- | -- |
|  | 89,077 | 79,578 | 85,478 | 86,037 | 88,780 | 98,183 | \$99,762 | -- | -- | -- |
| 45-49 | 363 | 10 | 26 | 40 | 69 | 169 | 49 | -- | -- | -- |
|  | 94,659 | 87,591 | 89,866 | 95,440 | 89,086 | 95,807 | 101,895 | -- | -- | -- |
| 50-54 | 169 | 12 | 1 | 14 | 34 | 50 | 44 | 14 | -- | -- |
|  | 98,347 | 93,171 | 94,649 | 96,481 | 92,089 | 91,548 | 105,155 | \$122,998 | -- | -- |
| 55-59 | 67 | 4 | 5 | 4 | 13 | 15 | 14 | 12 | -- | -- |
|  | 94,878 | 93,982 | 89,812 | 108,627 | 93,378 | 95,025 | 93,079 | 96,242 | -- | -- |
| 60-64 | 20 | 1 | 7 | 3 | 4 | 2 | 3 | -- | -- | -- |
|  | 105,021 | 98,705 | 106,589 | 106,658 | 106,610 | 115,518 | 92,713 | -- | -- | -- |
| 65-69 | 45 | 45 | - - | - - | , | - - | , | -- | -- | -- |
|  | -- | - | -- | -- | -- | -- | -- | -- | -- | -- |
| 70 \& over | - | -- | -- | -- | -- | -- | -- | -- | -- | -- |
|  | - | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 1,913 | 339 | 401 | 369 | 341 | 326 | 111 | 26 | -- | -- |
|  | \$86,474 | \$71,787 | \$82,715 | \$86,988 | \$89,125 | \$95,868 | \$101,808 | \$110,649 | -- | -- |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service
iv. Safety Probation Officers

| Age | Years of Service |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 61 | 61 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$41,932 | \$41,932 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 199 | 157 | 42 | -- | -- | -- | -- | -- | - | -- |
|  | 48,465 | 45,522 | \$59,465 | -- | - | -- | -- | -- | - | -- |
| 30-34 | 254 | 72 | 163 | 19 | -- | -- | -- | -- | -- | -- |
|  | 59,191 | 49,014 | 62,436 | \$69,914 | -- | -- | -- | -- | -- | -- |
| 35-39 | 214 | 29 | 83 | 90 | 12 | -- | -- | -- | - | -- |
|  | 64,069 | 44,580 | 62,234 | 70,943 | \$72,297 | -- | -- | -- | -- | -- |
| 40-44 | 135 | 12 | 33 | 36 | 45 | 9 | -- | -- | - | -- |
|  | 67,541 | 43,496 | 60,700 | 68,215 | 75,151 | \$83,935 | -- | -- | -- | -- |
| 45-49 | 83 | 3 | 12 | 16 | 21 | 20 | 11 | -- | -- | -- |
|  | 73,521 | 43,737 | 70,950 | 67,834 | 72,364 | 81,087 | \$81,172 | -- | -- | -- |
| 50-54 | 72 | 3 | 14 | 10 | 13 | 15 | 15 | 2 | - | -- |
|  | 73,048 | 46,725 | 57,893 | 65,198 | 72,493 | 75,391 | 85,766 | \$148,531 | - | -- |
| 55-59 | 50 | 2 | 8 | 5 | 9 | 10 | 9 | 6 | 1 | -- |
|  | 69,948 | 47,833 | 51,407 | 63,476 | 61,978 | 68,767 | 82,568 | 99,576 | \$87,064 | -- |
| 60-64 | 9 | -- | -- | -- | 1 | 3 | 3 | 1 | 1 | -- |
|  | 84,252 | - | -- | -- | 74,163 | 81,533 | 71,769 | 87,064 | 137,134 | -- |
| 65-69 | 1 | -- | - | -- | -- | 1 | -- | -- | -- | -- |
|  | 74,163 | - | -- | -- | -- | 74,163 | -- | -- | -- | -- |
| 70 \& over | -- | -- | - | - | -- | - - | -- | -- | - | -- |
|  | - | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 1,078 | 339 | 355 | 176 | 101 | 58 | 38 | 9 | 2 | -- |
|  | \$60,999 | \$45,474 | \$61,736 | \$69,452 | \$72,707 | \$77,835 | \$82,574 | \$109,065 | \$112,099 | -- |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service
v. Safety Fire Authority

| Years of Service |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 13 | 13 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$53,417 | \$53,417 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 75 | 66 | 9 | -- | -- | -- | -- | -- | -- | - - |
|  | 61,990 | 60,166 | \$75,365 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 103 | 64 | 34 | 5 | -- | -- | -- | -- | - | -- |
|  | 71,680 | 67,100 | 78,912 | \$81,130 | -- | -- | -- | -- | -- | -- |
| 35-39 | 107 | 37 | 31 | 25 | 14 | -- | -- | -- | -- | -- |
|  | 77,651 | 66,803 | 79,139 | 85,448 | \$89,104 | -- | -- | -- | -- | -- |
| 40-44 | 139 | 12 | 30 | 32 | 48 | 17 | -- | -- | -- | -- |
|  | 86,715 | 74,447 | 83,246 | 85,054 | 90,152 | \$94,919 | -- | -- | -- | -- |
| 45-49 | 180 | 6 | 13 | 37 | 45 | 41 | 37 | 1 | -- | -- |
|  | 90,640 | 76,748 | 82,831 | 88,923 | 88,983 | 89,110 | \$100,777 | \$101,269 | -- | -- |
| 50-54 | 134 | - | 4 | 26 | 13 | 12 | 77 | 2 | -- | -- |
|  | 94,934 | -- | 81,007 | 88,877 | 91,081 | 94,137 | 98,936 | 77,270 | -- | -- |
| 55-59 | 55 | 1 | - - | 12 | 4 | 3 | 30 | 5 | -- | -- |
|  | 93,876 | 101,320 | -- | 90,184 | 88,171 | 87,007 | 97,800 | 86,385 | -- | -- |
| 60-64 | 17 | , | 2 | 1 | 1 | -- | 12 | 1 | -- | -- |
|  | 112,857 | -- | 98,728 | 101,299 | 85,915 | -- | 119,411 | 100,963 | -- | -- |
| 65-69 | 1 | -- | -- | 1 | - - | -- | -- | -- | -- | -- |
|  | 85,537 | -- | -- | 85,537 | -- | -- | -- | -- | -- | -- |
| 70 \& over | -- | -- | -- | -- | 1 | -- | -- | - | -- | -- |
|  | -- | -- | -- | -- | 140,959 | -- | -- | -- | -- | -- |
| Total | 824 | 199 | 123 | 139 | 125 | 73 | 156 | 9 | -- | -- |
|  | \$84,093 | \$64,757 | \$80,571 | \$87,292 | \$89,613 | \$91,202 | \$100,729 | \$87,633 | -- | -- |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2007
By Age and Years of Service
vi. Total

| Years of Service |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Total | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& over |
| Under 25 | 863 | 854 | 9 | -- | -- | -- | -- | -- | -- | -- |
|  | \$38,117 | \$38,051 | \$44,359 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 2,305 | 1,832 | 466 | 7 | -- | -- | -- | -- | -- | -- |
|  | 47,306 | 46,013 | 52,269 | \$55,191 | -- | -- | -- | -- | -- | -- |
| 30-34 | 2,987 | 1,448 | 1,300 | 236 | 3 | -- | -- | -- | -- | -- |
|  | 55,366 | 50,357 | 59,581 | 63,017 | \$44,686 | -- | -- | -- | -- | -- |
| 35-39 | 3,380 | 1,066 | 1,182 | 760 | 367 | 5 | -- | -- | -- | -- |
|  | 61,489 | 53,596 | 62,332 | 69,902 | 64,150 | \$71,219 | -- | -- | -- | -- |
| 40-44 | 3,447 | 780 | 899 | 606 | 893 | 261 | 8 | -- | -- | -- |
|  | 65,677 | 53,388 | 62,871 | 71,096 | 71,987 | 77,669 | \$73,070 | -- | -- | -- |
| 45-49 | 3,558 | 644 | 704 | 499 | 814 | 599 | 289 | 9 | -- | -- |
|  | 67,725 | 54,992 | 60,023 | 69,750 | 71,712 | 78,888 | 77,055 | \$65,904 | -- | -- |
| 50-54 | 3,150 | 463 | 591 | 403 | 622 | 461 | 466 | 138 | 6 | -- |
|  | 68,503 | 54,808 | 60,321 | 67,752 | 68,897 | 78,348 | 80,271 | 78,263 | \$45,771 | -- |
| 55-59 | 2,200 | 307 | 487 | 261 | 451 | 261 | 262 | 152 | 19 | -- |
|  | 67,676 | 56,042 | 61,765 | 64,908 | 69,234 | 73,625 | 77,485 | 82,533 | 72,372 | -- |
| 60-64 | 1,212 | 151 | 290 | 188 | 274 | 129 | 97 | 55 | 27 | 1 |
|  | 65,810 | 62,581 | 61,532 | 64,546 | 62,563 | 71,360 | 72,865 | 79,288 | 91,898 | \$75,765 |
| 65-69 | 391 | 49 | 85 | 67 | 98 | 57 | 22 | 8 | 4 | 1 |
|  | 58,129 | 62,083 | 55,082 | 65,720 | 52,273 | 62,408 | 53,381 | 50,022 | 74,054 | 50,482 |
| 70 \& over | 125 | 10 | 21 | 20 | 38 | 16 | 15 | 4 | 1 | -- |
|  | 59,957 | 41,370 | 44,812 | 62,583 | 72,374 | 64,252 | 55,586 | 61,125 | 31,636 | -- |
| Total | 23,618 | 7,604 | 6,034 | 3,047 | 3,560 | 1,789 | 1,159 | 366 | 57 | 2 |
|  | \$61,697 | \$49,893 | \$60,302 | \$68,365 | \$68,941 | \$76,583 | \$77,340 | \$79,082 | \$78,224 | \$63,124 |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT C

Reconciliation of Member Data - December 31, 2006 to December 31, 2007

|  | Active <br> Members | Vested Former <br> Members | Pensioners | Disableds | Beneficiaries | Total |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: |
| Number as of December 31, 2006 | 22,791 | 3,195 | 8,229 | 1,228 | 1,458 | 36,901 |
| New members | 2,301 | 208 | 0 | 0 | 149 | 2,658 |
| Terminations - with vested rights | $-568^{(1)}$ | 568 | 0 | 0 | 0 | 0 |
| Contributions refunds | $-375^{(2)}$ | -160 | 0 | 0 | 0 | -535 |
| Retirements | -545 | -92 | 637 | 0 | 0 | 0 |
| New disabilities | -25 | -2 | -18 | 45 | 0 | 0 |
| Return to work | 73 | -66 | -6 | -1 | 0 | 0 |
| Deaths | -34 | -5 | -206 | -51 | -334 |  |
| Data adjustments | 0 | 0 | 0 | 2 | -7 | -5 |
| Number as of December 31, 2007 | 23,618 | 3,646 | 8,636 | 1,243 | 1,542 | 38,685 |

${ }^{(1)}$ Includes 19 terminated before January 1, 2007.
${ }^{(2)}$ Includes 22 terminated before January 1, 2007.

