

WISCONSIN RETIREMENT SYSTEM

**GAIN/LOSS ANALYSIS OF EXPERIENCE AMONG ACTIVE MEMBERS
DURING CALENDAR YEAR 2007**

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August 28, 2008

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

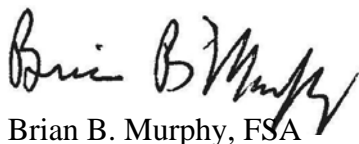
Ladies and Gentlemen:

The results of the *Gain/Loss Analysis of Experience Among Active Participants* of the Wisconsin Retirement System, *covering the calendar year 2007 are presented in this report.* (The results of the December 31, 2007 regular annual actuarial valuation of active members were submitted in our report dated June 11, 2008.)

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, 2007 annual actuarial valuation of active participants.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods. The actuaries submitting this statement are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Brian B. Murphy, FSA



Mark Buis, FSA

BBM/MB: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, 2003 to December 31, 2005). It is the results of the 3-year investigation that lead to recommendations for changes in the actuarial assumptions.

POPULATION DEVELOPMENT DURING CALENDAR YEAR 2007

	General	Executive & Elected	Protective		Total	Expected
			With S.S.	Without S.S.		
Beginning Census	236,877	1,436	19,297	2,692	260,302	
(-) Normal Retirement	2,819	49	243	51	3,162	3,561
(-) Early Retirement	3,468	29	73	9	3,579	3,805
(-) Death	298	4	21	1	324	281
(-) Disability Retirement						
-Total Disabilities approved	221	0	23	5	249	321
-Less Pending at Beginning of Year	51	0	1	1	53	
-Net new from active status	170	0	22	4	196	
(-) Other Separations	10,974	69	514	35	11,592	10,606
(-) Transfers Out	1,030	24	125	4	1,183	
(+) Transfers In	856	61	242	24	1,183	
(+) New Entrants	18,150	105	1,216	83	19,554	
Ending Census	237,124	1,427	19,757	2,695	261,003	

This schedule reconciles the active member populations reported in connection with the 2006 and 2007 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

Population Results (refer to schedules on Pages 4 and 9)

Normal Retirements varied by group and gender. Overall, there were fewer normal retirements than expected. In general, fewer normal 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 if the actual total counts might be equal to or less than expected. The net result for this past year was a small gain.

Early Retirements were less than expected in most groups, overall producing a small loss.

Deaths among active participants were higher than expected. The net result for the past year was a small loss. While a gain is typical in such circumstances, a loss can occur depending on the distribution of people who die and what they might have done otherwise. For example, if a young person quits, a benefit of one times accumulated employee required contributions is paid. If the same person dies, a value of twice the contributions is paid.

Disabilities were less than expected and produced a gain in most groups. This means that the reserves needed for the disability benefit were slightly smaller than the reserves that had been held for retirement benefits.

Other Separations varied by group, gender, and service. Other separations among short (under 10 years) service were higher than expected. Separations among longer service participants were slightly less than expected. The net result was an actuarial loss.

In total, the population risk areas (retirement, death, disability, and other separations) produced a small actuarial loss in 2007.

COMMENTS

Economic Results (refer to schedules on Pages 9 and 12)

Investment Return activity produced a gain for all groups. However, the investment gain of \$1.5 billion was partially absorbed by \$566.2 million gain in the combined value of variable excess benefits and money purchase benefits, resulting in a net gain of \$978 million.

Pay Increases were less than expected in most groups, producing a gain.

Other Analysis (refer to schedule on Page 10)

The schedule on page 10 analyzes gains or losses due to sources other than the demographic and economic areas. The **Reserve difference** produced a loss of about \$211 million. This typically means that the actual benefits calculated for new retirees were higher than those estimated by our valuation software. This is most often due to higher pay or service amounts used in the actual benefit calculation than the pay or service amounts estimated by our valuation data. For refunds, the opposite was true. Actual refunds were lower than the expected refunds producing a **Refund difference** gain of about \$16 million. **Re-established liability** represents the liability for new or rehired active members who were not active in the prior year. Typically, it is expected a new hire will have very little liability. However, often new members appear with more than one year of service or with liability greater than contributions made on their behalf. Although this amount is difficult to determine accurately due to the timing of contribution amounts, we estimate the Re-established liability loss at about \$49 million.

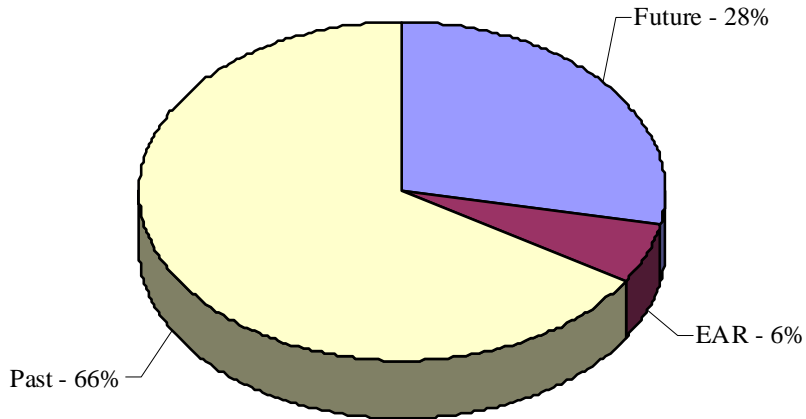
Contribution Rate Change

In total, the plan experienced a net gain of \$794.2 million. Gains were primarily attributable to favorable investment return. As a result, the total normal cost contribution decreased for most valuation groups.

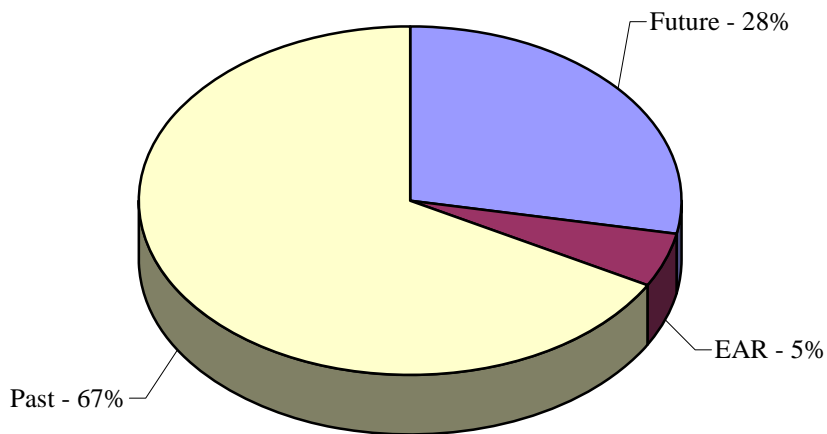
This Gain/Loss Analysis is the second in the normal three-year experience cycle. It will be part of the basis for the experience investigation covering the period January 1, 2006 to December 31, 2008.

