## Orange County Employees Retirement System

Actuarial Valuation and Review as of December 31, 2010

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July 6, 2011
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, 2010. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2012-2013 and analyzes the preceding year's experience.

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, 44 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
$B y:$


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


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

MYM/bqb


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## 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, 2010. 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, 2010, provided by the Retirement System;
> The assets of the Plan as of December 31, 2010, 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 (UAAL) from the December 31, 2004 valuation over a declining period, currently 24 years. The outstanding balance of the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the new UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are also amortized over a 24 -year period, in the December 31, 2010 valuation. 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 separate 30 -year periods. The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2012 through June 30, 2013.

Ref: Pgs. 57 and 98
Ref: Pg. 52

Ref: Pg. 22

Ref: Pg. 99

Ref: Pg. 23

Ref: Pg. 59

## Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:
> The ratio of the valuation value of assets to actuarial accrued liabilities has increased from $68.77 \%$ to $69.79 \%$. For informational purposes only, we have also prepared in Appendix C the funded ratio for each rate group. The System's unfunded actuarial accrued liability has increased from $\$ 3,704$ million as of December 31, 2009 to $\$ 3,753$ million as of December 31, 2010. The increase in unfunded actuarial accrued liability is mainly due to lower than expected investment return (after smoothing). 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 $30.11 \%$ of payroll to $31.01 \%$ of payroll. The reasons for the changes are: (i) unfavorable investment return (after smoothing), (ii) lower than expected individual salary increases and growth in total payroll, and (iii) other experience gains. A reconciliation of the System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15). A reconciliation of the employer contribution rate by Rate Group is provided in Appendix D.
> The aggregate member rate calculated in this valuation has decreased from $10.81 \%$ of payroll to $10.80 \%$ of payroll. The change in member rate is due to the changes in membership demographics. 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 same actuarial assumptions and methods as in our December 31, 2009 actuarial valuation report dated July 8, 2010. These assumptions are described in Section 4, Exhibit IV.
> Effective October 1, 2010, the Sanitation District has implemented Plan B (1.64\% @ 57 under Section 31676.1) for some future members. All new employees within the Supervisors and Professional unit hired on or after October 1, 2010 will enroll in Plan B. As of December 31, 2010, there are no such members covered under the new plan.
> Effective August 17, 2010 for the General employees within the County Managers unit and July 1, 2010 for the General employees of LAFCO, the optional General Plan O/P ( $1.62 \%$ @ 65 under Section 31676.01) may be elected by new employees in lieu of the General Plan I/J ( $2.7 \%$ @ 55 ) under Section 31676.19.

These two groups are in addition to the County OCEA and Superior Court that have offered the optional General Plan O/P formula to their new employees since May 7, 2010.

Ref: Pgs. 15 - 18

Ref: Pg. 5
> Effective July 1, 2011, new Safety employees of the Executive Management unit hired by OCFA will be covered under Safety Plan Q/R (3\% @ 55 under Section 31664.2). Effective July 1, 2012, all other new Safety employees hired by OCFA will be covered under the same Safety Plan Q/R formula.

These two groups are in addition to the new County Law Enforcement employees that have been covered under the Safety Plan Q/R formula since April 9, 2010.
> Effective July 1, 2011, new General employees of OCFA covered by an MOU with OCEA will be covered under General Plan M/N (2.0\% @ 55 under Section 31676.16)
> This report contains contribution rates for some new Rate Groups for which there were no active members (and no reported compensation) as of December 31, 2010. The Normal Cost rates for those groups are based on prior cost studies.
> As part of the December 31, 2010 valuation, the System provided Segal with a breakdown of the contributions and benefit payments by Rate Group for calendar years 2004 through 2010. We have compared the actual allocations with the approximate allocations used in the 2004 through 2009 valuations. Adjustments were made, where appropriate, to reflect the actual allocations. While the reallocation has no impact on the contribution rates for the System as a whole, it has resulted in an increase in contribution rates for some Rate Groups and a decrease in contribution rates for other Rate Groups.
> As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment loss as of December 31, 2010 is $\$ 315,638,000$ (as compared to $\$ 690,893,000$ as of December 31, 2009). This investment loss 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 gains that may occur after December 31, 2010. If the System earns the assumed rate of investment return of $7.75 \%$ per year (net of expenses) on a market value basis, then the deferred losses would be recognized over the next four years as shown on Line 7 of Chart 7.
The deferred losses of $\$ 316$ million represent about $4 \%$ of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the $\$ 316$ million market losses is expected to have a material impact on the System's future funded percentage and contribution rate requirements. This potential impact may be illustrated as follows:

- If the deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 69.8\% to 67.3\%.
- If the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer rate would increase from $31.0 \%$ to about $32.8 \%$ of payroll.


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

> The actuarial valuation report as of December 31, 2010 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.

| Summary of Key Valuation Results (Dollar amounts in thousands) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2010 |  | December 31, 2009 |  |
| Employer Contribution Rates: |  |  |  | Estimated |
| General | Total Rate | Annual Amount ${ }^{(1)}$ | Total Rate | Annual Amount ${ }^{(1)}$ |
| Rate Group \#1 - Plans A and B (non-OCTA, non-OCSD) | 16.85\% | \$9,461 | 19.12\% | \$10,737 |
| Rate Group \#2 - Plans I, J, O and P (2.7\% @ 55 and 1.62\% @ 65 combined) | 28.37 | 278,051 | 27.09 | 265,459 |
| Rate Group \#3 - Plans B, G and H (2.5\% @ 55 and 1.64\% @ 57 combined) | 27.47 | 17,403 | 25.68 | 16,270 |
| Rate Group \#5 - Plans A and B (OCTA) | 20.96 | 21,710 | 20.39 | 21,120 |
| Rate Group \#9 - Plans M and N (TCA - 2.0\% @ 55) | 20.97 | 1,479 | 19.64 | 1,385 |
| Rate Group \#10-Plans I, J, M and N (OCFA - 2.7\% @ 55 and 2.0\% @ 55 combined) | 27.99 | 5,952 | 26.53 | 5,641 |
| Rate Group \#11-Plans M and N, future service (Cemetery - 2.0\% @ 55) | 17.76 | 206 | 18.16 | 210 |
| Safety |  |  |  |  |
| Rate Group \#6-Plans E and F (Probation - 3.0\% @ 50) | 36.29\% | \$23,591 | 34.07\% | \$22,148 |
| Rate Group \#7 - Plans E, F, Q and R (Law Enforcement - 3.0\% @ 50 and 3.0\% @ 55 combined) | 47.45 | 90,658 | 46.39 | 88,633 |
| Rate Group \#8 - Plans E, F, Q and R (Fire Authority - 3.0\% @ 50 and 3.0\% @ 55 combined) | 45.46 | 41,148 | 48.53 | 43,927 |
| All Groups Combined | 31.01\% | \$489,659 | 30.11\% | \$475,530 |
| Average Member Contribution Rates: |  | Estimated |  | Estimated |
| General | Total Rate | Annual Amount ${ }^{(1)}$ | $\underline{\text { Total Rate }{ }^{(2)}}$ | Annual Amount ${ }^{(1)}$ |
| Rate Group \#1 - Plans A and B (non-OCTA, non-OCSD) | 7.39\% | \$4,150 | 7.41\% | \$4,161 |
| Rate Group \#2 - Plans I, J, O and P (2.7\% @ 55 and 1.62\% @ 65 combined) | 10.68 | 104,674 | 10.70 | 104,870 |
| Rate Group \#3 - Plans B, G and H (2.5\% @ 55 and 1.64\% @ 57 combined) | 10.90 | 6,906 | 10.91 | 6,912 |
| Rate Group \#5 - Plans A and B (OCTA) | 8.31 | 8,608 | 8.32 | 8,618 |
| Rate Group \#9 - Plans M and N (TCA - 2.0\% @ 55) | 9.29 | 655 | 9.30 | 656 |
| Rate Group \#10-Plans I, J, M and N (OCFA - 2.7\% @ 55 and 2.0\% @ 55 combined) | 10.79 | 2,294 | 10.81 | 2,298 |
| Rate Group \#11 - Plans M and N, future service (Cemetery - 2.0\% @ 55) | 7.66 | 89 | 7.67 | 89 |
| Safety |  |  |  |  |
| Rate Group \#6 - Plans E and F (Probation - 3.0\% @ 50) | 12.58\% | \$8,178 | 12.55\% | \$8,159 |
| Rate Group \#7 - Plans E, F, Q and R (Law Enforcement - 3.0\% @ 50 and 3.0\% @ 55 combined) | 12.94 | 24,723 | 12.92 | 24,685 |
| Rate Group \#8 - Plans E, F, Q and R (Fire Authority - 3.0\% @ 50 and 3.0\% @ 55 combined) | 11.39 | 10,310 | 11.41 | 10,328 |
| All Groups Combined | 10.80\% | \$170,587 | 10.81\% | \$170,776 |
| Funded Status: |  |  |  |  |
| Actuarial accrued liability | \$12,425,873 |  | \$11,858,578 |  |
| Valuation value of assets | \$8,672,592 |  | \$8,154,687 |  |
| Funded percentage | 69.79\% |  | 68.77\% |  |
| Unfunded Actuarial Accrued Liability | \$3,753,281 |  | \$3,703,891 |  |
| Key Assumptions: |  |  |  |  |
| Interest rate | 7.75\% |  | 7.75\% |  |
| Inflation rate | 3.50\% |  | 3.50\% |  |
| Across-the-board real salary increase | 0.00\% |  | 0.00\% |  |

[^0]${ }^{(2)}$ Rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2009 valuation to the System membership as of December 31, 2010.

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

| Summary of Key Valuation Demographic and Financial Data |  |  |  |
| :---: | :---: | :---: | :---: |
|  | December 31, 2010 | December 31, 2009 | Percentage Change |
| Active Members: |  |  |  |
| Number of members | 21,742 | 22,633 | -3.9\% |
| Average age | 45.1 | 44.6 | N/A |
| Average service | 12.6 | 11.9 | N/A |
| Projected total compensation | \$1,579,238,837 | \$1,618,492,858 | -2.4\% |
| Average projected compensation | \$72,635 | \$71,510 | 1.6\% |
| Retired Member and Beneficiaries: |  |  |  |
| Number of members: |  |  |  |
| Service retired | 9,767 | 9,322 | 4.8\% |
| Disability retired | 1,281 | 1,274 | 0.5\% |
| Beneficiaries | 1,714 | 1,647 | 4.1\% |
| Total | 12,762 | 12,243 | 4.2\% |
| Average age | 68.8 | 68.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,988 | \$2,854 | 4.7\% |
| Vested Terminated Members: |  |  |  |
| Number of vested terminated members ${ }^{(2)}$ | 4,308 | 4,094 | 5.2\% |
| Average age | 43.3 | 42.9 | N/A |
| Summary of Financial Data (dollar amounts in thousands): |  |  |  |
| Market value of assets ${ }^{(3)}$ | \$8,357,835 | \$7,464,761 | 12.0\% |
| Return on market value of assets | 10.47\% | 17.32\% | N/A |
| Actuarial value of assets | \$8,673,473 | \$8,155,654 | 6.3\% |
| Return on actuarial value of assets | 5.02\% | 3.60\% | N/A |
| Valuation value of assets | \$8,672,592 | \$8,154,687 | 6.4\% |
| Return on valuation value of assets | 5.02\% | 3.62\% | 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, 2010 market value excludes $\$ 108,531,000$ in the County Investment Account and $\$ 29,545,000$ in the prepaid employer contributions account. The December 31, 2009 market value excludes $\$ 108,324,000$ in the County Investment Account and $\$ 20,027,000$ 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 nine valuations can be seen in this chart.

CHART 1
Member Population: 2002-2010

| 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 |
| 2008 | 23,720 | 3,881 | 11,778 | 0.66 |
| 2009 | 22,633 | 4,094 | 12,243 | 0.72 |
| 2010 | 21,742 | 4,308 | 12,762 | 0.79 |

[^1]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, 2010



## Inactive Members

In this year's valuation, there were 4,308 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 4,094 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 21,742 active members with an average age of 45.1, average years of service of 12.6 years, and average compensation of $\$ 72,635$. The 22,633 active members in the prior valuation had an average age of 44.6 , average service of 11.9 years, and average compensation of \$71,510.

CHART 3
Distribution of Active Members by Years of Service as of December 31, 2010


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

## Retired Members and Beneficiaries

As of December 31, 2010, 11,048 retired members and 1,714 beneficiaries were receiving total monthly benefits of $\$ 38,137,953$. For comparison, in the previous valuation, there were 10,596 retired members and 1,647 beneficiaries receiving total monthly benefits of $\$ 34,937,753$. 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)

These graphs show a distribution of the current retired members based on their monthly amount and age, by type of pension.
$\square$ Disability
■ Regular

## CHART 4

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2010


## CHART 5

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2010


## 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 seven years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

## CHART 6 <br> Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2004 - 2010



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

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

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 seven years. Notes: Market Value of Assets excludes the County Investment Account and Prepaid Employer Contributions.

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

The market value, actuarial value, and valuation value of assets are representations of 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 non-valuation reserves. The valuation value of assets is significant because 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, 2004-2010


## 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 gain was $\$ 55.1$ million, a loss of $\$ 224.0$ million from investments and a gain of $\$ 279.1$ million from all other sources. 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, 2010 (Dollar Amounts in Thousands)

| 1. | Net loss from investments ${ }^{(1)}$ | $\$(224,044)$ |
| :--- | :--- | :---: |
| 2. | Net gain from other experience ${ }^{(2)}$ | $\underline{279,110}$ |
| 3. | Net experience gain/(loss): $(1)+(2)$ | $\$ 55,066$ |

(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 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 2010 plan year was 5.02\%.

Since the actual return for the year was less than the assumed return, OCERS experienced an actuarial loss during the year ended December 31, 2010 with regard to its investments.

CHART 10
Investment Experience for Year Ended December 31, 2010 - Valuation Value and Actuarial Value of Assets

| 1. | Actual return | Valuation Value |
| :--- | :--- | ---: | Actuarial Value

## 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 seven 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 <br> Investment Return |  | Actuarial Value <br> Investment Return |  | Market Value <br> Investment Return |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year Ended <br> December 31 | Amount | Percent | Amount | Percent | Amount | Percent 

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 2004-2010.

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

CHART 12
Market, Actuarial, and Valuation Value Rates of Return for Years Ended December 31, 2004 - 2010


## 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 gain from this other experience for the year ended December 31, 2010 amounted to $\$ 279.1$ million which is $2.25 \%$ 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 24-year period. The outstanding balance of the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the new UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are also amortized over a 24 -year period, in the December 31, 2010 valuation. Any new UAAL that arises in future years due to actuarial gains or losses will be amortized over separate 15 -year periods. Any new UAAL resulting from changes in actuarial assumptions is amortized over separate 30 -year periods.

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, N, O, and P;
> $1 / 200$ of Final Average Salary for Safety Plan E and Q, and;
> $1 / 100$ of Final Average Salary for Safety Plan F and R.
The annuity age is 60 for General Plans A, B, M, N, O and P, 55 for Plans G, H, I, and J, and 50 for Safety Plans E, F, Q, and R. 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 B.

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

CHART 13
Recommended Employer Contribution Rates as of December 31, 2010 (Dollar Amounts in Thousands)


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

CHART 13 (Continued)
Recommended Employer Contribution Rates as of December 31, 2010 (Dollar Amounts in Thousands)


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

CHART 13 (Continued)
Recommended Employer Contribution Rates as of December 31, 2010 (Dollar Amounts in Thousands)

| General Employers |  | December 31, 2010 Valuation |  | December 31, 2009 Valuation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rate | Estimated Annual Amount ${ }^{(1)}$ | Rate | Estimated Annual Amount ${ }^{(1)}$ |
| Rate Group \#10 - Plans I and J (2.7\% @ 55 - OCFA) |  |  |  |  |  |
| Normal Cost |  | 11.85\% | \$2,520 | 11.98\% | \$2,547 |
| UAAL ${ }^{(2)}$ |  | 16.14\% | 3,432 | 14.55\% | 3,094 |
| Total Contribution |  | 27.99\% | \$5,952 | 26.53\% | \$5,641 |
| Rate Group \#10 - Plans M and N (2.0\% @ 55 - OCFA) |  |  |  |  |  |
| Normal Cost |  | 11.11\% | N/A | 11.11\% | N/A |
| UAAL ${ }^{(2)}$ |  | 16.14\% | N/A | 14.55\% | N/A |
| Total Contribution |  | 27.25\% | N/A | 25.66\% | N/A |
| Rate Group \#10 - Plans I, J, M and N Combined |  |  |  |  |  |
| Normal Cost |  | 11.85\% | \$2,520 | 11.98\% | \$2,547 |
| UAAL ${ }^{(2)}$ |  | 16.14\% | 3,432 | 14.55\% | 3,094 |
| Total Contribution |  | 27.99\% | \$5,952 | 26.53\% | \$5,641 |
| Rate Group \#11-Plans M and N, future service (2.0\% @ 55 - Cemetery) |  |  |  |  |  |
| Normal Cost |  | 10.90\% | \$126 | 11.24\% | \$130 |
| UAAL ${ }^{(2)}$ |  | 6.86\% | 80 | 6.92\% | 80 |
| Total Contribution |  | 17.76\% | \$206 | 18.16\% | \$210 |
| ${ }^{(1)}$ Based on December 31, 2010 projected annual compensation (also in thousands): |  |  |  |  |  |
| Rate Group \#1 | \$56,151 |  |  |  |  |
| Rate Group \#2 - Plans I and J | 977,022 |  |  |  |  |
| Rate Group \#2-Plans O and P | 3,072 |  |  |  |  |
| Rate Group \#3 | 63,354 |  |  |  |  |
| Rate Group \#5 | 103,581 |  |  |  |  |
| Rate Group \#9 | 7,055 |  |  |  |  |
| Rate Group \#10 | 21,262 |  |  |  |  |
| Rate Group \#11 | 1,160 |  |  |  |  |
| Total - General Members | \$1,232,657 |  |  |  |  |
| ${ }^{(2)}$ UAAL rate has been adjusted to reflect 18-month delay between date of valuation and date of rate implementation. |  |  |  |  |  |

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

CHART 13 (Continued)
Recommended Employer Contribution Rates as of December 31, 2010 (Dollar Amounts in Thousands)


