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# ACTUARIAL REVIEW REPORT FOR THE

# LOS ANGELES COUNTY
# OTHER POSTEMPLOYMENT BENEFITS PROGRAM

# JULY 1, 2020 VALUATION

**Prepared: July 20, 2021**

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Cavanaugh Macdonald
CONSULTING, LLC
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July 20, 2021

Mr. Richard Bendall
Chief, Internal Audit
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 820
Pasadena, CA 91101

Dear Mr. Bendall:

Cavanaugh Macdonald Consulting, LLC (CMC) has performed an independent review of the July 1, 2020 Other Postemployment Benefits (OPEB) Program actuarial valuation prepared for LACERA and other stakeholders. As an independent reviewing, or auditing actuary, we have been asked to express an opinion regarding the reasonableness and accuracy of the valuation results, including a review of sample lives as well as a replication of the main valuation results.

Our opinion on the valuation results was based on a replication of the July 1, 2020 OPEB actuarial valuations and a review of detailed sample lives. Previously, we reviewed the 2020 OPEB Experience Study to confirm the reasonableness of the assumptions and methods selected for the valuation. We would like to thank Milliman, the Association's retained actuary, for their cooperation and assistance in providing the required information to us. **We generally find the OPEB actuarial valuation results to be reasonable and accurate based on the assumptions and methods used. The valuation was performed by qualified actuaries and was performed in accordance with the principles and practices prescribed by the Actuarial Standards Board.** This report documents the detailed results of our review.

**Additional Information and Disclosures**

This report has been prepared for LACERA and its stakeholders by CMC and is intended to assist LACERA as it validates the reasonability of the liabilities, costs, and other calculations for the OPEB Program as of June 30, 20208. Additionally, the findings, conclusions, and recommendations presented in this report are specific to LACERA, LACERA's OPEB Program, and the work produced by Milliman. CMC may produce different findings or arrive at different conclusions in other situations, even in cases involving similar OPEB plans. As such, it is important to keep in mind that the use of this information for purposes other than those expressed here may not be appropriate.

In preparing this review, we have relied on the following information provided by LACERA and/or Milliman:

- Milliman's draft report titled, "2020 Investigation of Experience for Los Angeles County Other Postemployment Benefits Assumptions" (2020 Investigation of OPEB Program Experience Report);
- Raw Retirement Plan actuarial valuation census data as of June 30, 2020;
- OPEB Program actuarial valuation census data as of June 30, 2020;
- Milliman's processed OPEB Program actuarial valuation census data as of June 30, 2020;
- Detailed sample lives prepared by Milliman; and
- Complete tables of actuarial assumptions used by Milliman.

While we cannot verify the accuracy of all this information, the supplied information was reviewed for reasonableness and consistency and we have no reason to doubt the substantial accuracy or completeness of the information and believe that it is reliable for the purpose of conducting this review. The results and conclusions contained in this report depend on the integrity of this information, and if any of the supplied information or analyses change, our results and conclusions may be different, and this report may need to be revised.

CMC does not provide legal, investment, or accounting advice. Thus, the information in this report is not intended to supersede or supplant the advice and interpretations of LACERA or its external consultants.

We would like to acknowledge the assistance for this review given by LACERA staff and the Milliman consultants.

I, Brent A. Banister, FSA, am a member of the American Academy of Actuaries and Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Alisa Bennett, FSA, am a member of the American Academy of Actuaries and 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,

Brent A. Banister, Ph.D., FSA, EA, MAAA, FCA
Chief Actuary

Alisa Bennet, FSA, EA, MAAA, FCA
President

## TABLE OF CONTENTS

**Page**

## 1. Executive Summary

As an independent auditing actuary, Cavanaugh Macdonald Consulting, LLC (CMC) has been tasked to provide a general overview and express an opinion of the reasonableness and soundness of the work performed by Milliman, Inc. for the Los Angeles County Retirement Association (LACERA). The work to be reviewed was the July 1, 2020 actuarial valuation for the Other Postemployment Benefits (OPEB) program. The specific items to be included in the actuarial audit include a replication of the major valuation results and a detailed review of selected sample lives.

