MILLIMAN REPORT

Actuarial Valuation of The State Income Continuation Insurance Plan

As of December 31, 2024

April 21, 2025

Milliman

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April 21, 2025

Eugene Janke
Director
Benefit Services Bureau
Wisconsin Department of Employee Trust Funds
Madison, WI 53707

RE: Actuarial Valuation of State Income Continuation Insurance Plan as of December 31, 2024

Dear Gene,

Thank you for the opportunity to perform an actuarial valuation of the State Income Continuation Insurance (ICI) plan as of December 31, 2024. The valuation results include estimated liabilities and financial projections for the State ICI plan, which are provided in this report along with documentation of the data, assumptions, and methods used in our analysis.

The State of Wisconsin Department of Employee Trust Funds (ETF) has determined that the State ICI plan is not subject to the provisions of GASB 74, which govern the financial reporting of Other Post-Employment Benefits (OPEBs) and require the use of pension accounting methods, including the calculation of a liability for active lives. We have therefore performed this valuation based on GASB 10 guidelines ("Accounting and Reporting for Risk Financing and Related Insurance Issues") which do not require the calculation of a liability for active lives. This approach is consistent with prior valuation work performed on the State ICI plan. Ultimately it is the responsibility of ETF and its auditors to determine the applicable accounting standards for the plan.

We used a discount rate of 6.8% for estimating State ICI liabilities as of December 31, 2024, and for projecting investment income for the State ICI reserve in our financial projections. This discount rate is consistent with last year's discount rate assumption. The discount rate assumption is prescribed by ETF and we have performed no independent assessment of the reasonableness of this assumption. We have performed no independent assessment of the reasonableness of this assumption. ETF is solely responsible for establishing the assumption and communicating any changes to Milliman for the purpose of this valuation.

This report is prepared solely for the internal business use of ETF for the purpose of managing the State ICI program, and it is not appropriate for other purposes. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a release agreement, subject to the following exceptions:

a) ETF may provide a copy of Milliman's work, in its entirety, to ETF's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit ETF; and

b) ETF may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by ETF and The Hartford, including historical claim and expense data. While Milliman has not audited this data, we have reviewed it for reasonableness and it is, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

This analysis is only an estimate of the State ICI plan's financial condition as of a single date. It can neither predict the plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of benefits. While this report is based on the assumptions documented here, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

In order to provide the information requested by ETF, we have constructed several projection models. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is nearly certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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.

I, Maxwell E. Berube, FSA, MAAA am a consulting actuary for Milliman, Inc. 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 contained herein.

I, Paul L. Correia, FSA, MAAA, am a consulting actuary for Milliman, Inc. 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 contained herein.

Sincerely,

Maxwell Berube

Maxwell E. Berube, FSA, MAAA
Consulting Actuary
Milliman, Inc.

Paul Correia

Paul L. Correia, FSA, MAAA
Principal and Consulting Actuary
Milliman, Inc.

Executive Summary

The actuarial liabilities for the State ICI plan as of December 31, 2024 are summarized in Table 1.1 below:

TABLE 1.1
ACTUARIAL LIABILITIES FOR THE STATE ICI PLAN AS OF DECEMBER 31, 2024

LIABILITY COMPONENT	BASIC BENEFITS	SUPPLEMENTAL BENEFITS	$75 ADD-ON	TOTAL LIABILITY
Open Claims	$75,793,518	$2,821,849	$265,025	$78,880,393
IBNR Claims	$2,629,809	$97,910	$9,196	$2,736,914
Loss Adjustment Expenses	$5,219,324	$194,319	$18,250	$5,431,894
Total	**$83,642,651**	**$3,114,078**	**$292,471**	**$87,049,201**

The values shown above include estimated liabilities for monthly ICI benefit payments (Basic Benefits and Supplemental Benefits), and for additional benefits of $75 per month to disabled members whose disability lasts longer than 12 months, to help these members with medical expenses ($75 Add-on). The liability for the $75 add-on benefit only reflects the cost for disabled members who had not yet received the benefit as of December 31, 2024. For members who had already received the $75 add-on benefit, the liability is reflected in the liability for basic benefits.

We estimated liabilities for open claims, IBNR claims, and loss adjustment expenses using the same valuation assumptions as last year. The valuation assumptions are specified in Appendix D of this report. We believe that these liabilities reflect a best estimate basis plus a modest degree of conservatism as indicated by the results of our runout study as shown below in Table 2.3 and in Appendix D.

The State ICI reserve (i.e., the funds available to cover future plan obligations) increased by $8.6 million between December 31, 2023 and December 31, 2024. The reserve earned $12.2 million in investment income in 2024 (7.1% of the beginning reserve balance), which is approximately 30 basis points higher than the 6.8% investment income assumption for the plan. The Group Insurance Board approved a 10% rate reduction each year for the State ICI plan from 2024 to 2026 to better align reserve balances with target levels. The State ICI reserve balance is equal to 208% of the actuarial liability as of December 31, 2024, which is higher than the target range of 130% to 140% for the plan, as shown below:

TABLE 1.2
STATE ICI RESERVE BALANCES AND FINANCIAL EXPERIENCE FROM 2022 THROUGH 2024

BALANCE SHEET COMPONENT	2022	2023	2024
A. Beginning Reserve Balance	**$154,290,018**	**$163,125,349**	**$172,458,596**
B. Adjustments	($1,791)	$73,440	($22,970)
C. Adjusted Beginning Reserve Balance	$154,288,227	$163,198,789	$172,435,626
D. Premium Contributions	$21,181,620	$16,853,429	$18,601,229
E. Investment Earnings	$9,720,823	$14,200,604	$12,208,920
F. Insurance Claims	$18,834,773	$18,196,162	$18,526,153
G. Administrative Expenses	$3,230,548	$3,598,064	$3,669,760
H. Ending Reserve Balance (C + D + E – F – G)	**$163,125,349**	**$172,458,596**	**$181,049,862**
I. Actuarial Liability	$88,310,114	$85,094,369	$87,049,201
J. Surplus (H – I)	$74,815,235	$87,364,227	$94,000,661

Actuarial Valuation

The estimated liabilities for the State ICI plan as of December 31, 2024 consist of the following components:

- **Liability for Open Claims**: Present value of expected benefit payments to disabled members whose disability was both incurred and reported by December 31, 2024. There were 961 open claims and no pending claims as of the valuation date.

