Actuarial Audit for the Actuarial Valuation of the Local Income Continuation Insurance Plan

As of December 31, 2023, for the Wisconsin Department of Employee Trust Funds

Segal

Segal

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Cindy Klimke
Wisconsin Department of Employee Trust Funds
4822 Madison Yards Way
Madison, WI 53705-9100

Re: Audit of the Local Income Continuation Insurance Plan Actuarial Valuation as of December 31, 2023

Dear Cindy:

This report will discuss our review of the results presented in Milliman's April 23, 2024, report labelled, "Actuarial Valuation of the Local Income Continuation Insurance Plan as of December 31, 2023" (Milliman Valuation report).

The valuation reports benefit liabilities of $7.52 million, and an asset value of $43.92 million as of December 31, 2023. Segal's reproduction of these results (using the same assumptions and participant data as Milliman) produced liabilities of $7.65 million.

Overall we believe that the Milliman Valuation report (including the assumptions and methods used to determine the results and the supporting information provided in the related experience studies) that follows the provisions of GASB 10 (Accounting and Financial Reporting for Risk Financing and Related Insurance Issues) sufficiently reflects the accounting results for the Income Continuation Insurance Plan for the fiscal year ending December 31, 2023.

We appreciate the opportunity to provide this review for you, and hope that you have found it helpful. Please let us know if we can be of further assistance.

Sincerely,

Robert Burrell, ASA, FCA, MAAA, EA
Vice President and Consulting Actuary

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Executive Summary

The valuation reports benefit liabilities of $7.52 million, and an asset value of $43.92 million as of December 31, 2023. Segal's reproduction of these results (using the same assumptions and participant data as Milliman) produced liabilities of $7.65 million. This would typically be considered an accepted tolerance level for the Local Income Continuation Insurance Plan audit results.

Overall, we believe that the Milliman Valuation report (including the assumptions and methods used to determine the results and the supporting information provided in the related experience studies) follow the provisions of GASB 10 (Accounting and Financial Reporting for Risk Financing and Related Insurance Issues) and sufficiently reflects the accounting results for the Local Income Continuation Insurance Plan for the fiscal year ending December 31, 2023.

The primary assumptions used in determining the liability for the Income Continuation Plan are the discount rate, the probability of payment in each future month (or how long each participant will continue to receive payments), and the assumed payment in that month for each individual included in the valuation, net of estimated offsets.

The discount rate is an economic assumption prescribed by the Department of Employee Trust Funds (ETF), and a review of this assumption is outside the scope of our audit.

The remaining assumptions used to calculate liabilities for benefits appear to be reasonable in the aggregate, based on the relatively narrow margin (1.0%) of the expected claims paid over the actual claims paid for the period 2018 – 2022, as noted by Milliman. Of these assumptions, the probability of payment in each future month could be considered a demographic assumption, and the assumed payment in each month could be considered another economic assumption.

In addition to validating the reported liabilities for the Plan, we have considered and provided recommendations related to the assumptions and methods used in the valuation, the content of future valuation reports, and potential funding projections.

More detailed discussion is provided in the remainder of this report, but at a high level, we recommend the following:

- Milliman should disclose whether any of the assumptions have a significant bias to underestimation or overestimation, particularly regarding the claim termination rates assumption and related adjustment factors.
- Milliman should disclose whether the estimated liability is intended to be a conservative measure, a best estimate, or other measure of results.
- We recommend that future valuations include a funding projection scenario that provides sensitivity to investment performance as well as a scenario that provided sensitivity to demographically aligned assumptions.

Certification

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, this report is complete and accurate and, in my opinion, presents the information necessary to comply with GASB Statement 10 with respect to the benefit obligations addressed. The signing actuary is a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and meets the "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Robert Burrell, ASA, FCA, MAAA, EA
Vice President and Consulting Actuary

Audit Methodology

The scope of our audit was to perform a full replication of the valuation, based on the same census data, assumptions, and methods used by the consulting actuary. In addition, we examined the consulting actuary’s methods and assumptions for reasonableness and consistency, including a review of related experience studies. This entailed the following:

- Collecting source data from the ETF (via Milliman) for claims and asset information.
- Matching the participant counts reported by Milliman.
- Matching the benefits information reported by Milliman.
- Incorporating the valuation assumptions in our calculation model.
- Reviewing the reasonableness of those assumptions.
- Matching the assets displayed in the Milliman Valuation to the information received from the Department of Employee Trust Funds (ETF).
- Matching the benefit liabilities (within tolerances) displayed in the valuation report.
- Commenting on the overall assumptions, methods, plan provision summaries, and report accuracy.

As part of our audit process, we also reviewed Milliman’s April 2023 Report on Experience Studies for the State and Local Income Continuation Insurance Plans and December 2023 IBNR Experience Studies for State and Local ICI Plans. We did not identify any issues with the assumptions and overall methodology that were used in either study.

In addition to Milliman’s December 31, 2023, valuation report and the Income Continuation Insurance Plan Experience Studies, we also received and considered information contained in the ETF 2023 Income Continuation Insurance Reserve Statement (March 2024 from ETF).

