

**LOS ANGELES
COUNTY EMPLOYEES
RETIREMENT ASSOCIATION**

Audit of Valuation Results for 2004

**Submitted by
The Segal Company
April 2005**



THE SEGAL COMPANY
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April 5, 2005

Mr. Richard P. Bendall
Chief, Internal Audit
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 840
Pasadena, California 91101

Re: **Audit of Valuation Results for 2004**

Dear Mr. Bendall:

We are pleased to present the results of this audit of the valuation results for 2004 for the Los Angeles County Employees Retirement Association (LACERA). The purpose of this audit was to verify the calculations done by Milliman and to offer comments on the methodology and the results.

This review was conducted by Paul Angelo, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA, and Amy S. Timmons, a Fellow of the Society of Actuaries, Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA. This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

The assistance of Milliman and LACERA is gratefully acknowledged.

We appreciate the opportunity to be of service to the Board of Investments and we are available to answer any questions you may have on this report.

Sincerely,

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

Amy S. Timmons, FSA, MAAA, EA.
Vice President and Actuary

/hy:jc

cc: Karen I. Steffen, FSA, MAAA, EA

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Executive Summary

This report has been prepared by The Segal Company to present an audit of the June 30, 2004 valuation results for LACERA.

Following a bid process in 1999, The Segal Company was selected to perform audits of the actuarial valuations performed by the retained actuary. This audit report includes an independent reproduction of the detailed valuation results that appear in the June 30, 2004 valuation report prepared by Milliman. This audit was based on actuarial reports, employee data and supplemental information provided by both LACERA and Milliman.

Our audit confirms that the actuarial calculations as of June 30, 2004 are reasonable and based on generally accepted actuarial principles and practices.

Our conclusions and recommendations are summarized as follows:

- Segal's *total present value of future benefits* as of June 30, 2004 is 99% of Milliman's present value.
- Segal's *total accrued liability* as of June 30, 2004 is 100% of Milliman's liability.
- Segal's *total normal cost* as of June 30, 2004 is 101% of Milliman's normal cost.
- A comparison of Segal's present value of future benefits (PVB) to Milliman's present values by plan indicates that the total liabilities of each plan are reasonable.

| <u>Plan</u> | <u>Ratio of Segal's PVB to Milliman's PVB</u> |
|-------------|---|
| General – A | 99% |
| General – B | 98% |
| General – C | 98% |
| General – D | 101% |
| General – E | 94% |
| Safety – A | 100% |
| Safety – B | 99% |

- The dollar amount of Segal's net County normal cost as of June 30, 2004 is 101% of Milliman's net County normal cost. As a percentage of projected payroll, Segal's net County normal cost rate is 100% of Milliman's net County normal cost rate.
- Our comparison of the demographics of the 2004 data provided by LACERA with the valuation data used by Milliman for the June 30, 2004 actuarial valuation indicates that Milliman made relatively few changes to the original data before the valuation was performed. Milliman is valuing deferred vested members (non-Plan E) using three times their member contributions plus one times their member COLA contributions due to the unavailability of the deferred benefit amount for these participants. There were also a number of retiree records with codes indicating that there should be continuing beneficiary benefits upon the member's death. However, these records do not have any beneficiary data such as date of birth. LACERA and Milliman determined that these members have no continuation of benefits upon death. These retiree records should be re-coded by LACERA to correctly reflect no beneficiary benefits.
- We found the actuarial assumptions and the methods used by Milliman to be reasonable and in accordance with generally accepted actuarial standards and principles. The assumptions used in this valuation are those that were recommended in the 2004 Investigation of Experience.
- As in the 2001 audit, our first focus was on matching the core numbers on which the plans' ultimate costs depend: the present values of future benefits. We focused on more detailed analyses of (i) the correct implementation of the actuarial assumptions as determined by the 2004 Investigation of Experience, (ii) the salary data and projected payroll, and (iii) the withdrawal decrement and associated benefits.
- Overall, we have verified that Milliman's calculation of the unfunded actuarial accrued liability and the total County contribution rate as a percentage of payroll are reasonable and consistent with the relevant provisions of the County Employees Retirement Law (CERL) and past practices.
- The staffs at Milliman and LACERA were very knowledgeable, cooperative and helpful in our review.

PURPOSE AND SCOPE OF THE ACTUARIAL AUDIT

Purpose of the Audit

The Segal Company has performed an actuarial audit of LACERA to provide assurance to the Board of Investments that the actuarial calculations as of June 30, 2004 are reasonable, and that the actuarial process was conducted according to generally accepted actuarial principles and practices.