- **Liability for Incurred but not Reported (IBNR) Claims**: Present value of expected benefit payments to disabled members whose disability was incurred on or before December 31, 2024, but whose claims had not yet been reported as of that date.

- **Liability for Loss Adjustment Expenses**: Present value of expected expenses related to the ongoing management and payment of open and IBNR claims.

The following table compares the estimated liabilities for the State ICI plan as of December 31, 2023 and December 31, 2024:

TABLE 2.1
ACTUARIAL LIABILITIES FOR THE STATE ICI PLAN AS OF DECEMBER 31, 2023 AND DECEMBER 31, 2024

LIABILITY COMPONENT	DECEMBER 31, 2023	DECEMBER 31, 2024
Open Claims	$78,067,082	$78,880,393
IBNR Claims	$2,773,094	$2,736,914
Loss Adjustment Expense	$4,254,193	$5,431,894
Total	**$85,094,369**	**$87,049,201**

The total liability for the State ICI plan increased by 2.3% from $85.1 million as of December 31, 2023 to $87.0 million as of December 31, 2024. The liability for open claims increased by 1.0% from $78.1 million as of December 31, 2023 to $78.9 million as of December 31, 2024. The number of open claims decreased by 2.7% from 988 as of December 31, 2023 to 961 as of December 31, 2024, and the average net benefit amount increased by 15.3% from $1,587 as of December 31, 2023 to $1,829 as of December 31, 2024. Other factors can impact State ICI liabilities such as cause of disability and claimant demographics, because the valuation assumptions vary by these factors. Appendix C contains tables that show the distribution of State ICI open claims by age and gender, and by disability year and gender.

Included in the liability for open claims is an estimate of the liability for Supplemental Benefits, which were eliminated from the plan on February 1, 2024 but are still payable to claims approved for Supplemental Benefits before February 1, 2024. Because the cohort of claims approved from Supplemental Benefits before February 1, 2024 is closed to new claims, the liability for Supplemental Benefits is expected to decrease each year until all claims have terminated.

The estimated liability for IBNR claims decreased by 1.3% from $2.8 million as of December 31, 2023 to $2.7 million as of December 31, 2024, due to changes in the average incurred claims, which more than offset a 7% increase in the liability, added for the December 31, 2024 valuation, to account for expected changes in the incurred claims related to eliminating Supplemental Benefits and extending covered payroll for Basic Benefits to $120,000. The liability for loss adjustment expenses increased in line with the increases in claim expense fees charged by The Hartford beginning in 2025 and based on an assumption that there will be 2% annual expense inflation starting in 2027.

The liabilities were calculated based on a discount rate of 6.8%, which is the same as last year. The discount rate assumption is prescribed by ETF and we have performed no independent assessment of the reasonableness of this assumption.

The liabilities for open claims, IBNR claims, and loss adjustment expenses are discussed in greater detail below, and Table 2.2 shows how these liabilities are split by benefit type. Appendix D of this report includes additional documentation of the valuation assumptions.

TABLE 2.2
ACTUARIAL LIABILITIES FOR THE STATE ICI PLAN AS OF DECEMBER 31, 2024

LIABILITY COMPONENT	BASIC BENEFITS	SUPPLEMENTAL BENEFITS	$75 ADD-ON	TOTAL LIABILITY
Open Claims	$75,793,518	$2,821,849	$265,025	$78,880,393
IBNR Claims	$2,629,809	$97,910	$9,196	$2,736,914
Loss Adjustment Expenses	$5,219,324	$194,319	$18,250	$5,431,894
Total	**$83,642,651**	**$3,114,078**	**$292,471**	**$87,049,201**

Open Claims

We tested the valuation assumptions used for computing the liability for open claims by performing retrospective runoff studies using State ICI claim experience from 2020 through 2024. In performing these studies, we first calculated the liability for claims that were open on prior valuation dates using current valuation assumptions, then we determined whether those liabilities would have provided sufficient funding for the emerging claim costs. The emerging claim costs were calculated as the present value of benefit payments made during the study period, plus the present value of the remaining liabilities for claims still open at the end of the study period, discounted to the beginning of the study period. The results from our runoff studies are shown below, summarized in terms of average annual margins from five mutually distinct 12-month studies based on State ICI experience from 2020 through 2024.

TABLE 2.3
RUNOFF STUDY FOR THE ICI PLANS BASED ON EXPERIENCE FROM 2020 THROUGH 2024

CLAIM DURATION	AVERAGE ANNUAL MARGIN
1 – 12 months	13.1%
13 – 24 months	0.3%
25 – 36 months	-0.7%
37 – 48 months	-4.2%
49 – 60 months	5.3%
61 + months	1.5%
Total	**1.6%**

In the preceding table, a positive average annual margin indicates the estimated liability provided adequate funding for the runoff of open claims during the study period, while a negative result indicates a deficiency. For this type of plan, we typically target a positive overall average annual margin of 1% to 5% with reasonably consistent patterns by claim duration. Although experience for duration groups 25 – 48 months produces a negative margin in our runout study, volatility is expected by duration group, the other duration groups have positive margins, and the overall margin falls within the target range of 1% to 5%. We will continue to monitor experience and test the valuation assumptions in future years. Based on these results, we believe that the open claim liability estimate as of December 31, 2024, is somewhat more conservative than a best estimate reserve (the greater the margin, the more conservative the basis).

