
WISCONSIN RETIREMENT SYSTEM
GAIN/LOSS ANALYSIS OF EXPERIENCE
AMONG ACTIVE MEMBERS
DURING CALENDAR YEAR 2003

GABRIEL, ROEDER, SMITH & COMPANY
ACTUARIES & CONSULTANTS

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August 31, 2004

The Employee Trust Funds Board
Wisconsin Retirement System
801 West Badger Road
Madison, Wisconsin 53713

Ladies and Gentlemen:

The results of the *Gain/Loss Analysis of Experience Among Active Participants* of the Wisconsin Retirement System, *covering the calendar year 2003 are presented in this report.* (The results of the December 31, 2003 regular annual actuarial valuation of active members were submitted in our report dated June 1, 2004.)

Your Secretary and staff furnished the statistical data concerning active participant changes and related financial information that was required for this analysis. The actuary did not audit the data. The actuarial assumptions used are shown in the Appendix portion of the December 31, 2003 annual actuarial valuation of active participants.

Respectfully submitted,

Brian B. Murphy, FSA Mark Buis, ASA

MB/tcb/lr

ACTIVE MEMBER GAIN/LOSS ANALYSIS

Introduction

Purpose of Gain/Loss Analysis. Regular actuarial valuations provide information about the composite change in computed contribution rates and total liabilities -- whether or not the rates and related liabilities are increasing or decreasing, and by how much. However, valuations do not show the portion of the change attributable to each risk area within the retirement system financial mechanism: the rate of investment income on plan assets; the rates of withdrawal of active participants who leave covered employment; the rates of mortality; the rates of disability; the rates of salary increases; and the assumed ages at actual retirement. In an actuarial valuation, assumptions are made as to what these rates will be for the next year and for decades in the future.

The objective of a gain and loss analysis is to determine the portion of the change that is attributable to each risk area.

The fact that actual experience differs from assumed experience should be expected. The future cannot be predicted with complete precision. Further, year-to-year statistical fluctuations occur, even in very large groups. This year's report reflects just a single year's experience. Changes in the valuation assumed experience for a risk area should be made only when the differences between assumed and actual experience have been observed to be sizable and persistent. One year's gain and loss analysis may or may not be indicative of *long-term trends, which are the basis of actuarial assumptions*. In the Wisconsin Retirement System, longer term trends are reviewed in connection with the regular 3-year investigation of experience (the most recent 3-year investigation covered the period January 1, 2000 to December 31, 2002). It is the results of the 3-year investigation that lead to recommendations for changes in actuarial assumptions.

Please note that the format and layout for many of the schedules differ from reports from prior years. This was done in order to establish a stronger continuity between the Gain/Loss report and Experience Study report. Hopefully, this will make it easier for one to compare results between the two reports.

POPULATION DEVELOPMENT DURING CALENDAR YEAR 2003

	General	Executive & Elected	Protective		Total	Expected
			With S.S.	Without S.S.		
Beginning Census	240,990	1,476	18,325	2,709	263,500	
(-) Normal Retirement	2,266	53	242	41	2,602	2,780
(-) Early Retirement	3,278	28	65	9	3,380	3,436
(-) Death	260	3	20	2	285	289
(-) Disability Retirement						
-Total Disabilities approved	295	0	9	5	309	332
-Less Pending at Beginning of Year	135	0	7	2	144	
-Net new from active status	160	0	2	3	165	
(-) Other Separations	11,681	96	497	23	12,297	12,159
(-) Transfers Out	1,015	55	87	2	1,159	
(+) Transfers In	760	78	306	15	1,159	
(+) New Entrants	16,606	149	942	70	17,767	
Ending Census	239,266	1,468	18,644	2,707	262,085	

This page reconciles the active member populations reported in connection with the 2002 and 2003 valuations on an actual and expected basis. Assumptions related to population development are a primary focus of the gain/loss analysis. They generally tend to be more stable than economic assumptions, and therefore, measurements have more meaning.

COMMENTS ON POPULATION RESULTS

Normal Retirements were less than assumed in the General group, more than assumed in the teacher groups and varied in the other groups, overall producing a small loss.

Early Retirements varied by group and gender. Overall, there were slightly fewer early retirements than expected. In general, fewer early retirements than assumed often creates a gain. However, looking at counts alone is not always an accurate predictor of whether a gain or loss occurs. If there are fewer retirements in shorter service, lower paid groups and more retirements than expected in longer service, higher paid groups, there will be a net loss to the System even though the actual total counts might be equal to or less than expected.

Deaths among active participants were close to expected, overall producing a small loss.

Disabilities were less than expected and produced a gain in all groups. This means that the reserves needed for the disability benefit were slightly smaller than the reserves that had been held for retirement benefits. In the 2000-2002 Experience Study, we noted that there appears to be a lag between when a member terminates employment and when a member is approved for disabilities. This makes the measurement of any years gain or loss more difficult than it would otherwise be. Many members terminate and then are subsequently approved for disability. Taking into account such cases, the actual number of disability retirements, is only slightly less than expected.

Other Separations produced a loss in total. Other separations among short (under 5 years) service participants produced a gain, reflective of more terminations than assumed. Separations among longer service participants produced a loss. The loss occurred because there was only about one half the assumed number of forfeiture terminations among people with 5 or more years of service. The gain from short service separations was not sufficient to offset the loss from long service separations, and a loss was produced in total.

COMMENTS ON ECONOMIC RESULTS

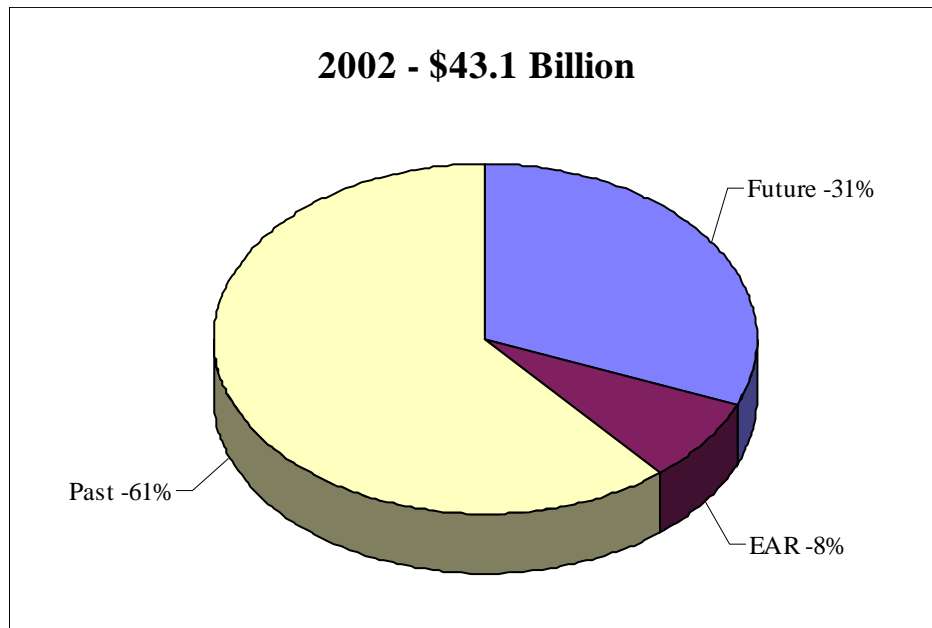
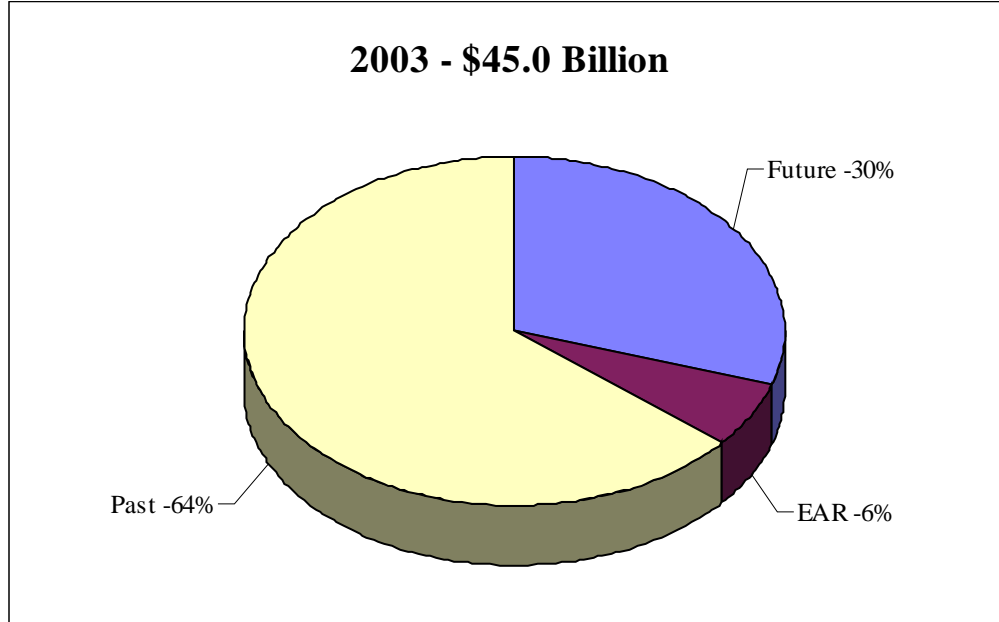
In total, the population risk areas (retirement, death, disability, and other separations) produced a small actuarial loss in 2003.