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

CHART 13 (Continued)
Recommended Employer Contribution Rates as of December 31, 2010 (Dollar Amounts in Thousands)

| Safety Employers | December 31, 2010 Valuation |  | December 31, 2009 Valuation |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate | Estimated Annual Amount ${ }^{(1)}$ | Rate | Estimated Annual Amount ${ }^{(1)}$ |
| Rate Group \#8 - Plans E and F (3\% @ 50 Fire Authority) |  |  |  |  |
| Normal Cost | 21.54\% | \$19,497 | 21.31\% | \$19,289 |
| UAAL ${ }^{(2)}$ | 23.92\% | 21,651 | 27.22\% | 24,638 |
| Total Contribution | 45.46\% | \$41,148 | 48.53\% | \$43,927 |
| Rate Group \#8 - Plans Q and R (3\% @ 55 Fire Authority) |  |  |  |  |
| Normal Cost | 18.30\% | N/A | 18.30\% | N/A |
| UAAL ${ }^{(2)}$ | 23.92\% | N/A | 27.22\% | N/A |
| Total Contribution | 42.22\% | N/A | 45.52\% | N/A |
| Rate Group \#8 - Plans E, F, Q and R Combined |  |  |  |  |
| Normal Cost | 21.54\% | \$19,497 | 21.31\% | \$19,289 |
| UAAL ${ }^{(2)}$ | 23.92\% | 21,651 | 27.22\% | 24,638 |
| Total Contribution | 45.46\% | \$41,148 | 48.53\% | \$43,927 |
| General and Safety Employers Combined |  |  |  |  |
| Rate Groups \#1-\#11 |  |  |  |  |
| Total Contributions | 31.01\% | \$489,659 | 30.11\% | \$475,530 |
| ${ }^{(1)}$ Based on December 31, 2010 projected annual compensation (also in thousands): |  |  |  |  |
| Rate Group \#6 |  |  |  |  |
| Rate Group \#7 |  |  |  |  |
| Rate Group \#8 |  |  |  |  |
| Total - Safety |  |  |  |  |



## 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, 2010 Valuation Pick-Up Percentage

December 31, 2009 Valuation Pick-Up Percentage

## General Members

Rate Group \#1 Plan A/B (non-OCTA, non-OCSD)
Rate Group \#2 (2.7\% @ 55 - non-OCFA)
Rate Group \#2 (1.62\% @ 65)
Rate Group \#3 (2.5\% @ 55)
Rate Group \#3 (1.64\% @ 57)
Rate Group \#5 Plan A/B (OCTA)
Rate Group \#9 (2.0\% @ 55 - TCA)
Rate Group \#10 (2.7\% @ 55 - OCFA)
Rate Group \#10 (2.0\% @ 55 - OCFA)
Rate Group \#11(2.0\% @ 55 - Cemetery)

| Plan A: | 100.00\% | Plan B: $97.17 \%$ |
| :--- | :---: | :--- |
| Plan I: | $99.76 \%$ | Plan J: $97.46 \%$ |
| Plan O: Not calculated | Plan P: $94.20 \%$ |  |
| Plan G: $\quad 99.69 \%$ | Plan H: $98.05 \%$ |  |
|  |  | Plan B: $96.30 \%$ |
| Plan A: $\quad 99.82 \%$ | Plan B: 97.78\% |  |
| Plan M: $\quad 98.06 \%$ | Plan N: 98.06\% |  |
| Plan I: $\quad 100.00 \%$ | Plan J: $97.80 \%$ |  |
| Plan M: Not calculated | Plan N: 95.61\% |  |
| Plan M: $\quad 97.49 \%$ | Plan N: $97.49 \%$ |  |

Plan A: $\quad 100.00 \%$
Plan I: $\quad 99.70 \%$
Plan O: Not calculated
Plan G: $\quad 99.58 \%$

Plan A: $\quad 99.73 \%$
Plan M: $\quad 97.57 \%$
Plan I: $\quad 100.00 \%$
Plan M: Not calculated
Plan M: $\quad 97.60 \%$

Plan B: 97.03\%
Plan J: 97.32\%
Plan P: 94.18\%
Plan H: 98.01\%
Plan B: 96.30\%
Plan B: 97.57\%
Plan N: 97.57\%
Plan J: 97.56\%
Plan N: 95.61\%
Plan N: 97.60\%

| Plan E: | 100.00\% | Plan F: 96.84\% |
| :--- | :--- | :--- |
| Plan E: | $100.00 \%$ | Plan F: 99.75\% |
| Plan Q: Not calculated | Plan R: 99.32\% |  |
| Plan E: $\quad 100.00 \%$ | Plan F: 99.73\% |  |
| Plan Q: Not calculated | Plan R: 99.41\% |  |

Plan E: $100.00 \%$
Plan E: $100.00 \%$
Plan Q: Not calculated
Plan E: $100.00 \%$

Plan F: 96.57\%
Plan F: 99.72\%
Plan R: 99.32\%
Plan F: 99.71\%
Plan R: 99.41\%

## 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 |  |  |
| $\quad$ Orange County | 101 | 33 |
| Cemetery District | 102 | 32 |
| Law Library | 103 | 44 |
| Retirement System | 105 | 35 |
| Fire Authority | 106 | 33 |
| Department of Education | 108 | 31 |
| Transportation Corridor Agency | 109 | 40 |
| City of San Juan Capistrano | 110 | 35 |
| Sanitation District | 111 | 35 |
| OCTA | 112 | 36 |
| U.C.I. (Bi-weekly) | 113 | 21 |
| U.C.I. (Monthly) | 114 | 19 |
| Children \& Families Commission | 118 | 31 |
| Local Agency Formation Commission | 119 | 33 |
| Superior Court | 121 | 33 |
| IHSS Public Authority | 122 | 39 |
| 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, 2010 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, for the entire Retirement System. A reconciliation of the recommended contribution from the prior valuation to the current year's valuation by Rate Group is provided in Appendix D.

CHART 15
Reconciliation of Recommended Employer Contribution Rate from December 31, 2009 to December 31, 2010 (Dollar Amounts in Thousands)

|  | Contribution <br> Rate | Estimated <br> Amount |
| :--- | ---: | ---: |
| Aggregate Recommended Contribution Rate as of December 31, 2009 | $30.11 \%$ | $\$ 475,530$ |
| Effect of investment loss | $1.29 \%$ | 20,303 |
| Effect of reallocation of contributions and benefit payments among Rate Groups | $0.00 \%$ | 0 |
| Effect of difference in actual versus expected salary increases and growth in total payroll | $-0.28 \%$ | $-4,361$ |
| Effect of other experience (gain)/loss ${ }^{(2)}$ | $\underline{-0.11 \%}$ | $\boxed{-1,813}$ |
| Subtotal | $0.90 \%$ | $\$ 14,129$ |
| Aggregate Recommended Contribution Rate as of December 31, 2010 | $31.01 \%$ | $\$ 489,659$ |

${ }^{(1)}$ Based on December 31, 2010 projected compensation of \$1,579,239,000.
${ }^{(2)}$ Includes adjustment to reflect 18-month delay between date of valuation and date of rate implementation.

## 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, 2010 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, 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, 2009 to December 31, 2010 (Dollar Amounts in Thousands)

|  | Contribution <br> Rate | Estimated <br> Amount ${ }^{(1)}$ |
| :--- | :---: | ---: |
| Average Recommended Contribution Rate as of December 31, 2009 ${ }^{(2)}$ | $10.81 \%$ | $\$ 170,776$ |
| Effect of change in demographics | $-0.01 \%$ | -189 |
| Average Recommended Contribution Rate as of December 31, 2010 | $10.80 \%$ | $\$ 170,587$ |

${ }^{(1)}$ Based on December 31, 2010 projected annual compensation of \$1,579,239,000.
${ }^{(2)}$ Rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2009 valuation to the System membership as of December 31, 2010.

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

## E. INFORMATION REQUIRED BY 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.


* Actual contributions excludes transfers from County Investment Account. See page 44.
HART 17
- 

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 wellfunded 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 2010 funded ratio is $69.79 \%$, compared to $68.77 \%$ in 2009.

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

These graphs show key GASB information.

CHART 18
Funded Ratio


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

| EXHIBIT A |  |  |  |
| :---: | :---: | :---: | :---: |
| Table of Plan Coverage |  |  |  |
| i. Rate Group \#1 - General - Plans A \& B (non-OCTA, non-OCSD) |  |  |  |
|  | Year Ended December 31 |  |  |
| Category | 2010 | 2009 | Change From Prior Year |
| Active members in valuation |  |  |  |
| Number | 1,165 | 1,181 | -1.4\% |
| Average age | 45.1 | 44.5 | N/A |
| Average service | 11.8 | 11.1 | N/A |
| Projected total compensation | \$56,151,126 | \$56,658,340 | -0.9\% |
| Projected average compensation | \$48,198 | \$47,975 | 0.5\% |
| Account balances | \$32,924,809 | \$30,589,309 | 7.6\% |
| Total active vested members | 916 | 820 | 11.7\% |
| Vested terminated members |  |  |  |
| Number | 279 | 268 | 4.1\% |
| Average age | 43.7 | 42.8 | N/A |
| Retired members |  |  |  |
| Number in pay status | 580 | 579 | 0.2\% |
| Average age | 72.3 | 72.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,281 | \$2,214 | 3.0\% |
| Disabled members |  |  |  |
| Number in pay status | 37 | 36 | 2.8\% |
| Average age | 65.6 | 64.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,029 | \$1,754 | 15.7\% |
| Beneficiaries |  |  |  |
| Number in pay status | 126 | 122 | 3.3\% |
| Average age | 72.6 | 72.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,438 | \$1,344 | 7.0\% |

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

## EXHIBIT A

Table of Plan Coverage
ii. Rate Group \#2 - General - (2.7\% at 55 and $1.62 \%$ at 65 )

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 14,388 | 14,832 | -3.0\% |
| Average age | 45.3 | 44.8 | N/A |
| Average service | 12.1 | 11.4 | N/A |
| Projected total compensation | \$980,093,688 | \$995,073,400 | -1.5\% |
| Projected average compensation | \$68,119 | \$67,090 | 1.5\% |
| Account balances | \$1,128,163,627 | \$1,018,017,576 | 10.8\% |
| Total active vested members | 10,835 | 10,448 | 3.7\% |
| Vested terminated members |  |  |  |
| Number | 2,918 | 2,815 | 3.7\% |
| Average age | 43.3 | 43.0 | N/A |
| Retired members |  |  |  |
| Number in pay status | 7,009 | 6,764 | 3.6\% |
| Average age | 70.2 | 70.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,920 | \$2,812 | 3.8\% |
| Disabled members |  |  |  |
| Number in pay status | 562 | 568 | -1.1\% |
| Average age | 64.4 | 63.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,158 | \$2,058 | 4.9\% |
| Beneficiaries |  |  |  |
| Number in pay status | 1,204 | 1,170 | 2.9\% |
| Average age | 73.8 | 73.6 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,476 | \$1,401 | 5.4\% |

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

## EXHIBIT A

Table of Plan Coverage
iii. Rate Group \#3 - General (2.5\% at 55 and $1.64 \%$ at 57 )

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 614 | 631 | -2.7\% |
| Average age | 48.7 | 48.3 | N/A |
| Average service | 13.8 | 13.6 | N/A |
| Projected total compensation | \$63,354,400 | \$61,433,445 | 3.1\% |
| Projected average compensation | \$103,183 | \$97,359 | 6.0\% |
| Account balances | \$69,963,345 | \$65,457,182 | 6.9\% |
| Total active vested members | 494 | 504 | -2.0\% |
| Vested terminated members |  |  |  |
| Number | 73 | 64 | 14.1\% |
| Average age | 45.3 | 44.6 | N/A |
| Retired members |  |  |  |
| Number in pay status | 217 | 194 | 11.9\% |
| Average age | 67.0 | 67.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,868 | \$3,595 | 7.6\% |
| Disabled members |  |  |  |
| Number in pay status | 16 | 14 | 14.3\% |
| Average age | 64.0 | 65.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,411 | \$2,230 | 8.1\% |
| Beneficiaries |  |  |  |
| Number in pay status | 47 | 44 | 6.8\% |
| Average age | 68.7 | 68.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,693 | \$1,614 | 4.9\% |

${ }^{(1)}$ 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. Rate Group \#5 - General OCTA

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 1,639 | 1,836 | -10.7\% |
| Average age | 49.0 | 48.1 | N/A |
| Average service | 12.4 | 11.2 | N/A |
| Projected total compensation | \$103,580,939 | \$113,209,332 | -8.5\% |
| Projected average compensation | \$63,198 | \$61,661 | 2.5\% |
| Account balances | \$101,020,472 | \$97,269,303 | 3.9\% |
| Total active vested members | 1,387 | 1,391 | -0.3\% |
| Vested terminated members |  |  |  |
| Number | 504 | 458 | 10.0\% |
| Average age | 47.8 | 47.2 | N/A |
| Retired members |  |  |  |
| Number in pay status | 560 | 517 | 8.3\% |
| Average age | 68.0 | 67.5 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,122 | \$1,989 | 6.7\% |
| Disabled members |  |  |  |
| Number in pay status | 230 | 223 | 3.1\% |
| Average age | 61.8 | 61.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,056 | \$2,008 | 2.4\% |
| Beneficiaries |  |  |  |
| Number in pay status | 118 | 116 | 1.7\% |
| Average age | 68.6 | 68.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,136 | \$1,109 | 2.4\% |

${ }^{(1)}$ 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
v. Rate Group \#9 - General - TCA

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 79 | 92 | -14.1\% |
| Average age | 48.2 | 47.2 | N/A |
| Average service | 7.7 | 6.7 | N/A |
| Projected total compensation | \$7,054,944 | \$8,289,050 | -14.9\% |
| Projected average compensation | \$89,303 | \$90,098 | -0.9\% |
| Account balances | \$4,200,069 | \$4,046,688 | 3.8\% |
| Total active vested members | 51 | 51 | 0.0\% |
| Vested terminated members |  |  |  |
| Number | 44 | 39 | 12.8\% |
| Average age | 41.0 | 40.7 | N/A |
| Retired members |  |  |  |
| Number in pay status | 19 | 16 | 18.8\% |
| Average age | 64.8 | 63.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,112 | \$3,172 | -1.9\% |
| Disabled members |  |  |  |
| Number in pay status | 0 | 0 | N/A |
| Average age | N/A | N/A | N/A |
| Average monthly benefit ${ }^{(1)}$ | N/A | N/A | N/A |
| Beneficiaries |  |  |  |
| Number in pay status | 1 | 0 | N/A |
| Average age | 70.7 | N/A | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$90 | N/A | N/A |

${ }^{(1)}$ 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
vi. Rate Group \#10 - General - OCFA - 2.7\% at 55 and 2.0\% at 55

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 249 | 281 | -11.4\% |
| Average age | 46.2 | 45.1 | N/A |
| Average service | 12.6 | 11.0 | N/A |
| Projected total compensation | \$21,262,246 | \$22,803,893 | -6.8\% |
| Projected average compensation | \$85,391 | \$81,153 | 5.2\% |
| Account balances | \$19,958,520 | \$18,542,104 | 7.6\% |
| Total active vested members | 197 | 200 | -1.5\% |
| Vested terminated members |  |  |  |
| Number | 84 | 60 | 40.0\% |
| Average age | 41.9 | 42.0 | N/A |
| Retired members |  |  |  |
| Number in pay status | 73 | 64 | 14.1\% |
| Average age | 63.8 | 63.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,455 | \$3,409 | 1.3\% |
| Disabled members |  |  |  |
| Number in pay status | 10 | 9 | 11.1\% |
| Average age | 58.7 | 59.8 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,366 | \$2,371 | -0.2\% |
| Beneficiaries |  |  |  |
| Number in pay status | 23 | 23 | 0.0\% |
| Average age | 60.5 | 59.5 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,206 | \$1,177 | 2.5\% |

${ }^{(1)}$ 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
vii. Rate Group \#11 - General - Cemetery District

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 21 | 20 | 5.0\% |
| Average age | 46.0 | 45.8 | N/A |
| Average service | 13.5 | 13.1 | N/A |
| Projected total compensation | \$1,159,589 | \$1,091,897 | 6.2\% |
| Projected average compensation | \$55,219 | \$54,595 | 1.1\% |
| Account balances | \$1,215,910 | \$1,068,678 | 13.8\% |
| Total active vested members | 17 | 17 | 0.0\% |
| Vested terminated members |  |  |  |
| Number | 2 | 2 | 0.0\% |
| Average age | 32.1 | 31.1 | N/A |
| Retired members |  |  |  |
| Number in pay status | 4 | 4 | 0.0\% |
| Average age | 73.9 | 72.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,312 | \$2,245 | 3.0\% |
| Disabled members |  |  |  |
| Number in pay status | 1 | 1 | 0.0\% |
| Average age | 74.7 | 73.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,944 | \$1,887 | 3.0\% |
| Beneficiaries |  |  |  |
| Number in pay status | 3 | 3 | 0.0\% |
| Average age | 69.0 | 68.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,535 | \$1,490 | 3.0\% |

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

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

## EXHIBIT A <br> Table of Plan Coverage <br> viii. Rate Group \#6 - Safety - Probation Officers

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 913 | 972 | -6.1\% |
| Average age | 40.5 | 39.3 | N/A |
| Average service | 12.4 | 11.3 | N/A |
| Projected total compensation | \$65,007,995 | \$69,283,653 | -6.2\% |
| Projected average compensation | \$71,203 | \$71,279 | -0.1\% |
| Account balances | \$78,414,340 | \$69,801,177 | 12.3\% |
| Total active vested members | 796 | 754 | 5.6\% |
| Vested terminated members |  |  |  |
| Number | 219 | 220 | -0.5\% |
| Average age | 35.5 | 34.6 | N/A |
| Retired members |  |  |  |
| Number in pay status | 181 | 160 | 13.1\% |
| Average age | 63.1 | 62.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$5,083 | \$4,869 | 4.4\% |
| Disabled members |  |  |  |
| Number in pay status | 13 | 12 | 8.3\% |
| Average age | 48.9 | 48.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,532 | \$2,491 | 1.6\% |
| $\overline{\text { Beneficiaries }}$ |  |  |  |
| Number in pay status | 12 | 8 | 50.0\% |
| Average age | 56.4 | 54.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,989 | \$1,786 | 11.4\% |

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

EXHIBIT A
Table of Plan Coverage
ix. Rate Group \#7 - Safety - Law Enforcement - 3.0\% at 50 and 3.0\% at 55

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 1,859 | 1,955 | -4.9\% |
| Average age | 42.1 | 41.5 | N/A |
| Average service | 15.3 | 14.7 | N/A |
| Projected total compensation | \$191,060,266 | \$198,743,123 | -3.9\% |
| Projected average compensation | \$102,776 | \$101,659 | 1.1\% |
| Account balances | \$167,750,873 | \$158,923,533 | 5.6\% |
| Total active vested members | 1,585 | 1,603 | -1.1\% |
| Vested terminated members |  |  |  |
| Number | 159 | 149 | 6.7\% |
| Average age | 41.3 | 40.7 | N/A |
| Retired members |  |  |  |
| Number in pay status | 871 | 799 | 9.0\% |
| Average age | 63.4 | 63.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$6,020 | \$5,820 | 3.4\% |
| Disabled members |  |  |  |
| Number in pay status | 311 | 313 | -0.6\% |
| Average age | 59.4 | 58.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,892 | \$3,718 | 4.7\% |
| Beneficiaries |  |  |  |
| Number in pay status | 158 | 142 | 11.3\% |
| Average age | 68.0 | 68.9 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,476 | \$2,370 | 4.5\% |

