



Milliman

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July 1, 2004

Mr. David L. Muir
Chief Counsel
LACERA
P. O. Box 7060
Pasadena, CA 91109-7060

Re: LACERA Proposed Ventura Implementation Plan

Dear Mr. Muir:

We discussed with you and several other interested parties on May 28, 2004 an approach that would allow LACERA to implement the increases in benefits due to the recent court decision regarding the retroactive application of Ventura to your members who retired prior to October 1, 1997.

Enclosed with this cover letter is a paper that describes the project and a proposed implementation plan that has two main components. First, if the individual pay data is available for members retiring after 1992, LACERA will compute the increases based on the individual's actual earnings, including any Ventura Pensionable Earnings (VPE). Secondly, for members where individual pay data is not feasibly accessible, LACERA will compute their increases by applying a percentage increase developed under the proposed implementation plan. The increases for this latter group will be based on trend data derived from aggregate payroll data available from 1981 to 1992.

In preparation of the initial methodology discussions for May, we prepared a draft paper and an estimate of the financial impact of applying the proposed implementation plan. Since the May meeting, we have updated the draft materials for the following changes:

1. The percentage increases derived from the aggregate payroll data were adjusted by removing two pay codes, 50 and 51 from the VPE and treating them as they should be as RCEA pay. These pay codes were erroneously reported as pensionable (VPE) earnings for our earlier work in May, but this study accurately reflects the fact that these codes have always been included as RCEA pay items.

This had almost no impact on the percentage increases in the aggregate payroll for the safety members and a very slight adjustment in the calculated percentage increases for general members. The financial impact was to decrease the expected value of the benefit increases by about \$1.9 million.



2. The May financial estimate regarding the present value of the benefit increases was overstated since it included the application of the trend methodology to all retirees including those retiring between 1993 and 1997. The trend method is conservative in nature, meaning we knowingly overestimated the percentage increases favoring the members, compared to the actual increases for the those members for whom we had individual data. For our more recent estimate of costs, we used our 2000 study results which was based on the 1999 actuarial valuation and projected the present value of the benefit increases, as well as the retroactive payments for those retiring after 1992 but before October 1, 1997. The present value of benefits for that group decreased by about \$28.1 million from the May estimate. Thus, the total projected present value of the benefit increases, prior to any arrears contributions decreased from our May estimate of \$256.7 million down to \$226.7 million. The updated estimates are shown in the revised reconciliation chart.

It should be noted that these costs are still estimates in that the actual increases in benefits will include adjustments for:

- a) The present value of benefits for members retiring between 1993 and 1997 are based on the 1999 actuarial valuation assumptions. This estimate does not reflect any assumption changes adopted since then, nor does it reflect any deaths in the membership since then. Once the methodology has been approved and the trend factors applied to members benefits, where applicable, or individual increases computed, then the present value of the increased benefits should be revalued using more recent actuarial assumptions. LACERA is expected to review the actuarial assumptions this fall. Any changes in assumptions adopted by the Board by the time the benefit increases become payable to the members would also impact the total cost estimate.
- b) There may be additional benefit increases payable on behalf of members who were not included in any of the data provided to us for the study, especially if the member died and did not have a surviving beneficiary. Benefit increases attributable to those members' benefits has not been included in this estimate.

Please let us know if you need anything else from us regarding these calculations.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the LACERA's staff. This information includes, but is not limited to, statutory provisions, employee data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. It should be noted that if any data or other information is inaccurate or incomplete, our calculations will need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the



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Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of LACERA and reasonable expectations) and which, in combination, offer our best estimate of anticipated experience affecting LACERA. Nevertheless, the emerging costs will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions. The 7% simple interest assumption used in valuing the retroactive payments was directed by the courts.

Any distribution of the enclosed report must be in its entirety including this cover letter, unless prior written consent is obtained from Milliman, Inc.

We would like to express our appreciation to Mr. Gregg Rademacher, Assistant Executive Officer of LACERA, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

I, Karen I. Steffen, am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Karen I. Steffen, F.S.A., M.A.A.A.
Consulting Actuary

KIS/nlo

Enclosure

cc: Mr. Gregg Rademacher
Mr. Mike Toumanoff

LACERA Proposed Implementation Plan to Apply Ventura Decision to Members Retired Prior to October 1, 1997

Brief Overview

Specific pay items, Ventura Pensionable Earnings (VPE), were not included in the determination of a member's retirement benefit prior to October 1, 1997. Legal decisions now require LACERA to adjust the retirement allowances to those members and their beneficiaries to reflect the increase in the benefits had the VPE items been included in determining their original benefit. In addition, payments are to be made to those members representing the increased benefits that would have been paid since May 26, 1995, together with 7% simple interest.

The court has also ruled that LACERA may offset against the additional amounts paid to the pre-Ventura retired members, the arrears contributions, plus interest, attributable to such members.

Data Issues

The County has not maintained detailed information by individual member regarding the VPE items under review prior to early 1993. The County has retained only aggregate data regarding the VPE items since 1981, and prior to early 1993. No information on the VPE items is available from the County for years prior to 1981.

Prior Study

In 2000, the County was able to provide us with some detailed individual pay data for post 1992 retirees, approximately 11,000 retirees. We matched this member data file with our 1999 retired member valuation records and found there were 10,070 members who were in both data sets. This group was called Group 1.

The VPE pay items for these retired members represented 100% of all VPE items for the period March 1993 through the end of 1999. For 1993, we had 10 months of VPE data, so we increased the data by 12/10. The VPE pay items for periods from 1982 to 1992 were based on only 10 pay codes, but the County said they should represent at least 80% of all the VPE amounts under consideration. For years in which some VPE information was provided prior to 1993, we increased the amounts by 25% to account for the missing information. No information was available for the individual members for the other VPE pay items for the period 1982 to 1992. No information at all was available for years prior to 1982. For the members in Group 1, Milliman was able to determine how the VPE amounts would have affected the individual's computation of Final Compensation and, therefore, the amount of the original retirement allowance. Applying the percentage increase, if any, to the liabilities for each individual as of June 30, 1999 and accruing with 8.0% interest, we computed the value of the application of the VPE amounts on future benefits payable after June 30, 2001. We then summarized the percentage increase in benefits by each of the seven plan groups.



