



WISCONSIN RETIREMENT SYSTEM
GAIN/LOSS ANALYSIS OF EXPERIENCE
AMONG ACTIVE MEMBERS
DURING CALENDAR YEAR 2004

GABRIEL, ROEDER, SMITH & COMPANY
ACTUARIES & CONSULTANTS



TABLE OF CONTENTS

Pages	Material
	<i>Introduction</i>
2	Cover Letter
3	Purpose of Gain/Loss Analysis
4	Population Development
5-6	Comments
7-11	Gains and Losses During 2004
	<i>Economic Assumption Experience</i>
12	Gain(Loss) from Investment Income
13-14	Salary Increase Experience
	<i>Decrement Assumption Experience</i>
15-24	Retirement Experience
25-30	Disability Experience
31	Mortality Experience
32-40	Withdrawal Experience
	<i>Active Participants</i>
41-46	Active Participants in Valuations 12/31/2003
	<i>Appendix</i>
47-51	Actuarial Methods



GABRIEL, ROEDER, SMITH & COMPANY
Consultants & Actuaries

One Towne Square ● Suite 800 ● Southfield, Michigan 48076 ● 248-799-9000 ● 800-521-0498 ● fax 248-799-9020

August 26, 2005

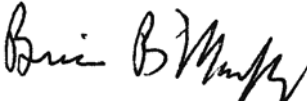
The Employee Trust Funds Board
Wisconsin Retirement System
801 West Badger Road
Madison, Wisconsin 53713

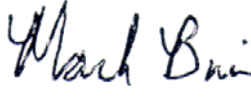
Ladies and Gentlemen:

The results of the *Gain/Loss Analysis of Experience Among Active Participants* of the Wisconsin Retirement System, *covering the calendar year 2004 are presented in this report.* (The results of the December 31, 2004 regular annual actuarial valuation of active members were submitted in our report dated May 26, 2005.)

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, 2004 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.

POPULATION DEVELOPMENT DURING CALENDAR YEAR 2004

	General	Executive & Elected	Protective		Total	Expected
			With S.S.	Without S.S.		
Beginning Census	239,696	1,468	18,660	2,714	262,538	
(-) Normal Retirement	2,055	23	231	41	2,350	2,950
(-) Early Retirement	3,104	8	80	9	3,201	3,511
(-) Death	234	2	14	3	253	295
(-) Disability Retirement						
-Total Disabilities approved	245	0	11	6	262	339
-Less Pending at Beginning of Year	99	0	5	1	105	
-Net new from active status	146	0	6	5	157	
(-) Other Separations	11,868	70	486	35	12,459	11,630
(-) Transfers Out	868	15	68	3	954	
(+) Transfers In	739	37	166	12	954	
(+) New Entrants	16,783	82	1,023	79	17,967	
Ending Census	238,943	1,469	18,964	2,709	262,085	

This schedule reconciles the active member populations reported in connection with the 2003 and 2004 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 all groups, overall producing a small gain.

Early Retirements varied by group and gender. Overall, there were 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 slightly less than expected, overall producing a small loss.

Disabilities were less than expected and produced a small 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 year's 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 probably very close to the number expected.

Other Separations varied by group, gender, and service. Other separations among short (under 5 years) service participants produced a loss. Separations among longer service participants produced a gain. The gain from long service separations was not sufficient to offset the loss from short service separations, and a small 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 gain in 2004.

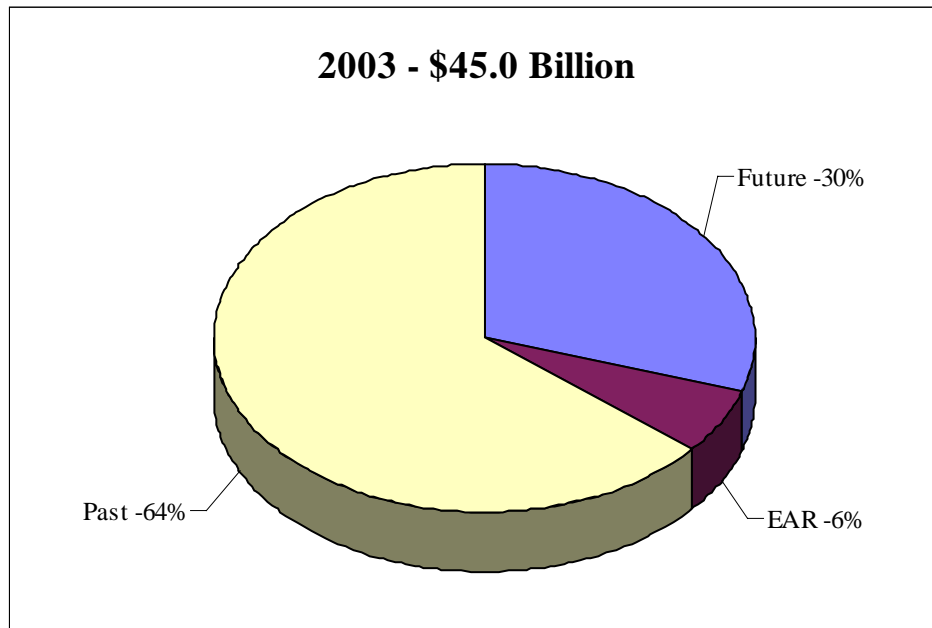
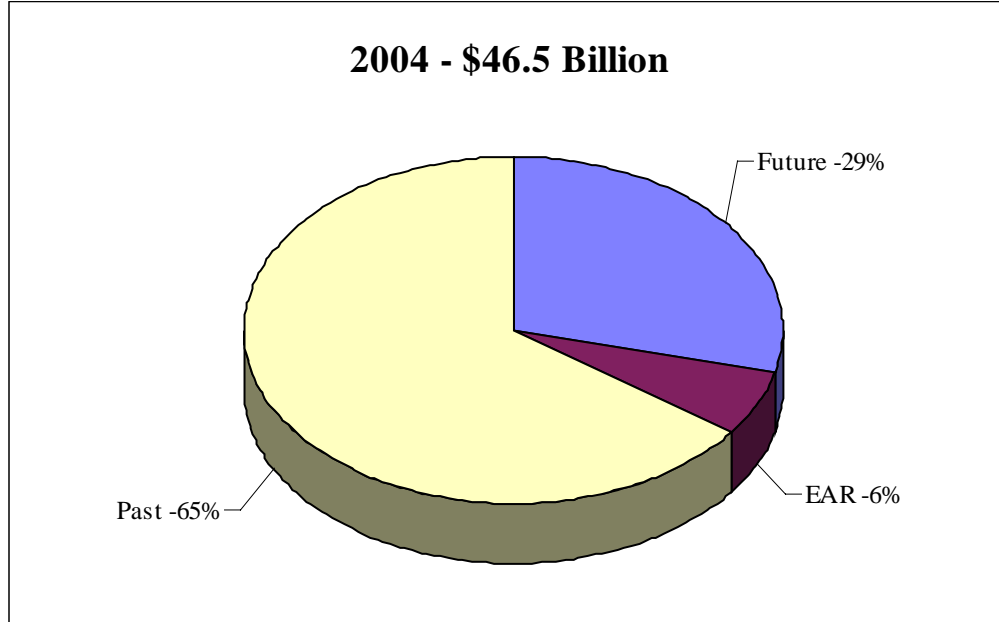
Investment Return activity produced a small gain for most groups. However, the investment gain of \$136 million was partially absorbed by \$86 million in the combined value of variable excess benefits and money purchase benefits, resulting in a net gain of \$50 million.

