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July 8, 2022

Mr. Jim Guidry
Director
Benefit Services Department
Wisconsin Department of Employee Trust Funds
Madison, WI 53707

RE: Eliminating ICI Supplemental Benefits and Enhancing ICI Basic Benefits – Revised July 8, 2022

Dear Jim,

Thank you for asking Milliman to analyze the impact of eliminating supplemental benefits and expanding basic benefits for the State and Local ICI plans. We have analyzed the potential impact of these changes on employer and employee contributions, participation levels, incurred claims, and funding. This letter contains the results of our analysis along with background and documentation of our analytical methods and assumptions.

This letter is a revised version of the communication sent on November 24th, 2021, with the only change reflecting the 20% decrease in contribution rates approved by the Board in 2023.

Background

The State and Local ICI programs provide basic benefits equal to 75% of average earnings up to $4,000 per month. Supplemental benefits provide an additional $3,500 per month and are optional to employees whose annual salary exceeds $64,000. The combined maximum monthly benefit amount for basic and supplemental ICI is $7,500 (not including the $75 add-on benefit following 12 months of disability).

Employers and employees contribute to State ICI basic benefits according to a rate schedule that varies by elimination period and salary for UW faculty, and by premium category and salary for all others. State employees who participate in the supplemental plan pay 100% of premiums for supplemental benefits. State ICI premium rates were reduced by 50% in 2022 and will be reduced by 20% in 2023. This reduction will apply to basic and supplemental premium rates and will benefit both employers and employees who contribute to the State ICI program.

The Local ICI program is on a premium holiday for the foreseeable future, because program funds are significantly higher than target fund levels, and the investment income on funds has exceeded insurance costs for the past several years.

ETF is considering eliminating supplemental benefits from the State and Local ICI programs, and increasing the cap on basic monthly benefit amounts to $7,500. Under this new design, an employee's covered payroll for basic benefits would increase from $64,000 to $120,000.

Executive Summary

We would expect the ICI redesign to have no near-term impact on the Local ICI plan. This is because the Local plan is on a premium holiday for the foreseeable future, and employees with annual earnings above $64,000 presumably enroll in supplemental benefits already because there is no extra cost to do so.

We would expect a 3-7% increase in State ICI incurred claims[1] under the new benefit design, with all else equal. This estimate is based on an analysis of ICI claim experience from 2015 through 2019, in which we restated incurred claims by assuming that all claimants would have been eligible for enhanced basic benefits up to $7,500 per month. In other words, we increased the benefit payments for employees whose annual salary was greater than $64,000 and who were not already receiving supplemental benefits. We did not adjust benefits for employees earning $64,000 or less, or those already receiving supplemental benefits, because they would not be affected by the plan change. The results from this analysis suggest a 3-7% increase in incurred claims under the new benefit design, with all else equal.

Because the ICI premium structure is mandated by statute, we used this structure to evaluate the impact of the new benefit design on employer and employee contributions. Assuming the new plan design is implemented in 2023, we would expect State ICI premium contributions to increase by approximately 9% in aggregate. This would not be a uniform increase. For example, some employees would see no increase (e.g., premium category 6, where the full premium is paid by the employer) while others would see a significant change (e.g., premium category 1, where the full premium is paid by the employee). We would expect employer contributions to increase by approximately 28% since they are expected to share in the cost of basic benefit enhancements. For employees who are currently eligible but not enrolled in supplemental benefits, we would expect their premium contributions to increase by 30-50% (depending on their salary), commensurate with the higher benefits they would receive in the event of disability. For

[1] For this analysis, the incurred claim cost for a specific plan year represents the full present-value cost of claims on participants whose dates of disability fall within that plan year.

employees currently enrolled in the supplemental plan (and who currently pay 100% of the premiums for supplemental benefits), we would expect their contributions to decrease by approximately 36% as employers would cover part of the cost of supplemental benefits.

