



Wisconsin Sick Leave Conversion Credit Programs

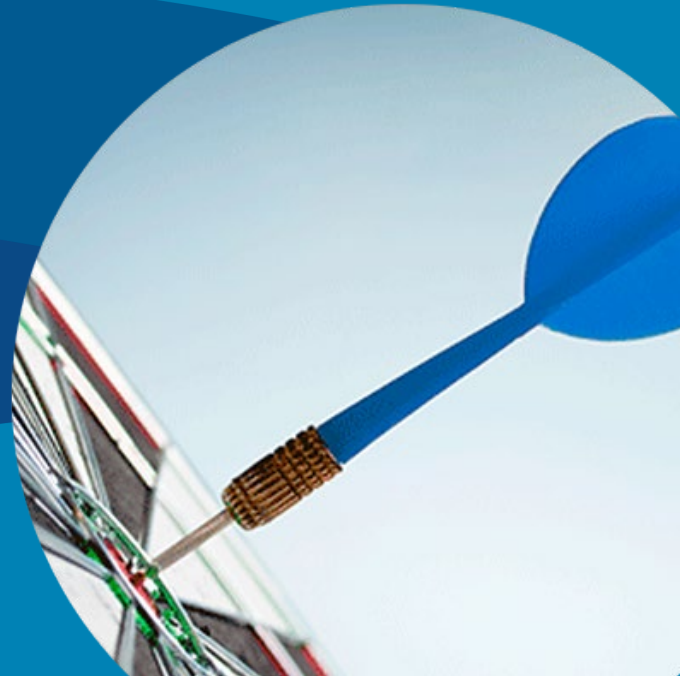
Experience Study Results for 2018-2020

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Introduction

- Each year the actuarial liabilities of the Sick Leave Conversion Credit (“SLCC”) Programs are calculated as part of the December 31 valuation
- In order to perform the valuation, we must make assumptions about the future experience of the System with regard to various risk areas
- The results of the liability calculations depend upon those assumptions

Introduction

- This is the first experience study related to the Sick Leave valuation
 - SLCC programs are very unique
 - Assumptions particular to the SLCC explored
 - Prior assumptions/methods updated regularly
 - as part of valuation process
 - to address items noted in Sick Leave plan audits
 - Anticipate refining assumptions in future experience studies

Introduction – State versus non-State Experience

- For the first time, the WRS experience study developed separate decrements for state and non-state members
 - Resulting in separate proposed liability-weighted assumptions for state and non-state members
- For SLCC purposes, State-specific assumptions will apply in valuations going forward
 - Reasonable to use liability-weighted assumptions since both sick leave and pension liability are driven primarily by pay and service

Introduction

- ETF Staff developed extensive additional data for this study and future valuations
 - Terminated vested, Spouse data, Retiree detail (number of people covered, original status of records)
 - Thorough documentation of data fields
 - Improves our understanding of data provided
 - Enhances overall quality control process
- The supplemental data improved past valuations and greatly informed this study

Introduction – Assumptions

Unique to the SLCC

Primary Risks

Demographic	Economic
Normal Retirement	Price & Wage Inflation
Early Retirement	Investment Return
Death-in-Service	Health Care Trend
Disability	Health Care Premiums
Other Separations	Participation of Future Retirees
Pre and Post Mortality	Accumulation and Usage of Sick Leave Credits
Merit and Longevity Pay Increases	

SICK LEAVE ASSUMPTIONS



Sick Leave Assumptions – Health Care Trend

- Trend rates project results from the experience period to the rating period
- Current assumption based on:
 - An initial increase of 10% applied to premiums to account for secular trend, aging, etc.
 - On a go forward basis, premiums were assumed to increase 3.0% in each future year

Sick Leave Assumptions – Health Care Trend

- Proposed assumption more in alignment with assumptions for State of Wisconsin Retiree Health Insurance Program
 - 6.0% for the first year grading down to an ultimate health care trend rate of 3.50% over a 12 year period

