



Wisconsin Retirement System

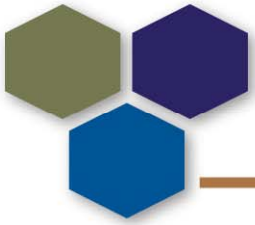
2008 Gain/Loss Analysis

September 2009

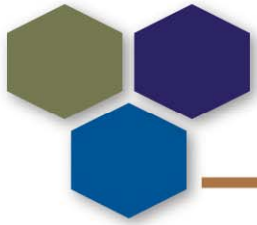
GRS

Gabriel Roeder Smith & Company
Consultants & Actuaries
www.gabrielroeder.com

Copyright © 2009 GRS – All rights reserved.



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

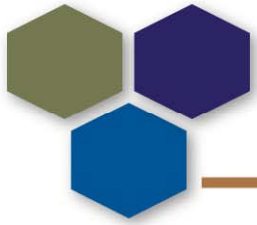
Other separations

Economic

Salary increases

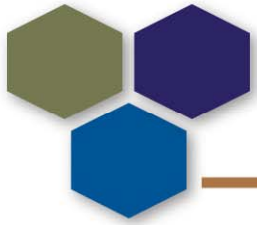
Investment return

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



Why Have A Gain/Loss Analysis?

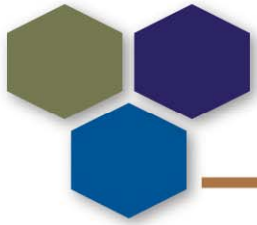
- ◆ It is a year-by-year measure of the operation of assumptions
- ◆ To understand the nature of risk
- ◆ To determine when assumption changes are needed
- ◆ To gain an understanding of reasons for contribution rate changes



Components of Total Gain/Loss

	<u>Gain/Loss in Millions</u>	
	<u>2007</u>	<u>2008</u>
Economic Risk	\$1,057	\$(956)
Decrement Risk	(21)	(13)
Other Activity	<u>(242)</u>	<u>(158)</u>
Total Gain (Loss)	\$ 794	\$(1,127)
Effect of Assumption Changes	<u>0</u>	<u>0</u>
Net Gain/(Loss)	\$ 794	\$(1,127)

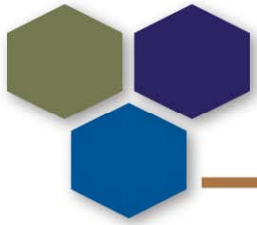
(see page 9)



Investment Earnings in 2008 (Active Participants)

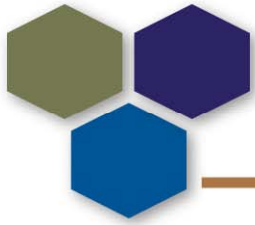
	<u>\$ Millions</u>
A. Average balance on Participant and Employer Accumulation Reserves	\$38,984
B. Expected earnings: 7.8%	3,041
C. Earnings credited to Participant and Employer Accumulation Reserves	352
D. Gain (loss) from earnings: C - B	\$ (2,689)

(see page 12)



Investment Earnings in 2008 (Active Participants)

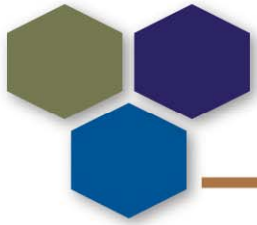
- ◆ \$2,689 million is total asset loss for the year
- ◆ However, part of the total loss is allocated to Variable Excess accounts
- ◆ Some of the loss flows through to members via the operation of Money Purchase minimum benefits
- ◆ Must net these out to determine remaining core fund gain or loss
- ◆ Remaining portion affects contribution rates



Investment Earnings in 2008 (Active Participants)

	<u>\$ Millions</u>
Gross Loss for the Year	\$(2,689)
Less Estimated Loss Due to Money Purchase and Variable Excess Effects	<u>(1,662)</u>
Net Core Fund Asset Loss	\$(1,027)

(see page 12)

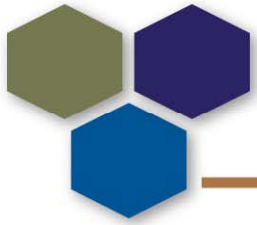


Salary Related Gain/Loss

Pay increases varied among groups producing a gain in total.