${ }^{(1)}$ 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 |  |  |  |
| x. Rate Group \#8 - Safety | $t 55$ |  |  |
|  | Year End | ember 31 |  |
| Category | 2010 | 2009 | Change From Prior Year |
| Active members in valuation |  |  |  |
| Number | 815 | 833 | -2.2\% |
| Average age | 43.3 | 43.1 | N/A |
| Average service | 16.6 | 16.4 | N/A |
| Projected total compensation | \$90,513,642 | \$91,906,727 | -1.5\% |
| Projected average compensation | \$111,060 | \$110,332 | 0.7\% |
| Account balances | \$76,789,389 | \$73,133,893 | 5.0\% |
| Total active vested members | 687 | 682 | 0.7\% |
| Vested terminated members |  |  |  |
| Number | 25 | 18 | 38.9\% |
| Average age | 39.8 | 40.8 | N/A |
| Retired members |  |  |  |
| Number in pay status | 253 | 225 | 12.4\% |
| Average age | 61.5 | 61.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$6,155 | \$5,975 | 3.0\% |
| Disabled members |  |  |  |
| Number in pay status | 101 | 98 | 3.1\% |
| Average age | 61.2 | 60.3 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$5,094 | \$4,977 | 2.4\% |
| Beneficiaries |  |  |  |
| Number in pay status | 22 | 19 | 15.8\% |
| Average age | 57.4 | 56.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,517 | \$3,143 | 11.9\% |

${ }^{(1)}$ 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
xi. Total

| Category | Year Ended December 31 |  | Change From Prior Year |
| :---: | :---: | :---: | :---: |
|  | 2010 | 2009 |  |
| Active members in valuation |  |  |  |
| Number | 21,742 | 22,633 | -3.9\% |
| Average age | 45.1 | 44.6 | N/A |
| Average service | 12.6 | 11.9 | N/A |
| Projected total compensation | \$1,579,238,837 | \$1,618,492,858 | -2.4\% |
| Projected average compensation | \$72,635 | \$71,510 | 1.6\% |
| Account balances | \$1,680,401,354 | \$1,536,849,441 | 9.3\% |
| Total active vested members | 16,965 | 16,470 | 3.0\% |
| Vested terminated members |  |  |  |
| Number | 4,308 | 4,094 | 5.2\% |
| Average age | 43.3 | 42.9 | N/A |
| Retired members |  |  |  |
| Number in pay status | 9,767 | 9,322 | 4.8\% |
| Average age | 69.1 | 69.0 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$3,262 | \$3,119 | 4.6\% |
| Disabled members |  |  |  |
| Number in pay status | 1,281 | 1,274 | 0.5\% |
| Average age | 62.3 | 61.7 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$2,797 | \$2,681 | 4.3\% |
| Beneficiaries |  |  |  |
| Number in pay status | 1,714 | 1,647 | 4.1\% |
| Average age | 72.1 | 72.1 | N/A |
| Average monthly benefit ${ }^{(1)}$ | \$1,574 | \$1,484 | 6.1\% |

${ }^{(1)}$ 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, 2010
By Age and Years of Service
i. Rate Group \#1- General - Plans A \& B (non-OCTA, non-OCSD)

| 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 | 9 | 9 | - | -- | -- | -- | -- | -- | -- | -- |
|  | \$41,847 | \$41,847 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 96 | 59 | 35 | 2 | -- | -- | -- | -- | -- | -- |
|  | 44,300 | 41,906 | \$48,078 | \$48,797 | -- | -- | -- | -- | -- | -- |
| 30-34 | 184 | 62 | 84 | 38 | -- | -- | -- | -- | -- | -- |
|  | 47,007 | 44,216 | 48,258 | 48,797 | -- | -- | -- | -- | -- | -- |
| 35-39 | 181 | 41 | 78 | 50 | 11 | 1 | -- | -- | -- | -- |
|  | 47,707 | 46,439 | 47,405 | 48,666 | \$50,049 | \$49,558 | -- | - | -- | -- |
| 40-44 | 174 | 36 | 45 | 37 | 44 | 12 | -- | -- | -- | -- |
|  | 47,461 | 44,580 | 46,619 | 50,091 | 48,047 | 49,010 | -- | -- | -- | -- |
| 45-49 | 112 | 14 | 33 | 19 | 26 | 16 | 4 | -- | - | -- |
|  | 48,186 | 44,308 | 48,663 | 46,627 | 50,698 | 48,467 | \$47,787 | -- | - | -- |
| 50-54 | 130 | 15 | 33 | 14 | 33 | 26 | 6 | 2 | 1 | -- |
|  | 47,957 | 43,304 | 47,491 | 47,117 | 48,530 | 51,418 | 47,858 | \$49,550 | \$33,448 | -- |
| 55-59 | 107 | 7 | 19 | 9 | 31 | 21 | 5 | 3 | 12 | -- |
|  | 49,888 | 46,890 | 48,575 | 46,274 | 48,166 | 48,220 | 51,333 | 50,615 | 63,014 | - |
| 60-64 | 108 | 6 | 18 | 16 | 22 | 25 | 8 | 2 | 8 | 3 |
|  | 52,926 | 44,394 | 49,035 | 49,337 | 49,417 | 52,009 | 55,581 | 76,448 | 50,077 | \$130,676 |
| 65-69 | 41 | 5 | 2 | 5 | 15 | 11 | 3 | -- | -- | -- |
|  | 50,444 | 54,002 | 48,834 | 52,080 | 49,791 | 48,686 | 52,567 | -- | -- | -- |
| 70 \& over | 23 | 2 | 3 | 1 | 7 | 6 | 2 | 2 | - | -- |
|  | 53,286 | 71,373 | 55,811 | 47,149 | 48,948 | 47,795 | 51,140 | 68,282 | -- | -- |
| Total | 1,165 | 256 | 350 | 191 | 189 | 118 | 28 | 9 | 21 | 3 |
|  | \$48,198 | \$44,440 | \$47,930 | \$48,678 | \$48,963 | \$49,874 | \$51,414 | \$60,045 | \$56,678 | \$130,676 |

## 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, 2010
By Age and Years of Service
ii. Rate Group \#2 - General - (2.7\% at 55 and $1.62 \%$ at 65 )

| 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 | 235 | 228 | 7 | -- | -- | -- | -- | -- | -- | -- |
|  | \$42,390 | \$42,431 | \$41,067 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 1,147 | 879 | 260 | 8 | -- | -- | -- | -- | -- | -- |
|  | 51,862 | 51,784 | 52,169 | \$50,491 | -- | -- | -- | -- | -- | -- |
| 30-34 | 1,662 | 775 | 674 | 213 | -- | -- | -- | -- | -- | -- |
|  | 61,034 | 59,838 | 62,948 | 59,330 | -- | -- | -- | -- | -- | -- |
| 35-39 | 1,972 | 548 | 654 | 611 | 145 | 14 | -- | -- | -- | -- |
|  | 66,487 | 62,152 | 67,866 | 69,021 | \$65,171 | \$74,849 | -- | -- | -- | -- |
| 40-44 | 2,096 | 391 | 482 | 608 | 386 | 226 | 3 | - | -- | -- |
|  | 70,865 | 65,899 | 70,657 | 73,469 | 73,113 | 69,222 | \$58,591 | -- | -- | -- |
| 45-49 | 2,160 | 324 | 384 | 461 | 340 | 486 | 155 | 10 | -- | -- |
|  | 72,106 | 66,624 | 69,148 | 72,584 | 71,072 | 78,174 | 72,276 | \$78,955 | -- | -- |
| 50-54 | 2,080 | 246 | 308 | 398 | 307 | 443 | 258 | 116 | 4 | -- |
|  | 74,224 | 65,312 | 69,433 | 71,369 | 73,341 | 79,167 | 83,774 | 78,377 | \$59,073 | -- |
| 55-59 | 1,553 | 155 | 254 | 321 | 198 | 317 | 176 | 116 | 16 | -- |
|  | 74,749 | 68,457 | 66,977 | 72,797 | 74,909 | 78,738 | 81,132 | 83,324 | 84,802 | -- |
| 60-64 | 992 | 99 | 174 | 250 | 152 | 183 | 76 | 44 | 11 | 3 |
|  | 71,836 | 71,124 | 67,392 | 70,146 | 70,392 | 75,915 | 74,214 | 85,000 | 77,068 | \$45,827 |
| 65-69 | 367 | 34 | 67 | 77 | 67 | 67 | 34 | 14 | 5 | 2 |
|  | 66,766 | 73,263 | 70,228 | 62,013 | 63,654 | 65,884 | 71,145 | 73,952 | 51,795 | 69,799 |
| 70 \& over | 124 | 10 | 14 | 31 | 22 | 23 | 13 | 10 | 1 | -- |
|  | 61,103 | 65,181 | 61,089 | 66,104 | 60,341 | 64,801 | 48,511 | 52,982 | 42,146 | - |
| Total | 14,388 | 3,689 | 3,278 | 2,978 | 1,617 | 1,759 | 715 | 310 | 37 | 5 |
|  | \$68,119 | \$59,593 | \$66,186 | \$70,341 | \$71,413 | \$76,471 | \$78,268 | \$80,168 | \$74,108 | \$55,416 |

## 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, 2010
By Age and Years of Service
iii. Rate Group \#3 - General ( $2.5 \%$ at 55 and $1.64 \%$ at 57 )

| 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 | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$71,853 | \$71,853 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 24 | 19 | 5 | -- | -- | -- | -- | -- | -- | -- |
|  | 76,669 | 74,841 | \$83,616 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 45 | 26 | 19 | -- | -- | -- | -- | -- | -- | -- |
|  | 81,947 | 79,706 | 85,015 | -- | -- | -- | -- | -- | -- | -- |
| 35-39 | 49 | 22 | 18 | 5 | 4 | -- | -- | -- | -- | -- |
|  | 86,883 | 85,111 | 82,379 | \$97,580 | \$103,526 | -- | -- | -- | -- | -- |
| 40-44 | 85 | 14 | 24 | 16 | 19 | 12 | -- | -- | -- | -- |
|  | 106,750 | 108,963 | 103,359 | 107,121 | 116,832 | \$94,492 | -- | -- | - | -- |
| 45-49 | 119 | 21 | 24 | 13 | 29 | 26 | 5 | 1 | - | -- |
|  | 106,582 | 88,622 | 109,885 | 104,190 | 111,953 | 116,445 | \$87,869 | \$116,956 | -- | -- |
| 50-54 | 129 | 18 | 24 | 12 | 22 | 32 | 11 | 10 | -- | -- |
|  | 106,639 | 90,964 | 106,644 | 95,830 | 111,103 | 116,189 | 105,303 | 108,895 |  | -- |
| 55-59 | 91 | 6 | 18 | 7 | 15 | 30 | 9 | 5 | 1 | -- |
|  | 112,380 | 85,141 | 100,861 | 111,716 | 117,890 | 111,605 | 131,068 | 140,430 | \$119,942 | -- |
| 60-64 | 42 | 2 | 11 | 6 | 5 | 9 | 5 | 4 | - | -- |
|  | 111,302 | 101,808 | 103,313 | 125,384 | 97,962 | 110,233 | 132,737 | 109,179 | -- | -- |
| 65-69 | 19 | -- | 5 | 2 | 1 | 9 | 2 | -- | - | -- |
|  | 104,037 | -- | 110,549 | 104,836 | 85,704 | 106,797 | 83,700 | -- | - | -- |
| 70 \& over | 9 | -- | - | 1 | 1 | 6 | 1 | -- | - | -- |
|  | 114,933 | -- | -- | 116,674 | 132,893 | 101,680 | 174,751 | -- | -- | -- |
| Total | 614 | 130 | 148 | 62 | 96 | 124 | 33 | 20 | 1 | -- |
|  | \$103,183 | \$86,529 | \$99,312 | \$105,918 | \$112,516 | \$111,218 | \$114,640 | \$117,239 | \$119,942 | -- |

## 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, 2010
By Age and Years of Service
iv. Rate Group \#5 - 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 | 8 | 8 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$42,702 | \$42,702 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 58 | 42 | 16 | -- | -- | -- | -- | -- | -- | - |
|  | 51,450 | 51,775 | \$50,596 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 117 | 32 | 69 | 16 | -- | -- | -- | -- | -- | -- |
|  | 55,865 | 49,160 | 58,431 | \$58,209 | -- | -- | -- | -- | -- | -- |
| 35-39 | 139 | 32 | 69 | 30 | 8 | -- | -- | -- | -- | -- |
|  | 61,661 | 69,364 | 57,526 | 61,900 | \$65,606 | -- | -- | -- | -- | -- |
| 40-44 | 215 | 44 | 97 | 49 | 12 | 13 | -- | -- | - | -- |
|  | 62,537 | 64,882 | 59,108 | 63,825 | 68,551 | \$69,789 | -- | -- | -- | -- |
| 45-49 | 294 | 39 | 123 | 61 | 31 | 34 | 5 | 1 | - | -- |
|  | 66,162 | 76,127 | 60,044 | 63,437 | 79,584 | 68,468 | \$72,568 | \$69,986 | - | -- |
| 50-54 | 306 | 31 | 92 | 59 | 36 | 44 | 26 | 17 | 1 | -- |
|  | 65,957 | 74,028 | 61,599 | 61,024 | 71,058 | 68,644 | 67,692 | 71,423 | \$67,943 | -- |
| 55-59 | 277 | 23 | 71 | 40 | 30 | 34 | 29 | 44 | 6 | -- |
|  | 63,822 | 64,242 | 62,645 | 59,195 | 65,634 | 66,160 | 63,237 | 64,323 | 83,820 | -- |
| 60-64 | 172 | 13 | 48 | 33 | 23 | 28 | 9 | 12 | 6 | -- |
|  | 66,118 | 90,899 | 68,671 | 57,097 | 66,240 | 64,433 | 59,855 | 60,608 | 69,428 | -- |
| 65-69 | 45 | 3 | 15 | 11 | 9 | 4 | -- | 2 | 1 | -- |
|  | 57,783 | 46,377 | 60,231 | 53,108 | 56,738 | 71,143 | -- | 58,528 | 61,197 | -- |
| 70 \& over | 8 | 1 | 5 | 1 | 1 |  | -- | -- | -- | -- |
|  | 52,105 | 43,514 | 54,754 | 47,951 | 51,602 | -- | -- | -- | - | -- |
| Total | 1,639 | 268 | 605 | 300 | 150 | 157 | 69 | 76 | 14 | -- |
|  | \$63,198 | \$64,438 | \$60,360 | \$60,900 | \$69,516 | \$67,475 | \$65,151 | \$65,246 | \$74,902 | -- |

## 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, 2010
By Age and Years of Service
v. Rate Group \#9 - General - TCA

| 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 | 1 | 1 | -- | -- | -- | -- | - | -- | - | -- |
|  | \$38,982 | \$38,982 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 6 | 3 | 3 | -- | -- | -- | - | -- | -- | - |
|  | 51,116 | 52,125 | \$50,106 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 6 | 5 | 1 | -- | -- | -- | - | -- | -- | -- |
|  | 53,746 | 55,611 | 44,422 | -- | -- | -- | -- | -- | -- | -- |
| 35-39 | 10 | 3 | 6 | 1 | -- | -- | - | -- | - | -- |
|  | 75,165 | 79,383 | 51,385 | \$205,188 | -- | -- | - | -- | -- | -- |
| 40-44 | 5 | 3 | 1 | -- | 1 | -- | -- | -- | -- | -- |
|  | 103,449 | 119,754 | 81,751 | -- | \$76,232 | -- | -- | -- | -- | -- |
| 45-49 | 13 | 4 | 6 | 1 | 1 | 1 | - | -- | - | -- |
|  | 95,928 | 57,652 | 104,314 | 88,837 | 106,287 | \$195,444 | -- | -- | -- | -- |
| 50-54 | 15 | 4 | 3 | 7 | 1 | , | - | -- | -- | -- |
|  | 111,082 | 118,101 | 84,022 | 115,144 | 135,752 | -- | -- | -- | -- | -- |
| 55-59 | 7 | 1 | 3 | 1 | 1 | 1 | -- | -- | -- | -- |
|  | 88,095 | 56,513 | 110,101 | 63,592 | 93,298 | 72,962 | -- | -- | -- | -- |
| 60-64 | 10 | 3 | 7 | -- | -- | - - | -- | -- | -- | -- |
|  | 75,254 | 123,603 | 54,533 | -- | -- | -- | -- | -- | - | -- |
| 65-69 | 6 | 1 | 4 | 1 | -- | -- | -- | -- | -- | -- |
|  | 139,235 | 269,690 | 122,099 | 77,322 | -- | -- | - | -- | - | -- |
| 70 \& over | - | -- | -- | -- | - | -- | - | -- | -- | -- |
|  | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 79 | 28 | 34 | 11 | 4 | 2 | -- | -- | -- | -- |
|  | \$89,303 | \$88,244 | \$78,329 | \$112,813 | \$102,892 | \$134,203 | -- | -- | -- | -- |

## 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, 2010
By Age and Years of Service
vi. Rate Group \#10 - General - OCFA - 2.7\% at 55 and $2.0 \%$ at 55

| 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 | 4 | 3 | 1 | -- | -- | -- | -- | -- | -- | -- |
|  | \$45,593 | \$43,704 | \$51,261 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 14 | 11 | 3 | -- | -- | -- | -- | -- | -- | -- |
|  | 62,044 | 64,605 | 52,652 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 22 | 14 | 6 | 2 | -- | -- | -- | -- | -- | -- |
|  | 71,827 | 72,192 | 67,529 | \$82,169 | -- | -- | -- | -- | -- | -- |
| 35-39 | 26 | 10 | 9 | 6 | 1 | -- | -- | -- | -- | -- |
|  | 76,470 | 67,853 | 78,136 | 85,013 | \$96,382 | -- | -- | -- | -- | -- |
| 40-44 | 39 | 7 | 13 | 7 | 8 | 4 | - | -- | - | -- |
|  | 92,741 | 97,819 | 91,661 | 106,055 | 84,439 | \$80,667 | -- | -- | -- | -- |
| 45-49 | 60 | 6 | 9 | 19 | 7 | 14 | 4 | 1 | - | -- |
|  | 87,051 | 95,437 | 61,069 | 88,947 | 82,998 | 98,480 | \$86,547 | \$104,920 | - | -- |
| 50-54 | 33 | 3 | 6 | 8 | 3 | 6 | 6 | 1 | - | -- |
|  | 93,904 | 78,366 | 99,140 | 87,739 | 120,162 | 91,034 | 99,210 | 65,041 | - | -- |
| 55-59 | 28 | 5 | 7 | 5 | 3 | 4 | 3 | -- | 1 | -- |
|  | 96,119 | 106,393 | 92,531 | 94,365 | 97,029 | 80,970 | 104,173 | -- | \$112,328 | -- |
| 60-64 | 16 | 1 | 4 | 3 | 4 | 2 | 1 | 1 | - | -- |
|  | 98,939 | 94,870 | 101,437 | 120,158 | 72,204 | 87,863 | 124,810 | 132,572 | -- | -- |
| 65-69 | 5 | 1 | 2 |  | 1 | 1 | -- | -- | - | -- |
|  | 67,021 | 55,841 | 58,044 | -- | 71,988 | 91,190 | -- | -- | - | - |
| 70 \& over | 2 | -- | -- | 1 | -- | 1 | -- | -- | - | -- |
|  | 47,312 | -- | -- | 31,336 | -- | 63,288 | -- | -- | - | -- |
| Total | 249 | 61 | 60 | 51 | 27 | 32 | 14 | 3 | 1 | -- |
|  | \$85,391 | \$77,149 | \$80,387 | \$91,615 | \$87,602 | \$90,677 | \$98,484 | \$100,844 | \$112,328 | -- |

