## Deloitte.

# The State of Wisconsin Employee Trust Funds Board



Section 40.65 Duty Disability Program Actuarial Review As of December 31, 2005

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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 2005, an estimate of the State's liability as of December 31, 2005 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 \$225.4 million and estimated liabilities of \$362.3 million as of December 31, 2005. The accrued funding shortfall is \$136.9 million, which represents about 12.6% of the \$1.09 billion in covered payroll. This is a decrease of 1.4% from last year. The asset balance does not include \$2.2 million in deferred market losses, 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. 2005 Experience Review

#### **Fund Balance**

During 2005 the fund balance increased from \$194,602,196 to \$225,377,997. Investment earnings were \$13,218,723, with paid claims and administrative expenses totaling \$24,487,951. These components are shown in the following table along with figures for the prior years for comparison purposes.

		Ben	efits		Interest		Average
		Benefits	%	Admin	Credit	Ending	Contribution
Year	Contributions	+	Increase	Charge	(Charge)	Balance	Rate
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 4	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

<sup>\*</sup> Includes adjustment to beginning balance.

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

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

Includes a \$215,444 adjustment for understated interest during 2003 (including Wisconsin Act 11).

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

Includes a \$31,517 adjustment for understated interest during 2005 (including Wisconsin Act 11).

<sup>#</sup> Includes 3½ years of administrative expense charges.

As of December 31, 2005 there were 865 claims in payment status with annual benefits totaling \$25,072,758. Of those claims, 825 were for disabled participants and 40 were for beneficiaries. The number of claims and benefits being paid increased over last year from 838 and \$23,677,016, 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	825	\$24,506,983	2.25%	
Survivor Beneficiaries	40	565,775	0.05%	
Total	865	\$25,072,758	2.30%	

# III. Estimated Liability as of December 31, 2005

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 5.75% higher than the liability as of December 31, 2004. The \$18 million increase is the result of changes in the number and characteristics of the claims.

#### 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. Seventy-one claims, which are likely to be approved for pay status, were in either pending or appeal status as of December 31, 2005. This includes 7 claims for which applications were received during the first two months of 2006. The plan was changed during 1998 so that its liability begins on the later of the date the employee becomes disabled 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 2005, but an application for benefits is not filed until early in 2006; the claim is still considered to be incurred at the end of 2005. The Incurred But Not Reported (IBNR) portion of the liability would reflect that benefits were not payable until the application is received.

The IBNR liability for December 31, 2005 of \$31.9 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, 2005 for the Duty Disability program is \$362,293,923 developed as follows:

	Offsets	Annual \$
Annual Benefits Before Offsets		\$39,986,972
Offsets		
Social Security	\$3,105,480	
Unemployment Compensation	\$0	
Worker's Compensation	\$541,817	
WRS Benefits		
- Separation	\$878,873	
- Disability	\$4,857,960	
- Normal Retirement	\$5,544,518	
Earnings	\$656,003	
Total Offsets	\$15,584,651	
Adjustment for Offsets Greater Than Base Benefit	\$670,438	
Net Offsets	\$14,914,213	
Annual Benefits After Offsets		\$25,072,758
Present Value of Benefits Being Paid		\$330,299,923
Reserve for Incurred But Not Paid Claims		\$31,994,000
Total		\$362,293,923

Total net offsets are 37% of gross benefits before offsets.

## IV. Analysis of Funding Levels

#### Financial Progress

As of December 31, 2005, the payout rate from this program increased to 2.25% of covered payroll (up from 2.22% a year ago). Pertinent elements of the present financial picture include the following:

- During 2005 benefit reserves increased from \$194.6 million to \$225.4 million.
- The contribution rate currently in effect (December 31, 2005) will generate approximately 3.88% of covered payroll. This rate appears to be sufficient to achieve a fully reserved status over a 10-year period (down from 21 years at December 31, 2000, 16 years at December 31, 2003 and 11 years at December 31, 2004). 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 1.63%

Total 3.88%

\* 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 seven 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.

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, 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**

- Pre-5/3/88 and certain state employees:
  - 1/3 of the participant's 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 participant's monthly salary at time of death
- Post-5/3/88 and certain state employees:
  - 1/2 of the participant's 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 participant's monthly salary at time of death to each unmarried child under the age of 18
- Not to exceed 70% of participant's monthly salary at time of death
- Cancer Presumptive Law:
- 70% of the participant's 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 participant's 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

#### **Increases After Retirement**

- 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

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

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

Year	Year Number Annual		% of	Actuarial
Incurred	Valued	Benefit	Payroll	Liability
2005	5	\$140,562	0.01%	\$2,179,567
2004	22	\$787,804	0.07%	\$12,336,906
2003	26	\$743,531	0.02%	\$11,628,772
2002	30	\$1,063,169	0.10%	\$16,242,558
2001	25	\$854,002	0.08%	\$13,152,762
2000	19	\$570,154	0.05%	\$8,681,084
1999	29	\$1,093,263	0.10%	\$16,646,663
1998	41	\$1,303,934	0.12%	\$19,027,018
1997	26	\$851,629	0.08%	\$12,509,373
1996	22	\$717,026	0.07%	\$10,098,383
1995	31	\$969,905	0.09%	\$13,584,694
1994	31	\$1,054,854	0.10%	\$14,203,339
1993	46	\$1,353,950	0.12%	\$18,601,710
1992	53	\$1,600,062	0.15%	\$21,447,926
1991	43	\$1,107,037	0.10%	\$14,315,216
1990	41	\$1,033,782	0.09%	\$13,647,743
1989	58	\$1,510,014	0.14%	\$18,564,891
1988	59	\$1,743,835	0.16%	\$21,166,639
1987	43	\$1,385,656	0.13%	\$16,090,303
1986	43	\$1,601,913	0.15%	\$17,540,905
1985	47	\$1,560,270	0.14%	\$17,239,730
1984	32	\$1,096,126	0.10%	\$11,902,831
1983	16	\$554,393	0.05%	\$5,352,762
1982	9	\$346,999	0.03%	\$3,741,858
1979	1	\$28,889	0.00%	\$396,291
Total	798	\$25,072,758	2.30%	\$330,299,923

## Rate Schedule: Present & Proposed December 31, 2005 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.

<sup>\*</sup> The 50% experience factor is based on claims incurred in the last  $4\frac{1}{2}$  years.



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