FINANCING RETIREMENT SYSTEM BENEFIT LIABILITIES AT DECEMBER 31

2007 - \$51.5 Billion



2006 - \$49.4 Billion



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 G-4. 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
2007 EXPERIENCE
DIVISIONS COMBINED**



ACTUARIAL GAINS & LOSSES DURING CALENDAR YEAR 2007
(\$ MILLIONS)

Type of Activity	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Decrement Risk Areas					
Normal Retirement	\$ 1.8	\$(0.4)	\$ 2.6	\$0.9	\$ 4.9
Early Retirement	(8.3)	(0.4)	0.4	0.2	(8.1)
Death with Benefit	(3.0)	(0.1)	0.1	0.1	(2.9)
Disability Retirement	14.1	0.1	(0.7)	0.0	13.5
Other Separations	(24.3)	0.4	(3.9)	(0.6)	(28.4)
Economic Risk Areas					
Salary Increases	78.6	(0.2)	0.3	0.8	79.5
Investment Return	830.8	10.2	102.2	34.8	978.0
Other Activity (See Page 10)	(210.4)	(6.1)	(21.2)	(4.6)	(242.3)
Total Gain(Loss)	\$ 679.3	\$ 3.5	\$ 79.8	\$ 31.6	\$ 794.2
-% of accrued liability	2.1%	1.2%	2.5%	4.1%	2.1%

ANALYSIS OF OTHER ACTIVITY
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
Expected Reserve Transfers					
Normal Retirement	\$1,291	\$20	\$ 115	\$40	\$1,466
Early Retirement	1,051	7	35	6	1,099
Death	44	0	5	0	49
Disability Retirement	51	0	8	2	61
Deferred Retirement	273	7	19	6	305
Expected Total Reserve Transfers	2,710	34	182	54	2,980
Actual Reserve Transfer (From Retiree Report)	2,899	41	190	61	3,191
Reserve Difference	(189)	(7)	(8)	(7)	(211)
Expected Refunds	39	0	2	0	41
Actual Refunds	22	0	2	1	25
Refund Difference	17	0	0	(1)	16
Re-established liability	(45)	1	(4)	(1)	(49)
Total Explained Difference	(217)	(7)	(12)	(9)	(244)
Unknown Difference	7	1	(10)	4	2
Total Other Activity	\$ (210)	\$(6)	\$(21)	\$ (5)	\$ (242)

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							
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)
2005	(3.9)	15.8	(5.0)	231.8	(211.5)	(166.6)	(139.4)
2006	(8.5)	13.5	(14.8)	124.8	277.3	(192.0)	200.3
2007	(6.5)	14.1	(27.3)	78.6	830.8	(210.4)	679.3
EXECUTIVE & ELECTED							
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)
2005	0.4	0.1	0.7	3.5	(3.3)	(4.5)	(3.1)
2006	0.4	0.1	(0.6)	2.6	1.1	(5.0)	(1.4)
2007	(0.8)	0.1	0.3	(0.2)	10.2	(6.1)	3.5
PROTECTIVE WITH SOCIAL SECURITY							
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
2005	1.1	0.5	3.0	47.8	(33.6)	(13.4)	5.4
2006	(1.6)	0.5	(2.0)	(21.3)	51.0	(24.6)	2.0
2007	3.0	(0.7)	(3.8)	0.3	102.2	(21.2)	79.8
PROTECTIVE WITHOUT SOCIAL SECURITY							
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
2005	1.0	0.6	0.1	6.4	(9.9)	(2.7)	(4.5)
2006	(0.2)	0.7	(0.5)	3.6	14.6	(4.9)	13.3
2007	1.1	-	(0.5)	0.8	34.8	(4.6)	31.6

* Includes separation due to death.

GAIN (LOSS) FROM INVESTMENT INCOME DURING CALENDAR YEAR 2007
(\$ MILLIONS)

	General	Executive & Elected	Protective		Total
			With SS	Without SS	
(1) Beginning of Year Active Participant Assets					
(a) Participant Accumulation Reserve	\$14,212.8	\$114.8	\$1,088.7	\$328.8	\$15,745.1
(b) PAR Closing Adjustment	(44.8)	(1.5)	55.9	(5.4)	4.2
(c) Employer Accumulation Reserve	18,684.9	179.0	2,128.2	544.6	21,536.7
(d) EAR Closing Adjustment	63.1	1.7	(54.6)	6.0	16.2
(e) Total	32,916.0	294.0	3,218.2	874.0	37,302.2
(2) End of Year Active Participant Assets					
(a) Participant Accumulation Reserve	14,946.8	109.4	1,234.1	337.6	16,627.9
(b) Employer Accumulation Reserve	20,040.7	188.6	2,297.9	604.6	23,131.8
(c) Total	34,987.5	298.0	3,532.0	942.2	39,759.7
(3) Investment Earnings Credited					
(a) Participant Accumulation Reserve	1,628.0	12.3	126.8	37.4	1,804.5
(b) Employer Accumulation Reserve	2,245.1	21.8	241.0	66.5	2,574.4
(c) Total	3,873.1	34.1	367.8	103.9	4,378.9
(4) Average Balance: $.5 \times \{(1e)+(2c)-(3c)\}$	32,015.2	279.0	3,191.2	856.2	36,341.6
(5) Expected Earnings: $.078 \times (4)$	2,497.2	21.8	248.9	66.8	2,834.7
(6) Gain (Loss) for year from investment experience: $(3c)-(5)$	1,375.9	12.3	118.9	37.1	1,544.2
(7) Portion applied to Change in Variable Excess Reserve and Money Purchase Minimum Benefit	545.1	2.1	16.7	2.3	566.2
(8) Remaining Gain (Loss): (6)-(7)	\$ 830.8	\$ 10.2	\$ 102.2	\$ 34.8	\$ 978.0

SECTION A

WITHDRAWAL EXPERIENCE

**GENERAL MALES
WITHDRAWAL EXPERIENCE**

Male Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	380	1,811	0.2098	0.2100	380
2	491	3,072	0.1598	0.1300	399
3	247	2,362	0.1046	0.0950	224
4	162	1,816	0.0892	0.0750	136
5	129	1,675	0.0770	0.0550	92
6	118	1,712	0.0689	0.0450	77
7	90	1,961	0.0459	0.0400	78
8	98	1,802	0.0544	0.0375	68
9	54	1,604	0.0337	0.0350	56
10	52	1,481	0.0351	0.0325	48
Totals	1,821	19,296	0.0944	0.0807	1,558

Male Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	4	0.0000	0.0300	-
30-34	8	233	0.0343	0.0300	7
35-39	18	1,294	0.0139	0.0230	30
40-44	37	2,777	0.0133	0.0180	50
45-49	72	4,941	0.0146	0.0140	69
50-54	61	6,435	0.0095	0.0130	84
Over 54	63	-	N/A		63
Totals	259	15,684	0.0165	0.0193	303

**GENERAL FEMALES
WITHDRAWAL EXPERIENCE**

Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	1,008	4,983	0.2023	0.2000	997
2	1,254	7,708	0.1627	0.1400	1,079
3	700	5,798	0.1207	0.1000	580
4	460	5,143	0.0894	0.0800	411
5	346	4,648	0.0744	0.0700	325
6	313	4,199	0.0745	0.0600	252
7	254	4,071	0.0624	0.0500	204
8	190	3,458	0.0549	0.0450	156
9	144	3,120	0.0462	0.0425	133
10	104	2,560	0.0406	0.0400	102
Totals	4,773	45,688	0.1045	0.0928	4,239

Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	1	8	0.1250	0.0400	-
30-34	14	379	0.0369	0.0350	13
35-39	56	1,905	0.0294	0.0300	57
40-44	109	3,907	0.0279	0.0250	98
45-49	142	6,835	0.0208	0.0200	137
50-54	171	9,216	0.0186	0.0180	166
Over 54	118	-	N/A		118
Totals	611	22,250	0.0275	0.0265	589

**PUBLIC SCHOOLS MALES
WITHDRAWAL EXPERIENCE**

Male Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	76	592	0.1284	0.1400	83
2	97	973	0.0997	0.1100	107
3	69	974	0.0708	0.0700	68
4	49	906	0.0541	0.0525	48
5	38	830	0.0458	0.0400	33
6	43	925	0.0465	0.0325	30
7	31	981	0.0316	0.0275	27
8	23	937	0.0245	0.0250	23
9	16	894	0.0179	0.0225	20
10	24	868	0.0276	0.0200	17
Totals	466	8,880	0.0525	0.0514	456

Male Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	-	N/A	0.0200	-
30-34	1	196	0.0051	0.0160	3
35-39	14	1,654	0.0085	0.0130	22
40-44	26	2,135	0.0122	0.0115	25
45-49	21	2,256	0.0093	0.0100	23
50-54	23	2,938	0.0078	0.0090	26
Over 54	25	-	N/A		25
Totals	110	9,179	0.0120	0.0135	124

**PUBLIC SCHOOLS FEMALES
WITHDRAWAL EXPERIENCE**

Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	209	1,694	0.1234	0.1100	186
2	289	3,020	0.0957	0.0900	272
3	208	2,792	0.0745	0.0700	195
4	165	2,610	0.0632	0.0600	157
5	116	2,505	0.0463	0.0500	125
6	116	2,609	0.0445	0.0425	111
7	100	2,678	0.0373	0.0375	100
8	94	2,602	0.0361	0.0325	85
9	71	2,470	0.0287	0.0275	68
10	70	2,183	0.0321	0.0250	55
Totals	1,438	25,163	0.0571	0.0538	1,354

Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	1	0.0000	0.0250	-
30-34	7	470	0.0149	0.0200	9
35-39	59	3,942	0.0150	0.0160	63
40-44	51	5,024	0.0102	0.0130	65
45-49	80	5,339	0.0150	0.0110	59
50-54	81	7,142	0.0113	0.0100	71
Over 54	53	-	N/A		53
Totals	331	21,918	0.0151	0.0146	320

**UNIVERSITY MALES
WITHDRAWAL EXPERIENCE**

Male Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	81	370	0.2189	0.2000	74
2	111	586	0.1894	0.1600	94
3	89	570	0.1561	0.1300	74
4	52	544	0.0956	0.1100	60
5	36	433	0.0831	0.0900	39
6	33	423	0.0780	0.0750	32
7	32	434	0.0737	0.0600	26
8	24	405	0.0593	0.0500	20
9	22	354	0.0621	0.0400	14
10	13	287	0.0453	0.0350	10
Totals	493	4,406	0.1119	0.1005	443

Male Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	-	N/A	0.0350	-
30-34	1	16	0.0625	0.0350	1
35-39	2	159	0.0126	0.0350	6
40-44	9	336	0.0268	0.0325	11
45-49	17	655	0.0260	0.0250	16
50-54	21	1,049	0.0200	0.0150	16
Over 54	3	-	N/A		3
Totals	53	2,215	0.0239	0.0239	53

**UNIVERSITY FEMALES
WITHDRAWAL EXPERIENCE**

Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	78	411	0.1898	0.2000	82
2	137	719	0.1905	0.1700	122
3	93	628	0.1481	0.1400	88
4	71	611	0.1162	0.1200	73
5	45	462	0.0974	0.1000	46
6	42	462	0.0909	0.0900	42
7	36	445	0.0809	0.0800	36
8	23	370	0.0622	0.0700	26
9	21	362	0.0580	0.0625	23
10	15	309	0.0485	0.0550	17
Totals	561	4,779	0.1174	0.1161	555

Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	-	N/A	0.0550	-
30-34	2	20	0.1000	0.0550	1
35-39	5	174	0.0287	0.0550	10
40-44	11	372	0.0296	0.0420	16
45-49	15	640	0.0234	0.0280	18
50-54	15	916	0.0164	0.0160	15
Over 54	10	-	N/A		10
Totals	58	2,122	0.0273	0.0330	70

**PROTECTIVE WITH SOCIAL SECURITY
WITHDRAWAL EXPERIENCE**

Male and Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	83	527	0.1575	0.1200	63
2	74	932	0.0794	0.0650	61
3	41	800	0.0513	0.0450	36
4	41	855	0.0480	0.0410	35
5	46	814	0.0565	0.0325	26
6	33	959	0.0344	0.0300	29
7	39	1,170	0.0333	0.0275	32
8	15	941	0.0159	0.0250	24
9	31	936	0.0331	0.0225	21
10	13	882	0.0147	0.0200	18
Totals	416	8,816	0.0472	0.0391	345

Male and Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	1	12	0.0833	0.0200	-
30-34	5	474	0.0105	0.0200	9
35-39	26	2,116	0.0123	0.0160	34
40-44	20	2,300	0.0087	0.0130	30
45-49	24	2,255	0.0106	0.0110	25
50-54	14	470	0.0298	0.0100	5
Over 54	8	-	N/A		8
Totals	98	7,627	0.0128	0.0146	111

**PROTECTIVE WITHOUT SOCIAL SECURITY
WITHDRAWAL EXPERIENCE**

Male and Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	4	23	0.1739	0.0500	1
2	4	111	0.0360	0.0300	3
3	-	62	0.0000	0.0200	1
4	1	78	0.0128	0.0150	1
5	-	89	0.0000	0.0140	1
6	1	66	0.0152	0.0130	1
7	1	124	0.0081	0.0120	1
8	-	134	0.0000	0.0110	1
9	1	131	0.0076	0.0100	1
10	-	118	0.0000	0.0090	1
Totals	12	936	0.0128	0.0128	12

Male and Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	-	N/A	0.0090	-
30-34	-	55	0.0000	0.0080	-
35-39	1	296	0.0034	0.0080	2
40-44	2	394	0.0051	0.0080	3
45-49	6	469	0.0128	0.0070	3
50-54	11	89	0.1236	0.0070	1
Totals	20	1,303	0.0153	0.0069	9

**EXECUTIVE AND ELECTED MALES
WITHDRAWAL EXPERIENCE**

Male and Female Service-Based Withdrawals

Service Index	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
1	9	56	0.1607	0.1600	9
2	9	90	0.1000	0.1400	13
3	10	72	0.1389	0.1200	9
4	4	44	0.0909	0.1000	4
5	10	51	0.1961	0.0950	5
6	2	16	0.1250	0.0900	1
7	3	32	0.0938	0.0850	3
8	-	15	0.0000	0.0800	1
9	3	34	0.0882	0.0750	3
10	1	13	0.0769	0.0700	1
Totals	51	423	0.1206	0.1158	49