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT D

## Summary Statement of Income and Expenses on an Actuarial Value Basis

|  | Year Ended December 31, 2007 | Year Ended December 31, 2006 |
| :---: | :---: | :---: |
| Contribution income: |  |  |
| Employer contributions ${ }^{(1)}$ | \$343,157,000 | \$277,368,000 |
| Employee contributions | 159,476,000 | 137,582,000 |
| Prepaid unearned contributions | -16,421,000 | 0 |
| Transfer from County Investment Account | 0 | 11,000,000 |
| Net contribution income | \$486,212,000 | \$425,950,000 |
| Investment income: |  |  |
| Interest, dividends and other income | \$286,298,000 | \$170,257,000 |
| Recognition of capital appreciation | 440,681,000 | 424,674,000 |
| Less investment and administrative fees | -41,199,000 | -26,677,000 |
| Net investment income | \$685,780,000 | \$568,254,000 |
| Total income available for benefits | \$1,171,992,000 | \$994,204,000 |
| Less benefit payments | -\$353,861,000 | -\$318,666,000 |
| Change in reserve for future benefits | \$818,131,000 | \$675,538,000 |

[^3]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT E

Summary Statement of Assets

|  | Year Ended December 31, 2007 |  | Year Ended December 31, 2006 |  |
| :---: | :---: | :---: | :---: | :---: |
| Cash equivalents |  | \$335,281,000 |  | \$237,238,000 |
| Accounts receivable: |  |  |  |  |
| Contributions | \$7,583,000 |  | \$37,079,000 |  |
| Investment income | 29,223,000 |  | 22,310,000 |  |
| Securities settlements | 66,089,000 |  | 12,785,000 |  |
| Other | 669,000 |  | 362,000 |  |
| Total accounts receivable |  | \$103,564,000 |  | \$72,536,000 |
| Investments: |  |  |  |  |
| Fixed income investments | \$3,576,650,000 |  | \$2,687,529,000 |  |
| Equities | 3,856,240,000 |  | 3,607,183,000 |  |
| Real estate | 623,071,000 |  | 540,413,000 |  |
| Venture capital and limited partnership interests | 146,262,000 |  | 149,262,000 |  |
| Security lending collateral | 778,391,000 |  | 719,457,000 |  |
| Fixed assets net of a depreciation | 2,878,000 |  | 2,672,000 |  |
| Total investments at market value |  | \$8,983,493,000 |  | \$7,706,516,000 |
| Total assets |  | \$9,422,338,000 |  | \$8,016,290,000 |
| Less accounts payable: |  |  |  |  |
| Securities settlements | -\$594,103,000 |  | -\$207,431,000 |  |
| Security lending liability | -778,391,000 |  | -719,457,000 |  |
| All other | -47,505,000 |  | -32,511,000 |  |
| Total accounts payable |  | -\$1,419,999,000 |  | -\$959,399,000 |
| Net assets at market value |  | \$7,719,690,000 ${ }^{(1)}$ |  | \$6,817,726,000 ${ }^{(2)}$ |
| Net assets at actuarial value |  | \$7,292,205,000 |  | \$6,474,074,000 |
| Net assets at valuation value |  | \$7,288,900,000 |  | \$6,466,085,000 |

[^4]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT F <br> Actuarial Balance Sheet

| An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan. | Second, we determine how this liability will be met. Thes actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employe normal cost contributions, and the present value of future employer amortization payments. |
| :---: | :---: |
| Assets |  |
| 1. Total valuation value of assets | \$7,288,900,000 |
| 2. Present value of future contributions by members | 1,407,256,000 |
| 3. Present value of future employer contributions for: <br> a. entry age normal cost | 1,537,309,000 |
| b. unfunded actuarial accrued liability | 2,549,786,000 |
| 4. Total current and future assets | \$12,783,251,000 |
| $\underline{\text { Liabilities }}$ |  |
| 5. Present value of retirement allowance payable to present retired members | \$4,604,878,000 |
| 6. Present value of retirement allowances to be granted to present non-retired | members $\quad \underline{\text { 8,178,373,000 }}$ |
| 7. Total actuarial liabilities | \$12,783,251,000 |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT G <br> Summary of Reported Asset Information as of December 31, 2007

| Reserves |  |  |
| :---: | :---: | :---: |
| Included in Valuation Value of Assets |  |  |
| Active Members Reserve (Book Value) |  | \$1,313,984,000 |
| Retired Members Reserve (Book Value) |  | 4,073,126,000 |
| Employer Advanced Reserve (Book Value) |  | 1,256,935,000 |
| ERI Contribution Reserve |  | 1,033,000 |
| STAR COLA Contribution Reserve |  | 6,546,000 |
| Unrealized Appreciation Included in Valuation Value of Assets |  | 637,276,000 |
| Subtotal: Valuation Value of Assets |  | \$7,288,900,000 |
| Not Included in Valuation Value of Assets |  |  |
| RMBR | \$1,985,000 |  |
| Unclaimed Member Deposit | 1,225,000 |  |
| Medicare Medical Insurance Reserve | 95,000 |  |
| Total | \$3,305,000 |  |
| Subtotal: Actuarial Value of Assets |  | \$7,292,205,000 |
| Unrecognized Investment Income (Loss) |  | 427,485,000 |
| Subtotal: Market Value of Assets (Net of County Investment Account and Prepaid Employer Contributions) |  | \$7,719,690,000 |
| County Investment Account |  | 174,348,000 |
| Prepaid Employer Contributions |  | 108,301,000 |
| Total: Gross Market Value of Assets |  | \$8,002,339,000 |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT H

Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended December 31, 2007

| 1. | Unfunded actuarial accrued liability at beginning of year |  | \$2,298,960,000 |
| :---: | :---: | :---: | :---: |
| 2. | Total normal cost at middle of year |  | 324,706,000 |
| 3. | Actual employer and member contributions |  | -486,212,000 |
| 4. | Interest |  | 171,911,000 |
| 5. | Expected unfunded actuarial accrued liability |  | \$2,309,365,000 |
| 6. | Actuarial (gain)/loss and other changes: |  |  |
|  | (a) Gain on investment return | -\$176,681,000 |  |
|  | (b) Higher than expected salary increase | 136,417,000 |  |
|  | (c) Other experience (gain) / loss | 43,538,000 |  |
|  | (d) Change in actuarial assumptions | 237,147,000 |  |
|  | (e) Total changes |  | \$240,421,000 |
| 7. | Unfunded actuarial accrued liability at end of year |  | \$2,549,786,000 |

7. Unfunded actuarial accrued liability at end of year
$\$ 2,549,786,000$

Note: 6(b) plus 6(c) is equal to the experience loss of $\$ 179,955,000$ provided on page 7.

## EXHIBIT I <br> Section 415 Limitations

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar indexed for inflation. That limit is $\$ 180,000$ for 2007 and $\$ 185,000$ for 2008. Normal Retirement Age for these purposes is age 62 . These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

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

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

## EXHIBIT J <br> Definitions of Pension Terms

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

| Assumptions or Actuarial Assumptions: | The estimates on which the cost of the Plan is calculated including: |
| :---: | :---: |
|  | (a) Investment return - the rate of investment yield that the Plan will earn over the long-term future; |
|  | (b) Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates; |
|  | (c) Retirement rates - the rate or probability of retirement at a given age; |
|  | (d) Turnover rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement. |
| Normal Cost: | The amount of contributions required to fund the level cost allocated to the current year of service. |
| Actuarial Accrued Liability For Actives: | The equivalent of the accumulated normal costs allocated to the years before the valuation date. |
| Actuarial Accrued Liability For Pensioners: | The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits. |
| Unfunded Actuarial Accrued |  |
| Liability: | The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There are many approaches to paying off the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time. |

## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## Amortization of the Unfunded

 (Overfunded) Actuarial
## Accrued Liability:

## Investment Return:

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

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## EXHIBIT I

Supplementary Information Required by GASB - Schedule of Employer Contributions

| Plan Year <br> Ended December 31 | Annual Required <br> Contributions | $\$ 13,289,000$ | Actual <br> Contributions |
| :---: | :---: | :---: | :---: |
| 2002 | $124,243,000$ | $\$ 13,289,000$ | Percentage <br> Contributed |
| 2003 | $194,430,000$ | $124,243,000$ | $100.0 \%$ |
| 2004 | $227,892,000$ | $194,430,000$ | $100.0 \%$ |
| 2005 | $277,368,000$ | $227,892,000$ | $100.0 \%$ |
| 2006 | $326,736,000$ | $277,368,000$ | $100.0 \%$ |
| 2007 | $326,736,000$ | $100.0 \%$ |  |

SECTION 4: Reporting Information for the Orange County Employees Retirement System

EXHIBIT II
Supplementary Information Required by GASB - Schedule of Funding Progress

| Actuarial <br> Valuation <br> Date | Valuation <br> Value <br> of Assets <br> (a) | Actuarial <br> Accrued Liability <br> (AAL) <br> (b) | Unfunded <br> (Overfunded) <br> AAL <br> (UAAL) <br> (b) - (a) | Funded <br> Ratio <br> (a) / (b) | UAAL as a <br> Covered <br> Payroll <br> (c) | Percentage of <br> Covered <br> Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| [(b) - (a)] / (c) |  |  |  |  |  |  |

## EXHIBIT III

## Supplementary Information Required by GASB

| Valuation date | December 31, 2007 |
| :--- | :--- |
| Actuarial cost method | Entry Age Normal Actuarial Cost Method |
| Amortization method | Level percent of payroll for total unfunded liability ( $3.50 \%$ payroll growth assumed) |
| Remaining amortization period | 27 years closed (declining) amortization of outstanding balance of December 31, 2004 UAAL. |
|  | Any increases or decreases in UAAL that arise in future years due to actuarial gains or losses <br> will be amortized over separate 15-year periods. Any increases or decreases in UAAL due to <br> changes in actuarial assumptions are amortized over a separate 30-year period. |
| Asset valuation method | Market value of assets less unrecognized returns in each of the last five years. Unrecognized <br> return is equal to the difference between the actual and the expected return on a market value <br> basis, and is recognized over a five-year period. The Valuation Value of Assets is the <br> Actuarial Value of Assets reduced by the value of the non-valuation reserves. |


| Actuarial assumptions: |  |
| :--- | :--- |
| Investment rate of return | $7.75 \%$ |
| Inflation rate | $3.50 \%$ |
| Real across-the-board salary increase | $0.00 \%$ |
| Projected salary increases * | $4.50 \%$ to $11.50 \%$ for General members; $4.50 \%$ to $13.50 \%$ for Safety members based on |
|  | service. |
| Cost of living adjustments | $3.00 \%$ |


| Plan membership: |  |
| :--- | :---: |
| Retired members and beneficiaries receiving <br> benefits | 11,421 |
| Terminated members entitled to, but not yet <br> receiving benefits | 3,646 |
| Active members | $\underline{23,618}$ |
| Total | 38,685 |

* See Exhibit IV for these increases, including inflation rate.


## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| EXHIBIT IV <br> Actuarial Assumptions and Actu | Cost Method |
| :---: | :---: |
| Post - Retirement Mortality Rates: |  |
| Healthy: | For General Members and all Beneficiaries: RP-2000 Combined Healthy Mortality Table set back one year. |
|  | For Safety Members: RP-2000 Combined Healthy Mortality Table set back two years. |
| Disabled: | For General Members: RP-2000 Combined Healthy Mortality Table set forward three years. |
|  | For Safety Members: RP-2000 Combined Healthy Mortality Table set forward two years. |
| Employee Contribution Rates: | For General Members: RP-2000 Combined Healthy Mortality Table set back one year, weighted $40 \%$ male and $60 \%$ female. |
|  | For Safety Members: RP-2000 Combined Healthy Mortality Table set back two years, weighted $80 \%$ male and $20 \%$ female. |

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Termination Rates Before Retirement:

|  | Rate (\%) <br> Mortality |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Age | General |  | Safety |  |
|  | Male | Female | Male | Female |
| 25 | 0.04 | 0.02 | 0.04 | 0.02 |
| 30 | 0.04 | 0.02 | 0.04 | 0.02 |
| 35 | 0.07 | 0.04 | 0.06 | 0.04 |
| 40 | 0.10 | 0.06 | 0.10 | 0.06 |
| 45 | 0.14 | 0.10 | 0.13 | 0.09 |
| 50 | 0.20 | 0.16 | 0.19 | 0.14 |
| 55 | 0.32 | 0.24 | 0.29 | 0.22 |
| 60 | 0.59 | 0.44 | 0.53 | 0.39 |
| 65 | 1.13 | 0.86 | 1.00 | 0.76 |
|  |  |  |  |  |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

Termination Rates Before Retirement (Continued):

|  | Rate (\%) <br> Disability |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Age | General AlI $_{\text {Other }^{(1)}}$ | General <br> OCTA $^{(2)}$ |  <br> Fire $^{(3)}$ | Safety - <br> Probation |
| 20 | 0.00 | 0.00 | 0.03 | 0.00 |
| 25 | 0.00 | 0.00 | 0.08 | 0.06 |
| 30 | 0.03 | 0.03 | 0.16 | 0.16 |
| 35 | 0.08 | 0.08 | 0.32 | 0.20 |
| 40 | 0.13 | 0.28 | 0.52 | 0.20 |
| 45 | 0.17 | 0.49 | 0.72 | 0.20 |
| 50 | 0.19 | 0.64 | 0.98 | 0.20 |
| 55 | 0.23 | 0.88 | 2.24 | 0.20 |
| 60 | 0.34 | 1.30 | 3.60 | 0.08 |

${ }^{(1)} 50 \%$ of General All Other disabilities are assumed to be service connected disabilities. The other $50 \%$ are assumed to be nonservice connected.
${ }^{(2)} 70 \%$ of General - OCTA disabilities are assumed to be service connected disabilities. The other 30\% are assumed to be nonservice connected.
${ }^{(3)} 100 \%$ of Safety - Law Enforcement, Fire and Probation disabilities are assumed to be service connected disabilities.

## Termination Rates Before Retirement (Continued):

Rate (\%)
Termination (< 5 Years of Service)

| Years of Service |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { General All } \\ \text { Other } \end{gathered}$ | General $\text { OCTA }^{(1)}$ | $\begin{gathered} \text { Safety - Law \& } \\ \text { Fire }^{(1)} \end{gathered}$ | Safety Probation ${ }^{(1)}$ |
| 0 | 13.0 | 17.0 | 4.0 | 17.0 |
| 1 | 9.0 | 9.0 | 3.0 | 10.0 |
| 2 | 8.0 | 8.0 | 2.0 | 8.0 |
| 3 | 7.0 | 7.0 | 2.0 | 6.0 |
| 4 | 5.0 | 6.0 | 1.0 | 5.0 |
|  | Termination (5+ Years of Service) |  |  |  |
| Age | General All Other ${ }^{(2)}$ | General $\text { OCTA }^{(2)}$ | Safety - Law \& | Safety Probation ${ }^{(2)}$ |
| 20 | 5.0 | 4.0 | 1.0 | 5.0 |
| 25 | 5.0 | 4.0 | 1.0 | 5.0 |
| 30 | 5.0 | 4.0 | 1.0 | 4.6 |
| 35 | 4.4 | 4.0 | 0.9 | 3.8 |
| 40 | 3.7 | 4.0 | 0.6 | 3.1 |
| 45 | 2.9 | 3.4 | 0.5 | 2.5 |
| 50 | 2.2 | 2.7 | 0.2 | 2.0 |
| 55 | 1.4 | 1.9 | 0.0 | 1.3 |
| 60 | 0.4 | 0.6 | 0.0 | 0.4 |

${ }^{(1)} 75 \%$ of all terminated members will choose a refund of contributions and $25 \%$ will choose a deferred vested benefit.
${ }^{(2)} 20 \%$ of all terminated members will choose a refund of contributions and $80 \%$ will choose a deferred vested benefit.
${ }^{(3)} 10 \%$ of terminated members will choose a refund of contributions and $90 \%$ will choose a deferred vested benefit.

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## Retirement Rates:

| Age | Rate (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | General | Safety - <br> Law <br> (1) | $\begin{aligned} & \text { Safety - } \\ & \text { Fire }^{(1)} \end{aligned}$ | Safety Probation ${ }^{(1)}$ |
| 50 | 3.0 | 15.0 | 10.0 | 4.0 |
| 51 | 3.0 | 15.0 | 12.0 | 4.0 |
| 52 | 3.0 | 15.0 | 14.0 | 4.0 |
| 53 | 3.0 | 20.0 | 15.0 | 7.0 |
| 54 | 3.0 | 20.0 | 17.0 | 10.0 |
| 55 | 4.0 | 20.0 | 25.0 | 20.0 |
| 56 | 5.0 | 20.0 | 25.0 | 20.0 |
| 57 | 6.0 | 20.0 | 30.0 | 20.0 |
| 58 | 7.0 | 25.0 | 30.0 | 25.0 |
| 59 | 9.0 | 30.0 | 40.0 | 30.0 |
| 60 | 11.0 | 100.0 | 100.0 | 35.0 |
| 61 | 13.0 | 100.0 | 100.0 | 45.0 |
| 62 | 15.0 | 100.0 | 100.0 | 60.0 |
| 63 | 17.0 | 100.0 | 100.0 | 100.0 |
| 64 | 19.0 | 100.0 | 100.0 | 100.0 |
| 65 | 25.0 | 100.0 | 100.0 | 100.0 |
| 66 | 20.0 | 100.0 | 100.0 | 100.0 |
| 67 | 20.0 | 100.0 | 100.0 | 100.0 |
| 68 | 20.0 | 100.0 | 100.0 | 100.0 |
| 69 | 20.0 | 100.0 | 100.0 | 100.0 |
| 70 | 100.0 | 100.0 | 100.0 | 100.0 |

(1) Retirement rate is $100 \%$ after a member accrues a benefit of $100 \%$ of final average earnings.

| Retirement Age and Benefit for <br> Deferred Vested Members: | For deferred vested members, we make the following retirement assumption: <br> General Age: <br> Safety Age: |
| :--- | :--- |
|  | We assume that $30 \%$ of future General and Safety deferred vested members are <br> reciprocal. For reciprocals, we assume 4.50\% compensation increases per annum. |
| Liability Calculation for Current |  |
| Deferred Vested Members: | Liability for a current deferred vested member is calculated based on salary, service, <br> and eligibility for reciprocal benefit as provided by the Retirement System. For those <br> members without salary and/or service information, we assumed a refund of account <br> balance. |
| Future Benefit Accruals: | 1.0 year of service per year of employment. There is no assumption to anticipate <br> conversion of unused sick leave pat retirement. |
| Unknown Data for Members: | Same as those exhibited by members with similar known characteristics. If not <br> specified, members are assumed to be male. |
| Percent Married: | $80 \%$ of male members and 50\% of female members are assumed to be married at <br> retirement or time of pre-retirement death. |
| Age of Spouse: | Female (or male) four years younger (or older) than spouse. |
| Net Investment Return: | $7.75 \%$; net of investment and administrative expenses. |
| Employee Contribution |  |
| Crediting Rate: | $5.00 \%$, compounded semi-annually. |
| Consumer Price Index: | Increase of 3.50\% per year, retiree COLA increases due to CPI subject to a $3.0 \%$ <br> maximum change per year. |

## Salary Increases:

| Annual Rate of Compensation Increase (\%) |  |  |
| :---: | :---: | :---: |
| Inflation: <br> promotion increases: <br>  <br> Years of Service | General | Safety |
| Less than 1 | $8.00 \%$ | $10.00 \%$ |
| 1 | 7.00 | 8.00 |
| 2 | 6.00 | 7.00 |
| 3 | 5.00 | 6.00 |
| 4 | 4.00 | 4.00 |
| 5 | 3.00 | 3.00 |
| 6 | 2.00 | 2.00 |
| 7 | 1.75 | 1.75 |
| 8 | 1.50 | 1.50 |
| 9 | 1.25 | 1.25 |
| 10 | 1.25 | 1.00 |
| 11 | 1.25 | 1.00 |
| 12 | 1.25 | 1.00 |
| 13 | 1.25 | 1.00 |
| 14 | 1.25 | 1.00 |
| 15 | 1.25 | 1.00 |
| 16 | 1.00 | 1.00 |
| 17 | 1.00 | 1.00 |
| 18 | 1.00 | 1.00 |
| 19 | 1.00 | 1.00 |
| 20 \& over | 1.00 | 1.00 |

## Annual Payoffs Assumptions:

## Actuarial Value of Assets:

## Valuation Value of Assets:

## Actuarial Cost Method:

Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages used in this valuation are

|  | Final One <br> Year Salary | Final Three <br> Year Salary |
| :--- | :---: | :---: |
| General Members | $4.50 \%$ | $2.60 \%$ |
| Safety - Probation | $4.80 \%$ | $2.70 \%$ |
| Safety - Law | $8.20 \%$ | $5.60 \%$ |
| Safety - Fire | $4.00 \%$ | $3.60 \%$ |

The annual payoffs assumptions are the same for service and disability retirements.

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected return on a market value basis, and is recognized over a five-year period.

The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.