## 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, 2010
By Age and Years of Service
vii. Rate Group \#11 - General - Cemetery District

| 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 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
|  | -- | -- | - | -- | -- | -- | -- | - | -- | -- |
| 25-29 | 2 | 1 | 1 | -- | -- | -- | -- | - | - | -- |
|  | \$42,075 | \$38,352 | \$45,798 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 3 | 2 | -- | 1 | -- | -- | -- | -- | - | -- |
|  | 42,621 | 41,697 | -- | \$44,469 | -- | -- | -- | -- | -- | -- |
| 35-39 | 1 | -- | -- | 1 | - | -- | -- | - | -- | -- |
|  | 68,203 | -- | -- | 68,203 | -- | -- | -- | -- | -- | -- |
| 40-44 | 4 | 1 | 1 | 1 | - | 1 | -- | -- | -- | -- |
|  | 68,452 | 132,331 | 48,119 | 46,735 | -- | \$46,624 | -- | -- | - | -- |
| 45-49 | 4 | -- | -- | 2 | 1 | 1 | -- | -- | -- | -- |
|  | 55,871 | - | -- | 52,905 | \$70,789 | 46,885 | -- | -- | -- | -- |
| 50-54 | 1 | -- | -- | -- | 1 | -- | - | -- | -- | -- |
|  | 59,590 | -- | -- | -- | 59,590 | -- | -- | -- | -- | -- |
| 55-59 | 4 | -- | -- | -- | 1 | 3 | -- | -- | -- | -- |
|  | 56,851 | -- | -- | -- | 64,891 | 54,171 | - | - | -- | -- |
| 60-64 | 1 | -- | 1 | -- | -- | -- | - | - | -- | -- |
|  | 40,591 | -- | 40,591 | -- | -- | -- | -- | -- | -- | - |
| 65-69 | 1 | -- | -- | -- | -- | -- | 1 | -- | -- | -- |
|  | 54,494 | -- | -- | -- | -- | -- | \$54,494 | - | -- | -- |
| 70 \& over | -- | -- | -- | -- | -- | - | -- | -- | -- | -- |
|  | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 21 | 4 | 3 | 5 | 3 | 5 | 1 | -- | -- | -- |
|  | \$55,219 | \$63,519 | \$44,836 | \$53,044 | \$65,090 | \$51,205 | \$54,494 | -- | -- | -- |

## 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, 2010
By Age and Years of Service
viii. Rate Group \#6 - 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 | 4 | 3 | 1 | -- | -- | -- | -- | -- | -- | -- |
|  | \$45,413 | \$41,886 | \$55,995 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 72 | 50 | 22 | -- | -- | -- | -- | -- | -- | -- |
|  | 55,408 | 52,086 | 62,958 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 211 | 37 | 144 | 30 | -- | -- | -- | -- | -- | -- |
|  | 66,559 | 53,749 | 68,049 | \$75,209 | -- | -- | -- | -- | -- | -- |
| 35-39 | 214 | 17 | 62 | 118 | 17 | -- | -- | -- | -- | -- |
|  | 71,850 | 47,090 | 66,107 | 76,543 | \$84,978 | -- | -- | -- | -- | -- |
| 40-44 | 168 | 6 | 32 | 63 | 55 | 12 | -- | -- | -- | -- |
|  | 73,644 | 58,176 | 66,415 | 72,817 | 78,495 | \$82,761 | -- | -- | -- | -- |
| 45-49 | 100 | 3 | 9 | 27 | 20 | 39 | 2 | -- | -- | -- |
|  | 77,911 | 33,731 | 52,959 | 71,912 | 79,117 | 88,038 | \$127,943 | -- | -- | -- |
| 50-54 | 72 | 3 | 5 | 8 | 15 | 16 | 16 | 9 | -- | -- |
|  | 79,245 | 59,032 | 54,132 | 66,693 | 77,049 | 82,269 | 91,342 | \$87,867 | -- | -- |
| 55-59 | 46 | -- | 4 | 10 | 8 | 13 | 7 | 3 | 1 | -- |
|  | 78,851 | -- | 69,699 | 65,655 | 83,910 | 82,944 | 74,902 | 98,214 | \$123,317 | -- |
| 60-64 | 25 | -- | 4 | 3 | 2 | 9 | 4 | 3 | -- | -- |
|  | 73,647 | -- | 56,306 | 58,793 | 74,463 | 76,837 | 90,810 | 78,629 | -- | -- |
| 65-69 | 1 | -- | -- | -- | -- | -- | 1 | -- | -- | -- |
|  | 79,771 | -- | -- | -- | -- | -- | 79,771 | -- | -- | -- |
| 70 \& over | - | -- | -- | -- | -- | -- | -- | -- | -- | -- |
|  | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 913 | 119 | 283 | 259 | 117 | 89 | 30 | 15 | 1 | -- |
|  | \$71,203 | \$51,652 | \$66,132 | \$74,069 | \$79,659 | \$84,412 | \$89,489 | \$88,089 | \$123,317 | -- |

## 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, 2010
By Age and Years of Service
ix. Rate Group \#7 - Safety - Law Enforcement - 3.0\% at 50 and 3.0\% at 55

| 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 | 31 | 31 | -- | -- | -- | -- | -- | -- | -- | -- |
|  | \$78,049 | \$78,049 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 150 | 119 | 31 | -- | -- | -- | -- | -- | -- | -- |
|  | 83,454 | 81,312 | \$91,676 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 219 | 73 | 100 | 46 | -- | -- | -- | -- | -- | -- |
|  | 90,262 | 82,853 | 92,244 | \$97,710 | -- | -- | -- | -- | -- | -- |
| 35-39 | 324 | 34 | 73 | 173 | 44 | -- | -- | -- | -- | -- |
|  | 97,581 | 89,777 | 92,062 | 100,130 | \$102,750 | -- | -- | -- | -- | -- |
| 40-44 | 410 | 20 | 56 | 119 | 136 | 79 | -- | -- | -- | -- |
|  | 103,938 | 99,738 | 104,283 | 101,942 | 102,940 | \$109,481 | -- | -- | -- | -- |
| 45-49 | 422 | 10 | 26 | 44 | 49 | 200 | 93 | -- | -- | -- |
|  | 112,651 | 106,547 | 107,922 | 106,920 | 108,696 | 113,001 | \$118,671 | -- | -- | -- |
| 50-54 | 198 | 12 | 7 | 20 | 20 | 60 | 70 | 9 | - | - |
|  | 113,267 | 120,868 | 107,749 | 110,768 | 112,442 | 105,717 | 117,077 | \$135,509 | -- | -- |
| 55-59 | 71 | 4 | 8 | 1 | 5 | 25 | 24 | 4 | -- | -- |
|  | 114,484 | 151,185 | 116,826 | 118,177 | 108,502 | 112,823 | 109,358 | 120,786 | -- | -- |
| 60-64 | 30 | 3 | 5 | 4 | 3 | 8 | 1 | 6 | -- | -- |
|  | 117,689 | 151,098 | 109,386 | 113,534 | 115,101 | 120,777 | 100,728 | 110,678 | -- | -- |
| 65-69 | 4 | -- | 2 | 1 | 1 | -- | -- | -- | -- | -- |
|  | 124,985 | -- | 119,693 | 118,177 | 142,377 | -- | -- | -- | -- | -- |
| 70 \& over | -- | -- | -- | -- | -- | - | - | -- | -- | -- |
|  | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 1,859 | 306 | 308 | 408 | 258 | 372 | 188 | 19 | - | -- |
|  | \$102,776 | \$87,468 | \$97,103 | \$101,859 | \$105,139 | \$111,234 | \$116,793 | \$124,568 | -- | -- |

## 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, 2010
By Age and Years of Service
x. Rate Group \#8 - Safety - Fire Authority - 3.0\% at 50 and $3.0 \%$ at 55

| 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 | 16 | 16 | -- | -- | -- | -- | -- | - | - | -- |
|  | \$55,247 | \$55,247 | -- | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 60 | 47 | 13 | -- | -- | -- | -- | -- | -- | -- |
|  | 85,389 | 81,490 | \$99,486 | -- | -- | -- | -- | -- | -- | -- |
| 30-34 | 114 | 68 | 39 | 7 | -- | -- | -- | -- | -- | -- |
|  | 100,889 | 96,794 | 107,912 | \$101,546 | -- | -- | -- | -- | -- | -- |
| 35-39 | 116 | 36 | 42 | 31 | 7 | -- | -- | -- | -- | -- |
|  | 105,686 | 97,358 | 108,002 | 110,023 | \$115,407 | -- | -- | - - | -- | -- |
| 40-44 | 122 | 11 | 29 | 24 | 36 | 22 | -- | -- | -- | -- |
|  | 114,858 | 99,353 | 111,512 | 114,162 | 117,135 | \$124,052 | -- | -- | -- | -- |
| 45-49 | 147 | 2 | 16 | 20 | 34 | $56$ | 18 | 1 | -- | -- |
|  | 117,233 | 95,227 | 108,560 | 111,679 | 114,820 | 122,356 | \$122,345 | \$114,236 | -- | -- |
| 50-54 | 165 | 1 | 5 | 7 | 43 | 33 | 44 | 32 | -- | -- |
|  | 122,705 | 249,958 | 108,628 | 109,426 | 116,383 | 116,050 | 124,746 | 136,384 | -- | -- |
| 55-59 | 62 | -- | 2 | 3 | 10 | 6 | 19 | 20 | 2 | -- |
|  | 123,335 | -- | 118,446 | 98,505 | 124,944 | 115,277 | 129,991 | 123,696 | \$114,760 | -- |
| 60-64 | 13 | -- |  | 3 | 2 | - - | 2 | 6 | , | -- |
|  | 123,571 | -- | -- | 109,974 | 118,286 | -- | 124,591 | 131,791 | -- | -- |
| 65-69 | - | -- | -- | -- | - - | -- | -- | -- | -- | -- |
|  | -- | - | -- | -- | -- | -- | - | -- | -- | -- |
| 70 \& over | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
|  | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total | 815 | 181 | 146 | 95 | 132 | 117 | 83 | 59 | 2 | -- |
|  | \$111,060 | \$90,244 | \$108,143 | \$110,384 | \$116,811 | \$120,533 | \$125,422 | \$131,241 | \$114,760 | -- |

## 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, 2010
By Age and Years of Service
xi. 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 | 310 | 301 | 9 | -- | -- | -- | -- | - | -- | -- |
|  | \$46,871 | \$46,961 | \$43,858 | -- | -- | -- | -- | -- | -- | -- |
| 25-29 | 1,629 | 1,230 | 389 | 10 | -- | -- | -- | -- | -- | -- |
|  | 56,141 | 55,775 | 57,452 | \$50,153 | -- | -- | -- | -- | -- | -- |
| 30-34 | 2,583 | 1,094 | 1,136 | 353 | -- | -- | -- | -- | -- | -- |
|  | 64,907 | 62,845 | 66,734 | 65,421 | -- | -- | -- | -- | -- | -- |
| 35-39 | 3,032 | 743 | 1,011 | 1,026 | 237 | 15 | -- | -- | -- | -- |
|  | 70,790 | 65,047 | 69,140 | 75,535 | \$75,144 | \$73,163 | -- | -- | -- | -- |
| 40-44 | 3,318 | 533 | 780 | 924 | 697 | 381 | 3 | -- | -- | -- |
|  | 76,166 | 68,227 | 72,934 | 77,502 | 81,296 | 81,402 | \$58,591 | -- | -- | -- |
| 45-49 | $3,431$ | $423$ | 630 | 667 | 538 | 873 | 286 | 14 | -- | - |
|  | $79,434$ | 69,023 | 70,439 | 75,465 | 79,492 | 90,069 | 91,038 | \$85,404 | -- | -- |
| 50-54 | 3,129 | 333 | 483 | 533 | 481 | 660 | 437 | 196 | 6 | -- |
|  | 79,183 | 69,771 | 69,553 | 72,866 | 79,178 | 83,608 | 92,815 | 91,499 | \$56,281 | -- |
| 55-59 | 2,246 | 201 | 386 | 397 | 302 | 454 | 272 | 195 | 39 | -- |
|  | 76,699 | 70,253 | 68,981 | 71,888 | 76,076 | 80,881 | 86,326 | 85,136 | 82,078 | -- |
| 60-64 | 1,409 | 127 | 272 | 318 | 213 | 264 | 106 | 78 | 25 | 6 |
|  | 72,661 | 75,684 | 68,536 | 70,073 | 69,576 | 75,084 | 76,653 | 88,207 | 66,597 | \$88,251 |
| 65-69 | 489 | 44 | 97 | 97 | 94 | 92 | 41 | 16 | 6 | 2 |
|  | 67,388 | 73,309 | 73,227 | 62,111 | 61,940 | 68,334 | 70,202 | 72,024 | 53,362 | 69,799 |
| 70 \& over | 166 | 13 | 22 | 35 | 31 | 36 | 16 | 12 | 1 | -- |
|  | 62,339 | 64,467 | 58,930 | 65,496 | 59,826 | 68,071 | 56,730 | 55,532 | 42,146 | -- |
| Total | 21,742 | 5,042 | 5,215 | 4,360 | 2,593 | 2,775 | 1,161 | 511 | 77 | 8 |
|  | \$72,635 | \$62,755 | \$68,453 | \$73,628 | \$77,438 | \$83,316 | \$87,997 | \$86,947 | \$72,285 | \$83,638 |

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

## EXHIBIT C

Reconciliation of Member Data - December 31, 2009 to December 31, 2010

|  | Active <br> Members | Vested Former <br> Members | Pensioners | Disableds | Beneficiaries | Total |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: |
| Number as of December 31, 2009 | 22,633 | 4,094 | 9,322 | 1,274 | 1,647 | 38,970 |
| New members | 404 | 38 | 0 | 0 | 143 | 585 |
| Terminations - with vested rights | $-482^{(1)}$ | 482 | 0 | 0 | 0 | 0 |
| Contributions refunds | $-234^{(2)}$ | -140 | 0 | 0 | 0 | -374 |
| Retirements | -563 | -119 | 682 | 0 | 0 | 0 |
| New disabilities | -23 | -1 | -13 | 37 | 0 | 0 |
| Return to work | 45 | -43 | -2 | 0 | -76 | 0 |
| Deaths | -34 | -2 | -224 | 0 | -366 |  |
| Data adjustments | -4 | -1 | 2 | 1,281 | 1,714 | 38 |
| Number as of December 31, 2010 | 21,742 | 4,308 | 9,767 | 0 | -3 |  |

${ }^{(1)}$ Includes 174 terminated before January 1, 2010.
${ }^{(2)}$ Includes 5 terminated before January 1, 2010.

## 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, 2010 | Year Ended December 31, 2009 |
| :---: | :---: | :---: |
| Contribution income: |  |  |
| Employer contributions | \$372,437,000 | \$338,387,000 |
| Employee contributions | 177,929,000 | 171,928,000 |
| Discount for prepaid contributions | 3,876,000 | 3,327,000 |
| Transfer from County Investment Account | 11,000,000 | 34,900,000 |
| Net contribution income | \$565,242,000 | \$548,542,000 ${ }^{(1)}$ |
| Investment income: |  |  |
| Interest, dividends and other income | \$164,058,000 | \$157,464,000 |
| Recognition of capital appreciation | 328,376,000 | $167,117,000^{(1)}$ |
| Less investment and administrative fees | -80,474,000 | -46,548,000 |
| Net investment income | \$411,960,000 | \$278,033,000 |
| Total income available for benefits | \$977,202,000 | \$826,575,000 |
| Less benefit payments | -\$459,383,000 | -\$421,672,000 |
| Change in reserve for future benefits | \$517,819,000 | \$404,903,000 |

[^5]
## SECTION 3: Supplemental Information for the Orange County Employees Retirement System

## EXHIBIT E

## Summary Statement of Assets

|  | Year Ended December 31, 2010 |  | Year Ended December 31, 2009 |  |
| :---: | :---: | :---: | :---: | :---: |
| Cash equivalents |  | \$303,820,000 |  | \$449,678,000 |
| Accounts receivable: |  |  |  |  |
| Contributions | \$37,180,000 |  | \$19,346,000 |  |
| Investment income | 22,681,000 |  | 21,615,000 |  |
| Securities settlements | 32,851,000 |  | 277,227,000 |  |
| Other | 485,431,000 |  | 468,730,000 |  |
| Total accounts receivable |  | \$578,143,000 |  | \$786,918,000 |
| Investments: |  |  |  |  |
| Fixed income investments | \$2,737,643,000 |  | \$2,281,508,000 |  |
| Equities | 4,168,434,000 |  | 3,658,781,000 |  |
| Real estate | 731,477,000 |  | 603,552,000 |  |
| Venture capital and limited partnership interests | 676,602,000 |  | 596,088,000 |  |
| Security lending collateral | 917,954,000 |  | 1,148,890,000 |  |
| Fixed assets net of accumulated depreciation | 3,207,000 |  | 1,761,000 |  |
| Total investments at market value |  | \$9,235,317,000 |  | \$8,290,580,000 |
| Total assets |  | \$10,117,280,000 |  | \$9,527,176,000 |
| Less accounts payable: |  |  |  |  |
| Securities settlements | -\$643,937,000 |  | -\$733,925,000 |  |
| Security lending liability | -917,954,000 |  | -1,148,890,000 |  |
| All other | -59,478,000 |  | -51,249,000 |  |
| Total accounts payable |  | -\$1,621,369,000 |  | -\$1,934,064,000 |
| Net assets at market value |  | \$8,357,835,000 ${ }^{(1)}$ |  | \$7,464,761,000 ${ }^{(2)(3)}$ |
| Net assets at actuarial value |  | \$8,673,473,000 |  | \$8,155,654,000 |
| Net assets at valuation value |  | \$8,672,592,000 |  | \$8,154,687,000 |

(1) The December 31, 2010 market value excludes $\$ 108,531,000$ in the County Investment Account and \$29,545,000 in the prepaid employer contributions account.
(2) The December 31, 2009 market value excludes $\$ 108,324,000$ in the County Investment Account and \$20,027,000 in the prepaid employer contributions account
${ }^{(3)}$ The estimated (unaudited) market value of assets provided and used in the December 31, 2009 valuation was about $\$ 70$ million higher than the actual market value of assets as of that date.
Note: Results may not total exactly due to rounding.