We developed financial projections for the State ICI plan by assuming the new program design becomes effective on January 1, 2023. In our projections, we assumed a 3% increase in enrollment in 2022 due to the 50% rate reduction, followed by a 0.4% increase in enrollment in 2023 due to the 20% rate reduction, offset by some employees who are assumed to terminate coverage after their premiums increase due to the plan change. These assumptions are based on the level of change in enrollment we observed in response to the past State ICI rate increases.

Financial projections for the State ICI plan are provided below for the following scenarios:

- **Baseline**: We did not assume any change in benefits in the Baseline scenario. Contribution rates were reduced by 50% in 2022, then by 20% in 2023, then held level.

- **Scenario 1**: Contribution rates were reduced by 50% in 2022, then by 20% in 2023, then held level. We assumed State ICI basic benefit enhancements become effective on January 1, 2023, and that State ICI incurred claims will be 3% higher as a result of the benefit enhancements. We also assumed higher premium contributions than the baseline scenario beginning in 2023, commensurate with the higher benefits.

- **Scenario 2**: Contribution rates were reduced by 50% in 2022, then by 20% in 2023, then held level. Similar to Scenario 1, we assumed State ICI basic benefit enhancements become effective on January 1, 2023. In Scenario 2, we assumed that incurred claims will be 7% higher as a result of the benefit enhancements. We also assumed higher premium contributions than the baseline scenario beginning in 2023, commensurate with the higher benefits.

These scenarios are based on data as of December 31, 2020, consistent with the November 2021 letter, except that we have adjusted the 2021 investment income to reflect the actual results reported in 2021, which were significantly more favorable than expected. The actual insurance expense and premium in 2021 were relatively close to the expected values, therefore, we did not adjust those values in the projections.

Baseline Scenario: Current Plan

Contribution rates are reduced by 50% in 2022, then by 20% in 2023 then held level (no plan change in 2023)

State ICI Program - Funding Analysis as of December 31, 2020

Baseline - Contibution Rates are Reduced by 50% in 2022 then by 20% in 2023 and Held Level

Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027
BOY Fund Balance	$90,311,909	$120,036,016	$155,457,959	$165,330,346	$169,961,896	$173,174,728	$175,129,890	$175,744,072
Premium Contributions	$39,574,554	$40,761,791	$21,673,388	$18,168,158	$18,713,203	$19,274,599	$19,852,837	$20,448,422
Investment Income	$10,631,235	$16,242,523	$10,882,057	$11,573,124	$11,897,333	$12,122,231	$12,259,092	$12,302,085
Total Revenues	$50,205,789	$57,004,314	$32,555,445	$29,741,283	$30,610,536	$31,396,830	$32,111,929	$32,750,507
Insurance Claims	$17,755,981	$18,710,190	$19,664,398	$21,768,131	$23,751,620	$25,523,572	$27,306,029	$29,141,283
Carrier Administrative Expenses	$1,959,773	$2,065,091	$2,170,410	$2,402,604	$2,621,527	$2,817,102	$3,013,836	$3,216,398
Administrative Expense	$765,928	$807,089	$848,250	$938,997	$1,024,558	$1,100,993	$1,177,882	$1,257,048
Total Operating Expenses	$20,481,682	$21,582,370	$22,683,058	$25,109,732	$27,397,705	$29,441,668	$31,497,747	$33,614,729
Net Change in Fund Balance	$29,724,107	$35,421,943	$9,872,387	$4,631,550	$3,212,831	$1,955,162	$614,182	($864,222)
EOY Fund Balance	$120,036,016	$155,457,959	$165,330,346	$169,961,896	$173,174,728	$175,129,890	$175,744,072	$174,879,850
Actuarial Liability	$89,520,857	$97,484,704	$106,835,174	$115,864,047	$124,483,607	$132,966,253	$141,343,092	$149,607,658
Surplus / (Deficit)	$30,515,159	$57,973,256	$58,495,173	$54,097,849	$48,691,121	$42,163,637	$34,400,980	$25,272,192
Ratio of EOY Fund Balance to Liability	**134%**	**159%**	**155%**	**147%**	**139%**	**132%**	**124%**	**117%**
Incurred Claim Cost		20,992,406	22,546,915	23,861,768	24,823,397	25,823,780	26,864,479	27,947,117