IBNR Claims

The liability for IBNR claims represents the present value of expected benefit payments for State ICI claims incurred on or before December 31, 2024 that were unreported as of that date. We have assumed that 17% of claims incurred in 2024 were unreported as of the valuation date. This includes 5% margin added by multiplying our best estimate assumption by 1.05 as documented in our IBNR experience study. This assumption is based on IBNR experience studies performed by Milliman in the fall of 2023. We also assumed that the total cost of claims incurred in 2024 will be $15.0 million prior to any plan changes, based on an analysis of State ICI incurred claim costs from 2018 through 2023. Because this experience was before the plan design change that resulted in extending covered payroll for Basic Benefits, we also increased the liability for IBNR claims by 7%. The calculation of the liability for IBNR claims is provided below:

TABLE 2.4
IBNR LIABILITY CALCULATION AS OF DECEMBER 31, 2024

A. Estimated Incurred Claims in 2024, prior to plan changes	$15,046,258
B. Assumed Proportion of Unreported Claims	17.0%
C. Expected Increase in Incurred Claims	1.07
D. IBNR Liability as of December 31, 2024 (A x B x C)	**$2,736,914**

Loss Adjustment Expenses

The liability for loss adjustment expenses was calculated using the following administrative fees that vary by claim duration, because administration tends to be more intensive for claims in early durations. The Hartford will raise the annual retainer fee for administering ICI claims by 18% in 2025 and by 6.3% in 2026, so we applied adjustments our prior valuation assumptions to develop the fee schedule below. The prior valuation assumptions also varied by claim duration and were validated using experience from 2022 and 2023. Additionally, we included a 2% inflation assumption for estimating future fees beyond 2026 which is based on the Federal Reserve's long-term inflation target. Inflation is one of many variables that could affect future claim expense costs. There are, however, other variables that could affect future claim administration costs which we have not modeled directly, including for example changes in technology, cultural attitudes, the regulatory and litigation environments etc., which are not as easy to quantify.

TABLE 2.5
ASSUMED CLAIM ADMINISTRATION FEES

FEE COMPONENT	ASSUMED AMOUNT 2025	ASSUMED AMOUNT 2026
One-time new claim fee	$1,756 per new claim	$1,866 per new claim
Monthly fee, first two years	$154 per month	$163 per month
Monthly fee, years 3 +	$78 per month	$83 per month

We calculated the liability for loss adjustment expenses separately for open claims and IBNR claims. For open claims, the liability represents the present value of expected claim administration fees, projected using the same claim termination rate assumptions as those used for calculating the open claim liabilities. For IBNR claims, we assumed the one-time new claim fee applies to 156 claims unreported as of the valuation date, based on the average number of new claims per year between 2018 and 2023. We assumed that most of these claims (98.5%) would be reported in

2025 and that the remainder would be reported in 2026. We estimated the loss adjustment expense liability for ongoing monthly fees for IBNR claims based on the relationship between the IBNR claim liability to the open claim liability (excluding the 7% load since we assume LAE is not dependent on claim size). The estimated loss adjustment expense liabilities as of December 31, 2024 are shown below for State ICI open claims, IBNR claims, and in total.

TABLE 2.6
LIABILITY FOR LOSS ADJUSTMENT EXPENSES AS OF DECEMBER 31, 2024

LIABILITY COMPONENT	ESTIMATED LIABILITY
Open claims	$4,994,905
IBNR claims	$436,988
Total	**$5,431,894**

State ICI Funding Analysis

We performed a funding analysis for the State ICI plan based on the State ICI reserve balance as of December 31, 2024 and a projection of estimated future experience for the plan. The State ICI reserve increased by $8.6 million from $172.5 million as of December 31, 2023 to $181.0 million as of December 31, 2024, which was greater than the projected increase of $4.8 million in last year's report. The increase was driven by a number of factors including greater than expected premiums ($2.2 million) and net investment income ($0.5 million) and lower than expected claims ($1.0 million). The premium contributions were lower than insurance claims and administrative expenses in 2024. The Board approved a 10% reduction in premium rates each year from 2024 through 2026 to better align State ICI reserve balances with target levels. As of December 31, 2024, the State ICI reserve balance is 208% of the actuarial liability, which is higher than the 130% to 140% target range for the plan. Additional details are provided below.

TABLE 3.1
STATE ICI FUNDING ANALYSIS

	BALANCE SHEET COMPONENT	2022	2023	2024
A.	**Beginning Reserve Balance**	**$154,290,018**	**$163,125,349**	**$172,458,596**
B.	Adjustments	($1,791)	$73,440	($22,970)
C.	Adjusted Beginning Reserve Balance	$154,288,227	$163,198,789	$172,435,626
D.	Premium Contributions	$21,181,620	$16,853,429	$18,601,229
E.	Investment Earnings	$9,720,823	$14,200,604	$12,208,920
F.	Insurance Claims	$18,834,773	$18,196,162	$18,526,153
G.	Administrative Expenses	$3,230,548	$3,598,064	$3,669,760
H.	**Ending Reserve Balance (C + D + E – F – G)**	**$163,125,349**	**$172,458,596**	**$181,049,862**
I.	Actuarial Liability	$88,310,114	$85,094,369	$87,049,201
J.	Surplus (H – I)	$74,815,235	$87,364,227	$94,000,661

