



One Canal Plaza, Suite 1001  
Portland, ME 04101-4156  
USA

Tel +1 207 772 0046  
Fax +1 207 772 7512

milliman.com

November 25, 2024

Ms. Cindy Klimke, CPA  
Chief Trust Finance Officer  
State of Wisconsin  
Department of Employee Trust Funds  
4822 Madison Yards Way  
Madison, Wisconsin 53705-9100

**RE: Duty Disability Audit Report**

Dear Cindy,

Thank you for providing Milliman a copy of Segal's audit report for the Duty Disability Valuation as of December 31, 2023. We have reviewed this report and made the following observations:

- (Page 3 – first two bullet points) We will disclose whether we consider any of the assumptions to have a significant bias to underestimation or overestimation, and whether the estimated liability is intended to be a conservative, best estimate, or another measure of results.
- (Page 3 – fourth bullet point) We will provide more detail on asset smoothing methods in future valuation reports.
- (Page 3 – fifth bullet point ) We will consider developing additional scenarios for our financial projections that may include sensitivity tests for the investment income and/or morbidity assumptions.
- (Page 6) Gender data for Duty Disability claimants can be found in the Access table *DUTYDIS* of the Duty Disability claim database, although there are some records with missing gender. For these records, we look up gender from the spreadsheet *2024-01-22 DutyDisGender.xlsx* provided to Milliman by ETF.
- (Page 7) We will include demographic summaries of disabled employees and survivors in future valuation reports.
- (Page 9 – first bullet point) We will consider whether it makes sense to include mortality improvement in the claim termination rate assumptions for future valuations. We considered mortality improvement when we performed our latest experience studies for the Duty Disability

plan, and at that time we did not see strong evidence of mortality improvement. We will include an analysis of mortality improvement in our experience studies for the Duty Disability plan in 2025.

- (Page 9 – first paragraph of second bullet point) Support for the claim termination rate adjustment factors is provided in Milliman’s experience study report from June 6, 2023 (i.e., *Report on Duty Disability Experience Studies\_REV 6-6-2023*). Specifically, we noted on page 8 of the report that the adjustment factors produce reasonable margins in our runout studies (i.e., 0.50% overall for disabled members and 1.36% overall for survivors). The runout studies—while initially guided by the results of our claim termination rate studies—serve as the ultimate method for setting our valuation assumptions. This is because runout studies capture the financial dynamics completely in an integrated manner, whereas the other studies are performed in isolation and target specific claim characteristics or assumptions.
- (Page 9 – second paragraph of second bullet point) Milliman performs experience studies every three years relative to the then current WRS Pension mortality tables developed by GRS. The assumptions we used for performing the December 31, 2023 valuation are applied to the mortality tables from the 2018-2020 WRS Experience Study, which was the most recent table when we last performed experience studies. When we perform experience studies in 2025, we will use mortality tables from the 2021-2023 WRS Experience Study by GRS. The resulting valuation assumptions will be locked in for three years (subject to annual review and testing).
- (Page 9 – third bullet point) We do not think the estimated liabilities are overstated due to our choice in valuation assumptions because the assumptions produce average annual margins of 0.50% for disabled members and 1.36% for survivors.
- (Page 10 – first two paragraphs) Segal used healthy post-retirement mortality rates from the 2018-2020 WRS Experience Study to estimate Duty Disability liabilities as of December 31, 2023. We do not know any other details of Segal’s liability calculations—e.g., estimated offsets, future survivors, etc. Segal also does not address whether this assumption would have produced positive or negative margins in historical reserves. Unlike Milliman’s valuation assumptions, which specifically reflect recent historical Duty Disability claim experience, the healthy post-retirement mortality rates from the 2018-2020 WRS Experience Study are unrelated to the plan. We have no reason to believe that healthy post-retirement mortality rates from the 2018-2020 WRS Experience Study would be a reasonable basis for projecting future benefit payments for the Duty Disability plan.

We believe the runout studies are more meaningful for testing assumptions and evaluating margins than isolated studies of claim terminations and/or estimated offsets, because they provide a direct comparison of actual historical payments (which depend on more than just mortality rates) to the estimated liabilities determined at various dates. This type of study is the accepted actuarial practice for measuring the adequacy of disability insurance reserves. For example, it is discussed in the *Health Insurance Reserves Model Regulation* and the *American Academy of Actuaries Practice Note* on statutory reserving for group long-term disability income insurance.

- (Page 10 – sixth paragraph) Segal suggests that a simpler approach for estimating offsets may be just as accurate as Milliman’s approach, which is based on multidimensional probabilities of being approved for offsets. We believe, however, that our approach is more precise and can lead to more accurate liabilities because it takes into consideration the changing probabilities of being approved for offsets over time. These assumptions were developed from a comprehensive analysis of historical Duty Disability claim experience.

- (Page 12 – second paragraph) Some of the assumptions for future survivors are intentionally conservative because there is little data available to develop the assumptions. We will acknowledge in future reports which of those assumptions we consider to be conservative.

General

This letter has been prepared for Wisconsin ETF for the specific purpose of sharing observations on Segal's audit report for the Duty Disability plan as of December 31, 2023. This letter may be shared with Segal, but it may not be distributed to any other party without the written consent of Milliman. Any distribution of this letter should be in its entirety.

Segal's audit report was supplied to Milliman by ETF. We have reviewed the report and provided our observations in this letter. If any information in Segal's report is inaccurate or incomplete, the observations could be affected and this letter may need to be revised.

I, Paul Correia, am a consulting actuary with Milliman, Inc. I am a member of the American Academy of Actuaries and I meet its Qualification Standards to provide the actuarial opinion contained herein.

\* \* \*

Please let me know if you have any questions. I can be reached at (207) 771-1204 or paul.correia@milliman.com. Thank you.

Sincerely,



Paul Correia, FSA, MAAA  
Principal and Consulting Actuary

c.c. Ilana Sullivan (ETF) Max Berube, Dan Skwire (Milliman)