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**CORRESPONDENCE MEMORANDUM**

**DATE:** August 6, 2012  
**TO:** Group Insurance Board  
**FROM:** Deb Roemer, Bureau Director  
Disability Programs Bureau  
**SUBJECT:** Acceptance of Long-Term Disability Insurance Actuarial Valuation

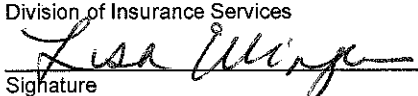
**Staff requests the Group Insurance Board (Board) approve the Long-Term Disability Insurance (LTDI) Plan Actuarial Review as of December 31, 2011.**

Deloitte Consulting LLP (Deloitte), the Department of Employee Trust Funds' actuary, completes an annual actuarial review of the LTDI Plan. This review examines the LTDI Plan's experience, a summary of benefits paid, an estimate of future benefits, an estimate of reserves for future claims, and a premium recommendation.

Deloitte recommends continuing the premium suspension at this time. However, they do anticipate premium collections may need to be reinstated in 2014.

A brief summary is found on page 1 of this report.

Attachment: Long-Term Disability Insurance Plan 2013 Premium Development and Liability Valuation as of December 31, 2011

Reviewed and approved by Lisa Ellinger, Administrator  
Division of Insurance Services  
  
Signature \_\_\_\_\_ Date 8/13/12

Board	Mtg /Date	Item #
GIB	8.28.12	6

## The State of Wisconsin Group Insurance Board



### Long-Term Disability Insurance Plan 2013 Premium Development & Liability Valuation as of December 31, 2011

Prepared By:  
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Deloitte Consulting LLP

Board	Mtg Date	Item #
GIB	8/28/2012	6

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# I. Introduction

The purpose of this report is to summarize our actuarial review of the Long-Term Disability Insurance ("LTDI") Plan. Included are a brief review of the Plan's experience during 2011, development of the 2013 LTDI premium recommendation, a summary of benefits paid, an estimate of the Plan's Reserve for Future Claims ("RFC", or the fund surplus of the Plan) and a summary of the December 31, 2011 estimated benefits liability.

The results of our review indicate that the LTDI Plan assets of \$262.3 million exceed the estimated liabilities of \$189.0 million. The asset balance does not include \$18.9 million in deferred market losses which will be smoothed in over the next four years. As expected, the RFC has steadily decreased from \$223.7 million in 2003 to \$73.3 million in 2011, primarily due to the continued suspension of premium contributions in effect since 1999, combined with growth in open claims and low investment income.

Based on a comparison of the current and projected RFC to the long-term target RFC levels, we recommend that contributions not be reinstated at this time. However, due to the continued erosion of the RFC, we anticipate that premium collections may need to be reinstated beginning in 2014. Our recommendation to continue to suspend premiums in 2013 is based on current and projected assets and liabilities. Section III discusses the premium rate recommendation in more detail.

In preparing this report, we have relied on claim information provided by Aetna and the Department of Employee Trust Funds ("ETF"), and on payroll information provided by GRS. We have not audited this information, but have relied on it as submitted after making reasonableness checks as we deemed appropriate under the circumstances.

Deloitte Consulting LLP ("Deloitte Consulting") and Gabrel, Roeder, Smith & Company ("GRS") shared the development of the projected premium revenue of the Plan. Deloitte Consulting relied upon the LTDI Plan covered payroll provided by GRS to project total premium revenue in our financial projections. The results of the GRS work are contained in a separate document. This report contains the Incurred Claims liability and the recommended premium rates for 2013, both of which were developed by Deloitte Consulting.

## II. 2011 Experience and Highlights

	2011	2010	2009	2008
<b>Beginning Balance</b>	\$285,877,163	\$300,549,620	\$313,852,818	\$325,385,010
Closing Adjustments	(\$526,896)	(\$134,555)	(\$121,701)	\$54,049
<b>Adjusted Beginning Balance</b>	<b>\$285,350,267</b>	<b>\$300,415,065</b>	<b>\$313,731,117</b>	<b>\$325,439,059</b>
<b>Revenues</b>				
Contributions	\$0	\$0	\$0	\$0
Investment Earnings	\$4,077,789	\$13,742,607	\$12,634,570	\$10,029,343
<b>Total</b>	<b>\$4,077,789</b>	<b>\$13,742,607</b>	<b>\$12,634,570</b>	<b>\$10,029,343</b>
<b>Expenses</b>				
Paid Claims	\$25,040,196	\$26,298,530	\$23,663,985	\$20,443,753
Administrative Expenses	\$2,122,132	\$1,981,979	\$2,152,082	\$1,171,832
<b>Total</b>	<b>\$27,162,328</b>	<b>\$28,280,509</b>	<b>\$25,816,067</b>	<b>\$21,615,585</b>
<b>Net Income</b>	<b>(\$23,084,539)</b>	<b>(\$14,537,902)</b>	<b>(\$13,181,497)</b>	<b>(\$11,586,242)</b>
<b>Ending Assets</b>	<b>\$262,265,728</b>	<b>\$285,877,163</b>	<b>\$300,549,620</b>	<b>\$313,852,817</b>
<b>Incurred Claim Liability</b>	<b>\$189,004,196</b>	<b>\$175,590,410</b>	<b>\$156,278,012</b>	<b>\$138,640,973</b>
<b>Reserve for Future Claims (RFC)</b>	<b>\$73,261,532</b>	<b>\$110,286,753</b>	<b>\$144,271,608</b>	<b>\$175,211,844</b>

