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# The State of Wisconsin



State Income Continuation Insurance Plan Actuarial Review as of December 31, 2003

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## I. Overview

The purpose of this report is to summarize our review of the State Income Continuation Insurance Plan. Included is a brief review of the Plan's experience during 2003, an estimate of the State's liability as of December 31, 2003, and an analysis of current funding levels.

In preparing this report, we have relied on claim information provided by CORE, Inc. and the Department of Employee Trust Funds. We have not audited this information, but have relied on it as submitted after making reasonableness checks and corrections as we deemed appropriate under the circumstances. The reasonableness checks warranted additional review on a significant number of cases. These cases were reviewed, and any errors were corrected.

The results of this review indicate that the State Income Continuation Insurance program has assets of \$64.0 million and estimated liabilities of \$54.6 million as of December 31, 2003. The asset balance does not include 7.7 million in deferred market gains which will be smoothed over the next five years. The net fund balance is \$9.5 million. This net fund balance represents approximately 17% 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 should stabilize the funded status of the plan. During 2000 the funded status of the plan remained relatively stable. However, the funded status decreased from 30% of estimated liabilities in 2000 to 15% in 2001, 13% in 2002 and 17% in 2003. Since the funded status of the plan is back in the targeted range, we recommend no premium increase this year.

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. 2003 Experience Review

#### **Fund Balance**

During 2003, the fund balance increased from \$62,699,536 to \$64,035,892; Investment earnings were \$4,529,984 with paid claims and administrative expenses totaling \$12,715,688. These components are shown in the following table along with figures for the previous three years for comparison purposes.

	2003	2002	2001	2000
Beginning Balance	62,699,536	62,727,574	58,443,292	54,195,613
Closing Adjustments	226,566	600,797	5,736,070	0
Adjusted Beginning Balance	62,926,102	63,328,371	64,179,362	54,195,613
Revenues				
Contributions	9,295,493	9,164,530	8,772,247	8,122,371
Investment Earnings	4,529,984	3,073,851	4,525,539	5,323,052
Total	13,825,478	12,238,381	13,297,786	13,445,423
Expenses				
Paid Claims	11,029,413	11,313,665	12,882,720	8,432,003
Administrative Expenses	1,686,275	1,553,552	1,866,855	765,741
Total	12,715,688	12,867,217	14,749,575	9,197,744
Net Income	1,109,790	(628,836)	(1,451,789)	4,247,679
Ending Balance	64,035,892	62,699,535	62,727,574	58,443,292
Investment Earnings/Mean Balance	7.4%	5.0%	7.4%	9.9%

As of December 31, 2003 there were 876 open claims. During 2003, 1,148 claims were closed. Total reported claims incurred during 2003 was 2,024. The following table shows the number of open and closed claims by year incurred and the average net monthly benefit.

	Open Claims		Closed Claims		All Claims	
Year		Average		Average		Average
Incurred	Number	Benefit	Number	Benefit	Number	Benefit
2003	281	2,003	742	1,213	1,023	1,430
2002	118	1,164	285	1,276	403	1,243
2001	88	1,122	47	1,018	135	1,086
2000	62	1,177	22	986	84	1,127
1999	42	932	10	1,121	52	968
1998	34	593	7	384	41	557
1997	34	578	3	3,475	37	813
1996	36	701	5	2,678	41	942
1995	34	657	7	2,661	41	999
1994	32	572	2	10,076	34	1,131
1993	19	536	3	638	22	550
1992	16	769	4	3,897	20	1,395
1991	17	884	1	305	18	852
1990	13	832	2	1,689	15	947
1989	15	619	1	633	16	620
1988 & Prior	35	709	7	2,314	42	977
Total	876	1,255	1,148	1,261	2,024	1,258

The number of open claims for 2003 decreased compared to last year. However, the average benefit amount for these open claims increased. The number of closed claims in 2003 and the average benefit amount for these closed claims increased. The following table shows this comparison for the last ten years.

