

# State of Wisconsin



## State Income Continuation Insurance Plan Actuarial Review as of December 31, 2010

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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 2010, an estimate of the State's liability as of December 31, 2010, 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 \$59.2 million and estimated liabilities of \$70.1 million as of December 31, 2010. The asset balance does not include \$3.7 million in deferred market losses which will be smoothed in over the next four years. We note that the deferred market losses 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 \$(10.9) million. This net fund balance represents approximately (15.5)% 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. The annual net fund balances (as a percentage of liabilities) were (1.5)% in 2005, (9.4)% in 2006, (4.3)% in 2007, (17.1)% in 2008 and (13.9)% in 2009. Despite an increase in premium revenue of approximately 7% that took effect February 1, 2007, the funded status of the plan has deteriorated and not been in the targeted range since 2004. Although the premium increase led to a slight improvement in the net fund balance from 2006 to 2007, the net fund balance decreased in 2008 due to a 12% increase in liabilities and poor asset yield experience. As a result of the worsening funded status of the plan in 2008, a 7% premium increase was implemented for plan year 2010. Additionally, we projected that additional 7% premium increases implemented in 2012 and 2014 would likely be necessary to return the net fund balance to target levels over the longer term.

In 2010, plan assets decreased by 0.2% while estimated liabilities increased 1.7%. This resulted in the plan's annual net fund balance declining from (13.9)% of liabilities in 2009 to (15.5)% of liabilities in 2010. As a result of the worsening funded status of the plan, we recommend implementing the second 7% increase to plan premium in 2012. We will continue to monitor the plan's net funding balance and need for further rate increases, but we now anticipate the need for two additional 7% premium increases to be implemented in 2014 and 2016.

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

## II. 2010 Experience Review

### Fund Balance

During 2010, the fund balance decreased from \$59,367,041 to \$59,219,088. Total revenues were \$16,921,332 with paid claims and administrative expenses totaling \$17,044,504. As shown below, contributions and investment earnings increased by approximately \$1.1 and \$0.3 million, respectively, resulting in a 9% increase in total revenue. 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 Ending Balance does not include \$3.7 million in deferred market losses which will be smoothed in over the next four years.

	2010	2009	2008	2007
<b>Beginning Balance</b>	59,367,041	60,358,843	62,022,782	60,722,872
Closing Adjustments	(24,781)	(14,813)	719,743	(47,211)
<b>Adjusted Beginning Balance</b>	<b>59,342,260</b>	<b>60,344,030</b>	<b>62,742,525</b>	<b>60,675,661</b>
<b>Revenues</b>				
Contributions	14,081,359	13,028,086	12,327,669	11,430,510
Investment Earnings	2,839,973	2,537,632	1,838,355	7,011,277
<b>Total</b>	<b>16,921,332</b>	<b>15,565,718</b>	<b>14,166,024</b>	<b>18,441,787</b>
<b>Expenses</b>				
Paid Claims	15,180,515	14,853,486	14,335,283	14,875,149
Administrative Expenses	1,863,988	1,689,220	2,214,424	2,219,517
<b>Total</b>	<b>17,044,504</b>	<b>16,542,707</b>	<b>16,549,706</b>	<b>17,094,666</b>
<b>Net Income</b>	<b>(123,172)</b>	<b>(976,989)</b>	<b>(2,383,682)</b>	<b>1,347,121</b>
<b>Ending Balance</b>	<b>59,219,088</b>	<b>59,367,041</b>	<b>60,358,843</b>	<b>62,022,782</b>
<b>Estimated Liability</b>	<b>70,099,863</b>	<b>68,936,151</b>	<b>72,801,768</b>	<b>64,830,406</b>
<b>Net Fund Balance</b>	<b>(10,880,775)</b>	<b>(9,569,110)</b>	<b>(12,442,925)</b>	<b>(2,807,624)</b>
<b>Investment Earnings/Mean Ending Balance</b>	<b>4.9%</b>	<b>4.3%</b>	<b>3.0%</b>	<b>12.1%</b>

As of December 31, 2010, there were 1,067 open claims. During 2010, 1,372 claims were closed. Total reported claims incurred during 2010 were 2,439. The following table shows the number of open and closed claims by year incurred and the average net monthly benefit.

