

# The State of Wisconsin Employee Trust Funds Board



Section 40.65  
Duty Disability Program  
Actuarial Review  
As of December 31, 2006

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# I. Overview

The purpose of this report is to summarize our review of the Section 40.65 Duty Disability Plan. Included is a brief review of the Plan's experience during 2006, an estimate of the State's liability as of December 31, 2006 and an analysis of current funding levels.

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

The results of this review indicate that the Duty Disability program has assets of \$266.2 million and estimated liabilities of \$365.3 million as of December 31, 2006. The accrued funding shortfall is \$99 million, which represents about 8.6% of the \$1,151 million in covered payroll. This is a decrease of 4.0% from last year. The asset balance does not include 11.4 million in deferred market gains which will be smoothed over the next five years.

The present premium level continues to meet the Board's funding policy. Therefore, no premium increase is recommended at this time.

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 2.

## II. 2006 Experience Review

### Fund Balance

During 2006 the fund balance increased from \$225,377,997 to \$266,223,389; Investment earnings were \$23,155,282 with paid claims and administrative expenses totaling \$26,091,024. These components are shown in the following table along with figures for the prior years for comparison purposes.

Year	Contributions	Benefits		Admin Charge	Interest Credit (Charge)	Ending Balance	Average Contribution Rate
		Benefits Annual \$	% Increase				
1984	\$	\$	%	\$	\$	\$57,193	-%
1985	633,501	1,343,755	-	0	-160,822	-813,893	0.2
1986	1,259,167	2,474,345	84	0	-417,606	-2,446,677	0.4
1987	1,739,234	3,262,157	32	0	-416,385	-4,385,985	0.5
1988	3,939,946	4,662,629	43	348,018 #	-486,800	-5,943,496	1.1
1989	5,257,471	5,906,152	27	144,629	-1,121,646	-7,858,452	1.4
1990	9,125,470 *	7,178,185	22	75,481	-701,016	-6,687,664	2.1
1991	10,653,019	8,188,603	14	130,203	-773,655	-5,127,106	2.3
1992	12,244,608	9,288,487	13	120,462	-476,392	-2,767,839	2.5
1993	14,410,852	10,392,896	12	160,981	-105,814	983,322	2.8
1994	16,242,342 *	11,786,839	13	161,127	219,777	5,524,539	3
1995	19,738,999 *	12,748,266	8	183,922	1,007,019	13,322,102	3.4
1996	20,670,838 *	13,527,755	6	355,847	2,087,053	22,196,391	3.3
1997	21,924,843 *	14,432,206	7	119,017	3,060,768	32,630,779	3.3
1998	26,205,796	15,484,812	7	235,334	4,795,610	47,912,039	3.66
1999	26,585,142	16,802,277	9	612,691	7,020,204	66,102,416	3.88
2000	32,188,231	18,337,714	9	153,551	7,273,165	87,072,547	3.88
2001	35,120,406	19,857,704	8	290,919	10,127,493 <sup>1</sup>	112,171,824	3.88
2002	36,662,252	21,592,121	9	349,523	9,696,940 <sup>2</sup>	136,589,372	3.88
2003	39,308,775	22,984,246	6	460,353	10,925,975 <sup>3</sup>	163,379,523	3.88
2004	40,776,886	23,176,779	1	338,041	13,960,608 <sup>4</sup>	194,602,196	3.88
2005	42,076,545	24,185,758	4	302,193	13,187,206 <sup>5</sup>	225,377,997	3.88
2006	44,573,058	26,091,024	8	318,381	22,681,739 <sup>6</sup>	266,223,389	3.88

\* Includes adjustment to beginning balance.

<sup>1</sup> Includes a \$5,601,954 adjustment for 1999 Wisconsin Act 11.

<sup>2</sup> Includes a \$3,838,988 adjustment for understated interest during 2002 (including Wisc Act 11).

<sup>3</sup> Includes a \$215,444 adjustment for understated interest during 2003 (including Wisc Act 11).

<sup>4</sup> Includes a \$63,179 adjustment for understated interest during 2004 (including Wisc Act 11).

<sup>5</sup> Includes a \$31,517 adjustment for understated interest during 2005 (including Wisc Act 11).

<sup>6</sup> Includes a \$473,544 adjustment for understated interest during 2006 (including Wisc Act 11).

# Includes 3 1/2 years of administrative expense charges.

As of December 31, 2006 there were 894 claims in payment status with annual benefits totaling \$25,275,061. 855 of the claims were for disabled participants and 39 were for beneficiaries. The number of claims and benefits being paid increased over last year from 865 and \$25,072,758 respectively. The following table shows annual benefits as a dollar amount and as a percentage of payroll by recipient type.