Investment Return activity produced a loss for General and Executive and Elected groups and a gain for the Protective groups. There was a loss of about \$149 million on the fixed funds, and a gain on the variable funds that translates into an increase of \$329 million in the combined value of variable excess benefits and money purchase benefits.

Pay Increases varied among groups but were, for the most part less than expected, producing a gain. Pay increase activity this year was second only to investment activity in terms of its effect on results.

This Gain/Loss Analysis is the first in the normal three-year experience cycle. It will be part of the basis for the experience investigation covering the period January 1, 2003 to December 31, 2005.

FINANCING RETIREMENT SYSTEM BENEFIT LIABILITIES AT DECEMBER 31



The gain/loss analysis studies changes in entry age normal accrued liabilities which are reflected in the Experience Amortization Reserve (EAR) as shown on page 50. Future liabilities are financed via normal cost contributions each year as they accrue. Past liabilities are financed by application of present assets and unfunded liability contributions. The liabilities assigned to the EAR are technically part of the future. However, as part of the valuation method, they are financed as though they were part of the past. The EAR amortization period is selected each year to minimize short term contribution rate fluctuations.

**GAIN/LOSS ANALYSIS
2003 EXPERIENCE
DIVISIONS COMBINED**



ACTUARIAL GAINS & LOSSES DURING CALENDAR YEAR 2003
(\$ MILLIONS)

Type of Activity	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Decrement Risk Areas					
Normal Retirement	\$ 1.4	\$ (1.2)	\$ (0.5)	\$ 0.1	\$ (0.2)
Early Retirement	(6.8)	(0.4)	(0.4)	0.1	(7.5)
Death with Benefit	(0.4)	(0.1)	0.2	(0.1)	(0.4)
Disability Retirement	10.3	0.1	1.3	0.5	12.2
Other Separations	(15.8)	2.5	0.5	(0.7)	(13.5)
Economic Risk Areas					
Salary Increases	80.5	3.2	6.6	2.9	93.2
Investment Return	(165.3)	(5.2)	21.2	0.3	(149.0)
Other Activity (See Page 10)	(181.1)	(7.2)	(22.2)	3.2	(207.3)
Total Gain(Loss)	(277.2)	(8.3)	6.7	6.3	(272.5)
-% of accrued liability	(1.0)%	(3.3)%	0.3%	1.0%	(0.9)%

ANALYSIS OF OTHER ACTIVITY
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Reserve Transfers					
Normal Retirement	\$ 940	\$ 14	\$ 96	\$ 29	\$ 1,079
Early Retirement	973	7	30	5	1,015
Death	32	1	3	1	37
Disability Retirement	44	0	1	1	46
Deferred Retirement	271	13	5	19	308
Total Reserve Transfers	2,260	35	135	55	2,485
From Retiree Report	2,446	30	168	45	2,689
Reserve Difference	(186)	5	(33)	10	(204)
Expected Refunds	43	0	3	0	46
Actual Refunds	22	0	2	1	25
Refund Difference	21	0	1	(1)	21
Total Explained Difference	(165)	5	(32)	9	(183)
Unknown Difference	(16)	(12)	10	(6)	(24)*
Total Other Activity	\$(181)	\$ (7)	\$ (22)	\$ 3	\$ (207)

* *The Unknown Difference is less than 0.1% of the total liability – very small in relative terms. Recent unknown differences have been \$10 in 2002, \$(58) in 2001 and \$(27) in 2000. GRS, together with ETF staff, is continuing to review reasons for the differences.*

This page analyzes reserve transfers and contribution refunds and shows the portion of “other” activity that can be explained by those sources.

**COMPARATIVE SCHEDULE OF EXPERIENCE
5-YEAR HISTORY OF GAINS AND (LOSSES)
(\$ MILLIONS)**

Year	Normal & Early Retmt.	Disability Retmt.	Other Separations*	Salary Increases	Investment Return	Other	Total
GENERAL							
1999	\$(14.0)	\$13.1	\$42.7	\$ 383.8	\$ 524.6	\$(181.0)	\$ 769.2
2000	(12.2)	7.8	17.3	(189.6)	422.0	(234.9)	10.4
2001	(7.6)	8.7	(14.9)	303.3	419.9	(133.0)	576.4
2002	(3.1)	7.2	(23.7)	160.8	(285.6)	(339.6)	(484.0)
2003	(5.4)	10.3	(16.2)	80.5	(165.3)	(181.1)	(277.2)
EXECUTIVE & ELECTED							
1999	\$0.2	\$0.1	\$0.8	\$ 2.5	\$ 4.1	\$(5.8)	\$ 1.9
2000	0.4	0.2	(0.2)	0.2	9.0	(5.1)	4.5
2001	(0.4)	0.1	0.9	2.3	11.1	(3.3)	10.7
2002	0.4	0.1	(0.1)	2.0	1.8	(3.7)	0.5
2003	(1.6)	0.1	2.4	3.2	(5.2)	(7.2)	(8.3)
PROTECTIVE WITH SOCIAL SECURITY							
1999	\$(0.7)	\$1.8	\$ 0.4	\$ 23.0	\$ 107.9	\$ (36.9)	\$ 95.5
2000	(3.4)	1.1	0.6	(22.4)	11.8	(119.6)	(131.9)
2001	(1.1)	0.8	(0.4)	25.3	(12.6)	(10.4)	1.6
2002	(0.2)	1.1	0.0	35.7	(106.3)	(12.9)	(82.6)
2003	(0.9)	1.3	0.7	6.6	21.2	(22.2)	6.7
PROTECTIVE WITHOUT SOCIAL SECURITY							
1999	\$(1.1)	\$0.5	\$ 3.5	\$ 11.8	\$ 39.4	\$ (12.6)	\$ 41.5
2000	(2.3)	0.5	(0.4)	(0.4)	11.7	(14.1)	(5.0)
2001	(0.1)	0.5	(0.5)	4.1	3.5	(1.6)	5.9
2002	(0.3)	0.2	(0.3)	2.3	(23.9)	(6.4)	(28.4)
2003	0.2	0.5	(0.8)	2.9	0.3	3.2	6.3

*Includes separation due to death.

ECONOMIC ASSUMPTION EXPERIENCE

GAIN (LOSS) FROM INVESTMENT INCOME DURING CALENDAR YEAR 2003
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With SS	Without SS	
(1) Beginning of Year Active Participant Assets					
(a) Participant Accumulation Reserve (PAR)	\$12,547.8	\$118.3	\$ 914.3	\$304.7	\$13,885.1
(b) PAR Closing Adjustment	0.0	0.0	0.0	0.0	0.0
(c) Employer Accumulation Reserve (EAR)	15,424.5	144.3	1,606.9	427.7	17,603.4
(d) EAR Closing Adjustment	(268.9)	(2.6)	(27.0)	(7.6)	(306.1)
(e) Total	27,703.4	260.0	2,494.2	724.8	31,182.4
(2) End of Year Active Participant Assets					
(a) Participant Accumulation Reserve	12,977.7	116.4	955.2	314.5	14,363.8
(b) Employer Accumulation Reserve	16,886.7	156.3	1,766.0	469.1	19,278.1
(c) Total	29,864.4	272.7	2,721.2	783.6	33,641.9
(3) Investment Earnings Credited					
(a) Participant Accumulation Reserve	1,056.7	9.2	81.7	26.4	1,174.0
(b) Employer Accumulation Reserve	1,239.5	10.6	148.2	34.0	1,432.3
(c) Total	2,296.2	19.8	229.9	60.4	2,606.3
(4) Average Balance: $.5 \times \{(1e)+(2c)-(3c)\}$	27,635.8	256.5	2,492.8	724.0	31,109.1
(5) Expected Earnings: $.078 \times (4)$	2,155.6	20.0	194.4	56.5	2,426.5
(6) Gain (Loss) for year from investment experience: $(3c)-(5)$	140.6	(0.2)	35.5	3.9	179.8
(7) Portion applied to Change in Variable Excess Reserve and Money Purchase Minimum Benefit	305.9	5.0	14.3	3.6	328.8
(8) Remaining Gain (Loss): (6)-(7)	\$ (165.3)	\$ (5.2)	\$ 21.2	\$ 0.3	\$ (149.0)