Male and Female Age-Based Withdrawals

Age	Withdrawals	Exposure	Crude Rates	Current Rates	Expected Withdrawals
25-29	-	-	N/A	0.0700	-
30-34	-	1	0.0000	0.0700	-
35-39	-	11	0.0000	0.0700	1
40-44	3	50	0.0600	0.0500	3
45-49	3	92	0.0326	0.0450	4
50-54	10	158	0.0633	0.0400	6
Over 54	2	-	N/A		2
Totals	18	312	0.0577	0.0513	16

SECTION B

DISABILITY EXPERIENCE

**GENERAL
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	16	0.0000	0.0001	-
25-29	-	596	0.0000	0.0001	-
30-34	-	1,799	0.0000	0.0001	-
35-39	-	3,116	0.0000	0.0003	1
40-44	1	4,572	0.0002	0.0008	4
45-49	10	6,916	0.0014	0.0011	7
50-54	13	8,079	0.0016	0.0030	24
55-59	13	6,517	0.0020	0.0053	35
60-64	10	2,681	0.0037	0.0105	28
65-69	-	375	0.0000	0.0040	2
70-74	-	158	0.0000	0.0036	1
75 and over	-	-	N/A	0.0036	-
Totals	47	34,825	0.0013	0.0029	102

Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	70	0.0000	0.0001	-
25-29	-	1,143	0.0000	0.0001	-
30-34	-	3,035	0.0000	0.0004	1
35-39	3	4,725	0.0006	0.0005	2
40-44	4	7,484	0.0005	0.0008	6
45-49	9	11,704	0.0008	0.0010	12
50-54	21	13,754	0.0015	0.0018	25
55-59	23	10,914	0.0021	0.0034	37
60-64	10	5,487	0.0018	0.0043	23
65-69	-	794	0.0000	0.0034	3
70-74	-	207	0.0000	0.0029	1
75 and over	-	-	N/A	0.0029	-
Totals	70	59,317	0.0012	0.0019	110

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**PUBLIC SCHOOLS
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	-	N/A	0.0001	-
25-29	-	411	0.0000	0.0001	-
30-34	-	2,204	0.0000	0.0001	-
35-39	-	2,829	0.0000	0.0001	-
40-44	-	2,782	0.0000	0.0003	1
45-49	1	2,715	0.0004	0.0006	2
50-54	3	3,289	0.0009	0.0022	7
55-59	3	2,656	0.0011	0.0029	8
60-64	1	643	0.0016	0.0051	3
65-69	-	51	0.0000	0.0072	-
70-74	-	18	0.0000	0.0075	-
75 and over	-	-	N/A	0.0075	-
Totals	8	17,598	0.0005	0.0012	21

Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	-	N/A	0.0001	-
25-29	1	1,360	0.0007	0.0001	-
30-34	-	5,602	0.0000	0.0001	1
35-39	-	6,658	0.0000	0.0001	1
40-44	1	6,690	0.0001	0.0004	2
45-49	2	6,962	0.0003	0.0013	9
50-54	8	8,527	0.0009	0.0018	15
55-59	14	7,423	0.0019	0.0028	20
60-64	9	2,104	0.0043	0.0038	8
65-69	1	141	0.0071	0.0022	-
70-74	-	27	0.0000	0.0018	-
75 and over	-	-	N/A	0.0018	-
Totals	36	45,494	0.0008	0.0012	56

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**UNIVERSITY
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	-	N/A	0.0001	-
25-29	1	47	0.0213	0.0001	-
30-34	-	272	0.0000	0.0001	-
35-39	-	677	0.0000	0.0001	-
40-44	-	887	0.0000	0.0001	-
45-49	-	1,082	0.0000	0.0004	-
50-54	1	1,352	0.0007	0.0006	1
55-59	-	1,190	0.0000	0.0020	2
60-64	1	670	0.0015	0.0019	1
65-69	-	60	0.0000	0.0024	-
70-74	-	13	0.0000	0.0021	-
75 and over	-	-	N/A	0.0021	-
Totals	3	6,250	0.0005	0.0006	4

Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0001	-
20-24	-	-	N/A	0.0001	-
25-29	-	97	0.0000	0.0001	-
30-34	-	340	0.0000	0.0001	-
35-39	-	644	0.0000	0.0005	-
40-44	-	890	0.0000	0.0007	1
45-49	2	1,060	0.0019	0.0005	1
50-54	1	1,245	0.0008	0.0013	2
55-59	-	1,110	0.0000	0.0017	2
60-64	3	533	0.0056	0.0027	1
65-69	-	53	0.0000	0.0018	-
70-74	-	10	0.0000	0.0015	-
75 and over	-	-	N/A	0.0015	-
Totals	6	5,982	0.0010	0.0012	7

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**PROTECTIVE WITH SOCIAL SECURITY
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male and Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0002	-
20-24	-	18	0.0000	0.0002	-
25-29	1	1,013	0.0010	0.0002	-
30-34	-	2,451	0.0000	0.0002	-
35-39	2	3,324	0.0006	0.0004	1
40-44	1	2,896	0.0003	0.0005	1
45-49	6	2,644	0.0023	0.0008	2
50-54	11	1,809	0.0061	0.0013	2
55-59	1	266	0.0038	0.0280	7
60-64	-	106	0.0000	0.0300	3
65-69	-	23	0.0000	0.0020	-
70-74	-	-	N/A	0.0020	-
75 and over	-	-	N/A	0.0020	-
Totals	22	14,550	0.0015	0.0011	16

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**PROTECTIVE WITHOUT SOCIAL SECURITY
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male and Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0005	-
20-24	-	-	N/A	0.0005	-
25-29	-	82	0.0000	0.0005	-
30-34	-	316	0.0000	0.0005	-
35-39	1	483	0.0021	0.0005	-
40-44	-	463	0.0000	0.0009	-
45-49	1	497	0.0020	0.0018	1
50-54	2	313	0.0064	0.0126	4
55-59	-	6	0.0000	0.0018	-
60-64	-	3	0.0000	0.0018	-
65-69	-	-	N/A	0.0018	-
70-74	-	-	N/A	0.0018	-
75 and over	-	-	N/A	0.0018	-
Totals	4	2,163	0.0018	0.0023	5

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**EXECUTIVE AND ELECTED
DISABILITY EXPERIENCE
DURING CALENDAR YEAR 2007**

Male and Female Disability Experience

Age	Disabilities	Exposure	Crude Rates	Current Rates	Expected Disabilities
Under 20	-	-	N/A	0.0000	-
20-24	-	-	N/A	0.0000	-
25-29	-	2	0.0000	0.0000	-
30-34	-	12	0.0000	0.0000	-
35-39	-	35	0.0000	0.0001	-
40-44	-	71	0.0000	0.0002	-
45-49	-	120	0.0000	0.0003	-
50-54	-	203	0.0000	0.0005	-
55-59	-	243	0.0000	0.0020	-
60-64	-	107	0.0000	0.0018	-
65-69	-	31	0.0000	0.0015	-
70-74	-	13	0.0000	0.0015	-
75 and over	-	-	N/A	0.0015	-
Totals	-	837	N/A	N/A	-

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SECTION C

PAY INCREASES AND MERIT AND LONGEVITY PORTION

GENERAL
MERIT & LONGEVITY PAY INCREASE ASSUMPTION

Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	35,403	9.61 %	7.60 %
6-10	30,709	5.45 %	6.10 %
11-15	18,701	4.89 %	5.50 %
16-20	16,104	4.66 %	5.30 %
21-25	10,336	4.50 %	5.10 %
26-30	8,357	4.42 %	4.90 %
31-35	4,164	4.13 %	4.70 %
36-40	1,052	4.34 %	4.50 %
Over 40	132	4.47 %	4.50 %
Total	124,958		