We developed financial projections to demonstrate the long-term performance of State ICI reserve under different scenarios. The projections are provided in Appendix A and reflect actual experience for 2024 and projected experience for 2025 and beyond. The key elements of these projections include the following:

- **Beginning Reserve Balance**: The projected beginning reserve balance for each year is equal to the prior year's ending reserve balance.
- **Payroll**: 2024 State ICI payroll was provided by ETF. Future payroll is assumed to increase at a rate of 3.0% per year, which is consistent with the assumptions used by ETF for retirement fund projections.
- **Premium Contributions**: Annual premium contributions are modeled as a percentage of payroll. Although actual premium contributions vary by premium category, the composite rate was 0.480% of payroll in 2024.
- **Investment Income**: Smoothed investment income on assets backing reserves. The annual investment income in 2025 and beyond is projected as 6.8% of the reserve balance at the beginning of the year.

- **Insurance Claims**: Annual insurance claims are the sum of projected payments on existing claims as of December 31, 2024, and payments on expected future claims incurred after December 31, 2024. Insurance claims for 2025 and beyond are equal to 0.53% of payroll based on historical experience from 2018 through 2023, which includes explicit margin of 5%. Benefit payments for these new claims are then computed using runout patterns generated from our valuation assumptions, which in turn are based on recent plan experience.

- **Administrative Expenses**: Carrier administrative expenses are modeled based on known increases in 2025 and 2026, and then assumed to increase proportionally with paid claims. Other administrative expenses are modeled as a constant percentage of paid insurance claims in each year.

- **Ending Reserve Balance**: The ending reserve balance equals the starting balance, plus premiums, plus investment earnings, less claims, and less expenses.

- **Actuarial Liability**: The actuarial liability is modeled in a similar fashion to the insurance claims. It represents the sum of the decreasing liability on claims that existed as of December 31, 2024 and of the increasing liability for new claims incurred after December 31, 2024.

- **Surplus or Deficit**: The projected surplus or deficit equals the ending reserve balance less the actuarial liability.

- **Fund Ratio**: Ratio of State ICI reserve balance to the actuarial liability. The target fund ratio range for the State ICI plan is 130% to 140% of the actuarial liability.

The financial projections are included in Appendix A, along with a description of the scenarios that were assumed for projecting State ICI experience. Note that the financial projections shown below depend on a variety of actuarial assumptions about future experience, including but not limited to investment earnings, payroll growth, and disability claim experience. It is nearly certain that actual experience will vary from these assumptions, meaning that the plan's actual surplus or deficit will be higher or lower than the illustrated values.

Appendix A: Financial Projections

We developed financial projections for the State ICI plan based on the following scenarios.

- **Baseline Scenario**: Contribution rates are reduced by 10% in 2025 and 10% in 2026. In the Baseline scenario, the reserve balance is projected to remain relatively level whereas the liabilities gradually increase over time, resulting in a reduction of the fund ratio from 208% as of December 31, 2024 to 165% as of December 31, 2030.
- **Scenario 1**: Contribution rates are reduced by 10% in 2025 and again in 2026, then held level in future years, with -15% investment return in 2025 followed by 6.8% returns in all future years. The fund ratio is projected to reduce to 114% by December 31, 2030.
- **Scenario 2**: Contribution rates are reduced by 10% in 2025 and again in 2026 with a -30% net investment return in 2025, which brings the plan close to the lower end of the target surplus level. Rates are increased by 80% in 2027, to respond to this change and bring the plan to target levels by December 31, 2030. This scenario demonstrates that the current rates are subsidized and may need to be increase significantly under adverse economic conditions.
- **Scenario 3**: Contribution rates are reduced by 10% in 2025 and then held level. This reduces the fund ratio to 174% by December 31, 2030.
- **Scenario 4**: Contribution rates are reduced by 10% in 2025 and 50% in 2026 then held level. This reduces the fund ratio to 128% by December 31, 2030.
- **Scenario 5**: Contribution rates are reduced by 10% in 2025 and 10% in 2026. Claim termination rates are assumed to be 10% lower and liabilities are recalculated accordingly. This results in a reduction in the fund ratio from 201% as of December 31, 2024 to 141% as of December 31, 2030.

In order to reduce the surplus balance to target levels in the near term, it would be necessary to set a contribution rate that is not sustainable in the long term, meaning that eventually rate increases would be required. Scenario 4 illustrates a way to spend down the surplus faster than the baseline scenario, which would eventually require rate increases once the excess surplus is eliminated. Scenario 2, which shows the impact of negative investment income in 2025, also illustrates the magnitude of rate increases that may be required to bring the plan back to target surplus levels in adverse economic conditions.

The projections below assume that future rate decreases (that is after 2024) will have no impact on participation. This assumption is based on historical experience between 2015 – 2019 where total participation rates were largely unaffected by annual 20% rate increases. It is possible, however, that large rate decreases could entice higher participation which in turn could impact claim costs.

We will be reevaluating target surplus levels later this year. As part of this analysis, we will consider insurance risk in addition to other types of risks which could result in higher or lower target surplus levels than the current target range.