	Claims in Payment Status		
	No.	Annual \$	% of Payroll
Disabled Participants	855	\$24,687,232	2.14%
Survivor Beneficiaries	39	587,829	0.05%
Total	894	\$25,275,061	2.20%

# III. Estimated Liability as of December 31, 2006

The liability for outstanding claims under the Duty Disability program was estimated in two parts - reported claims and incurred claims not yet in pay status. The following paragraphs summarize the methods used and results.

## Claims in Pay Status

The total liability for claims with a pay status of \$330 million is nearly identical to the liability as of 12/31/05.

## Incurred Claims Not Yet in Pay Status

A review of recent claims data showed lags in the time between when claims are incurred and when they are reported and reach pay status. 58 claims, which are likely to be approved for pay status, were in either pending or appeal status as of 12/31/06. This includes 4 claims for which applications were received during the first two months of 2007. The plan was changed during 1998 so that its liability begins on the later of the date the employee meets the duty disability criteria (qualifying date) or the application is received. The application must be completed within one year from date of receipt. Previously there was no time limit. It is important to note that while this changes the date after which the plan liability begins to increase, it does not change the date upon which an actuary considers the claim to be incurred. Hence, if disability occurs in late 2006, but an application for benefits is not filed until early in 2007; the claim is still considered to be incurred at the end of 2006. The IBNR portion of the liability would reflect that benefits were not payable until the application is received.

The IBNR liability for 12/31/06 of \$35 million was developed using this group of claims that are currently either in appeal or pending status, average reserve factors, and a small load for conservatism.

## Results

The total estimated liability as of December 31, 2006 for the Duty Disability program is \$365,287,296 developed as follows:

	Offsets	Annual \$
Annual Benefits Before Offsets		41,210,282.62
Offsets		
Social Security	3,360,828.00	
Unemployment Compensation	0	
Worker's Compensation	506,618	
WRS Benefits		
- Separation	896,125	
- Disability	5,239,654	
- Normal Retirement	5,982,074	
Earnings	647,669	
Total Offsets	16,632,968.79	
Adjustment for offsets greater than base benefit	697,747.59	
Net Offsets	15,935,221.20	
Annual benefits after offsets		\$25,275,061
Present value of benefits being paid		\$330,303,296
Reserve for incurred but not paid claims		\$34,984,000
<b>Total</b>		<b>\$365,287,296</b>

**Total net offsets are 38.7% of gross benefits before offsets**

# IV. Analysis of Funding Levels

## Financial Progress

As of December 31, 2006 the payout rate from this program increased to 2.29% of covered payroll (up from 2.25% a year ago). Pertinent elements of the present financial picture include:

- During 2006 benefit reserves increased from \$225.4 million to \$266.2 million.
- The contribution rate currently in effect (December 31, 2006) will generate approximately 3.88% of covered payroll. This rate appears to be sufficient to achieve a fully reserved status over a 7-year period (down from 21 years at 12/31/00, 16 years at 12/31/03 and 10 years at 12/31/05). These calculations assume that the group size stabilizes at about its current level, as follows:

Provision for annual incurred claims*	2.25%
Amortization of accrued shortfall	<u>1.63%</u>
<b>Total</b>	<b>3.88%</b>

\* Includes (Benefit Payments + Expenses) as a % of covered payroll as indicated in ETF Trust Statement.

Current funding policy recommends limiting the amortization period to approximately 30 years. The data above verifies that the current rate schedule is projected to do this for another year. In 1998 the Board approved a rate increase of approximately .22% of payroll. At that time, we expected the increase to be sufficient to meet the funding policy for two years. After eight years, it still appears that the new contribution level is sufficient for at least one more year. Therefore, we do not recommend a contribution increase at this time.



# Exhibit 1

Section 40.65 duty disability benefits for protective occupation participants were added in 1982. Benefits are summarized below:

**Eligibility.** Duty-related injury or disease that is likely to be permanent, which causes a protective occupation participant to retire, accept reduced pay or light duty assignment, or in some cases, that impairs promotional opportunities.