We examined whether the actuarial methods, considerations, and analyses used by Milliman in preparing the OPEB actuarial valuation are reasonable and consistent with generally accepted actuarial standards and practices as promulgated by the Actuarial Standards Board. This examination included:

a) An in-depth review and analysis of the valuation results, including an evaluation of the data used for reasonableness and consistency as well as a review of mathematical calculations for completeness and accuracy.

b) Verification that benefits have been valued accurately.

c) Verification that the data provided by LACERA is consistent with data used by Milliman.

d) Verification of the reasonableness of the calculation of the unfunded actuarial accrued liability and the amortization period.

We requested the original member census data from LACERA. We also requested member data, as reconciled for the 2020 OPEB valuation, from Milliman along with complete descriptions of assumptions, methods and valuation procedures. Most of the active member data was based on the pension valuation, which was accepted based on our prior audit of that process. We also requested a range of sample life information from Milliman.

It is our belief that an audit should not focus on finding trivial differences between actuarial processes, procedures, philosophies, or styles utilized by two different actuaries, but rather to verify there are no material errors, and to identify potential improvements to the process and procedures utilized by the Association's actuary. Because actuarial work draws on professional judgment, there is a subjective component that must be considered alongside the objective component of matching numerical results. In performing this audit, we attempt to limit discussions concerning stylistic preferences and focus more on the significant philosophical approaches, the accuracy of calculations, the completeness and reliability of reporting, and the compliance with generally acceptable actuarial practices and standards of practice in all the work reviewed.

## 1. Executive Summary

As described in our report, we have determined that the actuarial methods, assumptions, processes, and reports are consistent with the applicable Actuarial Standards of Practice (ASOP). Throughout the report, we have noted a few issues where we believe there are opportunities for improvement.

In Section 2 of our report, we compare data used by Milliman with the original data produced by LACERA. **We find that the data is consistent and appropriate, although we did note an insignificant issue regarding the handling of missing spouse dates of birth.**

In Section 3 of our report, the results of our independent calculations of the LACERA liabilities are compared with the results prepared by Milliman. We were able to match all liabilities within a reasonable range. **We find the calculation results to be reasonable and appropriate for their intended purposes, and offer some suggestions for possible refinement.**

In Section 4, we provide our comments on the OPEB valuation report produced by Milliman. **We found the reports to be generally in compliance with the ASOPs.**

In Section 5, we discuss our review of the sample lives provided by Milliman. **Our review further confirmed the accuracy of the OPEB valuation results discussed in section 3.**

Because of the complexity of actuarial work, we would not expect to match Milliman's valuation results exactly, nor would we necessarily expect our opinions regarding the results to be the same as those of Milliman. While we offer some different viewpoints or ideas, we believe that Milliman's work provides an appropriate assessment of the status of the OPEB Program for purposes of determining an appropriate funding strategy.

The remainder of this report provides the basis for our findings for each of the requested tasks, including our recommendations.

## 2. Data Review

Milliman and LACERA supplied CMC with the member data used for the July 1, 2020 OPEB valuation. This included both the raw data prepared by LACERA and the processed data used by Milliman in its valuation software. We compared the records and generally agreed with the processing being performed by Milliman. The following pages contain some summarization of our comparisons.

There is minimal data scrubbing performed by Milliman, so we were generally able to confirm that the records used by Milliman contained the data provided by LACERA. We further tested that the manner in which records were selected for inclusion or exclusion in the valuation or assignment of valuation status was appropriate. We note that Milliman details in their report in Appendix C that there are cases where certain adjustments were required. We believe such adjustments are reasonable.

We tested the counts by status and the totals of selected key fields to be sure they were reasonably close. The following tables contain some additional detail summarizing our review. We believe that the data provided by LACERA is sufficient for Milliman to reasonably perform its work. We did not audit the data, but simply determined whether Milliman was using the data appropriately.