## 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 These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments.

Assets

| 1. Total valuation value of assets | \$8,672,592,000 |
| :---: | :---: |
| 2. Present value of future contributions by members | 1,405,705,000 |
| 3. Present value of future employer contributions for: |  |
| a. entry age normal cost | 1,586,205,000 |
| b. unfunded actuarial accrued liability | 3,753,281,000 |
| 4. Total current and future assets | \$15,417,783,000 |
| $\underline{\text { Liabilities }}$ |  |
| 5. Present value of retirement allowance payable to present retired members | \$5,834,680,000 |
| 6. Present value of retirement allowances to be granted to present non-retired members | 9,583,103,000 |
| 7. Total actuarial liabilities | \$15,417,783,000 |

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

| EXHIBIT G |  |
| :---: | :---: |
| Summary of Reported Asset Information as of December 31, 2010 |  |
| Reserves |  |
| Included in Valuation Value of Assets |  |
| Active Members Reserve (Book Value) | \$1,803,940,000 |
| Retired Members Reserve (Book Value) | 5,462,968,000 |
| Employer Advanced Reserve (Book Value) | 1,458,019,000 |
| ERI Contribution Reserve | 3,650,000 |
| STAR COLA Contribution Reserve | 0 |
| Unrealized Appreciation Included in Valuation Value of Assets | -55,985,000 |
| Subtotal: Valuation Value of Assets | \$8,672,592,000 |
| Not Included in Valuation Value of Assets |  |
| RMBR | \$6,000 |
| Unclaimed Member Deposit | 778,000 |
| Medicare Medical Insurance Reserve | 97,000 |
| Total | \$881,000 |
| Subtotal: Actuarial Value of Assets | \$8,673,473,000 |
| Unrecognized Investment Income (Loss) | -315,638,000 |
| Subtotal: Market Value of Assets (Net of County Investment Account and Prepaid Employer Contributions) | \$8,357,835,000 |
| County Investment Account | 108,531,000 |
| Prepaid Employer Contributions | 29,545,000 |
| Total: Gross Market Value of Assets | \$8,495,911,000 |

## 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, 2010

| 1. | Unfunded actuarial accrued liability at beginning of year | $\$ 3,703,891,000$ |
| :--- | :--- | ---: |
| 2. | Total normal cost at middle of year | $389,458,000$ |
| 3. | Actual employer and member contributions | $-565,242,000$ |
| 4. | Interest | $\underline{280,240,000}$ |
| 5. | Expected unfunded actuarial accrued liability | $\$ 3,808,347,000$ |

6. Actuarial (gain)/loss and other changes:
(a) Loss on investment return
\$224,044,000
(b) Gain on lower than expected salary increase
-215,936,000
(c) Other experience (gain) / loss
-63,174,000
(d) Total changes
$-\$ 55,066,000$
7. Unfunded actuarial accrued liability at end of year $\quad \underline{\underline{\$ 3,753,281,000}}$

Note: 6(b) plus 6(c) is equal to the "other experience" gain of \$279,110,000 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 $\$ 195,000$ for 2010 and 2011. 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 <br> Assumptions:

## Normal Cost:

## Actuarial Accrued Liability <br> For Actives:

## Actuarial Accrued Liability

For Pensioners:

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; and
(d) Turnover rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

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

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

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

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

## Unfunded Actuarial Accrued Liability:

## Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:

## Investment Return:

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.

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
\(\left.$$
\begin{array}{cccc}\hline \begin{array}{c}\text { Plan Year } \\
\text { Ended December 31 }\end{array} & \begin{array}{c}\text { Annual Required } \\
\text { Contributions }\end{array} & \$ 227,892,000 & \begin{array}{c}\text { Actual } \\
\text { Contributions }\end{array}{ }^{(\mathbf{1})}\end{array}
$$ \quad \begin{array}{c}Percentage <br>

Contributed\end{array}\right]\)| 2005 | $277,368,000$ | $277,392,000$ | $100.0 \%$ |
| :---: | :---: | :---: | :---: |
| 2006 | $326,736,000$ | $326,736,000$ | $100.0 \%$ |
| 2007 | $359,673,000$ | $360,365,000^{(2)}$ | $100.2 \%$ |
| 2008 | $337,496,000$ | $338,387,000^{(3)}$ | $100.3 \%$ |
| 2009 | $372,437,000$ | $372,437,000$ | $100.0 \%$ |

${ }^{(1)}$ Excludes transfers from County Investment Account. See below.
Plan Year Transfers from County
Ended December 31 Investment Account
$2005 \quad \$ 9,675,000$
$20060^{*}$
20070
$2008 \quad 0$
$2009 \quad 34,900,000$
$2010 \quad 11,000,000$

* Revised based on information provided in 2011 as part of the reallocation of contributions and benefit payments by Rate Group.
${ }^{(2)}$ Includes $\$ 692,000$ in additional contributions made by OCFA towards the reduction of their UAAL.
${ }^{(3)}$ Includes $\$ 891,000$ in additional contributions made by OCFA towards the reduction of their UAAL.

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

## EXHIBIT II

Supplementary Information Required by GASB - Schedule of Funding Progress

| Actuarial Valuation Date December 31 | Valuation Value of Assets (a) | Actuarial Accrued Liability (AAL) <br> (b) | Unfunded/ (Overfunded) AAL (UAAL) <br> (b) - (a) | Funded Ratio <br> (a) I (b) | Covered Payroll <br> (c) | UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | \$5,786,617,000 | \$8,089,627,000 | \$2,303,010,000 | 71.53\% | \$1,276,764,000 | 180.38\% |
| 2006 | 6,466,085,000 | 8,765,045,000 | 2,298,960,000 | 73.77\% | 1,322,952,000 | 173.78\% |
| 2007 | 7,288,900,000 | 9,838,686,000 | 2,549,786,000 | 74.08\% | 1,457,159,000 | 174.98\% |
| 2008 | 7,748,380,000 | 10,860,715,000 | 3,112,335,000 | 71.34\% | 1,569,764,000 | 198.27\% |
| 2009 | 8,154,687,000 | 11,858,578,000 | 3,703,891,000 | 68.77\% | 1,618,491,000 | 228.85\% |
| 2010 | 8,672,592,000 | 12,425,873,000 | 3,753,281,000 | 69.79\% | 1,579,239,000 | 237.66\% |

## EXHIBIT II

## Supplementary Information Required by GASB

| Valuation date | December 31, 2010 |
| :---: | :---: |
| 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 | 24 years closed (declining) amortization of outstanding balance of December 31, 2004 UAAL. The outstanding balance of the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the new UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are also amortized over a 24 -year period, in the December 31, 2010 valuation. Any increases or decreases in UAAL 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 separate 30 -year periods. |
| Asset valuation method | 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. |
| 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 | 12,762 |
| Terminated members entitled to, but not yet <br> receiving benefits | 4,308 |
| Active members | $\underline{21,742}$ |
| Total | 38,812 |

[^6]
## SECTION 4: Reporting Information for the Orange County Employees Retirement System

## EXHIBIT IV

## Actuarial Assumptions and Actuarial 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 |  | Male | Female |
|  | 0.04 | 0.02 | 0.04 | Male | Female |
| 25 | 0.04 | 0.02 | 0.04 | 0.02 |  |
| 30 | 0.07 | 0.04 | 0.06 | 0.02 |  |
| 35 | 0.10 | 0.06 | 0.10 | 0.04 |  |
| 40 | 0.14 | 0.10 | 0.13 | 0.06 |  |
| 45 | 0.20 | 0.16 | 0.19 | 0.09 |  |
| 50 | 0.32 | 0.24 | 0.29 | 0.14 |  |
| 55 | 0.59 | 0.44 | 0.53 | 0.22 |  |
| 60 | 1.13 | 0.86 | 1.00 | 0.39 |  |
| 65 |  |  |  | 0.76 |  |

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

Termination Rates Before Retirement (Continued):

| Age | Rate (\%) <br> Disability |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { General All } \\ \text { Other }{ }^{(1)} \end{gathered}$ | General OCTA ${ }^{(2)}$ | $\begin{gathered} \text { Safety - Law \& } \\ \text { Fire }^{(3)} \end{gathered}$ | Safety Probation ${ }^{(3)}$ |
| 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):

| Years of Service | Rate (\%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | General All Other ${ }^{(1)}$ | General 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 $\text { OCTA }{ }^{(2)}$ | $\begin{gathered} \text { Safety - Law \& } \\ \text { Fire }^{(3)} \end{gathered}$ | 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:

| Rate (\%) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | General - <br> Enhanced | General -Non-Enhanced | $\begin{gathered} \text { Safety - } \\ \text { Law (31664.1) }{ }^{(1)} \end{gathered}$ | $\begin{gathered} \text { Safety - } \\ \text { Law (31664.2) } \end{gathered}$ | $\begin{gathered} \text { Safety - } \\ \text { Fire }(31664.1)^{(1)} \end{gathered}$ | $\begin{gathered} \text { Safety - } \\ \text { Fire }(31664.2)^{(1)} \end{gathered}$ | Safety Probation ${ }^{(1)}$ |
| 50 | 2.5 | 3.0 | 15.0 | 11.5 | 10.0 | 8.0 | 4.0 |
| 51 | 2.5 | 3.0 | 15.0 | 12.0 | 12.0 | 10.0 | 4.0 |
| 52 | 2.5 | 3.0 | 15.0 | 12.7 | 14.0 | 11.0 | 4.0 |
| 53 | 2.5 | 3.0 | 20.0 | 17.9 | 15.0 | 12.0 | 7.0 |
| 54 | 5.0 | 3.0 | 20.0 | 18.8 | 17.0 | 14.0 | 10.0 |
| 55 | 15.0 | 4.0 | 20.0 | 30.7 | 25.0 | 24.0 | 20.0 |
| 56 | 8.0 | 5.0 | 20.0 | 20.0 | 25.0 | 23.0 | 20.0 |
| 57 | 8.0 | 6.0 | 20.0 | 20.0 | 30.0 | 27.0 | 20.0 |
| 58 | 10.0 | 7.0 | 25.0 | 25.0 | 30.0 | 27.0 | 25.0 |
| 59 | 10.0 | 9.0 | 30.0 | 30.0 | 40.0 | 36.0 | 30.0 |
| 60 | 13.0 | 11.0 | 100.0 | 100.0 | 100.0 | 100.0 | 35.0 |
| 61 | 13.0 | 13.0 | 100.0 | 100.0 | 100.0 | 100.0 | 45.0 |
| 62 | 15.0 | 15.0 | 100.0 | 100.0 | 100.0 | 100.0 | 60.0 |
| 63 | 15.0 | 17.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 64 | 20.0 | 19.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 65 | 20.0 | 25.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 66 | 24.0 | 20.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 67 | 24.0 | 20.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 68 | 24.0 | 20.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 69 | 24.0 | 20.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 70 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

\(\left.$$
\begin{array}{ll}\begin{array}{l}\text { Retirement Age and Benefit for } \\
\text { Deferred Vested Members: }\end{array} & \begin{array}{c}\text { For deferred vested members, we make the following retirement age assumptions: } \\
\text { General Age: } \\
\text { Safety Age: }\end{array} \\
& \begin{array}{l}\text { We assume that 30\% of future General and Safety deferred vested members are } \\
\text { reciprocal. For reciprocals, we assume 4.50\% compensation increases per annum. }\end{array} \\
\text { Liability Calculation for Current } \\
\text { Deferred Vested Members: }\end{array}
$$ \begin{array}{l}Liability for a current deferred vested member is calculated based on salary, <br>
service, and eligibility for reciprocal benefit as provided by the Retirement <br>
System. For those members without salary and/or service information, we <br>
assumed a refund of account balance. <br>
1.0 year of service per year of employment. There is no assumption to anticipate <br>

conversion of unused sick leave at retirement.\end{array}\right]\)| Same as those exhibited by members with similar known characteristics. If not |
| :--- |
| specified, members are assumed to be male. |

## Salary Increases:

| Annual Rate of Compensation Increase (\%) |  |  |
| :---: | :---: | :---: |
| Inflation: $3.50 \%$ per year, plus the following merit and <br> promotion increases: <br>  <br> Years of Service |  |  |
| Less than 1 | $8.00 \%$ | Gafety |
| 1 | 7.00 | $10.00 \%$ |
| 2 | 6.00 | 8.00 |
| 3 | 5.00 | 7.00 |
| 4 | 4.00 | 6.00 |
| 5 | 3.00 | 4.00 |
| 6 | 2.00 | 3.00 |
| 7 | 1.75 | 2.00 |
| 8 | 1.50 | 1.75 |
| 9 | 1.25 | 1.50 |
| 10 | 1.25 | 1.25 |
| 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 |
|  |  | 1.00 |

## Annual Payoffs Assumptions:

Actuarial Value of Assets:

Valuation Value of Assets:

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.

## Actuarial Cost Method:

## Changes in Actuarial Assumptions and Methods:

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 24-year period. The outstanding balance of the UAAL established in the December 31, 2009 valuation as a result of including additional premium pay items as pensionable salary and the new UAAL established in the December 31, 2010 valuation as a result of reallocating contributions and benefit payments among Rate Groups are also amortized over a 24-year period, in the December 31, 2010 valuation. 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 separate 30 -year periods.

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.

There have been no changes in actuarial assumptions or methods since the prior valuation.

## 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 <br> (Sanitation District members within Supervisors and Professional unit hired on or after October 1, 2010 are in Plan B) |
| 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. <br> ${ }^{(2)}$ Improvement for management employees is prospective only for service after June 30, 2005. <br> ${ }^{(3)}$ 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 and General OCFA employees effective July 1, 2011) |  |
| Plan M | General members hired before September 21, 1979. |
| Plan N | General members hired on or after September 21, 1979. |

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

$\left.\begin{array}{ll}\text { 1.62\% @ } 65 \text { Plans (Orange County Employees, Orange County Superior Court, Local Agency Formation Commission } \\ \text { and County Managers unit) } \\ \text { County OCEA members and Superior Court members rehired on or after May 7, } \\ \text { 2010, LAFCO members rehired on or after July 1, } 2010 \text { and County Managers } \\ \text { unit members rehired on or after August 17, 2010 and not electing to rejoin Plan I. } \\ \text { County OCEA members and Superior Court members hired on or after May 7, }\end{array}\right]$

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

| Final Compensation for Benefit Determination: |  |  |
| :---: | :---: | :---: |
| Plans A, E, G, I, M, O and Q | Highest consecutive twelve months of compensation earnable. (§31462.1) (FAS1) |  |
| Plans B, F, H, J, N, P and R | Highest consecutive thirty-six months of compensation earnable. (§31462) (FAS3) |  |
| Service: | Years of service. ( |  |
| Service Retirement Eligibility: |  |  |
| General | Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age. (§31672) |  |
| Safety and Probation | 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 |  |  |
|  | Retirement Age | Benefit Formula |
| Plan G (§31676.18) | 50 | (2.00\% x FAS1 x Yrs) |
|  | 55 | (2.50\% x FAS1 x Yrs) |
|  | 60 | (2.50\% x FAS1 x Yrs) |
|  | 62 | (2.62\% x FAS1 x Yrs)* |
|  | 65 | (2.62\% x FAS1 x Yrs)* |
| Plan H (§31676.18) | 50 | (2.00\% x FAS3 x Yrs) |
|  | 55 | (2.50\% x FAS3 x Yrs) |
|  | 60 | (2.50\% x FAS3 x Yrs) |
|  | 62 | (2.50\% x FAS3 x Yrs) |
|  | 65 | (2.50\% x FAS3 x Yrs) |
| * Reflects benefit factors from | s they provide a better | nder 2.5\% @ 55. |

Benefit Formula (continued):

| $2.7 \%$ @ 55 | Retirement Age | Benefit Formula |
| :--- | :---: | :---: |
| Plan I (§31676.19) | 50 | $(2.00 \% \times$ FAS1 x Yrs $)$ |
|  | 55 | $(2.70 \% \times$ FAS1 x Yrs $)$ |
|  | 60 | $(2.70 \% \times$ FAS1 x Yrs $)$ |
| Plan $J(\S 31676.19)$ | 62 | $(2.70 \% \times$ FAS1 x Yrs $)$ |
|  | 65 | $(2.70 \% \times$ FAS1 x Yrs $)$ |
|  | 50 | $(2.70 \% \times$ FAS3 $\times$ Yrs $)$ |
|  | 55 | $(2.70 \% \times$ FAS3 $\times$ Yrs $)$ |
| $(2.70 \% \times$ FAS3 $\times$ Yrs $)$ |  |  |
|  | 60 | $(2.70 \% \times$ FAS3 $\times$ 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 x Yrs) |
|  | 55 | (2.00\% x FAS3 x Yrs) |
|  | 60 | (2.26\% x FAS3 x Yrs) |
|  | 62 | (2.37\% x FAS3 x Yrs) |
|  | 65 | (2.43\% x FAS3 x Yrs)*** |
| ** Reflects benefit factors from Plan A as they provide a better benefit than those under 2.0\% @ 55. |  |  |
| *** Reflects benefit fac | $B$ as they provide a b | e under 2.0\% @ 55. |

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

## Benefit Formula (continued):

| 1.62\% @ 65 | Retirement Age | Benefit Formula |
| :---: | :---: | :---: |
| Plan O (§31676.01) | 50 | (0.79\% x FAS1 x Yrs) |
|  | 55 | (0.99\% x FAS1 x Yrs) |
|  | 60 | (1.28\% x FAS1 x Yrs) |
|  | 62 | (1.39\% x FAS1 x Yrs) |
|  | 65 | (1.62\% x FAS1 x Yrs) |
| Plan P (§31676.01) | 50 | (0.79\% x FAS3 x Yrs) |
|  | 55 | (0.99\% x FAS3 x Yrs) |
|  | 60 | (1.28\% x FAS3 x Yrs) |
|  | 62 | (1.39\% x FAS3 x Yrs) |
|  | 65 | (1.62\% x FAS3 x Yrs) |