Analysis of Data

The GASB 10 methodology is to only reflect participants currently receiving benefits in the valuation. The data provided by ETF (via Milliman) was filtered to include only Open and Pending Claims, and for the Local Income Continuation Insurance Plan.

The data provided to Segal came in a complex database. Segal matched the open claim counts by sex, age band, and year of disability as reported in Tables C-1 and C-2 in Appendix C of the Milliman Valuation report. Based on the gross benefit amounts and total offset fields in the data, Segal was able to closely match the net benefit amounts presented in Tables C-3 and C-4 also found in Appendix C of the Milliman Valuation report.

We did encounter a number of records (roughly 50%) where the total current benefit offset was not equal to the sum of the individual offset fields (Social Security, Pension/Retirement, and Other). For these records we treated the total benefit offset amount as correct and added any needed adjustment amount to the Other offset amount.

Other than this issue, the data provided contained all information needed to estimate the benefit liabilities for the Local Income Continuation Insurance Plan.

Analysis of Actuarial Assumptions and Methods

The primary assumptions used in determining the liability for the Local Income Continuation Plan are the discount rate, the assumed payment net of estimated offsets for each individual, and the claim termination rates, which are used to estimate how long each participant will continue to receive these payments.

To gauge the accuracy of these results in total, the estimated benefits to be paid in the upcoming year for disabled members were compared to the actual benefits paid. Milliman's Valuation details the variance as 1.0% (Table 2.3, page 6) during 2018 - 2022. This variance indicates that the assumptions in aggregate produce a true expectation of future experience.

Table 2.3 Retrospective Runoff Study for the Income Continuation Plans Disabled Members (Reproduced)

Claims Duration	Average Annual Margin
1-12 months	6.1%
13-24 months	1.7%
25-36 months	0.8%
37-48 months	-1.9%
49-60 months	2.1%
61+ months	1.3%
Total	**1.0%**

Milliman suggests that the annual margin targeted for this sort of plan is typically 1% - 5%. The rates are relatively constant, as Milliman contends, and the plan has surplus to draw on if there should be a decrease in the margin.

Discount Rate

The discount rate is 6.80% and was prescribed by the ETF Board.

The Plan is funded, and the expected rate of return on Plan assets/reserve is used as the discount rate. The assets by investment class are not disclosed in the valuation. We have not performed any analysis related to the expected rate of return on Plan assets.

Claim Termination Rates

This assumption acts much the way a mortality (death) assumption works for pension plans. It is essentially the probability of death, plus the probability that the participant recovers from the disability.

The death and recovery rates are based on the industry-standard 2012 Group Long Term Disability Valuation Table (GLTD), with adjustments to the rates at various durations based on recent claim experience for the State and Local ICI plans combined (see table below).

The 2012 GLTD Table contains death and recovery rates that vary based on age at disability occurrence, the duration of disability as of the measurement date, and the cause of disability (cancer, musculoskeletal, etc.). These primary death and recovery rates are further modified by factors related to benefit amount, elimination period length, and the changeover in definition of disability.

Milliman further modified these death and recovery rates at various disability durations to better fit Plan experience based on a combined analysis for the State and Local Income Continuation Insurance Plans:

Disability Duration	Adjustment Factor
1-12 months	1.20
13-24 months	1.60
25-36 months	0.85
37-48 months	0.40
49-60 months	0.25
61-120 months	0.85
121+ months	1.30

These adjustment factors were based on Milliman's analysis of claim termination rates and claim runout amounts, as detailed in the April 2023 Experience Study document. Based on our review of that analysis, we believe that the adjustment factors are reasonable.

Future Offset Amounts, Timing, and Applicability

Benefits already being paid to participants from other sources are provided in the participant data. These benefits are used to offset the amount paid from this Plan and include amounts for Social Security, Pension benefits, and Other benefits.

If the participant data does not already have a given benefit offset, then that offset may be estimated, and a probability of the offset reducing the payment is applied (depending on the duration of their disability).

The algorithm for developing assumed offsets is complicated. Milliman performed significant analysis in their recent Income Continuation Insurance Plans Experience Study to develop assumptions for future offset applicability and average offset amounts. This analysis appears robust and thoughtful, and we have no reason to doubt the results.

Incurred But Not Reported Claims (IBNR)

Incurred But Not Reported Claims represent the expected cost attributable to claims incurred prior to the December 31, 2023, measurement date but not yet reported plus claims reported by the measurement date but not yet approved for benefits.

Milliman estimated the liability for IBNR claims as 26% of the expected total claims incurred during 2023, which was in turn estimated based on their analysis of incurred claims experience from 2017 through 2022 and includes an explicit load of 10% above the rate of IBNR claims observed during the experience period.

Loss Adjustment Expenses

The Liability for Loss Adjustment Expenses is described as an actuarial present value of expected expenses related to the ongoing management and payment of open and IBNR claims.

Milliman calculated this amount based on monthly administrative expenses provided by The Hartford in 2020 for ongoing claims, plus the one-time cost for new claims. It is also noted that this calculation was used for estimated expenses although ETF pays The Hartford a flat annual retainer fee. We were able to match Milliman's estimated expense amount based on their described method.