In our review of the work performed by Milliman, we did identify one issue that should have an insignificant impact on results. It is necessary to make an assumption about the age difference of spouses when birth dates for current retiree spouses is missing and also for current active members who will retire in the future. During the 2020 Investigation of Experience, Milliman changed the assumption used for female LACERA members from being two years younger than their male spouses to one year younger. However, in the processing of the retiree data, the old two-year assumption was used when spouse data was missing. We agree with Milliman that this error will have no meaningful effect on any of the results.

In our review of the data files, we observed that the data provided by LACERA for dental benefits included some spouse dates of birth that were missing on the data provided for medical benefits. We encourage Milliman and LACERA to review how these files are generated to determine which data set is more appropriate. We would not expect this to have any meaningful impact on the results.

***Overall, we are comfortable that the data Milliman uses to perform its valuation is consistent with the data supplied by LACERA and appropriate to obtain the desired measurements.***

## 2. DATA REVIEW

**Data Items Checked**

| Active & Deferred Vested Raw Data Field | Result |
| --- | --- |
| - Count | Matched 100% |
| - Date of Birth | Matched 100% |
| - Average Age | Matched 100% |
| - Date of Hire | Matched 100% |
| - Average Service | Matched 100% |
| - Gender | Matched 100% |
| - Group ID | Matched 100% |
| Medical Raw Data Field | |
| - Count | Matched within 0.08% |
| - Date of Birth | Matched within 0.07% |
| - Average Age | Matched 100% |
| - Gender | Matched within 0.07% |
| Dental Raw Data Field | |
| - Count | Matched 100% |
| - Date of Birth | Matched 100% |
| - Average Age | Matched 100% |
| - Gender | Matched 100% |

## 2. DATA REVIEW

**Not In-Pay Reconciliation**

| | Raw Data | Milliman Exhibit | Percent Difference |
|---|---|---|---|
| Records Received Active | 100,051 | 100,051 | 0.0% |
| Records Received Deferred Vested Status | 8,631 | 8,631 | 0.0% |
| Net Records | 108,682 | 108,682 | 0.0% |

**In-Pay Reconciliation**

| | Medical Raw Data | Milliman Medical Exhibit | Percent Difference | Dental Raw Data | Milliman Dental Exhibit | Percent Difference |
|---|---|---|---|---|---|---|
| Records Received (Retirees / Spouses / Dependents) | 83,198 | | | 82,305 | | |
| Adjustment for Duplicate Records | (4,388) | | | 0 | | |
| Subsequent Data Adjustments | 2,114 | | | 0 | | |
| Net Records | 80,924 | 81,164 | -0.3% | 82,305 | 82,305 | 0.0% |
| - Retirees / Survivors | 52,589 | 52,589 | 0.0% | 53,918 | 53,918 | 0.0% |
| - Spouses and Dependents | 28,335 | 28,575 | -0.8% | 28,387 | 28,387 | 0.0% |

## 3. ACTUARIAL VALUATION RESULTS REVIEW

This section of our review discusses the reasonableness and accuracy of the liabilities and costs developed in Milliman's July 1, 2020 OPEB actuarial valuations. We independently programmed the benefits provided under LACERA's OPEB Program using standard actuarial approaches.

The OPEB Program offered by LACERA is quite complex compared with most OPEB Programs, largely because of the number of groups in the program and the extensive array of coverage options available to its members. Consequently, different actuaries could reasonably take different approaches to appropriately modelling the liabilities of the Program. In order to be able to meaningfully compare our results to Milliman's results and to perform a useful sample life audit, we elected to mimic certain aspects of the model used by Milliman. We made an effort to minimize this duplication in order to have our results be as independent as possible. While Milliman was responsive to questions that we asked, they were also careful not to provide any information that would have provided inappropriate insight into their processes. As a result, we believe that the results we obtained are a meaningful test of the work performed by Milliman.