PUBLIC SCHOOLS
MERIT & LONGEVITY PAY INCREASE ASSUMPTION

Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	15,800	12.51 %	9.60 %
6-10	18,077	6.49 %	7.70 %
11-15	13,656	5.43 %	6.40 %
16-20	11,655	3.72 %	5.30 %
21-25	7,142	3.00 %	4.80 %
26-30	5,605	2.86 %	4.40 %
31-35	3,748	2.61 %	4.40 %
36-40	741	2.77 %	4.30 %
Over 40	86	1.79 %	4.30 %
Total	76,510		

UNIVERSITY
MERIT & LONGEVITY PAY INCREASE ASSUMPTION

Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	4,616	16.21 %	7.60 %
6-10	4,194	6.31 %	7.10 %
11-15	2,368	5.89 %	6.60 %
16-20	2,164	4.78 %	6.10 %
21-25	1,480	4.56 %	5.60 %
26-30	953	3.89 %	5.30 %
31-35	582	4.22 %	5.10 %
36-40	234	3.22 %	4.80 %
Over 40	58	2.61 %	4.70 %
Total	16,649		

**PROTECTIVE WITH SOCIAL SECURITY
MERIT & LONGEVITY PAY INCREASE ASSUMPTION**

Male and Female Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	3,608	11.49 %	9.10 %
6-10	4,933	5.21 %	5.90 %
11-15	3,670	5.47 %	5.10 %
16-20	2,816	5.48 %	5.00 %
21-25	1,770	5.53 %	4.90 %
26-30	1,182	5.13 %	4.80 %
31-35	288	4.39 %	4.70 %
36-40	28	3.14 %	4.60 %
Over 40	4	3.93 %	4.50 %
Total	18,299		

**PROTECTIVE WITHOUT SOCIAL SECURITY
MERIT & LONGEVITY PAY INCREASE ASSUMPTION**

Male and Female Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	350	15.74 %	8.85 %
6-10	573	4.61 %	5.65 %
11-15	508	5.09 %	4.85 %
16-20	519	4.21 %	4.75 %
21-25	345	4.34 %	4.65 %
26-30	247	5.15 %	4.55 %
31-35	43	4.47 %	4.45 %
36-40	3	2.96 %	4.35 %
Over 40	-	N/A	4.25 %
Total	2,588		

**EXECUTIVE AND ELECTED
MERIT & LONGEVITY PAY INCREASE ASSUMPTION**

Service-Based Pay Increase Experience

Service Group		Total % Increase	
Beginning of Year	Number	Actual	Expected
1-5	378	5.81 %	5.30 %
6-10	183	6.28 %	5.20 %
11-15	183	5.18 %	5.10 %
16-20	158	5.18 %	5.00 %
21-25	142	4.14 %	4.80 %
26-30	113	4.16 %	4.60 %
31-35	75	4.29 %	4.50 %
36-40	22	4.06 %	4.10 %
Over 40	7	5.08 %	4.10 %
Total	1,261		

SECTION D

NORMAL AND EARLY RETIREMENT EXPERIENCE

GENERAL MALES
NORMAL RETIREMENT EXPERIENCE

Male Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	80	374	0.2139	0.2500	94
58	71	358	0.1983	0.2500	90
59	65	339	0.1917	0.2500	85
60	57	300	0.1900	0.2500	75
61	43	224	0.1920	0.2000	45
62	35	124	0.2823	0.3500	43
63	32	95	0.3368	0.3500	33
64	17	77	0.2208	0.2500	19
65	60	373	0.1609	0.2500	93
66	63	259	0.2432	0.2500	65
67	22	203	0.1084	0.1000	20
68	13	145	0.0897	0.1000	15
69	8	143	0.0559	0.1000	14
70	16	111	0.1441	0.1000	11
71	9	112	0.0804	0.1000	11
72	6	90	0.0667	0.1000	9
73	9	79	0.1139	0.1000	8
74	2	54	0.0370	0.1000	5
Totals	608	3,460	0.1757	0.2124	735
75 & Over	15	252			252
Totals	623	3,712			987

**GENERAL MALES
EARLY RETIREMENT EXPERIENCE**

Male Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	102	1,808	0.0564	0.0750	136
56	80	1,702	0.0470	0.0750	128
57	49	1,112	0.0441	0.0400	44
58	39	972	0.0401	0.0500	49
59	54	923	0.0585	0.0500	46
60	60	802	0.0748	0.0750	60
61	37	676	0.0547	0.0700	47
62	57	461	0.1236	0.1800	83
63	69	390	0.1769	0.1800	70
64	60	352	0.1705	0.1500	53
Totals	607	9,198	0.0660	0.0778	716

**GENERAL FEMALES
NORMAL RETIREMENT EXPERIENCE**

Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	50	310	0.1613	0.2000	62
58	46	302	0.1523	0.2000	60
59	40	224	0.1786	0.2000	45
60	43	204	0.2108	0.2000	41
61	36	164	0.2195	0.2000	33
62	30	114	0.2632	0.3000	34
63	26	95	0.2737	0.3000	29
64	21	79	0.2658	0.2500	20
65	137	744	0.1841	0.2500	186
66	122	444	0.2748	0.2500	111
67	59	357	0.1653	0.1500	54
68	40	251	0.1594	0.1000	25
69	19	183	0.1038	0.1000	18
70	29	172	0.1686	0.1000	17
71	15	142	0.1056	0.1000	14
72	10	104	0.0962	0.1000	10
73	8	84	0.0952	0.1000	8
74	5	63	0.0794	0.1000	6
Totals	736	4,036	0.1824	0.1915	773
75 & Over	24	263			263
Totals	760	4,299			1,036

**GENERAL FEMALES
EARLY RETIREMENT EXPERIENCE**

Female Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	114	2,687	0.0424	0.0525	141
56	118	2,570	0.0459	0.0525	135
57	74	1,977	0.0374	0.0400	79
58	88	1,860	0.0473	0.0500	93
59	73	1,820	0.0401	0.0500	91
60	121	1,635	0.0740	0.0750	123
61	102	1,330	0.0767	0.0750	100
62	132	979	0.1348	0.1500	147
63	116	830	0.1398	0.1500	125
64	95	713	0.1332	0.1500	107
Totals	1,033	16,401	0.0630	0.0696	1,141

**PUBLIC SCHOOL MALES
NORMAL RETIREMENT EXPERIENCE**

Male Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	146	398	0.3668	0.4000	159
58	85	271	0.3137	0.3500	95
59	58	193	0.3005	0.3000	58
60	50	168	0.2976	0.3000	50
61	35	114	0.3070	0.3000	34
62	29	65	0.4462	0.4000	26
63	15	48	0.3125	0.4000	19
64	15	52	0.2885	0.2500	13
65	17	77	0.2208	0.2500	19
66	11	55	0.2000	0.2500	14
67	3	24	0.1250	0.1500	4
68	6	26	0.2308	0.1500	4
69	4	25	0.1600	0.2000	5
70	1	12	0.0833	0.2000	2
71	1	9	0.1111	0.2000	2
72	1	6	0.1667	0.2000	1
73	3	8	0.3750	0.2000	2
74	-	4	0.0000	0.2000	1
Totals	480	1,555	0.3087	0.3267	508
75 & Over	3	22			22
Totals	483	1,577			530