**Amount.** 80% of salary (75% if partially disabled and not a State Employee), less the following offsets:

- Social Security
- Unemployment Compensation
- Worker's Compensation
- Any other WRS benefit
- All earnings from the employer under which the disability occurred
- A percent of other earnings as follows:
  - 1/3 of earnings less than 40% of monthly salary
  - 1/2 of earnings between 40% and 80% of monthly salary
  - 2/3 of earnings over 80% of monthly salary

## Survivor Benefits.

- All survivor benefits are offset by any Chapter 102 death benefits
- Pre-5/3/88 and certain state employees:
  - 1/3 of the participants monthly salary at time of death to surviving spouse, plus
  - \$15/month to each unmarried child under the age of 18
  - Not to exceed 65% of participants monthly salary at time of death
  - State employees are included
- Post-5/3/88 and certain state employees:
  - 1/2 of the participants monthly salary at time of death to surviving spouse, less other income sources that are based on the participant's earnings record
  - 1/10 of the participants monthly salary at time of death to each unmarried child under the age of 18
  - Not to exceed 70% of participants monthly salary at time of death
  - State employees are not included (with the exception of cancer presumptive)
- Cancer Presumptive Law:
  - 70% of the participants monthly salary at time of death to surviving spouse, less other income sources that are based on the participant's earnings record
  - 1/10 of the participants monthly salary at time of death to the guardian of any minor child, as long as there is no surviving spouse
  - There is no maximum

## Annual Increases.

- To age 60: In accordance with WRS salary index.
- After age 60: In accordance with WRS dividend increases (as long as the claimant is not also receiving a disability retirement benefit.)

**Contributions.** Vary by experience.

## Exhibit 2

**Mortality:** Wisconsin Projected Experience Table - 93; 98% of male mortality and 97% of female mortality.

**Set Forward:** 3 years for males only; changed from 12 years for males only.

**Recovery:** None.

**Sex:** All disabled recipients are assumed to be male; all beneficiary recipients are assumed to be female.

**Benefit Form:** Life annuity for unmarried disabled recipients and all beneficiaries; 50% joint and survivor annuity for married disabled recipients.

**Interest:** 4.8% (which approximates a 7.8% valuation rate with 3% annual benefit increases). The valuation rate was changed for the December 31, 2004 valuation to match the WRS interest rate. The WRS interest rate was reduced from 8% to 7.8% as of February 1, 2004. The interest rate used in the 2003 valuation was 5%.

**IBNR Loading:** 10% margin for conservatism

## Exhibit 3

### Benefits Being Paid and Reported Claim Liability by Year of Incurral

Year Incurred	Number Valued	Annual Benefit	% of Payroll	Actuarial Liability
2006	11	270,341	0.02%	\$3,874,935
2005	26	728,576	0.06%	\$11,587,019
2004	28	1,019,585	0.09%	\$15,577,817
2003	26	650,658	0.02%	\$10,123,007
2002	32	1,114,404	0.10%	\$16,885,369
2001	26	868,535	0.08%	\$13,290,397
2000	20	519,164	0.05%	\$7,894,161
1999	29	1,074,675	0.09%	\$16,190,155
1998	39	1,166,091	0.10%	\$16,697,483
1997	26	816,718	0.07%	\$11,833,454
1996	21	683,148	0.06%	\$9,557,098
1995	31	939,373	0.08%	\$12,899,265
1994	31	1,047,395	0.09%	\$13,910,042
1993	45	1,312,062	0.11%	\$17,785,654
1992	53	1,582,568	0.14%	\$20,846,547
1991	43	1,055,459	0.09%	\$13,355,667
1990	40	1,030,126	0.09%	\$13,362,792
1989	57	1,457,345	0.13%	\$17,599,123
1988	58	1,667,864	0.14%	\$19,880,996
1987	41	1,289,842	0.11%	\$14,731,267
1986	42	1,507,164	0.13%	\$15,922,014
1985	45	1,479,658	0.13%	\$16,018,177
1984	32	1,077,656	0.09%	\$11,407,625
1983	16	541,564	0.05%	\$5,047,951
1982	9	346,200	0.03%	\$3,635,800
1979	1	28,889	0.00%	\$389,481
<b>Total</b>	<b>828</b>	<b>25,275,061</b>	<b>2.20%</b>	<b>330,303,296</b>

## Exhibit 4

### Rate Schedule: Present & Proposed December 31, 2006 Valuation

% of Covered Payroll	Applicable To
1.9	Groups with claims payout during the prior year of less than or equal to 0.5% of payroll.
2.4	Groups with one claim in which the payout during the prior year exceeded 0.5% of payroll, and groups with two or more claims in which the payout was more than 0.5% but less than 1.0% of payroll.
3.6	Groups with two or more claims in which the payout during the prior year was more than 1.0% but less than 2.0% of payroll.
5.4	Groups with two or more claims in which the payout during the prior year was more than 2.0% and less than 3.0% of payroll.
6.6	Groups with two or more claims in which the payout exceeded 3.0% but was less than 6.6% of payroll during the prior year.
6.6 + ½ of claims over 6.6%	Groups with two or more claims in which the payout exceeded 6.6% of payroll during the prior year.

\* The 50% experience factor is based on claims incurred in the last 4-1/2 years.



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