Pay Increases varied among groups but were, generally less than expected, producing a gain.

Contribution Rate Changes. In total, the plan experienced a net loss of 7.9 million, very small in relative terms, which would have little, if any, effect on contribution rates. However, the total normal cost contribution for the general group increased from 10.2% to 10.4% of payroll (page I-1 of the December 31, 2004 actuarial valuation report for active lives). The reasons for this increase are two-fold. First, due to the rounding procedures used in allocating the contribution rate changes (changes in normal cost are rounded to the nearest 0.2%), there was a 0.1% unallocated increase from the prior year. The other 0.1% increase was due to a decrease in the credit for the Experience Amortization Reserve (EAR). For example, due to prior year gains, there is currently a credit in the EAR account for the General group which is amortized over a period of years and is used as an offset to the contribution rate. As of December 31, 2003, the amortization of the EAR offset 21% of the normal cost that was otherwise payable. By December 31, 2004, the remaining unamortized EAR offset only 20% of the normal cost that was otherwise payable.

This Gain/Loss Analysis is the second 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
2004 EXPERIENCE
DIVISIONS COMBINED**



ACTUARIAL GAINS & LOSSES DURING CALENDAR YEAR 2004
(\$ MILLIONS)

Type of Activity	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Decrement Risk Areas					
Normal Retirement	\$ 4.5	\$(0.7)	\$ 0.9	\$ 1.4	\$ 6.1
Early Retirement	(5.5)	0.1	(0.4)	0.2	(5.6)
Death with Benefit	(0.7)	0.0	(0.2)	0.0	(0.9)
Disability Retirement	13.4	0.1	1.1	0.6	15.2
Other Separations	(9.6)	0.5	(0.4)	(0.2)	(9.7)
Economic Risk Areas					
Salary Increases	116.6	2.2	22.8	6.2	147.8
Investment Return	41.6	(0.6)	6.5	2.3	49.8
Other Activity (See Page 10)	(190.2)	(4.5)	(12.7)	(3.2)	(210.6)
Total Gain(Loss)	\$ (29.9)	\$(2.9)	\$17.6	\$ 7.3	(7.9)
-% of accrued liability	(0.1)%	(1.1)%	0.7%	1.1%	(0.0)%

ANALYSIS OF OTHER ACTIVITY
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Expected Reserve Transfers					
Normal Retirement	\$ 871	\$10	\$ 99	\$28	\$ 1,008
Early Retirement	920	1	35	6	962
Death	28	0	3	1	32
Disability Retirement	41	0	2	2	45
Deferred Retirement	256	5	16	6	283
Expected Total Reserve Transfers	2,116	16	155	43	2,330
Actual Reserve Transfer (From Retiree Report)	2,257	23	172	45	2,497
Reserve Difference	(141)	(7)	(17)	(2)	(167)
Expected Refunds	47	0	3	0	50
Actual Refunds	23	0	2	1	26
Refund Difference	24	0	1	(1)	24
Re-established liability	(56)	(1)	(4)	(1)	(62)
Total Explained Difference	(173)	(8)	(20)	(4)	(205)
Unknown Difference	(17)	3	7	1	(6)
Total Other Activity	\$(190)	\$(5)	\$(13)	\$ (3)	\$ (211)

This schedule 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							
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)
2004	(1.0)	13.4	(10.3)	116.6	41.6	(190.2)	(29.9)
EXECUTIVE & ELECTED							
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)
2004	(0.6)	0.1	0.5	2.2	(0.6)	(4.5)	(2.9)
PROTECTIVE WITH SOCIAL SECURITY							
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
2004	0.5	1.1	(0.6)	22.8	6.5	(12.7)	17.6
PROTECTIVE WITHOUT SOCIAL SECURITY							
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
2004	1.6	0.6	(0.2)	6.2	2.3	(3.2)	7.3

*Includes separation due to death.

ECONOMIC ASSUMPTION EXPERIENCE



GAIN (LOSS) FROM INVESTMENT INCOME DURING CALENDAR YEAR 2004
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With SS	Without SS	
(1) Beginning of Year Active Participant Assets					
(a) Participant Accumulation Reserve	\$12,977.7	\$116.4	\$ 955.2	\$314.5	\$14,363.8
(b) PAR Closing Adjustment	0.0	0.0	0.0	0.0	0.0
(c) Employer Accumulation Reserve	16,886.7	156.3	1,766.0	469.1	19,278.1
(d) EAR Closing Adjustment	2.3	(0.1)	2.9	(0.2)	4.9
(e) Total	29,866.7	272.6	2,724.1	783.4	33,646.8
(2) End of Year Active Participant Assets					
(a) Participant Accumulation Reserve	13,466.7	115.4	1,002.6	326.4	14,911.1
(b) Employer Accumulation Reserve	17,589.7	165.5	1,879.9	501.3	20,136.4
(c) Total	31,056.4	280.9	2,882.5	827.7	35,047.5
(3) Investment Earnings Credited					
(a) Participant Accumulation Reserve	1,052.3	9.1	78.7	26.1	1,166.2
(b) Employer Accumulation Reserve	1,351.9	12.2	141.4	37.4	1,542.9
(c) Total	2,404.2	21.3	220.1	63.5	2,709.1
(4) Average Balance: $.5 \times \{(1e)+(2c)-(3c)\}$	29,259.5	266.1	2,693.3	773.8	32,992.7
(5) Expected Earnings: $.078 \times (4)$	2,282.2	20.8	210.1	60.4	2,573.5
(6) Gain (Loss) for year from investment experience: $(3c)-(5)$	122.0	0.5	10.0	3.1	135.6
(7) Portion applied to Change in Variable Excess Reserve and Money Purchase Minimum Benefit	80.4	1.1	3.5	0.8	85.8
(8) Remaining Gain (Loss): (6)-(7)	\$ 41.6	\$ (0.6)	\$ 6.5	\$ 2.3	\$ 49.8

**SALARY INCREASES DURING CALENDAR YEAR 2004
TO PARTICIPANTS ACTIVE BOTH AT BEGINNING & END OF YEAR**

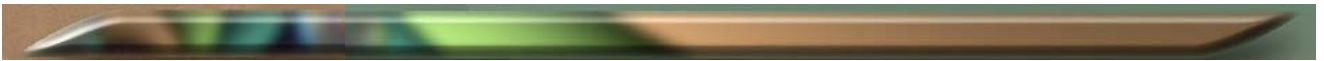
Service Beginning of Year	Percent Salary Increases						Service Beginning of Year
	Teachers				Other General		
	University	Expected	Public School	Expected	Actual	Expected	
0-4	3.8 %	8.5 %	8.1 %	9.9 %	6.0 %	7.6 %	0-4
5-9	3.6 %	8.2 %	6.3 %	7.6 %	4.5 %	6.1 %	5-9
10-14	2.5 %	7.0 %	5.4 %	6.1 %	3.8 %	5.5 %	10-14
15-19	1.8 %	6.4 %	4.0 %	5.3 %	3.5 %	5.3 %	15-19
20-24	1.6 %	6.2 %	3.4 %	4.9 %	3.4 %	5.1 %	20-24
25-29	1.2 %	6.1 %	3.0 %	4.5 %	2.9 %	4.9 %	25-29
30-34	1.4 %	5.7 %	2.8 %	4.2 %	2.7 %	4.7 %	30-34
35-39	0.0 %	4.8 %	2.2 %	4.2 %	2.5 %	4.5 %	35-39
40 & Over	0.2 %	4.7 %	3.1 %	4.2 %	3.1 %	4.5 %	40 & Over
Average	1.3 %		3.1 %		3.1 %		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 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 3.3% in 2004. The average inflation rate over the 25 year period 1979-2004 was 3.9%. Similarly, during that period national average earnings rose an average of 4.6% a year.