During 2011, the RFC decreased from \$110,286,753 to \$73,261,532. Total revenues were \$4,077,789 with paid claims and administrative expenses totaling \$27,162,328. As shown above, investment earnings decreased by approximately \$9.7 million in 2011 compared to 2010. The total claims and administrative expenses combined decreased by approximately \$1.1 million. The decrease in revenue outweighed the slightly favorable experience in paid claims, resulting in a continued erosion of the plan assets.

The approximate \$37.0 million decrease in the RFC is attributable to an 8.3% decrease in the Plan's assets and a 7.6% increase in the Incurred Claims liability (which includes provisions for both the known and incurred but not reported claims). The increase of the Incurred Claims liability is primarily driven by a 9.9% growth in the number of open claims and a change in the composition and characteristics of the average claimant in the open claim cohort.

As premiums have been suspended since 1999, we would expect the fund balance to decrease if the sum of the paid claims and the increase in the Incurred Claims liability is more than investment earnings. The RFC does not include deferred market losses of \$18.9 million which will be smoothed into the asset balance over the next four years. The 40% RFC in 2011 is in excess of the high end of the RFC target. Traditionally a long-term objective of maintaining a RFC of 15% to 25% of estimated liabilities has been considered reasonable. Thus, we recommended that the Plan continue to suspend premium payments for another year. However, due to the continued erosion of the RFC, we anticipate that premium collections may need to be reinstated in 2014.

# III. 2013 LTDI Premium Recommendations

Based on historical RFC targets, from 1999 to 2010 the LTDI assets have been sufficient to suspend premium contributions for the plan. Since 2008, cash flow has been negative for the Plan, implying the total paid claims and administrative expense balance has exceeded the investment earnings of the Plan. Currently, investment earnings are the only revenue source of the Plan. Because cost exceeds revenue, the asset balance has begun to decline in order to fund the shortfall. As the asset balance erodes, the opportunity to earn investment income also decreases, thereby limiting future revenue in absence of premium contributions.

Considerable year-to-year fluctuations can occur under long term disability plans, even for a plan as large as that of the State. Thus, maintaining a fund balance in excess of estimated liabilities is prudent. A reasonable long-term funding objective is to maintain an RFC of 15% to 25% of estimated liabilities to hedge against future adverse experience. Expressed as a percentage of the incurred claims liability, the RFC has decreased dramatically from 228% in 2005 to 39% in 2011. The ending asset and liability balances as of December 31, 2011, are \$262.3 million and \$189.0 million, respectively, resulting in an RFC of 73.3 million. Although the RFC decreased over the last 6 years, the Plan continues to be positively funded given the RFC is in excess of the high end of the RFC target range, 25%. Because the RFC is excess of 25%, we recommend that premium contributions not be reinstated in 2013.

As future asset and liability experience emerges, we will evaluate the need for the reinstatement of premiums in subsequent years. Based on current financial projections, we estimate that without any action in future years, the RFC will continue to erode and decrease below 25% by the end of 2013, although still within the target RFC range. Further, we project the RFC to be below 15% by the end of 2014 and become negative by the end of 2016 when it is projected that liabilities exceed assets. As a result of the projected further erosion of the RFC, we anticipate that premium collections may need to be reinstated beginning in 2014 to avoid the RFC falling below the long-term funding objective of an RFC of 15% to 25%.

