

State of Wisconsin



State Income Continuation Insurance Plan Actuarial Review as of December 31, 2012

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I. Overview

The purpose of this report is to summarize our review of the State Income Continuation Insurance Plan. Included are a brief review of the Plan's experience during 2012, an estimate of the State's liability as of December 31, 2012, and an analysis of current funding levels.

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

The results of this review indicate that the State Income Continuation Insurance Plan (including supplemental benefits) has assets of \$46.9 million and estimated liabilities of \$76.5 million as of December 31, 2012. The asset balance does not include \$1.6 million in deferred market gains which will be smoothed in over the next four years. We note that the deferred market gains listed here and as used in our financial projections are draft amounts provided by ETF due to the timing of our reports and the finalization of the deferred amounts. The net fund balance is \$(29.6) million. This net fund balance represents approximately (38.7)% of liabilities. Traditionally, a long-term objective of maintaining a net fund balance of 15% to 25% of estimated liabilities has been considered reasonable.

Premiums were reinstated for this plan on August 1, 1996. These premiums stabilized the funded status of the plan from 2000 through 2004. Since 2005, the net fund balance has been negative. Despite 7% increases in premium revenue that took effect February 1, 2007, January 1, 2010 and January 1, 2012, the funded status of the plan has continued to deteriorate. The funded status of the plan has not been in the targeted range since 2004.

Last year we anticipated that additional 9% premium rate increases would be needed in 2014 and 2016 to return the net fund balance to target levels. At the time of issuing the December 31, 2011 valuation report, given the 7% increase effective January 1, 2012, no rate increase was recommended for 2013. However, the May 2012 Group Insurance Board ("the Board") meeting resulted in implementing a 4.5% premium rate increase effective January 1, 2013, to help mitigate further deterioration in the plan's funded status. The impact of this premium rate increase on the net fund balance will not be realized until year-end 2013.

In 2012, plan assets decreased by 13.7% while estimated liabilities decreased by 8.1%. This resulted in continued erosion of the plan's annual net fund balance, as it declined from (34.7)% of liabilities in 2011 to (38.7)% of liabilities in 2012. As a result of the continued deterioration of the funded status of the plan in 2012, we recommend a 4.5% premium rate increase for 2014 and anticipate additional 4% annual increases may be needed for 2015 through 2018. Future premium increases beyond those outlined here may be needed as actual assets and liabilities emerge. We will continue to monitor the plan's net funding balance and need for further rate increases.

The remainder of this report summarizes the review in more detail. A number of actuarial assumptions have been made in estimating the State's liability, which are described throughout the report and summarized in Exhibit 1.

II. 2012 Experience Review

Fund Balance

During 2012, the assets of the plan decreased from \$54,368,602 to \$46,907,891. Total revenues were \$15,394,553 with paid claims and administrative expenses totaling \$22,659,852. As shown below, plan revenues increased by \$0.8 million, however expenses increased by \$3.3 million, resulting in a 53.1% decrease in the plan net income and 13.7% decrease in the ending asset balance. The components of the cash flows are shown in the following table along with figures for the previous three years for comparison purposes. The net fund balance does not include \$1.6 million in deferred market gains which will be smoothed in over the next four years.

	2012	2011	2010	2009
Beginning Asset Balance	54,368,602	59,219,088	59,367,041	60,358,843
Closing Adjustments	(195,413)	(105,055)	(24,781)	(14,813)
Adjusted Beginning Asset Balance	54,173,189	59,114,033	59,342,260	60,344,030
Revenues				
Premium Contributions	14,338,544	13,687,699	14,081,359	13,028,086
Investment Earnings	1,056,009	905,077	2,839,973	2,537,632
Total	15,394,553	14,592,776	16,921,332	15,565,718
Expenses				
Paid Claims	20,602,901	17,517,513	15,180,515	14,853,486
Administrative Expenses	2,056,951	1,820,694	1,863,988	1,689,220
Total	22,659,852	19,338,207	17,044,504	16,542,707
Net Income	(7,265,298)	(4,745,431)	(123,172)	(976,989)
Ending Asset Balance	46,907,891	54,368,602	59,219,088	59,367,041
Estimated Liability	76,526,919	83,256,262	70,099,863	68,936,151
Net Fund Balance	(29,619,028)	(28,887,659)	(10,880,775)	(9,569,110)
Investment Earnings/Mean Ending Balance	2.1%	1.6%	4.9%	4.3%

As of December 31, 2012, there were 1,105 open claims. During 2012, 1,463 claims were closed and one claim was cancelled. Total reported claims incurred during 2012 were 1,040. The following table shows the number of open and closed claims by year incurred and the average net monthly benefit within the 2012 valuation dataset. The one 2011 incurred claim which was cancelled in 2012 is not specifically shown in the table, but is included in the 'All Claims' columns below.