Scope of the Audit

The scope of the audit, as described in LACERA's Actuarial Services Request for Information, includes the following:

- A comparison of the June 30, 2004 data provided by LACERA with the valuation data that was used by Milliman, including the use and appropriateness of assumptions made regarding such data.
- The completion of a parallel valuation as of June 30, 2004 using the assumptions, methodologies and funding method used by Milliman in their performance of the June 30, 2004 valuation.
- The evaluation of the parallel valuation results and a reconciliation with Milliman of any major discrepancies between the results, assumptions and methodology.

RESULTS OF THE AUDIT

Several steps are involved in conducting an actuarial audit of a retirement system. Outlined below are the primary steps we took to comply with the scope of the audit services. Following each step is a description of our observations. Some of these observations are carried forward from prior audits.

Since our analysis was performed concurrently with Milliman's actuarial valuation, we discussed our observations with Milliman while they were preparing the June 30, 2004 valuation. We did not encounter any material differences during this process. We did make some comments on the report text which were incorporated by Milliman.

Step 1: Compare the demographics of the 2004 data provided by LACERA with the valuation data used by Milliman for the June 30, 2004 actuarial valuation.

Results

EXHIBIT-A provides a comparison, by plan, of the number of participants, their average ages, average salaries (active members), average service (active members) and average benefits (pensioners). This exhibit indicates that Milliman did have to make a few adjustments, estimations or corrections to the data received from LACERA. In general though, the data received was "valuation ready."

Observations

(1) Milliman has indicated that the liability for the inactive vested members in General Plans A – D and Safety Plans A and B, has been determined in a manner consistent with the prior actuarial valuation. Item 2 under Step 2, below, describes the methodology used to determine the liability for these members. The estimation of these liabilities could be improved if LACERA provided the deferred benefit amounts or service and salary information for these members.

Step 2: Develop a valuation program based on the relevant provisions of the County Employees Retirement Law (CERL) as summarized in the Summary Plan Descriptions, using the actuarial methods and assumptions outlined in the most recent valuation report, and further defined by Milliman.

Observations

- (1) As mentioned in the prior audit, there remains an uncommon mortality assumption even after the update of assumptions from the 2004 Investigation of Experience. General Plan members have higher probabilities of death than Safety Plan members of the same age both before and after retirement. This trend is uncommon, but the experience of the Plan indicates it is the correct assumption to use.
- (2) The liability for inactive vested members from General Plans A – D and Safety Plans A and B is determined to be three times normal member contributions plus one times the COLA member contributions. We have not determined whether this estimate is reasonable. As noted in item (1) under Step 1, this estimate could be improved by obtaining data on deferred benefit amounts and valuing the liability of the deferred benefit.

Step 3: Run the valuation program with specific individuals (test lives) who illustrate particular benefit provisions and compare results to Milliman's results.

Results

EXHIBIT-B provides a comparison of Segal's and Milliman's test life results for (i) the present value of future benefits, (ii) the present value of future normal costs, and (iii) the accrued liability.

- *Present Value of Future Benefits:* This liability represents the current value of the member's projected benefits, recognizing the time value of money (*i.e.*, the investment return assumption), the salary increase assumption and the probabilities of retirement, death, disability and turnover. This value is the cornerstone for the entire valuation as it represents the amount needed to provide all future expected benefit payouts for current members, based on the valuation assumptions.

The ratios of Segal's results to Milliman's results, on a *total present value of future benefits basis*, range from 95% to 100% (for the active test lives) and equal 101% (for the inactive test lives). We believe our results are within an acceptable range of Milliman's results to provide assurance that the significant plan liabilities are properly valued.

- *Present Value of Future Normal Costs and Accrued Liability:* The funding method adopted by LACERA, the Entry Age Normal Actuarial Cost Method, separates the present value of future benefits for active members into two components, the accrued liability and the present value of future normal costs. Simply stated, the Entry Age Normal Actuarial Cost Method determines a level cost as a percentage of pay for each year of service, called the normal cost. The accrued liability is the sum of *past* normal costs (less any expected benefits, and assuming all actuarial assumptions were exactly realized), while the present value of future normal costs represents the current value of *future* normal costs required to fully fund the member's projected benefits before the member is expected to retire.

The method used to separate the present value of projected benefits into its two components can differ somewhat from valuation system to valuation system, even though the underlying funding method used in the systems is the same.

For the active test lives, the ratios of Segal's results to Milliman's range from 96% to 100% for the accrued liability and from 90% to 110% for the present value of future normal costs.

Observations

- (1) The Segal Company's valuation system assumes eligible active members retire at the *beginning* of each plan year (July 1), while the Milliman system assumes retirements occur in the *middle* of the plan year (December 31). Either methodology is acceptable, with each actuarial firm establishing its standard for the assumed timing of decrements. Given the differences in the valuation systems, we would not expect to match Milliman's results exactly.
- (2) The new actuarial assumptions recommended by the 2004 experience analysis were included for the test lives.

Step 4: Run the valuation program with all participant data, compile results, and compare to Milliman's results.

