Wisconsin Retirement System

December 30, 2011

Estimated Valuation Results

June 2012

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Introduction

- Employer Contribution Rates typically released in May and approved at June Board meeting
- Active member data is not yet available to complete December 31, 2011 Active Lives valuation
- Data is expected to be available in July of 2012
- ETF staff has worked with GRS to develop an estimated set of active data for 2011
- Estimated data is used to develop a range of possible contribution rates

Development of Data

- Started with active data set as of December 31, 2010 valuation
- Removed known retirements
- Removed known terminations
- Estimated new hire population from prior years
- Due to large number of retirements in 2011, total population could vary significantly
  - Scenarios range from 0% (no change in population) to 5% population decline
  - A decline in the population will lower the total payroll which typically exerts upward pressure on the contribution rate

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Development of Data

- For continuing active member population, needed to make assumptions about various items
  - Pay increases – scenarios range from 0% to 5.0%
  - Contribution balances were rolled forward based on return in core and variable fund and estimated contributions
  - Members were assumed to earn a full year of service
- Asset information was available and should be accurate

How is the Contribution Determined

Development of Contribution

WRS uses the Frozen Initial Liability Method

- "Frozen Initial Liability Method" in which normal cost is pooled, but each employer is separately responsible for its own unfunded liability
- Actuarial Gains and Losses affect the pooled normal cost, not the unfunded liability as in most plans
- Pooled Normal Cost contains a component related to accumulated unamortized past Gains and Losses
- That component is called the Experience Amortization Reserve or "EAR"

Development of Contribution

Contribution made up of three components

- Normal Cost attributable to future service
- Normal Cost attributable to prior gains and losses (also known as Experience Amortization Reserve)
- Amortization of Original frozen unfunded accrued liability. This is a separate responsibility of each employer. Most employers have already paid this off.

Contribution Example from last year (General Members)

1) Normal Cost for future Service	12.1%
2) Normal Cost for EAR	-0.3%
3) Total Normal Cost Contribution (1) + (2)	11.8%
4) Unfunded Liability	0.1%
5) Total Average Rate	11.9%

Estimated Valuation Results

Estimated Contributions for Calendar 2013

- Due to uncertainty of data, a range of possible outcomes was developed
- Pay increases scenarios ranged from 0% to 5% for continuing active members
- Total population scenarios ranged from stable population to 5% population decline

Estimated Contributions for Calendar 2013

	2012 Actual	2013 Scenarios		
		Low Cost	Medium Cost	High Cost
Total Normal Cost Contribution				
- General	11.8%	12.8%	13.2%	13.7%
- Executive & Elected	14.1%	13.8%	14.3%	14.8%
- Protective with SS	14.9%	15.6%	16.0%	16.5%
- Protective without SS	17.2%	17.9%	18.6%	19.3%

- Actual 2013 rate will vary based on actual pay increases and membership statistics

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Public Fund Survey

System	Employee Contribution	Employer Contribution	2010 Total	Increase From 2008
Alabama TRS	5.00%	6.42%	11.42%	0.03%
Alaska TRS	8.00%	7.00%	15.00%	0.00%
Arkansas TRS	6.00%	14.00%	20.00%	1.13%
California TRS	8.00%	8.25%	16.25%	0.00%
Connecticut TRS	6.00%	10.11%	16.11%	5.71%
Illinois TRS	9.40%	25.49%	34.89%	16.34%
Indiana TRF	3.00%	5.85%	8.85%	0.88%
Kentucky TRS	9.11%	17.21%	26.32%	6.60%
Minnesota TRA	9.00%	13.14%	22.14%	11.14%
New York TRS	3.50%	8.62%	12.12%	1.49%
Oklahoma TRS	7.00%	9.50%	16.50%	0.50%
Washington TRS	4.80%	9.18%	13.98%	3.35%
Wisconsin *	5.00%	4.80%	9.80%	0.00%