**SALARY INCREASES DURING CALENDAR YEAR 2004
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	8.1 %	9.8 %	8.1 %	8.6 %	5.0 %	5.3 %	0-4
5-9	4.5 %	4.4 %	6.9 %	7.1 %	2.5 %	5.2 %	5-9
10-14	4.2 %	4.0 %	6.1 %	6.1 %	2.7 %	5.2 %	10-14
15-19	3.6 %	3.7 %	5.6 %	4.6 %	3.9 %	5.1 %	15-19
20-24	3.5 %	3.6 %	5.1 %	4.6 %	2.6 %	5.0 %	20-24
25-29	4.0 %	4.1 %	5.1 %	4.6 %	3.3 %	4.8 %	25-29
30-34	3.5 %	3.4 %	5.1 %	4.6 %	5.4 %	4.6 %	30-34
35-39	0.1 %	(0.3)%	4.6 %	4.6 %	1.1 %	4.5 %	35-39
40 & Over	3.2 %	0.0 %	4.6 %	4.6 %	0.0 %	4.1 %	40 & Over
Average	4.8 %	4.8 %			3.4 %		Average

DECREMENT ASSUMPTION EXPERIENCE



**GENERAL
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	348	75	97	0.2155	0.2800
58	274	60	77	0.2190	0.2800
59	177	35	50	0.1977	0.2800
60	164	36	46	0.2195	0.2800
61	142	27	43	0.1901	0.3000
62	96	22	38	0.2292	0.4000
63	70	31	28	0.4429	0.4000
64	41	6	14	0.1463	0.3500
65	239	54	84	0.2259	0.3500
66	143	39	50	0.2727	0.3500
67	89	15	13	0.1685	0.1500
68	71	10	11	0.1408	0.1500
69	91	13	14	0.1429	0.1500
70 & Up	224	30	34	0.1339	0.1500
Total	2,169	453	599	0.2089	0.2762

Averages at Retirement (years)

Age 62.3
Service 28.1

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	218	41	59	0.1881	0.2700
58	184	42	50	0.2283	0.2700
59	105	21	26	0.2000	0.2500
60	99	22	25	0.2222	0.2500
61	91	26	23	0.2857	0.2500
62	58	12	17	0.2069	0.3000
63	53	23	19	0.4340	0.3500
64	33	11	12	0.3333	0.3500
65	477	109	143	0.2285	0.3000
66	334	98	100	0.2934	0.3000
67	203	34	41	0.1675	0.2000
68	150	21	23	0.1400	0.1500
69	187	17	28	0.0909	0.1500
70 & Up	472	69	71	0.1462	0.1500
Total	2,664	546	637	0.2050	0.2391

Averages at Retirement (years)

Age 64.6
Service 23.2

**GENERAL
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	1,633	115	131	0.0704	0.0800
56	1,532	101	123	0.0659	0.0800
57	1,018	35	41	0.0344	0.0400
58	807	37	48	0.0458	0.0600
59	595	28	36	0.0471	0.0600
60	532	42	43	0.0789	0.0800
61	489	25	39	0.0511	0.0800
62	427	67	85	0.1569	0.2000
63	287	40	57	0.1394	0.2000
64	225	36	34	0.1600	0.1500
Total	7,545	526	637	0.0697	0.0845

Averages at Retirement (years)

Age 58.5
Service 23.1

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	2,359	127	142	0.0538	0.0600
56	2,250	109	135	0.0484	0.0600
57	1,809	67	90	0.0370	0.0500
58	1,518	82	76	0.0540	0.0500
59	1,243	71	62	0.0571	0.0500
60	1,178	83	94	0.0705	0.0800
61	1,086	78	87	0.0718	0.0800
62	986	136	177	0.1379	0.1800
63	699	103	126	0.1474	0.1800
64	541	66	76	0.1220	0.1400
Total	13,669	922	1,065	0.0675	0.0780

Averages at Retirement (years)

Age 59.4
Service 19.4

**PUBLIC SCHOOL
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	455	141	114	0.3099	0.2500
58	317	108	79	0.3407	0.2500
59	173	46	43	0.2659	0.2500
60	135	37	41	0.2741	0.3000
61	83	11	29	0.1325	0.3500
62	81	26	49	0.3210	0.6000
63	40	12	20	0.3000	0.5000
64	14	1	7	0.0714	0.5000
65	37	8	26	0.2162	0.7000
66	41	11	29	0.2683	0.7000
67	12	2	6	0.1667	0.5000
68	14	3	7	0.2143	0.5000
69	10	4	5	0.4000	0.5000
70 & Up	29	5	15	0.1724	0.5000
Total	1,441	415	470	0.2880	0.3262

Averages at Retirement (years)

Age 59.2
Service 32.5

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	497	132	149	0.2656	0.3000
58	278	87	83	0.3129	0.3000
59	161	43	48	0.2671	0.3000
60	154	38	46	0.2468	0.3000
61	75	21	26	0.2800	0.3500
62	59	16	24	0.2712	0.4000
63	38	11	13	0.2895	0.3500
64	35	3	9	0.0857	0.2500
65	117	30	35	0.2564	0.3000
66	87	24	22	0.2759	0.2500
67	52	5	13	0.0962	0.2500
68	31	7	6	0.2258	0.2000
69	24	6	5	0.2500	0.2000
70 & Up	51	7	10	0.1373	0.2000
Total	1,659	430	489	0.2592	0.2948

Averages at Retirement (years)

Age 60.0
Service 30.9

**PUBLIC SCHOOL
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Males Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	1,236	216	185	0.1748	0.1500
56	965	152	145	0.1575	0.1500
57	419	29	63	0.0692	0.1500
58	317	22	48	0.0694	0.1500
59	181	16	18	0.0884	0.1000
60	137	13	21	0.0949	0.1500
61	127	16	19	0.1260	0.1500
62	85	13	21	0.1529	0.2500
63	72	16	18	0.2222	0.2500
64	28	6	4	0.2143	0.1500
Total	3,567	499	542	0.1399	0.1520

Averages at Retirement (years)

Age 56.6
Service 27.1

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	2,276	254	250	0.1116	0.1100
56	2,039	236	224	0.1157	0.1100
57	1,225	97	135	0.0792	0.1100
58	869	83	104	0.0955	0.1200
59	585	65	70	0.1111	0.1200
60	529	63	79	0.1191	0.1500
61	407	53	61	0.1302	0.1500
62	338	74	85	0.2189	0.2500
63	183	33	37	0.1803	0.2000
64	137	24	21	0.1752	0.1500
Total	8,588	982	1066	0.1143	0.1242

Averages at Retirement (years)