Claims by Year of Incurral

Year Incurred	Open Claims		Closed Claims		All Claims*	
	Number	Average Net Benefit	Number	Average Net Benefit	Number	Average Net Benefit
2012	265	\$2,524	775	\$2,591	1,040	\$2,574
2011	131	1,395	592	2,120	724	1,986
2010	99	1,096	37	1,453	136	1,193
2009	81	960	13	1,002	94	966
2008	60	763	13	1,242	73	849
2007	64	855	1	940	65	856
2006	60	729	1	62	61	718
2005	57	842	8	781	65	834
2004	46	721	2	403	48	708
2003	32	596	1	564	33	595
2002	37	810	3	853	40	814
2001	24	720	1	239	25	701
2000	23	590	3	492	26	579
1999	21	858	2	271	23	807
1998	15	697	4	456	19	646
1997	10	610	1	267	11	579
1996	17	687	1	974	18	703
1995	9	933	-	-	9	933
1994 & Prior	54	819	5	450	59	788
Total	1,105	\$1,305	1,463	\$2,300	2,569	\$1,871

* Includes incurred claims which remain open as of 12/31/2012 and claims closing during 2012; does not include incurred claims closed in prior years.

The number of open claims and their respective average net benefit amounts in 2012 decreased compared to the previous year. The number of closed claims increased and their respective average net benefit amounts in 2012 decreased slightly when compared to last year. The following table shows this comparison for the last ten years. The one 2011 incurred claim which was cancelled in 2012 is not specifically shown in the table, but is included in the 'All Claims' columns below.

Claims By Valuation Date

Plan Year	Open Claims		Closed Claims		All Claims	
	Number	Average Net Benefit	Number	Average Net Benefit	Number	Average Net Benefit
2012	1,105	\$ 1,305	1,463	\$ 2,300	2,569	\$ 1,872
2011	1,170	1,350	1,381	2,317	2,439	1,797
2010	1,067	1,231	1,372	2,237	2,313	1,799
2009	1,124	1,264	1,189	2,306	2,570	1,793
2008	1,130	1,325	1,440	2,160	2,476	1,065
2007	1,064	1,128	1,412	997	2,418	1,004
2006	1,123	1,146	1,295	881	2,269	1,103
2005	1,054	1,211	1,215	1,009	2,177	1,098
2004	972	1,168	1,205	1,042	2,024	1,258
2003	876	1,255	1,148	1,261	1,981	1,025

III. Estimated Liability as of December 31, 2012

The State's liability for outstanding claims under the State Income Continuation Insurance Plan was estimated in two parts — reported claims and incurred but unreported claims. The following paragraphs summarize the method used and results.

Reported Claims

Disabled life reserve factors were calculated using the 1987 Commissioner's Group Basic Disability table adjusted for the State of Wisconsin's own termination experience. These factors represent the present value of future payments, at 7.2% interest, to a disabled person with a monthly benefit of \$1.00. In 2010, the Employee Trust Funds Board reduced the investment return assumption relied upon by the Wisconsin Retirement System ("WRS") from 7.8% to 7.2%, which has since remained at 7.2%. For consistency and per the direction of ETF personnel, the valuation interest rate is tied to the WRS valuation rate; therefore a 7.2% discount rate was used for the December 31, 2012, valuation. The factors are indexed by age at disablement, duration of disablement, and duration to the end of the benefit period.

Aetna provided a listing of those persons known to be disabled as of December 31, 2012. The age at disablement, duration of disability and benefit end date, based on the maximum allowable duration of benefits under the plan, was calculated for each individual. The appropriate factors were then multiplied by the amount of benefit for each disabled person. The results were summarized by year incurred and in total.

For disabilities that last over one year, an additional \$75 per month is included in the normal benefit amount for the purpose of defraying medical costs. This supplemental benefit was effective January 1, 2002, for all claims in pay status. A liability was added for those claims incurred in 2012 representing the probability that claims will continue beyond the first year and the present value of the additional benefit. The liability for the \$75 supplement is already included in the liability for claims over one year in duration.

Incurred But Unreported Claims

In addition to those claims reported as of December 31, 2012, there presumably are other claims incurred prior to that date but which are not yet reported. The State's liability for long-term disability claims begins on the date an employee is disabled, even though the employee is not eligible for payments during the waiting period or has not yet filed a claim. Besides the waiting period, delays in the reporting and processing of claims normally occur. Thus, an estimate of the additional liability for claims incurred but not reported as of the valuation date is necessary.

We performed a historical recast analysis from the Plan's own experience to determine the sufficiency of our past IBNR methodology. The analysis indicated that our historical established IBNR has been conservative. As a direct result, we transitioned the IBNR methodology to be a fixed 10% of the reported liability. The fixed percentage was established based on the observed historical levels of IBNR claims as a percent of the reported claim liability within the recast analysis. We will monitor the effectiveness of the 10% factor over time and make adjustments as needed.