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

## Benefit Formula (continued):

All Other General Members
Plan A (§31676.12)
Retirement Age
50

55

60
62
65

50
55
60
62
65

## Benefit Formula

(1.34\% x FAS1 x Yrs)
(1.77\% x FAS1 x Yrs)
(2.34\% x FAS1 x Yrs)
(2.62\% x FAS1 x Yrs)
(2.62\% x FAS1 x Yrs)
(1.18\% x FAS3 x Yrs)
(1.49\% x FAS3 x Yrs)
(1.92\% x FAS3 x Yrs)
(2.09\% x FAS3 x Yrs)
(2.43\% x FAS3 x Yrs)

| Benefit Formula (continued): |  |  |
| :---: | :---: | :---: |
| Safety Plans |  |  |
| 3\% @ 50 | Retirement Age | Benefit Formula |
| Plan E (§31664.1) | 50 | (3.00\% x FAS1 x Yrs) |
|  | 55 | (3.00\% x FAS1 x Yrs) |
|  | 60 | (3.00\% x FAS1 x Yrs) |
| Plan F (§31664.1) | 50 | (3.00\% x FAS3 x Yrs) |
|  | 55 | (3.00\% x FAS3 x Yrs) |
|  | 60 | (3.00\% x FAS3 x Yrs) |
| $\begin{aligned} & 3 \% \text { @ } 55 \\ & \text { Plan Q (§31664.2) } \end{aligned}$ | Retirement Age | Benefit Formula |
|  | 50 | (2.29\% x FAS1 x Yrs) |
|  | 55 | (3.00\% x FAS1 x Yrs) |
|  | 60 | (3.00\% x FAS1 x Yrs) |
| Plan R (§31664.2) | 50 | (2.29\% x FAS3 x Yrs) |
|  | 55 | (3.00\% x FAS3 x Yrs) |
|  | 60 | (3.00\% x FAS3 x Yrs) |

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



| Line-of-Duty Disability: |  |
| :---: | :---: |
| 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 ( $\S 31765.1$, §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. |

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

| Member Contributions: | Please refer to Appendix B 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. |
| Plan $M$ and $O$ |  |
| Basic | Provide for an average annuity payable at age 60 equal to $1 / 120$ of FAS1. (§31621) |
| Cost-of-Living | Provide for 50\% of future Cost-of-Living costs. |
| Plan $N$ and $P$ |  |
| 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. |

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

## Member Contributions (Continued):

## Safety Plans

Plans E and Q
Basic
Provide for an average annuity payable at age 50 equal to $1 / 200$ FAS1. (§31639.5)

Cost-of-Living
Plans F and $R$
Basic

Cost-of-Living
Other Information:
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

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, 2010

| Rate Groups | Date Established | Source | Initial Base | Years Remaining | Remaining Base | Amortization Amount |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General Members |  |  |  |  |  |  |
| Rate Group \#1 - Plans A \& B (non-OCTA, non-OCSD) |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$44,613,000 | 24 | \$48,452,000 | \$3,213,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | (3,774,000) | 10 | $(3,277,000)$ | $(406,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,619,000 | 11 | 2,372,000 | 272,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(4,903,000)$ | 12 | $(4,594,000)$ | $(493,000)$ |
|  | 12/31/2007 | Assumption change | 8,305,000 | 27 | 8,704,000 | 539,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 10,802,000 | 13 | 10,401,000 | 1,049,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 4,691,000 | 24 | 4,740,000 | 314,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 14,681,000 | 14 | 14,442,000 | 1,377,000 |
|  | 12/31/2010 | Reallocation of assets | (9,260,000) | 24 | (9,260,000) | $(614,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | (5,915,000) | 15 | (5,915,000) | $(536,000)$ |
| Subtotal |  |  |  |  | \$66,065,000 | \$4,715,000 |
| Rate Group \#2-2.7\% at 55 and 1.62\% at 65 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$1,303,159,000 | 24 | \$1,415,303,000 | \$93,850,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 85,000,000 | 10 | 73,803,000 | 9,149,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(18,810,000)$ | 11 | $(17,036,000)$ | $(1,956,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | 9,539,000 | 12 | 8,939,000 | 958,000 |
|  | 12/31/2007 | Assumption change | 68,025,000 | 27 | 71,292,000 | 4,956,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 215,870,000 | 13 | 207,859,000 | 20,956,000 |
|  | 12/31/2008 | Assumption change | 106,699,000 | 28 | 110,212,000 | 6,696,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 53,005,000 | 24 | 53,562,000 | 3,552,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 193,173,000 | 14 | 190,028,000 | 18,118,000 |
|  | 12/31/2010 | Reallocation of assets | 69,988,000 | 24 | 69,988,000 | 4,641,000 |
|  | 12/31/2010 | Actuarial (gain) or loss | 25,794,000 | 15 | 25,794,000 | 2,338,000 |
| Subtotal |  |  |  |  | \$2,209,744,000 | \$162,721,000 |

## 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\% at 55 and 1.64\% at 57 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$67,595,000 | 24 | \$73,412,000 | \$4,868,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 9,864,000 | 10 | 8,565,000 | 1,062,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,158,000 | 11 | 1,954,000 | 224,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(615,000)$ | 12 | $(576,000)$ | $(62,000)$ |
|  | 12/31/2007 | Assumption change | 7,781,000 | 27 | 8,155,000 | 505,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 8,401,000 | 13 | 8,089,000 | 816,000 |
|  | 12/31/2008 | Assumption change | 6,562,000 | 28 | 6,778,000 | 412,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 8,458,000 | 24 | 8,547,000 | 567,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 8,728,000 | 14 | 8,586,000 | 819,000 |
|  | 12/31/2010 | Reallocation of assets | $(4,134,000)$ | 24 | $(4,134,000)$ | $(274,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | 15,234,000 | 15 | 15,234,000 | 1,381,000 |
| Subtotal |  |  |  |  | \$134,610,000 | \$10,318,000 |
| Rate Group \#5 - OCTA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$70,302,000 | 24 | \$76,352,000 | \$5,063,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,340,000 | 10 | 1,163,000 | 144,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(5,778,000)$ | 11 | (5,233,000) | $(601,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | $(12,467,000)$ | 12 | $(11,682,000)$ | $(1,253,000)$ |
|  | 12/31/2007 | Assumption change | 11,504,000 | 27 | 12,057,000 | 747,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 24,594,000 | 13 | 23,681,000 | 2,387,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 26,400,000 | 24 | 26,677,000 | 1,769,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 22,306,000 | 14 | 21,943,000 | 2,092,000 |
|  | 12/31/2010 | Reallocation of assets | 95,000 | 24 | 95,000 | 6,000 |
|  | 12/31/2010 | Actuarial (gain) or loss | $(2,073,000)$ | 15 | $(2,073,000)$ | $(188,000)$ |
| Subtotal |  |  |  |  | \$142,980,000 | \$10,166,000 |

## 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 \#9 - TCA |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$6,061,000 | 24 | \$6,583,000 | \$437,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | $(250,000)$ | 10 | $(217,000)$ | $(27,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | $(319,000)$ | 11 | $(289,000)$ | $(33,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | $(149,000)$ | 12 | $(140,000)$ | $(15,000)$ |
|  | 12/31/2007 | Assumption change | 312,000 | 27 | 327,000 | 20,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 578,000 | 13 | 557,000 | 56,000 |
|  | 12/31/2008 | Assumption change | 172,000 | 28 | 178,000 | 11,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 697,000 | 24 | 704,000 | 47,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 1,071,000 | 14 | 1,054,000 | 100,000 |
|  | 12/31/2010 | Reallocation of assets | 436,000 | 24 | 436,000 | 29,000 |
|  | 12/31/2010 | Actuarial (gain) or loss | $(496,000)$ | 15 | $(496,000)$ | $(45,000)$ |
| Subtotal |  |  |  |  | \$8,697,000 | \$580,000 |
| Rate Group \#10-OCFA - $2.7 \%$ at 55 and $2.0 \%$ at 55 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$28,348,000 | 24 | \$30,788,000 | \$2,042,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,849,000 | 10 | 1,605,000 | 199,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 4,362,000 | 11 | 3,951,000 | 454,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(3,010,000)$ | 12 | $(2,821,000)$ | $(302,000)$ |
|  | 12/31/2007 | Assumption change | 2,975,000 | 27 | 3,118,000 | 193,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 1,347,000 | 13 | 1,297,000 | 131,000 |
|  | 12/31/2008 | Assumption change | 2,318,000 | 28 | 2,394,000 | 145,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 2,955,000 | 24 | 2,986,000 | 198,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 3,276,000 | 14 | 3,223,000 | 307,000 |
|  | 12/31/2010 | Reallocation of assets | $(883,000)$ | 24 | $(883,000)$ | $(59,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | 803,000 | 15 | 803,000 | 73,000 |
| Subtotal |  |  |  |  | \$46,461,000 | \$3,381,000 |

## 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 \#11-Cemetery District |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$679,000 | 24 | \$737,000 | \$49,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | $(62,000)$ | 10 | $(54,000)$ | $(7,000)$ |
|  | 12/31/2006 | Actuarial (gain) or loss | 43,000 | 11 | 39,000 | 4,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | 83,000 | 12 | 78,000 | 8,000 |
|  | 12/31/2007 | Assumption change | 25,000 | 27 | 26,000 | 2,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 212,000 | 13 | 204,000 | 21,000 |
|  | 12/31/2008 | Assumption change | 13,000 | 28 | 13,000 | 1,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 9,000 | 24 | 9,000 | 1,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | $(37,000)$ | 14 | $(36,000)$ | $(3,000)$ |
|  | 12/31/2010 | Reallocation of assets | $(97,000)$ | 24 | $(97,000)$ | $(6,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | 110,000 | 15 | 110,000 | 10,000 |
| Subtotal |  |  |  |  | \$1,029,000 | \$80,000 |
| Safety Members |  |  |  |  |  |  |
| Rate Group \#6 - Probation Officers |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$82,839,000 | 24 | \$89,968,000 | \$5,966,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 10,520,000 | 10 | 9,134,000 | 1,132,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | 2,531,000 | 11 | 2,292,000 | 263,000 |
|  | 12/31/2007 | Actuarial (gain) or loss | $(1,866,000)$ | 12 | $(1,749,000)$ | $(188,000)$ |
|  | 12/31/2007 | Assumption change | 12,945,000 | 27 | 13,567,000 | 841,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 13,162,000 | 13 | 12,674,000 | 1,278,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 1,793,000 | 24 | 1,812,000 | 120,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 4,017,000 | 14 | 3,952,000 | 377,000 |
|  | 12/31/2010 | Reallocation of assets | 8,698,000 | 24 | 8,698,000 | 577,000 |
|  | 12/31/2010 | Actuarial (gain) or loss | $(404,000)$ | 15 | $(404,000)$ | $(37,000)$ |
| Subtotal |  |  |  |  | \$139,944,000 | \$10,329,000 |

## 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 - 3.0\% at 50 and 3.0\% at 55 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$409,515,000 | 24 | \$444,756,000 | \$29,492,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 1,092,000 | 10 | 948,000 | 118,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(18,681,000)$ | 11 | $(16,919,000)$ | (1,943,000) |
|  | 12/31/2007 | Actuarial (gain) or loss | $(5,815,000)$ | 12 | $(5,449,000)$ | $(584,000)$ |
|  | 12/31/2007 | Assumption change | 88,601,000 | 27 | 92,857,000 | 5,755,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 94,542,000 | 13 | 91,034,000 | 9,178,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 67,939,000 | 24 | 68,652,000 | 4,552,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 46,476,000 | 14 | 45,719,000 | 4,359,000 |
|  | 12/31/2010 | Reallocation of assets | $(21,907,000)$ | 24 | $(21,907,000)$ | $(1,453,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | 5,638,000 | 15 | 5,638,000 | 511,000 |
| Subtotal |  |  |  |  | \$705,329,000 | \$49,985,000 |
| Rate Group \#8-Fire Authority - 3.0\% at 50 and 3.0\% at 55 |  |  |  |  |  |  |
|  | 12/31/2004 | Restart amortization | \$144,849,000 | 24 | \$157,314,000 | \$10,432,000 |
|  | 12/31/2005 | Actuarial (gain) or loss | 2,796,000 | 10 | 2,428,000 | 301,000 |
|  | 12/31/2006 | Actuarial (gain) or loss | $(4,791,000)$ | 11 | $(4,339,000)$ | $(498,000)$ |
|  | 12/31/2007 | Actuarial (gain) or loss | 2,047,000 | 12 | 1,918,000 | 206,000 |
|  | 12/31/2007 | Assumption change | 36,674,000 | 27 | 38,436,000 | 2,382,000 |
|  | 12/31/2008 | Actuarial (gain) or loss | 44,714,000 | 13 | 43,055,000 | 4,341,000 |
|  | 12/31/2009 | Inclusion of Premium Pay | 79,778,000 | 24 | 80,616,000 | 5,346,000 |
|  | 12/31/2009 | Actuarial (gain) or loss | 27,735,000 | 14 | 27,283,000 | 2,601,000 |
|  | 12/31/2010 | Reallocation of assets | $(42,936,000)$ | 24 | $(42,936,000)$ | $(2,847,000)$ |
|  | 12/31/2010 | Actuarial (gain) or loss | (5,353,000) | 15 | (5,353,000) | $(485,000)$ |
| Subtotal |  |  |  |  | \$298,422,000 | \$21,779,000 |
| Grand Total |  |  |  |  | \$3,753,281,000 | \$274,044,000 |

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

## Appendix B <br> Member Contribution Rates

| General Tier 1 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calculated Under Recommended Assumptions |  |  |  |  |  |  |  |  |
|  | Plan I ( $2.7 \%$ | on-OCFA) | Plan G | 55) | Plan M | @ 55)* | Plan A | CTA) |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 5.98\% | 8.06\% | 5.98\% | 7.97\% | 4.23\% | 5.97\% | 2.54\% | 4.19\% |
| 16 | 5.98\% | 8.06\% | 5.98\% | 7.97\% | 4.23\% | 5.97\% | 2.54\% | 4.19\% |
| 17 | 6.09\% | 8.21\% | 6.09\% | 8.12\% | 4.31\% | 6.08\% | 2.59\% | 4.27\% |
| 18 | 6.21\% | 8.37\% | 6.21\% | 8.28\% | 4.40\% | 6.20\% | 2.64\% | 4.35\% |
| 19 | 6.32\% | 8.52\% | 6.32\% | 8.43\% | 4.48\% | 6.32\% | 2.69\% | 4.43\% |
| 20 | 6.44\% | 8.69\% | 6.44\% | 8.59\% | 4.57\% | 6.44\% | 2.74\% | 4.52\% |
| 21 | 6.57\% | 8.85\% | 6.57\% | 8.75\% | 4.65\% | 6.56\% | 2.79\% | 4.61\% |
| 22 | 6.69\% | 9.02\% | 6.69\% | 8.92\% | 4.74\% | 6.69\% | 2.85\% | 4.69\% |
| 23 | 6.82\% | 9.19\% | 6.82\% | 9.09\% | 4.83\% | 6.82\% | 2.90\% | 4.78\% |
| 24 | 6.94\% | 9.36\% | 6.94\% | 9.26\% | 4.92\% | 6.94\% | 2.95\% | 4.87\% |
| 25 | 7.07\% | 9.53\% | 7.07\% | 9.43\% | 5.02\% | 7.08\% | 3.01\% | 4.96\% |
| 26 | 7.21\% | 9.71\% | 7.21\% | 9.61\% | 5.11\% | 7.21\% | 3.07\% | 5.06\% |
| 27 | 7.34\% | 9.90\% | 7.34\% | 9.79\% | 5.21\% | 7.34\% | 3.13\% | 5.15\% |
| 28 | 7.48\% | 10.08\% | 7.48\% | 9.97\% | 5.31\% | 7.48\% | 3.18\% | 5.25\% |
| 29 | 7.62\% | 10.27\% | 7.62\% | 10.16\% | 5.41\% | 7.62\% | 3.24\% | 5.35\% |
| 30 | 7.77\% | 10.47\% | 7.77\% | 10.35\% | 5.51\% | 7.77\% | 3.31\% | 5.45\% |
| 31 | 7.91\% | 10.67\% | 7.91\% | 10.55\% | 5.61\% | 7.91\% | 3.37\% | 5.55\% |
| 32 | 8.06\% | 10.87\% | 8.06\% | 10.75\% | 5.72\% | 8.06\% | 3.43\% | 5.66\% |
| 33 | 8.22\% | 11.08\% | 8.22\% | 10.96\% | 5.83\% | 8.21\% | 3.50\% | 5.76\% |
| 34 | 8.38\% | 11.29\% | 8.38\% | 11.17\% | 5.94\% | 8.37\% | 3.56\% | 5.87\% |
| 35 | 8.54\% | 11.51\% | 8.54\% | 11.38\% | 6.05\% | 8.53\% | 3.63\% | 5.98\% |
| 36 | 8.70\% | 11.73\% | 8.70\% | 11.61\% | 6.16\% | 8.69\% | 3.70\% | 6.10\% |
| 37 | 8.88\% | 11.96\% | 8.88\% | 11.83\% | 6.28\% | 8.85\% | 3.77\% | 6.21\% |
| 38 | 9.05\% | 12.20\% | 9.05\% | 12.07\% | 6.40\% | 9.02\% | 3.84\% | 6.33\% |
| 39 | 9.22\% | 12.42\% | 9.22\% | 12.29\% | 6.52\% | 9.20\% | 3.91\% | 6.45\% |


| Calculated Under Recommended Assumptions |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plan I (2.7\% @ 55 Non-OCFA) |  | Plan G (2.5\% @ 55) |  | Plan M (2.0\% @ 55)* |  | Plan A (OCTA) |  |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 40 | 9.39\% | 12.65\% | 9.39\% | 12.51\% | 6.65\% | 9.37\% | 3.99\% | 6.58\% |
| 41 | 9.56\% | 12.89\% | 9.56\% | 12.75\% | 6.78\% | 9.56\% | 4.07\% | 6.71\% |
| 42 | 9.74\% | 13.13\% | 9.74\% | 12.99\% | 6.91\% | 9.75\% | 4.15\% | 6.84\% |
| 43 | 9.94\% | 13.39\% | 9.94\% | 13.25\% | 7.05\% | 9.94\% | 4.23\% | 6.98\% |
| 44 | 10.14\% | 13.67\% | 10.14\% | 13.52\% | 7.18\% | 10.12\% | 4.31\% | 7.10\% |
| 45 | 10.36\% | 13.96\% | 10.36\% | 13.81\% | 7.31\% | 10.30\% | 4.38\% | 7.23\% |
| 46 | 10.57\% | 14.25\% | 10.57\% | 14.10\% | 7.44\% | 10.50\% | 4.47\% | 7.36\% |
| 47 | 10.79\% | 14.54\% | 10.79\% | 14.38\% | 7.59\% | 10.70\% | 4.55\% | 7.51\% |
| 48 | 11.00\% | 14.83\% | 11.00\% | 14.67\% | 7.74\% | 10.91\% | 4.64\% | 7.65\% |
| 49 | 11.15\% | 15.03\% | 11.15\% | 14.87\% | 7.89\% | 11.13\% | 4.74\% | 7.81\% |
| 50 | 11.23\% | 15.14\% | 11.23\% | 14.98\% | 8.07\% | 11.37\% | 4.84\% | 7.98\% |
| 51 | 11.25\% | 15.16\% | 11.25\% | 14.99\% | 8.23\% | 11.61\% | 4.94\% | 8.15\% |
| 52 | 11.19\% | 15.08\% | 11.19\% | 14.92\% | 8.40\% | 11.84\% | 5.04\% | 8.31\% |
| 53 | 11.07\% | 14.92\% | 11.07\% | 14.76\% | 8.57\% | 12.08\% | 5.14\% | 8.48\% |
| 54 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.68\% | 12.24\% | 5.21\% | 8.59\% |
| 55 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.75\% | 12.33\% | 5.25\% | 8.65\% |
| 56 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.76\% | 12.35\% | 5.25\% | 8.66\% |
| 57 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.71\% | 12.29\% | 5.23\% | 8.62\% |
| 58 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.62\% | 12.15\% | 5.17\% | 8.53\% |
| 59 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.47\% | 11.95\% | 5.08\% | 8.38\% |
| 60 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.47\% | 11.95\% | 5.08\% | 8.38\% |
| COLA Loading: |  | 34.78\% |  | 33.32\% |  | 41.01\% |  | 64.90\% |
| Interest: | 7.75\% |  |  |  |  |  |  |  |
| Salary Increases: | See Exhibit | e 65 |  |  |  |  |  |  |
| Mortality: | See Exhibit | e 59 |  |  |  |  |  |  |