**PUBLIC SCHOOL MALES
EARLY RETIREMENT EXPERIENCE**

Male Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	115	818	0.1406	0.1500	123
56	123	881	0.1396	0.1500	132
57	52	364	0.1429	0.1500	55
58	28	322	0.0870	0.1500	48
59	38	271	0.1402	0.1000	27
60	30	227	0.1322	0.1500	34
61	19	185	0.1027	0.1500	28
62	19	108	0.1759	0.2500	27
63	10	70	0.1429	0.2500	18
64	8	53	0.1509	0.1500	8
Totals	442	3,299	0.1340	0.1516	500

**PUBLIC SCHOOL FEMALES
NORMAL RETIREMENT EXPERIENCE**

Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	197	568	0.3468	0.3000	170
58	144	428	0.3364	0.3000	128
59	82	309	0.2654	0.3000	93
60	79	246	0.3211	0.3000	74
61	38	126	0.3016	0.3500	44
62	28	74	0.3784	0.4000	30
63	15	65	0.2308	0.3500	23
64	15	37	0.4054	0.2500	9
65	59	188	0.3138	0.3000	56
66	42	111	0.3784	0.2500	28
67	14	69	0.2029	0.2500	17
68	8	60	0.1333	0.2000	12
69	4	34	0.1176	0.2000	7
70	2	26	0.0769	0.2000	5
71	3	23	0.1304	0.2000	5
72	2	22	0.0909	0.2000	4
73	2	14	0.1429	0.2000	3
74	-	11	0.0000	0.2000	2
Totals	734	2,411	0.3044	0.2945	710
75 & Over	2	29			29
Totals	736	2,440			739

**PUBLIC SCHOOL FEMALES
EARLY RETIREMENT EXPERIENCE**

Female Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	244	2,135	0.1143	0.1100	235
56	246	2,078	0.1184	0.1100	229
57	122	1,268	0.0962	0.1100	139
58	107	1,038	0.1031	0.1200	125
59	114	904	0.1261	0.1200	108
60	109	785	0.1389	0.1500	118
61	79	508	0.1555	0.1500	76
62	64	345	0.1855	0.2500	86
63	62	278	0.2230	0.2000	56
64	32	188	0.1702	0.1500	28
Totals	1,179	9,527	0.1238	0.1260	1,200

**UNIVERSITY MALES
NORMAL RETIREMENT EXPERIENCE**

Male Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	4	36	0.1111	0.2000	7
58	8	35	0.2286	0.1500	5
59	5	38	0.1316	0.1500	6
60	12	62	0.1935	0.1500	9
61	9	70	0.1286	0.1700	12
62	7	60	0.1167	0.1700	10
63	10	57	0.1754	0.1700	10
64	7	61	0.1148	0.1700	10
65	11	119	0.0924	0.2000	24
66	30	94	0.3191	0.2000	19
67	12	75	0.1600	0.2000	15
68	8	54	0.1481	0.2000	11
69	8	37	0.2162	0.2000	7
70	4	31	0.1290	0.2000	6
71	4	25	0.1600	0.2000	5
72	1	13	0.0769	0.2000	3
73	-	11	0.0000	0.2000	2
74	-	12	0.0000	0.2000	2
Totals	140	890	0.1573	0.1831	163
75 & Over	3	28			28
Totals	143	918			191

**UNIVERSITY MALES
EARLY RETIREMENT EXPERIENCE**

Male Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	8	279	0.0287	0.0500	14
56	9	291	0.0309	0.0500	15
57	9	243	0.0370	0.0300	7
58	6	202	0.0297	0.0350	7
59	3	175	0.0171	0.0350	6
60	9	192	0.0469	0.0550	11
61	6	165	0.0364	0.0750	12
62	8	120	0.0667	0.1000	12
63	15	112	0.1339	0.0900	10
64	8	81	0.0988	0.0800	6
Totals	81	1,860	0.0435	0.0538	100

**UNIVERSITY FEMALES
NORMAL RETIREMENT EXPERIENCE**

Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	5	28	0.1786	0.1500	4
58	5	29	0.1724	0.1500	4
59	3	32	0.0938	0.1500	5
60	3	24	0.1250	0.1500	4
61	3	29	0.1034	0.2500	7
62	3	23	0.1304	0.2500	6
63	3	21	0.1429	0.2000	4
64	4	11	0.3636	0.2000	2
65	11	64	0.1719	0.2000	13
66	10	44	0.2273	0.2000	9
67	6	37	0.1622	0.2000	7
68	5	29	0.1724	0.2000	6
69	3	12	0.2500	0.2000	2
70	1	5	0.2000	0.2000	1
71	3	9	0.3333	0.2000	2
72	2	7	0.2857	0.2000	1
73	1	3	0.3333	0.2000	1
74	1	4	0.2500	0.2000	1
Totals	72	411	0.1752	0.1922	79
75 & Over	2	11			11
Totals	74	422			90

**UNIVERSITY FEMALES
EARLY RETIREMENT EXPERIENCE**

Female Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	14	271	0.0517	0.0600	16
56	14	290	0.0483	0.0600	17
57	11	196	0.0561	0.0500	10
58	8	175	0.0457	0.0600	10
59	10	178	0.0562	0.0800	14
60	12	150	0.0800	0.1000	15
61	14	124	0.1129	0.0750	9
62	19	130	0.1462	0.1500	20
63	8	69	0.1159	0.1500	10
64	16	60	0.2667	0.1500	9
Totals	126	1,643	0.0767	0.0791	130

**PROTECTIVE WITH SOCIAL SECURITY
NORMAL RETIREMENT EXPERIENCE**

Male and Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
50	25	377	0.0663	0.0800	30
51	27	333	0.0811	0.0800	27
52	27	288	0.0938	0.0800	23
53	57	279	0.2043	0.3000	84
54	39	304	0.1283	0.2000	61
55	26	283	0.0919	0.2000	57
56	19	223	0.0852	0.1800	40
57	16	184	0.0870	0.1800	33
58	17	142	0.1197	0.1800	26
59	6	104	0.0577	0.1800	19
60	15	111	0.1351	0.1800	20
61	10	84	0.1190	0.1800	15
62	9	41	0.2195	0.2000	8
63	9	35	0.2571	0.3000	11
64	2	18	0.1111	0.2000	4
65	6	18	0.3333	0.3000	5
66	3	12	0.2500	0.2500	3
67	1	7	0.1429	0.2500	2
68	-	5	0.0000	0.2500	1
69	1	3	0.3333	0.2500	1
70	-	-	N/A	1.0000	-
71	1	1	1.0000	1.0000	1
72	-	1	0.0000	1.0000	1
73	-	-	N/A	1.0000	-
74	-	-	N/A	1.0000	-
Totals	316	2,853	0.1108	0.1654	472
75 & Over	-	1			1
Totals	316	2,854			473