Age 57.6
Service 23.6

**UNIVERSITY
NORMAL AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	43	10	11	0.2326	0.2500
58	43	8	9	0.1860	0.2000
59	51	9	10	0.1765	0.2000
60	46	5	9	0.1087	0.2000
61	81	17	16	0.2099	0.2000
62	81	15	16	0.1852	0.2000
63	73	11	15	0.1507	0.2000
64	71	7	14	0.0986	0.2000
65	109	27	22	0.2477	0.2000
66	82	17	16	0.2073	0.2000
67	47	8	9	0.1702	0.2000
68	46	8	9	0.1739	0.2000
69	31	5	6	0.1613	0.2000
70 & Up	93	12	19	0.1290	0.2000
Total	897	159	181	0.1773	0.2018

Averages at Retirement (years)

Age 63.8
Service 30.6

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	30	9	6	0.3000	0.2000
58	21	2	4	0.0952	0.2000
59	14	2	3	0.1429	0.2000
60	23	3	5	0.1304	0.2000
61	15	3	3	0.2000	0.2000
62	15	4	4	0.2667	0.2500
63	11	0	3	0.0000	0.3000
64	14	3	4	0.2143	0.3000
65	38	4	10	0.1053	0.2500
66	29	7	7	0.2414	0.2500
67	16	4	4	0.2500	0.2500
68	15	3	3	0.2000	0.2000
69	11	2	2	0.1818	0.2000
70 & Up	33	6	7	0.1818	0.2000
Total	285	52	65	0.1825	0.2281

Averages at Retirement (years)

Age 63.7
Service 25.9

**UNIVERSITY
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Male Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	254	12	13	0.0472	0.0500
56	252	16	13	0.0635	0.0500
57	257	6	10	0.0233	0.0400
58	221	3	9	0.0136	0.0400
59	174	7	9	0.0402	0.0500
60	171	8	9	0.0468	0.0500
61	136	5	7	0.0368	0.0500
62	95	5	10	0.0526	0.1000
63	85	7	9	0.0824	0.1000
64	62	5	6	0.0806	0.1000
Total	1,707	74	95	0.0434	0.0557

Averages at Retirement (years)

Age 58.7
Service 19.4

Age	Life Years Exposure	Female Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	219	16	11	0.0731	0.0500
56	241	19	12	0.0788	0.0500
57	180	5	9	0.0278	0.0500
58	163	6	8	0.0368	0.0500
59	155	6	16	0.0387	0.1000
60	98	8	10	0.0816	0.1000
61	81	7	8	0.0864	0.1000
62	90	17	9	0.1889	0.1000
63	52	5	5	0.0962	0.1000
64	50	12	5	0.2400	0.1000
Total	1,329	101	93	0.0760	0.0699

Averages at Retirement (years)

Age 59.2
Service 19.8

**PROTECTIVE WITH SOCIAL SECURITY
NORMAL AND REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Protective With Social Security Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
50	523	22	31	0.0421	0.0600
51	400	23	28	0.0575	0.0700
52	418	30	29	0.0718	0.0700
53	78	63	30	0.8077	0.3800
54	314	36	63	0.1146	0.2000
55	257	38	51	0.1479	0.2000
56	194	26	49	0.1340	0.2500
57	181	14	36	0.0773	0.2000
58	142	17	28	0.1197	0.2000
59	77	13	15	0.1688	0.2000
60	55	5	11	0.0909	0.2000
61	44	7	9	0.1591	0.2000
62	40	5	8	0.1250	0.2000
63	30	6	9	0.2000	0.3000
64	21	3	4	0.1429	0.2000
65	5	0	2	0.0000	0.3000
66	6	1	2	0.1667	0.2500
67	1	0	0	0.0000	0.2500
68	5	2	1	0.4000	0.2500
69	1	0	0	0.0000	0.2500
70 & Up	1	0	1	0.0000	1.0000
Total	2,793	311	407	0.1113	0.1457

Averages at Retirement (years)

Age 55.8
Service 25.9

**PROTECTIVE WITHOUT SOCIAL SECURITY
NORMAL AND REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Protective Without Social Security Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
50	96	3	2	0.0313	0.0200
51	104	2	2	0.0192	0.0200
52	86	3	8	0.0349	0.0900
53	14	9	5	0.6429	0.3800
54	59	13	21	0.2203	0.3600
55	31	7	11	0.2258	0.3600
56	21	4	8	0.1905	0.3600
57	21	6	8	0.2857	0.3600
58	7	1	3	0.1429	0.4000
59	4	0	1	0.0000	0.3000
60	1	0	0	0.0000	0.3000
61	2	0	1	0.0000	0.3000
62	2	0	0	0.0000	0.1500
63	0	0	0	0.0000	0.1500
64	3	1	0	0.3333	0.1500
65	2	1	1	0.5000	0.4000
66	0	0	0	0.0000	0.4000
67	0	0	0	0.0000	0.4000
68	0	0	0	0.0000	0.4000
69	0	0	0	0.0000	0.4000
70 & Up	0	0	0	0.0000	1.0000
Total	453	50	71	0.1104	0.1567

Averages at Retirement (years)

Age 55.1
Service 27.9

**EXECUTIVE AND ELECTED MEMBERS WHO BECAME NORMAL AGE &
SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Executive and Elected Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
57	7	0	1	0.0000	0.0800
58	7	1	1	0.1429	0.0800
59	7	0	1	0.0000	0.1200
60	4	0	1	0.0000	0.1400
61	5	0	2	0.0000	0.3500
62	41	3	4	0.0732	0.1000
63	31	3	3	0.0968	0.1000
64	27	1	3	0.0370	0.1000
65	23	1	2	0.0435	0.1000
66	20	2	4	0.1000	0.2000
67	8	1	2	0.1250	0.2000
68	7	0	1	0.0000	0.2000
69	8	2	2	0.2500	0.2000
70 & Up	44	9	4	0.2045	0.1000
Total	239	23	31	0.0962	0.1297

Averages at Retirement (years)

Age 67.7
Service 18.3

**EXECUTIVE AND ELECTED
REDUCED AGE & SERVICE
RETIRANTS DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Number of Retirements		Retirement Rates	
		Actual	Expected	Actual	Expected
55	52	0	3	0.0000	0.0500
56	61	4	3	0.0656	0.0500
57	43	0	2	0.0000	0.0400
58	35	0	1	0.0000	0.0400
59	36	1	1	0.0278	0.0400
60	39	1	2	0.0256	0.0400
61	32	2	1	0.0625	0.0400
Total	298	8	13	0.0268	0.0437

Averages at Retirement (years)

Age 58.1
Service 18.5

**GENERAL
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Number of Male Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	50	0	0	0.0000	0.0001
25-29	478	0	0	0.0000	0.0001
30-34	1,660	0	0	0.0000	0.0001
35-39	3,217	0	1	0.0000	0.0003
40-44	5,196	9	5	0.0017	0.0009
45-49	5,899	15	7	0.0025	0.0012
50-54	8,099	27	27	0.0033	0.0033
55-59	6,143	19	36	0.0031	0.0059
60-64	2,308	13	27	0.0056	0.0117
65 & Over	777	2	3	0.0026	0.0045
Totals	33,827	85	106	0.0025	0.0031

Averages at Retirement (years)