Results

EXHIBIT-C provides a comparison, by Plan, of Segal's results and Milliman's results of (i) the present value of future benefits, (ii) the present value of future normal costs (separated by member and County contributions), (iii) the unfunded accrued liability and (iv) the normal cost for the period from July 1, 2004 – June 30, 2005.

- The ratios of Segal's results to Milliman's results, on a *total present value of future benefits basis*, range from 94% to 101% for active members. For transferred members, the Segal and Milliman valuation systems are allocating the present value of benefits differently so we would reasonably expect minor differences in these values between the plans. For inactive members, the ratios of Segal's results to Milliman's results match almost exactly. In total, our present value of future benefits is 99% of Milliman's present value.
- The present value of future normal costs is allocated between member contributions and County contributions. The timing of decrements (events such as termination, retirement, etc.) impacts this allocation. Since the timing of decrements and the calculations associated with this timing are different between the Segal and Milliman valuation systems, we would expect minor differences in this allocation. The *total* present value of future member contributions determined by Segal is 96% of the amount determined by Milliman. The ratio of Segal's *total* present value of future County contributions to Milliman is 99%
- The accrued liability depends in part on the valuation system's methodology for separating the present value of projected benefits into its two components – the accrued liability and the present value of future normal costs. The unfunded accrued liability is simply the difference between the accrued liability and the actuarial value of assets (please note that we have used the asset values provided to us by Milliman). Therefore, differences in the accrued liabilities due to the variations in the valuation systems impact the unfunded accrued liabilities.

- The *total* normal cost determined by the Segal valuation system is 101% of the *total* normal cost determined by Milliman. The ratio of Segal's net normal cost to Milliman's net normal cost is 101%.

Step 5: Evaluate the valuation results and methodology as presented in the Milliman actuarial valuation report.

Observations

- (1) Due to the changes in assumptions implemented from the 2004 Investigation of Experience, new member contribution rates were calculated. We have verified that Milliman's calculated employee contribution rates are reasonable and consistent with the relevant provisions of the County Employees Retirement Law (CERL) and past practices.
- (2) We did review the Milliman draft actuarial report in detail, and made some comments, mostly regarding text, which were incorporated in the final actuarial report.

EXHIBITA
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
ANALYSIS OF PARTICIPANT DATA

| Active Members | | | | | | |
|-----------------------|---------------------|--------------|-----------------|----------------|----------------|----------------|
| General Members | | Number | Annual Salary | Age | Monthly Salary | Total Service |
| Plan A | LACERA Data | 4,550 | \$311,010,840 | 57.0 | \$5,696 | 31.1 |
| | Milliman Data | 4,551 | \$311,284,356 | 57.0 | \$5,700 | 31.1 |
| | % Difference | 0.02% | 0.09% | 0.00% | 0.07% | 0.00% |
| Plan B | LACERA Data | 425 | \$28,632,120 | 55.1 | \$5,614 | 26.3 |
| | Milliman Data | 425 | \$28,654,572 | 55.1 | \$5,619 | 26.3 |
| | % Difference | 0.00% | 0.08% | 0.00% | 0.09% | 0.00% |
| Plan C | LACERA Data | 321 | \$20,049,240 | 55.1 | \$5,205 | 25.5 |
| | Milliman Data | 321 | \$20,065,032 | 55.0 | \$5,209 | 25.4 |
| | % Difference | 0.00% | 0.08% | (0.18%) | 0.08% | (0.39%) |
| Plan D | LACERA Data | 39,381 | \$2,056,119,960 | 43.3 | \$4,351 | 9.4 |
| | Milliman Data | 39,385 | \$2,058,662,172 | 43.2 | \$4,356 | 9.4 |
| | % Difference | 0.01% | 0.12% | (0.23%) | 0.11% | 0.00% |
| Plan E | LACERA Data | 30,141 | \$1,547,017,800 | 46.7 | \$4,277 | 14.9 |
| | Milliman Data | 30,144 | \$1,548,671,760 | 46.7 | \$4,281 | 15.0 |
| | % Difference | 0.01% | 0.11% | 0.00% | 0.09% | 0.67% |
| Total | LACERA Data | 74,818 | \$3,962,829,960 | 45.6 | \$4,414 | 13.1 |
| | Milliman Data | 74,826 | \$3,967,337,892 | 45.6 | \$4,418 | 13.1 |
| | % Difference | 0.01% | 0.11% | 0.00% | 0.09% | 0.00% |
| Safety Members | | | | | | |
| Plan A | LACERA Data | 898 | \$88,506,840 | 54.2 | \$8,213 | 30.2 |
| | Milliman Data | 898 | \$88,554,432 | 54.1 | \$8,218 | 30.2 |
| | % Difference | 0.00% | 0.05% | (0.18%) | 0.06% | 0.00% |
| Plan B | LACERA Data | 10,511 | \$796,319,640 | 39.5 | \$6,313 | 12.8 |
| | Milliman Data | 10,511 | \$796,872,012 | 39.5 | \$6,318 | 12.8 |
| | % Difference | 0.00% | 0.07% | 0.00% | 0.08% | 0.00% |
| Total | LACERA Data | 11,409 | \$884,826,480 | 40.7 | \$6,463 | 14.2 |
| | Milliman Data | 11,409 | \$885,426,444 | 40.6 | \$6,467 | 14.2 |
| | % Difference | 0.00% | 0.07% | (0.25%) | 0.06% | 0.00% |
| Total | | | | | | |
| | LACERA Data | 86,227 | \$4,847,656,440 | 45.0 | \$4,685 | 13.2 |
| | Milliman Data | 86,235 | \$4,852,764,336 | 44.9 | \$4,689 | 13.2 |
| | % Difference | 0.01% | 0.11% | (0.03%) | 0.09% | 0.00% |

