

Presentation of 12/31/08 Valuation Results to the Joint Committee on Pensions, Investments and Benefits

Presented by:

Patrice A. Beckham, F.S.A.
Principal & Consulting Actuary

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Purpose of Actuarial Valuation

- Measurement of Assets and Liabilities
 - Apply cost method to allocate to periods of service
 - Use assumptions to estimate future benefit payments
- Calculate Employer Contribution Rates
 - FY12 for State
 - FY11 for Local
- Disclosures for Financial Reporting
- Baseline for Pricing Legislation

12/31/08 Actuarial Valuation

- No change in assumptions
- No change in actuarial methods
- No material changes in benefit structure

Valuation Results

- UAL increased about \$2.7 Billion
 - Over 85% due to investment experience, even with asset smoothing method
 - Contribution Shortfall + Lag
 - Demographic Experience
- Actuarial Value Greater Than Market Value
 - 2008 Return on MVA about - 28.5%
 - Deferred loss is about \$2 billion
 - Significant implications for future years
- Contribution Rates
 - Actuarial contribution rates higher
 - Shortfall in contribution rate increased
 - Actuarial rate now greater than statutory rate for State
 - State and Local still in actuarial balance, but not School
 - Difference in actuarial and statutory rates increased as did ARC date/rate

Actuarial Value of Assets

- Market value not used directly in valuation
- Asset valuation method used to smooth the effect of market fluctuations
- Gain/loss as measured on market value spread evenly over 5 years
- Resulting value of actuarial assets must be within corridor of 80-120% of pure market value (corridor applied this year).
- Magnitude of 2008 loss makes the application of the corridor more significant - large increase in contribution rates for KP&F and Judges
- Use of corridor needs further analysis and study

Asset Values (\$M)

	<u>MVA</u>	<u>AVA</u>
Value at 12/31/07	\$ 14,168	\$ 13,433
▪ Contributions	683	683
▪ Benefit Payments	(1,017)	(1,017)
▪ Investment Income	(3,978)	407
Preliminary value at 12/31/08	\$ 9,856	\$ 13,506
Application of corridor	N/A	\$ (1,678)
Final value at 12/31/08	\$ 9,856	\$ 11,828
Approximate Return	-28.5%	-9.6%

Market vs. Actuarial Value

- Actuarial/Market = 120%
- Deferred recognition of investment experience: \$2.0 billion
- Significant deferred loss to be recognized
 - Expect loss on actuarial assets in future years even if 8% expected return met
 - Loss will translate to higher UAL and lower funded ratio absent offsetting favorable experience

Unfunded Actuarial Liability (UAL)

- Actuarial Liability less Actuarial Assets
- Impacted by:
 - benefit changes
 - experience gains/losses
 - assumption and method changes
 - actual contributions
- Expected to increase:
 - Payment methodology results in increase in UAL
 - Planned difference in contribution rates increases UAL each year
 - Deferred investment losses are significant

12/31/08 UAL (\$M)

	<u>AL</u>	<u>AVA</u>	<u>UAL</u> *
State	\$ 3,555	\$ 2,553	\$ 1,002
School	10,938	5,699	5,239
Local	3,376	1,991	1,385
KP&F	2,098	1,480	619
Judges	<u>140</u>	<u>104</u>	<u>36</u>
Total	\$ 20,107*	\$ 11,828*	\$ 8,279*

* Amounts may not add due to rounding

Change in UAL (\$M)

UAL 12/31/07	\$ 5,552
Cap/Timing/Method	317
Experience	
– Investment *	2,332
– Other	78
Assumption Change	0
Benefit Change	0
UAL 12/31/08	\$ 8,279

* Application of the 80-120% of market value corridor resulted in recognition of an additional \$1.678 billion of investment loss.

Funded Ratio ***(Actuarial Assets/Actuarial Liability)***

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
State	85%	85%	86%	87%	72%
School	63%	61%	61%	63%	52%
Local	67%	67%	69%	70%	59%
KP&F	81%	80%	83%	86%	71%
Judges	80%	85%	87%	89%	75%
Total	70%	69%	69%	71%	59%

Funded Ratio on Actuarial and Market Value

	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Using Actuarial Value of Assets:						
Funded Ratio (AVA/AL)	75%	70%	69%	69%	71%	59%
Unfunded Actuarial Liability (AL-AVA)	\$3,586	\$4,743	\$5,152	\$5,364	\$5,552	\$8,279
Using Market Value of Assets:						
Funded Ratio (MVA/AL)	71%	71%	72%	76%	75%	49%
Unfunded Actuarial Liability (AL-MVA)	\$4,202	\$4,536	\$4,583	\$4,184	\$4,817	\$10,250