**PROTECTIVE WITHOUT SOCIAL SECURITY
NORMAL RETIREMENT EXPERIENCE**

Male and Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
50	2	68	0.0294	0.0300	2
51	3	64	0.0469	0.0300	2
52	4	65	0.0615	0.0700	5
53	10	60	0.1667	0.2500	15
54	17	75	0.2267	0.3000	23
55	8	43	0.1860	0.3000	13
56	4	31	0.1290	0.3000	9
57	8	26	0.3077	0.3500	9
58	1	3	0.3333	0.3000	1
59	1	3	0.3333	0.2000	1
60	-	6	0.0000	0.2000	1
61	-	2	0.0000	0.2000	-
62	1	4	0.2500	0.2000	1
63	1	1	1.0000	0.2000	-
64	-	1	0.0000	0.2000	-
65	-	1	0.0000	0.4000	-
66	-	-	N/A	0.4000	-
67	-	-	N/A	0.4000	-
68	-	-	N/A	0.4000	-
69	-	-	N/A	0.4000	-
70	-	-	N/A	1.0000	-
71	-	-	N/A	1.0000	-
72	-	-	N/A	1.0000	-
73	-	-	N/A	1.0000	-
74	-	-	N/A	1.0000	-
Totals	60	453	0.1325	0.1810	82
75 & Over	-	-	N/A		-
Totals	60	453			82

**EXECUTIVE AND ELECTED
NORMAL RETIREMENT EXPERIENCE**

Male and Female Age-Based Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
57	3	13	0.2308	0.1500	2
58	-	11	0.0000	0.1500	2
59	6	17	0.3529	0.1500	3
60	2	12	0.1667	0.1500	2
61	-	8	0.0000	0.1500	1
62	5	35	0.1429	0.1000	4
63	9	36	0.2500	0.1000	4
64	4	26	0.1538	0.1000	3
65	2	27	0.0741	0.1000	3
66	2	17	0.1176	0.2000	3
67	3	10	0.3000	0.2000	2
68	4	12	0.3333	0.2000	2
69	3	14	0.2143	0.2000	3
70	1	6	0.1667	0.1000	1
71	3	5	0.6000	0.1000	1
72	2	7	0.2857	0.1000	1
73	-	5	0.0000	0.1000	1
74	-	3	0.0000	0.1000	-
Totals	49	264	0.1856	0.1439	38
75 & Over	-	19			19
Totals	49	283			57

**EXECUTIVE AND ELECTED
EARLY RETIREMENT EXPERIENCE**

Male and Female Age-Based Early Retirement Experience

Age	Retirements	Exposure	Crude Rates	Current Rates	Expected Retirements
55	2	60	0.0333	0.0600	4
56	1	55	0.0182	0.0600	3
57	5	40	0.1250	0.0400	2
58	2	42	0.0476	0.0400	2
59	5	46	0.1087	0.0400	2
60	7	37	0.1892	0.0600	2
61	5	35	0.1429	0.0600	2
62	-	14	0.0000	0.0400	1
63	2	7	0.2857	0.0400	-
64	-	11	0.0000	0.0400	-
Over 64	-	71	0.0000		
Totals	29	418			18

SECTION E

MORTALITY EXPERIENCE

DEATH-IN-SERVICE

Male

Age	Deaths	Exposure	Crude Rates	Current Rates	Expected Deaths
Under 20	-	31	0.0000	0.0002	-
20-24	1	1,506	0.0007	0.0003	-
25-29	3	6,704	0.0004	0.0004	2
30-34	1	9,435	0.0001	0.0004	4
35-39	5	12,151	0.0004	0.0005	6
40-44	7	13,087	0.0005	0.0006	8
45-49	29	15,268	0.0019	0.0010	15
50-54	33	16,697	0.0020	0.0017	28
55-59	33	14,707	0.0022	0.0027	40
60-64	26	6,784	0.0038	0.0037	25
65-69	17	1,825	0.0093	0.0065	12
70-74	13	599	0.0217	0.0112	7
75 and over	7	-	N/A	0.0214	-
Totals	175	98,794	0.0018	0.0015	147

Female

Age	Deaths	Exposure	Crude Rates	Current Rates	Expected Deaths
Under 20	-	77	0.0000	0.0001	-
20-24	1	2,719	0.0004	0.0001	-
25-29	-	12,200	0.0000	0.0001	1
30-34	2	14,536	0.0001	0.0002	2
35-39	4	17,503	0.0002	0.0002	4
40-44	13	21,226	0.0006	0.0003	7
45-49	28	25,978	0.0011	0.0005	13
50-54	23	27,955	0.0008	0.0008	23
55-59	41	24,485	0.0017	0.0017	42
60-64	21	10,792	0.0019	0.0025	27
65-69	7	2,675	0.0026	0.0038	10
70-74	3	699	0.0043	0.0068	5
75 and over	6	-	N/A	0.0122	-
Totals	149	160,845	0.0009	0.0008	134

SECTION F

ACTIVE PARTICIPANTS IN VALUATIONS

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2007
GENERAL PARTICIPANTS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	168							168	\$ 2,676,894
20-24	4,621	39						4,660	110,759,473
25-29	14,881	2,500	15					17,396	573,817,665
30-34	9,094	10,849	1,291	4				21,238	836,344,911
35-39	8,156	8,383	7,827	1,368	17			25,751	1,109,493,517
40-44	8,550	7,648	6,294	7,055	1,199	12		30,758	1,347,528,011
45-49	8,741	8,479	6,210	6,588	5,598	1,826	71	37,513	1,641,272,469
50-54	6,351	7,639	6,236	6,482	5,557	6,385	2,614	41,264	1,920,892,347
55	994	1,280	1,158	1,314	1,055	1,156	1,422	8,379	408,929,347
56	982	1,179	1,157	1,268	1,086	1,081	1,436	8,189	401,448,436
57	855	1,047	1,000	1,202	978	947	1,454	7,483	367,742,205
58	771	898	883	1,035	833	784	1,127	6,331	311,296,457
59	725	801	815	946	754	699	959	5,699	275,876,281
60	666	702	700	834	763	531	817	5,013	234,706,863
61	635	646	664	762	683	494	700	4,584	218,338,363
62	411	397	424	454	391	293	417	2,787	128,708,834
63	378	337	321	392	309	212	305	2,254	99,858,577
64	306	299	252	299	259	171	262	1,848	81,617,247
65	261	261	226	230	202	142	182	1,504	65,022,553
66	216	162	122	123	103	74	118	918	37,768,690
67	175	122	92	93	56	43	84	665	24,360,513
68	180	84	58	77	43	24	64	530	18,934,505
69	143	65	53	53	38	24	44	420	14,631,679
70	129	50	41	35	30	19	37	341	11,165,397
71	117	60	20	16	20	11	21	265	7,398,699
72	122	41	34	17	14	6	27	261	7,041,904
73	85	36	16	15	12	6	12	182	4,750,440
74	77	39	16	12	9	3	12	168	3,858,645
75 & Up	274	134	43	24	24	12	44	555	11,642,020
Totals	69,064	54,177	35,968	30,698	20,033	14,955	12,229	237,124	\$10,277,882,942