### 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
2010	289	\$ 2,338	815	\$ 2,533	1,104	\$ 2,482
2009	123	1,135	472	1,985	595	1,809
2008	89	903	19	1,082	108	935
2007	73	921	14	930	87	922
2006	68	689	9	882	77	712
2005	73	844	10	797	83	838
2004	59	712	9	561	68	692
2003	35	582	4	608	39	585
2002	43	733	3	669	46	729
2001	26	717	2	160	28	678
2000	28	573	-	-	28	573
1999	25	756	1	1,559	26	787
1998	22	623	-	-	22	623
1997	14	563	4	474	18	543
1996	21	634	2	149	23	591
1995	14	667	1	953	15	686
1994	13	603	3	323	16	550
1993	8	609	-	-	8	609
1992 & Prior	44	852	4	791	48	847
<b>Total</b>	<b>1,067</b>	<b>\$ 1,231</b>	<b>1,372</b>	<b>\$ 2,237</b>	<b>2,439</b>	<b>\$ 1,797</b>

The number of open claims and their respective average net benefit amounts in 2010 decreased compared to last year. The number of closed claims and their respective average net benefit amounts in 2010 decreased compared to last year. The following table shows this comparison for the last ten years.

### Claims By Valuation Date

Plan Year	Open Claims		Closed Claims		All Claims	
	Number	Average Net Benefit	Number	Average Net Benefit	Number	Average Net Benefit
2010	1,067	\$ 1,231	1,372	\$ 2,237	2,439	\$ 1,797
2009	1,124	1,264	1,189	2,306	2,313	1,799
2008	1,130	1,325	1,440	2,160	2,570	1,793
2007	1,064	1,128	1,412	997	2,476	1,065
2006	1,123	1,146	1,295	881	2,418	1,004
2005	1,054	1,211	1,215	1,009	2,269	1,103
2004	972	1,168	1,205	1,042	2,177	1,098
2003	876	1,255	1,148	1,261	2,024	1,258
2002	895	1,042	1,086	1,012	1,981	1,025
2001	1,084	1,132	662	2,044	1,746	1,478

# III. Estimated Liability as of December 31, 2010

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. The Employee Trust Funds Board reduced the investment return assumption relied upon by the Wisconsin Retirement System ("WRS") from 7.8% to 7.2%. As a result, the valuation rate was reduced from 7.8% to 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, 2010, 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, 2010. 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 2010 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, 2010, 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. Thus, an estimate of the additional liability for claims incurred but not reported as of the valuation date is necessary.

Besides the waiting period, delays in the reporting and processing of claims normally occur. From the State's own experience, we observed that approximately 14% of claims open and closed during the previous twelve months are unreported as of year end. Thus, the State's liability for claims incurred but not yet reported was calculated as the estimated number of incurred but not yet reported claims times an average benefit amount times an average disabled life reserve factor.

## Results

The total estimated liability as of December 31, 2010, for the State Income Continuation Insurance Plan is \$70,099,863, developed as follows:

Reported Claim Liability	\$60,109,458
<u>\$75 Supplement</u>	<u>457,525</u>
Total Reported Liability	60,566,983
<u>Incurred But Not Reported Liability</u>	<u>9,532,881</u>
Total Liability	\$70,099,863

When compared to their respective liabilities as of December 31, 2009, the December 31, 2010 total reported claim liability decreased 0.4%, while the incurred but not reported liability increased 17.6%. The decrease in the reported liability is due to the combined effect of a reduction in the valuation interest rate, a decrease in the count of open claims, and an offsetting impact of a change in the composition and characteristics of the average claimant in the open claim cohort. The increase in the incurred but not reported liability is primarily due to an increase in the number of new claims incurred during the valuation year. As a result, the total liability is 1.7% more than the liability determined as of December 31, 2009

Exhibit 2 contains a breakdown of the \$60,566,983 reported liability by year of disability.