Contribution Rates

<u>System</u>	Actuarial		Statutory
	<u>12/31/07</u>	<u>12/31/08</u>	<u>12/31/08</u>
State	7.39%	11.13%	8.77%
School	12.48%	14.96%	8.77%
Local	8.52%	10.42%	6.74%
KP&F	12.86%	17.88%	17.88%
Judges	19.49%	26.38%	26.38%

Projected Funded Status-Total System*

<u>Valuation Date</u>	<u>CY09 Return</u>	<u>UAL*</u> <u>(\$M)</u>	<u>Funded Ratio*</u>	
			<u>AVA</u>	<u>MVA</u>
12/31/08		8,279	59%	49%
12/31/09	16%	7,862	63%	52%
12/31/09	8%	8,775	58%	49%
12/31/09	0%	9,705	54%	45%
12/31/09	-8%	10,634	50%	41%

* Assumes all demographic actuarial assumptions are met.

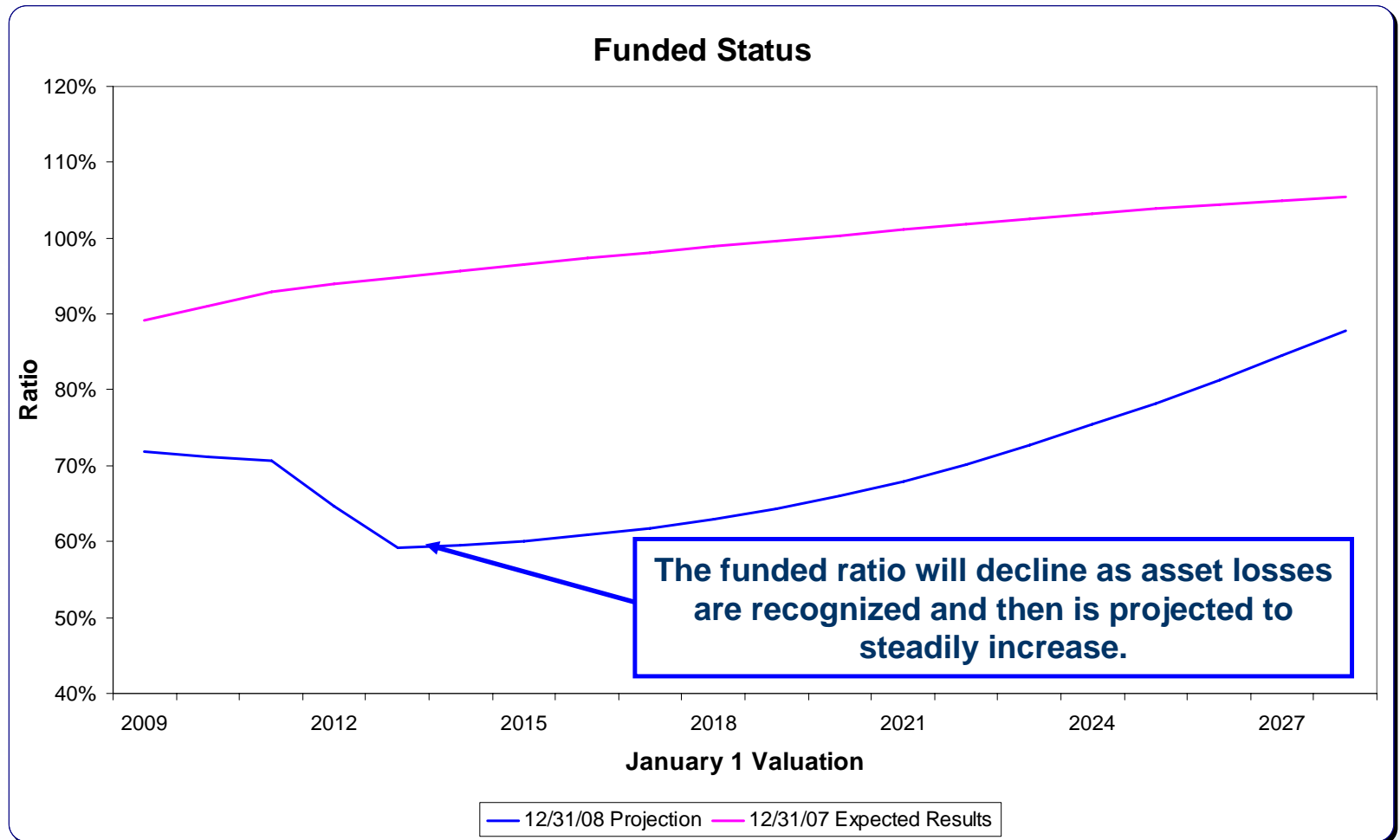
Funding Projections

- Not precise predictions but general estimates
- Based on many assumptions
 - 8% return on market value from 12/31/08 forward
 - All actuarial assumptions met
 - Current plan provisions
 - Current statutory caps and timing lag
 - New entrant profile

