

Actuarial Valuation of the State of Wisconsin Duty Disability Program

As of December 31, 2019

**State of Wisconsin Employee Trust Funds
Board Meeting
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Paul L. Correia, FSA, MAAA
Milliman, Inc.

Actuarial Valuation of Duty Disability Program

Limitations of Analysis

- We relied on information provided by the Department of Employee Trust Funds (ETF). If it is inaccurate or incomplete, our results may be affected.
- The valuation uses actuarial assumptions that are individually reasonable and which, in combination, offer our best estimate of anticipated experience.
- To the extent that actual experience varies from the assumptions, the emerging costs of the plan will vary from the projections we have prepared.
- The calculations in this presentation are consistent with our understanding of ETF funding requirements and goals. Additional determinations may be needed for other purposes.
- Milliman's work product was prepared exclusively for ETF for a specific and limited purpose. It is not for the use or benefit of any third party for any purpose.
- I, Paul Correia, am a Consulting Actuary with Milliman. I am a member of the American Academy of Actuaries, and I meet its Qualification Standards to render the actuarial opinion contained herein.

Duty Disability

Summary of Benefits

- Member Benefits:** 80% of salary (75% for local employees who are not eligible for a Social Security disability benefits and not eligible for a WRS disability benefit or LTDI)
- Benefit Offsets:** Social Security benefits
Unemployment compensation
Workers' Compensation
WRS retirement, separation, or disability benefits
Earnings from employer where the disability occurred
Earnings from other employment
- Benefit Increases:** Annual increases based on either Social Security salary index or WRS core annuity index, depending on the member's age and retirement status
- Survivor Benefits:** Survivor benefits are payable if the disabled member dies from the same condition that triggered Duty Disability benefits
- Survivor benefit amounts vary depending on disability date and disabling condition (cancer versus all other conditions)

Duty Disability

Liabilities as of December 31, 2019

Liability Component	Estimated Liability
Open Claims	\$412,357,049
Future Survivors	\$20,390,585
IBNR Claims	\$24,400,599
Loss Adjustment Expense	\$9,173,828
Total	\$466,322,061

- Open Claims: Liability reflects 968 disabled members and 58 survivors (i.e. spouses and domestic partners) who were receiving benefits as of December 31, 2019
- Future Survivors: Liability reflects future benefits payable to survivors of currently disabled members
- Incurred but not Reported (IBNR) Claims: Liability reflects expected future benefit payments to members and survivors whose claims were incurred but had not been reported as of December 31, 2019
- Loss Adjustment Expenses: Liability for future expenses related to ongoing management and payment of Duty Disability claims

Duty Disability

Comparison to Prior Year

Liability Component	12/31/2018	12/31/2019
Open Claims	\$398,952,462	\$412,357,049
Future Survivors	\$27,044,242	\$20,390,585
IBNR Claims	\$19,725,319	\$24,400,599
Loss Adjustment Expense	\$8,863,225	\$9,173,828
Total	\$454,585,247	\$466,322,061

- Claim termination rate and offset assumptions were updated for the 12/31/2019 valuation
- Liability for open claims increased by approximately 3.4%
 - Number of open claims relatively steady (1,025 at 12/31/2018 vs 1,026 at 12/31/2019)
 - Average monthly benefit increased by approximately 3.2%
- Liability for Future Survivors decreased due to a change in valuation assumptions
- Liability for IBNR claims increased due to increase in annual incurred claims estimate
- Liability for loss adjustment expenses increased slightly

Duty Disability

Retrospective Adequacy Study

Experience Period	Average Annual Margin	
	Disabled Members	Survivors
2015	0.90%	3.54%
2016	1.21 %	4.07%
2017	1.23%	2.44%
2018	0.65%	0.22%
2019	1.00%	0.34%
Total	1.00%	2.13%

- Experience: Claims from disabled members and survivors within the period 2015 - 2019
- Positive overall margins (i.e., 1.00% and 2.13%) indicate the liabilities were adequate to cover the runout of open claims during the study period

Duty Disability

Fund Balance and Surplus Position

Balance Sheet Component	2019
Beginning of Year Balance	\$642,041,947
+ Investment Income	\$46,303,564
+ Premium Contributions and Miscellaneous Income	\$7,599,226
- Insurance Claims	\$36,350,818
<u>- Administrative Expenses</u>	<u>\$588,120</u>
End of Year Balance	\$659,005,799
<u>Actuarial Liability as of December 31, 2019</u>	<u>\$466,322,061</u>
Surplus	\$192,683,738

- The plan was in a surplus position of \$192.7 million as of December 31, 2019
- Surplus is 41% of estimated liability as of December 31, 2019
- In 2019, the Board approved a surplus target range of 25% to 35% of the estimated liability

Duty Disability Funding Analysis

Modeled Scenario	Assumptions		Expected Surplus as of 12/31/2028
	Investment Income	Contribution Rate	
Baseline	7.0%	Current rates	\$269M (51% of 2028 liability)
Scenario 1	7.0%	Waived in 2021 and beyond	\$225M (43% of 2028 liability)
Scenario 2	-18% in 2020, 7.0% thereafter	Current Rates	-\$14M (-3% of 2028 liability)

- Fund and surplus projections take into consideration potential future claims of active employees (even though estimated liability does not under GASB10)

Duty Disability

Conclusions

- Reserve margin analysis supports the updated valuation assumptions
- The funding analysis indicates Duty Disability Program surplus is sensitive to investment income and contributions, however it is expected to grow in the baseline scenario
- We would not recommend a premium holiday at this time due to current economic and health uncertainty, and because there could be a prolonged period of uncertain market returns, and uncertainty around disability and life claims.

Duty Disability

Appendix – New Valuation Assumptions

- An audit of Milliman’s Duty Disability valuation methods in 2019 included recommendations to update claim termination and estimated offset assumptions
- New termination rates are based on mortality rates from the *2015-2017 Wisconsin Retirement System Three-Year Experience Study* report adjusted to reflect Duty Disability claim trends
 - Disabled member mortality – 40% of the average of disabled and healthy life retiree mortality rates
 - Survivor mortality – 80% of the WRS annuitant mortality rates
- New offset assumptions are based on a recent study of offset approval rates