Age 52.5
Service 22.4

Age	Life Years Exposure	Number of Female Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	99	0	0	0.0000	0.0001
25-29	831	0	0	0.0000	0.0001
30-34	2,564	0	1	0.0000	0.0004
35-39	4,724	0	2	0.0000	0.0005
40-44	7,901	7	6	0.0009	0.0008
45-49	9,302	15	10	0.0016	0.0011
50-54	11,856	25	23	0.0021	0.0019
55-59	9,409	16	34	0.0017	0.0036
60-64	4,548	17	20	0.0037	0.0045
65 & Over	1,648	2	6	0.0012	0.0036
Totals	52,882	82	102	0.0016	0.0019

Averages at Retirement (years)

Age 53.8
Service 18.7

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 2004**

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	138	0	0	0.0000	0.0001
30-34	1,761	0	0	0.0000	0.0001
35-39	2,448	2	0	0.0008	0.0001
40-44	2,385	0	1	0.0000	0.0003
45-49	2,775	3	2	0.0011	0.0006
50-54	4,229	4	10	0.0009	0.0023
55-59	3,700	11	11	0.0030	0.0030
60-64	726	2	4	0.0028	0.0054
65 & Over	125	0	1	0.0000	0.0076
Totals	18,287	22	29	0.0012	0.0016

Averages at Retirement (years)

Age 57.2
Service 26.2

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	437	0	0	0.0000	0.0001
30-34	4,451	0	1	0.0000	0.0001
35-39	5,798	3	1	0.0005	0.0001
40-44	5,610	3	2	0.0005	0.0004
45-49	6,840	7	9	0.0010	0.0013
50-54	10,073	10	18	0.0010	0.0018
55-59	7,435	22	21	0.0030	0.0028
60-64	1,786	3	7	0.0017	0.0038
65 & Over	321	0	1	0.0000	0.0022
Totals	42,751	48	60	0.0011	0.0014

Averages at Retirement (years)

Age 52.6
Service 20.2

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.

**UNIVERSITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2004**

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	19	0	0	0.0000	0.0001
30-34	178	0	0	0.0000	0.0001
35-39	435	1	0	0.0023	0.0001
40-44	721	0	0	0.0000	0.0001
45-49	1,058	0	0	0.0000	0.0004
50-54	1,369	2	1	0.0015	0.0006
55-59	1,259	2	3	0.0016	0.0020
60-64	855	0	2	0.0000	0.0019
65 & Over	368	0	1	0.0000	0.0024
Totals	6,262	5	7	0.0008	0.0011

Averages at Retirement (years)

Age 57.0
Service 22.7

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	22	0	0	0.0000	0.0001
30-34	239	0	0	0.0000	0.0001
35-39	486	0	0	0.0000	0.0005
40-44	737	0	0	0.0000	0.0007
45-49	955	0	1	0.0000	0.0005
50-54	1,245	0	2	0.0000	0.0013
55-59	990	2	2	0.0020	0.0017
60-64	415	1	1	0.0024	0.0027
65 & Over	128	0	0	0.0000	0.0018
Totals	5,217	3	6	0.0006	0.0012

Averages at Retirement (years)

Age 55.0
Service 15.0

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.

**PROTECTIVE WITH SOCIAL SECURITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	3	0	0	0.0000	0.0001
25-29	569	0	0	0.0000	0.0001
30-34	2,309	0	0	0.0000	0.0002
35-39	2,751	2	1	0.0007	0.0004
40-44	2,507	2	1	0.0008	0.0005
45-49	2,504	2	3	0.0008	0.0012
50-54	1,913	0	8	0.0000	0.0043
55-59	707	3	10	0.0042	0.0137
60-64	141	2	0	0.0142	0.0020
65 & Over	17	0	0	0.0000	0.0020
Totals	13,421	11	23	0.0008	0.0017

Averages at Retirement (years)

Age 50.8
Service 23.4

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.

**PROTECTIVE WITHOUT SOCIAL SECURITY
DISABILITY RETIRANTS
DURING CALENDAR YEAR 2004**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0004
25-29	54	0	0	0.0000	0.0004
30-34	296	0	0	0.0000	0.0005
35-39	399	0	0	0.0000	0.0006
40-44	499	0	1	0.0000	0.0015
45-49	472	0	1	0.0000	0.0021
50-54	413	1	3	0.0024	0.0079
55-59	73	5	0	0.0685	0.0055
60-64	7	0	0	0.0000	0.0000
65 & Over	1	0	0	0.0000	0.0000
Totals	2,214	6	5	0.0027	0.0023

Averages at Retirement (years)

Age 51.0
Service 24.0

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 2004**

Age	Life Years Exposure	Number of Disabilities		Disability Rates	
		Actual	Expected	Actual	Expected
20-24	0	0	0	0.0000	0.0001
25-29	0	0	0	0.0000	0.0001
30-34	8	0	0	0.0000	0.0001
35-39	31	0	0	0.0000	0.0001
40-44	85	0	0	0.0000	0.0002
45-49	145	0	0	0.0000	0.0003
50-54	228	0	0	0.0000	0.0006
55-59	241	0	1	0.0000	0.0024
60-64	143	0	0	0.0000	0.0021
65 & Over	133	0	0	0.0000	0.0018
Totals	1,014	0	1	0.0000	0.0010

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 2004
WITH DEATH-IN-SERVICE BENEFIT PAYABLE
VALUATION GROUPS COMBINED**

MALE DEATH-IN-SERVICE EXPERIENCE

Age	Life Years Exposure	Pre - Retirement Death		Pre - Retirement Death Rates	
		Actual	Expected	Actual	Expected
Under 50	61,932	37	46	0.0006	0.0007
50- 54	18,215	36	34	0.0020	0.0019
55- 59	13,556	32	39	0.0024	0.0029
60- 64	5,056	10	23	0.0020	0.0046
65- 69	1,547	9	13	0.0058	0.0082
70 & Over	835	8	13	0.0096	0.0152
Totals	101,141	132	168	0.0013	0.0017

Averages at Death (years)

Age	53.4
Service	14.5

FEMALE DEATH-IN-SERVICE EXPERIENCE

Age	Life Years Exposure	Pre - Retirement Death		Pre - Retirement Death Rates	
		Actual	Expected	Actual	Expected
Under 50	99,903	34	42	0.0003	0.0004
50- 54	29,104	32	24	0.0011	0.0008
55- 59	21,239	27	27	0.0013	0.0013
60- 64	8,262	19	19	0.0023	0.0022
65- 69	2,200	4	8	0.0018	0.0038
70 & Over	881	5	7	0.0057	0.0074
Totals	161,589	121	127	0.0007	0.0008

Averages at Death (years)

Age	53.0
Service	13.4

**GENERAL MALES
WITHDRAWALS
DURING CALENDAR YEAR 2004**

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	3,838	761	691	0.1983	0.1800
1-2	3,202	389	320	0.1215	0.1000
2-3	3,333	258	267	0.0774	0.0800
3-4	3,105	189	186	0.0609	0.0600
4-5	2,559	137	128	0.0535	0.0500
Totals	16,037	1,734	1,592	0.1081	0.0993

Averages at Separation

Age 38.3

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Male Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	534	11	27	0.0206	0.0500
30-34	1,689	59	59	0.0349	0.0350
35-39	3,256	78	75	0.0240	0.0230
40-44	5,248	104	94	0.0198	0.0180
45-49	5,948	106	83	0.0178	0.0140
50-54	8,144	114	106	0.0140	0.0130
55 & Over	6,667	100	87	0.0150	0.0130
Totals	31,486	572	531	0.0182	0.0169