Scenario 1: New Plan with Enhanced Basic Benefits Resulting in a 3% Increase in Incurred Claims
Contribution rates are reduced by 50% in 2022, then by 20% in 2023 then held level

State ICI Program - Funding Analysis as of December 31, 2020

Scenario 1: New Plan with Enhanced Basic Benefits Resulting in a 3% Increase in Incurred Claims

Calendar Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
BOY Fund Balance	$90,311,909	$120,036,016	$155,457,959	$165,330,346	$171,416,680	$176,015,169	$179,112,860	$180,695,080
Premium Contributions	$39,574,554	$40,761,791	$21,673,388	$19,650,118	$20,239,622	$20,846,810	$21,472,215	$22,116,381
Investment Income	$10,631,235	$16,242,523	$10,882,057	$11,573,124	$11,999,168	$12,321,062	$12,537,900	$12,648,656
Total Revenues	$50,205,789	$57,004,314	$32,555,445	$31,223,242	$32,238,789	$33,167,872	$34,010,115	$34,765,037
Insurance Claims	$17,755,981	$18,710,190	$19,664,398	$21,791,690	$23,961,931	$26,068,444	$28,112,392	$30,122,807
Carrier Administrative Expenses	$1,959,773	$2,065,091	$2,170,410	$2,405,205	$2,644,740	$2,877,241	$3,102,837	$3,324,731
Administrative Expense	$765,928	$807,089	$848,250	$940,014	$1,033,630	$1,124,497	$1,212,666	$1,299,388
Total Operating Expenses	$20,481,682	$21,582,370	$22,683,058	$25,136,908	$27,640,300	$30,070,182	$32,427,895	$34,746,926
Net Change in Fund Balance	$29,724,107	$35,421,943	$9,872,387	$6,086,334	$4,598,489	$3,097,690	$1,582,220	$18,110
EOY Fund Balance	$120,036,016	$155,457,959	$165,330,346	$171,416,680	$176,015,169	$179,112,860	$180,695,080	$180,713,190
Actuarial Liability	$89,520,857	$97,484,704	$106,835,174	$116,311,337	$125,390,607	$134,050,830	$142,332,671	$150,318,946
Surplus / (Deficit)	$30,515,159	$57,973,256	$58,495,173	$55,105,343	$50,624,562	$45,062,030	$38,362,409	$30,394,244
Ratio of EOY Fund Balance to Liability	**134%**	**159%**	**155%**	**147%**	**140%**	**134%**	**127%**	**120%**
Incurred Claim Cost		20,992,406	22,546,915	24,322,696	25,302,901	26,322,607	27,383,408	28,486,960

Scenario 2: New Plan with Enhanced Basic Benefits Resulting in a 7% Increase in Incurred Claims

Contribution rates are reduced by 50% in 2022, then by 20% in 2023 then held level

State ICI Program - Funding Analysis as of December 31, 2020

Scenario 2: New Plan with Enhanced Basic Benefits Resulting in a 7% Increase in Incurred Claims

Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027
BOY Fund Balance	$90,311,909	$120,036,016	$155,457,959	$165,330,346	$171,290,864	$175,532,903	$178,088,417	$178,944,996
Premium Contributions	$39,574,554	$40,761,791	$21,673,388	$19,650,118	$20,239,622	$20,846,810	$21,472,215	$22,116,381
Investment Income	$10,631,235	$16,242,523	$10,882,057	$11,573,124	$11,990,360	$12,287,303	$12,466,189	$12,526,150
Total Revenues	$50,205,789	$57,004,314	$32,555,445	$31,223,242	$32,229,982	$33,134,113	$33,938,404	$34,642,531
Insurance Claims	$17,755,981	$18,710,190	$19,664,398	$21,900,762	$24,263,310	$26,509,201	$28,679,298	$30,803,405
Carrier Administrative Expenses	$1,959,773	$2,065,091	$2,170,410	$2,417,243	$2,678,003	$2,925,888	$3,165,407	$3,399,850
Administrative Expense	$765,928	$807,089	$848,250	$944,719	$1,046,630	$1,143,510	$1,237,120	$1,328,746
Total Operating Expenses	$20,481,682	$21,582,370	$22,683,058	$25,262,724	$27,987,943	$30,578,599	$33,081,825	$35,532,001
Net Change in Fund Balance	$29,724,107	$35,421,943	$9,872,387	$5,960,518	$4,242,039	$2,555,514	$856,579	($889,470)
EOY Fund Balance	$120,036,016	$155,457,959	$165,330,346	$171,290,864	$175,532,903	$178,088,417	$178,944,996	$178,055,526
Actuarial Liability	$89,520,857	$97,484,704	$106,835,174	$117,125,170	$126,883,016	$136,164,481	$145,018,898	$153,541,645
Surplus / (Deficit)	$30,515,159	$57,973,256	$58,495,173	$54,165,694	$48,649,887	$41,923,936	$33,926,098	$24,513,881
Ratio of EOY Fund Balance to Liability	**134%**	**159%**	**155%**	**146%**	**138%**	**131%**	**123%**	**116%**
Incurred Claim Cost		20,992,406	22,546,915	25,195,094	26,210,457	27,266,738	28,365,588	29,508,721

Methodology

Incurred Claims

We evaluated the impact of State ICI plan changes on incurred claims by comparing the incurred claims based on the current benefit design to the incurred claims restated assuming all employees are eligible for enhanced basic benefits up to $7,500 per month. We used State ICI experience from claims incurred between 2015 and 2019 for this analysis. We calculated incurred claims under the new benefit design by increasing the benefit payments for claimants whose annual salary was greater than $64,000 and who were not receiving supplemental benefits during the experience period. We did not adjust benefits for claimants whose salary was $64,000 or less, and for those who were already receiving supplemental benefits.

Based on this analysis, average incurred claims from 2015 through 2019 increased by 2.3% from $17.4 million under the current plan design to $17.8 million under the new design, as shown below:

State ICI Incurred Claims as of December 31, 2020			
Year	Current Plan	New Plan	Difference
2015	$19,664,885	$20,266,642	3.1%
2016	$18,414,874	$18,841,651	2.3%
2017	$18,133,494	$18,297,324	0.9%
2018	$18,362,062	$18,803,518	2.4%
2019	$12,365,131	$12,705,451	2.8%
Average	$17,388,089	$17,782,917	2.3%

One reason for the relatively small increase in incurred claims is that only a small number of claims were affected. For example, only 8% of open claims as of December 31, 2020 would have been affected by the basic benefit enhancements.

We performed a sensitivity test that considers the potential impact of wage inflation, because average wages (and benefit amounts) could conceivably be lower in the 2015 - 2019 experience period than in 2023 when the ICI plan changes become effective. In this sensitivity test, we restated the benefit amounts by adjusting for expected wage inflation of 1.8% per year between the midpoint of the study period and 2023. The results suggested a 5.9% increase in incurred claims (versus 2.3% under the scenario that does not assume wage inflation). This test demonstrates that the risk could accelerate because wage inflation, as measured by the annual percent change in CPI, is much higher now than in the past.

In addition to the increase in benefit payments under the new plan design, the richer benefits can create incentives that affect employee behavior. For example, employees could be more likely submit a claim if the benefits are richer, and employees already on claim could be less motivated to return to work. We consulted several group long-term disability rate manuals (i.e., publicly available pricing manuals developed by insurance companies for filing with state insurance departments) to evaluate how insurance companies treat adverse selection risk in a similar situation. Most of the rate manuals do not include adjustments for increasing the maximum monthly benefit amount from $4,000 to $7,500, however there was one rate manual that did contain explicit adjustment factors for this enhancement. Based on this analysis, we have applied a 1.0% factor for the adverse selection risk that may result from the ICI basic benefit enhancements. This is in addition to the estimated 2.3% - 5.9% increase related to higher benefit payments. In total, we have estimated that future State ICI claim costs will be between 3.3% and 7.0% higher if the supplemental plan is replaced with an enhanced basic plan.