While the stated method reasonably captures the expected future administrative expenses for the covered population as of the measurement date, based on the information provided in the 2023 asset statement as well as the projected future annual administrative expense amounts, the Plan is expected to experience additional expenses related to the ongoing operation of the Plan. These costs are not required to be disclosed for GASB 10 reporting, but it is important for Plan stakeholders to understand these expected costs and their potential impact on future Plan funding.

Overpayment Credits

The assumption recommended in Milliman's 2023 experience study is that 75% of the overpayment balance reported by ETF as of the Valuation Date is expected to be recovered.

Given the relative size of the potential repayments relative to the overall liabilities of the Plan, this assumption is not material (assuming 100%, 50%, or even 0% repayment would not materially change the results of the Plan).

Based on the information provided, we agree that the assumption that 75% of overpayments will be recovered is reasonable.

Plan Design

Segal used the description in Appendix B of the Milliman Valuation report as the basis for the Plan Design that was used to develop the audit results.

The basic benefit design is a gross benefit, less offsets for benefits received from other sources. The gross benefit is 75% of salary up to $120,000 of covered salary. As of the December 31, 2023, measurement date, the gross benefit is split between Basic coverage (for salary up to $64,000) and Supplemental coverage (for salary between $64,000 and $120,000). The benefits work the same for each salary level, but the cost of coverage is shared between the participant and employer for Basic coverage while the cost of Supplemental coverage is fully paid by the participant. Effective January 1, 2024, Supplemental coverage was eliminated, and the full range of benefit is included in Basic coverage.

Benefits are paid until the earliest of recovery, death, or age 65 (unless disability occurs after age 60, in which case a maximum of five years of payments will be made).

Benefits do not increase in future payment periods.

There are no survivor benefits.

Plan Assets

The Trust values appear to be reasonable based on the prior year information. ETF provided the asset detail, and it matched the detail in the Milliman Valuation. We did not perform any further audit of these results.

The Plan has a very large margin of assets compared to current liabilities. There are currently no premium contributions for benefits due to this margin. However, poor investment performance could materially reduce this margin.

Accuracy of Results

Below are the Segal results compared to Table 1.1 of the Milliman valuation:

Liability Component ($ millions)	Milliman Valuation Results	Segal Replication	Ratio of Results
Open Claims	$6.55	$6.68	101.9%
IBNR Claims	0.50	0.50	100.0%
Loss Adjustment Expense	0.47	0.47	100.8%
Total	**$7.52**	**$7.65**	**101.6%**

We were able to closely replicate the liability results from Milliman's valuation using the census data, assumptions and methods, and plan provisions described in Milliman's valuation report.

Funding Projections

The scope of our review did not include matching the projected estimated liabilities or the projected Insurance Claims in these projections. We have also not reviewed projection assumptions related to future payroll growth, the structure of future contribution rates, or assumed investment returns. Given the GASB 10 methodology does not include a liability for active employees, we find using the percentage of payroll estimation method to be reasonable for estimating new claims.

Funding projections were only done for a baseline scenario (current valuation basis with actual investment returns equal to the discount rate/expected asset return plus unchanged contribution rates in the future.

We recommend that future reports add a projection that shows the sensitivity of the Plan's surplus to a meaningful negative investment return scenario.

We also recommend adding at least one projection that provides sensitivity to the Plan's demographically aligned assumptions. We recommend starting with sensitivity related to the claim termination rates or the Plan-related adjustment factors, but sensitivity on the amount and/or applicability of benefit offsets could also provide useful information.

Conclusion

The valuation reports benefit liabilities of $7.52 million, and an asset value of $43.92 million as of December 31, 2023. Segal's reproduction of these results (using the same assumptions and participant data as Milliman) produced liabilities of $7.65 million. This would typically be considered an accepted tolerance level for the Local Income Continuation Insurance Plan audit results.

Overall, we believe that the Milliman Valuation report following provisions of GASB 10 (Accounting and Financial Reporting for Risk Financing and Related Insurance Issues) sufficiently reflects the accounting results for the Local Income Continuation Insurance Plan for the fiscal year ending December 31, 2023.

The primary assumptions are the discount rate, the assumed payment net of estimated offsets for each individual, and the claim termination rates, which are used to estimate how long each participant will continue to receive these payments. These assumptions appear to be reasonable in the aggregate, based on the relatively narrow margin (1.0%) of the expected claims paid over the actual claims paid for the period 2018 – 2022, as identified by Milliman.

Based on our review of the results of Milliman's Valuation report (and related documents), we recommend the following:

- Milliman should disclose whether any of the assumptions have a significant bias to underestimation or overestimation, particularly regarding the claim termination rates assumption and related adjustment factors.
- Milliman should disclose whether the estimated liability is intended to be a conservative measure, a best estimate, or other measure of results.
- We recommend that future valuations include a funding projection scenario that provides sensitivity to investment performance as well as a scenario that provided sensitivity to demographically aligned assumptions.

We again thank the Department of Employee Trust Funds for the opportunity to provide this review for you, and hope that you have found it helpful. Please let us know if you have questions regarding our analysis or recommendations.