

# The State of Wisconsin



## State Income Continuation Insurance Plan Actuarial Review as of December 31, 2009

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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 2009, an estimate of the State's liability as of December 31, 2009, 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 \$59.4 million and estimated liabilities of \$68.9 million as of December 31, 2009. The asset balance does not include \$7.1 million in deferred market losses which will be smoothed in over the next four years. The net fund balance is \$(9.6) million. This net fund balance represents approximately (13.9)% 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 for a number of years. The annual net fund balances (as a percentage of liabilities) were 17% in 2003, 10% in 2004, (1.5)% in 2005, (9.4)% in 2006, (4.3)% in 2007 and (17.1)% in 2008. Since 2005, the funded status of the plan had been deteriorating and has not been in the targeted range, despite an increase in premium revenue of approximately 7% that took effect February 1, 2007. 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 still be necessary to return the net fund balance to target levels over the longer term.

In 2009, investment earnings increased and estimated liabilities decreased, resulting in the plan's annual net fund balance improving from (17.1)% of liabilities in 2008 to (13.9)% of liabilities in 2009. Thus, no increases to plan premium are recommended this year. Although the net fund balance increased in 2009, net income for the plan was negative. We therefore still anticipate that rate increases previously discussed (7% increases in 2012 and 2014) will be appropriate.

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. 2009 Experience Review

### Fund Balance

During 2009, the fund balance decreased from \$60,358,843 to \$59,367,041. Total revenues were \$15,565,718 with paid claims and administrative expenses totaling \$16,542,707. As shown below, investment earnings increased by approximately \$700,000, resulting in a 10% increase in total revenue. The comparatively low 2009 investment earnings are the leading cause of the negative cash flow at year end 2009. The components of the cash flows are shown in the following table along with figures for the previous three years for comparison purposes.

	2009	2008	2007	2006
<b>Beginning Balance</b>	60,358,843	62,022,782	60,722,872	62,548,480
Closing Adjustments	(14,813)	719,743	(47,211)	22,594
<b>Adjusted Beginning Balance</b>	<b>60,344,030</b>	<b>62,742,525</b>	<b>60,675,661</b>	<b>62,571,074</b>
<b>Revenues</b>				
Contributions	13,028,086	12,327,669	11,430,510	9,961,219
Investment Earnings	2,537,632	1,838,355	7,011,277	5,812,959
<b>Total</b>	<b>15,565,718</b>	<b>14,166,024</b>	<b>18,441,787</b>	<b>15,774,178</b>
<b>Expenses</b>				
Paid Claims	14,853,486	14,335,283	14,875,149	15,345,079
Administrative Expenses	1,689,220	2,214,424	2,219,517	2,277,300
<b>Total</b>	<b>16,542,707</b>	<b>16,549,706</b>	<b>17,094,666</b>	<b>17,622,379</b>
<b>Net Income</b>	<b>(976,989)</b>	<b>(2,383,682)</b>	<b>1,347,121</b>	<b>(1,848,201)</b>
<b>Ending Balance</b>	<b>59,367,041</b>	<b>60,358,843</b>	<b>62,022,782</b>	<b>60,722,872</b>
<b>Investment Earnings/ Mean Balance</b>	<b>4.3%</b>	<b>3.0%</b>	<b>12.1%</b>	<b>9.9%</b>

As of December 31, 2009, there were 1,124 open claims. During 2009, 1,189 claims were closed. Total reported claims incurred during 2009 were 2,313. 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
2009	336	\$2,322	701	\$2,562	1,037	\$2,484
2008	111	1,081	434	2,058	545	1,859
2007	93	933	13	1,764	106	1,035
2006	85	809	9	1,103	94	837
2005	88	884	2	753	90	881
2004	73	701	3	364	76	688
2003	45	605	4	605	49	605
2002	48	792	3	1,125	51	812
2001	31	678	3	402	34	654
2000	29	603	1	1,411	30	630
1999	27	813	1	988	28	819
1998	22	673	2	233	24	637
1997	19	517	2	617	21	526
1996	24	720	1	728	25	720
1995	15	672	4	411	19	617
1994	18	545	1	404	19	538
1993	9	618	1	532	10	609
1992	8	712	-	-	8	712
1991 & Prior	43	854	4	598	47	832
<b>Total</b>	<b>1,124</b>	<b>\$1,264</b>	<b>1,189</b>	<b>\$2,306</b>	<b>2,313</b>	<b>\$1,799</b>

The number of open claims and their respective average net benefit amounts in 2009 decreased compared to last year. While the number of closed claims in 2009 decreased compared to last year, the 2009 closed claim average net benefit was larger than the closed claim average net benefit in 2008. 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
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
2000	809	1,078	1,246	1,465	2,055	1,313

# III. Estimated Liability as of December 31, 2009

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's own termination experience. These factors represent the present value of future payments, at 7.8% interest, to a disabled person with a monthly benefit of \$100. The WRS valuation rate was reduced from 8.0% to 7.8% as of February 1, 2004, and has since remained at 7.8%. For consistency and per the direction of ETF personnel, the valuation interest rate is tied to the WRS valuation rate; therefore a 7.8% discount rate was used for the December 31, 2009, 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, 2009. The age at disablement, duration of disability, and duration to the end of the benefit period 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. A liability was added for those claims incurred in 2009 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, 2009, 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, it is necessary to estimate the additional liability for claims incurred but not reported as of the valuation date.