As the following summaries show, we matched well overall and reasonably well on the various component pieces. We do not expect to be able to match exactly because we know we are using independent approaches to modelling the liabilities. Results are shown for the Present Value of Benefits (PVB), the Actuarial Accrued Liability (AAL), and the Normal Cost. The PVB is a measure of all benefits expected to be ultimately paid for all current members of the Plan. The AAL reflects the portion of the PVB attributable to service already performed, and is the measure typically used for funding and accounting purposes. The Normal Cost is the portion of the PVB that will be earned in the upcoming year. Of the three measures, we generally expect to match the PVB the closest, typically within 1-3%, while the AAL is often not quite as close, and the Normal Cost may be only within 3-6%.

**Employer Provided Present Value of Benefits**
**(dollars in millions)**

| | Milliman | CMC | Percent Difference |
|---|---|---|---|
| Active Members | $18,857.3 | $19,016.9 | 0.8% |
| Vested Terminated Members | 500.3 | 490.7 | -1.9% |
| Retirees and Survivors | 10,096.0 | 9,757.7 | -3.4% |
| Total | $29,453.6 | $29,265.3 | -0.6% |

## 3. ACTUARIAL VALUATION RESULTS REVIEW

**Employer Provided Actuarial Accrued Liability**
**(dollars in millions)**

| | Milliman | CMC | Percent Difference |
|---|---|---|---|
| Active Members | | | |
| Medical | $8,449.0 | $8,540.9 | 1.1% |
| Dental/Vision | 475.8 | 469.8 | -1.3% |
| Medicare Part B | 1,743.8 | 1,739.2 | -0.3% |
| Death Benefit | 37.8 | 37.5 | -0.8% |
| | $10,706.4 | $10,787.4 | 0.8% |
| Vested Terminated Members | | | |
| Medical | $370.3 | $358.3 | -3.2% |
| Dental/Vision | 21.3 | 22.3 | 4.7% |
| Medicare Part B | 102.9 | 104.3 | 1.4% |
| Death Benefit | 5.8 | 5.8 | 0.0% |
| | $500.3 | $490.7 | -1.9% |
| Retirees and Survivors | | | |
| Medical | $7,894.7 | $7,531.5 | -4.6% |
| Dental/Vision | 567.4 | 584.5 | 3.0% |
| Medicare Part B | 1,504.5 | 1,512.6 | 0.5% |
| Death Benefit | 129.4 | 129.1 | -0.2% |
| | $10,096.0 | $9,757.7 | -3.4% |
| Total | $21,302.7 | $21,035.8 | -1.3% |

**Employer Provided Normal Cost**
**(dollars in millions)**

| | Milliman | CMC | Percent Difference |
|---|---|---|---|
| Medical | $503.9 | $508.7 | 1.0% |
| Dental/Vision | 24.8 | 25.0 | 0.8% |
| Medicare Part B | 105.6 | 106.8 | 1.1% |
| Death Benefit | 2.3 | 2.3 | 0.0% |
| | $636.6 | $642.8 | 1.0% |

Note: We also compared results by agent employers and found similar results.

## 3. ACTUARIAL VALUATION RESULTS REVIEW

The valuation report contains various exhibits determining such things as funding status and contribution rate determination. These exhibits hinge upon the accuracy of the liability calculations. To the extent that our estimates of the liabilities vary, we would expect corresponding changes in these other exhibits. We reviewed these tables based upon Milliman's liability results and found no issues.

Through the process of replicating the liability results produced by Milliman, we identified some issues where we believe that Milliman could possibly refine their approach in the future. We believe their current approach is consistent with their described assumptions and methods, but that some refinements in those assumptions and methods might improve the accuracy of the valuation estimates with only minimal extra effort.

First, we observed an issue with a group of retirees who were between 64 ½ and 65 on the valuation date. These retirees currently are enrolled in a non-Medicare plan since they are not yet eligible for Medicare. In the valuation software, they are also considered age 65 due to rounding, which is appropriate. Milliman values these individuals with their current medical plan election and assumes that since they have that plan at (rounded age) 65, they will keep the same non-Medicare plan for the future. While some retirees certainly do this, we believe that it would also be reasonable to treat this group like the younger (under age 64 ½) retirees who are assumed to elect from a range of Medicare and non-Medicare plans upon reaching Medicare eligibility at 65. Note that because Milliman assumes that this group will continue with a non-Medicare plan, they are consistent and do not value any liability for the Part B premium reimbursement. Our preferred approach would be to value the lower Medicare premium costs and include the Part B premium reimbursement. The net effect of our approach should result in a small reduction in overall liabilities.