Results

The total estimated liability as of December 31, 2012, for the State Income Continuation Insurance Plan is \$76,526,919, developed as follows:

Reported Claim Liability	\$69,117,441
<u>\$75 Supplement</u>	<u>452,485</u>
Total Reported Liability	69,569,926
<u>Incurred But Not Reported Liability</u>	<u>6,956,993</u>
Total Liability	\$76,526,919

When compared to their respective liabilities as of December 31, 2011, the December 31, 2012, total reported claim liability decreased 3.7% and the incurred but not reported liability decreased 36.8%, resulting in an 8.1% decrease in the total liability. The decrease in the reported liability is due to the combined effect of a 5.6% decrease in the count of open claims and 3.2% decrease in the average net benefit per open claim, tempered by a change in the composition and characteristics of the average claimant in the open claim cohort. The decrease in the incurred but not reported liability is due to the change in the methodology used to calculate the IBNR. As a result, the total liability is 8.1% less than the liability determined as of December 31, 2011.

Exhibit 2 contains a breakdown of the \$69,569,926 reported liability by year of disability.

IV. Analysis of Funding Levels

The State Income Continuation Insurance Plan has assets of \$46.9 million and estimated liabilities of \$76.5 million, producing a net fund balance of \$(29.6) million. In 2012, the collected premiums covered just over 63% of paid claims and administrative expenses, while investment earnings covered just less than 5% of the paid claims and administrative expense balance. Thus, cash flow in the trust was negative again this year. Cumulative cash flows for plan years 2008 through 2012 are \$(15,494,572) implying that the total paid claims and administrative expense balance has exceeded the collected premiums and investment earnings of the plan over the last 5 years.

Considerable year-to-year fluctuations can occur under disability income 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 objective has been to maintain an asset balance of 115% to 125% of estimated liabilities as a hedge against future adverse experience. The current asset balance covers 61.3% of liabilities (as compared to 65.3% last year). Therefore, the net fund balance is below the targeted range.

The following table summarizes the plan's historical funded status, actuarial proposed and Board approved premium rate increases, and the anticipated future needed premium rate increases by valuation date. The actuarial recommendations are based on current assets, liabilities, resulting funding status and the projection of future experience.

Historical Proposed & Approved Premium Rate Increases by Valuation Date

Plan Year	Funded Status (% of Liability)	Premium Increase (% Increase / Effective Yr)		Anticipated Future Increases
		Actuary Proposed	Board Approved	
2005	-1.5%	7% / 2007	7% / Feb-2007	N/A
2006	-9.4%	None	None	N/A
2007	-4.3%	None	None	N/A
2008	-17.1%	7% / 2010	7% / 2010	7% / 2012 & 2014
2009	-13.9%	None	None	7% / 2012 & 2014
2010	-15.5%	7% / 2012	7% / 2012	7% / 2014 & 2016
2011	-34.7%	None	4.5% / 2013	9% / 2014 & 2016
2012	-38.7%	4.5% / 2014	Pending	4% / 2015-2018

Last year, as a result of the worsening funded status of the plan in 2011, (15.5)% to (34.7)%, we revised the anticipated 2014 and 2016 premium rate increases to plan premium proposed in 2010 from 7% to 9%. Due to the 2012 premium rate increase and in keeping with the biannual rate increases historically implemented, we did not recommend any change in premium rates for 2013. However, the outcome of the the Board's May 2012 meeting resulted in a 4.5% premium rate increase effective January 1, 2013. In 2012, the funded status of the plan eroded further from (34.7)% to (38.7)%. In light of the 4.5% premium rate increase effective 2013, the continued deterioration of the funded status of the plan, and the remaining need to achieve an overall 9% premium rate increase by 2014 as contemplated last year, we recommend a 4.5% premium rate increase be implemented in 2014. A 4.5% premium rate increase effective in 2014 would result in the realization of last year's proposed 9% increase for 2014 but, consistent with the Board's direction during the May 2012 meeting, be achieved over a two year period.

Based on current financial projections, we anticipate that additional 4% annual premium increases effective in 2015 through 2018 will likely be necessary in order to return the net fund balance to target levels over the longer term. Alternatively, consistent with the Board's prior practice of biannual premium rate increases, premium rate increases of 8% in 2016 and 2018 would also return the net fund balance to target levels over a similar timeframe. As future asset and liability experience emerges, we will continue to evaluate the need for the future additional premium increases.

