

# **Actuarial Valuation of the State of Wisconsin Duty Disability Program**

**As of December 31, 2020**

**State of Wisconsin Employee Trust Funds  
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# Actuarial Valuation of Duty Disability Program

## Limitations of Analysis

- We relied on information provided by the Department of Employee Trust Funds (ETF). If any of this information is inaccurate or incomplete, our results may be affected.
- The valuation uses actuarial assumptions that are individually reasonable and that, 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 Duty Disability 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, 2020

Liability Component	Estimated Liability
Open Claims	\$413,524,714
Future Survivors	\$21,037,538
IBNR Claims	\$23,966,544
Loss Adjustment Expense	\$9,191,378
<b>Total</b>	<b>\$467,720,173</b>

- Open Claims: Liability represents the present value of expected future benefit payments, based on 967 disabled members and 59 survivors (i.e. spouses and domestic partners) who were receiving benefits as of December 31, 2020.
- Future Survivors: Liability represents future benefits payable to survivors of currently disabled members
- Incurred but not Reported (IBNR) Claims: Liability represents the present value of expected future benefit payments to members and survivors whose claims were incurred but had not been reported as of December 31, 2020.
- Loss Adjustment Expenses: Liability represents the present value of future expenses related to ongoing management and payment of Duty Disability claims.

# Duty Disability

## Comparison to Prior Year

Liability Component	12/31/2019	12/31/2020
Open Claims	\$412,357,049	\$413,524,714
Future Survivors	\$20,390,585	\$21,037,538
IBNR Claims	\$24,400,599	\$23,966,544
Loss Adjustment Expense	\$9,173,828	\$9,191,378
<b>Total</b>	<b>\$466,322,061</b>	<b>\$467,720,173</b>

- The December 31, 2020 liabilities were calculated using the same valuation assumptions as last year.
- The number of open claims remained the same (1,026 in both years).
- The average monthly benefit amount increased by approximately 0.5%.
- The liability for open claims increased by approximately 0.3% from December 31, 2019 to December 31, 2020
- The liability for IBNR claims decreased slightly from December 31, 2019 to December 31, 2020 based on recent trends in incurred claims experience.

# Duty Disability

## Retrospective Adequacy Study

Experience Period	Average Annual Margin	
	Disabled Members	Survivors
2016	1.04%	4.07%
2017	1.06%	2.44%
2018	0.48%	0.22%
2019	1.00%	0.31%
2020	0.96%	-1.22%
<b>Total</b>	<b>0.91%</b>	<b>1.17%</b>

- Experience: Claims from disabled members and survivors within the period 2016 - 2020
- Positive overall margins (i.e., 0.91% and 1.17%) 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	2020
Beginning of Year Balance	\$659,050,876
+ Investment Income	\$67,455,529
+ Premium Contributions and Miscellaneous Income	\$4,104,762
- Insurance Claims	\$36,591,380
- <u>Administrative Expenses</u>	<u>\$793,512</u>
End of Year Balance	\$693,226,275
Actuarial Liability as of December 31, 2020	\$467,720,173
Surplus as of December 31, 2020	\$225,506,102

- The plan was in a surplus position of \$225.5 million as of December 31, 2020.
- Surplus is 48% of estimated liability as of December 31, 2020.
- The surplus target for the plan is within the range of 25% to 35% of the estimated liability.

# Duty Disability Funding Analysis

Modeled Scenario	Assumptions		Expected Surplus 12/31/2022	Expected Surplus 12/31/2029
	Investment Income	Contribution Rate		
<b>Baseline</b>	7.0%	Current rates	\$244M (51% of 2022 liability)	\$324M (61% of 2029 liability)
<b>Scenario 1</b>	7.0%	Reduced by 50% in 2022 then held level	\$242M (51% of 2022 liability)	\$301M (57% of 2029 liability)
<b>Scenario 2</b>	7.0%	Waived in 2022 and beyond	\$240M (50% of 2022 liability)	\$278M (52% of 2029 liability)
<b>Scenario 3</b>	-10% in 2020, 7.0% thereafter	Current rates	\$118M (25% of 2022 liability)	\$121M (23% of 2029 liability)
<b>Scenario 4</b>	0% in 2020, 7.0% thereafter	Current rates	\$192M (40% of 2022 liability)	\$240M (45% of 2029 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

- Estimated liabilities as of December 31, 2020 are similar in magnitude to last year. The liabilities were calculated using the same assumptions as last year.
- The funding analysis indicates that Duty Disability surplus is expected to grow in the baseline scenario, and that it is sensitive to investment income and contributions.
- We would not recommend a premium holiday at this time because of the uncertainty due to the pandemic and the sensitivity of the fund to market returns.