	Open Claims		Closed Claims		All Claims	
Valuation		Average		Average		Average
Year	Number	Benefit	Number	Benefit	Number	Benefit
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
1999	757	998	1,323	1,381	2,080	1,242
1998	855	1,040	1,501	1,339	2,356	1,231
1997	859	1,004	1,068	1,364	1,927	1,203
1996	839	1,036	1,283	1,281	2,122	1,184
1995	872	933	1,094	1,309	1,966	1,142
1994	893	932	1,097	1,241	1,990	1,102

# III. Estimated Liability as of December 31, 2003

The State's liability for outstanding claims under the State Income Continuation Insurance program 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 8% interest, to a disabled person with a monthly benefit of \$100. An 8% interest assumption was used to be consistent with WRS valuations. WRS's interest rate was reduced to 7.8% as of February 1, 2004. We will reduce this rate accordingly for the December 31, 2004 valuation. The factors are indexed by age at disablement, duration of disablement, and duration to the end of the benefit period.

CORE, Inc. provided a listing of those persons known to be disabled as of December 31, 2003. The age at disablement, duration of disability, and duration to expiration 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, a supplement of \$75 per month is included in the normal benefit amount for the purpose of defraying medical costs. A liability was added for those claims incurring in 2003 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.

#### Incurred But Unreported Claims

In addition to those claims reported as of December 31, there presumably are other claims incurred prior to that date but which are not as 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 25% 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, 2003 for the State Income Continuation Insurance program is \$54,573,995, developed as follows:

Reported Claim Liability	\$46,860,790
\$75 Supplement	364,793
Total Reported Liability	\$47,225,583
Incurred But Not Reported Liability	7,348,412
Total Liability	\$54,573,995

This total liability is 1.9% lower than the liability determined as of December 31, 2002 due to changes in the number and the characteristics of the open claims.

## IV. Analysis of Funding Levels

The State Income Continuation Insurance program has assets of \$64.0 million and estimated liabilities of \$54.6 million, producing a net fund balance of \$9.5 million. Investment earnings covered 36% of paid claims and administrative expenses. The reinstated premiums cover 73%. Premiums plus earnings combined covered 109% of the paid claims and administrative expenses. Thus, cash flow in the trust was positive this year.

Considerable year-to-year fluctuations can occur under disability income programs, even for a program as large as 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 positive balance represents 17% of liabilities as compared to 13% last year. This is back within the targeted range. Therefore, we see no need to change premium rates at this time. We will continue to monitor the experience closely to evaluate the need for additional changes.

#### Exhibit 1

**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 — 8.0% per year.

**Contingency Margins** — None.

#### Exhibit 2

**Reported Claim Liability by Year of Disability** 

Open Claims as of December 31, 2003						
Year of		Gross	Offset	Net	Average	Estimated
Disability	Number	Benefit	Amount	Benefit	Benefit	Liability
2003	281	579,475	59,377	520,098	1,851	10,816,932
2002	118	249,795	98,754	151,041	1,280	7,531,776
2001	88	184,978	88,110	96,868	1,101	6,313,333
2000	62	131,648	66,416	65,232	1,052	4,981,738
1999	42	90,618	47,070	43,548	1,037	3,563,171
1998	34	73,525	51,494	22,032	648	1,566,759
1997	34	69,582	47,868	21,714	639	1,507,993
1996	36	64,939	38,827	26,112	725	1,860,771
1995	34	65,338	41,967	23,370	687	1,686,663
1994	32	54,576	35,196	19,379	606	1,398,551
1993	19	30,234	20,045	10,189	536	701,984
1992	16	23,535	11,228	12,307	769	1,054,991
1991	17	27,096	12,068	15,028	884	1,253,981
1990	13	20,500	9,679	10,822	832	677,928
1989	15	20,985	11,703	9,282	619	669,745
1988	10	16,338	6,567	9,771	977	677,848
1987	7	9,203	4,377	4,827	690	348,173
1986	2	2,049	677	1,372	686	100,739
1985	1	2,675	889	1,786	1,786	97,647
1984	5	4,774	2,559	2,215	443	165,639
1983	1	902	431	471	471	46,043
1982	3	2,946	1,284	1,662	554	72,836
1980	2	1,783	1,057	725	363	39,535
1979	3	2,524	997	1,527	509	72,961
1978	0	0	0	0	NA	0
1972	1	474	0	474	474	17,846
Total	876	1,730,492	658,641	1,071,851	1,224	47,225,583



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