**SALARY INCREASES DURING CALENDAR YEAR 2003
TO PARTICIPANTS ACTIVE BOTH AT BEGINNING & END OF YEAR**

Service Beginning of Year	Percent Salary Increases						Service Beginning of Year
	Teachers				Other General		
	University	Expected	Public School	Expected			
					Actual	Expected	
0-4	5.7 %	8.5 %	7.8 %	9.9 %	7.2 %	7.6 %	0-4
5-9	4.7 %	8.2 %	6.1 %	7.6 %	5.2 %	6.1 %	5-9
10-14	4.1 %	7.0 %	4.8 %	6.1 %	4.9 %	5.5 %	10-14
15-19	4.0 %	6.4 %	3.6 %	5.3 %	4.9 %	5.3 %	15-19
20-24	3.1 %	6.2 %	2.8 %	4.9 %	4.8 %	5.1 %	20-24
25-29	3.1 %	6.1 %	2.7 %	4.5 %	4.6 %	4.9 %	25-29
30-34	3.4 %	5.7 %	2.5 %	4.2 %	4.7 %	4.7 %	30-34
35-39	2.8 %	4.8 %	2.4 %	4.2 %	5.0 %	4.5 %	35-39
40 & Over	3.4 %	4.7 %	2.2 %	4.2 %	4.9 %	4.5 %	40 & Over
Average	4.3 %		4.7 %		5.5 %		Average

The salary increases shown on this and the following page are not necessarily reflective of pay increases awarded to any individual member. The figures are broad averages of figures involving large groups of people. They can be distorted to the extent that younger people may have received less than a full year's pay during their first year of employment. Pay increases tend generally to track inflation which was about 1.9% in 2003. The average inflation rate over the 25 year period 1978-2003 was 4.1%. Similarly, during that period national average earnings rose an average of 4.9% a year.

**SALARY INCREASES DURING CALENDAR YEAR 2003
TO PARTICIPANTS ACTIVE BOTH AT BEGINNING & END OF YEAR
(CONTINUED)**

Service Beginning of Year	Percent Salary Increases						Service Beginning of Year
	Protective				Executives & Elected		
	Actual		Expected				
	With Soc. Sec.	Without Soc. Sec.	With Soc. Sec.	Without Soc. Sec.	Actual	Expected	
0-4	10.4 %	10.2 %	8.1 %	8.6 %	3.5 %	5.3 %	0-4
5-9	5.4 %	4.7 %	6.9 %	7.1 %	2.7 %	5.2 %	5-9
10-14	4.8 %	3.5 %	6.1 %	6.1 %	2.5 %	5.2 %	10-14
15-19	4.8 %	4.1 %	5.6 %	4.6 %	2.6 %	5.1 %	15-19
20-24	4.7 %	3.8 %	5.1 %	4.6 %	2.6 %	5.0 %	20-24
25-29	5.2 %	4.5 %	5.1 %	4.6 %	1.4 %	4.8 %	25-29
30-34	4.1 %	4.9 %	5.1 %	4.6 %	3.6 %	4.6 %	30-34
35-39	7.1 %	3.8 %	4.6 %	4.6 %	1.6 %	4.5 %	35-39
40 & Over	3.8 %	0.0 %	4.6 %	4.6 %	0.0 %	4.1 %	40 & Over
Average	6.1 %	5.0 %			2.6 %		Average

DECREMENT ASSUMPTION EXPERIENCE

**GENERAL
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	345	88	97.0	0.2551	0.2800
58	224	63	63.0	0.2813	0.2800
59	181	34	51.0	0.1878	0.2800
60	173	39	48.0	0.2254	0.2800
61	118	31	35.0	0.2627	0.3000
62	110	42	44.0	0.3818	0.4000
63	58	17	23.0	0.2931	0.4000
64	52	15	18.0	0.2885	0.3500
65	216	55	76.0	0.2546	0.3500
66	130	37	45.0	0.2846	0.3500
67	95	19	14.0	0.2000	0.1500
68	71	9	11.0	0.1268	0.1500
69	55	10	8.0	0.1818	0.1500
70 & Up	206	32	31.0	0.1553	0.1500
Total	2,034	491	564.0	0.2414	0.2773

Averages at Retirement (years)

Age 62.1
Service 28.3

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	191	35	52.0	0.1832	0.2700
58	125	34	34.0	0.2720	0.2700
59	102	24	26.0	0.2353	0.2500
60	102	21	26.0	0.2059	0.2500
61	73	24	18.0	0.3288	0.2500
62	57	19	17.0	0.3333	0.3000
63	36	10	13.0	0.2778	0.3500
64	30	6	10.0	0.2000	0.3500
65	464	107	139.0	0.2306	0.3000
66	315	82	95.0	0.2603	0.3000
67	205	47	41.0	0.2293	0.2000
68	170	28	26.0	0.1647	0.1500
69	128	30	19.0	0.2344	0.1500
70 & Up	460	78	69.0	0.1696	0.1500
Total	2,458	545	585.0	0.2217	0.2380

Averages at Retirement (years)

Age 65.1
Service 22.1

**GENERAL
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	1,687	133	135.0	0.0788	0.0800
56	1,530	130	122.0	0.0850	0.0800
57	885	36	35.0	0.0407	0.0400
58	652	28	39.0	0.0429	0.0600
59	567	23	34.0	0.0406	0.0600
60	552	38	44.0	0.0688	0.0800
61	479	32	38.0	0.0668	0.0800
62	379	66	76.0	0.1741	0.2000
63	288	53	58.0	0.1840	0.2000
64	225	24	34.0	0.1067	0.1500
Total	7,244	563	615.0	0.0777	0.0849

Averages at Retirement (years)

Age 58.3
Service 23.9

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	2,378	125	143.0	0.0526	0.0600
56	2,174	117	130.0	0.0538	0.0600
57	1,612	50	81.0	0.0310	0.0500
58	1,330	73	67.0	0.0549	0.0500
59	1,256	67	63.0	0.0533	0.0500
60	1,198	85	96.0	0.0710	0.0800
61	1,076	71	86.0	0.0660	0.0800
62	856	121	154.0	0.1414	0.1800
63	680	109	122.0	0.1603	0.1800
64	508	57	71.0	0.1122	0.1400
Total	13,068	875	1,013.0	0.0670	0.0776

Averages at Retirement (years)

Age 59.3
Service 19.2

**PUBLIC SCHOOL
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	527	201	132.0	0.3814	0.2500
58	283	97	71.0	0.3428	0.2500
59	195	57	49.0	0.2923	0.2500
60	140	46	42.0	0.3286	0.3000
61	106	35	37.0	0.3302	0.3500
62	63	22	38.0	0.3492	0.6000
63	30	14	15.0	0.4667	0.5000
64	18	4	9.0	0.2222	0.5000
65	62	19	43.0	0.3065	0.7000
66	24	8	17.0	0.3333	0.7000
67	18	6	9.0	0.3333	0.5000
68	13	3	7.0	0.2308	0.5000
69	10	1	5.0	0.1000	0.5000
70 & Up	24	5	12.0	0.2083	0.5000
Total	1,513	518	486.0	0.3424	0.3212

Averages at Retirement (years)

Age 59.2
Service 32.0

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	420	148	126.0	0.3524	0.3000
58	244	83	73.0	0.3402	0.3000
59	195	52	59.0	0.2667	0.3000
60	129	52	39.0	0.4031	0.3000
61	70	22	24.0	0.3143	0.3500
62	68	28	27.0	0.4118	0.4000
63	47	11	16.0	0.2340	0.3500
64	21	5	5.0	0.2381	0.2500
65	153	49	46.0	0.3203	0.3000
66	75	17	19.0	0.2267	0.2500
67	48	13	12.0	0.2708	0.2500
68	28	5	6.0	0.1786	0.2000
69	16	3	3.0	0.1875	0.2000
70 & Up	60	16	12.0	0.2667	0.2000
Total	1,574	504	467.0	0.3202	0.2967

Averages at Retirement (years)

Age 60.3
Service 30.7

**PUBLIC SCHOOL
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Males Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	1,260	248	189.0	0.1968	0.1500
56	1,099	207	165.0	0.1884	0.1500
57	393	34	59.0	0.0865	0.1500
58	233	31	35.0	0.1330	0.1500
59	164	17	16.0	0.1037	0.1000
60	152	17	23.0	0.1118	0.1500
61	120	18	18.0	0.1500	0.1500
62	81	10	20.0	0.1235	0.2500
63	41	8	10.0	0.1951	0.2500
64	26	3	4.0	0.1154	0.1500
Total	3,569	593	539.0	0.1662	0.1511