	Gain (Loss)	% of
	\$ Millions	Liabilities
General	\$66.3	0.2 %
Exec. & Elected	(1.3)	(0.4)%
Prot. w/Soc. Sec.	4.6	0.1 %
Prot. w/o Soc. Sec.	1.6	0.2 %
	<u>\$71.2</u>	<u>0.2 %</u>

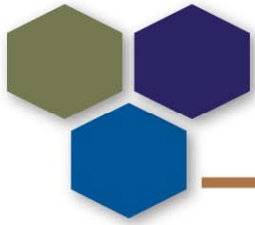
(see pages 9, 11)



Population Development During 2008

	Actual	Expected
Beginning Census	261,003	
(-) Normal Retirement	3,162	3,824
(-) Early Retirement	3,167	3,875
(-) Death	318	286
(-) Disability Retirement		
- Total Approved	183	330
- Less Pending	59	
- Net New	124	
(-) Other Separations	10,970	10,667
(-) Transfers Out	1,224	
(+) Transfers In	1,224	
(+) New Entrants	19,924	
Ending Census	263,186	

(see page 4)



Population Development During 2007

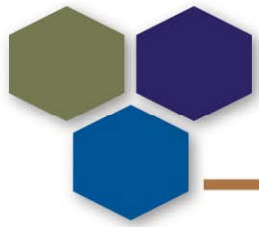
Normal Retirements: Varied by group and gender, overall fewer normal retirements than expected.

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 all groups.

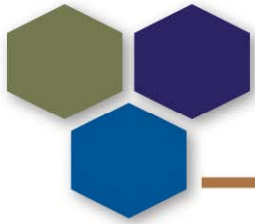
Other Separations: Varied by group, gender and service. Other separations among short service participants were higher than expected, among longer service participants less than expected. The net result was a loss.



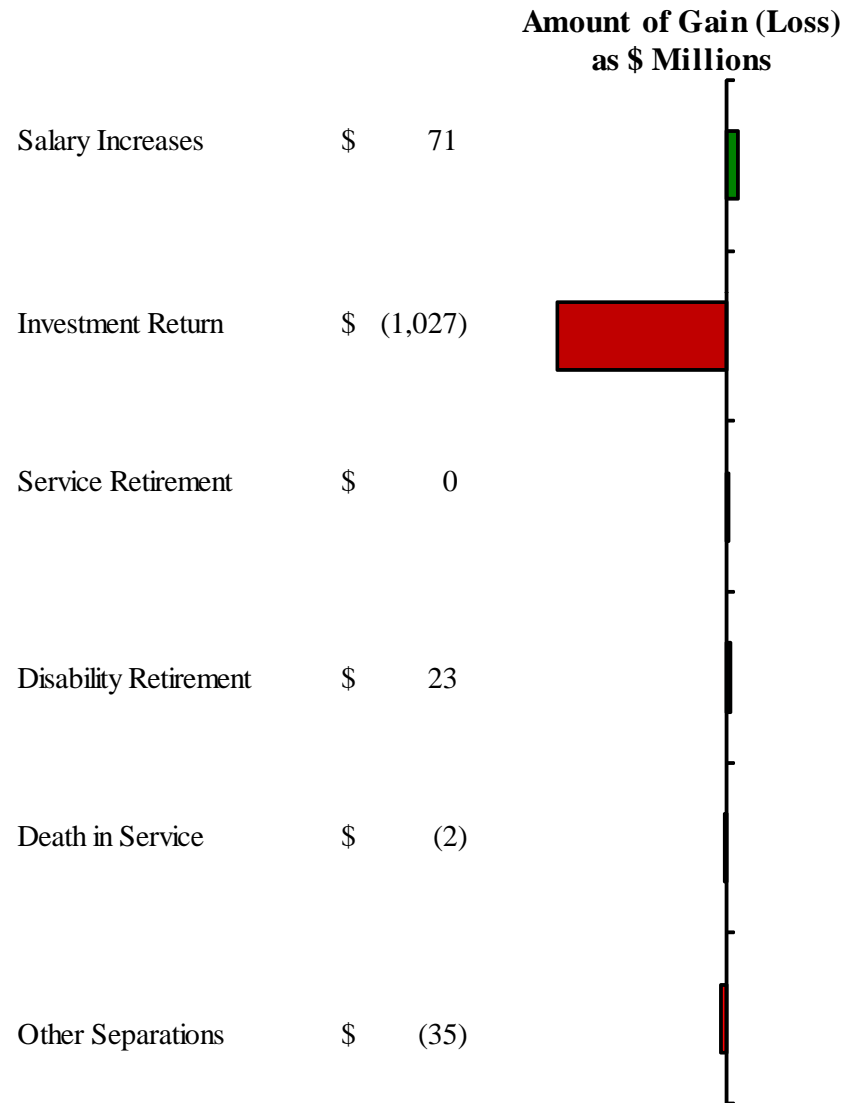
Comparative Schedule of Experience Gains/(Losses)