* Does not include 1.2% Benefit Adjustment Contribution

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Reasons for Increases in Contribution Rate

Impact of Asset Losses

- In the WRS actuarial work, asset gains and losses above or below the assumed rate of return are smoothed in over the current year, and four future years
- Four years after a valuation date, all asset gains or losses known at that time are fully recognized
- Smoothing method in WRS is referred to as the Market Recognition Account (MRA)
- This process generally works well, but the 2008 asset loss was very large and smoothing can only do so much

Operation of Market Recognition Account (MRA)

	2011	2012	2013	2014	2015
Actual Investment Return	1,007				
Assumed Investment Return	5,546				
Gain/(Loss) to be phased in	(4,539)				
Phased-in recognition					
• Current year	(908)	?	?	?	?
• First prior year	399	(908)	?	?	?
• Second prior year	1,288	399	(908)	?	?
• Third prior year	(5,370)	1,288	399	(908)	?
• Fourth prior year	211	(5,370)	1,288	399	(908)
Total recognized gain (loss)	(4,380)	(4,591)	779	(509)	(908)

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Cost Sharing of Asset Loss

- Due to cost sharing nature of WRS, asset losses have been traditionally shared by:
  - Employees (through reduced money purchase benefit)
  - Employers (through increases in contributions)
  - Retirees (through reduced dividends)
- In most systems, employers pick up entire cost of asset losses (and reap the rewards of gains)
- WRS contribution rates have been very stable.

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Impact of Prior Asset Losses (flow through EAR component)

	2008	2009	2010	2011 (est)
1) Total MRA Asset Loss (millions)	3,489	2,720	2,406	4,380
2) Portion of asset loss affecting contributions	1,027	912	876	1,513
3) Amortization Factor	13.79	13.79	13.79	13.79
4) Payroll (millions)	12,289	12,622	12,744	12,744
5) Impact of Asset Loss on Contributions (2) / (3) / (4)	0.6%	0.5%	0.5%	0.9%

- Note: Impact of 2010 Asset loss was offset by lower than assumed pay increases

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Lookback to 2008 Projection

	2008 Projection		Actual Result	
	Market ROR	Contribution Rate	Market ROR	Contribution Rate
12/31/2008	-30.0%	11.7%	-30.1%	11.2%
12/31/2009	7.8%	12.8%	19.3%	11.7%
12/31/2010	7.8%	13.9%	11.9%	11.9%
12/31/2011	7.8%	15.2%	1.4%	?