Baseline Scenario: Contribution Rates Reduced by 10% in 2025 and 2026 and then Held Level

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$185,721,852	$187,086,108	$186,651,832	$184,803,464	$181,854,246
Premium Contributions	$18,601,229	$17,243,339	$15,984,576	$16,019,137	$16,499,711	$16,994,702	17,504,543
Investment Income	$12,208,920	$12,311,391	$12,629,086	$12,721,855	$12,692,325	$12,566,636	$12,366,089
Total Revenues	$30,810,149	$29,554,730	$28,613,661	$28,740,992	$29,192,035	$29,561,338	$29,870,632
Insurance Claims	$18,526,153	$20,653,042	$22,691,790	$24,295,541	$25,848,722	$27,072,983	$28,027,313
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,855,736	$3,038,300	$3,182,201	$3,294,375
Administrative Expense	$1,543,360	$1,720,545	$1,890,387	$2,023,991	$2,153,382	$2,255,372	$2,334,874
Total Operating Expenses	$22,195,913	$24,882,739	$27,249,406	$29,175,268	$31,040,403	$32,510,555	$33,656,562
Net Change in Reserve Balance	$8,614,236	$4,671,990	$1,364,256	($434,276)	($1,848,368)	($2,949,217)	($3,785,930)
EOY Reserve Balance	$181,049,862	$185,721,852	$187,086,108	$186,651,832	$184,803,464	$181,854,246	$178,068,316
Actuarial Liability	$87,049,201	$92,612,048	$96,628,255	$100,033,447	$102,841,497	$105,345,141	$107,829,417
Surplus / (Deficit)	$94,000,661	$93,109,804	$90,457,853	$86,618,384	$81,961,967	$76,509,105	$70,238,899
Fund Ratio	**208%**	**201%**	**194%**	**187%**	**180%**	**173%**	**165%**

Scenario 1: Baseline Scenario with a -15% Net Investment Return in 2025

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$146,252,983	$144,933,355	$141,632,691	$136,723,022	$130,504,334
Premium Contributions	$18,601,229	$17,243,339	$15,984,576	$16,019,137	$16,499,711	$16,994,702	17,504,543
Investment Income	$12,208,920	($27,157,479)	$9,945,203	$9,855,468	$9,631,023	$9,297,165	$8,874,295
Total Revenues	$30,810,149	($9,914,140)	$25,929,778	$25,874,605	$26,130,734	$26,291,868	$26,378,838
Insurance Claims	$18,526,153	$20,653,042	$22,691,790	$24,295,541	$25,848,722	$27,072,983	$28,027,313
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,855,736	$3,038,300	$3,182,201	$3,294,375
Administrative Expense	$1,543,360	$1,720,545	$1,890,387	$2,023,991	$2,153,382	$2,255,372	$2,334,874
Total Operating Expenses	$22,195,913	$24,882,739	$27,249,406	$29,175,268	$31,040,403	$32,510,555	$33,656,562
Net Change in Reserve Balance	$8,614,236	($34,796,879)	($1,319,628)	($3,300,664)	($4,909,669)	($6,218,688)	($7,277,724)
EOY Reserve Balance	$181,049,862	$146,252,983	$144,933,355	$141,632,691	$136,723,022	$130,504,334	$123,226,610
Actuarial Liability	$87,049,201	$92,612,048	$96,628,255	$100,033,447	$102,841,497	$105,345,141	$107,829,417
Surplus / (Deficit)	$94,000,661	$53,640,934	$48,305,100	$41,599,244	$33,881,525	$25,159,193	$15,397,194
Fund Ratio	**208%**	**158%**	**150%**	**142%**	**133%**	**124%**	**114%**

Scenario 2: Baseline Scenario with a -30% Investment Return in 2025 and an 80% Rate Increase Response in 2027

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$119,095,503	$115,929,167	$120,267,701	$127,104,981	$133,828,028
Premium Contributions	$18,601,229	$17,243,339	$15,984,576	$25,630,619	$29,699,480	$30,590,464	31,508,178
Investment Income	$12,208,920	($54,314,959)	$8,098,494	$7,883,183	$8,178,204	$8,643,139	$9,100,306
Total Revenues	$30,810,149	($37,071,619)	$24,083,070	$33,513,802	$37,877,683	$39,233,603	$40,608,484
Insurance Claims	$18,526,153	$20,653,042	$22,691,790	$24,295,541	$25,848,722	$27,072,983	$28,027,313
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,855,736	$3,038,300	$3,182,201	$3,294,375
Administrative Expense	$1,543,360	$1,720,545	$1,890,387	$2,023,991	$2,153,382	$2,255,372	$2,334,874
Total Operating Expenses	$22,195,913	$24,882,739	$27,249,406	$29,175,268	$31,040,403	$32,510,555	$33,656,562
Net Change in Reserve Balance	$8,614,236	($61,954,359)	($3,166,336)	$4,338,534	$6,837,280	$6,723,047	$6,951,922
EOY Reserve Balance	$181,049,862	$119,095,503	$115,929,167	$120,267,701	$127,104,981	$133,828,028	$140,779,950
Actuarial Liability	$87,049,201	$92,612,048	$96,628,255	$100,033,447	$102,841,497	$105,345,141	$107,829,417
Surplus / (Deficit)	$94,000,661	$26,483,455	$19,300,912	$20,234,254	$24,263,484	$28,482,887	$32,950,533
Fund Ratio	**208%**	**129%**	**120%**	**120%**	**124%**	**127%**	**131%**