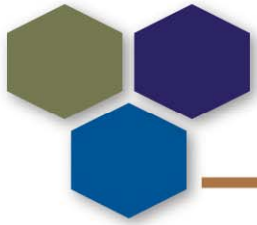
	Divisions Combined	
	2007	2008
	<u> </u>	<u> </u>
Normal Retirement	\$ 4.9	\$ 2.2
Early Retirement	(8.1)	(2.0)
Disability Retirement	13.5	(2.0)
Death	(2.9)	23.4
Other Separations	(28.4)	(34.5)
	<u> </u>	<u> </u>
Total	\$ (21.0)	\$ (12.9)
As % of Liabilities	<0.1%	<0.1%

(see page 9)



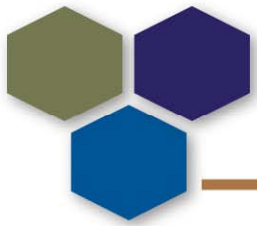
Gain/Loss Analysis-2008 Experience





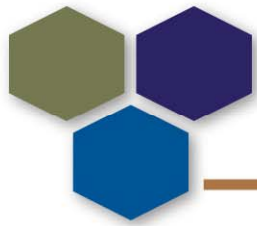
Explanation of Gain or Loss Due to “Other” Risk Areas

- ◆ 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)



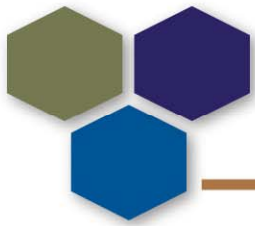
How Does Gain/Loss Affect the Total Contribution Rate?

- ◆ Normal cost contribution for all groups increased from the prior year
- ◆ Total net loss of \$1,127 million primarily due to unfavorable investment performance



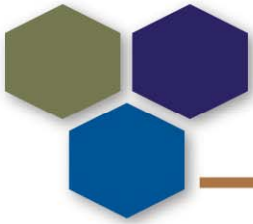
Funding Value of Assets (\$ millions)

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Market value BOY	\$80,432	\$ -	\$ -	\$ -	\$ -
Market value EOY	57,334	-	-	-	-
Funding Value Beginning of Year	75,701				
Net External Cash Flow	(2,078)				
Investment income					
● Actual Investment Income	(21,021)	-	-	-	-
● Expected Investment Income	<u>5,824</u>	-	-	-	-
● Amount for phase-in	(26,845)	-	-	-	-
Phased-in recognition					
● Current year	(5,369)	-	-	-	-
● First prior year	212	(5,369)	-	-	-
● Second prior year	1,065	212	(5,369)	-	-
● Third prior year	86	1,065	212	(5,369)	-
● Fourth prior year	<u>518</u>	<u>86</u>	<u>1,065</u>	<u>212</u>	<u>(5,369)</u>
● Total MRA recognition	(3,488)	(4,006)	(4,092)	(5,157)	(5,369)
Funding Value End of year	75,959				
Market Value ROR - Actual	(30.1)%				



Concluding Remarks

- ◆ Recognition of prior asset losses are expected over next few years – upward pressure on contribution rates
- ◆ This Gain/Loss Analysis is the third in a regular 3-year experience cycle
- ◆ This study together with the 2006 and 2007 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



- ◆ Circular 230 Notice: Pursuant to regulations issued by the IRS, to the extent this presentation concerns tax matters, it is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) marketing or recommending to another party any tax-related matter addressed within. Each taxpayer should seek advice based on the individual's circumstances from an independent tax advisor.
- ◆ This presentation shall not be construed to provide tax advice, legal advice or investment advice.