Averages at Saparation

Age 45.4
Service 11.4

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

WITHDRAWALS WITH LESS THAN 5 YEARS OF SERVICE

Years of Service	Life Years Exposure	Female Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
0-1	9,915	1,765	1,785	0.1780	0.1800
1-2	8,663	1,035	953	0.1195	0.1100
2-3	7,694	714	692	0.0928	0.0900
3-4	6,600	476	462	0.0721	0.0700
4-5	5,584	342	335	0.0612	0.0600
Totals	38,456	4,332	4,227	0.1126	0.1099

Averages at Separation

Age 38.4

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Female Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	950	35	52	0.0368	0.0550
30-34	2,616	104	118	0.0398	0.0450
35-39	4,792	136	144	0.0284	0.0300
40-44	8,009	217	200	0.0271	0.0250
45-49	9,430	266	189	0.0282	0.0200
50-54	11,970	243	239	0.0203	0.0200
55 & Over	12,861	289	257	0.0225	0.0200
Totals	50,628	1,290	1,199	0.0255	0.0237

Averages at Separation

Age 45.8
Service 10.4

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	1,319	189	145	0.1433	0.1100
1-2	1,246	102	87	0.0819	0.0700
2-3	1,317	69	66	0.0524	0.0500
3-4	1,191	61	54	0.0512	0.0450
4-5	1,144	49	40	0.0428	0.0350
Totals	6,217	470	392	0.0756	0.0631

Averages at Separation

Age 38.0

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	138	0	5	0.0000	0.0350
30-34	1,778	33	30	0.0186	0.0170
35-39	2,471	45	32	0.0182	0.0130
40-44	2,406	42	29	0.0175	0.0120
45-49	2,793	36	25	0.0129	0.0090
50-54	4,258	62	38	0.0146	0.0090
55 & Over	2,485	36	22	0.0145	0.0090
Totals	16,329	254	181	0.0156	0.0111

Averages at Separation

Age 44.6
Service 12.1

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	3,499	393	350	0.1123	0.1000
1-2	3,544	328	284	0.0926	0.0800
2-3	3,546	277	213	0.0781	0.0600
3-4	3,520	204	190	0.0580	0.0540
4-5	3,120	136	137	0.0436	0.0440
Totals	17,229	1,338	1,174	0.0777	0.0681

Averages at Separation

Age 36.5

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	448	22	18	0.0491	0.0400
30-34	4,532	161	140	0.0355	0.0310
35-39	5,856	119	105	0.0203	0.0180
40-44	5,650	82	73	0.0145	0.0130
45-49	6,879	81	83	0.0118	0.0120
50-54	10,134	128	122	0.0126	0.0120
55 & Over	6,982	89	84	0.0127	0.0120
Totals	40,481	682	625	0.0168	0.0154

Averages at Separation

Age 42.9
Service 10.4

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	739	138	133	0.1867	0.1800
1-2	677	88	88	0.1300	0.1300
2-3	765	73	77	0.0954	0.1000
3-4	667	52	60	0.0780	0.0900
4-5	560	45	39	0.0804	0.0700
Totals	3,408	396	397	0.1162	0.1165

Averages at Separation

Age 38.3

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	1	0.0500	0.0700
30-34	182	7	12	0.0385	0.0650
35-39	448	25	27	0.0558	0.0600
40-44	734	25	29	0.0341	0.0400
45-49	1,073	29	27	0.0270	0.0250
50-54	1,385	33	21	0.0238	0.0150
55 & Over	1,641	12	25	0.0073	0.0150
Totals	5,483	132	142	0.0241	0.0259

Averages at Separation

Age 44.9
Service 9.6

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	811	147	146	0.1813	0.1800
1-2	841	143	126	0.1700	0.1500
2-3	816	107	106	0.1311	0.1300
3-4	663	64	66	0.0965	0.1000
4-5	572	52	51	0.0909	0.0900
Totals	3,703	513	495	0.1385	0.1337

Averages at Separation

Age 36.3

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	23	1	2	0.0435	0.0900
30-34	249	19	17	0.0763	0.0700
35-39	502	31	28	0.0618	0.0550
40-44	754	33	32	0.0438	0.0420
45-49	970	29	27	0.0299	0.0280
50-54	1,259	28	30	0.0222	0.0240
55 & Over	1,245	14	30	0.0112	0.0240
Totals	5,002	155	166	0.0310	0.0332

Averages at Separation

Age 43.5
Service 8.5

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	851	106	94	0.1246	0.1100
1-2	1,005	54	60	0.0537	0.0600
2-3	1,332	66	47	0.0495	0.0350
3-4	1,254	46	40	0.0367	0.0320
4-5	952	30	30	0.0315	0.0320
Totals	5,394	302	271	0.0560	0.0502

Averages at Separation

Age 33.1

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	580	15	9	0.0259	0.0160
30-34	2,333	47	33	0.0201	0.0140
35-39	2,777	52	36	0.0187	0.0130
40-44	2,524	33	30	0.0131	0.0120
45-49	2,515	23	28	0.0091	0.0110
50-54	1,918	14	12	0.0073	0.0060
Totals	13,511	184	148	0.0136	0.0110

Averages at Separation

Age 39

Service 11

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	57	4	3	0.0702	0.0500
1-2	78	2	2	0.0256	0.0250
2-3	102	2	2	0.0196	0.0220
3-4	133	2	3	0.0150	0.0200
4-5	131	0	2	0.0000	0.0170
Totals	501	10	12	0.0200	0.0240

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	55	2	1	0.0364	0.0100
30-34	297	1	2	0.0034	0.0080
35-39	402	5	3	0.0124	0.0080
40-44	501	3	4	0.0060	0.0080
45-49	473	3	3	0.0063	0.0070
50-54	416	11	3	0.0264	0.0070
Totals	2,224	25	16	0.0112	0.0072

Averages at Separation

Age 44.8

Service 17.5

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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 2004**

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	187	20	17	0.1070	0.0900
1-2	135	18	11	0.1333	0.0850
2-3	86	10	7	0.1163	0.0800
3-4	74	5	5	0.0676	0.0700
4-5	47	1	2	0.0213	0.0500
Totals	529	54	42	0.1021	0.0794

Averages at Separation

Age 51.3

WITHDRAWALS WITH 5 OR MORE YEARS OF SERVICE

Age	Life Years Exposure	Number of Withdrawals		Withdrawal Rates	
		Actual	Expected	Actual	Expected
Under 30	0	0	0	0.0000	0.0500
30-34	8	1	0	0.1250	0.0450
35-39	32	2	1	0.0625	0.0400
40-44	86	1	3	0.0116	0.0300
45-49	147	4	3	0.0272	0.0200
50-54	231	5	5	0.0216	0.0200
55 & Over	386	3	8	0.0078	0.0200
Totals	890	16	20	0.0180	0.0225