Averages at Retirement (years)

Age 56.3
Service 28.0

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	2,293	259	252.0	0.1130	0.1100
56	2,037	294	224.0	0.1443	0.1100
57	1,000	100	110.0	0.1000	0.1100
58	705	90	85.0	0.1277	0.1200
59	606	61	73.0	0.1007	0.1200
60	511	83	77.0	0.1624	0.1500
61	405	63	61.0	0.1556	0.1500
62	271	69	68.0	0.2546	0.2500
63	170	27	34.0	0.1588	0.2000
64	125	24	19.0	0.1920	0.1500
Total	8,123	1,070	1,003.0	0.1317	0.1235

Averages at Retirement (years)

Age 57.5
Service 23.8

**UNIVERSITY
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	28	4	7.0	0.1429	0.2500
58	49	7	10.0	0.1429	0.2000
59	60	15	12.0	0.2500	0.2000
60	74	9	15.0	0.1216	0.2000
61	87	15	17.0	0.1724	0.2000
62	81	11	16.0	0.1358	0.2000
63	82	15	16.0	0.1829	0.2000
64	50	5	10.0	0.1000	0.2000
65	102	20	20.0	0.1961	0.2000
66	71	20	14.0	0.2817	0.2000
67	52	7	10.0	0.1346	0.2000
68	39	8	8.0	0.2051	0.2000
69	32	5	6.0	0.1563	0.2000
70 & Up	88	19	18.0	0.2159	0.2000
Total	895	160	179.0	0.1788	0.2000

Averages at Retirement (years)

Age 64.2
Service 30.7

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	21	4	4.0	0.1905	0.2000
58	13	1	3.0	0.0769	0.2000
59	19	3	4.0	0.1579	0.2000
60	13	3	3.0	0.2308	0.2000
61	21	7	4.0	0.3333	0.2000
62	16	4	4.0	0.2500	0.2500
63	15	4	5.0	0.2667	0.3000
64	8	3	2.0	0.3750	0.3000
65	28	2	7.0	0.0714	0.2500
66	23	6	6.0	0.2609	0.2500
67	18	3	5.0	0.1667	0.2500
68	13	2	3.0	0.1538	0.2000
69	10	2	2.0	0.2000	0.2000
70 & Up	27	4	5.0	0.1481	0.2000
Total	245	48	57.0	0.1959	0.2327

Averages at Retirement (years)

Age 63.7
Service 28.5

**UNIVERSITY
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	259	13	13.0	0.0502	0.0500
56	315	14	16.0	0.0444	0.0500
57	237	5	9.0	0.0211	0.0400
58	187	4	7.0	0.0214	0.0400
59	184	6	9.0	0.0326	0.0500
60	154	7	8.0	0.0455	0.0500
61	112	7	6.0	0.0625	0.0500
62	93	6	9.0	0.0645	0.1000
63	73	6	7.0	0.0822	0.1000
64	54	3	5.0	0.0556	0.1000
Total	1,668	71	89.0	0.0426	0.0534

Averages at Retirement (years)

Age 58.6
Service 20.3

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	250	17	13.0	0.0680	0.0500
56	224	20	11.0	0.0893	0.0500
57	167	5	8.0	0.0299	0.0500
58	173	11	9.0	0.0636	0.0500
59	108	8	11.0	0.0741	0.1000
60	85	6	9.0	0.0706	0.1000
61	96	10	10.0	0.1042	0.1000
62	76	17	8.0	0.2237	0.1000
63	56	5	6.0	0.0893	0.1000
64	44	7	4.0	0.1591	0.1000
Total	1,279	106	89.0	0.0829	0.0695

Averages at Retirement (years)

Age 58.8
Service 18.7

**PROTECTIVE WITH SOCIAL SECURITY
NORMAL AND REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Protective With Social Security Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
50	419	18	25.0	0.0430	0.0600
51	432	24	30.0	0.0556	0.0700
52	361	20	25.0	0.0554	0.0700
53	163	51	62.0	0.3129	0.3800
54	312	52	62.0	0.1667	0.2000
55	231	40	46.0	0.1732	0.2000
56	218	29	55.0	0.1330	0.2500
57	157	17	31.0	0.1083	0.2000
58	83	8	17.0	0.0964	0.2000
59	71	12	14.0	0.1690	0.2000
60	51	8	10.0	0.1569	0.2000
61	49	9	10.0	0.1837	0.2000
62	34	5	7.0	0.1471	0.2000
63	27	5	8.0	0.1852	0.3000
64	8	1	2.0	0.1250	0.2000
65	13	5	4.0	0.3846	0.3000
66	5	2	1.0	0.4000	0.2500
67	6	1	2.0	0.1667	0.2500
68	0	0	0.0	0.0000	0.2500
69	1	0	0.0	0.0000	0.2500
70 & Up	1	0	1.0	0.0000	1.0000
Total	2,642	307	412.0	0.1162	0.1559

Averages at Retirement (years)

Age 56.0
Service 25.6

**PROTECTIVE WITHOUT SOCIAL SECURITY
NORMAL AND REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Protective Without Social Security Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
50	116	5	2.0	0.0431	0.0200
51	89	0	2.0	0.0000	0.0200
52	87	4	8.0	0.0460	0.0900
53	38	9	14.0	0.2368	0.3800
54	40	9	14.0	0.2250	0.3600
55	36	12	13.0	0.3333	0.3600
56	28	5	10.0	0.1786	0.3600
57	11	3	4.0	0.2727	0.3600
58	7	2	3.0	0.2857	0.4000
59	4	1	1.0	0.2500	0.3000
60	1	0	0.0	0.0000	0.3000
61	3	0	1.0	0.0000	0.3000
62	0	0	0.0	0.0000	0.1500
63	2	0	0.0	0.0000	0.1500
64	1	0	0.0	0.0000	0.1500
65	0	0	0.0	0.0000	0.4000
66	0	0	0.0	0.0000	0.4000
67	0	0	0.0	0.0000	0.4000
68	0	0	0.0	0.0000	0.4000
69	0	0	0.0	0.0000	0.4000
70 & Up	0	0	0.0	0.0000	1.0000
Total	463	50	72.0	0.1080	0.1555

Averages at Retirement (years)

Age 54.8
Service 27.5

**EXECUTIVE AND ELECTED MEMBERS WHO BECAME NORMAL AGE &
SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Executive and Elected Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	16	4	1.0	0.2500	0.0800
58	9	2	1.0	0.2222	0.0800
59	3	1	0.0	0.3333	0.1200
60	4	0	1.0	0.0000	0.1400
61	7	2	2.0	0.2857	0.3500
62	38	5	4.0	0.1316	0.1000
63	29	2	3.0	0.0690	0.1000
64	42	8	4.0	0.1905	0.1000
65	30	7	3.0	0.2333	0.1000
66	15	5	3.0	0.3333	0.2000
67	12	4	2.0	0.3333	0.2000
68	8	2	2.0	0.2500	0.2000
69	10	3	2.0	0.3000	0.2000
70 & Up	42	8	4.0	0.1905	0.1000
Total	265	53	32.0	0.2000	0.1208

Averages at Retirement (years)

Age 65.2
Service 21.5

**EXECUTIVE AND ELECTED
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	61	4	3.0	0.0656	0.0500
56	63	8	3.0	0.1270	0.0500
57	44	3	2.0	0.0682	0.0400
58	38	2	2.0	0.0526	0.0400
59	46	2	2.0	0.0435	0.0400
60	34	4	1.0	0.1176	0.0400
61	35	3	1.0	0.0857	0.0400
Total	321	26	14.0	0.0810	0.0437

Averages at Retirement (years)

Age 58.3
Service 20.5

**GENERAL
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Male Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	4	0	0	0.0000	0.0001
25-29	237	0	0	0.0000	0.0001
30-34	1,384	0	0	0.0000	0.0001
35-39	2,899	0	1	0.0000	0.0003
40-44	5,001	5	5	0.0010	0.0009
45-49	6,924	13	8	0.0019	0.0012
50-54	7,990	25	26	0.0031	0.0033
55-59	5,806	24	34	0.0041	0.0059
60-64	2,257	18	26	0.0080	0.0117
65 & Over	690	1	3	0.0014	0.0045
Totals	33,192	86	103	0.0026	0.0031

Averages at Retirement (years)

Age 53.2
Service 22.6

Age	Life Years Exposure	Number of Female Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	1	0	0	0.0000	0.0001
25-29	476	0	0	0.0000	0.0001
30-34	2,246	0	1	0.0000	0.0004
35-39	4,330	1	2	0.0002	0.0005
40-44	7,589	8	6	0.0011	0.0008
45-49	10,565	15	12	0.0014	0.0011
50-54	11,476	27	22	0.0024	0.0019
55-59	8,911	32	32	0.0036	0.0036
60-64	4,357	20	20	0.0046	0.0045
65 & Over	1,555	1	6	0.0006	0.0036
Totals	51,506	104	101	0.0020	0.0020

Averages at Retirement (years)

Age 53.7
Service 18.5

The people shown on this page are cases involving \$40.63 disability benefits and includes those who were either active or inactive with pending benefits at the beginning of the year. The LTDI plan is described in a separate report.