EXHIBIT – A (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
ANALYSIS OF PARTICIPANT DATA

| Pensioners (Retirees, Beneficiaries, and Disableds) | | | | | |
|--|---------------------|---------------|--------------------------|----------------|------------------------|
| General Members | | Number | Annual Allowances | Age | Monthly Benefit |
| Plan A | LACERA Data | 30,846 | \$930,232,723 | 73.5 | \$2,513 |
| | Milliman Data | 30,851 | \$930,759,725 | 73.4 | \$2,514 |
| | % Difference | 0.02% | 0.06% | (0.14%) | 0.04% |
| Plan B | LACERA Data | 441 | \$9,539,250 | 68.7 | \$1,803 |
| | Milliman Data | 442 | \$9,585,842 | 68.7 | \$1,807 |
| | % Difference | 0.23% | 0.49% | 0.00% | 0.22% |
| Plan C | LACERA Data | 314 | \$5,352,857 | 68.6 | \$1,421 |
| | Milliman Data | 314 | \$5,353,194 | 68.5 | \$1,421 |
| | % Difference | 0.00% | 0.01% | (0.15%) | 0.00% |
| Plan D | LACERA Data | 3,432 | \$60,571,334 | 64.0 | \$1,471 |
| | Milliman Data | 3,436 | \$60,694,220 | 63.9 | \$1,472 |
| | % Difference | 0.12% | 0.20% | (0.16%) | 0.07% |
| Plan E | LACERA Data | 4,054 | \$49,376,562 | 68.2 | \$1,015 |
| | Milliman Data | 4,054 | \$49,423,288 | 68.2 | \$1,016 |
| | % Difference | 0.00% | 0.09% | 0.00% | 0.10% |
| Total | LACERA Data | 39,087 | \$1,055,072,726 | 72.0 | \$2,249 |
| | Milliman Data | 39,097 | \$1,055,816,269 | 71.9 | \$2,250 |
| | % Difference | 0.03% | 0.07% | (0.14%) | 0.04% |
| Safety Members | | | | | |
| Plan A | LACERA Data | 8,003 | \$438,212,620 | 67.0 | \$4,563 |
| | Milliman Data | 8,017 | \$439,316,461 | 66.9 | \$4,567 |
| | % Difference | 0.17% | 0.25% | (0.15%) | 0.09% |
| Plan B | LACERA Data | 1,216 | \$39,135,842 | 46.1 | \$2,682 |
| | Milliman Data | 1,218 | \$39,185,674 | 46.1 | \$2,681 |
| | % Difference | 0.16% | 0.13% | 0.00% | (0.04%) |
| Total | LACERA Data | 9,219 | \$477,348,462 | 64.2 | \$4,315 |
| | Milliman Data | 9,235 | \$478,502,135 | 64.2 | \$4,318 |
| | % Difference | 0.17% | 0.24% | 0.00% | 0.07% |
| Total | | | | | |
| | LACERA Data | 48,306 | \$1,532,421,188 | 70.5 | \$2,644 |
| | Milliman Data | 48,332 | \$1,534,318,404 | 70.4 | \$2,645 |
| | % Difference | 0.05% | 0.12% | (0.14%) | 0.04% |