General Tier 1 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan A (Non-OCTA) |  | Plan I (2.7\% @ 55 OCFA) |  |
| :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total |
| 15 | 2.54\% | 3.97\% | 5.98\% | 8.10\% |
| 16 | 2.54\% | 3.97\% | 5.98\% | 8.10\% |
| 17 | 2.59\% | 4.04\% | 6.09\% | 8.25\% |
| 18 | 2.64\% | 4.12\% | 6.21\% | 8.41\% |
| 19 | 2.69\% | 4.20\% | 6.32\% | 8.57\% |
| 20 | 2.74\% | 4.28\% | 6.44\% | 8.73\% |
| 21 | 2.79\% | 4.36\% | 6.57\% | 8.89\% |
| 22 | 2.85\% | 4.45\% | 6.69\% | 9.06\% |
| 23 | 2.90\% | 4.53\% | 6.82\% | 9.23\% |
| 24 | 2.95\% | 4.62\% | 6.94\% | 9.41\% |
| 25 | 3.01\% | 4.70\% | 7.07\% | 9.58\% |
| 26 | 3.07\% | 4.79\% | 7.21\% | 9.76\% |
| 27 | 3.13\% | 4.88\% | 7.34\% | 9.95\% |
| 28 | 3.18\% | 4.97\% | 7.48\% | 10.13\% |
| 29 | 3.24\% | 5.07\% | 7.62\% | 10.32\% |
| 30 | 3.31\% | 5.16\% | 7.77\% | 10.52\% |
| 31 | 3.37\% | 5.26\% | 7.91\% | 10.72\% |
| 32 | 3.43\% | 5.36\% | 8.06\% | 10.92\% |
| 33 | 3.50\% | 5.46\% | 8.22\% | 11.13\% |
| 34 | 3.56\% | 5.56\% | 8.38\% | 11.34\% |
| 35 | 3.63\% | 5.67\% | 8.54\% | 11.56\% |
| 36 | 3.70\% | 5.78\% | 8.70\% | 11.79\% |
| 37 | 3.77\% | 5.89\% | 8.88\% | 12.02\% |
| 38 | 3.84\% | 6.00\% | 9.05\% | 12.26\% |
| 39 | 3.91\% | 6.11\% | 9.22\% | 12.48\% |
| 40 | 3.99\% | 6.23\% | 9.39\% | 12.71\% |
| 41 | 4.07\% | 6.35\% | 9.56\% | 12.95\% |
| 42 | 4.15\% | 6.48\% | 9.74\% | 13.20\% |

General Tier 1 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  |  |  |
| :---: | :---: | ---: |
|  | Plan A (Non-OCTA) <br> Entry Age <br> Normal |  |
| 43 | $4.23 \%$ | $\underline{\text { Total }}$ |
| 44 | $4.31 \%$ | $6.73 \%$ |
| 45 | $4.38 \%$ | $6.85 \%$ |
| 46 | $4.47 \%$ | $6.98 \%$ |
| 47 | $4.55 \%$ | $7.11 \%$ |
| 48 | $4.64 \%$ | $7.25 \%$ |
| 49 | $4.74 \%$ | $7.40 \%$ |
| 50 | $4.84 \%$ | $7.56 \%$ |
| 51 | $4.94 \%$ | $7.72 \%$ |
| 52 | $5.04 \%$ | $7.87 \%$ |
| 53 | $5.14 \%$ | $8.03 \%$ |
| 54 | $5.21 \%$ | $8.14 \%$ |
| 55 | $5.25 \%$ | $8.20 \%$ |
| 56 | $5.25 \%$ | $8.21 \%$ |
| 57 | $5.23 \%$ | $8.17 \%$ |
| 58 | $5.17 \%$ | $8.08 \%$ |
| 59 | $5.08 \%$ | $7.94 \%$ |
| 60 | $5.08 \%$ | $7.94 \%$ |
|  |  |  |
| COLA Loading: |  | $56.22 \%$ |
|  |  |  |
| Interest: | $7.75 \%$ |  |
| SalaryIncreases: | See Exhibit IV, page 65 |  |
| Mortality: | See Exhibit IV, page 59 |  |

General Tier 2 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan J (2.7\% @ 55 Non-OCFA) |  | Plan H (2.5\% @ 55) |  | Plan N (2.0\% @ 55)* |  | Plan B (OCTA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 5.72\% | 7.71\% | 5.72\% | 7.63\% | 4.05\% | 5.72\% | 4.05\% | 5.63\% |
| 16 | 5.72\% | 7.71\% | 5.72\% | 7.63\% | 4.05\% | 5.72\% | 4.05\% | 5.63\% |
| 17 | 5.83\% | 7.86\% | 5.83\% | 7.78\% | 4.13\% | 5.83\% | 4.13\% | 5.74\% |
| 18 | 5.94\% | 8.01\% | 5.94\% | 7.92\% | 4.21\% | 5.94\% | 4.21\% | 5.85\% |
| 19 | 6.06\% | 8.16\% | 6.06\% | 8.07\% | 4.29\% | 6.05\% | 4.29\% | 5.96\% |
| 20 | 6.17\% | 8.32\% | 6.17\% | 8.23\% | 4.37\% | 6.17\% | 4.37\% | 6.08\% |
| 21 | 6.29\% | 8.47\% | 6.29\% | 8.38\% | 4.46\% | 6.28\% | 4.46\% | 6.19\% |
| 22 | 6.41\% | 8.63\% | 6.41\% | 8.54\% | 4.54\% | 6.40\% | 4.54\% | 6.31\% |
| 23 | 6.53\% | 8.80\% | 6.53\% | 8.70\% | 4.63\% | 6.53\% | 4.63\% | 6.43\% |
| 24 | 6.65\% | 8.96\% | 6.65\% | 8.86\% | 4.72\% | 6.65\% | 4.72\% | 6.55\% |
| 25 | 6.77\% | 9.13\% | 6.77\% | 9.03\% | 4.80\% | 6.78\% | 4.80\% | 6.68\% |
| 26 | 6.90\% | 9.30\% | 6.90\% | 9.20\% | 4.90\% | 6.90\% | 4.90\% | 6.80\% |
| 27 | 7.03\% | 9.48\% | 7.03\% | 9.37\% | 4.99\% | 7.03\% | 4.99\% | 6.93\% |
| 28 | 7.16\% | 9.66\% | 7.16\% | 9.55\% | 5.08\% | 7.17\% | 5.08\% | 7.06\% |
| 29 | 7.30\% | 9.84\% | 7.30\% | 9.73\% | 5.18\% | 7.30\% | 5.18\% | 7.19\% |
| 30 | 7.44\% | 10.02\% | 7.44\% | 9.91\% | 5.27\% | 7.44\% | 5.27\% | 7.33\% |
| 31 | 7.58\% | 10.21\% | 7.58\% | 10.10\% | 5.37\% | 7.58\% | 5.37\% | 7.47\% |
| 32 | 7.72\% | 10.41\% | 7.72\% | 10.29\% | 5.47\% | 7.72\% | 5.47\% | 7.61\% |
| 33 | 7.87\% | 10.61\% | 7.87\% | 10.49\% | 5.58\% | 7.87\% | 5.58\% | 7.75\% |
| 34 | 8.02\% | 10.81\% | 8.02\% | 10.69\% | 5.68\% | 8.01\% | 5.68\% | 7.90\% |
| 35 | 8.18\% | 11.02\% | 8.18\% | 10.90\% | 5.79\% | 8.17\% | 5.79\% | 8.05\% |
| 36 | 8.34\% | 11.23\% | 8.34\% | 11.11\% | 5.90\% | 8.32\% | 5.90\% | 8.20\% |
| 37 | 8.49\% | 11.45\% | 8.49\% | 11.32\% | 6.01\% | 8.48\% | 6.01\% | 8.35\% |
| 38 | 8.65\% | 11.66\% | 8.65\% | 11.53\% | 6.13\% | 8.64\% | 6.13\% | 8.51\% |
| 39 | 8.81\% | 11.87\% | 8.81\% | 11.74\% | 6.24\% | 8.81\% | 6.24\% | 8.68\% |
| 40 | 8.97\% | 12.08\% | 8.97\% | 11.95\% | 6.37\% | 8.98\% | 6.37\% | 8.84\% |
| 41 | 9.13\% | 12.31\% | 9.13\% | 12.18\% | 6.49\% | 9.15\% | 6.49\% | 9.02\% |
| 42 | 9.31\% | 12.54\% | 9.31\% | 12.41\% | 6.61\% | 9.33\% | 6.61\% | 9.19\% |

General Tier 2 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan J (2.7\% @ 55 non-OCFA) |  | Plan H (2.5\% @ 55) |  | Plan N (2.0\% @ 55)* |  | Plan B (OCTA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 43 | 9.49\% | 12.79\% | 9.49\% | 12.65\% | 6.74\% | 9.50\% | 6.74\% | 9.36\% |
| 44 | 9.68\% | 13.05\% | 9.68\% | 12.90\% | 6.86\% | 9.67\% | 6.86\% | 9.53\% |
| 45 | 9.87\% | 13.30\% | 9.87\% | 13.15\% | 6.98\% | 9.84\% | 6.98\% | 9.70\% |
| 46 | 10.05\% | 13.54\% | 10.05\% | 13.40\% | 7.11\% | 10.03\% | 7.11\% | 9.88\% |
| 47 | 10.20\% | 13.75\% | 10.20\% | 13.60\% | 7.25\% | 10.22\% | 7.25\% | 10.07\% |
| 48 | 10.31\% | 13.90\% | 10.31\% | 13.75\% | 7.39\% | 10.42\% | 7.39\% | 10.27\% |
| 49 | 10.36\% | 13.97\% | 10.36\% | 13.82\% | 7.54\% | 10.63\% | 7.54\% | 10.47\% |
| 50 | 10.35\% | 13.95\% | 10.35\% | 13.80\% | 7.68\% | 10.83\% | 7.68\% | 10.67\% |
| 51 | 10.27\% | 13.84\% | 10.27\% | 13.69\% | 7.82\% | 11.03\% | 7.82\% | 10.87\% |
| 52 | 10.13\% | 13.66\% | 10.13\% | 13.51\% | 7.94\% | 11.20\% | 7.94\% | 11.04\% |
| 53 | 10.50\% | 14.15\% | 10.50\% | 14.00\% | 8.03\% | 11.33\% | 8.03\% | 11.16\% |
| 54 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.07\% | 11.38\% | 8.07\% | 11.21\% |
| 55 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.06\% | 11.36\% | 8.06\% | 11.19\% |
| 56 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.00\% | 11.28\% | 8.00\% | 11.11\% |
| 57 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 7.89\% | 11.13\% | 7.89\% | 10.96\% |
| 58 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.17\% | 11.53\% | 8.17\% | 11.36\% |
| 59 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.47\% | 11.95\% | 8.47\% | 11.77\% |
| 60 | 10.88\% | 14.67\% | 10.88\% | 14.51\% | 8.47\% | 11.95\% | 8.47\% | 11.77\% |
| COLA Loading: |  | 34.78\% |  | 33.32\% |  | 41.01\% |  | 38.94\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 65 |
| Mortality: | See Exhibit IV, page 59 |

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


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

|  | Plan B (non-OCTA, non-OCSD) |  | Plan J (2.7\% @ 55 OCFA) |  | Plan P (1.62\% @ 65) |  | Plan B (OCSD) |  | Plan N (OCFA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 4.05\% | 5.42\% | 5.72\% | 7.75\% | 4.05\% | 5.00\% | 4.05\% | 5.54\% | 4.05\% | 5.73\% |
| 16 | 4.05\% | 5.42\% | 5.72\% | 7.75\% | 4.05\% | 5.00\% | 4.05\% | 5.54\% | 4.05\% | 5.73\% |
| 17 | 4.13\% | 5.53\% | 5.83\% | 7.90\% | 4.13\% | 5.10\% | 4.13\% | 5.65\% | 4.13\% | 5.84\% |
| 18 | 4.21\% | 5.63\% | 5.94\% | 8.05\% | 4.21\% | 5.20\% | 4.21\% | 5.76\% | 4.21\% | 5.95\% |
| 19 | 4.29\% | 5.74\% | 6.06\% | 8.20\% | 4.29\% | 5.30\% | 4.29\% | 5.87\% | 4.29\% | 6.07\% |
| 20 | 4.37\% | 5.85\% | 6.17\% | 8.36\% | 4.37\% | 5.40\% | 4.37\% | 5.98\% | 4.37\% | 6.18\% |
| 21 | 4.46\% | 5.96\% | 6.29\% | 8.52\% | 4.46\% | 5.50\% | 4.46\% | 6.09\% | 4.46\% | 6.30\% |
| 22 | 4.54\% | 6.07\% | 6.41\% | 8.68\% | 4.54\% | 5.60\% | 4.54\% | 6.21\% | 4.54\% | 6.42\% |
| 23 | 4.63\% | 6.19\% | 6.53\% | 8.84\% | 4.63\% | 5.71\% | 4.63\% | 6.33\% | 4.63\% | 6.54\% |
| 24 | 4.72\% | 6.31\% | 6.65\% | 9.01\% | 4.72\% | 5.82\% | 4.72\% | 6.45\% | 4.72\% | 6.66\% |
| 25 | 4.80\% | 6.43\% | 6.77\% | 9.18\% | 4.80\% | 5.93\% | 4.80\% | 6.57\% | 4.80\% | 6.79\% |
| 26 | 4.90\% | 6.55\% | 6.90\% | 9.35\% | 4.90\% | 6.04\% | 4.90\% | 6.69\% | 4.90\% | 6.92\% |
| 27 | 4.99\% | 6.67\% | 7.03\% | 9.52\% | 4.99\% | 6.16\% | 4.99\% | 6.82\% | 4.99\% | 7.05\% |
| 28 | 5.08\% | 6.80\% | 7.16\% | 9.70\% | 5.08\% | 6.27\% | 5.08\% | 6.95\% | 5.08\% | 7.18\% |
| 29 | 5.18\% | 6.92\% | 7.30\% | 9.89\% | 5.18\% | 6.39\% | 5.18\% | 7.08\% | 5.18\% | 7.32\% |
| 30 | 5.27\% | 7.05\% | 7.44\% | 10.07\% | 5.27\% | 6.51\% | 5.27\% | 7.21\% | 5.27\% | 7.45\% |
| 31 | 5.37\% | 7.19\% | 7.58\% | 10.26\% | 5.37\% | 6.63\% | 5.37\% | 7.35\% | 5.37\% | 7.59\% |
| 32 | 5.47\% | 7.32\% | 7.72\% | 10.46\% | 5.47\% | 6.76\% | 5.47\% | 7.48\% | 5.47\% | 7.74\% |
| 33 | 5.58\% | 7.46\% | 7.87\% | 10.66\% | 5.58\% | 6.88\% | 5.58\% | 7.62\% | 5.58\% | 7.88\% |
| 34 | 5.68\% | 7.60\% | 8.02\% | 10.86\% | 5.68\% | 7.01\% | 5.68\% | 7.77\% | 5.68\% | 8.03\% |
| 35 | 5.79\% | 7.74\% | 8.18\% | 11.07\% | 5.79\% | 7.15\% | 5.79\% | 7.92\% | 5.79\% | 8.18\% |
| 36 | 5.90\% | 7.89\% | 8.34\% | 11.29\% | 5.90\% | 7.28\% | 5.90\% | 8.06\% | 5.90\% | 8.34\% |
| 37 | 6.01\% | 8.04\% | 8.49\% | 11.50\% | 6.01\% | 7.42\% | 6.01\% | 8.22\% | 6.01\% | 8.50\% |
| 38 | 6.13\% | 8.19\% | 8.65\% | 11.72\% | 6.13\% | 7.56\% | 6.13\% | 8.38\% | 6.13\% | 8.66\% |
| 39 | 6.24\% | 8.35\% | 8.81\% | 11.93\% | 6.24\% | 7.71\% | 6.24\% | 8.54\% | 6.24\% | 8.83\% |
| 40 | 6.37\% | 8.51\% | 8.97\% | 12.14\% | 6.37\% | 7.86\% | 6.37\% | 8.70\% | 6.37\% | 9.00\% |
| 41 | 6.49\% | 8.68\% | 9.13\% | 12.37\% | 6.49\% | 8.01\% | 6.49\% | 8.87\% | 6.49\% | 9.17\% |
| 42 | 6.61\% | 8.84\% | 9.31\% | 12.61\% | 6.61\% | 8.16\% | 6.61\% | 9.04\% | 6.61\% | 9.35\% |