**PUBLIC SCHOOLS
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Male Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0001
25-29	119	0	0	0.0000	0.0001
30-34	1,718	0	0	0.0000	0.0001
35-39	2,334	0	0	0.0000	0.0001
40-44	2,311	1	1	0.0004	0.0003
45-49	2,911	2	2	0.0007	0.0006
50-54	4,654	9	11	0.0019	0.0023
55-59	3,707	13	11	0.0035	0.0030
60-64	687	2	4	0.0029	0.0054
65 & Over	128	0	1	0.0000	0.0076
Totals	18,569	27	30	0.0015	0.0016

Averages at Retirement (years)

Age 53.3
Service 20.9

Age	Life Years Exposure	Number of Female Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	1	0	0	0.0000	0.0001
25-29	379	0	0	0.0000	0.0001
30-34	4,277	0	1	0.0000	0.0001
35-39	5,590	0	1	0.0000	0.0001
40-44	5,542	7	2	0.0013	0.0004
45-49	6,979	5	9	0.0007	0.0013
50-54	10,449	28	19	0.0027	0.0018
55-59	6,960	23	19	0.0033	0.0028
60-64	1,623	1	6	0.0006	0.0038
65 & Over	326	1	1	0.0031	0.0022
Totals	42,126	65	58	0.0015	0.0014

Averages at Retirement (years)

Age 52.2
Service 20.3

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**UNIVERSITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Male Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0001
25-29	18	0	0	0.0000	0.0001
30-34	171	0	0	0.0000	0.0001
35-39	397	0	0	0.0000	0.0001
40-44	698	0	0	0.0000	0.0001
45-49	1,102	0	0	0.0000	0.0004
50-54	1,328	0	1	0.0000	0.0006
55-59	1,284	3	3	0.0023	0.0020
60-64	815	2	2	0.0025	0.0019
65 & Over	343	0	1	0.0000	0.0024
Totals	6,156	5	7	0.0008	0.0011

Averages at Retirement (years)

Age 57.3
Service 17.0

Age	Life Years Exposure	Number of Female Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0001
25-29	19	0	0	0.0000	0.0001
30-34	232	0	0	0.0000	0.0001
35-39	455	0	0	0.0000	0.0005
40-44	740	0	0	0.0000	0.0007
45-49	969	0	1	0.0000	0.0005
50-54	1,152	4	1	0.0035	0.0013
55-59	938	4	2	0.0043	0.0017
60-64	394	0	1	0.0000	0.0027
65 & Over	109	0	0	0.0000	0.0018
Totals	5,008	8	5	0.0016	0.0010

Averages at Retirement (years)

Age 52.3
Service 23.7

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**PROTECTIVE WITH SOCIAL SECURITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	5	0	0	0.0000	0.0001
25-29	469	0	0	0.0000	0.0001
30-34	2,244	0	0	0.0000	0.0002
35-39	2,548	1	1	0.0004	0.0004
40-44	2,409	1	1	0.0004	0.0005
45-49	2,493	3	3	0.0012	0.0012
50-54	1,750	4	8	0.0023	0.0043
55-59	624	0	9	0.0000	0.0137
60-64	131	0	0	0.0000	0.0020
65 & Over	21	0	0	0.0000	0.0020
Totals	12,694	9	22	0.0007	0.0017

Averages at Retirement (years)

Age	51.0
Service	24.5

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**PROTECTIVE WITHOUT SOCIAL SECURITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0004
25-29	48	0	0	0.0000	0.0004
30-34	296	1	0	0.0034	0.0005
35-39	385	0	0	0.0000	0.0006
40-44	487	0	1	0.0000	0.0015
45-49	473	0	1	0.0000	0.0021
50-54	384	4	3	0.0104	0.0079
55-59	71	0	0	0.0000	0.0055
60-64	7	0	0	0.0000	0.0000
65 & Over	0	0	0	0.0000	0.0000
Totals	2,151	5	5	0.0023	0.0023

Averages at Retirement (years)

Age	50.7
Service	21.3

The people shown on this page are cases involving \$40.63 disability benefits and includes those who were either active or inactive with pending benefits at the beginning of the year. LTDI plan cases are described in a separate report.

**EXECUTIVE AND ELECTED
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2003**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0001
25-29	1	0	0	0.0000	0.0001
30-34	10	0	0	0.0000	0.0001
35-39	30	0	0	0.0000	0.0001
40-44	94	0	0	0.0000	0.0002
45-49	151	0	0	0.0000	0.0003
50-54	234	0	0	0.0000	0.0006
55-59	258	0	1	0.0000	0.0024
60-64	141	0	0	0.0000	0.0021
65 & Over	140	0	0	0.0000	0.0018
Totals	1,059	0	1	0.0000	0.0009

Averages at Retirement (years)

Age N/A
Service N/A

The people shown on this page are cases involving \$40.63 disability benefits and includes those who were either active or inactive with pending benefits at the beginning of the year. LTDI plan cases are described in a separate report.

**ACTIVE PARTICIPANTS WHO DIED DURING CALENDAR YEAR 2003
WITH DEATH-IN-SERVICE BENEFIT PAYABLE
VALUATION GROUPS COMBINED**

Age	Life Years Exposure	Pre - Retirement Death		Pre - Retirement Death Rates	
		Actual	Expected	Actual	Expected
Under 50	63,212	37	47.0	0.0006	0.0007
50- 54	18,399	36	34.0	0.0020	0.0019
55- 59	13,253	37	38.0	0.0028	0.0029
60- 64	4,872	25	22.0	0.0051	0.0046
65- 69	1,441	8	12.0	0.0056	0.0082
70 & Over	799	7	12.0	0.0088	0.0152
Totals	101,976	150	165.0	0.0015	0.0016

Averages at Death (years)

Age 54.0
Service 15.1

Age	Life Years Exposure	Pre - Retirement Death		Pre - Retirement Death Rates	
		Actual	Expected	Actual	Expected
Under 50	101,625	57	42.0	0.0006	0.0004
50- 54	29,131	32	24.0	0.0011	0.0008
55- 59	20,095	28	26.0	0.0014	0.0013
60- 64	7,875	10	18.0	0.0013	0.0022
65- 69	2,090	4	8.0	0.0019	0.0038
70 & Over	853	4	6.0	0.0047	0.0074
Totals	161,669	135	124.0	0.0008	0.0008

Averages at Death (years)

Age 51.1
Service 13.0

**GENERAL MALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Male Withdrawals		Withdrawal Rates	
		Actual Experience	Expected Experience	Actual	Expected
0-1	4,221	809	760	0.1917	0.1800
1-2	3,935	397	394	0.1009	0.1000
2-3	3,487	247	279	0.0708	0.0800
3-4	2,817	158	169	0.0561	0.0600
4-5	2,556	112	128	0.0438	0.0500
Totals	17,016	1,723	1,730	0.1013	0.1017

Averages at Separation

Age 39.1

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Male Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	247	12	12	0.0486	0.0500
30-34	1,404	39	49	0.0278	0.0350
35-39	2,938	78	68	0.0265	0.0230
40-44	5,045	90	91	0.0178	0.0180
45-49	6,978	115	98	0.0165	0.0140
50-54	8,038	114	104	0.0142	0.0130
55 & Over	6,338	103	82	0.0163	0.0130
Totals	30,988	551	504	0.0178	0.0163

Averages at Separation

Age 46.1
Service 11.9

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**GENERAL FEMALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Female Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	11,556	2,006	2,080	0.1736	0.1800
1-2	9,394	985	1,033	0.1049	0.1100
2-3	7,667	641	690	0.0836	0.0900
3-4	6,152	377	431	0.0613	0.0700
4-5	5,273	301	316	0.0571	0.0600
Totals	40,042	4,310	4,550	0.1076	0.1136

Averages at Separation

Age 39.1

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Female Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	494	33	27	0.0668	0.0550
30-34	2,300	107	104	0.0465	0.0450
35-39	4,415	171	132	0.0387	0.0300
40-44	7,679	184	192	0.0240	0.0250
45-49	10,686	249	214	0.0233	0.0200
50-54	11,578	221	232	0.0191	0.0200
55 & Over	12,332	236	247	0.0191	0.0200
Totals	49,484	1,201	1,148	0.0243	0.0232