EXHIBIT – A (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
ANALYSIS OF PARTICIPANT DATA

| Inactive Vested Participants | | | |
|-------------------------------------|---------------------|---------------|----------------|
| General Members | | Number | Age |
| Plan A | LACERA Data | 512 | 56.8 |
| | Milliman Data | 521 | 56.9 |
| | % Difference | 1.76% | 0.18% |
| Plan B | LACERA Data | 63 | 53.7 |
| | Milliman Data | 63 | 53.7 |
| | % Difference | 0.00% | 0.00% |
| Plan C | LACERA Data | 32 | 53.4 |
| | Milliman Data | 32 | 53.3 |
| | % Difference | 0.00% | (0.19%) |
| Plan D | LACERA Data | 1,754 | 44.9 |
| | Milliman Data | 1,759 | 44.9 |
| | % Difference | 0.29% | 0.00% |
| Plan E | LACERA Data | 3,870 | 50.5 |
| | Milliman Data | 3,885 | 50.5 |
| | % Difference | 0.39% | 0.00% |
| Total | LACERA Data | 6,231 | 49.5 |
| | Milliman Data | 6,260 | 49.5 |
| | % Difference | 0.47% | 0.00% |
| Safety Members | | | |
| Plan A | LACERA Data | 18 | 55.7 |
| | Milliman Data | 20 | 55.7 |
| | % Difference | 11.11% | 0.00% |
| Plan B | LACERA Data | 279 | 39.4 |
| | Milliman Data | 279 | 39.3 |
| | % Difference | 0.00% | (0.28%) |
| Total | LACERA Data | 297 | 40.4 |
| | Milliman Data | 299 | 40.3 |
| | % Difference | 0.67% | (0.25%) |
| Total | | | |
| | LACERA Data | 6,528 | 49.1 |
| | Milliman Data | 6,559 | 49.2 |
| | % Difference | 0.47% | 0.20% |

EXHIBIT – B
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
TEST LIFE COMPARISON

| ACTIVES | General Plan A | | General Plan A | | Safety Plan A | | General Plan B | | General Plan B | | Safety Plan B | |
|--------------------------------|------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| PVB – Death | \$7,884 | \$7,658 | \$7,101 | \$6,892 | \$3,123 | \$3,129 | \$13,276 | \$13,018 | \$6,366 | \$6,241 | \$4,562 | \$4,462 |
| PVB – Disability | 13,524 | 13,214 | 20,742 | 20,179 | 464,557 | 460,621 | 31,775 | 31,265 | 14,244 | 14,014 | 189,702 | 187,597 |
| PVB – Withdrawal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,510 | 6,957 |
| PVB – Retirement | 383,224 | 376,109 | 736,432 | 716,087 | 838,950 | 827,084 | 1,059,304 | 1,035,887 | 571,268 | 558,226 | 216,890 | 210,200 |
| Total PVB | \$404,632 | \$396,981 | \$764,275 | \$743,158 | \$1,306,630 | \$1,290,834 | \$1,104,355 | \$1,080,170 | \$591,878 | \$578,481 | \$418,664 | \$409,216 |
| PV - Future Normal Costs | \$35,054 | \$36,488 | \$78,169 | \$75,555 | \$47,387 | \$47,462 | \$105,616 | \$116,224 | \$50,191 | \$47,314 | \$273,141 | \$266,271 |
| Actuarial Accrued Liability | \$369,578 | \$360,493 | \$686,106 | \$667,603 | \$1,259,243 | \$1,243,372 | \$998,739 | \$963,946 | \$541,687 | \$531,167 | \$145,523 | \$142,945 |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | | | |
| PVB – Death | | 97% | | 97% | | 100% | | 98% | | 98% | | 98% |
| PVB – Disability | | 98% | | 97% | | 99% | | 98% | | 98% | | 99% |
| PVB - Withdrawal | | N/A | | N/A | | N/A | | N/A | | N/A | | 93% |
| PVB - Retirement | | 98% | | 97% | | 99% | | 98% | | 98% | | 97% |
| Total PVB | | 98% | | 97% | | 99% | | 98% | | 98% | | 98% |
| PV - Future Normal Costs | | 104% | | 97% | | 100% | | 110% | | 94% | | 97% |
| Actuarial Accrued Liability | | 98% | | 97% | | 99% | | 97% | | 98% | | 98% |

| INACTIVES | Retiree General Plan A | | Retiree General Plan A | | Retiree Safety Plan A | | Beneficiary General Plan A | | Beneficiary General Plan A | | Beneficiary General Plan A | |
|--------------------------------|------------------------|------------------|------------------------|------------------|-----------------------|--------------------|----------------------------|------------------|----------------------------|------------------|----------------------------|------------------|
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Total PVB | \$206,574 | \$208,089 | \$623,783 | \$629,747 | \$1,094,823 | \$1,102,983 | \$305,329 | \$307,318 | \$99,801 | \$100,521 | \$164,197 | \$165,553 |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | | | |
| | | 101% | | 101% | | 101% | | 101% | | 101% | | 101% |