# IV. Benefits Being Paid and Liabilities

By Year of Incurral as of December 31, 2011

	2006 & prior	2007	2008	2009	2010	2011	Total
<b>General &amp; Teachers</b>							
Number	644	154	191	222	260	163	<b>1,634</b>
Annual Benefit	\$8,733,184	\$2,158,501	\$2,688,783	\$3,395,966	\$3,999,509	\$2,634,786	<b>\$23,610,730</b>
Act. Present Value	\$57,461,745	\$16,618,613	\$18,693,048	\$23,270,095	\$28,144,646	\$16,878,244	<b>\$161,066,391</b>
<b>Prot w/ Social Sec</b>							
Number	5	9	4	2	2	1	<b>23</b>
Annual Benefit	\$67,374	\$121,778	\$40,431	\$43,594	\$6,352	\$6,515	<b>\$286,044</b>
Act. Present Value	\$527,951	\$1,539,686	\$363,675	\$458,881	\$13,595	\$19,082	<b>\$2,922,870</b>
<b>Prot w/o Social Sec</b>							
Number	2	-	-	-	-	-	<b>2</b>
Annual Benefit	\$39,728	\$-	\$-	\$-	\$-	\$-	<b>\$39,728</b>
Act. Present Value	\$362,213	\$-	\$-	\$-	\$-	\$-	<b>\$362,213</b>
<b>Total</b>							
<b>Number</b>	651	163	195	224	262	164	<b>1,659</b>
<b>Annual Benefit</b>	\$8,840,287	\$2,280,279	\$2,729,214	\$3,439,559	\$4,005,861	\$2,641,301	<b>\$23,936,502</b>
<b>Act. Present Value</b>	\$58,351,909	\$18,158,299	\$19,056,723	\$23,728,976	\$28,158,241	\$16,897,327	<b>\$164,351,475</b>

# V. Estimated Liability and Summary of Funding Levels

December 31, 2011

LTDI Assets	<u>\$ 262,265,728</u>
<b>Actuarial Present Value of:</b>	
Claims in payment status as of December 31, 2011	\$ 164,351,475
Incurred but not reported claims (IBNR)	<u>24,652,721</u>
<i>Total Incurred Claims Liability</i>	<u>\$ 189,004,196</u>
Reserves for Future Claims (RFC)	<u>\$ 73,261,532</u>

Historically, the methodology for calculating the actuarial present value of future disability payments was based on applying assumed mortality rates to future payments with no assumed recoveries from disability. In 2011, the methodology was changed to use the 1987 Commissioner's Group Basic Disability table ("87 CGDT") adjusted for the State of Wisconsin's own claim termination experience. The 87 CGDT is a commonly referenced source for group LTD claim termination rates and incidence rates. When estimating disability liabilities, it is a common actuarial practice to develop adjustment factors to apply to the 87 CGDT to reflect a group's experience, rather than develop completely new rates.

Deloitte Consulting completed experience studies to develop a set of adjustment factors to be applied to the 87 CGDT termination rates. The results of the claim termination rate study supported a termination rate adjustment factor for all years of disablement. These adjustment factors are intended to produce rates that are reflective of ETF's actual LTD experience, and are summarized in the Appendix.

In addition to the valuation methodology enhancements, we also completed a historical recast analysis of the LTDI IBNR. The LTDI IBNR recast results indicate that our historical established IBNR has been conservative and as a direct result, we have reduced the current LTDI IBNR factor from 25% of the DLR balance to 15%.

The total liability increased 7.6% from 2010 to 2011. The increase is largely due to a growth in the number of open claims and a change in the composition and characteristics of the average claimant in the open claim cohort.



# Appendix

## Assumptions

**Methodology:** The projected future benefit stream is reduced for both mortality and recovery from disability, using the 1987 Commissioner’s Group Basic Disability table adjusted for the State of Wisconsin’s own termination experience.

**Termination Rates:** The percentages of the 1987 Commissioner’s Basic Disability Table termination rates based on the State of Wisconsin’s own experience are shown below:

Duration of Disablement	Termination Rate Adjustment
First Year	60%
Second Year	60%
Third Year & Beyond	70%

**Benefit Period:** Projected benefits cease at age 65.

**Interest:** 4.0% (which approximates a 7.2% valuation rate—consistent with the reduction from 7.8% during 2010—with 3.2% annual benefit increases) is used to discount the projected future benefit stream to the valuation date.

**IBNR:** 15% of the liability for reported claims (reduced from 25% in 2011 based on a study of the historical sufficiency of the recorded IBNR)

**Eligibility:** 1) Employees who begin or resume covered WRS employment on or after October 16th, 1992 or 2) employees who have been continuously employed under the WRS since before October 16th, 1992, and are eligible for coverage under the WRS disability program, but elect coverage under the LTDI program. (At the 2007 Group Insurance Board meeting, the Board voted to extend the open election between programs indefinitely.)



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