Second, there is a very technical issue with the treatment of current active members and current inactive deferred vested members regarding the assumed premium at age 65 and beyond. For current active members, the post-65 premium depends upon whether the member is *assumed* to retire before or after age 65. For the deferred vested members, the post-65 premium depends upon whether or not the member is *eligible* to retire before or after age 65. This nuance has not been clearly expressed in the assumptions section and Milliman intends to clarify that issue. We see no particular reason other than perhaps ease of coding effort for this distinction to exist. For the newer tier whose members are required to enroll in Medicare, the difference is trivial and the distinct assumptions could probably be eliminated.

## 4. VALUATION REPORT REVIEW

### CONTENT OF THE ACTUARIAL REPORTS

The Actuarial Standard Board has issued a number of Actuarial Standards of Practice (ASOP) which provide guidance on measuring retiree group benefit obligations and communicating the results (ASOP Nos. 4, 5, 6, 12, 21, 23, 25, 27, 35, 41, 44, and 56). Those standards list specific elements to be included, either directly or by reference to other documents, in OPEB actuarial communications. Some of the elements would not be pertinent in all communications, but since an actuarial valuation report is the most complete picture of the actuarial status of the plan, all of the elements listed should be covered in the report, even if only briefly.

The July 1, 2020 OPEB actuarial valuation (in its initial draft) report generally provides sufficient information for another actuary to understand the process and to assess the reasonableness of the results.

In our review of the July 1, 2018 OPEB actuarial valuation, we noted several minor issues where we thought enhancement or clarification would be helpful. Milliman had made those changes and we have no further suggestions at this time. We do note that ASOP 56 is new since the 2018 report and Milliman has included appropriate commentary on their use of models.

We compared the contents of the draft report to over 30 specific items detailed for pension actuarial work in the ASOPs listed above. ***In our review of the report, we found it to be substantially in compliance with the applicable ASOPs.***

## 5. SAMPLE LIFE REVIEW

In addition to the replication of results discussed in section 3, we were also asked by LACERA to perform a review of sample lives. These samples included 14 retirees and surviving spouses, 10 of whom have a current spouse entitled to benefits, 14 deferred members, and 17 active members. We were provided with details of calculations for medical benefits and premiums, dental benefits and premium, the Part B reimbursement provision, and life insurance benefits. (Deferred members only had medical benefits and premiums provided.) Additionally decrement tables were provided for active and deferred members, and additional detail to support the Entry Age Normal cost allocation was provided for active members. This sample appropriately covered a range of ages, pension plan participation, medical or dental plan election, and general demographic variation.

We reviewed all benefits for each individual included in the sample. In many cases, we matched liabilities to the nearest penny, particularly for life insurance, but also some medical, dental, and Part B benefits. This level of matching is much closer than we would generally expect since we were independently programming how benefits are valued but is partly a reflection of certain benefits being straightforward to value and using the same underlying valuation software. In many other cases we did not match exactly, but we were reasonably close and an inspection of the intermediate calculations did not indicate any systemic issues.

In certain cases, we noted that our calculation of the premiums paid by a retired member and spouse were approximately the same in total, but our method of allocating the cost resulted in a different split between the member and the spouse. That fact that nearly the same result could be obtained with different approaches should be viewed as a positive, reflecting an alternative model yielding similar results.

One item we did detect last time in our review and still remains, but is of negligible consequence, relates to certain deferred inactive members with very low service, who are not vested. Under the retirement plan provisions for plans A, B, C, D, and G, these individuals are eligible to retire at age 70 regardless of the amount of service. Milliman had these individuals commencing benefits at age 75 which is the listed assumption. Because these individuals receive no subsidy for the medical or dental plans, there is no impact on the liabilities for those benefits. There would be some very tiny increases in the Part B and life insurance liabilities.