EXHIBIT – B (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
TEST LIFE COMPARISON

| ACTIVES | Safety Plan B | | General Plan C | | General Plan D | | General Plan D | | General Plan E | |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|------------------|------------------|
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| PVB – Death | \$5,863 | \$5,856 | \$6,808 | \$6,622 | \$17,169 | \$17,026 | \$2,773 | \$2,642 | \$0 | \$0 |
| PVB – Disability | 288,933 | 285,186 | 10,678 | 10,618 | 27,052 | 27,324 | 8,037 | 7,823 | 0 | 0 |
| PVB – Withdrawal | 0 | 0 | 0 | 0 | 5,210 | 4,866 | 8,184 | 7,308 | 9,101 | 9,273 |
| PVB – Retirement | 416,643 | 408,083 | 437,105 | 427,898 | 294,776 | 295,433 | 70,802 | 67,915 | 93,084 | 93,165 |
| Total PVB | \$711,439 | \$699,125 | \$454,591 | \$445,138 | \$344,207 | \$344,649 | \$89,796 | \$85,688 | \$102,185 | \$102,438 |
| PV - Future Normal Costs | \$191,585 | \$198,916 | \$33,309 | \$29,897 | \$79,348 | \$79,693 | \$84,841 | \$80,782 | \$20,092 | \$22,085 |
| Actuarial Accrued Liability | \$519,854 | \$500,209 | \$421,282 | \$415,241 | \$264,859 | \$264,956 | \$4,955 | \$4,906 | \$82,093 | \$80,353 |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | |
| PVB – Death | | 100% | | 97% | | 99% | | 95% | | N/A |
| PVB – Disability | | 99% | | 99% | | 101% | | 97% | | N/A |
| PVB – Withdrawal | | N/A | | N/A | | 93% | | N/A | | 102% |
| PVB – Retirement | | 98% | | 98% | | 100% | | 96% | | 100% |
| Total PVB | | 98% | | 98% | | 100% | | 95% | | 100% |
| PV - Future Normal Costs | | 104% | | 90% | | 100% | | 95% | | 108% |
| Actuarial Accrued Liability | | 96% | | 99% | | 100% | | 99% | | 98% |

| INACTIVES | Beneficiary Safety Plan A | | Beneficiary Safety Plan B | | Disabled General Plan D | | Retiree General Plan E | | VT General Plan E | | VT General Plan E | |
|--------------------------------|---------------------------|------------------|---------------------------|------------------|-------------------------|-----------------|------------------------|-----------------|-------------------|------------------|-------------------|-----------------|
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Total PVB | \$446,171 | \$449,322 | \$650,832 | \$655,132 | \$98,715 | \$99,414 | \$31,366 | \$31,576 | \$112,463 | \$113,210 | \$21,999 | \$22,145 |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | | | |
| | | 101% | | 101% | | 101% | | 101% | | 101% | | 101% |

EXHIBIT – C
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| PRESENT VALUE OF FUTURE BENEFITS (PVB) | General | | | | | | | | | |
|---|-----------------|-----------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|
| | Plan A | | Plan B | | Plan C | | Plan D | | Plan E | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Actives: | | | | | | | | | | |
| Death | \$37 | \$37 | \$3 | \$3 | \$2 | \$2 | \$256 | \$254 | \$0 | \$0 |
| Disability | 82 | 81 | 6 | 6 | 4 | 4 | 581 | 587 | 0 | 0 |
| Withdrawal | 0 | 0 | 0 | 0 | 0 | 0 | 285 | 261 | 172 | 164 |
| Retirement(Incl. Transfer) | 3,105 | 2,993 | 203 | 194 | 122 | 119 | 6,054 | 6,174 | 4,062 | 3,801 |
| Active Total | \$3,224 | \$3,111 | \$212 | \$203 | \$128 | \$125 | \$7,176 | \$7,276 | \$4,234 | \$3,965 |
| Inactives: | | | | | | | | | | |
| Retirees | \$10,382 | \$10,390 | \$108 | \$109 | \$61 | \$61 | \$738 | \$742 | \$467 | \$469 |
| Inactive Vesteds | 72 | 72 | 18 | 18 | 7 | 7 | 218 | 217 | 152 | 151 |
| Inactive Total | \$10,454 | \$10,462 | \$126 | \$127 | \$68 | \$68 | \$956 | \$959 | \$619 | \$620 |
| Total PVB | \$13,678 | \$13,573 | \$338 | \$330 | \$196 | \$193 | \$8,132 | \$8,235 | \$4,853 | \$4,585 |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | |
| Actives: | | | | | | | | | | |
| Death | | 100% | | 100% | | 100% | | 99% | | N/A |
| Disability | | 99% | | 100% | | 100% | | 101% | | N/A |
| Withdrawal | | 0% | | 0% | | 0% | | 92% | | 95% |
| Retirement | | 96% | | 96% | | 98% | | 102% | | 94% |
| Active Total | | 96% | | 96% | | 98% | | 101% | | 94% |
| Inactives: | | | | | | | | | | |
| Retirees | | 100% | | 101% | | 100% | | 101% | | 100% |
| Inactive Vesteds | | 100% | | 100% | | 100% | | 100% | | 99% |
| Inactive Total | | 100% | | 101% | | 100% | | 100% | | 100% |
| Total PVB | | 99% | | 98% | | 98% | | 101% | | 94% |