Averages at Separation

Age 49.8

Service 12.7

The above are people who were active at the beginning of 2004, who were inactive at the end of 2004, 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, 2003
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	498	2	0	154	1	0	655
25- 29	1,378	420	0	521	149	0	2,468
30- 34	886	1,769	0	225	540	0	3,420
35- 39	462	2,263	0	146	488	0	3,359
40- 44	286	2,066	0	107	441	0	2,900
45- 49	217	2,113	2	73	387	1	2,793
50	26	444	10	5	58	0	543
51	26	314	21	5	52	1	419
52	25	329	22	7	51	1	435
53	26	256	43	9	38	3	375
54	26	195	38	2	34	1	296
55	17	138	38	6	38	1	238
56	16	109	24	4	26	2	181
57	20	106	23	5	19	1	174
58	11	64	24	3	30	1	133
59	7	39	9	1	13	1	70
60	12	22	8	0	8	2	52
61	5	23	4	0	7	1	40
62	8	19	2	1	7	0	37
63	4	15	3	0	5	0	27
64	3	11	2	1	2	0	19
65	0	4	1	1	0	0	6
66	1	3	0	0	2	0	6
67	1	0	0	0	1	0	2
68	2	2	1	0	1	0	6
69	0	1	0	0	0	0	1
70 & Over	4	1	0	0	0	0	5
Totals	3,967	10,728	275	1,276	2,398	16	18,660

Years of Service	Men	Women	Total
0	597	201	798
1	738	240	978
2	978	321	1,299
3	933	298	1,231
4	721	216	937
5 & Over	11,003	2,414	13,417

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2003
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	29	0	0	1	0	0	30
25- 29	188	49	0	9	6	0	252
30- 34	142	281	0	11	15	0	449
35- 39	74	380	0	5	22	0	481
40- 44	22	479	0	1	22	0	524
45- 49	7	457	0	0	14	0	478
50	1	88	0	0	2	0	91
51	2	102	3	0	1	0	108
52	0	77	6	0	1	0	84
53	1	73	5	0	2	0	81
54	1	47	7	0	0	0	55
55	0	19	7	0	0	0	26
56	0	16	2	0	0	0	18
57	1	12	7	0	0	0	20
58	0	4	2	0	0	0	6
59	1	2	1	0	0	0	4
60	0	1	0	0	0	0	1
61	0	1	0	0	0	0	1
62	0	2	0	0	0	0	2
63	0	0	0	0	0	0	0
64	0	0	2	0	0	0	2
65	0	0	1	0	0	0	1
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	469	2,090	43	27	85	0	2,714

Years of Service	Men	Women	Total
0	51	4	55
1	70	7	77
2	95	6	101
3	125	7	132
4	128	3	131
5 & Over	2,133	85	2,218
TOTALS	2,602	112	2,714

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2003
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	0	0	0	0	0	0	0
25- 29	2	0	0	3	0	0	5
30- 34	17	4	0	10	3	0	34
35- 39	24	15	0	11	16	0	66
40- 44	38	46	0	23	37	0	144
45- 49	52	73	0	23	71	0	219
50	8	22	0	4	17	2	53
51	5	16	0	5	13	2	41
52	9	34	0	10	17	2	72
53	6	23	1	8	26	1	65
54	18	32	0	5	15	3	73
55	10	28	1	5	18	4	66
56	14	28	9	6	20	1	78
57	18	28	3	5	15	2	71
58	9	19	3	3	15	3	52
59	6	24	4	6	9	2	51
60	8	26	2	7	14	0	57
61	10	20	2	7	10	1	50
62	7	16	2	0	14	0	39
63	8	11	1	2	6	1	29
64	6	6	3	3	6	0	24
65	3	11	2	7	7	1	31
66	3	8	3	0	9	0	23
67	6	5	1	0	1	0	13
68	4	5	1	1	0	0	11
69	6	4	0	4	1	1	16
70 & Over	38	26	3	8	8	2	85
Totals	335	530	41	166	368	28	1,468

Years of Service	Men	Women	Total
0	126	51	177
1	82	44	126
2	54	27	81
3	45	26	71
4	28	18	46
5 & Over	571	396	967

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2003
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	56	0	0	105	0	0	161
25- 29	322	19	0	548	22	0	911
30- 34	642	178	0	668	239	0	1,727
35- 39	681	435	0	661	486	0	2,263
40- 44	553	721	0	511	737	0	2,522
45- 49	398	1,058	0	381	955	0	2,792
50	62	260	0	61	261	0	644
51	45	274	0	63	231	0	613
52	56	263	1	57	244	4	625
53	45	278	6	64	271	9	673
54	38	278	8	55	211	14	604
55	49	236	12	51	191	20	559
56	38	224	20	41	213	18	554
57	34	254	38	28	177	25	556
58	26	219	39	26	160	20	490
59	26	170	46	35	152	13	442
60	24	167	43	18	94	21	367
61	25	133	72	19	77	13	339
62	19	92	73	13	81	13	291
63	10	81	67	8	49	11	226
64	16	59	67	8	44	12	206
65	8	50	45	9	31	5	148
66	6	29	44	4	16	9	108
67	8	20	23	3	11	3	68
68	3	13	29	3	11	2	61
69	5	13	15	1	9	1	44
70 & Over	14	37	50	4	18	12	135
Totals	3,209	5,561	698	3,445	4,991	225	18,129

Years of Service	Men	Women	Total
0	670	737	1,407
1	633	769	1,402
2	728	762	1,490
3	641	631	1,272
4	537	546	1,083
5 & Over	6,259	5,216	11,475

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2003
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	147	0	0	646	0	0	793
25- 29	2,121	138	0	6,027	437	0	8,723
30- 34	1,262	1,761	0	2,920	4,451	0	10,394
35- 39	672	2,448	0	1,709	5,796	0	10,625
40- 44	503	2,385	0	1,658	5,609	0	10,155
45- 49	403	2,775	0	1,508	6,837	1	11,524
50	90	695	0	252	1,679	0	2,716
51	67	691	1	252	1,838	1	2,850
52	76	792	6	230	2,056	19	3,179
53	77	867	159	218	2,009	252	3,582
54	68	721	295	169	1,803	413	3,469
55	66	660	468	173	1,578	571	3,516
56	62	508	381	132	1,335	586	3,004
57	65	404	384	124	1,176	431	2,584
58	49	306	263	101	827	234	1,780
59	54	173	150	91	552	139	1,159
60	29	130	116	72	497	135	979
61	26	119	77	46	380	64	712
62	34	78	68	50	301	51	582
63	26	64	34	31	166	32	353
64	13	25	13	24	125	33	233
65	11	21	12	28	87	15	174
66	11	27	8	16	57	18	137
67	11	8	3	12	40	9	83
68	3	8	4	16	20	7	58
69	3	4	4	14	15	6	46
70 & Over	31	16	10	40	34	13	144
Totals	5,980	15,824	2,456	16,559	39,705	3,030	83,554

Years of Service	Men	Women	Total
0	1,224	3,302	4,526
1	1,195	3,380	4,575
2	1,282	3,407	4,689
3	1,160	3,418	4,578
4	1,119	3,052	4,171
5 & Over	18,280	42,735	61,015
TOTALS	24,260	59,294	83,554