## IV. Analysis of Funding Levels

The State Income Continuation Insurance Plan has assets of \$59.2 million and estimated liabilities of \$70.1 million, producing a net fund balance of \$(10.9) million. The collected premiums covered just less than 83% of paid claims and administrative expenses, while investment earnings covered just less than 17% of the paid claims and administrative expense balance. Thus, cash flow in the trust was slightly negative this year. Cumulative cash flows for plan years 2006 through 2010 are \$(3,984,923).

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 84.5% of liabilities (as compared to 86.1% last year). The net fund balance is not in the targeted range for the fifth consecutive year.

As part of the December 31, 2005, valuation, a 7% increase in premium revenue was recommended and took effect February 1, 2007. The increase in premium revenue led to a slight improvement in the funded status in 2007. However, an increase in the total estimated liability and the poor asset experience in 2008 led to further deterioration of the net fund balance. As a result of the 2008 valuation, a 7.0% increase to plan premium was recommended and took effect at the beginning of plan year 2010. Based on current financial projections, we recommend a 7% increase to plan premium be implemented in 2012 in order to return the net fund balance to target levels over the longer term. As future asset and liability experience emerges, we will continue to evaluate the need for an additional premium increases in 2014 and 2016.



## Exhibit 1– Summary of Actuarial Assumptions

**Elimination Period** — 90 days 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** — Percentage of the 1987 Commissioner’s Basic Disability Table three month elimination period termination rates based on the State of Wisconsin’s own experience, as shown below:

Duration of Disablement	Termination Rate Adjustment
First Year	280%
Second Year	260%
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.

**Contingency Margins** — None.

## Exhibit 2: Reported Claim Liability by Year of Disability

### Open Claims as of December 31, 2010

Year of Disability	Count	Gross Benefit \$	Offset Amount \$	Net Benefit \$	Estimated Liability \$	75 Supp \$	Ave. Ben \$	Est'd Liability \$
2010	289	801,776	126,111	675,665	16,732,568	457,525	2,338	17,190,093
2009	123	360,475	220,889	139,586	7,205,206		1,135	7,205,206
2008	89	273,800	193,418	80,382	5,074,590		903	5,074,590
2007	73	197,870	130,666	67,204	5,292,954		921	5,292,954
2006	68	169,256	122,401	46,855	3,984,792		689	3,984,792
2005	73	176,249	114,623	61,626	4,795,694		844	4,795,694
2004	59	131,985	89,962	42,023	3,507,398		712	3,507,398
2003	35	76,191	55,807	20,384	1,847,950		582	1,847,950
2002	43	95,881	64,343	31,538	1,922,899		733	1,922,899
2001	26	53,475	34,820	18,655	1,530,976		717	1,530,976
2000	28	53,235	37,185	16,050	965,796		573	965,796
1999	25	57,504	38,612	18,892	1,396,172		756	1,396,172
1998	22	48,956	35,245	13,711	687,564		623	687,564
1997	14	27,635	19,751	7,884	398,034		563	398,034
1996	21	35,600	22,295	13,305	900,246		634	900,246
1995	14	24,187	14,854	9,333	591,573		667	591,573
1994	13	21,965	14,127	7,838	520,118		603	520,118
1993	8	13,573	8,698	4,876	328,398		609	328,398
1992	7	10,951	5,706	5,244	361,341		749	361,341
1991	9	15,720	3,906	11,814	815,822		1,313	815,822
1990	7	9,096	4,037	5,059	300,258		723	300,258
1989	6	8,019	3,703	4,316	241,652		719	241,652
1988	6	9,547	3,425	6,123	359,873		1,020	359,873
1987	2	2,212	1,443	768	54,396		384	54,396
1986	1	1,161	527	634	34,630		634	34,630
1984	2	2,023	1,046	977	82,031		488	82,031
1983	2	2,153	431	1,722	115,501		861	115,501
1982	1	825	416	409	35,799		409	35,799
1980	1	727	308	419	25,226		419	25,226
<b>Total</b>	<b>1,067</b>	<b>2,682,045</b>	<b>1,368,755</b>	<b>1,313,291</b>	<b>60,109,458</b>	<b>457,525</b>	<b>1,231</b>	<b>60,566,983</b>



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