EXHIBIT – C (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| PRESENT VALUE OF FUTURE BENEFITS (PVB) | Safety | | | | Total | |
|---|----------------|----------------|----------------|----------------|-----------------|-----------------|
| | Plan A | | Plan B | | | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Actives: | | | | | | |
| Death | \$3 | \$3 | \$44 | \$42 | \$345 | \$341 |
| Disability | 344 | 356 | 2,104 | 2,093 | 3,121 | 3,127 |
| Withdrawal | 0 | 0 | 41 | 38 | 498 | 463 |
| Retirement(Incl. Transfer) | 686 | 730 | 2,864 | 2,819 | 17,096 | 16,830 |
| Active Total | \$1,033 | \$1,089 | \$5,053 | \$4,992 | \$21,060 | \$20,761 |
| Inactives: | | | | | | |
| Retirees | \$5,961 | \$5,936 | \$614 | \$612 | \$18,331 | \$18,319 |
| Inactive Vesteds | 2 | 3 | 57 | 59 | 526 | 527 |
| Inactive Total | \$5,963 | \$5,939 | \$671 | \$671 | \$18,857 | \$18,846 |
| Total PVB | \$6,996 | \$7,028 | \$5,724 | \$5,663 | \$39,917 | \$39,607 |
| RATIO OF SEGAL/MILLIMAN | | | | | | |
| Actives: | | | | | | |
| Death | | 100% | | 95% | | 99% |
| Disability | | 103% | | 99% | | 100% |
| Withdrawal | | 0% | | 93% | | 93% |
| Retirement | | 106% | | 98% | | 98% |
| Active Total | | 105% | | 99% | | 99% |
| Inactives: | | | | | | |
| Retirees | | 100% | | 100% | | 100% |
| Inactive Vesteds | | 150% | | 104% | | 100% |
| Inactive Total | | 100% | | 100% | | 100% |
| Total PVB | | 100% | | 99% | | 99% |

EXHIBIT – C (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| UNFUNDED ACTUARIAL LIABILITY | General | | | | | | | | | |
|--------------------------------------|-----------------|-----------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|
| | Plan A | | Plan B | | Plan C | | Plan D | | Plan E | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Present Value of Future Benefits | \$13,678 | \$13,573 | \$338 | \$330 | \$196 | \$193 | \$8,132 | \$8,235 | \$4,853 | \$4,585 |
| PV Future Member Contributions | (37) | (33) | (11) | (10) | (7) | (6) | (1,725) | (1,657) | 0 | 0 |
| PV Future County NC Contributions | <u>(183)</u> | <u>(187)</u> | <u>(11)</u> | <u>(12)</u> | <u>(9)</u> | <u>(9)</u> | <u>(1,863)</u> | <u>(1,831)</u> | <u>(1,263)</u> | <u>(1,225)</u> |
| Actuarial Accrued Liability | \$13,458 | \$13,353 | \$316 | \$308 | \$180 | \$178 | \$4,544 | \$4,747 | \$3,590 | \$3,360 |
| Current Assets at Actuarial Value | <u>(9,292)</u> | <u>(9,292)</u> | <u>(311)</u> | <u>(311)</u> | <u>(181)</u> | <u>(181)</u> | <u>(4,457)</u> | <u>(4,457)</u> | <u>(4,196)</u> | <u>(4,196)</u> |
| Unfunded Actuarial Liability | \$4,166 | \$4,061 | \$5 | (\$3) | (\$1) | (\$3) | \$87 | \$290 | (\$606) | (\$836) |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | |
| Present Value of Future Benefits | | 99% | | 98% | | 98% | | 101% | | 94% |
| PV Future Member Contributions | | 89% | | 91% | | 86% | | 96% | | N/A |
| PV Future County NC Contributions | | 102% | | 109% | | 100% | | 98% | | 97% |
| Actuarial Accrued Liability | | 99% | | 97% | | 99% | | 104% | | 94% |
| Current Assets at Actuarial Value | | 100% | | 100% | | 100% | | 100% | | 100% |
| Unfunded Actuarial Liability | | 97% | | -60% | | 300% | | 333% | | 138% |