Likewise, we determined the amounts of increased retirement allowance payments that would have been paid between October 1, 1993 and June 30, 2001, the assumed payment date. These calculations were performed for all of the 10,070 Group 1 retired members and recognized plan COLAS and the STAR COLA payments that would have been paid during these years. The Group 1 included 2,553 members retiring after October 1, 1997 and prior to the June 30, 1999 valuation date.

As of June 30, 1999, for the remaining 33,442 retired members, Group 2, the impact of the VPE items was estimated by applying the aggregate increase percentage as determined by the plan group factors for Group 1 to the benefits for Group 2. From these increases, we then computed the increase in future benefit payments after June 30, 2001 and the retroactive payments for regular retirement allowance payments, including plan COLAS and the STAR COLA payments that would have been paid between October 1, 1993 and June 30, 2001.

It should be noted that, for the 2000 Study, none of the STAR COLAS were assumed to be vested. Thus, STAR was reflected in the retroactive payments but not in the value of benefits payable after June 30, 2001 for both Groups 1 and 2.

Current Implementation Proposal

Although we understand that some old microfilm records still exist, the data in those records has not been analyzed or computerized by the County or LACERA. No individual data has been available to Milliman to determine the exact increase in benefits due to all individual retired members, other than the information provided for those individuals included in Group 1 of the 2000 study. As noted above, even for that group, some VPE items were estimated if benefits were based on pay items prior to 1993.

The proposed implementation plan is as follows:

- (a) **Group 1 members in 2000 Study:** Compute the individual's increased retirement allowance based on their VPE data and the methods used in the 2000 Study, if available. This group covers 7,517 members who retired prior to October 1, 1997.
- (b) **Other members:** Based on information related to members valued under (a), determine a method that can be applied to all other retired members impacted by the Ventura legal decisions. The methods should reasonably reflect the expected level of benefit increases due to the inclusion of the VPE.

We used the results of the 2000 study regarding adjustments computed on individual members' data to determine a method that reflects the adjustments needed for the other members where no comparable individual data was available.

We developed factors based on the calendar year of the member's retirement, his Plan coverage (A,B,C,D,E) and membership status (general or safety member). The factors represent the increase in benefits that would have occurred if complete VPE data had been available. We developed one set of factors for the retroactive payments of the increased benefits from May 26, 1995 to June 30, 2004, and another set of factors to determine the increased benefit as of July 1, 2004 for the prospective increases in benefits. We also established a procedure to determine the arrears contributions to be collected.



The information provided to us by LACERA indicates there are about 47,000 retired members and beneficiaries as of May 2004. Of these, about 35,000 retired prior to October 1, 1997. All of these will be subject to the VPE adjustments. Therefore, about 27,500 members, who retired prior to early 1993, will have benefit increases based on the factors prepared for each calendar year of retirement, back to 1941.

Assumptions and Methods

The development of the factors is based on the information provided to us by the LACERA staff, as well as the June 30, 2003 actuarial valuation data and assumptions. The attached statement explains the development of the factors in detail. The factors represent estimates of how the member's retirement allowances would have been impacted by the inclusion of the VPE items in determining retirement benefits.

By applying a single factor based on calendar year of retirement, plan coverage and membership status to all members in a group, the adjustments will not represent the same increases to an individual that would have been applied if complete information had been available for that individual. Some members will receive a higher increase than if actual data had been available, while others will receive a lower increase than if actual data had been available. In our professional judgement, based on the limited information available for this study, we believe the procedures provide a fair method of making adjustments to reflect the retroactive application of the legal decisions under Ventura.



Development of Implementation Factors for Retroactive Application of Ventura

1. We received information regarding the amount of total compensation paid for a number of pay items for each calendar year 1981 to 2003. This data was received in the file *Ventura CWPAY earnings 1981-2003.xls*. This information was compiled on a calendar-year basis. The information was provided separately for general and safety members. The different pay items were labeled by their CWPAY code and defined as:
 - a. non-pensionable
 - b. historic RCEA
 - c. pensionable (VPE)

It is our understanding that the pay items labeled pensionable represent the VPE items to be added to member's earnings for benefit purposes. However, after late 1997, many of the previous VPE earnings were coded as RCEA earnings. Therefore, the data provided after 1996 is not comparable to the data for years prior to 1997.

The historic RCEA are pay items that were used to determine retirement benefits prior to the implementation of Ventura and will continue to be part of the pay items used in the future to determine retirement benefits. The non-pensionable pay items were not used to determine retirement benefits prior to the implementation of Ventura, were not impacted by the Ventura decision, and will not be used in the future.

- i. One pay code, 008 (Miscellaneous Earnings), included both pensionable and non-pensionable earnings prior to 1998. The LACERA staff prorated this pay item between the two types based on the actual data after 1998. We reviewed this split and agreed with the method used.
 - ii. Additional information regarding the CWTAPPS codes was provided along with the effective date of each code. The data provided for 1981 – 2003 is based only on the CWPAY codes. The various implementation dates of the different types of pay items for those years are automatically reflected by the data.
 - iii. Two pay codes, 050 and 051, associated with transportation allowances, were included in our May study erroneously reported as pensionable (VPE) earnings, but this study accurately reflects the fact that they have always been included as RCEA pay items.
2. Based on the aggregate sum of all pay items for each calendar year for the three subtotals indicated in step 1, we were able to determine the percentage increase in the amount of pay due to the new VPE, by calendar year and member type (general or safety), to be used for retirement benefit purposes. The percentage increase in pay was determined by:

Increase = (c) pensionable (VPE) earnings / (b) historic RCEA earnings

The percentage increases reflect how the total calendar year pensionable earnings are expected to increase due to the inclusion of the VPE items. This information is shown in Exhibit 1 as a black line labeled Actual 2004 Payroll for years 1981 to 1996.

3. We then applied a mathematical trend analysis to the calculated increase percentages determined in Step 2. This produced a smooth geometric curve to closely match the



calculated data and is also used to project the expected values from 1981 back to 1941. This is shown in Exhibit 1 as a blue (general) / red (safety) line labeled Payroll Trend.

4. The percentages in Steps 2 and 3 reflect the increase in the total active member payroll due to the VPE items being considered for retirement purposes. We compared these payroll percentage increases to the actual individually computed percentage increases in Final Compensation for the 10,070 Group 1 retired members evaluated in the 2000 study.