Sick Leave Assumptions – Health Care Premiums

- Sick Leave conversion credits used to cover the cost of health insurance premiums for members
 - Health insurance premiums vary among a variety of health plans/designs offered under the State of Wisconsin Group Health Insurance Program
- For active annuitants, the valuation uses actual premiums provided in the data

Sick Leave Assumptions – Health Care Premiums

- Current assumed premium for actives, deferreds and on-hold/escrowed retirees (updated yearly)
 - pre-65 = \$1,258.69/month
 - post-65 = \$569.06/month

Sick Leave Assumptions – Health Care Premiums

- Based on 2020 premium data provided, proposed approach incorporating 1-person and 2-person coverages

	Pre-65 Premium	Post-65 Premium
1-Person Coverage	\$818.77/mo.	\$379.60/mo.
2-Person Coverage	\$1,718.65/mo.	\$763.12/mo.
Average net premium*	\$1,268.71/mo.	\$571.36/mo.

** Used in the valuation of all non-active annuitants (i.e., current actives, deferreds and on-hold/escrowed retirees)*

- For active annuitants, the actual premiums provided in the data are used in the valuation

Sick Leave Assumptions – Health Care Premiums

- In conjunction with incorporating 1-person/2-person coverage, developed new 50%/50% election percentage as follows:

Year	# of 1-Person Active Annuitant Contracts	# of Multi-Person Active Annuitant Contracts	% Electing 1-Person Coverage	% Electing Multi-Person Coverage
2018	8,787	8,451	50.97%	49.03%
2019	8,932	8,664	50.76%	49.24%
2020	9,219	8,918	50.83%	49.17%

Sick Leave Assumptions – Participation

- When will members begin “participating” in the program?
 - In other words, using sick leave credits to cover health care costs
- Current assumption: 100% of active and terminated vested members participate immediately upon reaching eligibility to start using sick leave credits

Sick Leave Assumptions – Participation

- Data shows participation rates of ~ 88% each year

Year	Number Originally Escrowed	Total Number Count (excluding Closed Accounts)	% of People Not Participating Immediately	% of People Participating Immediately
2018	2,777	22,999	12.07%	87.93%
2019	2,733	23,381	11.69%	88.31%
2020	2,728	23,911	11.41%	88.59%

- Later analysis shows that 50% of those originally escrowed participate in the future
- We recommend continuing the 100% assumption to provide margin for adverse deviation

Sick Leave Assumptions – Accrual Method While Employed

- *Current approach:*
 - Start with the sick leave balance accrued to date
 - Add net sick leave accrual
 - To estimate sick leave balances at retirement, each individual assumed to continue using sick leave at the same rate as in the past but
 - Not less than 25% nor more than 75% of the person's annual accrual rate (usually 16.25 days)

Sick Leave Assumptions – Accrual Method While Employed

- *Proposed approach:*
 - Start with the sick leave balance accrued to date
 - Add net sick leave accrual
 - To estimate sick leave balances at retirement, each individual assumed to continue using sick leave at the same rate as in the past but
 - Not more than 75% of the person's annual gross accrual rate based on the person's employer
 - In other words, the member can accrue 100% at most (historically 75% was used) of their gross accrual rate but not less than 25% of their gross accrual rate

Sick Leave Assumptions – On-Hold/Escrowed Retirees

- *Current approach:*
 - Assume 50% of on-hold/escrowed members will start using the benefit immediately as of the valuation date while 50% will never use the benefit
 - Apply ratio to calculate present value of future benefits
- *Recommended approach:*
 - Explicitly model on-hold/escrowed retirees reported in the data, maintain 50% usage assumption
 - Present value of future benefits calculated by drawing down each member's account balance using the average net premiums shown earlier in this presentation

Sick Leave Assumptions – On-Hold/Escrowed Retirees

Recommended approach (continued):

- Apply 50% usage factor to the present value, confirmed by 2020 data:

7,674 Annuitants with an original account status of escrowed/on-hold (excludes 2018-2020 retirees)