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

General Tier 2 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan B (non-OCTA, non-OCSD) |  | Plan J (2.7\% @ 55 OCFA) |  | Plan P (1.62\% @ 65) |  | Plan B (OCSD) |  | Plan N (OCFA) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Normal | Normal | Total | Normal | Total | Normal | Total |
| 43 | 6.74\% | 9.01\% | 9.49\% | 12.86\% | 6.74\% | 8.31\% | 6.74\% | 9.21\% | 6.74\% | 9.52\% |
| 44 | 6.86\% | 9.17\% | 9.68\% | 13.11\% | 6.86\% | 8.46\% | 6.86\% | 9.37\% | 6.86\% | 9.69\% |
| 45 | 6.98\% | 9.34\% | 9.87\% | 13.36\% | 6.98\% | 8.62\% | 6.98\% | 9.54\% | 6.98\% | 9.87\% |
| 46 | 7.11\% | 9.51\% | 10.05\% | 13.61\% | 7.11\% | 8.78\% | 7.11\% | 9.72\% | 7.11\% | 10.05\% |
| 47 | 7.25\% | 9.69\% | 10.20\% | 13.82\% | 7.25\% | 8.94\% | 7.25\% | 9.91\% | 7.25\% | 10.24\% |
| 48 | 7.39\% | 9.88\% | 10.31\% | 13.97\% | 7.39\% | 9.12\% | 7.39\% | 10.10\% | 7.39\% | 10.44\% |
| 49 | 7.54\% | 10.08\% | 10.36\% | 14.04\% | 7.54\% | 9.30\% | 7.54\% | 10.30\% | 7.54\% | 10.65\% |
| 50 | 7.68\% | 10.27\% | 10.35\% | 14.02\% | 7.68\% | 9.48\% | 7.68\% | 10.50\% | 7.68\% | 10.86\% |
| 51 | 7.82\% | 10.46\% | 10.27\% | 13.91\% | 7.82\% | 9.65\% | 7.82\% | 10.69\% | 7.82\% | 11.06\% |
| 52 | 7.94\% | 10.62\% | 10.13\% | 13.73\% | 7.94\% | 9.80\% | 7.94\% | 10.86\% | 7.94\% | 11.23\% |
| 53 | 8.03\% | 10.74\% | 10.50\% | 14.22\% | 8.03\% | 9.91\% | 8.03\% | 10.98\% | 8.03\% | 11.35\% |
| 54 | 8.07\% | 10.79\% | 10.88\% | 14.74\% | 8.07\% | 9.96\% | 8.07\% | 11.03\% | 8.07\% | 11.40\% |
| 55 | 8.06\% | 10.77\% | 10.88\% | 14.74\% | 8.06\% | 9.94\% | 8.06\% | 11.01\% | 8.06\% | 11.39\% |
| 56 | 8.00\% | 10.69\% | 10.88\% | 14.74\% | 8.00\% | 9.87\% | 8.00\% | 10.93\% | 8.00\% | 11.30\% |
| 57 | 7.89\% | 10.55\% | 10.88\% | 14.74\% | 7.89\% | 9.74\% | 7.89\% | 10.79\% | 7.89\% | 11.15\% |
| 58 | 8.17\% | 10.93\% | 10.88\% | 14.74\% | 8.17\% | 10.09\% | 8.17\% | 11.17\% | 8.17\% | 11.55\% |
| 59 | 8.47\% | 11.33\% | 10.88\% | 14.74\% | 8.47\% | 10.46\% | 8.47\% | 11.58\% | 8.47\% | 11.98\% |
| 60 | 8.47\% | 11.33\% | 10.88\% | 14.74\% | 8.47\% | 10.46\% | 8.47\% | 11.58\% | 8.47\% | 11.98\% |
| COLA Loading: |  | 33.73\% |  | 35.45\% |  | 23.41\% |  | 36.69\% |  | 41.33\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 65 |
| Mortality: | See Exhibit IV, page 59 |

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

Safety Tier 1 Members' Contribution Rates from the December 31, 2010 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 |
| 15 | 3.44\% | 7.81\% | 3.44\% | 7.85\% | 3.44\% | 7.33\% |
| 16 | 3.44\% | 7.81\% | 3.44\% | 7.85\% | 3.44\% | 7.33\% |
| 17 | 3.50\% | 7.96\% | 3.50\% | 7.99\% | 3.50\% | 7.47\% |
| 18 | 3.57\% | 8.11\% | 3.57\% | 8.14\% | 3.57\% | 7.61\% |
| 19 | 3.63\% | 8.26\% | 3.63\% | 8.30\% | 3.63\% | 7.75\% |
| 20 | 3.70\% | 8.42\% | 3.70\% | 8.45\% | 3.70\% | 7.90\% |
| 21 | 3.77\% | 8.57\% | 3.77\% | 8.61\% | 3.77\% | 8.04\% |
| 22 | 3.84\% | 8.74\% | 3.84\% | 8.77\% | 3.84\% | 8.20\% |
| 23 | 3.91\% | 8.90\% | 3.91\% | 8.94\% | 3.91\% | 8.35\% |
| 24 | 3.99\% | 9.07\% | 3.99\% | 9.10\% | 3.99\% | 8.51\% |
| 25 | 4.06\% | 9.24\% | 4.06\% | 9.27\% | 4.06\% | 8.67\% |
| 26 | 4.14\% | 9.41\% | 4.14\% | 9.45\% | 4.14\% | 8.83\% |
| 27 | 4.21\% | 9.59\% | 4.21\% | 9.63\% | 4.21\% | 8.99\% |
| 28 | 4.29\% | 9.77\% | 4.29\% | 9.81\% | 4.29\% | 9.17\% |
| 29 | 4.38\% | 9.96\% | 4.38\% | 10.00\% | 4.38\% | 9.34\% |
| 30 | 4.46\% | 10.15\% | 4.46\% | 10.19\% | 4.46\% | 9.52\% |
| 31 | 4.55\% | 10.34\% | 4.55\% | 10.38\% | 4.55\% | 9.70\% |
| 32 | 4.64\% | 10.54\% | 4.64\% | 10.59\% | 4.64\% | 9.89\% |
| 33 | 4.73\% | 10.75\% | 4.73\% | 10.80\% | 4.73\% | 10.09\% |
| 34 | 4.82\% | 10.97\% | 4.82\% | 11.01\% | 4.82\% | 10.29\% |
| 35 | 4.92\% | 11.19\% | 4.92\% | 11.24\% | 4.92\% | 10.50\% |
| 36 | 5.02\% | 11.43\% | 5.02\% | 11.47\% | 5.02\% | 10.72\% |
| 37 | 5.13\% | 11.67\% | 5.13\% | 11.72\% | 5.13\% | 10.95\% |
| 38 | 5.25\% | 11.94\% | 5.25\% | 11.99\% | 5.25\% | 11.20\% |
| 39 | 5.37\% | 12.22\% | 5.37\% | 12.27\% | 5.37\% | 11.46\% |
| 40 | 5.49\% | 12.49\% | 5.49\% | 12.54\% | 5.49\% | 11.72\% |
| 41 | 5.61\% | 12.76\% | 5.61\% | 12.82\% | 5.61\% | 11.98\% |
| 42 | 5.73\% | 13.04\% | 5.73\% | 13.09\% | 5.73\% | 12.23\% |

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

Safety Tier 1 Members' Contribution Rates from the December 31, 2010 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 |
| 43 | 5.86\% | 13.32\% | 5.86\% | 13.38\% | 5.86\% | 12.50\% |
| 44 | 5.95\% | 13.53\% | 5.95\% | 13.59\% | 5.95\% | 12.70\% |
| 45 | 6.01\% | 13.68\% | 6.01\% | 13.73\% | 6.01\% | 12.83\% |
| 46 | 6.00\% | 13.64\% | 6.00\% | 13.69\% | 6.00\% | 12.80\% |
| 47 | 5.94\% | 13.52\% | 5.94\% | 13.58\% | 5.94\% | 12.69\% |
| 48 | 5.86\% | 13.34\% | 5.86\% | 13.39\% | 5.86\% | 12.51\% |
| 49 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 50 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 51 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 52 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 53 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 54 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 55 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 56 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 57 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 58 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 59 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| 60 | 5.71\% | 13.00\% | 5.71\% | 13.05\% | 5.71\% | 12.19\% |
| COLA Loading: |  | 127.48\% |  | 128.40\% |  | 113.42\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 65 |
| Mortality: | See Exhibit IV, page 59 |


| Safety Tier 2 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll) Calculated Under Recommended Assumptions |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plan F (Fire Authority) |  | Plan F (Law Enforcement) |  | Plan F (Probation) |  | Plan R (Fire Authority) |  | Plan R (Law Enforcement) |  |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 15 | 6.58\% | 10.77\% | 6.58\% | 10.80\% | 6.58\% | 10.31\% | 6.58\% | 10.20\% | 6.58\% | 10.27\% |
| 16 | 6.58\% | 10.77\% | 6.58\% | 10.80\% | 6.58\% | 10.31\% | 6.58\% | 10.20\% | 6.58\% | 10.27\% |
| 17 | 6.70\% | 10.97\% | 6.70\% | 11.01\% | 6.70\% | 10.50\% | 6.70\% | 10.39\% | 6.70\% | 10.46\% |
| 18 | 6.83\% | 11.18\% | 6.83\% | 11.21\% | 6.83\% | 10.70\% | 6.83\% | 10.58\% | 6.83\% | 10.65\% |
| 19 | 6.96\% | 11.39\% | 6.96\% | 11.42\% | 6.96\% | 10.90\% | 6.96\% | 10.78\% | 6.96\% | 10.85\% |
| 20 | 7.09\% | 11.60\% | 7.09\% | 11.64\% | 7.09\% | 11.11\% | 7.09\% | 10.98\% | 7.09\% | 11.06\% |
| 21 | 7.22\% | 11.82\% | 7.22\% | 11.85\% | 7.22\% | 11.31\% | 7.22\% | 11.19\% | 7.22\% | 11.26\% |
| 22 | 7.35\% | 12.04\% | 7.35\% | 12.08\% | 7.35\% | 11.52\% | 7.35\% | 11.40\% | 7.35\% | 11.48\% |
| 23 | 7.49\% | 12.27\% | 7.49\% | 12.30\% | 7.49\% | 11.74\% | 7.49\% | 11.61\% | 7.49\% | 11.69\% |
| 24 | 7.63\% | 12.50\% | 7.63\% | 12.53\% | 7.63\% | 11.96\% | 7.63\% | 11.83\% | 7.63\% | 11.91\% |
| 25 | 7.78\% | 12.73\% | 7.78\% | 12.77\% | 7.78\% | 12.19\% | 7.78\% | 12.05\% | 7.78\% | 12.13\% |
| 26 | 7.92\% | 12.97\% | 7.92\% | 13.01\% | 7.92\% | 12.41\% | 7.92\% | 12.28\% | 7.92\% | 12.36\% |
| 27 | 8.07\% | 13.22\% | 8.07\% | 13.25\% | 8.07\% | 12.65\% | 8.07\% | 12.51\% | 8.07\% | 12.59\% |
| 28 | 8.22\% | 13.47\% | 8.22\% | 13.50\% | 8.22\% | 12.89\% | 8.22\% | 12.75\% | 8.22\% | 12.83\% |
| 29 | 8.38\% | 13.72\% | 8.38\% | 13.76\% | 8.38\% | 13.13\% | 8.38\% | 12.99\% | 8.38\% | 13.08\% |
| 30 | 8.54\% | 13.99\% | 8.54\% | 14.03\% | 8.54\% | 13.39\% | 8.54\% | 13.24\% | 8.54\% | 13.33\% |
| 31 | 8.71\% | 14.26\% | 8.71\% | 14.30\% | 8.71\% | 13.64\% | 8.71\% | 13.49\% | 8.71\% | 13.59\% |
| 32 | 8.88\% | 14.53\% | 8.88\% | 14.58\% | 8.88\% | 13.91\% | 8.88\% | 13.76\% | 8.88\% | 13.85\% |
| 33 | 9.05\% | 14.82\% | 9.05\% | 14.86\% | 9.05\% | 14.19\% | 9.05\% | 14.03\% | 9.05\% | 14.13\% |
| 34 | 9.23\% | 15.12\% | 9.23\% | 15.16\% | 9.23\% | 14.47\% | 9.23\% | 14.31\% | 9.23\% | 14.41\% |
| 35 | 9.42\% | 15.43\% | 9.42\% | 15.47\% | 9.42\% | 14.77\% | 9.42\% | 14.60\% | 9.42\% | 14.70\% |
| 36 | 9.62\% | 15.75\% | 9.62\% | 15.80\% | 9.62\% | 15.08\% | 9.62\% | 14.91\% | 9.62\% | 15.01\% |
| 37 | 9.83\% | 16.09\% | 9.83\% | 16.14\% | 9.83\% | 15.40\% | 9.83\% | 15.23\% | 9.83\% | 15.34\% |
| 38 | 10.04\% | 16.44\% | 10.04\% | 16.49\% | 10.04\% | 15.74\% | 10.04\% | 15.56\% | 10.04\% | 15.67\% |
| 39 | 10.25\% | 16.79\% | 10.25\% | 16.84\% | 10.25\% | 16.07\% | 10.25\% | 15.89\% | 10.25\% | 16.00\% |
| 40 | 10.46\% | 17.13\% | 10.46\% | 17.18\% | 10.46\% | 16.39\% | 10.46\% | 16.21\% | 10.46\% | 16.32\% |
| 41 | 10.66\% | 17.46\% | 10.66\% | 17.51\% | 10.66\% | 16.71\% | 10.66\% | 16.53\% | 10.66\% | 16.64\% |
| 42 | 10.84\% | 17.76\% | 10.84\% | 17.81\% | 10.84\% | 16.99\% | 10.84\% | 16.80\% | 10.84\% | 16.92\% |
| 43 | 10.98\% | 17.98\% | 10.98\% | 18.03\% | 10.98\% | 17.21\% | 10.98\% | 17.02\% | 10.98\% | 17.13\% |
| 44 | 11.03\% | 18.05\% | 11.03\% | 18.10\% | 11.03\% | 17.28\% | 11.03\% | 17.09\% | 11.03\% | 17.20\% |

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Safety Tier 2 Members' Contribution Rates from the December 31, 2010 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

|  | Plan F (Fire Authority) |  | Plan F (Law Enforcement) |  | Plan F (Probation) |  | Plan R (Fire Authority) |  | Plan R (Law Enforcement) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entry Age | Normal | Total | Normal | Total | Normal | Total | Normal | Total | Normal | Total |
| 45 | 10.98\% | 17.98\% | 10.98\% | 18.03\% | 10.98\% | 17.21\% | 10.98\% | 17.02\% | 10.98\% | 17.14\% |
| 46 | 10.86\% | 17.78\% | 10.86\% | 17.83\% | 10.86\% | 17.02\% | 10.86\% | 16.83\% | 10.86\% | 16.94\% |
| 47 | 10.65\% | 17.44\% | 10.65\% | 17.48\% | 10.65\% | 16.69\% | 10.65\% | 16.50\% | 10.65\% | 16.62\% |
| 48 | 11.03\% | 18.06\% | 11.03\% | 18.11\% | 11.03\% | 17.28\% | 11.03\% | 17.09\% | 11.03\% | 17.21\% |
| 49 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 50 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 51 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 52 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 53 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 54 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 55 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 56 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 57 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 58 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 59 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| 60 | 11.43\% | 18.71\% | 11.43\% | 18.76\% | 11.43\% | 17.91\% | 11.43\% | 17.71\% | 11.43\% | 17.83\% |
| COLA Loading: |  | 63.74\% |  | 64.20\% |  | 56.71\% |  | 54.97\% |  | 56.04\% |


| Interest: | $7.75 \%$ |
| :--- | :--- |
| Salary Increases: | See Exhibit IV, page 65 |
| Mortality: | See Exhibit IV, page 59 |

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## Appendix C <br> Funded Percentages

The funded percentages by rate group provided for informational purposes only are as follows:

|  | Funded Percentage |  |
| :---: | :---: | :---: |
|  | December 31, 2010 Valuation | December 31, 2009 Valuation |
| General Members |  |  |
| Rate Group \#1 - Plans A and B (non-OCTA, non-OCSD) | 82.28\% | 78.00\% |
| Rate Group \#2 - Plans I, J, O and P (2.7\% @ 55 and 1.62\% @ 65 combined) | 68.89\% | 69.06\% |
| Rate Group \#3 - Plans B, G and H (2.5\% @ 55 and 1.64\% @ 57 combined) | 66.98\% | 66.65\% |
| Rate Group \#5 - Plans A and B (OCTA) | 76.26\% | 75.12\% |
| Rate Group \#9 - Plans M and N (TCA - 2.0\% @ 55) | 65.74\% | 63.91\% |
| Rate Group \#10-Plans I, J, M and N (OCFA - 2.7\% @ 55 and 2.0\% @ 55 combined) | 64.38\% | 61.91\% |
| Rate Group \#11-Plans M and N, future service (Cemetery - 2.0\% @ 55) | 81.53\% | 80.36\% |
| Safety Members |  |  |
| Rate Group \#6 - Plans E and F (Probation - 3.0\% @ 50) | 67.52\% | 66.46\% |
| Rate Group \#7 - Plans E, F, Q and R (Law Enforcement - 3.0\% @ 50 and 3.0\% @ 55 combined) | 70.23\% | 68.28\% |
| Rate Group \#8 - Plans E, F, Q and R (Fire Authority - 3.0\% @ 50 and 3.0\% @ 55 combined) | 69.54\% | 62.97\% |

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

## Appendix D

## Reconciliation of Employer Contribution Rates (by Rate Group)

The reconciliation of the employer contribution rates for the General rate groups are as follows:


## Appendix D (Continued)

Reconciliation of Employer Contribution Rates (by Rate Group)

The reconciliation of the employer contribution rates for the Safety rate groups are as follows:

|  | Rate Group |  |  |
| :---: | :---: | :---: | :---: |
|  | \#6 | \#7 | \#8 |
| Recommended Contribution Rate as of December 31, 2009 | 34.07\% | 46.39\% | 48.53\% |
| Effect of investment loss | 1.05\% | 2.04\% | 1.76\% |
| Effect of reallocation of contributions and benefit payments | 0.89\% | -0.76\% | -3.15\% |
| Effect of actual individual salary increases less than expected | -1.54\% | -2.10\% | -1.98\% |
| Effect of growth in total payroll less than expected | 1.41\% | 1.90\% | 1.34\% |
| Effect of other experience (gain)/loss ${ }^{(1)}$ | 0.41\% | -0.02\% | -1.04\% ${ }^{(2)}$ |
| Subtotal | 2.22\% | 1.06\% | -3.07\% |
| Recommended Contribution Rate as of December 31, 2010 | 36.29\% | 47.45\% | 45.46\% |

${ }^{(1)}$ Includes an adjustment to reflect 18-month delay between date of valuation and date of rate implementation.
${ }^{(2)}$ Effect of other experience (gain)/loss includes: $\quad$ Retirement Gain $\quad-0.13 \%$ Retiree Mortality -0.24\%

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[^0]:    ${ }^{(1)}$ Based on December 31, 2010 projected annual compensation.

[^1]:    *Includes terminated members due a refund of member contributions.

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

[^3]:    ${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

[^4]:    ${ }^{(1)}$ Excludes monthly benefits payable from the RMBR and STAR COLA.

[^5]:    ${ }^{(1)}$ Adjusted from the December 31, 2009 valuation to include the discount for prepaid contributions as contribution income instead of investment income.

[^6]:    * See Exhibit IV for these increases, including inflation rate.