We found that the aggregate percentage increase in the retired members Final Compensation, by membership group, for the calendar years 1993 – 1996 was considerably less than the percentage increases for the entire active member payroll for those same years, as determined in Step 2. Therefore, the VPE items increased the total payroll by a greater percentage than they increased the member's individually calculated Final Compensation, for the same periods.

Reviewing the description of the VPE pay items, it is reasonable to assume that some of the types of pay being included are more likely to be paid to members earlier in their careers rather than later. This would account for the significant difference the VPE items had in the total payroll compared to the actual Final Compensation calculations.

The Final Compensation increases from the 2000 study remain a fairly stable proportion of the increases in actual payroll from the 2004 study over the period 1993 - 1996. Thus, it is reasonable to use a proportional increase when using the total payroll information from Step 2 to project the increase in member's Final Compensation for members where individual data is unavailable. A comparison of the measured increase in Final Compensation from the 2000 study to the current payroll study is also shown in Exhibit 1. The dotted line labeled 2000 Final Compensation Study, shows the calculated percentage increases for the retired members in Group 1 of that study.

For the period from 1993 through 1996, we compared the increases in Final Compensation calculated on an individual basis for the 2000 study to the total payroll increases discussed in item 2 above. Based upon this comparison, we assumed that only 50% of the measured increase in total payroll should be used to determine the increase in a general member's Final Compensation, for members for whom individual data is unavailable. A similar analysis for safety members led to an assumption that 75% of the measured increase in total payroll should be used to determine their Final Compensation, for members for whom individual data is unavailable.

The dotted blue (general) and red (safety) lines in Exhibit 1, labeled 2004 Final Compensation Trend Study. They show the assumptions used: 50% of the trended payroll line for general and 75% of the trended payroll line for safety.

We believe these assumptions provide a conservative estimate to project the percentage increases expected in member's Final Compensation due to the inclusion of the VPE items, where no individual data is available.

Exhibit 1a shows the numerical percentage of these benefit increases for each calendar year by plan. The increases for members in Plans B through E are slightly less than the increases for members in Plan A because they are based upon a three-year Final Compensation period, instead of the one-year period used for Plan A members.



5. By using a hypothetical base benefit at retirement, we then created a set of factors for each calendar year of retirement that would reflect the historical plan cost-of-living adjustments (COLAs) and the STAR COLAs to determine the value of the benefit as of July 1, 2004. For example, a General Plan A member retiring in 1978 with an original retirement amount of \$37.66 would have received an additional \$ 45.99 due to the 3% plan COLAs and another \$16.34 due to the STAR COLA increases for a total benefit in 2004 of \$100.00.

Note the STAR benefits were vested in 2001, and later, so the member's benefit payable in 2004 would include all the STAR COLA amounts vested through 2004.

Using the increases in Final Compensation determined in Step 4, we also created a set of factors resetting the original retirement benefit to the expected increased benefit. For the General Plan A member retiring in 1978 with an original retirement amount of \$37.66, the new VPE pay items would have increased the Final Compensation and, thus, the benefit amount by 0.74%. Therefore, the revised retirement benefit would have been \$37.94 at the time of retirement, increasing to \$84.28 by 2004 due to plan COLAs and to \$100.74 with the STAR increases as well. Without the adjustment for the new VPE pay items, the original benefit of \$37.66 has grown to \$100 with COLAs and STAR increases. This results in an increased monthly benefit of \$0.74 in 2004 or a 0.74% increase in the member's 2004 monthly benefit. Thus, the factors when expressed as a percentage are the same when applied to the current benefit or to the original retirement benefit, with exceptions for members with special benefit adjustments beyond the regular COLA or STAR adjustments.

Therefore, these factors can be applied to a member's current retirement benefit, based on year of retirement, plan and membership group, to determine the new adjusted benefit payable on July 1, 2004.

Numerical values for these factors based on the current benefit are shown in Exhibit 2.

6. We then computed the difference in the annual dollar amount of the benefits for each year from retirement to June 2004 between:
 - (a) the original monthly retirement benefit, increased with both plan and STAR COLAs; and
 - (b) the expected increased monthly benefit due to the VPE adjustments, also increased with both plan and STAR COLAs.

The computed differences represent the increased dollar payments that would have been paid, had the VPE been included for benefit purposes since the original date of retirement to June 2004.

We then computed the increased benefits that would have been paid only between May 1995 and June 2004. For someone with a current benefit of \$100, the total of those increases, with a simple interest adjustment of 7% for each year, is \$92.09, for the General Plan A member retiring in 1978. Thus, the retroactive payment for each \$100 of current benefit payable is a lump sum amount of \$92.09.



Therefore, these factors can be applied to a member's current retirement benefit, based on year of retirement, plan and membership group, to determine the retroactive payment for increased benefits payable between August 1995 and June 2004, accrued with simple interest of 7% per year and payable on July 1, 2004.

Numerical values for these factors are shown in Exhibit 3.

7. We then addressed the issue of computing the appropriate arrears contribution that could be collected to reflect the increased VPE pay items that would have been used for retirement purposes.

Information regarding a member's total member contributions at time of retirement is only available for members retiring after 1991. LACERA has not had significant changes in the benefit provisions prior to 2001, other than the STAR increases. The member contribution rates are set by law and will change only as assumptions change. Therefore, it is reasonable to assume that the percentage of a member's benefit paid for by the member contributions has been fairly constant over the years.

We used data from the 1999 and 2000 actuarial valuations to study members who retired between July 1, 1999 and June 30, 2000. From that data, we computed the ratio of the members' total contributions with interest at time of retirement over the value of their retirement benefits at time of retirement. Exhibit 4 illustrates the results of that study.

To test for reasonableness, we also compared the member's contribution rates to the total normal cost rate for each of the seven different plans based on the July 1, 2000 valuation. The results were similar to the study of actual retirees for Plan A, but higher for the other plans. These results are also shown in Exhibit 4. However, the other plans have not matured as much as Plan A. Fewer members in Plans B-D have retired since these are all newer levels of benefits. It is reasonable to assume that through 2000, the retirements for Plans B-D include more disabilities and earlier retirements than for Plan A retirements. Thus, the employee contributions would have paid a lower percentage of the total benefits for Plans B-D.