Scenario 3: Contribution Rates Reduced by 10% in 2025 and then Held Level

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$185,721,852	$188,382,155	$189,815,914	$190,016,004	$189,309,540
Premium Contributions	$18,601,229	$17,243,339	$17,280,622	$17,799,041	$18,333,012	$18,883,002	19,449,493
Investment Income	$12,208,920	$12,311,391	$12,629,086	$12,809,987	$12,907,482	$12,921,088	$12,873,049
Total Revenues	$30,810,149	$29,554,730	$29,909,708	$30,609,027	$31,240,494	$31,804,091	$32,322,541
Insurance Claims	$18,526,153	$20,653,042	$22,691,790	$24,295,541	$25,848,722	$27,072,983	$28,027,313
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,855,736	$3,038,300	$3,182,201	$3,294,375
Administrative Expense	$1,543,360	$1,720,545	$1,890,387	$2,023,991	$2,153,382	$2,255,372	$2,334,874
Total Operating Expenses	$22,195,913	$24,882,739	$27,249,406	$29,175,268	$31,040,403	$32,510,555	$33,656,562
Net Change in Reserve Balance	$8,614,236	$4,671,990	$2,660,302	$1,433,759	$200,091	($706,464)	($1,334,021)
EOY Reserve Balance	$181,049,862	$185,721,852	$188,382,155	$189,815,914	$190,016,004	$189,309,540	$187,975,519
Actuarial Liability	$87,049,201	$92,612,048	$96,628,255	$100,033,447	$102,841,497	$105,345,141	$107,829,417
Surplus / (Deficit)	$94,000,661	$93,109,804	$91,753,900	$89,782,466	$87,174,508	$83,964,399	$80,146,102
Fund Ratio	**208%**	**201%**	**195%**	**190%**	**185%**	**180%**	**174%**

Scenario 4: Contribution Rates Reduced by 10% in 2025 and 50% in 2026

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$185,721,852	$181,901,921	$173,995,504	$163,953,301	$152,033,071
Premium Contributions	$18,601,229	$17,243,339	$10,800,389	$8,899,520	$9,166,506	$9,441,501	9,724,746
Investment Income	$12,208,920	$12,311,391	$12,629,086	$12,369,331	$11,831,694	$11,148,824	$10,338,249
Total Revenues	$30,810,149	$29,554,730	$23,429,475	$21,268,851	$20,998,200	$20,590,326	$20,062,995
Insurance Claims	$18,526,153	$20,653,042	$22,691,790	$24,295,541	$25,848,722	$27,072,983	$28,027,313
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,855,736	$3,038,300	$3,182,201	$3,294,375
Administrative Expense	$1,543,360	$1,720,545	$1,890,387	$2,023,991	$2,153,382	$2,255,372	$2,334,874
Total Operating Expenses	$22,195,913	$24,882,739	$27,249,406	$29,175,268	$31,040,403	$32,510,555	$33,656,562
Net Change in Reserve Balance	$8,614,236	$4,671,990	($3,819,931)	($7,906,417)	($10,042,203)	($11,920,230)	($13,593,567)
EOY Reserve Balance	$181,049,862	$185,721,852	$181,901,921	$173,995,504	$163,953,301	$152,033,071	$138,439,505
Actuarial Liability	$87,049,201	$92,612,048	$96,628,255	$100,033,447	$102,841,497	$105,345,141	$107,829,417
Surplus / (Deficit)	$94,000,661	$93,109,804	$85,273,666	$73,962,057	$61,111,804	$46,687,930	$30,610,088
Fund Ratio	**208%**	**201%**	**188%**	**174%**	**159%**	**144%**	**128%**

Scenario 5: Contribution Rates Reduced by 10% in 2025 and 2026 and then Held Level. Claim termination rates reduced by 10%

	Actual	Projected -->					
Calendar Year	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
BOY Reserve Balance	$172,435,626	$181,049,862	$185,175,007	$185,505,604	$183,587,831	$179,835,893	$174,570,839
Premium Contributions	$18,601,229	$17,243,339	$15,984,576	$16,019,137	$16,499,711	$16,994,702	17,504,543
Investment Income	$12,208,920	$12,311,391	$12,591,900	$12,614,381	$12,483,973	$12,228,841	$11,870,817
Total Revenues	$30,810,149	$29,554,730	$28,576,476	$28,633,518	$28,983,683	$29,223,543	$29,375,360
Insurance Claims	$18,526,153	$21,157,835	$23,611,633	$25,538,801	$27,364,753	$28,830,121	$29,980,992
Carrier Administrative Expenses	$2,126,400	$2,509,152	$2,667,229	$2,884,926	$3,091,191	$3,256,722	$3,386,727
Administrative Expense	$1,543,360	$1,762,598	$1,967,017	$2,127,563	$2,279,678	$2,401,754	$2,497,629
Total Operating Expenses	$22,195,913	$25,429,585	$28,245,879	$30,551,291	$32,735,622	$34,488,597	$35,865,348
Net Change in Reserve Balance	$8,614,236	$4,125,145	$330,597	($1,917,773)	($3,751,939)	($5,265,054)	($6,489,988)
EOY Reserve Balance	$181,049,862	$185,175,007	$185,505,604	$183,587,831	$179,835,893	$174,570,839	$168,080,851
Actuarial Liability	$89,959,435	$97,417,260	$103,051,719	$107,892,957	$112,007,100	$115,717,753	$119,351,231
Surplus / (Deficit)	$91,090,427	$87,757,747	$82,453,885	$75,694,874	$67,828,793	$58,853,086	$48,729,620
Fund Ratio	**201%**	**190%**	**180%**	**170%**	**161%**	**151%**	**141%**

Appendix B: Plan Description

The State ICI Plan provides short-term and long-term disability benefits as summarized below:

- **Elimination Period**: University of Wisconsin faculty and academic staff select their elimination period up to 180 days. All other state employees have a 30-day elimination period. State ICI participants must use sick leave time up to a maximum of 130 working days before benefits begin.

- **Maximum Benefit Period**: The following table shows the maximum duration of benefits:

TABLE B.1

STATE ICI MAXIMUM BENEFIT PERIOD

AGE AT DISABLEMENT	MAXIMUM BENEFIT PERIOD
On or Before 60th Birthday	To Age 65
After 60th Birthday	5 Years

- **Benefit Amount**: The benefit is equal to 75% of average monthly wages up to $7,500 per month (representing $120,000 of annual covered payroll).