3,850 3,850 of 7,674 records have current account status of active annuitant

3,850/7,674 % of escrowed/on-hold members at first eligibility subsequently using sick leave credits
50.17%

Sick Leave Assumptions – Modeling Survivor Benefit/Dependent Benefits

- *Current approach:*
 - Apply loads to approximate survivor/dependent benefits
- *Recommended approach:*
 - Replace load with approach that removes mortality application for 2-person/family retiree coverage

EFFECT ON VALUATION RESULTS



Effect on Valuation Results

- Putting it all together
 - Reflect recommended Sick Leave specific assumptions detailed herein
 - Reflect State-specific demographic assumptions developed in Wisconsin Retirement System experience study
 - Reflect economic assumptions developed in Wisconsin Retirement System experience study

Summary of Economic Scenarios From WRS 2018-2020 Experience Study

Measure	Current Assumption	Reasonable Range	Recommended Assumption
Price Inflation	2.5%	2.0%-2.5%	2.4%
Wage Inflation	3.0%	2.7%-3.2%	3.0%
Investment Return	7.0%	5.4%-7.0%	6.2%-6.8%

Please see WRS 2018-2020 Experience Study Report for additional detail

Effect on Valuation Results

Market Recognition Account (MRA) - \$ Millions

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Actual Investment Return	\$ 15,868				
Assumed Investment Return	7,000				
Gain/(Loss) to be phased-in	8,868				
Phased-in recognition					
• Current year	\$ 1,774	?	?	?	?
• First prior year	2,204	\$ 1,774	?	?	?
• Second prior year	(2,049)	2,204	\$ 1,774	?	?
• Third prior year	1,461	(2,049)	2,204	\$ 1,774	?
• Fourth prior year	120	1,461	(2,049)	2,204	\$ 1,774
Total recognized Gain/(Loss)	\$ 3,510	\$ 3,390	\$ 1,929	\$ 3,978	\$ 1,774

2021-2024: Expect \$11.1 billion in deferred asset GAINS
-- Shared by annuitants, actives and employers

Summary of Results – Sick Leave Valuation

	12/31/2020	Hypothetical results as of 12/31/2021 ¹					
	Actual Results	Baseline (no changes)	Demographic Changes only ²	Alternate Economic 1	Alternate Economic 2	Alternate Economic 3	Alternate Economic 4
Price Inflation	2.50%	2.50%	2.50%	2.40%	2.40%	2.40%	2.40%
Wage Inflation	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Return	7.00%	7.00%	7.00%	6.80%	6.60%	6.40%	6.20%
ASLCC Rate	0.7%	0.6%	0.6%	0.7%	0.8%	0.9%	1.0%
SHICC Rate	0.1%	0.0%	0.2%	0.2%	0.3%	0.4%	0.4%
Total Rate	0.8%	0.6%	0.8%	0.9%	1.1%	1.3%	1.4%

1,2 See following page for description of footnotes

New assumptions would be first be used in the December 31, 2021 valuation, first impacting rates in 2023.

Summary of Results – Sick Leave Valuation

Notes on Results Summary (previous page)

- Footnote 1 -- Hypothetical results incorporate:
 - Estimated impact of asset gains in the Market Recognition Account (MRA) for 2021 and
 - Use of 12/31/2020 participant data for calculating liabilities, without adjustment or roll forward
- Footnote 2 -- Demographic changes include:
 - Demographic assumptions
 - Withdrawal, retirement, disability and mortality rates
 - Sick Leave specific assumptions
 - Health Care premiums and trend, participation, and program usage assumptions discussed earlier

Implementation Schedule

- We recommend that the assumption changes be effective for the December 31, 2021 and following valuations

Disclaimers

- This presentation is intended to be used in conjunction with the 2018-2020 Experience Study report issued on November 17, 2021. This presentation should not be relied on for any purpose other than the purpose described in the valuation report.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- If you need additional information in order to make an informed decision, please contact the authors.