Averages at Separation

Age 45.8
Service 10.4

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**PUBLIC SCHOOL MALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	1,502	186	165	0.1238	0.1100
1-2	1,494	130	105	0.0870	0.0700
2-3	1,278	72	64	0.0563	0.0500
3-4	1,181	53	53	0.0449	0.0450
4-5	1,098	44	38	0.0401	0.0350
Totals	6,553	485	425	0.0740	0.0649

Averages at Separation

Age 40.0

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	121	3	4	0.0248	0.0350
30-34	1,728	20	29	0.0116	0.0170
35-39	2,353	37	31	0.0157	0.0130
40-44	2,325	30	28	0.0129	0.0120
45-49	2,929	36	26	0.0123	0.0090
50-54	4,680	57	42	0.0122	0.0090
55 & Over	2,301	31	21	0.0135	0.0090
Totals	16,437	214	181	0.0130	0.0110

Averages at Separation

Age 45.3
Service 12.9

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**PUBLIC SCHOOL FEMALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	3,999	427	400	0.1068	0.1000
1-2	3,860	325	309	0.0842	0.0800
2-3	3,821	266	229	0.0696	0.0600
3-4	3,237	152	175	0.0470	0.0540
4-5	3,112	145	137	0.0466	0.0440
Totals	18,029	1,315	1,250	0.0729	0.0693

Averages at Separation

Age 37.8

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	388	16	16	0.0412	0.0400
30-34	4,356	158	135	0.0363	0.0310
35-39	5,661	141	102	0.0249	0.0180
40-44	5,584	87	73	0.0156	0.0130
45-49	7,020	87	84	0.0124	0.0120
50-54	10,505	124	126	0.0118	0.0120
55 & Over	6,444	77	77	0.0119	0.0120
Totals	39,958	690	613	0.0173	0.0153

Averages at Separation

Age 42.5
Service 10.8

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**UNIVERSITY MALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	745	141	134	0.1893	0.1800
1-2	879	107	114	0.1217	0.1300
2-3	757	76	76	0.1004	0.1000
3-4	617	56	56	0.0908	0.0900
4-5	482	36	34	0.0747	0.0700
Totals	3,480	416	414	0.1195	0.1190

Averages at Separation

Age 40.6

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	19	1	1	0.0526	0.0700
30-34	175	8	11	0.0457	0.0650
35-39	408	22	24	0.0539	0.0600
40-44	708	20	28	0.0282	0.0400
45-49	1,115	26	28	0.0233	0.0250
50-54	1,335	13	20	0.0097	0.0150
55 & Over	1,588	13	24	0.0082	0.0150
Totals	5,348	103	136	0.0193	0.0254

Averages at Separation

Age 43.8
Service 9.3

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**UNIVERSITY FEMALES
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	872	160	157	0.1835	0.1800
1-2	928	137	139	0.1476	0.1500
2-3	797	111	104	0.1393	0.1300
3-4	655	79	66	0.1206	0.1000
4-5	537	42	48	0.0782	0.0900
Totals	3,789	529	514	0.1396	0.1357

Averages at Separation

Age 37.2

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	20	1	2	0.0500	0.0900
30-34	243	21	17	0.0864	0.0700
35-39	467	24	26	0.0514	0.0550
40-44	758	35	32	0.0462	0.0420
45-49	983	28	28	0.0285	0.0280
50-54	1,164	27	28	0.0232	0.0240
55 & Over	1,188	8	29	0.0067	0.0240
Totals	4,823	144	162	0.0299	0.0336

Averages at Separation

Age 43.0

Service 8.5

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**PROTECTIVE WITH SOCIAL SECURITY
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	965	101	106	0.1047	0.1100
1-2	1,405	85	84	0.0605	0.0600
2-3	1,287	62	45	0.0482	0.0350
3-4	993	37	32	0.0373	0.0320
4-5	1,143	33	37	0.0289	0.0320
Totals	5,793	318	304	0.0549	0.0525

Averages at Separation

Age 33.5

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	480	11	8	0.0229	0.0160
30-34	2,264	39	32	0.0172	0.0140
35-39	2,574	51	33	0.0198	0.0130
40-44	2,426	34	29	0.0140	0.0120
45-49	2,503	19	28	0.0076	0.0110
50-54	1,762	25	11	0.0142	0.0060
Totals	12,785	179	141	0.0140	0.0110

Averages at Separation

Age 40.5

Service 11.5

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**PROTECTIVE WITHOUT SOCIAL SECURITY
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	61	1	3	0.0164	0.0500
1-2	100	1	3	0.0100	0.0250
2-3	138	3	3	0.0217	0.0220
3-4	130	0	3	0.0000	0.0200
4-5	137	3	2	0.0219	0.0170
Totals	566	8	14	0.0141	0.0247

Averages at Separation

Age 34.7

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	48	0	0	0.0000	0.0100
30-34	297	2	2	0.0067	0.0080
35-39	387	3	3	0.0078	0.0080
40-44	488	2	4	0.0041	0.0080
45-49	476	5	3	0.0105	0.0070
50-54	384	3	3	0.0078	0.0070
Totals	2,158	15	15	0.0070	0.0070

Averages at Separation

Age 44.3

Service 13.9

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**EXECUTIVE AND ELECTED
WITHDRAWALS
DURING CALENDAR YEAR 2003**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	160	16	14	0.1000	0.0900
1-2	101	9	9	0.0891	0.0850
2-3	93	9	7	0.0968	0.0800
3-4	55	5	4	0.0909	0.0700
4-5	72	7	4	0.0972	0.0500
Totals	481	46	38	0.0956	0.0790

Averages at Separation

Age 51.4

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	1	0	0	0.0000	0.0500
30-34	11	2	0	0.1818	0.0450
35-39	33	5	1	0.1515	0.0400
40-44	99	10	3	0.1010	0.0300
45-49	156	10	3	0.0641	0.0200
50-54	242	15	5	0.0620	0.0200
55 & Over	404	8	8	0.0198	0.0200
Totals	946	50	20	0.0529	0.0211

Averages at Separation

Age 48.1

Service 13.7

The above are people who were active at the beginning of 2003, who were inactive at the end of 2003, did not take a separation benefit, and who did qualify for retirement with a monthly benefit beginning at a later age. Some people who show up on this schedule will likely withdraw their contributions sometime during the following year and forfeit entitlement to a deferred benefit.

**ACTIVE PARTICIPANTS
INCLUDED IN VALUATIONS**

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
PROTECTIVE PARTICIPANTS WITH SOCIAL SECURITY
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	534	2	0	194	3	0	733
25- 29	1,536	354	0	557	115	0	2,562
30- 34	977	1,735	0	247	509	0	3,468
35- 39	476	2,116	0	155	432	0	3,179
40- 44	288	1,989	0	115	420	0	2,812
45- 49	216	2,145	2	64	346	0	2,773
50	25	348	6	8	56	0	443
51	27	357	15	13	48	0	460
52	27	277	33	7	40	1	385
53	23	246	27	4	33	1	334
54	19	184	37	6	39	1	286
55	18	132	29	3	28	1	211
56	21	123	32	4	21	2	203
57	10	73	27	3	34	1	148
58	7	46	11	2	12	1	79
59	14	29	10	0	10	2	65
60	4	29	6	0	7	1	47
61	9	21	4	1	8	1	44
62	4	15	7	0	5	0	31
63	2	12	4	1	5	0	24
64	0	4	2	1	0	0	7
65	1	8	0	1	2	0	12
66	2	2	1	0	1	0	6
67	1	3	0	0	2	0	6
68	1	0	0	0	0	0	1
69	0	1	0	0	0	0	1
70 & Over	4	1	0	0	0	0	5
Totals	4,246	10,252	253	1,386	2,176	12	18,325

Years of Service	Men	Women	Total
0	677	237	914
1	1,017	345	1,362
2	947	309	1,256
3	747	227	974
4	858	268	1,126
5 & Over	10,505	2,188	12,693

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
PROTECTIVE PARTICIPANTS WITHOUT SOCIAL SECURITY
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	37	0	0	3	0	0	40
25- 29	214	44	0	11	4	0	273
30- 34	178	281	0	10	15	0	484
35- 39	70	363	0	5	22	0	460
40- 44	20	469	0	1	18	0	508
45- 49	6	458	0	0	15	0	479
50	0	110	2	0	1	0	113
51	0	86	2	0	1	0	89
52	1	79	3	0	3	0	86
53	2	53	7	0	0	0	62
54	0	26	8	0	1	0	35
55	0	20	9	0	1	0	30
56	1	17	7	0	0	0	25
57	0	5	4	0	0	0	9
58	1	2	3	0	0	0	6
59	0	1	2	0	0	0	3
60	0	1	0	0	0	0	1
61	0	3	0	0	0	0	3
62	0	0	0	0	0	0	0
63	0	0	2	0	0	0	2
64	0	0	1	0	0	0	1
65	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0
Totals	530	2,018	50	30	81	0	2,709