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2007
PROTECTIVE PARTICIPANTS WITH SOCIAL SECURITY
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
15-19	8							8	\$ 222,793
20-24	789	6						795	25,288,267
25-29	1,709	812	7					2,528	108,084,671
30-34	719	1,805	512	4				3,040	149,821,382
35-39	439	1,090	1,716	441				3,686	194,266,245
40-44	286	536	821	1,215	304	2		3,164	177,953,672
45-49	209	364	420	674	844	326	4	2,841	165,819,274
50	31	56	46	104	142	179	14	572	34,261,169
51	40	55	37	79	101	195	24	531	31,795,581
52	41	44	53	58	96	131	38	461	27,047,493
53	30	34	48	69	88	130	65	464	27,987,625
54	19	27	34	59	56	64	48	307	18,219,149
55	21	40	35	47	50	48	37	278	15,766,087
56	15	31	27	41	55	32	37	238	13,463,014
57	16	33	20	29	37	39	32	206	11,670,112
58	11	14	14	32	29	24	34	158	9,232,937
59	13	19	21	20	21	15	22	131	6,920,970
60	10	22	13	16	16	14	11	102	5,545,698
61	9	12	12	14	17	10	11	85	4,401,848
62	3	6	12	13	6	9	7	56	3,118,426
63	4	7	6	2	2	3	4	28	1,477,082
64	5	1	4	4	2	3	4	23	1,096,386
65	4	3	2	2	2		1	14	538,359
66	3	6	2	4		2		17	713,584
67	2	1	2		2	1		8	344,431
68	1	2	1	1				5	202,667
69			2			1	2	5	278,824
70 & Up	4	1	1					6	99,327
Totals	4,441	5,027	3,868	2,928	1,870	1,228	395	19,757	\$1,035,637,073

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2007
PROTECTIVE PARTICIPANTS WITHOUT SOCIAL SECURITY
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	52							52	\$ 2,089,566
25-29	180	65						245	12,352,178
30-34	81	235	65					381	22,555,551
35-39	52	182	228	73				535	33,451,133
40-44	16	71	145	185	46	1		464	30,339,223
45-49	8	23	67	146	190	68	1	503	35,248,788
50	2	2	7	24	31	33	2	101	7,177,609
51			6	20	23	32	2	83	5,999,250
52			1	14	21	31	7	74	5,535,592
53			4	14	24	30	5	77	5,656,490
54	3	1	3	10	18	17	9	61	4,506,600
55			1	8	4	15	12	40	2,827,842
56			1	4	5	8	13	31	2,271,123
57		1	1	2	4	9	5	22	1,717,607
58		1		1	2	4	3	11	875,641
59						1		1	99,176
60	1				1	2	1	5	422,161
61		1	1			2	1	5	353,560
62									
63		1					1	2	83,197
64						1		1	71,520
65					1			1	54,953
Totals	395	583	530	501	370	254	62	2,695	\$173,688,760

ACTIVE PARTICIPANTS AS OF DECEMBER 31, 2007
ELECTIVE AND ELECTED OFFICIALS
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Ages	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24									
25-29	6	1						7	\$ 192,875
30-34	24	10	2					36	2,010,874
35-39	37	21	14	2				74	4,047,580
40-44	54	17	24	22	5			122	7,331,472
45-49	53	32	27	41	19	8		180	12,315,800
50-54	77	35	29	36	33	38	15	263	17,561,153
55	10	7	4	11	7	7	10	56	4,348,352
56	12	11	5	11	16	13	8	76	5,997,619
57	19	5	8	8	8	7	8	63	4,448,016
58	15	10	6	11	9	3	9	63	4,368,449
59	5	9	6	9	9	8	11	57	4,930,580
60	20	7	11	4	8	6	8	64	4,518,590
61	17	9	5	2	9	7	11	60	4,443,720
62	10	5	5	6	5	4	9	44	3,238,237
63	7	4	5	6	6	4	6	38	3,427,137
64	9	4	6	6	4	1	5	35	2,259,378
65	16	5	1	5	6	1	5	39	2,742,591
66	1	1	4	4	2		2	14	1,210,543
67	8	2	3	3	1	1	5	23	1,438,810
68	7	1	2	1		1	1	13	457,691
69	9	1	1	1	3	1	1	17	663,151
70	3	1	3				4	11	613,034
71	5	2	1			1		9	417,041
72	2	2	1		1			6	228,024
73	6	3		1	1		1	12	313,433
74	3	2					1	6	176,249
75 & Up	19	7	7	2	1		3	39	937,950
Totals	454	214	180	192	153	111	123	1,427	\$94,638,349

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.

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 Core 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 Core 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 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. The objective is to give recognition to long-term changes in asset values while minimizing the 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 Core 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.

DEVELOPMENT OF EAR AS OF DECEMBER 31, 2007

	General	Executive & Elected Officials	Protective Occupation		Total
			With Soc. Sec	Without Soc. Sec.	
\$ Millions					
1. Present Value of Future Benefits for Non-Retired	\$45,103.4	\$377.4	\$4,914.6	\$1,133.9	\$51,529.3
2. Present Value of Future Entry Age Normal Costs	12,288.6	84.7	1,775.2	367.1	14,515.6
3. Entry Age Accrued Liability: (1)-(2)	32,814.8	292.7	3,139.4	766.8	37,013.7
4. Non-Retired Assets-WRS	34,987.5	298.0	3,532.0	942.2	39,759.7
-LTDI	154.5	1.3	26.8	7.0	189.6
-Total	35,142.0	299.3	3,558.8	949.2	39,949.3
5. Entry Age Unfunded Accrued Liability:(3)-(4)	(2,327.2)	(6.6)	(419.4)	(182.4)	(2,935.6)
6. WRS Frozen Unfunded Accrued Liability	271.4	0.7	8.0	7.7	287.8
7. EAR:(6)-(5)	\$ 2,598.6	\$ 7.3	\$ 427.4	\$ 190.1	\$ 3,223.4

ACTUAL VS. EXPECTED CHANGES IN EXPERIENCE AMORTIZATION RESERVE (EAR) - CALENDAR YEAR 2007
(\$ MILLIONS)

	December 31, 2007				
	General	Executive & Elected	Protective		Total
			With S.S.	Without S.S.	
(1) Entry Age UAAL at start of year	\$ (1,625.9)	\$ (3.3)	\$ (336.6)	\$ (149.8)	\$ (2,115.6)
(2) Normal cost from last valuation (Total)	1,264.7	11.8	165.3	37.7	1,479.5
(3) Actual contributions	1,163.8	11.4	142.9	27.4	1,345.5
(4) Interest	(122.9)	(0.2)	(25.4)	(11.3)	(159.8)
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	(1,647.9)	(3.1)	(339.6)	(150.8)	(2,141.4)
(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)	(1,647.9)	(3.1)	(339.6)	(150.8)	(2,141.4)
(9) Actual Entry Age UAAL at end of year	(2,327.2)	(6.6)	(419.4)	(182.4)	(2,935.6)
(10) Gain (loss): (8) - (9)	\$ 679.3	\$ 3.5	\$ 79.8	\$ 31.6	\$ 794.2

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.



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August 28, 2008

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

Re: 2007 Gain Loss Analysis

Dear Dave:

Enclosed are 75 bound copies of this report.

Sincerely,

A handwritten signature in cursive script that reads 'Mark Buis'.

Mark Buis

MB:lr
Enclosures