Based on this study, we have made the assumption that the percentage of a member's benefit that is paid for by member contributions is as follows:

Proposed Assumption Regarding Percentage of Benefit Paid by Member Contributions

Plan	Service Retirements	Disability Retirements
General A	20%	18%
General B	40%	20%
General C	40%	20%
General D	40%	20%
Safety A	20%	18%
Safety B	40%	20%

We gave more consideration for the percent of normal cost paid by members for Plan A, as the majority of those retirees would have earned benefits over a full career. The other plans have only recently had members retire and the full impact of the expected percentage of the benefit to be paid by the members over time is reflected in the normal cost rate, but not in the study data for members retiring in fiscal year 2000.

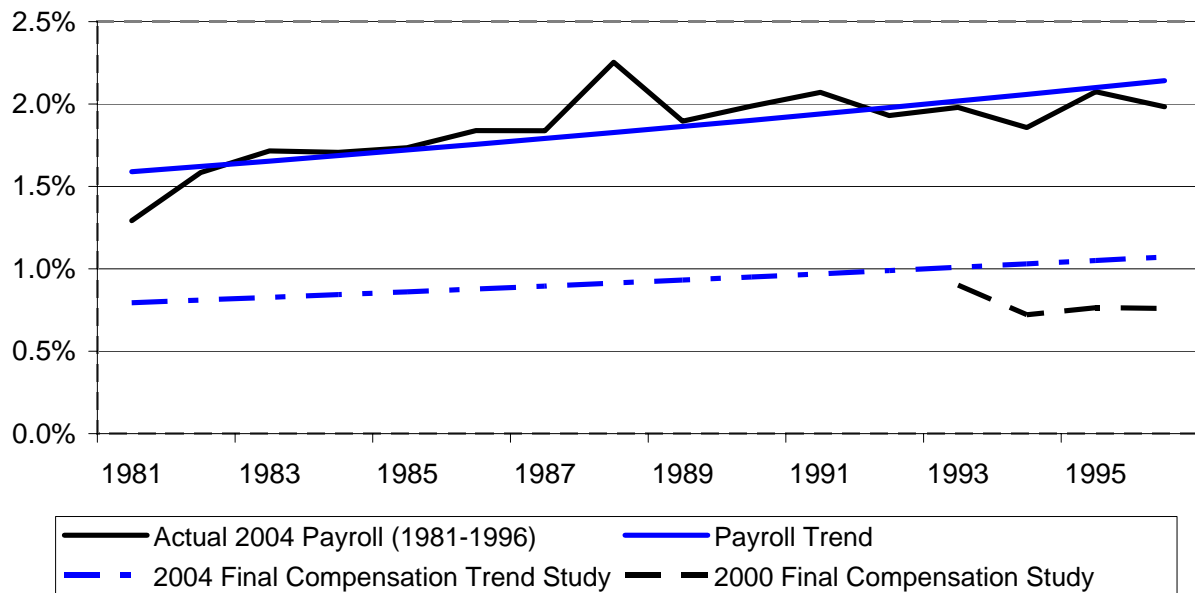
We treated the Plan B and Plan C members the same as the Plan D members since their contribution rates are very similar and there was little study data for Plans B and C. There did not seem to be much difference between the general and the safety group percentages, so we did not vary the assumptions for the type of member.

Plan E members are assumed to have no employee contributions and thus are not subject to the arrears adjustment.

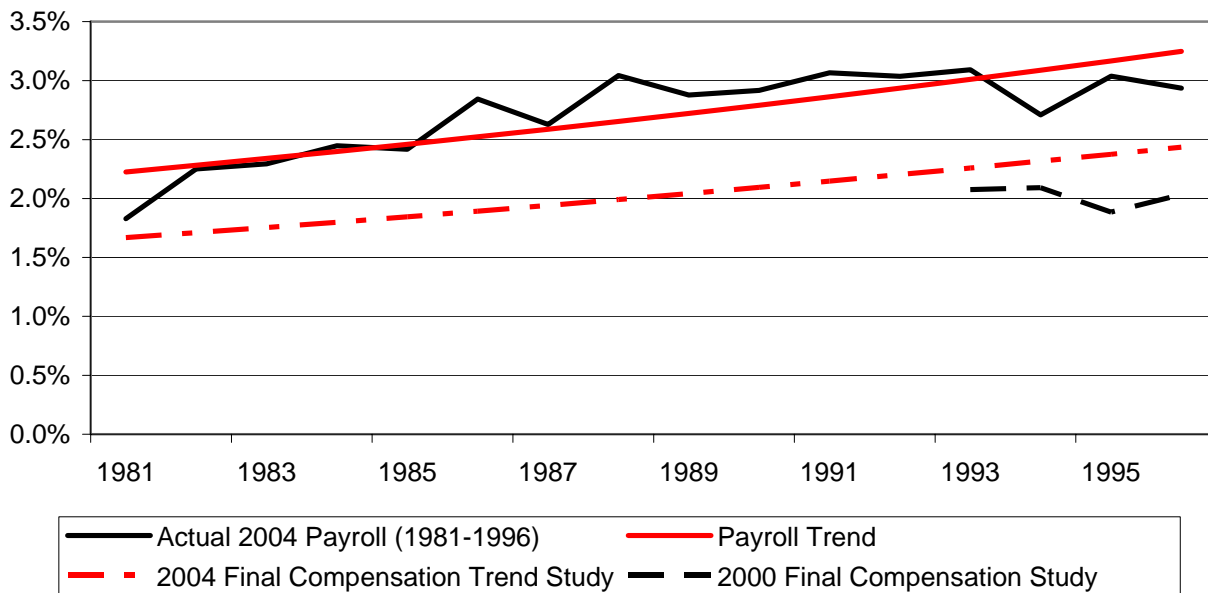
Both the retroactive lump sum payment factor and the increase in the July 1, 2004 benefit amount factor can be reduced by the percentages in the above table to provide factors net of expected arrears contributions. These factors will vary based on the plan and the type of member, as shown above.

The adjusted July 1, 2004 benefit increase factors are illustrated in Exhibit 5a and 5b and the adjusted factors for the lump sum payments are shown in Exhibit 6a and 6b.