EXHIBIT – C (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| UNFUNDED ACTUARIAL LIABILITY | Safety | | | | Total | |
|--------------------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| | Plan A | | Plan B | | | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| Present Value of Future Benefits | \$6,996 | \$7,028 | \$5,724 | \$5,663 | \$39,917 | \$39,607 |
| PV Future Member Contributions | (6) | (6) | (831) | (813) | (2,617) | (2,525) |
| PV Future County NC Contributions | (56) | (56) | (1,215) | (1,217) | (4,600) | (4,537) |
| Actuarial Accrued Liability | \$6,934 | \$6,966 | \$3,678 | \$3,633 | \$32,700 | \$32,545 |
| Current Assets at Actuarial Value | (4,690) | (4,690) | (3,962) | (3,962) | (27,089) | (27,089) |
| Unfunded Actuarial Liability | \$2,244 | \$2,276 | (\$284) | (\$329) | \$5,611 | \$5,456 |
| RATIO OF SEGAL/MILLIMAN | | | | | | |
| Present Value of Future Benefits | | 100% | | 99% | | 99% |
| PV Future Member Contributions | | 100% | | 98% | | 96% |
| PV Future County NC Contributions | | 100% | | 100% | | 99% |
| Actuarial Accrued Liability | | 100% | | 99% | | 100% |
| Current Assets at Actuarial Value | | 100% | | 100% | | 100% |
| Unfunded Actuarial Liability | | 101% | | 116% | | 97% |

EXHIBIT – C (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| NORMAL COST | General | | | | | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|-----------|-----------|
| | Plan A | | Plan B | | Plan C | | Plan D | | Plan E | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| 1. Total Normal Cost | \$52,588 | \$58,678 | \$4,365 | \$4,704 | \$2,778 | \$3,021 | \$309,346 | \$308,857 | \$122,302 | \$122,683 |
| 2. Projected Member Contributions in Next Year | <u>(7,369)</u> | <u>(8,026)</u> | <u>(1,996)</u> | <u>(2,157)</u> | <u>(1,200)</u> | <u>(1,290)</u> | <u>(143,298)</u> | <u>(146,418)</u> | <u>0</u> | <u>0</u> |
| 3. County Normal Cost | \$45,219 | \$50,652 | \$2,369 | \$2,547 | \$1,578 | \$1,731 | \$166,048 | \$162,439 | \$122,302 | \$122,683 |
| 4. Annual Compensation* | 314,132 | 317,081 | 29,180 | 29,184 | 20,354 | 20,487 | 2,116,686 | 2,103,389 | 1,544,911 | 1,577,825 |
| 5. County Normal Cost Percent (3. ÷ 4.) | 14.39% | 15.97% | 8.12% | 8.73% | 7.75% | 8.45% | 7.84% | 7.72% | 7.92% | 7.78% |
| RATIO OF SEGAL/MILLIMAN | | | | | | | | | | |
| 1. Total Normal Cost | | 112% | | 108% | | 109% | | 100% | | 100% |
| 2. Projected Member Contributions in Next Year | | 109% | | 108% | | 108% | | 102% | | N/A |
| 3. County Normal Cost | | 112% | | 108% | | 110% | | 98% | | 100% |
| 4. Annual Compensation* | | 101% | | 100% | | 101% | | 99% | | 102% |
| 5. County Normal Cost Percent | | 111% | | 108% | | 109% | | 98% | | 98% |

* Segal's Annual Compensation includes compensation for members over age 70.

EXHIBIT – C (CONTINUED)
LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION
JULY 1, 2004 VALUATION
COMPARISON OF RESULTS
(All Dollar Amounts are in Millions)

| NORMAL COST | Safety | | | | Total | |
|--|----------------|----------------|-----------------|-----------------|------------------|------------------|
| | Plan A | | Plan B | | | |
| | Milliman | Segal | Milliman | Segal | Milliman | Segal |
| 1. Total Normal Cost | \$22,217 | \$23,949 | \$199,847 | \$202,217 | \$713,443 | \$724,109 |
| 2. Projected Member Contributions in Next Year | <u>(3,125)</u> | <u>(3,448)</u> | <u>(83,580)</u> | <u>(85,771)</u> | <u>(240,568)</u> | <u>(247,110)</u> |
| 3. County Normal Cost | \$19,092 | \$20,501 | \$116,267 | \$116,446 | \$472,875 | \$476,999 |
| 4. Annual Compensation* | 88,241 | 90,245 | 814,270 | 812,285 | \$4,927,774 | 4,950,496 |
| 5. County Normal Cost Percent (3. ÷ 4.) | 21.64% | 22.72% | 14.28% | 14.34% | 9.60% | 9.64% |
| RATIO OF SEGAL/MILLIMAN | | | | | | |
| 1. Total Normal Cost | | 108% | | 101% | | 101% |
| 2. Projected Member Contributions in Next Year | | 110% | | 103% | | 103% |
| 3. County Normal Cost | | 107% | | 100% | | 101% |
| 4. Annual Compensation* | | 102% | | 100% | | 100% |
| 5. County Normal Cost Percent | | 105% | | 100% | | 100% |

* Segal's Annual Compensation includes compensation for members over age 70.

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