Years of Service	Men	Women	Total
0	54	6	60
1	93	6	99
2	130	6	136
3	127	3	130
4	126	9	135
5 & Over	2,068	81	2,149
TOTALS	2,598	111	2,709

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
EXECUTIVE AND ELECTED OFFICIALS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	1	0	0	0	0	0	1
25- 29	2	0	0	2	1	0	5
30- 34	14	3	0	4	7	0	28
35- 39	17	16	0	9	14	0	56
40- 44	35	58	0	13	36	0	142
45- 49	43	81	0	19	69	1	213
50	6	14	0	4	12	2	38
51	11	32	0	8	18	2	71
52	6	27	0	6	25	0	64
53	21	33	0	2	19	1	76
54	11	29	0	6	17	3	66
55	11	34	3	7	20	2	77
56	17	35	5	5	17	2	81
57	8	25	7	4	17	3	64
58	6	26	4	4	11	1	52
59	7	28	1	5	17	0	58
60	11	18	2	9	14	1	55
61	8	18	3	2	15	0	46
62	8	11	3	2	10	1	35
63	7	7	2	3	9	0	28
64	4	14	2	7	8	3	38
65	4	13	2	1	10	1	31
66	7	7	1	0	4	0	19
67	5	6	1	1	3	0	16
68	6	4	1	4	1	1	17
69	10	5	0	0	3	0	18
70 & Over	34	24	4	9	9	1	81
Totals	320	568	41	136	386	25	1,476

Years of Service	Men	Women	Total
0	118	34	152
1	61	35	96
2	62	26	88
3	34	18	52
4	45	23	68
5 & Over	609	411	1,020

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
UNIVERSITY PARTICIPANTS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	49	0	0	124	0	0	173
25- 29	340	18	0	596	19	0	973
30- 34	653	171	0	642	232	0	1,698
35- 39	700	397	0	681	455	0	2,233
40- 44	573	698	0	513	740	0	2,524
45- 49	410	1,102	0	396	969	0	2,877
50	44	269	0	70	221	0	604
51	56	264	0	66	229	2	617
52	49	277	1	64	272	2	665
53	41	272	5	63	214	6	601
54	55	229	11	53	189	15	552
55	47	237	15	42	225	16	582
56	40	274	34	37	191	23	599
57	37	234	26	30	164	19	510
58	27	185	45	36	167	12	472
59	23	181	52	19	104	17	396
60	28	150	69	27	82	11	367
61	19	108	79	15	91	17	329
62	11	90	75	9	67	14	266
63	18	70	74	9	53	13	237
64	13	52	47	12	40	6	170
65	9	43	49	5	21	6	133
66	8	25	36	3	16	4	92
67	2	15	33	4	12	4	70
68	4	13	22	1	11	1	52
69	3	17	12	2	7	2	43
70 & Over	12	24	54	4	11	14	119
Totals	3,271	5,415	739	3,523	4,802	204	17,954

Years of Service	Men	Women	Total
0	674	792	1,466
1	825	859	1,684
2	719	741	1,460
3	589	615	1,204
4	464	516	980
5 & Over	6,154	5,006	11,160

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
PUBLIC SCHOOL PARTICIPANTS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	179	0	0	664	1	0	844
25- 29	2,161	119	0	6,238	379	0	8,897
30- 34	1,376	1,718	0	3,084	4,277	0	10,455
35- 39	722	2,334	0	1,863	5,590	0	10,509
40- 44	537	2,310	0	1,758	5,540	0	10,145
45- 49	471	2,911	0	1,625	6,976	0	11,983
50	75	693	0	284	1,810	0	2,862
51	87	792	1	255	2,053	1	3,189
52	87	1,009	8	260	2,214	19	3,597
53	68	856	158	209	1,976	234	3,501
54	79	778	356	203	1,673	463	3,552
55	69	639	497	165	1,527	636	3,533
56	69	507	488	157	1,346	544	3,111
57	48	376	426	110	950	346	2,256
58	55	217	234	96	660	202	1,464
59	32	155	166	78	575	169	1,175
60	36	143	117	60	469	103	928
61	35	111	88	56	373	59	722
62	31	76	52	36	236	54	485
63	17	37	23	29	156	41	303
64	10	24	16	33	113	18	214
65	12	37	15	19	100	28	211
66	9	13	7	12	52	14	107
67	7	10	5	16	30	11	79
68	4	7	4	16	17	8	56
69	4	7	2	15	12	2	42
70 & Over	30	15	6	29	38	14	132
Totals	6,310	15,894	2,669	17,370	39,143	2,966	84,352

Years of Service	Men	Women	Total
0	1,409	3,785	5,194
1	1,429	3,697	5,126
2	1,242	3,688	4,930
3	1,154	3,161	4,315
4	1,076	3,039	4,115
5 & Over	18,563	42,109	60,672
TOTALS	24,873	59,479	84,352

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2002
GENERAL (NON-TEACHER) PARTICIPANTS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date						Total
	Men			Women			
	0-4	5-29	30 Plus	0-4	5-29	30 Plus	
Under 20	0	0	0	0	0	0	0
20- 24	1,161	4	0	2,610	1	0	3,776
25- 29	2,235	237	0	4,313	476	0	7,261
30- 34	2,253	1,384	0	4,254	2,246	0	10,137
35- 39	2,104	2,899	0	5,149	4,329	0	14,481
40- 44	2,287	5,000	0	6,984	7,587	0	21,858
45- 49	1,980	6,917	3	6,288	10,555	6	25,749
50	339	1,473	9	1,011	2,253	25	5,110
51	353	1,613	45	903	2,221	85	5,220
52	316	1,596	84	852	2,241	140	5,229
53	305	1,437	150	729	2,073	145	4,839
54	247	1,376	198	645	2,092	192	4,750
55	274	1,275	345	593	2,092	223	4,802
56	250	1,135	330	548	1,926	189	4,378
57	245	867	301	481	1,587	173	3,654
58	156	638	192	350	1,293	108	2,737
59	201	555	164	303	1,222	90	2,535
60	175	533	153	284	1,155	91	2,391
61	150	463	102	294	1,040	61	2,110
62	120	346	89	215	795	47	1,612
63	108	261	49	192	625	31	1,266
64	86	213	44	118	479	27	967
65	88	163	25	111	387	23	797
66	86	98	13	91	264	10	562
67	90	76	9	111	174	7	467
68	80	56	10	81	149	7	383
69	67	46	4	74	107	6	304
70 & Over	397	183	7	301	399	22	1,309
Totals	16,153	30,844	2,326	37,885	49,768	1,708	138,684

Years of Service	Men	Women	Total
0	3,816	10,553	14,369
1	3,736	8,901	12,637
2	3,363	7,346	10,709
3	2,738	5,963	8,701

APPENDIX

Actuarial Methods

ACTUARIAL VALUATION METHOD

The actuarial funding method prescribed in the statute for WRS is the **Frozen Initial Liability Method**. Under this method, the amount of remaining unfunded accrued actuarial liabilities at any valuation date is affected only by the monthly amortization payments, compound interest, the added liability created by new employer units, and any added liabilities caused by changes in benefit provisions.

Actuarial gains or losses arising from the difference between actual and assumed experience are reflected in the determination of the normal cost. In this manner, experience gains or losses in any year are amortized (spread) over the average future working lifetime of the active participant group - a period of approximately 13 years. Hence, the computed normal cost is made up of two parts:

- The pure entry-age normal cost (EANC) determined without regard to past gains or losses, and
- an experience amortization component.

Section 40.04(1) of the Wisconsin Statutes provides authority to maintain accounts and reserves determined to be “useful in achieving the funds’ purposes - - -”. A fundamental WRS objective is stable contribution rates. Accordingly, based on the authority granted under Section 40.04, the experience portion of the normal cost is separately calculated each year and the amortization period is varied upward or downward in order to minimize short-term rate fluctuations.

WISCONSIN RETIREMENT SYSTEM ASSET VALUATION METHOD

An essential step in the valuation process is comparing valuation assets with computed liabilities. Computed liabilities result from actuarial calculations involving the covered population, the benefits, and actuarial assumptions. Valuation assets are those assets that are recognized and available to fund the System's liabilities. WRS assets are invested in the Fixed Investment Trust, and in the Variable Investment Trust, both of which are managed by the State of Wisconsin Investment Board (SWIB). Assets in the Variable Investment Trust are marked to market each year. Assets in the Fixed Investment Trust (most of the assets) are valued (or recognized) using an "asset valuation method."