**Los Angeles County Employees Retirement Association
Exhibit 1 - General**



**Los Angeles County Employees Retirement Association
Exhibit 1 - Safety**



Los Angeles County Employees Retirement Association Exhibit 1a

Percentage Increase in Benefits by Plan Updated June 2004

Amounts are BEFORE the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	0.3546%	0.5997%			
1942	0.3619%	0.6154%			
1943	0.3691%	0.6312%			
1944	0.3766%	0.6473%			
1945	0.3841%	0.6639%			
1946	0.3919%	0.6808%			
1947	0.3997%	0.6983%			
1948	0.4078%	0.7161%			
1949	0.4160%	0.7344%			
1950	0.4244%	0.7532%			
1951	0.4329%	0.7724%			
1952	0.4416%	0.7922%			
1953	0.4505%	0.8124%			
1954	0.4595%	0.8332%			
1955	0.4688%	0.8545%			
1956	0.4782%	0.8764%			
1957	0.4878%	0.8988%			
1958	0.4976%	0.9218%			
1959	0.5077%	0.9453%			
1960	0.5179%	0.9695%			
1961	0.5283%	0.9943%			
1962	0.5389%	1.0197%			
1963	0.5497%	1.0458%			
1964	0.5608%	1.0725%			
1965	0.5721%	1.0999%			
1966	0.5836%	1.1281%			
1967	0.5953%	1.1569%			
1968	0.6073%	1.1865%			
1969	0.6195%	1.2168%			
1970	0.6320%	1.2479%			
1971	0.6447%	1.2798%			
1972	0.6577%	1.3125%			
1973	0.6709%	1.3461%			
1974	0.6844%	1.3805%			
1975	0.6982%	1.4158%			
1976	0.7122%	1.4520%			
1977	0.7265%	1.4891%			
1978	0.7411%	1.5272%	0.7266%	1.4895%	
1979	0.7560%	1.5663%	0.7412%	1.5275%	
1980	0.7712%	1.6063%	0.7561%	1.5666%	
1981	0.7868%	1.6474%	0.7713%	1.6066%	
1982	0.8026%	1.6895%	0.7869%	1.6477%	0.7869%
1983	0.8187%	1.7327%	0.8027%	1.6898%	0.8027%
1984	0.8352%	1.7770%	0.8188%	1.7330%	0.8188%
1985	0.8520%	1.8224%	0.8353%	1.7774%	0.8353%
1986	0.8691%	1.8690%	0.8521%	1.8228%	0.8521%
1987	0.8866%	1.9168%	0.8692%	1.8694%	0.8692%
1988	0.9045%	1.9658%	0.8867%	1.9172%	0.8867%
1989	0.9226%	2.0161%	0.9046%	1.9662%	0.9046%
1990	0.9412%	2.0676%	0.9228%	2.0165%	0.9228%
1991	0.9601%	2.1205%	0.9413%	2.0680%	0.9413%
1992	0.9794%	2.1747%	0.9603%	2.1209%	0.9603%

Note that for years 1993 through 1997, actual Ventura Pensionable Earnings will be used for each individual member to determine benefits.



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Los Angeles County Employees Retirement Association

Exhibit 2

Dollar Increase in Current Benefits pursuant to Ventura
Based upon \$100 current monthly benefit
Amounts are BEFORE the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 0.35	\$ 0.60			
1942	\$ 0.36	\$ 0.62			
1943	\$ 0.37	\$ 0.63			
1944	\$ 0.38	\$ 0.65			
1945	\$ 0.38	\$ 0.66			
1946	\$ 0.39	\$ 0.68			
1947	\$ 0.40	\$ 0.70			
1948	\$ 0.41	\$ 0.72			
1949	\$ 0.42	\$ 0.73			
1950	\$ 0.42	\$ 0.75			
1951	\$ 0.43	\$ 0.77			
1952	\$ 0.44	\$ 0.79			
1953	\$ 0.45	\$ 0.81			
1954	\$ 0.46	\$ 0.83			
1955	\$ 0.47	\$ 0.85			
1956	\$ 0.48	\$ 0.88			
1957	\$ 0.49	\$ 0.90			
1958	\$ 0.50	\$ 0.92			
1959	\$ 0.51	\$ 0.95			
1960	\$ 0.52	\$ 0.97			
1961	\$ 0.53	\$ 0.99			
1962	\$ 0.54	\$ 1.02			
1963	\$ 0.55	\$ 1.05			
1964	\$ 0.56	\$ 1.07			
1965	\$ 0.57	\$ 1.10			
1966	\$ 0.58	\$ 1.13			
1967	\$ 0.60	\$ 1.16			
1968	\$ 0.61	\$ 1.19			
1969	\$ 0.62	\$ 1.22			
1970	\$ 0.63	\$ 1.25			
1971	\$ 0.64	\$ 1.28			
1972	\$ 0.66	\$ 1.31			
1973	\$ 0.67	\$ 1.35			
1974	\$ 0.68	\$ 1.38			
1975	\$ 0.70	\$ 1.42			
1976	\$ 0.71	\$ 1.45			
1977	\$ 0.73	\$ 1.49			
1978	\$ 0.74	\$ 1.53	\$ 0.73	\$ 1.49	
1979	\$ 0.76	\$ 1.57	\$ 0.74	\$ 1.53	
1980	\$ 0.77	\$ 1.61	\$ 0.76	\$ 1.57	
1981	\$ 0.79	\$ 1.65	\$ 0.77	\$ 1.61	
1982	\$ 0.80	\$ 1.69	\$ 0.79	\$ 1.65	\$ 0.79
1983	\$ 0.82	\$ 1.73	\$ 0.80	\$ 1.69	\$ 0.80
1984	\$ 0.84	\$ 1.78	\$ 0.82	\$ 1.73	\$ 0.82
1985	\$ 0.85	\$ 1.82	\$ 0.84	\$ 1.78	\$ 0.84
1986	\$ 0.87	\$ 1.87	\$ 0.85	\$ 1.82	\$ 0.85
1987	\$ 0.89	\$ 1.92	\$ 0.87	\$ 1.87	\$ 0.87
1988	\$ 0.90	\$ 1.97	\$ 0.89	\$ 1.92	\$ 0.89
1989	\$ 0.92	\$ 2.02	\$ 0.90	\$ 1.97	\$ 0.90
1990	\$ 0.94	\$ 2.07	\$ 0.92	\$ 2.02	\$ 0.92
1991	\$ 0.96	\$ 2.12	\$ 0.94	\$ 2.07	\$ 0.94
1992	\$ 0.98	\$ 2.17	\$ 0.96	\$ 2.12	\$ 0.96