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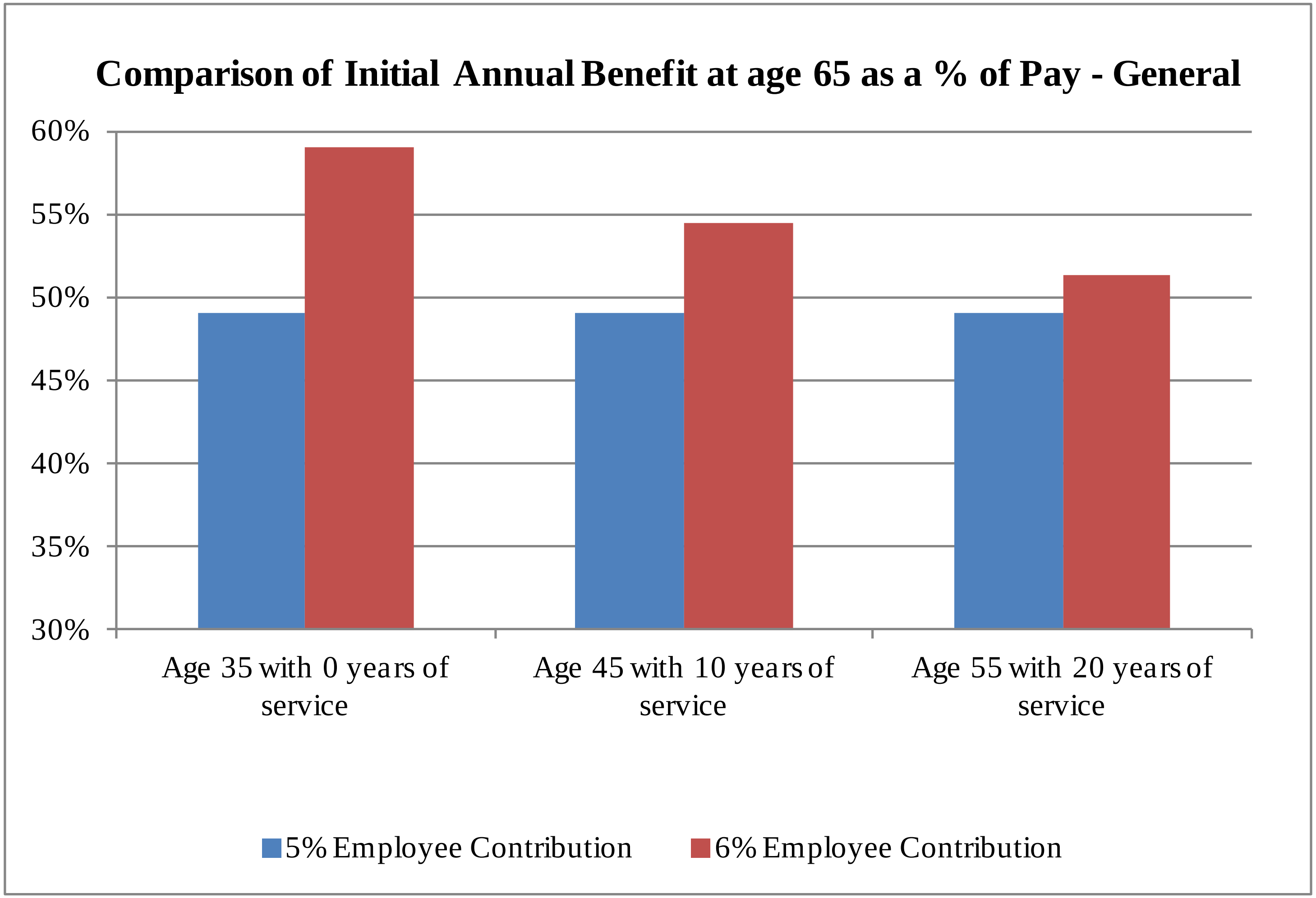
Impact of Act 10

- For General and Executive members, contribution rate split equally between employees and employers
- For Protective members, employee rate set equal to the General member rate
- For Executive members, benefit formula multiplier reduced from 2.0% to 1.6%
- Prohibits employers from paying the employee required rate

Impact of Act 10

- Results in an increase in the employee rate
  - Statutory employee contribution for members was 5% (sometimes picked up by employer)
  - Based on 2010 valuation, employee rate would increase to 5.9% in 2012 (one half of 11.8% total normal cost)
- In the WRS, the benefit is based on the greater of:
  - Formula Benefit (1.6% x FAE x service)
  - Money Purchase Benefit (2 x value of contributions)
- Increasing the employee rate will increase the money purchase minimum benefit

Money Purchase Benefit Example



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Contribution Example (General)

	Initial Employee Rate	Total Contribution	Employee Contribution	
Start →	5.00%	12.5%	6.25%	
	6.25%	13.1%	6.55%	
	6.55%	13.2%	6.60%	
	6.60%	13.2%	6.60%	→ End

In the above example, sharing the contribution equally between members and employers actually added 0.7% to the total rate.

Concluding Comments

- Asset losses from 2008 and 2011 will put upward pressure on contribution rates for all groups for Calendar 2013 and 2014
- Act 10 will put upward pressure on contribution rates (particularly for general members) because it increases money purchase benefits whenever there is an asset loss
- The combination of asset losses with Act 10 changes will put upward pressure on contribution rates
- Final results for 2011 valuation should be available for September Board meeting

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