- **Benefit Increases**: None

- **Benefit Offsets**: The ICI plan benefit is offset by income received from other sources including, but not limited to: Social Security benefits (regular or disability), unemployment compensation, Worker's Compensation (except permanent disability awards), WRS benefits (retirement, disability retirement, Long-Term Disability Insurance, or separation), work earnings, and Duty Disability benefits.

- **Definition of Disability**: During the first 12 months of disability, the participant is disabled if unable to perform his or her job and under the care of a physician. After the first 12 months of disability, the participant is disabled if unable to engage in any substantial gainful activity for which he or she is reasonably qualified.

- **Premium Contributions**: Premiums are paid by the employer and the employee.

Appendix C: Data for Valuation

This appendix contains demographic summaries for State ICI open claims as of December 31, 2024. There were 961 open claims as of the valuation date. Tables C1 and C2 show the distribution of State ICI open claims by gender and disability year, and by gender and disability age, respectively.

TABLE C1
OPEN AND PENDING OPEN STATE ICI CLAIMS AS OF DECEMBER 31, 2024
BY DISABILITY YEAR AND GENDER

Disability Year	Male	Female	Total
2001 and earlier	8	23	31
2002	2	6	8
2003	2	12	14
2004	4	15	19
2005	7	15	22
2006	9	10	19
2007	6	13	19
2008	6	15	21
2009	9	18	27
2010	9	22	31
2011	11	22	33
2012	10	24	34
2013	18	32	50
2014	14	22	36
2015	8	34	42
2016	13	30	43
2017	15	32	47
2018	12	41	53
2019	7	16	23
2020	21	36	57
2021	14	38	52
2022	24	37	61
2023	10	47	57
2024	54	108	162
Total	**293**	**668**	**961**

TABLE C2
OPEN AND PENDING OPEN STATE ICI CLAIMS AS OF DECEMBER 31, 2024
BY DISABILITY AGE AND GENDER

Disability Age	Male	Female	Total
Under 20	-	-	-
20-24	6	13	19
25-29	13	28	41
30-34	24	54	78
35-39	46	107	153
40-44	41	128	169
45-49	56	102	158
50-54	44	110	154
55-59	34	78	112
60-64	23	41	64
65 or above	6	7	13
Total	**293**	**668**	**961**

Tables C3 and C4 show a distribution of the State ICI net monthly benefit amounts as of December 31, 2024 by year of disability and gender, and by age at disability and gender, respectively.

TABLE C3
STATE ICI NET MONTHLY BENEFIT AMOUNTS AS OF DECEMBER 31, 2024
BY YEAR OF DISABILITY AND GENDER

Disability Year	Male	Female	Total
2001 and earlier	$5,978	$13,202	$19,180
2002	1,619	7,645	9,264
2003	361	11,101	11,462
2004	2,593	12,248	14,841
2005	5,900	14,790	20,690
2006	9,560	5,699	15,259
2007	7,645	14,102	21,746
2008	6,125	12,870	18,995
2009	7,803	20,326	28,129
2010	10,819	27,047	37,865
2011	13,356	17,309	30,665
2012	10,212	26,167	36,379
2013	26,717	35,792	62,509
2014	14,137	29,932	44,068
2015	8,324	32,373	40,697
2016	10,428	37,033	47,461
2017	13,911	50,369	64,279
2018	20,668	53,435	74,103
2019	13,131	21,263	34,394
2020	23,996	52,086	76,083
2021	28,781	74,421	103,203
2022	36,783	83,431	120,214
2023	15,487	123,237	138,723
2024	233,376	454,066	687,442
Total	**$527,708**	**$1,229,942**	**$1,757,651**

TABLE C4
STATE ICI NET MONTHLY BENEFIT AMOUNTS AS OF DECEMBER 31, 2024
BY DISABILITY AGE AND GENDER

Disability Age	Male	Female	Total
Under 20	$0	$0	$0
20-24	11,628	15,392	27,020
25-29	29,926	44,107	74,033
30-34	39,192	112,019	151,211
35-39	79,544	191,342	270,886
40-44	61,564	206,270	267,834
45-49	75,647	184,907	260,554
50-54	81,695	181,832	263,526
55-59	54,628	150,991	205,619
60-64	75,060	120,362	195,422
65 or above	18,824	22,720	41,544
Total	**$527,708**	**$1,229,942**	**$1,757,651**

TABLE C5
STATE ICI OPEN CLAIMS AS OF DECEMBER 31, 2023 AND DECEMBER 31, 2024
BY CAUSE OF DISABILITY

CAUSE OF DISABILITY	12/31/2023		12/31/2024	
	Count	Percentage	Count	Percentage
Back	153	15%	132	14%
Cancer	40	4%	47	5%
Circulatory	44	4%	47	5%
Diabetes	11	1%	8	1%
Digestive	18	2%	15	2%
Ill-defined and Misc Conditions	36	4%	36	4%
Injury other than back	44	4%	41	4%
Maternity	9	1%	6	1%
Mental and Nervous	283	29%	292	30%
Nervous System	123	12%	131	14%
No Information	1	0%	1	0%
Other	62	6%	62	6%
Other Musculoskeletal	155	16%	135	14%
Respiratory	9	1%	8	1%
Total	**988**	**100%**	**961**	**100%**

Appendix D: Actuarial Methods and Assumptions

- **Valuation Date**: December 31, 2024

- **Discount Rate**: 6.8%, specified by ETF. This assumption represents an expected long-term investment return for the State ICI reserve.