Los Angeles County Employees Retirement Association

Exhibit 3

Retroactive Payment for increased benefits from May 1995 - June 2004
Based upon \$100 current monthly benefit
Includes 7% simple interest
Amounts are BEFORE the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 44.13	\$ 74.63			
1942	\$ 45.03	\$ 76.59			
1943	\$ 45.94	\$ 78.55			
1944	\$ 46.86	\$ 80.56			
1945	\$ 47.80	\$ 82.62			
1946	\$ 48.77	\$ 84.73			
1947	\$ 49.75	\$ 86.89			
1948	\$ 50.75	\$ 89.12			
1949	\$ 51.77	\$ 91.39			
1950	\$ 52.81	\$ 93.73			
1951	\$ 53.87	\$ 96.13			
1952	\$ 54.95	\$ 98.59			
1953	\$ 56.06	\$ 101.11			
1954	\$ 57.19	\$ 103.69			
1955	\$ 58.34	\$ 106.34			
1956	\$ 59.51	\$ 109.06			
1957	\$ 60.71	\$ 111.85			
1958	\$ 61.93	\$ 114.71			
1959	\$ 63.18	\$ 117.64			
1960	\$ 64.45	\$ 120.65			
1961	\$ 65.74	\$ 123.73			
1962	\$ 67.06	\$ 126.90			
1963	\$ 68.41	\$ 130.14			
1964	\$ 69.79	\$ 133.47			
1965	\$ 71.19	\$ 136.88			
1966	\$ 72.63	\$ 140.38			
1967	\$ 74.09	\$ 143.97			
1968	\$ 75.58	\$ 147.65			
1969	\$ 77.09	\$ 151.42			
1970	\$ 78.64	\$ 155.29			
1971	\$ 80.22	\$ 159.24			
1972	\$ 81.82	\$ 163.30			
1973	\$ 83.46	\$ 167.47			
1974	\$ 85.14	\$ 171.74			
1975	\$ 86.83	\$ 176.09			
1976	\$ 88.54	\$ 180.51			
1977	\$ 90.29	\$ 185.06			
1978	\$ 92.09	\$ 189.76	\$ 91.07	\$ 186.68	
1979	\$ 93.92	\$ 194.56	\$ 92.83	\$ 191.31	
1980	\$ 95.78	\$ 199.48	\$ 94.62	\$ 196.04	
1981	\$ 98.64	\$ 206.53	\$ 96.27	\$ 200.51	
1982	\$ 101.03	\$ 212.68	\$ 97.98	\$ 205.17	\$ 114.32
1983	\$ 103.06	\$ 218.12	\$ 101.14	\$ 212.93	\$ 116.62
1984	\$ 105.14	\$ 223.69	\$ 103.24	\$ 218.51	\$ 118.97
1985	\$ 107.25	\$ 229.41	\$ 106.88	\$ 227.42	\$ 121.36
1986	\$ 109.41	\$ 235.28	\$ 111.22	\$ 237.92	\$ 123.80
1987	\$ 111.61	\$ 241.29	\$ 114.65	\$ 246.56	\$ 126.29
1988	\$ 113.86	\$ 247.46	\$ 116.96	\$ 252.87	\$ 128.83
1989	\$ 116.85	\$ 255.32	\$ 119.31	\$ 259.33	\$ 131.43
1990	\$ 120.14	\$ 263.91	\$ 121.71	\$ 265.96	\$ 134.07
1991	\$ 123.12	\$ 271.91	\$ 124.16	\$ 272.76	\$ 136.77
1992	\$ 125.73	\$ 279.15	\$ 126.65	\$ 279.74	\$ 139.52



Los Angeles County Employees Retirement Association Exhibit 4

Percentage of Member's Benefit Paid by Member Contributions Based on 1999 and 2000 Valuation Data

Service Retirements				Disabled				Beneficiaries			
EECI vs. PVB Method				EECI vs. PVB Method				EECI vs. PVB Method			
Plan	in \$Millions		Pct	Plan	in \$Millions		Pct	Plan	in \$Millions		Pct
	Cont'n	PVB			Cont'n	PVB			Cont'n	PVB	
GA	96.9	563.3	17%	GA	2.7	12.3	22%	GA	4.3	11.6	37%
GB	2.8	6.1	46%	GB	0.1	0.3	33%	GB	0.2	0.1	200%
GC	1.3	2.6	49%	GC	0.1	0.3	32%	GC	0.0	0.0	n/a
GD	16.8	41.9	40%	GD	4.0	19.1	21%	GD	0.3	0.6	43%
GE	n/a	n/a	0%	GE	n/a	n/a	0%	GE	n/a	n/a	0%
SA	42.0	214.9	20%	SA	28.3	150.4	19%	SA	0.5	3.9	12%
SB	0.7	1.6	45%	SB	7.2	34.4	21%	SB	0.3	0.9	34%
Total	160.7	831.1	19%	Total	42.5	216.8	20%	Total	5.8	17.5	33%

Percentage of Member's Normal Cost to Total Normal Cost Based on 2000 Contribution Rates

Plan	6/30/00 Val		Pct
	EE%	NC%	
GA	3.11%	16.56%	19%
GB	7.16%	14.81%	48%
GC	6.26%	13.63%	46%
GD	6.73%	14.05%	48%
GE	n/a	n/a	0%
SA	5.57%	27.31%	20%
SB	10.56%	24.62%	43%

Proposed Arrears	
Healthy	Disabled
20%	18%
40%	20%
40%	20%
40%	20%
0%	0%
20%	18%
40%	20%

PVB = Present Value of Benefit at Retirement
 EE = Employee contribution rate
 NC = Total Normal Cost contribution rate