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2003
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	1,103	2	0	2,440	9	0	3,554
25- 29	2,153	290	0	4,271	550	0	7,264
30- 34	2,043	1,415	0	3,880	2,237	0	9,575
35- 39	1,931	2,883	0	4,672	4,200	0	13,686
40- 44	2,049	4,885	0	6,460	7,344	0	20,738
45- 49	1,844	6,747	5	6,129	10,658	24	25,407
50	316	1,577	31	1,024	2,322	47	5,317
51	312	1,457	44	912	2,277	84	5,086
52	326	1,582	85	805	2,272	131	5,201
53	301	1,551	146	775	2,255	191	5,219
54	264	1,396	220	653	2,070	208	4,811
55	221	1,286	303	613	2,046	263	4,732
56	255	1,149	357	536	1,990	239	4,526
57	227	1,035	320	487	1,825	202	4,096
58	215	827	260	428	1,529	176	3,435
59	137	594	162	321	1,218	95	2,527
60	186	515	148	295	1,151	89	2,384
61	159	488	136	257	1,063	83	2,186
62	143	416	90	257	967	53	1,926
63	103	279	57	178	672	44	1,333
64	98	209	39	157	525	28	1,056
65	70	194	34	103	420	26	847
66	84	115	16	94	284	19	612
67	72	75	9	77	188	6	427
68	86	62	6	88	137	5	384
69	79	50	8	75	119	7	338
70 & Over	391	202	11	302	414	26	1,346
Totals	15,168	31,281	2,487	36,289	50,742	2,046	138,013

Years of Service	Men	Women	Total
0	3,457	9,032	12,489
1	3,007	8,145	11,152
2	3,204	7,337	10,541
3	3,010	6,362	9,372

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>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Beginning of year							
a. Funding Value	\$52,808,943,798	\$54,333,668,260	\$57,721,206,317	\$62,070,194,150	\$61,103,834,379	\$61,204,590,472	\$63,069,773,244
b. Market value	52,012,351,144	46,389,194,485	56,816,468,425	63,593,585,115	63,593,585,115	63,593,585,115	63,593,585,115
End of year							
c. Market value	46,389,194,485	56,816,468,425	63,593,585,115	63,593,585,115	63,593,585,115	63,593,585,115	63,593,585,115
d. Non-investment cash flow (contributions minus benefits)	(986,287,275)	(498,177,761)	(331,276,955)				
e. Investment income							
e1. Total Investment Income	(4,636,869,385)	10,925,451,701	7,108,393,645				
e2. Assumed rate	8.0%	7.8%	7.8%				
e3. Amount for immediate recognition	4,185,264,013	4,218,597,192	4,489,334,291	-	-	-	-
e4. Amount for phased-in recognition: e1-e3	(8,822,133,398)	6,706,854,509	2,619,059,353	-	-	-	-
f. Phased-in recognition of investment income							
f1. Current year: .2 x e4	(1,764,426,680)	1,341,370,902	523,811,871	-	-	-	-
f2. First prior year	(1,067,115,864)	(1,764,426,680)	1,341,370,902	523,811,871	-	-	-
f3. Second prior year	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,341,370,902	523,811,871	-	-
f4. Third prior year	-	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,341,370,902	523,811,871	-
f5. Fourth prior year	-	-	(824,740,722)	(1,067,115,864)	(1,764,426,680)	1,341,370,902	523,811,871
f6. Total MRA recognition	(3,656,283,265)	(2,314,912,363)	(1,791,100,493)	(966,359,771)	100,756,093	1,865,182,772	523,811,871
f7. Amount for TAA recognition	1,982,030,989	1,982,030,989	1,982,030,989	-	-	-	-
f8. Total recognized gain (loss)	(1,674,252,276)	(332,881,375)	190,930,496	(966,359,771)	100,756,093	1,865,182,772	523,811,871
g. Total Recognized Investment Income: e3 + f8	2,511,011,736	3,885,715,817	4,680,264,787	(966,359,771)	100,756,093	1,865,182,772	523,811,871
h. Funding value end of year: a + d + e3 + f8	54,333,668,260	57,721,206,317	62,070,194,150	61,103,834,379	61,204,590,472	63,069,773,244	63,593,585,115
i. Difference between market and funding values	(7,944,473,776)	(904,737,892)	1,523,390,965	2,489,750,736	2,388,994,643	523,811,871	-
j. Recognized Rate of Return	4.8%	7.2%	8.1%				
k. Market Rate of Return	(9.3)%	21.1%	11.8%				

DEVELOPMENT OF EAR AS OF DECEMBER 31, 2004

	General	Executive & Elected Officials	Protective Occupation		Total
			With Soc. Sec	Without Soc. Sec.	
\$ Millions					
1. Present Value of Future Benefits for non-retired	\$40,907.0	\$363.7	\$4,250.7	\$1,018.3	\$46,539.7
2. Present Value of Future Entry Age Normal Costs	11,506.1	96.9	1,678.7	325.7	13,607.4
3. Entry Age Accrued Liability: (1)-(2)	29,400.9	266.8	2,572.0	692.6	32,932.3
4. Non-Retired Assets-WRS	31,056.4	280.9	2,882.5	827.7	35,047.5
-LTDI	186.0	1.2	24.2	6.5	217.9
-Total	31,242.4	282.1	2,906.7	834.2	35,265.4
5. Entry Age Unfunded Accrued Liability:(3)-(4)	(1,841.5)	(15.3)	(334.7)	(141.6)	(2,333.1)
6. WRS Frozen Unfunded Accrued Liability	363.3	1.0	12.7	10.7	387.7
7. EAR:(6)-(5)	\$2,204.8	\$16.3	\$347.4	\$152.3	\$2,720.8

ACTUAL VS. EXPECTED CHANGES IN EXPERIENCE AMORTIZATION RESERVE (EAR) - CALENDAR YEAR 2004
(\$ MILLIONS)

	Year Ended December 31, 2004				
	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
(1) Entry Age UAAL at start of year	\$ (1,820.8)	\$ (18.2)	\$ (326.2)	\$ (130.6)	\$ (2,295.8)
(2) Normal cost from last valuation (Total)	1,173.8	11.5	147.9	33.2	1,366.4
(3) Actual contributions	1,085.8	10.1	114.7	27.0	1,237.6
(4) Interest	(138.6)	(1.4)	(24.1)	(9.9)	(174.0)
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	(1,871.4)	(18.2)	(317.1)	(134.3)	(2,341.0)
(6) Change from experience study	0.0	0.0	0.0	0.0	0.0
(7) Other changes	0.0	0.0	0.0	0.0	0.0
(8) Expected UAAL after changes: (5) + (6) + (7)	(1,871.4)	(18.2)	(317.1)	(134.3)	(2,341.0)
(9) Actual Entry Age UAAL at end of year	(1,841.5)	(15.3)	(334.7)	(141.6)	(2,333.1)
(10) Gain (loss): (8) - (9)	\$ (29.9)	\$ (2.9)	\$ 17.6	\$ 7.3	\$ (7.9)

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.



GABRIEL, ROEDER, SMITH & COMPANY
Consultants & Actuaries

One Towne Square ● Suite 800 ● Southfield, Michigan 48076 ● 248-799-9000 ● 800-521-0498 ● fax 248-799-9020

September 6, 2005

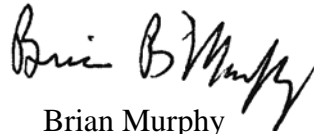
Mr. David Stella, Deputy Secretary
Wisconsin Department of Employee Trust Funds
801 West Badger Road
Madison, Wisconsin 53713

Re: 2004 Gain Loss Analysis

Dear Dave:

Enclosed are 40 bound copies of this report. The remaining 35 will follow under separate cover.

Sincerely,

A handwritten signature in black ink that reads "Brian B. Murphy". The signature is written in a cursive style and is positioned to the left of a vertical red line.

Brian Murphy

BBM/tcb/lr
Enclosures