Premiums

In addition to a change in claim costs, we analyzed the impact on premiums based on insurance files from 2020. For this analysis, we calculated State ICI premiums under the current rate structure and under a rate structure that assumes supplemental benefits are replaced with the enhanced basic benefits.

No changes to the current rates were assumed aside from the 50% rate decrease applied in 2022, and 20% rate decrease applied in 2023. The following table shows the assumed level of employer cost sharing by ICI Premium Category:

ICI Premium Category	Employer Contribution
1	0%
2	0%
3	67%
4	77%
5	85%
6	100%
7*	Category 10 Amount
8*	Category 10 Amount
9*	Category 10 Amount
10*	100%

**For employees with more than one year of service. Other employees in these categories pay the full premium amount.*

Based on this structure, we would expect a 9% increase in overall State ICI contributions (i.e., employer and employee contributions combined) to cover the additional cost of basic benefit enhancements. This breaks down to an estimated 28% increase in employer contributions and an estimated 6% decrease in employee contributions, as shown below:

Estimated Contributions* Employers			
Employer	**Current Plan**	**New Plan**	**Percent Change**
DOA	$3,223,846	$3,926,362	22%
Beyond Vision	$4,436	$5,628	27%
WHEDA	$15,791	$20,873	32%
UWHC	$575,439	$781,901	36%
UW	$3,863,228	$5,133,072	33%
WEDC	$663	$874	32%
Total	**$7,683,403**	**$9,868,710**	**28%**

Estimated Contributions* Employees			
Employer	**Current Plan**	**New Plan**	**Percent Change**
DOA	$4,932,134	$4,669,263	-5%
Beyond Vision	$7,584	$9,581	26%
WHEDA	$18,663	$16,938	-9%
UWHC	$2,411,064	$2,408,416	0%
UW	$3,000,616	$2,676,781	-11%
WEDC	$327	$430	32%
Total	**$10,370,389**	**$9,781,409**	**-6%**

** The estimated contributions are based on 2023 State ICI contribution rates and include a 50% reduction in 2022 and a further 20% reduction in 2023.*

In total, estimated employee contributions are lower under the new plan because employers would pick up part of the cost of the benefit enhancements.

The change in contributions is not expected to affect all employees uniformly. For example, employees who are not eligible for supplemental benefits (i.e., whose annual salary is below $64,000) would not see any change in their contributions. On the other hand, employees earning more than $64,000 who currently do not participate in supplemental benefits would see an increase in contributions, because they would be eligible for richer benefits under the new plan.

The table below shows the expected increase in contributions by ICI premium category for employees who would be affected by the plan change and would see contributions increase (i.e., those who do not currently participate in supplemental benefits although their annual salary is greater than $64,000).

Expected Change in Contributions for Employees Impacted by the Change in Benefits	
ICI Premium Category	**Percent Increase**
1	26%
2	27%
3	30%
4	28%
5	31%
6	0%
7	43%
8	44%
9	48%
10	40%
Total	**32%**

UW faculty (premium categories 7 – 10) are expected to see a larger change in contributions, which is likely driven by higher salaries for UW faculty.

General

This letter has been prepared for Wisconsin ETF for the specific purpose of reviewing proposed changes to the ICI program. 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.

In preparing this letter, we relied, without audit, on information (some oral and some in writing) supplied by ETF, including historical claim data from The Hartford and ETF as well as other sources. 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 letter may need to be revised.

This analysis relied on a model which was used for the purpose of analyzing changes to the ICI program. This model relies on various assumptions and projections of future experience. It is unlikely that future experience will conform exactly to these assumptions and therefore future results will vary from expected results to the extent future experience varies from these assumptions.

I, Paul Correia, am a Consulting Actuary at Milliman. 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@miliman.com. Thank you.

Sincerely,

Paul Correia, FSA, MAAA
Principal and Consulting Actuary

c.c. Gina Fischer, Erin Esser, Megan Jeffers, Matt Nelson (ETF), Dan Skwire (Milliman)