State Funded Status

	Valuation Results	
	<u>12/31/07</u>	<u>12/31/08</u>
Funded Ratio	87%	72%
Actuarial Rate	7.39%	11.13%
Statutory Rate	7.39%	8.77%
ARC Date	FY2010	FY2022
ARC Rate	7.34%	14.50%

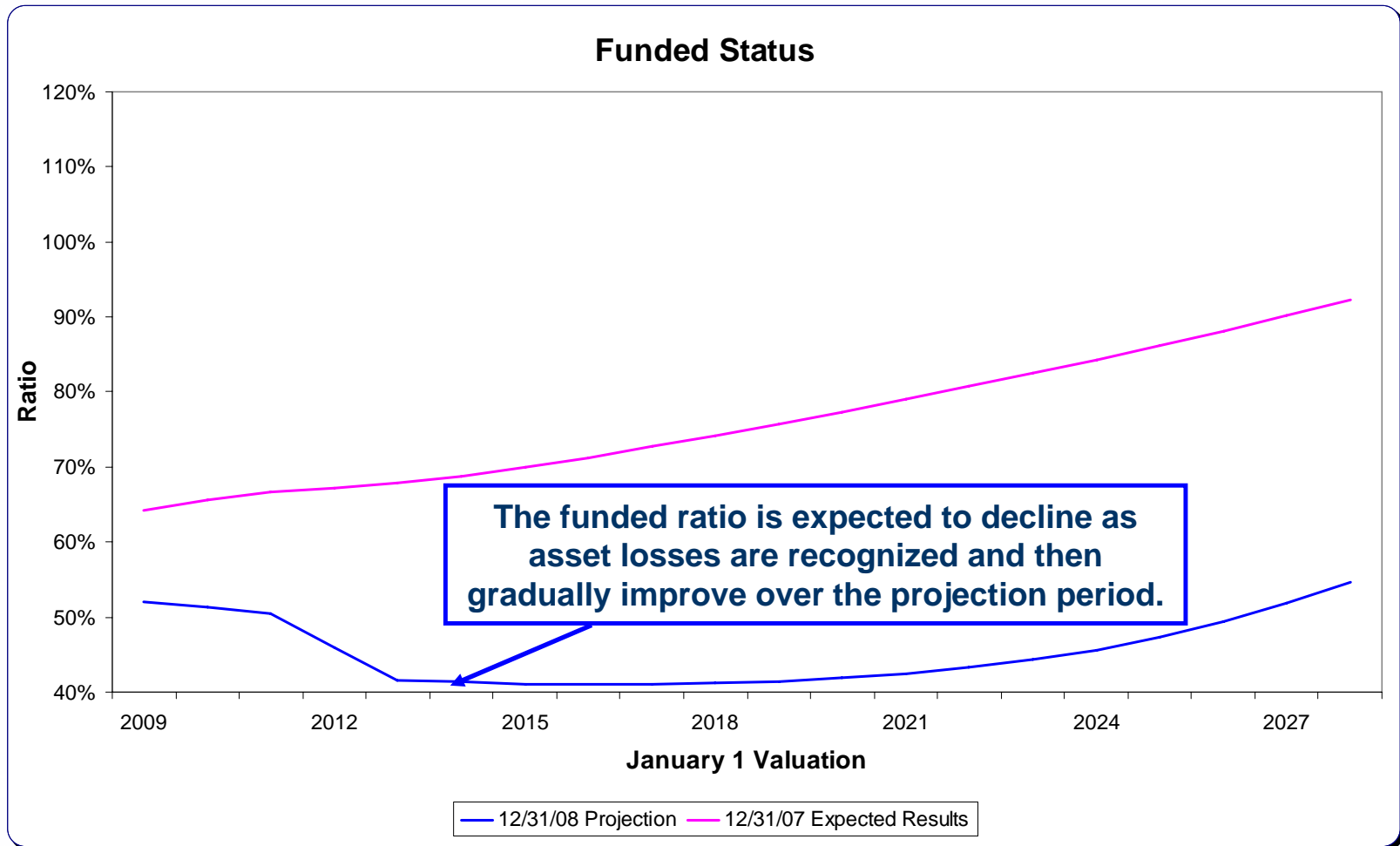
State Projected Funded Ratio



School Funded Status

	Valuation Results	
	<u>12/31/07</u>	<u>12/31/08</u>
Funded Ratio	63%	52%
Actuarial Rate	12.48%	14.96%
Statutory Rate	8.17%	8.77%
ARC Date	FY2016	None
ARC Rate	11.13%	N/A