Los Angeles County Employees Retirement Association Exhibit 5a

Dollar Increase in Current Benefits pursuant to Ventura Service Retirement

Based upon \$100 current monthly benefit

Amounts are AFTER the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 0.28	\$ 0.48			
1942	0.29	0.49			
1943	0.30	0.50			
1944	0.30	0.52			
1945	0.31	0.53			
1946	0.31	0.54			
1947	0.32	0.56			
1948	0.33	0.57			
1949	0.33	0.59			
1950	0.34	0.60			
1951	0.35	0.62			
1952	0.35	0.63			
1953	0.36	0.65			
1954	0.37	0.67			
1955	0.38	0.68			
1956	0.38	0.70			
1957	0.39	0.72			
1958	0.40	0.74			
1959	0.41	0.76			
1960	0.41	0.78			
1961	0.42	0.80			
1962	0.43	0.82			
1963	0.44	0.84			
1964	0.45	0.86			
1965	0.46	0.88			
1966	0.47	0.90			
1967	0.48	0.93			
1968	0.49	0.95			
1969	0.50	0.97			
1970	0.51	1.00			
1971	0.52	1.02			
1972	0.53	1.05			
1973	0.54	1.08			
1974	0.55	1.10			
1975	0.56	1.13			
1976	0.57	1.16			
1977	0.58	1.19			
1978	0.59	1.22	\$ 0.44	\$ 0.89	
1979	0.60	1.25	0.44	0.92	
1980	0.62	1.29	0.45	0.94	
1981	0.63	1.32	0.46	0.96	
1982	0.64	1.35	0.47	0.99	\$ 0.47
1983	0.65	1.39	0.48	1.01	0.48
1984	0.67	1.42	0.49	1.04	0.49
1985	0.68	1.46	0.50	1.07	0.50
1986	0.70	1.50	0.51	1.09	0.51
1987	0.71	1.53	0.52	1.12	0.52
1988	0.72	1.57	0.53	1.15	0.53
1989	0.74	1.61	0.54	1.18	0.54
1990	0.75	1.65	0.55	1.21	0.55
1991	0.77	1.70	0.56	1.24	0.56
1992	0.78	1.74	0.58	1.27	0.58



Los Angeles County Employees Retirement Association Exhibit 5b

Dollar Increase in Current Benefits pursuant to Ventura Disability

Based upon \$100 current monthly benefit

Amounts are AFTER the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 0.29	\$ 0.49			
1942	\$ 0.30	\$ 0.50			
1943	\$ 0.30	\$ 0.52			
1944	\$ 0.31	\$ 0.53			
1945	\$ 0.31	\$ 0.54			
1946	\$ 0.32	\$ 0.56			
1947	\$ 0.33	\$ 0.57			
1948	\$ 0.33	\$ 0.59			
1949	\$ 0.34	\$ 0.60			
1950	\$ 0.35	\$ 0.62			
1951	\$ 0.35	\$ 0.63			
1952	\$ 0.36	\$ 0.65			
1953	\$ 0.37	\$ 0.67			
1954	\$ 0.38	\$ 0.68			
1955	\$ 0.38	\$ 0.70			
1956	\$ 0.39	\$ 0.72			
1957	\$ 0.40	\$ 0.74			
1958	\$ 0.41	\$ 0.76			
1959	\$ 0.42	\$ 0.78			
1960	\$ 0.42	\$ 0.79			
1961	\$ 0.43	\$ 0.82			
1962	\$ 0.44	\$ 0.84			
1963	\$ 0.45	\$ 0.86			
1964	\$ 0.46	\$ 0.88			
1965	\$ 0.47	\$ 0.90			
1966	\$ 0.48	\$ 0.93			
1967	\$ 0.49	\$ 0.95			
1968	\$ 0.50	\$ 0.97			
1969	\$ 0.51	\$ 1.00			
1970	\$ 0.52	\$ 1.02			
1971	\$ 0.53	\$ 1.05			
1972	\$ 0.54	\$ 1.08			
1973	\$ 0.55	\$ 1.10			
1974	\$ 0.56	\$ 1.13			
1975	\$ 0.57	\$ 1.16			
1976	\$ 0.58	\$ 1.19			
1977	\$ 0.60	\$ 1.22			
1978	\$ 0.61	\$ 1.25	\$ 0.58	\$ 1.19	
1979	\$ 0.62	\$ 1.28	0.59	1.22	
1980	\$ 0.63	\$ 1.32	0.60	1.25	
1981	\$ 0.65	\$ 1.35	0.62	1.29	
1982	\$ 0.66	\$ 1.39	0.63	1.32	\$ 0.63
1983	\$ 0.67	\$ 1.42	0.64	1.35	0.64
1984	\$ 0.68	\$ 1.46	0.66	1.39	0.66
1985	\$ 0.70	\$ 1.49	0.67	1.42	0.67
1986	\$ 0.71	\$ 1.53	0.68	1.46	0.68
1987	\$ 0.73	\$ 1.57	0.70	1.50	0.70
1988	\$ 0.74	\$ 1.61	0.71	1.53	0.71
1989	\$ 0.76	\$ 1.65	0.72	1.57	0.72
1990	\$ 0.77	\$ 1.70	0.74	1.61	0.74
1991	\$ 0.79	\$ 1.74	0.75	1.65	0.75
1992	\$ 0.80	\$ 1.78	0.77	1.70	0.77



