

Wisconsin Retirement System

2007 Gain (Loss) Analysis

September 2008





A Gain (Loss) Analysis measures differences between actual and assumed experience in each Risk Area.





WRS Assumption Risk Areas

Demographic

Normal retirement

Early retirement

Death-in-service

Disability

Other separations

Economic

Salary increases

Investment return

There are other risk areas, but they are not germane to the Gain/Loss Analysis.



Why Have A Gain (Loss) Analysis?

- It is a year-by-year measure of the operation of assumptions
- To understand the nature of risk
- To determine when assumption changes are needed
- To gain an understanding of reasons for contribution rate changes





Components of Total Gain (Loss)

	Gain (Loss) in Millions			
	2006	2007		
Economic Risk	\$ 454	\$1,057		
Decrement Risk	(13)	(21)		
Other Activity	(227)	(242)		
Total Gain (Loss)	\$ 214	\$ 794		
Effect of Assumption changes	(377)	0		
Net Gain/(Loss)	\$(163)	\$ 794		
(see page 9)				

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Investment Earnings in 2007 (Active Participants)

\$ Millions

A. Average balance on Participant and \$36,342 Employer Accumulation Reserves

B. Expected earnings: 7.8% 2,835

C. Earnings credited to Participant and 4,379Employer Accumulation Reserves

D. Gain (loss) from earnings: C - B \$ 1,544

(see page 12)





Investment Earnings in 2007 (Active Participants)

- \$978 million is total asset gain for the year
- However, part of the total gain is allocated to Variable Excess accounts
- Some of the gain flows through to members via the operation of Money Purchase minimum benefits
- Must net these out to determine remaining core fund gain or loss
- Remaining portion affects contribution rates





Investment Earnings in 2007 (Active Participants)

\$ N	Millions)
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Gross Gain for the Year

\$1,544

Less Estimated Gain Due to

Money Purchase and Variable

Excess Effects

566

Net Core Fund Asset Gain

\$978

(see page 12)





Salary Related Gain (Loss)

Pay increases varied among groups producing a gain in total.

	Gain (Loss)
	\$ Millions
General	\$78.6
Exec. & Elected	\$(0.2)
Prot. w/Soc. Sec.	\$0.3
Prot. w/o Soc. Sec.	\$0.8
	\$79.5

(see pages 9, 11)





Population Development During 2007

	_	Actual	Expected
Beginning Census		260,302	
(-)	Normal Retirement	3,162	3,561
(-)	Early Retirement	3,579	3,805
(-)	Death	324	281
(-)	Disability Retirement		
	- Total Approved	249	321
	- Less Pending	53	
	- Net New	196	
(-)	Other Separations	11,592	10,606
(-)	Transfers Out	1,183	
(+)	Transfers In	1,183	
(+)	New Entrants	19,554	
Endir	ig Census	261,003	

(see page 4)





Population Development During 2007

Normal Retirements: Varied by group and gender, overall fewer normal retirements than expected.

Early Retirements: Less than assumed in most groups, overall producing a small loss.

Death: Higher than expected, producing small loss.

Disabilities: Less than expected, producing a gain in most groups.

Other Separations: Varied by group, gender and service. Other separations among short service participants were higher than expected, among longer service participants less than expected. The net result was a loss.





Comparative Schedule of Experience

Divisions Combined

	2006		2007	
Normal Retirement	\$	(1.7)	\$	4.9
Early Retirement		(8.2)		(8.1)
Disability Retirement		14.8		13.5
Death		(1.3)		(2.9)
Other Separations		(16.6)		(28.4)
Total	\$	(13.0)	\$	(21.0)

(see page 9)





Gain/Loss Analysis-2007 Experience







Explanation of Gain or Loss Due to "Other" Risk Areas

- Primarily due to difference between actual and expected reserve transfers – difference between what we estimate a benefit to be versus what is actually calculated at time of retirement
- Re-established liability is unexpected liability from new or rehired employees with prior service
- Remaining unexplained loss is very small in relative terms (0.1% of accrued liabilities)





How Does Gain (Loss) Affect the Total Contribution Rate?

- Normal cost contribution for most groups decreased from the prior year
- Total net gain of \$794.3 million primarily due to favorable investment performance





Funding Value of Assets (\$ millions)

	<u>2007</u>	<u>2008</u> <u>2009</u>		<u>2010</u>	<u>2011</u>	
Market value BOY	\$75,981	\$ -	\$ -	\$ -	\$ -	
Market value EOY	80,351	-	-	-	-	
Funding Value Beginning of Year	68,996					
Net External Cash Flow	(1,908)					
Investment income						
 Actual Investment Income 	6,368	-	-	-	-	
 Expected Investment Income 	5,307	-	-	-	-	
Amount for phase-in	1,061	-	-	-	-	
Phased-in recognition						
Current year	212	-	-	-	-	
First prior year	1,065	212	-	-	-	
Second prior year	86	1,065	212	-	-	
Third prior year	518	86	1,065	212	-	
Fourth prior year	1,341	518	86	1,065	212	
Total MRA recognition	3,222	1,881	1,363	1,277	212	
Funding Value End of year	75,617					
Market Value ROR - Actual	8.1%					





Concluding Remarks

- Recognition of prior asset gains are expected over next few years – possibly offset by poor investment return for 2008
- This Gain (Loss) Analysis is the second in a regular 3-year experience cycle
- This study together with the 2006 and 2008 study will form the basis for the next experience study
- The next experience study will be reported in December 2009 and implemented in the December 31, 2009 valuations

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