Entry Age Normal Actuarial Cost Method. Entry Age is the current age minus Vesting Credit. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salaries, with Normal Cost determined as a level percentage of individual salary, as if the current benefit accrual rate had always been in effect. The outstanding balance of the December 31, 2004 unfunded Actuarial Accrued Liability is amortized over a declining 27-year period. Any increases or decreases in unfunded actuarial accrued liability that arise in future years due to actuarial gains or losses will be amortized over separate 15 -year periods. Any increases or decreases in UAAL due to changes in actuarial assumptions are amortized over a separate 30 -year period.

Please note that for Probation members who have prior benefit service in another General OCERS plan, the normal cost rate for the current plan is calculated assuming their Entry Age is the date they entered service with their current plan.

## Changes in Actuarial Assumptions:

## Post - Retirement Mortality Rates:

Healthy:

Disabled:

Employee Contribution Rates:

Based on the Experience Study and Review of Economic Actuarial Assumptions, the following assumptions were changed. Previously, these assumptions were as follows:

For General Members and Beneficiaries: 1994 Group Annuity Mortality Table set forward one year.

For Safety Members and Beneficiaries: 1994 Group Annuity Mortality Table set forward one year.

For General Members and Safety Members: 1994 Group Annuity Mortality Table set forward five years.

For General Members: 1994 Group Annuity Mortality Table set forward one year, weighted $40 \%$ male and $60 \%$ female.

For Safety and Probation Members: 1994 Group Annuity Mortality Table set forward one year, weighted $80 \%$ male and $20 \%$ female.

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Changes in Actuarial Assumptions (Previous Assumptions Continued):
Termination Rates Before Retirement:

| Age | Rate (\%) <br> Mortality |  |
| :---: | :---: | :---: |
|  |  |  |
|  | General \& Safety |  |
|  | Male | Female |
| 25 | 0.07 | 0.03 |
| 30 | 0.08 | 0.04 |
| 35 | 0.09 | 0.05 |
| 40 | 0.12 | 0.08 |
| 45 | 0.17 | 0.10 |
| 50 | 0.29 | 0.16 |
| 55 | 0.49 | 0.26 |
| 60 | 0.90 | 0.51 |
| 65 | 1.62 | 0.97 |

All pre-retirement deaths are assumed to be non-service connected.

## Changes in Actuarial Assumptions (Previous Assumptions Continued):

Termination Rates Before Retirement (continued):

| Age | Rate (\%) <br> Disability |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { General All } \\ \text { Other }{ }^{11)} \end{gathered}$ | General OCTA ${ }^{(2)}$ | $\begin{gathered} \text { Safety - Law \& } \\ \text { Fire }{ }^{(3)} \end{gathered}$ | Safety Probation ${ }^{(4)}$ |
| 20 | 0.00 | 0.00 | 0.03 | 0.00 |
| 25 | 0.03 | 0.00 | 0.08 | 0.06 |
| 30 | 0.08 | 0.03 | 0.16 | 0.16 |
| 35 | 0.13 | 0.08 | 0.32 | 0.20 |
| 40 | 0.18 | 0.28 | 0.52 | 0.20 |
| 45 | 0.20 | 0.58 | 0.72 | 0.20 |
| 50 | 0.23 | 0.76 | 0.98 | 0.20 |
| 55 | 0.31 | 0.92 | 2.24 | 0.20 |
| 60 | 0.41 | 1.30 | 3.60 | 0.08 |

${ }^{(1)} 60 \%$ of General all other disabilities are assumed to be duty disabilities. The other $40 \%$ are assumed to be ordinary disabilities.
${ }^{(2)} 70 \%$ of General - OCTA disabilities are assumed to be duty disabilities. The other $30 \%$ are assumed to be ordinary disabilities.
${ }^{(3)} 85 \%$ of Safety - Law Enforcement and Fire disabilities are assumed to be duty disabilities. The other $15 \%$ are assumed to be ordinary disabilities.
${ }^{(4)} 85 \%$ of Safety - Probation disabilities are assumed to be duty disabilities. The other $15 \%$ are assumed to be ordinary disabilities.

## Changes in Actuarial Assumptions (Previous Assumptions Continued):

Termination Rates Before Retirement (Continued):
Rate (\%)

| Years of Service | Withdrawal (< 5 Years of Service) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | General All Other | General OCTA | Safety - Law \& Fire | Safety Probation |
| 0 | 10.0 | 10.0 | 3.0 | 11.0 |
| 1 | 8.0 | 7.0 | 2.0 | 10.0 |
| 2 | 6.0 | 6.0 | 2.0 | 8.0 |
| 3 | 6.0 | 5.0 | 1.0 | 6.0 |
| 4 | 5.0 | 4.0 | 1.0 | 5.0 |
|  | Withdrawal (5+ Years of Service) ${ }^{(1)}$ |  |  |  |
| Age | General All Other | General OCTA | Safety - Law \& Fire | Safety Probation |
| 20 | 5.0 | 3.0 | 1.0 | 5.0 |
| 25 | 5.0 | 3.0 | 1.0 | 5.0 |
| 30 | 5.0 | 3.0 | 1.0 | 5.0 |
| 35 | 4.4 | 3.0 | 0.9 | 4.4 |
| 40 | 3.7 | 3.0 | 0.6 | 3.7 |
| 45 | 2.9 | 3.0 | 0.5 | 2.9 |
| 50 | 2.2 | 2.7 | 0.2 | 2.2 |
| 55 | 1.4 | 1.9 | 0.0 | 1.4 |
| 60 | 0.4 | 0.6 | 0.0 | 0.4 |
| ${ }^{(1)} 15 \%$ of all terminated vested members will choose a refund of contributions and $85 \%$ will choose a deferred vested benefit. |  |  |  |  |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## Changes in Actuarial Assumptions (Previous Assumptions Continued):

## Retirement Rates:

|  | Rate (\%) |  |
| :---: | :---: | :---: |
| Age | Safety - <br> Law and Fire ${ }^{(1)}$ | Safety - <br> Probation ${ }^{(1)}$ |
| 50 | 10.0 | 4.0 |
| 51 | 15.0 | 6.0 |
| 52 | 20.0 | 8.0 |
| 53 | 20.0 | 10.0 |
| 54 | 20.0 | 15.0 |
| 55 | 25.0 | 20.0 |
| 56 | 25.0 | 25.0 |
| 57 | 30.0 | 25.0 |
| 58 | 30.0 | 30.0 |
| 59 | 40.0 | 30.0 |
| 60 | 100.0 | 40.0 |
| 61 | 100.0 | 50.0 |
| 62 | 100.0 | 60.0 |
| 63 | 100.0 | 100.0 |
| 64 | 100.0 | 100.0 |
| 65 | 100.0 | 100.0 |
| 66 | 100.0 | 100.0 |
| 67 | 100.0 | 100.0 |
| 68 | 100.0 | 100.0 |
| 69 | 100.0 | 100.0 |
| 70 | 100.0 | 100.0 |
| 2 |  |  |

## Changes in Actuarial Assumptions (Previous Assumptions Continued):

## Retirement Age and Benefit for Deferred Vested Members:

For deferred vested members, we make the following retirement assumption:

| General Age: | 57 |
| :--- | :--- |
| Safety Age: | 53 |

We assume that $40 \%$ of future General and Safety deferred vested members are reciprocal. For reciprocals, we assume 5.1\% compensation increases per annum.

## Salary Increases:

Annual Rate of Compensation Increase (\%)
Inflation: $3.50 \%$, plus the following Merit and Promotional increases:

| Age | General | Safety |
| :---: | :---: | :---: |
| 20 | $7.0 \%$ | $6.0 \%$ |
| 25 | 5.2 | 5.1 |
| 30 | 3.4 | 3.6 |
| 35 | 2.2 | 1.8 |
| 40 | 1.7 | 0.7 |
| 45 | 1.6 | 0.5 |
| 50 | 1.4 | 0.5 |
| 55 | 0.9 | 0.5 |
| 60 | 0.6 | 0.0 |
| $65+$ | 0.6 | 0.0 |

There are assumed to be no "across the board" salary increases (other than inflation).

## Changes in Actuarial Assumptions (Previous Assumptions Continued):

| Annual Payoffs Assumptions: | Additional payoffs are expected to be received during a men earnings period. The percentages used in this valuation are: |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Final One <br> Year Salary | Final Three <br> Year Salary |
|  | General Members | 4.50\% | 2.10\% |
|  | Safety - Probation | 4.50\% | 2.10\% |
|  | Safety - Law | 9.30\% | 6.30\% |
|  | Safety - Fire | 5.10\% | 2.40\% |

The annual payoffs assumptions are the same for service and disability retirements.

## EXHIBIT V <br> Summary of Plan Provisions

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

| Membership Eligibility: | Membership with OCERS begins with the day of employment in an eligible position by the County or a participating employer. |
| :---: | :---: |
| General Plans |  |
| 2.5\% @ 55 Plans (Orange County Sanitation District and Law Library ${ }^{(1)}$ ) |  |
| Plan G | General members hired before September 21, 1979. |
| Plan H | General members hired on or after September 21, 1979 |
| 2.7\% @ 55 Plans (City of San Juan Capistrano, Orange County Employees except bargaining unit AFSCME members, Orange County Superior Court, Orange County Local Agency Formation Commission ${ }^{(1)}$, Orange County Employees Retirement System ${ }^{(2)}$, Children and Family Commission ${ }^{(3)}$ and Orange County Fire Authority) |  |
| Plan I | General members hired before September 21, 1979. |
| Plan J | General members hired on or after September 21, 1979. |
| ${ }^{(1)}$ Improvement is prospective only for service after June 23, 2005. |  |
| ${ }^{(2)}$ Improvement for management employees is prospective only for service after June 30, 2005. |  |
| ${ }^{(3)}$ Improvement is prospective only for service after December 22, 2005. |  |
| 2.0\% @ 55 Plans (Transportation Corridor Agency, Cemetery District - future service effective December 7, 2007) |  |
| Plan M | General members hired before September 21, 1979. |
| Plan N | General members hired on or after September 21, 1979. |
| All Other General Employers |  |
| Plan A | General members hired before September 21, 1979. |
| Plan B | General members hired on or after September 21, 1979. |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## Safety Plans

Law Enforcement, Fire Protection and Probation Members
Plan E
Safety members hired before September 21, 1979.
Plan $F \quad$ Safety members hired on or after September 21, 1979.

## Final Compensation for <br> Benefit Determination:

| Plans A, E, G, I and M | Highest consecutive twelve months of compensation earnable. (§31462.1) (FAS1) |
| :--- | :--- |
| Plans B, F, H, J and N | Highest consecutive thirty-six months of compensation earnable. (§31462) (FAS3) |

Service: Years of service. (Yrs)

## Service Retirement Eligibility:

General

Safety and Probation

Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age. (§31672)
Age 50 with 10 years of service, or after 20 years, regardless of age. (§31663.25)
All part time employees over age 55 with 10 years of employment may retire with 5 years of service.