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, 2009, for the State Income Continuation Insurance Plan is \$68,936,151, developed as follows:

Reported Claim Liability	\$60,350,998
\$75 Supplement	<u>477,949</u>
Total Reported Liability	60,828,947
Incurred But Not Reported Liability	<u>8,107,204</u>
Total Liability	\$68,936,151

This total liability is 5% less than the liability determined as of December 31, 2008, due to the combined effect of a slight decrease in the count of open claims and a decrease in the average net benefit.

Exhibit 2 contains a breakdown of the \$60,828,947 reported liability by year of disability.



## IV. Analysis of Funding Levels

The State Income Continuation Insurance Plan has assets of \$59.4 million and estimated liabilities of \$68.9 million, producing a net fund balance of \$(9.6) million. The collected premiums covered 79% of paid claims and administrative expenses, while investment earnings covered only 15% of the remaining claims and administrative expense balance. Thus, cash flow in the trust was negative this year. Cumulative cash flows for plan years 2005 through 2009 are \$(5,402,505).

Considerable year-to-year fluctuations can occur under disability income plans, even for a plan as large as that of the State. Thus, it is prudent to maintain a fund balance in excess of estimated liabilities. A reasonable long-term objective has been to maintain a net fund balance of 15% to 25% of estimated liabilities as a hedge against future adverse experience. The current total fund balance covers 86.1% of liabilities (as compared to 82.9% last year). The net fund balance is not in the targeted range for the fourth 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 anticipate that the additional 7% premium increases for plan years 2012 and 2014 contemplated during the 2008 valuation will still likely be necessary 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 the additional premium increases in 2012 and 2014.

## 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’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** — 7.8% per year.

**Contingency Margins** — None.

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

Open Claims as of December 31, 2009								
Year of Disability	Count	Gross Benefit \$	Offset Amount \$	Net Benefit \$	Estimated Liability \$	\$75 Supp	Ave. Ben \$	Est'd Liability \$
2009	336	926,737	146,482	780,255	17,470,627	477,949	2,322	17,948,576
2008	111	322,450	202,489	119,961	6,161,829	-	1,081	6,161,829
2007	93	244,085	157,294	86,792	5,635,821	-	933	5,635,821
2006	85	215,961	147,165	68,797	5,244,642	-	809	5,244,642
2005	88	208,109	130,316	77,793	5,752,566	-	884	5,752,566
2004	73	163,505	112,338	51,167	4,043,279	-	701	4,043,279
2003	45	96,958	69,745	27,212	2,262,437	-	605	2,262,437
2002	48	104,779	66,765	38,014	2,443,849	-	792	2,443,849
2001	31	62,289	41,257	21,032	1,736,401	-	678	1,736,401
2000	29	56,241	38,764	17,477	1,103,318	-	603	1,103,318
1999	27	61,296	39,338	21,958	1,587,011	-	813	1,587,011
1998	22	48,956	34,144	14,812	790,393	-	673	790,393
1997	19	35,690	25,869	9,821	485,688	-	517	485,688
1996	24	44,103	26,821	17,281	1,231,293	-	720	1,231,293
1995	15	25,939	15,853	10,085	618,468	-	672	618,468
1994	18	29,430	19,621	9,809	640,050	-	545	640,050
1993	9	14,756	9,196	5,560	416,371	-	618	416,371
1992	8	13,038	7,343	5,696	401,857	-	712	401,857
1991	11	18,205	5,079	13,126	897,194	-	1,193	897,194
1990	7	9,096	4,037	5,059	315,684	-	723	315,684
1989	8	10,711	4,812	5,899	273,821	-	737	273,821
1988	7	11,479	4,297	7,182	443,472	-	1,026	443,472
1987	2	2,212	935	1,277	90,351	-	638	90,351
1986	2	2,049	1,415	634	38,059	-	317	38,059
1984	2	2,023	1,046	977	81,997	-	488	81,997
1983	2	2,153	431	1,722	122,467	-	861	122,467
1982	1	825	416	409	35,482	-	409	35,482
1980	1	727	308	419	26,572	-	419	26,572
<b>Total</b>	<b>1,124</b>	<b>2,733,801</b>	<b>1,313,578</b>	<b>1,420,223</b>	<b>60,350,998</b>	<b>477,949</b>	<b>1,264</b>	<b>60,828,947</b>



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