- **Claim Termination Rates**: Claim termination rate assumptions were derived from ICI program experience relative to the 2012 Group Long-Term Disability Valuation Table, as shown below:

TABLE D1

CLAIM TERMINATION RATE ADJUSTMENT FACTORS TO 2012 GLTD

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

- **Estimated Offset Assumptions**: Estimated Social Security, Other Disability, and Pension/retirement offset assumptions were derived from ICI program experience and are provided below:

TABLE D2

CUMULATIVE SSDI APPROVAL PROBABILITIES

	DURATION AS OF VALUATION DATE (YEARS)							
PROJECTED DURATION (YEARS)	1	2	3	4	5	6	7	8+
1	0%							
2	11%	0%						
3	29%	10%	0%					
4	43%	26%	9%	0%				
5	55%	43%	29%	13%	0%			
6	65%	55%	45%	32%	7%	0%		
7	69%	61%	52%	41%	19%	5%	0%	
8+	71%	63%	54%	44%	24%	11%	0%	0%

TABLE D3

CUMULATIVE OTHER DISABILITY APPROVAL PROBABILITIES

	DURATION AS OF VALUATION DATE (YEARS)							
PROJECTED DURATION (YEARS)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8+**
1	0%							
2	3%	0%						
3	14%	8%	0%					
4	26%	20%	6%	0%				
5	35%	30%	17%	7%	0%			
6	39%	35%	23%	13%	0%	0%		
7	39%	35%	23%	13%	0%	0%	0%	
8+	39%	35%	23%	13%	0%	0%	0%	0%

TABLE D4

CUMULATIVE PENSION/RETIREMENT APPROVAL PROBABILITIES

	DURATION AS OF VALUATION DATE (YEARS)		
PROJECTED DURATION (YEARS)	**1**	**2**	**3+**
1	0%		
2	10%	0%	
3+	21%	0%	0%

We also assumed offset amounts equal to 45% of the gross benefit amount for estimated SSDI benefits, 36% of the gross benefit amount for estimated Pension/Retirement benefits, and 50% of the gross benefit amount for estimated Other Disability benefits.

- **Incurred But Not Reported Claims**: 17% of the estimated incurred claims for the current year, determined from analyses of historical State ICI claim experience, plus a 7% load to reflect expected changes in incurred claims due to extending Basic covered payroll to $120,000.

- **Overpayment Credit**: We assume that 75% of the December 31, 2024 overpayment balance will eventually be recovered, and we applied this amount as an offset to the total liability. This assumption is based on an analysis performed by Milliman in 2022-23 of historical overpayment balances and recoveries using historical plan experience.

- **Loss Adjustment Expenses**: Assumed claim administration fees are provided below, which are assumed to increase 2% per year beginning in 2027:

TABLE D5

ASSUMED ADMINISTRATIVE FEES

FEE COMPONENT	ASSUMED AMOUNT 2025	ASSUMED AMOUNT 2026
One-time new claim fee	$1,756 per new claim	$1,866 per new claim
Monthly fee, first two years	$154 per month	$163 per month
Monthly fee, years 3 +	$78 per month	$83 per month

- **Other Assumptions**: We make a variety of assumptions in our analysis which may create additional conservatism or in some cases understate liabilities. In general, we believe the impact of these assumptions is minimal unless otherwise stated. Additionally, a runout study is performed to evaluate results and to determine valuation assumptions for the open claim liability, meaning that overall results are calibrated to an appropriate level of margin. These other assumptions are documented below:

    - For STD claims yet to receive $75 additional benefits, these benefits are estimated by assuming they will not be offset by benefits from other sources which adds conservatism.
    - Unknown genders are assumed to be female which based on our testing is generally a conservative assumption.
    - Pending claims (if any) are assumed to have the same claim termination rates as open claims, which could be a conservative assumption (although there were no pending claims as of December 31, 2024).
    - Claims are assumed to have a change in the definition of disability 12 months following the end of their EP, opposed to after 12 months of disability.
    - Because the EP for non-UW faculty depends on sick leave balances, and is not a fixed number of days for each claim, LTD claims use valuation assumptions from the 2012 GLTD table relative to the 90-day EP rates.
    - Since it is difficult to know what the true offset patterns will look like some judgment was used to smooth the estimated offset assumptions. It is possible that this introduces some conservatism.
    - The starting LAE IBNR initial fee component was not discounted which may introduce some slight conservatism.
    - IBNR liabilities include 5% explicit margin for the state plan.
    - IBNR liabilities are based on historical incurred claim levels, and assume that those levels will be similar to the current year. It is possible that increases in covered payroll may impact the incurred claims. We include a 7% adjustment to reflect the plan design change to extend basic covered payroll, however we do not adjust prior years covered payroll.
    - Historical runout study payments are based on payment files from prior years, and we do not update historical payments every year. It is possible that some older payments have been updated or corrected on the latest files.
    - The overall runout study results include starting and ending credits for overpayment balances. Any individual who did not have an overpayment balance at the beginning of the period is assumed not to have an overpayment balance at the end of the period. This may overstate the ending liability and therefore understate the runout study overall margin.
    - Claim costs in the projections include 5% margin.
    - For claims that have not been awarded benefits from other sources, we do not attempt to estimate what the overpayment may be on these claims if any.

Appendix E: Reliance Items

In performing the valuation, we relied, without audit, on certain data and information provided by ETF and The Hartford. To the extent any of the data or other items was incomplete or inaccurate, the results of our work may be materially affected.

The principal items on which we relied included the following:

- Lists of open disability claims and related information provided by The Hartford;
- Reserve balances, premium contributions, plan expenses, covered payroll, and other financial information provided by ETF;
- Plan descriptions provided by ETF; and
- Discussions with ETF and staff at The Hartford.

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