Asset valuation methods are distinguished by the timing of the recognition of investment return. Total investment return is the sum of ordinary income and capital value changes. Under a book value approach, ordinary income is recognized immediately and capital gains (or losses) are recognized only when securities are sold. Book value investment return is directly affected by the timing of sales activity and underlying experience may be distorted. Under a pure market value approach, ordinary investment income and all capital value changes are recognized immediately. Because of market volatility, use of pure market values in retirement funding can result in volatile contribution rates and unstable financial ratios, contrary to WRS objectives.

The asset valuation method used for WRS valuations is statutory, and is referred to as the "Market Recognition Account" or MRA. Act 11 of 1999 closed the former Transaction Amortization Account (TAA) and created the Market Recognition Account. The MRA recognizes assumed return fully each year. Differences between actual and assumed return are phased in over a closed 5-year period. Through 2004, the amount recognized will include an additional gain of \$1.9 billion per year related to the close out of the TAA. The objective is to give recognition to long-term changes in asset values while the minimizing effect of short-term fluctuations in the capital markets. In accordance with its smoothing objective, the MRA will tend to exceed the market value when the markets are doing poorly, and will fall short of the market value when markets are doing well. Some retirement systems set limits on the amount by which the recognized value of assets can differ from the market value.

The development of the Market Recognition Account is shown on the following page. The Fixed Investment Trust includes assets for other programs, such as Sick Leave, that are not related to the funding of the Wisconsin Retirement System, and does not include assets related to the Variable Investment Trust. Consequently, the asset value developed on the next page will not balance to the total system assets. ETF Staff maintains the breakdown of the separate asset accounts.

Wisconsin Retirement System

Market Recognition Account (Fixed Trust Fund)

	For the Year Ended December 31						
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Beginning of year							
a. Funding Value	\$49,874,777,351	\$52,808,943,798	\$54,333,668,260	\$58,885,095,550	\$58,543,410,514	\$57,044,435,211	\$56,612,575,771
b. Market value	54,503,938,418	52,012,351,144	46,389,194,485	57,945,143,011	57,945,143,011	57,945,143,011	57,945,143,011
End of year							
c. Market value	52,012,351,144	46,388,922,709	57,945,143,011	57,945,143,011	57,945,143,011	57,945,143,011	57,945,143,011
d. Non-investment cash flow (contributions minus benefits)	(1,101,913,600)	(986,559,051)	630,496,826				
e. Investment income							
e1. Total Investment Income	(1,389,673,675)	(4,636,869,385)	10,925,451,701				
e2. Assumed rate	8.0%	8.0%	7.8%				
e3. Amount for immediate recognition	3,945,905,644	4,185,253,142	4,262,615,501	-	-	-	-
e4. Amount for phased-in recognition: e1-e3	(5,335,579,319)	(8,822,122,527)	6,662,836,200	-	-	-	-
f. Phased-in recognition of investment income							
f1. Current year: 2 x e4	(1,067,115,864)	(1,764,424,505)	1,332,567,240	-	-	-	-
f2. First prior year	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,332,567,240	-	-	-
f3. Second prior year	-	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,332,567,240	-	-
f4. Third prior year	-	-	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,332,567,240	-
f5. Fourth prior year	-	-	-	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,332,567,240
f6. Total MRA recognition	(1,891,856,586)	(3,656,281,091)	(2,323,716,025)	(2,323,716,025)	(1,498,975,303)	(431,859,440)	1,332,567,240
f7. Amount for TAA recognition	<u>1,982,030,989</u>	<u>1,982,030,989</u>	<u>1,982,030,989</u>	<u>1,982,030,989</u>	<u>-</u>	<u>-</u>	<u>-</u>
f8. Total recognized gain (loss)	90,174,403	(1,674,250,102)	(341,685,036)	(341,685,036)	(1,498,975,303)	(431,859,440)	1,332,567,240
g. Total Recognized Investment Income: e3 + f8	4,036,080,047	2,511,003,040	3,920,930,464	(341,685,036)	(1,498,975,303)	(431,859,440)	1,332,567,240
h. Funding value end of year: a + d + e3 + f8	52,808,943,798	54,333,387,787	58,885,095,550	58,543,410,514	57,044,435,211	56,612,575,771	57,945,143,011
i. Difference between market and funding values	(796,592,654)	(7,944,465,079)	(939,952,539)	(598,267,503)	900,707,801	1,332,567,240	-
j. Recognized Rate of Return	8.2%	4.8%	7.2%				
k. Market Rate of Return	(2.6)%	(9.3)%	21.1%				

DEVELOPMENT OF EAR AS OF DECEMBER 31, 2003

	General	Executive & Elected Officials	Protective Occupation		Total
			With Soc. Sec	Without Soc. Sec.	
\$ Millions					
1. Present Value of Future Benefits for non-retired	\$39,584.0	\$351.8	\$4,043.2	\$979.1	\$44,958.1
2. Present Value of Future Entry Age Normal Costs	11,344.0	96.1	1,626.9	321.4	13,388.4
3. Entry Age Accrued Liability: (1)-(2)	28,240.0	255.7	2,416.3	657.7	31,569.7
4. Non-Retired Assets-WRS	29,864.4	272.7	2,721.1	783.6	33,641.8
-LTDI	196.4	1.2	21.4	4.7	223.7
-Total	30,060.8	273.9	2,742.5	788.3	33,865.5
5. Entry Age Unfunded Accrued Liability:(3)-(4)	(1,820.8)	(18.2)	(326.2)	(130.6)	(2,295.8)
6. WRS Frozen Unfunded Accrued Liability	466.2	1.4	16.8	14.8	499.2
7. EAR:(6)-(5)	\$2,287.0	\$19.6	\$343.0	\$145.4	\$2,795.0

ACTUAL VS. EXPECTED CHANGES IN EXPERIENCE AMORTIZATION RESERVE (EAR) - CALENDAR YEAR 2003
(\$ MILLIONS)

	Year Ended December 31, 2003				
	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
(1) Entry Age UAAL at start of year	\$ (1,316.5)	\$ (14.2)	\$ (351.9)	\$ (124.3)	\$ (1,806.9)
(2) Normal cost from last valuation (Total)	1,131.8	11.7	139.0	32.3	1,314.8
(3) Actual contributions	2,091.2	20.7	142.6	37.0	2,291.5
(4) Interest	(140.1)	(1.5)	(27.6)	(9.9)	(179.1)
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	(2,416.0)	(24.7)	(383.1)	(138.9)	(2,962.7)
(6) Change from experience study	318.0	(1.8)	63.6	14.6	394.3
(7) Other changes	0.0	0.0	0.0	0.0	0.0
(8) Expected UAAL after changes: (5) + (6) + (7)	(2,098.0)	(26.5)	(319.5)	(124.3)	(2,568.4)
(9) Actual Entry Age UAAL at end of year	(1,820.8)	(18.2)	(326.2)	(130.6)	(2,295.8)
(10) Gain (loss): (8) - (9)	\$ (277.2)	\$ (8.3)	\$ 6.7	\$ 6.3	\$ (272.6)

The gain loss analysis is intended to explain the financial effect of differences between actual and assumed experience in basic risk areas: Investment Income, Pay increases, retirement rates, turnover rates, etc. In order for the gain loss analysis to proceed, the change in the Entry Age Unfunded Actuarial Accrued Liabilities from one year to the next is analyzed to remove the effect of expected changes.

The table above develops this year's gain or loss (line 10) which is added to the Experience Amortization Reserve (EAR). When the EAR increases "unexpectedly," this is favorable experience and downward pressure is exerted on contribution rates. Similarly, an unexpected decrease in the EAR is unfavorable experience and upward pressure is exerted on contribution rates. In addition to the gain or (loss) described in line 10, non-recurring changes in lines 6 and 7 also may affect contribution rates.

By measuring gains and losses each year and, to the extent possible, determining the "responsible" assumptions, insight is gained into how well the actuarial assumptions estimate WRS liabilities. Such information aids in understanding financial effects of emerging trends and is particularly useful during preparation of the WRS experience study.

August 31, 2004

Ms. Julie Reneau, Director
Retirement and Survivor Benefits
Wisconsin Department of Employee Trust Funds
801 West Badger Road
Madison, Wisconsin 53713

Re: 2003 Gain Loss Analysis

Dear Julie:

Enclosed are 75 bound copies of this report.

Sincerely,

Brian Murphy

BBM/tcb/lr
Enclosures