## Benefit Formula:

## General Plans

## 2.5\% @ 55

Plan G (§31676.18)

## Retirement Age

50
55
60
62
65
Plan H (§31676.18)

50
55

## Benefit Formula

(2.00\% x FAS1 x Yrs)
(2.50\% x FAS1 x Yrs)
(2.50\% x FAS1 x Yrs)
(2.62\% x FAS1 x Yrs)*
$(2.62 \%$ x FAS1 x Yrs)*
(2.00\% x FAS3 x Yrs)
(2.50\% x FAS3 x Yrs)

* Reflects benefit factors from Plan A as they provide a better benefit than those under 2.5\% @ 55.


## Benefit Formula (continued):

| Plan H (§31676.18) (Cont’d) | Retirement Age | Benefit Formula |
| :---: | :---: | :---: |
|  | 60 | (2.50\% x FAS3 x Yrs) |
|  | 62 | (2.50\% x FAS3 x Yrs) |
|  | 65 | (2.50\% x FAS3 x Yrs) |
| 2.7\%@ 55 | Retirement Age | Benefit Formula |
| Plan I (§31676.19) | 50 | (2.00\% x FAS1 x Yrs) |
|  | 55 | (2.70\% x FAS1 x Yrs) |
|  | 60 | (2.70\% x FAS1 x Yrs) |
|  | 62 | (2.70\% x FAS1 x Yrs) |
|  | 65 | (2.70\% x FAS1 x Yrs) |
| Plan J (§31676.19) | 50 | (2.00\% x FAS3 $\times$ Yrs) |
|  | 55 | (2.70\% x FAS3 x Yrs) |
|  | 60 | (2.70\% x FAS3 x Yrs) |
|  | 62 | (2.70\% x FAS3 x Yrs) |
|  | 65 | (2.70\% x FAS3 x Yrs) |

## Benefit Formula (continued):

| $\text { 2.0\% @ } 55$ | Retirement Age | Benefit Formula |
| :---: | :---: | :---: |
| Plan M (§31676.16) | 50 | (1.43\% x FAS1 x Yrs) |
|  | 55 | (2.00\% x FAS1 x Yrs) |
|  | 60 | (2.34\% x FAS1 x Yrs)** |
|  | 62 | (2.62\% x FAS1 x Yrs)** |
|  | 65 | (2.62\% x FAS1 x Yrs)** |
| Plan N(§31676.16) | 50 | (1.43\% x FAS3 $\times$ Yrs) |
|  | 55 | (2.00\% x FAS3 $\times$ Yrs) |
|  | 60 | (2.26\% x FAS3 x Yrs) |
|  | 62 | (2.37\% x FAS3 x Yrs) |
|  | 65 | (2.43\% x FAS3 x Yrs)*** |
| All Other General Members | Retirement Age | Benefit Formula |
| Plan A (§31676.12) | 50 | (1.34\% x FAS1 x Yrs) |
|  | 55 | (1.77\% x FAS1 x Yrs) |
|  | 60 | (2.34\% x FAS1 x Yrs) |
|  | 62 | (2.62\% x FAS1 x Yrs) |
|  | 65 | (2.62\% x FAS1 x Yrs) |
| Reflects benefit factors from Plan | ey provide a better | der 2.0\% @ 55. |
| Reflects benefit factors from Plan | ey provide a better | der 2.0\% @ 55. |

## Benefit Formula (continued):

|  | Retirement Age | Benefit Formula |
| :---: | :---: | :---: |
| Plan B (§31676.1) | 50 | $(1.18 \% \times$ FAS3 x Yrs $)$ |
|  | 55 | $(1.49 \% \times$ FAS3 x Yrs $)$ |
| 60 | $(1.92 \% \times$ FAS3 x Yrs $)$ |  |
| $(2.09 \% \times$ FAS3 x Yrs $)$ |  |  |
| $(2.43 \% \times$ FAS3 x Yrs $)$ |  |  |

## Safety Plans

Plan E (§31664.1)

## Retirement Age

50
55
Benefit Formula
$(3.00 \% \times$ FAS $1 \times$ Yrs $)$
$(3.00 \% \times$ FAS $1 \times$ Yrs $)$
$(3.00 \% \times$ FAS $1 \times \mathrm{Yrs})$

Plan F (§31664.1)
50
(3.00\% x FAS3 x Yrs)
(3.00\% x FAS3 x Yrs)
(3.00\% x FAS3 x Yrs)

Maximum Benefit: 100\% of Highest Average Compensation.
(§31676.1, §31676.12, §31676.16, §31676.18, §31676.19, §31664.1)

Ordinary Disability:
General Plans
Plans A, B, G, H, I, J, M and N
Eligibility
Five years of service. (§31720)

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| Benefit Formula | Plans A, G, I and M: <br> $1.8 \%$ per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62 , but the total benefit cannot be more than one-third of Final Compensation. (\$31727.2) <br> Plans B, H, J and N: <br> $1.5 \%$ per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65 , but the total benefit cannot be more than one-third of Final Compensation. (§31727.1) |
| :---: | :---: |
| Safety Plans |  |
| Plans E and F |  |
| Eligibility | Five years of service. (\$31720) |
| Benefit Formula | $1.8 \%$ per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55 , but the total benefit cannot be more than one-third of Final Compensation. (\$31727) <br> For all members, $100 \%$ of the Service Retirement benefit will be paid, if greater. |
| e-of-Duty Disabi All Members |  |
| Eligibility | No age or service requirements. (§31720) |
| Benefit Formula | $50 \%$ of the Final Compensation or $100 \%$ of Service Retirement benefit, if greater. (§31727.4) |


| Pre-Retirement Death: |  |
| :---: | :---: |
| All Members |  |
| Eligibility | None. |
| Benefit | Refund of employee contributions with interest plus one month's compensation for each year of service to a maximum of six month's compensation. (§31781) A lump sum benefit in the amount of $\$ 1,000$ is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) |
| Death in line of duty | $50 \%$ of Final Compensation or $100 \%$ of Service Retirement benefit, if greater, payable to spouse or minor children. (\$31787) |
|  | OR |
| Vested Members |  |
| Eligibility | Five years of service. |
| Benefit | $60 \%$ of the greater of Service or Ordinary Disability Retirement benefit payable to eligible surviving spouse ( $\$ 31765.1$, §31781.1), in lieu of $\S 31781$. |
| Death After Retirement: |  |
| All Members |  |
| Service or |  |
| Ordinary Disability Retirement | $60 \%$ of member's unmodified allowance continued to eligible spouse. (§31760.1) A lump sum benefit in the amount of $\$ 1,000$ is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement. (§31760.1) |
| Line-of-Duty Disability | $100 \%$ of member’s allowance continued to eligible spouse. (§31786) A lump sum benefit in the amount of $\$ 1,000$ is payable upon the death of a member (with 10 years of service) to his/her eligible beneficiary. (§31790) |


| Withdrawal Benefits: |  |
| :---: | :---: |
| Less than Five Years of Service | Refund of accumulated employee contributions with interest or earned benefit at age 70. (§31628) Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund. (\$31629.5) |
| Five or More Years of Service | If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire. (\$31700) |
| Post-retirement Cost-of-Living Benefits: | Future changes based on Consumer Price Index to a maximum of 3\% per year, excess "banked." (§31870.1) |
| Supplemental Benefit: | Non-vested supplemental COLA and medical benefits are also paid by the System to eligible retirees and survivors. These benefits have been excluded from this valuation. |
| Member Contributions: | Please refer to Appendix A for the specific rates. |
| General Plans |  |
| Plan A |  |
| Basic | Provide for an average annuity payable at age 60 equal to 1/200 of FAS1. (§31621.5) |
| Cost-of-Living | Provide for $50 \%$ of future Cost-of-Living costs. |
| Plan B |  |
| Basic | Provide for an average annuity payable at age 60 equal to 1/120 of FAS3. (§31621) |
| Cost-of-Living | Provide for $50 \%$ of future Cost-of-Living costs. |
| Plans G, H, I and J |  |
| Basic | Provide for an average annuity payable at age 55 equal to $1 / 100$ of FAS3 (FAS1 for Plans G and I). (§31621.8) |
| Cost-of-Living | Provide for $50 \%$ of future Cost-of-Living costs. |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

Plan M
Basic
Cost-of-Living
Plan N
Basic
Cost-of-Living

## Safety Plans:

Plans E
Basic
Cost-of-Living
Plans F
Basic
Cost-of-Living
Other Information:

Plan Amendments:

Provide for an average annuity payable at age 60 equal to $1 / 120$ of FAS1. (§31621) Provide for $50 \%$ of future Cost-of-Living costs.

Provide for an average annuity payable at age 60 equal to $1 / 120$ of FAS3. (§31621) Provide for $50 \%$ of future Cost-of-Living costs.

Provide for an average annuity payable at age 50 equal to 1/200 FAS1. (§31639.5) Provide for $50 \%$ of future Cost-of-Living costs.

Provide for an average annuity payable at age 50 equal to $1 / 100$ of FAS3. (§31639.25) Provide for $50 \%$ of future Cost-of-Living costs.

Safety members with 30 or more years of service are exempt from paying member contributions. This also applies for General members hired on or before March 7, 1973.

Effective December 7, 2007, General members of the Cemetery District have been granted a benefit improvement for future service only under 2.0\% @ 55. Also, Vector Control District terminated its participation as of January 4, 2007