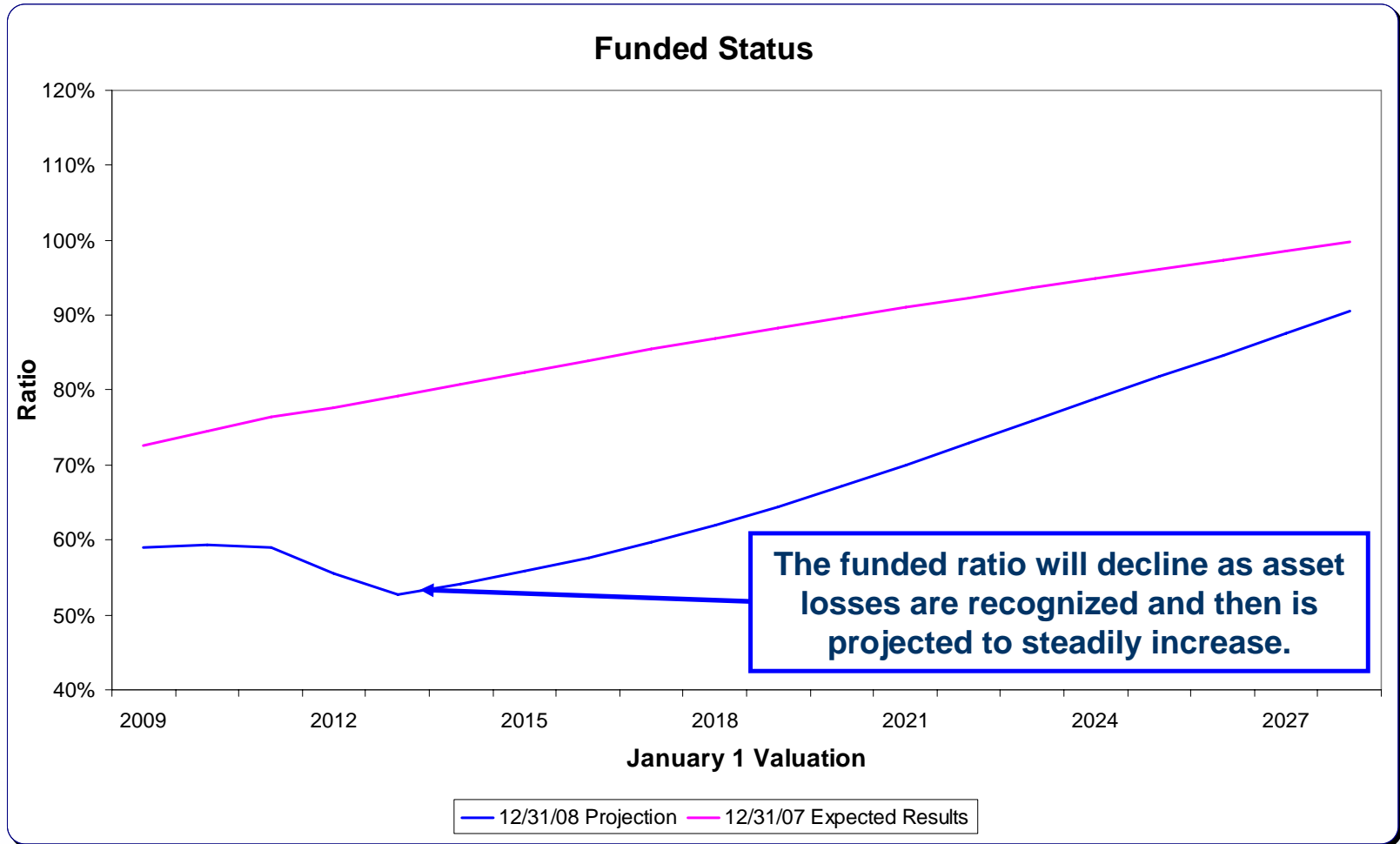
School Projected Funded Ratio



Local Funded Status

	Valuation Results	
	<u>12/31/07</u>	<u>12/31/08</u>
Funded Ratio	70%	59%
Actuarial Rate	8.52%	10.42%
Statutory Rate	6.14%	6.74%
ARC Date	FY2015	FY2020
ARC Rate	7.99%	11.90%

Local Projected Funded Ratio



Comments

- Actuarial value is 20% higher than market value
- School not in actuarial balance and State/Local ARC dates pushed out
- Concern for long-term funding given current funding levels and projected employer contributions.
 - Further study and analysis is needed to evaluate sustainability of System.