The premium increases needed to bring the fund balance up to targeted levels are based on projected estimates of future plan experience using underlying actuarial assumptions for future claims incidence rates, claim termination rates, investment earnings rates and other factors. Due to the long-term nature of the plan's benefit obligations and the uncertainties inherent in the projected future experience resulting from normal statistical fluctuations as seen in the historical experience, the exact amount of the corrective rate action needed at any given time will not be known for several years. As a result, it is prudent to apply periodic incremental premium rate adjustments rather than a single large increase. In this way, the incremental rate adjustments can be calibrated and updated periodically as actual experience emerges. This also helps avoid the need to reduce rates in the future if the increase would turn out to be too high. Another advantage of smaller incremental increases is that it dampens the disruption on plan participants of a larger premium increase and the resulting potential for adverse selection. Lastly, applying incremental increases helps maintain greater inter-generational equity among premium contributors in recognition of the volatility of plan experience over longer time frames.

Exhibit 1– Summary of Actuarial Assumptions

Elimination Period — 90 day average. Actual waiting period varies with accumulated sick leave and for University faculty, the elimination period selected.

Benefit Period — The maximum duration of benefits for disabled insured employees is:

Age at Disablement	Maximum Duration of Benefits in Years
61 or Younger	To age 65
62	3.50 years
63	3.00 years
64	2.50 years
65	2.00 years
66	1.75 years
67	1.50 years
68	1.25 years
69	1.00 years

In no event are benefits payable beyond the 70th birthday.

Termination Rates — Deloitte Consulting completed a claim termination rate experience study using WRS disability program claims experience for claims incurred 5/13/2006 – 12/31/2010. The results of the claim termination rate study supported a reduction in the termination rate adjustment factor for the first and second year of disablement (from 280% and 260%, respectively). The percentage of the 1987 Commissioner’s Basic Disability Table three month elimination period termination rates based on the State of Wisconsin’s own experience are shown below:

Duration of Disablement	Termination Rate Adjustment
First Year	250%
Second Year	250%
Third Year	240%
Fourth Year	220%
Fifth Year	200%
Sixth Year	180%
Seventh Year	160%
Eighth Year	140%
Ninth Year	120%
Tenth Year & Later	100%

Interest — 7.2% per year.

IBNR – 10% of the liability for reported claims

Contingency Margins — None.

Exhibit 2: Reported Claim Liability by Year of Disability

Open Claims as of December 31, 2012

Year of Disability	Count	Gross Benefit \$	Offset Amount \$	Net Benefit \$	Estimated Liability \$	75 Supp \$	Ave. Ben \$	Est'd Liability \$
2012	265	\$745,966	\$77,088	\$668,878	\$18,097,173	\$452,485	\$2,524	\$18,549,658
2011	131	383,209	200,435	182,774	9,658,681	0	1,395	9,658,681
2010	99	292,550	184,056	108,494	6,835,251	0	1,096	6,835,251
2009	81	245,723	167,958	77,765	5,525,021	0	960	5,525,021
2008	60	182,063	136,260	45,803	3,385,713	0	763	3,385,713
2007	64	177,445	122,745	54,700	4,342,202	0	855	4,342,202
2006	60	151,119	107,380	43,739	3,537,760	0	729	3,537,760
2005	57	140,994	93,024	47,970	3,788,999	0	842	3,788,999
2004	46	103,517	70,355	33,162	2,687,649	0	721	2,687,649
2003	32	69,362	50,295	19,068	1,687,213	0	596	1,687,213
2002	37	79,182	49,196	29,986	1,885,450	0	810	1,885,450
2001	24	50,656	33,381	17,275	1,254,925	0	720	1,254,925
2000	23	43,127	29,553	13,574	700,226	0	590	700,226
1999	21	49,508	31,491	18,017	1,166,948	0	858	1,166,948
1998	15	34,176	23,719	10,458	460,987	0	697	460,987
1997	10	18,524	12,427	6,097	348,689	0	610	348,689
1996	17	26,850	15,176	11,674	755,878	0	687	755,878
1995	9	14,395	5,994	8,401	421,501	0	933	421,501
1994	11	18,930	11,383	7,547	417,981	0	686	417,981
1993	7	12,572	7,957	4,615	270,737	0	659	270,737
1992	5	7,669	2,715	4,955	295,093	0	991	295,093
1991	7	11,645	2,804	8,841	575,155	0	1,263	575,155
1990	6	7,542	3,363	4,180	239,186	0	697	239,186
1989	4	5,691	2,292	3,399	182,864	0	850	182,864
1988	5	8,043	2,800	5,244	281,699	0	1,049	281,699
1987	2	2,212	935	1,277	69,320	0	638	69,320
1986	1	1,161	527	634	24,872	0	634	24,872
1984	2	2,023	1,046	977	73,315	0	488	73,315
1983	2	2,153	431	1,722	95,632	0	861	95,632
1982	1	825	416	409	32,070	0	409	32,070
1980	1	727	308	419	19,251	0	419	19,251
Total	1,105	\$2,889,558	\$1,447,508	\$1,442,050	\$69,117,441	\$452,485	\$1,305	\$69,569,926



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