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

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## Appendix A

UAAL Amortization Schedule as of December 31, 2007

| Rate Groups | Date Established | Source | Initial Base | Years Remaining | Remaining Base | Amortization Amount |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Members |  |  |  |  |  |  |
| Rate Group \#1 - Non-OCTA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$44,613,000 | 27 | \$46,657,000 | \$2,892,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | $(3,774,000)$ | 13 | $(3,631,000)$ | $(366,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,619,000 | 14 | 2,574,000 | 245,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(4,903,000)$ | 15 | $(4,903,000)$ | $(444,000)$ |
|  | 12/31/2007 | Assumption change | 8,305,000 | 30 | 8,305,000 | 487,000 |
| Subtotal |  |  |  |  | \$49,002,000 | \$2,814,000 |
| Rate Group \#2-2.7\% @ 55 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$1,303,159,000 | 27 | \$1,365,753,000 | \$84,647,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 85,000,000 | 13 | 81,846,000 | 8,252,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(18,810,000)$ | 14 | $(18,504,000)$ | $(1,764,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | 9,539,000 | 15 | 9,539,000 | 864,000 |
|  | 12/31/2007 | Assumption change | 68,025,000 | 30 | 68,025,000 | 3,985,000 |
| Subtotal |  |  |  |  | \$1,506,659,000 | \$95,984,000 |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| Rate Groups | Date Established | Source | Initial Base | Years Remaining | Remaining Base | Amortization Amount |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Group \#3-2.5\% @ 55 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$67,595,000 | 27 | \$70,842,000 | \$4,391,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 9,864,000 | 13 | 9,498,000 | 958,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,158,000 | 14 | 2,123,000 | 202,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(615,000)$ | 15 | $(615,000)$ | $(56,000)$ |
|  | 12/31/2007 | Assumption change | 7,781,000 | 30 | 7,781,000 | 456,000 |
| Subtotal |  |  |  |  | \$89,629,000 | \$5,951,000 |
| Rate Group \#5 - OCTA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$70,302,000 | 27 | \$73,679,000 | \$4,566,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,340,000 | 13 | 1,290,000 | 130,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(5,778,000)$ | 14 | $(5,684,000)$ | $(542,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | $(12,467,000)$ | 15 | $(12,467,000)$ | $(1,130,000)$ |
|  | 12/31/2007 | Assumption change | 11,504,000 | 30 | 11,504,000 | 674,000 |
| Subtotal |  |  |  |  | \$68,322,000 | \$3,698,000 |
| Rate Group \#9 - TCA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$6,061,000 | 27 | \$6,352,000 | \$394,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | $(250,000)$ | 13 | $(241,000)$ | $(24,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | $(319,000)$ | 14 | $(314,000)$ | $(30,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | $(149,000)$ | 15 | $(149,000)$ | $(14,000)$ |
|  | 12/31/2007 | Assumption change | 312,000 | 30 | 312,000 | 18,000 |
| Subtotal |  |  |  |  | \$5,960,000 | \$344,000 |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| Rate Groups | Date Established | Source | Initial Base | Years Remaining | Remaining Base | Amortization Amount |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Group \#10- OCFA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$28,348,000 | 27 | \$29,710,000 | \$1,841,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,849,000 | 13 | 1,780,000 | 179,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 4,362,000 | 14 | 4,291,000 | 409,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | (3,010,000) | 15 | $(3,010,000)$ | $(273,000)$ |
|  | 12/31/2007 | Assumption change | 2,975,000 | 30 | 2,975,000 | 174,000 |
| Subtotal |  |  |  |  | \$35,746,000 | \$2,330,000 |
| Rate Group \#11-Cemetery |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$679,000 | 27 | \$710,000 | \$44,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | $(62,000)$ | 13 | $(63,000)$ | $(6,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | 43,000 | 14 | 45,000 | 4,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | 83,000 | 15 | 83,000 | 8,000 |
|  | 12/31/2007 | Assumption change | 25,000 | 30 | $\underline{25,000}$ | 1,000 |
| Subtotal |  |  |  |  | \$800,000 | \$51,000 |
| Safety Members |  |  |  |  |  |  |
| Rate Group \#6 - Probation |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$82,839,000 | 27 | \$86,818,000 | \$5,381,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 10,520,000 | 13 | 10,130,000 | 1,021,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,531,000 | 14 | 2,490,000 | 237,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(1,866,000)$ | 15 | $(1,866,000)$ | $(169,000)$ |
|  | 12/31/2007 | Assumption change | 12,945,000 | 30 | 12,945,000 | 758,000 |
| Subtotal |  |  |  |  | \$110,517,000 | \$7,228,000 |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| Rate Groups | Date Established | Source | Initial Base | Years Remaining | Remaining Base | Amortization Amount |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Group \#7 - Law Enforcement |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$409,515,000 | 27 | \$429,185,000 | \$26,600,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,092,000 | 13 | 1,051,000 | 106,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(18,681,000)$ | 14 | $(18,377,000)$ | $(1,752,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | (5,815,000) | 15 | (5,815,000) | $(527,000)$ |
|  | 12/31/2007 | Assumption change | 88,601,000 | 30 | 88,601,000 | 5,191,000 |
| Subtotal |  |  |  |  | \$494,645,000 | \$29,618,000 |
| Rate Group \#8 - Fire Authority |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$144,849,000 | 27 | \$151,806,000 | \$9,409,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 2,796,000 | 13 | 2,692,000 | 271,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(4,791,000)$ | 14 | $(4,713,000)$ | $(449,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | 2,047,000 | 15 | 2,047,000 | 186,000 |
|  | 12/31/2007 | Assumption change | 36,674,000 | 30 | 36,674,000 | 2,149,000 |
| Subtotal |  |  |  |  | \$188,506,000 | \$11,566,000 |
| Grand Total |  |  |  |  | \$2,549,786,000 | \$159,584,000 |

Note: The initial (gain)/loss bases as of 12/31/2006 have been revised

## Appendix B <br> Member Contribution Rates

| General Tier 1 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calcu lated Under Recommended Assumptions |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Plan I ( | non-OCFA) | Plan G | @ 55) | Plan M (2.0\% | @ 55)* | Plan A | CTA) | Plan A (N | -OCTA) | Plan I (2.7 | OCFA) |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 5.98\% | 7.98\% | 5.98\% | 7.90\% | 4.23\% | 5.94\% | 2.54\% | 4.23\% | 2.54\% | 4.01\% | 5.98\% | 8.01\% |
| 16 | 5.98\% | 7.98\% | 5.98\% | 7.90\% | 4.23\% | 5.94\% | 2.54\% | 4.23\% | 2.54\% | 4.01\% | 5.98\% | 8.01\% |
| 17 | 6.09\% | 8.14\% | 6.09\% | 8.05\% | 4.31\% | 6.06\% | 2.59\% | 4.31\% | 2.59\% | 4.08\% | 6.09\% | 8.16\% |
| 18 | 6.21\% | 8.29\% | 6.21\% | 8.20\% | 4.40\% | 6.17\% | 2.64\% | 4.39\% | 2.64\% | 4.16\% | 6.21\% | 8.32\% |
| 19 | 6.32\% | 8.45\% | 6.32\% | 8.36\% | 4.48\% | 6.29\% | 2.69\% | 4.47\% | 2.69\% | 4.24\% | 6.32\% | 8.48\% |
| 20 | 6.44\% | 8.61\% | 6.44\% | 8.52\% | 4.57\% | 6.41\% | 2.74\% | 4.56\% | 2.74\% | 4.32\% | 6.44\% | 8.64\% |
| 21 | 6.57\% | 8.77\% | 6.57\% | 8.68\% | 4.65\% | 6.53\% | 2.79\% | 4.65\% | 2.79\% | 4.40\% | 6.57\% | 8.80\% |
| 22 | 6.69\% | 8.93\% | 6.69\% | 8.84\% | 4.74\% | 6.66\% | 2.85\% | 4.73\% | 2.85\% | 4.49\% | 6.69\% | 8.97\% |
| 23 | 6.82\% | 9.10\% | 6.82\% | 9.01\% | 4.83\% | 6.79\% | 2.90\% | 4.82\% | 2.90\% | 4.57\% | 6.82\% | 9.14\% |
| 24 | 6.94\% | 9.27\% | 6.94\% | 9.18\% | 4.92\% | 6.91\% | 2.95\% | 4.92\% | 2.95\% | 4.66\% | 6.94\% | 9.31\% |
| 25 | 7.07\% | 9.45\% | 7.07\% | 9.35\% | 5.02\% | 7.04\% | 3.01\% | 5.01\% | 3.01\% | 4.75\% | 7.07\% | 9.48\% |
| 26 | 7.21\% | 9.63\% | 7.21\% | 9.53\% | 5.11\% | 7.18\% | 3.07\% | 5.10\% | 3.07\% | 4.84\% | 7.21\% | 9.66\% |
| 27 | 7.34\% | 9.81\% | 7.34\% | 9.71\% | 5.21\% | 7.31\% | 3.13\% | 5.20\% | 3.13\% | 4.93\% | 7.34\% | 9.84\% |
| 28 | 7.48\% | 9.99\% | 7.48\% | 9.89\% | 5.31\% | 7.45\% | 3.18\% | 5.30\% | 3.18\% | 5.02\% | 7.48\% | 10.03\% |
| 29 | 7.62\% | 10.18\% | 7.62\% | 10.08\% | 5.41\% | 7.59\% | 3.24\% | 5.40\% | 3.24\% | 5.12\% | 7.62\% | 10.22\% |
| 30 | 7.77\% | 10.37\% | 7.77\% | 10.27\% | 5.51\% | 7.73\% | 3.31\% | 5.50\% | 3.31\% | 5.21\% | 7.77\% | 10.41\% |
| 31 | 7.91\% | 10.57\% | 7.91\% | 10.46\% | 5.61\% | 7.88\% | 3.37\% | 5.60\% | 3.37\% | 5.31\% | 7.91\% | 10.61\% |
| 32 | 8.06\% | 10.77\% | 8.06\% | 10.66\% | 5.72\% | 8.03\% | 3.43\% | 5.71\% | 3.43\% | 5.41\% | 8.06\% | 10.81\% |
| 33 | 8.22\% | 10.98\% | 8.22\% | 10.86\% | 5.83\% | 8.18\% | 3.50\% | 5.81\% | 3.50\% | 5.51\% | 8.22\% | 11.02\% |
| 34 | 8.38\% | 11.19\% | 8.38\% | 11.07\% | 5.94\% | 8.33\% | 3.56\% | 5.92\% | 3.56\% | 5.62\% | 8.38\% | 11.23\% |
| 35 | 8.54\% | 11.40\% | 8.54\% | 11.29\% | 6.05\% | 8.49\% | 3.63\% | 6.04\% | 3.63\% | 5.72\% | 8.54\% | 11.44\% |
| 36 | 8.70\% | 11.63\% | 8.70\% | 11.51\% | 6.16\% | 8.65\% | 3.70\% | 6.15\% | 3.70\% | 5.83\% | 8.70\% | 11.67\% |
| 37 | 8.88\% | 11.86\% | 8.88\% | 11.73\% | 6.28\% | 8.82\% | 3.77\% | 6.27\% | 3.77\% | 5.94\% | 8.88\% | 11.90\% |
| 38 | 9.05\% | 12.09\% | 9.05\% | 11.97\% | 6.40\% | 8.98\% | 3.84\% | 6.39\% | 3.84\% | 6.05\% | 9.05\% | 12.14\% |
| 39 | 9.22\% | 12.31\% | 9.22\% | 12.18\% | 6.52\% | 9.16\% | 3.91\% | 6.51\% | 3.91\% | 6.17\% | 9.22\% | 12.35\% |