Los Angeles County Employees Retirement Association Exhibit 6a

Retroactive Payment for increased benefits from May 1995 - June 2004

Service Retirement

Based upon \$100 current monthly benefit

Includes 7% simple interest

Amounts are AFTER the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 35.30	\$ 59.71			
1942	36.03	61.27			
1943	36.75	62.84			
1944	37.49	64.45			
1945	38.24	66.09			
1946	39.01	67.78			
1947	39.80	69.52			
1948	40.60	71.29			
1949	41.41	73.12			
1950	42.25	74.98			
1951	43.10	76.90			
1952	43.96	78.87			
1953	44.85	80.88			
1954	45.75	82.95			
1955	46.67	85.07			
1956	47.61	87.25			
1957	48.57	89.48			
1958	49.54	91.77			
1959	50.54	94.11			
1960	51.56	96.52			
1961	52.59	98.99			
1962	53.65	101.52			
1963	54.73	104.11			
1964	55.83	106.78			
1965	56.95	109.51			
1966	58.10	112.31			
1967	59.27	115.18			
1968	60.46	118.12			
1969	61.68	121.14			
1970	62.91	124.23			
1971	64.17	127.39			
1972	65.46	130.64			
1973	66.77	133.97			
1974	68.11	137.40			
1975	69.47	140.88			
1976	70.83	144.41			
1977	72.23	148.05			
1978	73.67	151.81	\$ 54.64	\$ 112.01	
1979	75.13	155.65	55.70	114.79	
1980	76.62	159.58	56.77	117.62	
1981	78.91	165.23	57.76	120.31	
1982	80.83	170.14	58.79	123.10	\$ 68.59
1983	82.45	174.49	60.69	127.76	69.97
1984	84.11	178.95	61.94	131.10	71.38
1985	85.80	183.53	64.13	136.45	72.82
1986	87.53	188.22	66.73	142.75	74.28
1987	89.29	193.03	68.79	147.94	75.78
1988	91.08	197.97	70.17	151.72	77.30
1989	93.48	204.26	71.58	155.60	78.86
1990	96.11	211.13	73.02	159.58	80.44
1991	98.50	217.53	74.49	163.66	82.06
1992	100.58	223.32	75.99	167.84	83.71



Milliman

**Los Angeles County Employees Retirement Association
Exhibit 6b**

Retroactive Payment for increased benefits from May 1995 - June 2004

Disability

Based upon \$100 current monthly benefit

Includes 7% simple interest

Amounts are AFTER the offset of the arrears contributions

Year of Retirement	General Plan A	Safety Plan A	General Plans B - D	Safety Plan B	General Plan E
1941	\$ 36.18	\$ 61.20			
1942	36.93	62.80			
1943	37.67	64.41			
1944	38.43	66.06			
1945	39.20	67.75			
1946	39.99	69.48			
1947	40.79	71.25			
1948	41.61	73.08			
1949	42.45	74.94			
1950	43.30	76.86			
1951	44.17	78.82			
1952	45.06	80.84			
1953	45.97	82.91			
1954	46.89	85.03			
1955	47.84	87.20			
1956	48.80	89.43			
1957	49.78	91.72			
1958	50.78	94.06			
1959	51.80	96.47			
1960	52.85	98.93			
1961	53.91	101.46			
1962	54.99	104.06			
1963	56.10	106.72			
1964	57.23	109.44			
1965	58.38	112.24			
1966	59.55	115.11			
1967	60.75	118.06			
1968	61.97	121.07			
1969	63.22	124.17			
1970	64.49	127.34			
1971	65.78	130.58			
1972	67.09	133.90			
1973	68.44	137.32			
1974	69.82	140.83			
1975	71.20	144.40			
1976	72.60	148.02			
1977	74.03	151.75			
1978	75.51	155.60	\$ 72.86	\$ 149.35	
1979	77.01	159.54	74.27	153.05	
1980	78.54	163.57	75.70	156.83	
1981	80.88	169.36	77.01	160.41	
1982	82.85	174.40	78.38	164.14	\$ 91.46
1983	84.51	178.86	80.91	170.34	93.30
1984	86.21	183.43	82.59	174.81	95.18
1985	87.95	188.12	85.51	181.94	97.09
1986	89.72	192.93	88.98	190.34	99.04
1987	91.52	197.86	91.72	197.25	101.04
1988	93.36	202.92	93.56	202.29	103.07
1989	95.81	209.36	95.45	207.47	105.14
1990	98.51	216.41	97.37	212.77	107.26
1991	100.96	222.97	99.32	218.21	109.41
1992	103.10	228.90	101.32	223.79	111.61



Milliman

Reconciliation of 2000 Study results to 2004 Study results

	Amounts Provided End of June 2004	Subtotals by Member's Year of Retirement		
		Those Retired Prior to 1981	Those Retired from 1981-1992	Those Retired 1993 or later
Retroactive Payments with 7% Compound Interest				
From 2000 Deposition - All Plans				
a. From Oct. 1993 - Oct. 1997	\$47.437			
b. From Nov. 1997 - June 2001	\$41.817			
c. Total*	\$89.254			
d. Approximate Retroactive Payments from May 1995 through June 2001 based upon 2000 results (c. x. 74 months / 93 months)	\$71.019			
e. 3 years, 7% simple interest (SI) factor for June 2001 to June 2004.	1.21			
f. May 1995 through June 2001 payments with 7% SI to June 2004 (d. x e.)	\$85.933			
g. Retroactive payments from July 2001 through June 2004 with 7% to June 2004 according to current study (Includes STAR)	\$39.307			
h. Expected value of retroactive payments as of June 30, 2004 based upon 2000 Study	\$125.240			
i. Estimated Total Value of Retroactive Payments as of June 30, 2004 according to 2004 Study - All Plans	\$115.930	\$20.604	\$64.701	\$30.625
Present Value of Future Benefits				
j. Present value of future benefits after June 30, 2001 according to 2000 Deposition - All Plans (*)+B33	\$122.415			
k. Value in (j) with 8% interest to June 30, 2004	\$154.208			
l. Estimated payments for July 1 through June 2004, 8% interest	\$39.925			
m. Expected Present Value of Future Benefits after June 30, 2004 before vesting of STAR COLA program (k. - l.)	\$114.283			
n. Increase in Present Value of Future Benefits due to the vesting of the STAR COLA program	\$3.257			
o. Expected Present Value of Future Benefits after June 30, 2004 based upon 2000 Study (m. + n.)	\$117.540			
p. Estimated Present Value of Future Benefits after June 30, 2004 according to 2004 Study - All Plans	\$110.789	\$13.485	\$59.308	\$37.996
Total Liabilities for Retroactive Adjustments to Retirees				
q. Expected 2000 Study values as of June 30, 2004 (h.+o)	\$242.780			
r. Estimated value from 2004 Study (i.+p.)	\$226.719	\$34.089	\$124.009	\$68.621
s. Ratio between Studies (r. / q.)	93.4%			
t. Estimated value of arrears contributions	\$44.530	\$6.598	\$24.338	\$13.594
u. Net Increase in Total Liabilities (r. - t.)	\$182.189	\$27.491	\$99.671	\$55.027

* Note the 2000 Study included increases for members retiring after October 1, 1997. Thus, only 7,517 members of the original 10,070 members are comparable between the 2000 and 2004 studies. Amounts shown are not adjusted for this difference.