General Tier 1 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

|  | Plan I (2.7\% @ 55 non-OCFA) |  | Plan G (2.5\% @ 55) |  | Plan M (2.0\% @ 55)* |  | Plan A (OCTA) |  | Plan A (Non-OCTA) |  | Plan I (2.7\% @ 55 OCFA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 40 | 9.39\% | 12.53\% | 9.39\% | 12.41\% | 6.65\% | 9.33\% | 3.99\% | 6.64\% | 3.99\% | 6.29\% | 9.39\% | 12.58\% |
| 41 | 9.56\% | 12.77\% | 9.56\% | 12.64\% | 6.78\% | 9.52\% | 4.07\% | 6.77\% | 4.07\% | 6.41\% | 9.56\% | 12.81\% |
| 42 | 9.74\% | 13.01\% | 9.74\% | 12.88\% | 6.91\% | 9.70\% | 4.15\% | 6.90\% | 4.15\% | 6.54\% | 9.74\% | 13.06\% |
| 43 | 9.94\% | 13.27\% | 9.94\% | 13.13\% | 7.05\% | 9.90\% | 4.23\% | 7.04\% | 4.23\% | 6.67\% | 9.94\% | 13.32\% |
| 44 | 10.14\% | 13.54\% | 10.14\% | 13.40\% | 7.18\% | 10.08\% | 4.31\% | 7.16\% | 4.31\% | 6.79\% | 10.14\% | 13.59\% |
| 45 | 10.36\% | 13.84\% | 10.36\% | 13.69\% | 7.31\% | 10.26\% | 4.38\% | 7.29\% | 4.38\% | 6.91\% | 10.36\% | 13.88\% |
| 46 | 10.57\% | 14.12\% | 10.57\% | 13.98\% | 7.44\% | 10.45\% | 4.47\% | 7.43\% | 4.47\% | 7.04\% | 10.57\% | 14.17\% |
| 47 | 10.79\% | 14.41\% | 10.79\% | 14.26\% | 7.59\% | 10.65\% | 4.55\% | 7.57\% | 4.55\% | 7.18\% | 10.79\% | 14.46\% |
| 48 | 11.00\% | 14.69\% | 11.00\% | 14.54\% | 7.74\% | 10.86\% | 4.64\% | 7.72\% | 4.64\% | 7.32\% | 11.00\% | 14.75\% |
| 49 | 11.15\% | 14.89\% | 11.15\% | 14.74\% | 7.89\% | 11.08\% | 4.74\% | 7.88\% | 4.74\% | 7.47\% | 11.15\% | 14.95\% |
| 50 | 11.23\% | 15.00\% | 11.23\% | 14.85\% | 8.07\% | 11.32\% | 4.84\% | 8.05\% | 4.84\% | 7.63\% | 11.23\% | 15.06\% |
| 51 | 11.25\% | 15.02\% | 11.25\% | 14.87\% | 8.23\% | 11.56\% | 4.94\% | 8.22\% | 4.94\% | 7.79\% | 11.25\% | 15.07\% |
| 52 | 11.19\% | 14.95\% | 11.19\% | 14.79\% | 8.40\% | 11.79\% | 5.04\% | 8.38\% | 5.04\% | 7.95\% | 11.19\% | 15.00\% |
| 53 | 11.07\% | 14.78\% | 11.07\% | 14.63\% | 8.57\% | 12.03\% | 5.14\% | 8.55\% | 5.14\% | 8.11\% | 11.07\% | 14.84\% |
| 54 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.68\% | 12.19\% | 5.21\% | 8.67\% | 5.21\% | 8.22\% | 10.88\% | 14.59\% |
| 55 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.75\% | 12.28\% | 5.25\% | 8.73\% | 5.25\% | 8.28\% | 10.88\% | 14.59\% |
| 56 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.76\% | 12.29\% | 5.25\% | 8.74\% | 5.25\% | 8.28\% | 10.88\% | 14.59\% |
| 57 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.71\% | 12.23\% | 5.23\% | 8.70\% | 5.23\% | 8.24\% | 10.88\% | 14.59\% |
| 58 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.62\% | 12.10\% | 5.17\% | 8.60\% | 5.17\% | 8.15\% | 10.88\% | 14.59\% |
| 59 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.47\% | 11.90\% | 5.08\% | 8.46\% | 5.08\% | 8.02\% | 10.88\% | 14.59\% |
| 60 | 10.88\% | 14.54\% | 10.88\% | 14.39\% | 8.47\% | 11.90\% | 5.08\% | 8.46\% | 5.08\% | 8.02\% | 10.88\% | 14.59\% |
| COLA Load |  | 33.56\% |  | 32.18\% |  | 40.40\% |  | 66.37\% |  | 57.68\% |  | 34.04\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 53 |
| Mortality: | See Exhibit IV, page 47 |

* Payable by members in Rate Group \#9 and Rate Group \#11.

General Tier 2 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

| Entry Age | Plan J (2.7\% @ 55 non-OCFA) |  | Plan H (2.5\% @ 55) |  | Plan $\mathbf{N}(\mathbf{2 . 0 \%}$ @ 55)* |  | Plan B (OCTA) |  | Plan B (Non-OCTA) |  | Plan J (2.7\% @ 55 OCFA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 5.72\% | 7.64\% | 5.72\% | 7.57\% | 4.05\% | 5.69\% | 4.05\% | 5.67\% | 4.05\% | 5.46\% | 5.72\% | 7.67\% |
| 16 | 5.72\% | 7.64\% | 5.72\% | 7.57\% | 4.05\% | 5.69\% | 4.05\% | 5.67\% | 4.05\% | 5.46\% | 5.72\% | 7.67\% |
| 17 | 5.83\% | 7.79\% | 5.83\% | 7.71\% | 4.13\% | 5.80\% | 4.13\% | 5.78\% | 4.13\% | 5.56\% | 5.83\% | 7.82\% |
| 18 | 5.94\% | 7.94\% | 5.94\% | 7.86\% | 4.21\% | 5.91\% | 4.21\% | 5.89\% | 4.21\% | 5.67\% | 5.94\% | 7.97\% |
| 19 | 6.06\% | 8.09\% | 6.06\% | 8.00\% | 4.29\% | 6.03\% | 4.29\% | 6.00\% | 4.29\% | 5.78\% | 6.06\% | 8.12\% |
| 20 | 6.17\% | 8.24\% | 6.17\% | 8.16\% | 4.37\% | 6.14\% | 4.37\% | 6.12\% | 4.37\% | 5.89\% | 6.17\% | 8.27\% |
| 21 | 6.29\% | 8.40\% | 6.29\% | 8.31\% | 4.46\% | 6.26\% | 4.46\% | 6.23\% | 4.46\% | 6.00\% | 6.29\% | 8.43\% |
| 22 | 6.41\% | 8.56\% | 6.41\% | 8.47\% | 4.54\% | 6.38\% | 4.54\% | 6.35\% | 4.54\% | 6.11\% | 6.41\% | 8.59\% |
| 23 | 6.53\% | 8.72\% | 6.53\% | 8.63\% | 4.63\% | 6.50\% | 4.63\% | 6.47\% | 4.63\% | 6.23\% | 6.53\% | 8.75\% |
| 24 | 6.65\% | 8.88\% | 6.65\% | 8.79\% | 4.72\% | 6.62\% | 4.72\% | 6.59\% | 4.72\% | 6.35\% | 6.65\% | 8.91\% |
| 25 | 6.77\% | 9.05\% | 6.77\% | 8.95\% | 4.80\% | 6.75\% | 4.80\% | 6.72\% | 4.80\% | 6.47\% | 6.77\% | 9.08\% |
| 26 | 6.90\% | 9.22\% | 6.90\% | 9.12\% | 4.90\% | 6.87\% | 4.90\% | 6.84\% | 4.90\% | 6.59\% | 6.90\% | 9.25\% |
| 27 | 7.03\% | 9.39\% | 7.03\% | 9.29\% | 4.99\% | 7.00\% | 4.99\% | 6.97\% | 4.99\% | 6.71\% | 7.03\% | 9.42\% |
| 28 | 7.16\% | 9.57\% | 7.16\% | 9.47\% | 5.08\% | 7.13\% | 5.08\% | 7.11\% | 5.08\% | 6.84\% | 7.16\% | 9.60\% |
| 29 | 7.30\% | 9.75\% | 7.30\% | 9.65\% | 5.18\% | 7.27\% | 5.18\% | 7.24\% | 5.18\% | 6.97\% | 7.30\% | 9.78\% |
| 30 | 7.44\% | 9.93\% | 7.44\% | 9.83\% | 5.27\% | 7.41\% | 5.27\% | 7.37\% | 5.27\% | 7.10\% | 7.44\% | 9.97\% |
| 31 | 7.58\% | 10.12\% | 7.58\% | 10.02\% | 5.37\% | 7.54\% | 5.37\% | 7.51\% | 5.37\% | 7.23\% | 7.58\% | 10.16\% |
| 32 | 7.72\% | 10.31\% | 7.72\% | 10.21\% | 5.47\% | 7.69\% | 5.47\% | 7.66\% | 5.47\% | 7.37\% | 7.72\% | 10.35\% |
| 33 | 7.87\% | 10.51\% | 7.87\% | 10.40\% | 5.58\% | 7.83\% | 5.58\% | 7.80\% | 5.58\% | 7.51\% | 7.87\% | 10.55\% |
| 34 | 8.02\% | 10.71\% | 8.02\% | 10.60\% | 5.68\% | 7.98\% | 5.68\% | 7.95\% | 5.68\% | 7.65\% | 8.02\% | 10.75\% |
| 35 | 8.18\% | 10.92\% | 8.18\% | 10.81\% | 5.79\% | 8.13\% | 5.79\% | 8.10\% | 5.79\% | 7.79\% | 8.18\% | 10.96\% |
| 36 | 8.34\% | 11.13\% | 8.34\% | 11.02\% | 5.90\% | 8.28\% | 5.90\% | 8.25\% | 5.90\% | 7.94\% | 8.34\% | 11.17\% |
| 37 | 8.49\% | 11.34\% | 8.49\% | 11.23\% | 6.01\% | 8.44\% | 6.01\% | 8.41\% | 6.01\% | 8.09\% | 8.49\% | 11.38\% |
| 38 | 8.65\% | 11.55\% | 8.65\% | 11.43\% | 6.13\% | 8.60\% | 6.13\% | 8.57\% | 6.13\% | 8.25\% | 8.65\% | 11.59\% |
| 39 | 8.81\% | 11.76\% | 8.81\% | 11.64\% | 6.24\% | 8.77\% | 6.24\% | 8.73\% | 6.24\% | 8.41\% | 8.81\% | 11.80\% |
| 40 | 8.97\% | 11.98\% | 8.97\% | 11.85\% | 6.37\% | 8.94\% | 6.37\% | 8.90\% | 6.37\% | 8.57\% | 8.97\% | 12.02\% |
| 41 | 9.13\% | 12.20\% | 9.13\% | 12.07\% | 6.49\% | 9.11\% | 6.49\% | 9.07\% | 6.49\% | 8.74\% | 9.13\% | 12.24\% |
| 42 | 9.31\% | 12.43\% | 9.31\% | 12.30\% | 6.61\% | 9.29\% | 6.61\% | 9.25\% | 6.61\% | 8.90\% | 9.31\% | 12.48\% |
| 43 | 9.49\% | 12.68\% | 9.49\% | 12.55\% | 6.74\% | 9.46\% | 6.74\% | 9.42\% | 6.74\% | 9.07\% | 9.49\% | 12.72\% |
| 44 | 9.68\% | 12.93\% | 9.68\% | 12.79\% | 6.86\% | 9.63\% | 6.86\% | 9.59\% | 6.86\% | 9.23\% | 9.68\% | 12.97\% |
| $\cdots$ SEGAL |  |  |  |  |  |  |  |  |  |  |  |  |

General Tier 2 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 53 |
| Mortality: | See Exhibit IV, page 47 |

* Payable by members in Rate Group \#9 and Rate Group \#11.


## SECTION 4: Reporting Information for the Orange County Employees Retirement System

| Calculated Under Recommended Assumptions |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plan E (Fire Authority) |  | Plan E (Law Enforcement) |  | Plan E (Probation) |  |
| Entry Age | Normal | Total | Normal | Total | Normal | Total |
| 15 | 3.44\% | 7.83\% | 3.44\% | 7.84\% | 3.44\% | 7.34\% |
| 16 | 3.44\% | 7.83\% | 3.44\% | 7.84\% | 3.44\% | 7.34\% |
| 17 | 3.50\% | 7.98\% | 3.50\% | 7.98\% | 3.50\% | 7.48\% |
| 18 | 3.57\% | 8.13\% | 3.57\% | 8.13\% | 3.57\% | 7.62\% |
| 19 | 3.63\% | 8.28\% | 3.63\% | 8.28\% | 3.63\% | 7.77\% |
| 20 | 3.70\% | 8.43\% | 3.70\% | 8.44\% | 3.70\% | 7.91\% |
| 21 | 3.77\% | 8.59\% | 3.77\% | 8.60\% | 3.77\% | 8.06\% |
| 22 | 3.84\% | 8.75\% | 3.84\% | 8.76\% | 3.84\% | 8.21\% |
| 23 | 3.91\% | 8.92\% | 3.91\% | 8.92\% | 3.91\% | 8.36\% |
| 24 | 3.99\% | 9.08\% | 3.99\% | 9.09\% | 3.99\% | 8.52\% |
| 25 | 4.06\% | 9.25\% | 4.06\% | 9.26\% | 4.06\% | 8.68\% |
| 26 | 4.14\% | 9.43\% | 4.14\% | 9.43\% | 4.14\% | 8.84\% |
| 27 | 4.21\% | 9.61\% | 4.21\% | 9.61\% | 4.21\% | 9.01\% |
| 28 | 4.29\% | 9.79\% | 4.29\% | 9.79\% | 4.29\% | 9.18\% |
| 29 | 4.38\% | 9.97\% | 4.38\% | 9.98\% | 4.38\% | 9.36\% |
| 30 | 4.46\% | 10.17\% | 4.46\% | 10.17\% | 4.46\% | 9.54\% |
| 31 | 4.55\% | 10.36\% | 4.55\% | 10.37\% | 4.55\% | 9.72\% |
| 32 | 4.64\% | 10.56\% | 4.64\% | 10.57\% | 4.64\% | 9.91\% |
| 33 | 4.73\% | 10.77\% | 4.73\% | 10.78\% | 4.73\% | 10.11\% |
| 34 | 4.82\% | 10.99\% | 4.82\% | 11.00\% | 4.82\% | 10.31\% |
| 35 | 4.92\% | 11.22\% | 4.92\% | 11.22\% | 4.92\% | 10.52\% |
| 36 | 5.02\% | 11.45\% | 5.02\% | 11.46\% | 5.02\% | 10.74\% |
| 37 | 5.13\% | 11.70\% | 5.13\% | 11.71\% | 5.13\% | 10.97\% |
| 38 | 5.25\% | 11.96\% | 5.25\% | 11.97\% | 5.25\% | 11.22\% |
| 39 | 5.37\% | 12.24\% | 5.37\% | 12.25\% | 5.37\% | 11.48\% |
| 40 | 5.49\% | 12.52\% | 5.49\% | 12.53\% | 5.49\% | 11.74\% |
| 41 | 5.61\% | 12.79\% | 5.61\% | 12.80\% | 5.61\% | 12.00\% |
| 42 | 5.73\% | 13.06\% | 5.73\% | 13.07\% | 5.73\% | 12.25\% |
| 43 | 5.86\% | 13.35\% | 5.86\% | 13.36\% | 5.86\% | 12.52\% |
| 44 | 5.95\% | 13.56\% | 5.95\% | 13.57\% | 5.95\% | 12.72\% |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

Safety Tier 1 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)
Calculated Under Recommended Assumptions

|  | Plan E (Fire Authority) |  | Plan E (Law Enforcement) |  | Plan E (Probation) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total |
| 45 | 6.01\% | 13.71\% | 6.01\% | 13.72\% | 6.01\% | 12.86\% |
| 46 | 6.00\% | 13.67\% | 6.00\% | 13.67\% | 6.00\% | 12.82\% |
| 47 | 5.94\% | 13.55\% | 5.94\% | 13.56\% | 5.94\% | 12.71\% |
| 48 | 5.86\% | 13.36\% | 5.86\% | 13.37\% | 5.86\% | 12.53\% |
| 49 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 50 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 51 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 52 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 53 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 54 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 55 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 56 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 57 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 58 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 59 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| 60 | 5.71\% | 13.02\% | 5.71\% | 13.03\% | 5.71\% | 12.22\% |
| COLA Loading: |  | 127.93\% |  | 128.08\% |  | 113.80\% |
| Interest: | 7.75\% |  |  |  |  |  |
| Salary Increases: | See Exhibit IV, page 53 See Exhibit IV, page 47 |  |  |  |  |  |
| Mortality: |  |  |  |  |  |  |

SECTION 4: Reporting Information for the Orange County Employees Retirement System

Safety Tier 2 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan F (Fire Authority) |  | Plan F (Law Enforcement) |  | Plan F (Probation) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total |
| 15 | 6.58\% | 10.79\% | 6.58\% | 10.79\% | 6.58\% | 10.32\% |
| 16 | 6.58\% | 10.79\% | 6.58\% | 10.79\% | 6.58\% | 10.32\% |
| 17 | 6.70\% | 10.99\% | 6.70\% | 10.99\% | 6.70\% | 10.52\% |
| 18 | 6.83\% | 11.20\% | 6.83\% | 11.20\% | 6.83\% | 10.71\% |
| 19 | 6.96\% | 11.41\% | 6.96\% | 11.41\% | 6.96\% | 10.91\% |
| 20 | 7.09\% | 11.62\% | 7.09\% | 11.62\% | 7.09\% | 11.12\% |
| 21 | 7.22\% | 11.84\% | 7.22\% | 11.84\% | 7.22\% | 11.33\% |
| 22 | 7.35\% | 12.06\% | 7.35\% | 12.06\% | 7.35\% | 11.54\% |
| 23 | 7.49\% | 12.28\% | 7.49\% | 12.29\% | 7.49\% | 11.75\% |
| 24 | 7.63\% | 12.51\% | 7.63\% | 12.52\% | 7.63\% | 11.98\% |
| 25 | 7.78\% | 12.75\% | 7.78\% | 12.76\% | 7.78\% | 12.20\% |
| 26 | 7.92\% | 12.99\% | 7.92\% | 13.00\% | 7.92\% | 12.43\% |
| 27 | 8.07\% | 13.23\% | 8.07\% | 13.24\% | 8.07\% | 12.66\% |
| 28 | 8.22\% | 13.49\% | 8.22\% | 13.49\% | 8.22\% | 12.90\% |
| 29 | 8.38\% | 13.74\% | 8.38\% | 13.75\% | 8.38\% | 13.15\% |
| 30 | 8.54\% | 14.01\% | 8.54\% | 14.01\% | 8.54\% | 13.40\% |
| 31 | 8.71\% | 14.28\% | 8.71\% | 14.28\% | 8.71\% | 13.66\% |
| 32 | 8.88\% | 14.56\% | 8.88\% | 14.56\% | 8.88\% | 13.93\% |
| 33 | 9.05\% | 14.84\% | 9.05\% | 14.85\% | 9.05\% | 14.20\% |
| 34 | 9.23\% | 15.14\% | 9.23\% | 15.15\% | 9.23\% | 14.49\% |
| 35 | 9.42\% | 15.45\% | 9.42\% | 15.46\% | 9.42\% | 14.79\% |
| 36 | 9.62\% | 15.78\% | 9.62\% | 15.78\% | 9.62\% | 15.10\% |
| 37 | 9.83\% | 16.12\% | 9.83\% | 16.12\% | 9.83\% | 15.42\% |
| 38 | 10.04\% | 16.47\% | 10.04\% | 16.47\% | 10.04\% | 15.76\% |
| 39 | 10.25\% | 16.81\% | 10.25\% | 16.82\% | 10.25\% | 16.09\% |
| 40 | 10.46\% | 17.15\% | 10.46\% | 17.16\% | 10.46\% | 16.41\% |
| 41 | 10.66\% | 17.49\% | 10.66\% | 17.49\% | 10.66\% | 16.73\% |
| 42 | 10.84\% | 17.78\% | 10.84\% | 17.79\% | 10.84\% | 17.01\% |
| 43 | 10.98\% | 18.00\% | 10.98\% | 18.01\% | 10.98\% | 17.23\% |
| 44 | 11.03\% | 18.08\% | 11.03\% | 18.09\% | 11.03\% | 17.30\% |

## SECTION 4: Reporting Information for the Orange County Employees Retirement System

Safety Tier 2 Members' Contribution Rates from the December 31, 2007 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll) Calculated Under Recommended Assumptions

|  | Plan F (Fire Authority) |  | Plan F (Law Enforcement) |  | Plan F (Probation) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total |
| 45 | 10.98\% | 18.01\% | 10.98\% | 18.02\% | 10.98\% | 17.23\% |
| 46 | 10.86\% | 17.80\% | 10.86\% | 17.81\% | 10.86\% | 17.04\% |
| 47 | 10.65\% | 17.46\% | 10.65\% | 17.47\% | 10.65\% | 16.71\% |
| 48 | 11.03\% | 18.08\% | 11.03\% | 18.09\% | 11.03\% | 17.30\% |
| 49 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 50 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 51 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 52 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 53 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 54 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 55 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 56 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 57 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 58 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 59 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| 60 | 11.43\% | 18.74\% | 11.43\% | 18.75\% | 11.43\% | 17.93\% |
| COLA Loading: |  | 63.97\% |  | 64.04\% |  | 56.90\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 53 |
| Mortality: | See Exhibit IV, page 47 |

5019864v2/05794.002


[^0]:    ${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

[^1]:    ${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

[^2]:    ${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

[^3]:    ${ }^{(1)}$ Excludes $\$ 108,301,000$ and $\$ 70,941,000$ in prepaid employer contributions as of December 31, 2007 and December 31, 2006, respectively.

[^4]:    1) The December 31, 2007 market value excludes $\$ 174,348,000$ in the County Investment Account and \$108,301,000 in the prepaid employer contributions account.
    ${ }^{(2)}$ The December 31, 2006 market value excludes $\$ 168,224,000$ in the County Investment Account and \$70,941,000 in the prepaid employer contributions account Note: Results may not total exactly due to rounding.
