

Presentation of 12/31/09 Valuation Results to the KPERs Board of Trustees

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Purpose of Actuarial Valuation

- Measurement of Assets and Liabilities
- Best Estimate of Ultimate Costs
 - Project future benefits
 - Calculate present value of future benefits
 - Apply cost method to allocate to periods of service
- Calculate Employer Contribution Rates
 - FY13 for State
 - FY12 for Local
- Disclosures for Financial Report
- Baseline for Legislative Changes

Actuarial Valuation

- Snapshot picture of the system as of a single date
- Statistical projection of amount/timing of future benefits to be paid
 - Uses one set (best estimate) of many possible scenarios
 - Assumptions used impact results
- The actuary puts values on each funding element - the assets, the benefits and future contributions

12/31/09 Actuarial Valuation

- No change
 - Assumptions
 - Actuarial methods
 - Benefit structure
- First valuation with Tier 2 Members
- Active member count increased for State and Local due to first day coverage

Valuation Results

- UAL decreased about \$602 million
- Actuarial Value Greater Than Market Value
 - 2009 Return on MVA about +23%
 - Deferred loss is still about \$1.7 billion
 - Significant implications for future years
- Contribution Rates
 - Actuarial contribution rates down from last year
 - Shortfall in contribution rate still exists
 - State and Local still in actuarial balance, but not School

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

Asset Values (\$M)

	<u>MVA</u>	<u>AVA</u>
Value at 12/31/08	\$ 9,856	\$ 11,828
▪ Contributions	747	747
▪ Benefit Payments	(1,058)	(1,058)
▪ Investment Income	2,210	1,944
Preliminary value at 12/31/09	\$ 11,755	\$ 13,461
Application of corridor	N/A	\$ N/A
Final value at 12/31/09	\$ 11,755	\$ 13,461
Approximate Return	23.1%	16.7%

Market vs Actuarial Value

- Actuarial/Market = 115%
- Deferred recognition of investment experience: \$1.7 billion
- Significant deferred loss yet 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 changes
 - actuarial method changes
 - actual contributions

Unfunded Actuarial Liability

- Based on actuarial, not market value of assets
- Expected to increase:
 - Payment methodology results in increase in UAL
 - Difference in statutory contribution rate and ARC increases UAL each year
 - Deferred investment losses are significant

12/31/09 UAL (\$M)

	<u>Actuarial Liability(AL)</u>	<u>Actuarial Assets</u>	<u>Unfunded AL*</u>
State	\$ 3,696	\$ 2,890	\$ 806
School	11,437	6,438	4,999
Local	3,624	2,309	1,315
KP&F	2,232	1,702	530
Judges	<u>148</u>	<u>122</u>	<u>26</u>
Total	\$ 21,138*	\$ 13,461*	\$ 7,677*

* Amounts may not add due to rounding

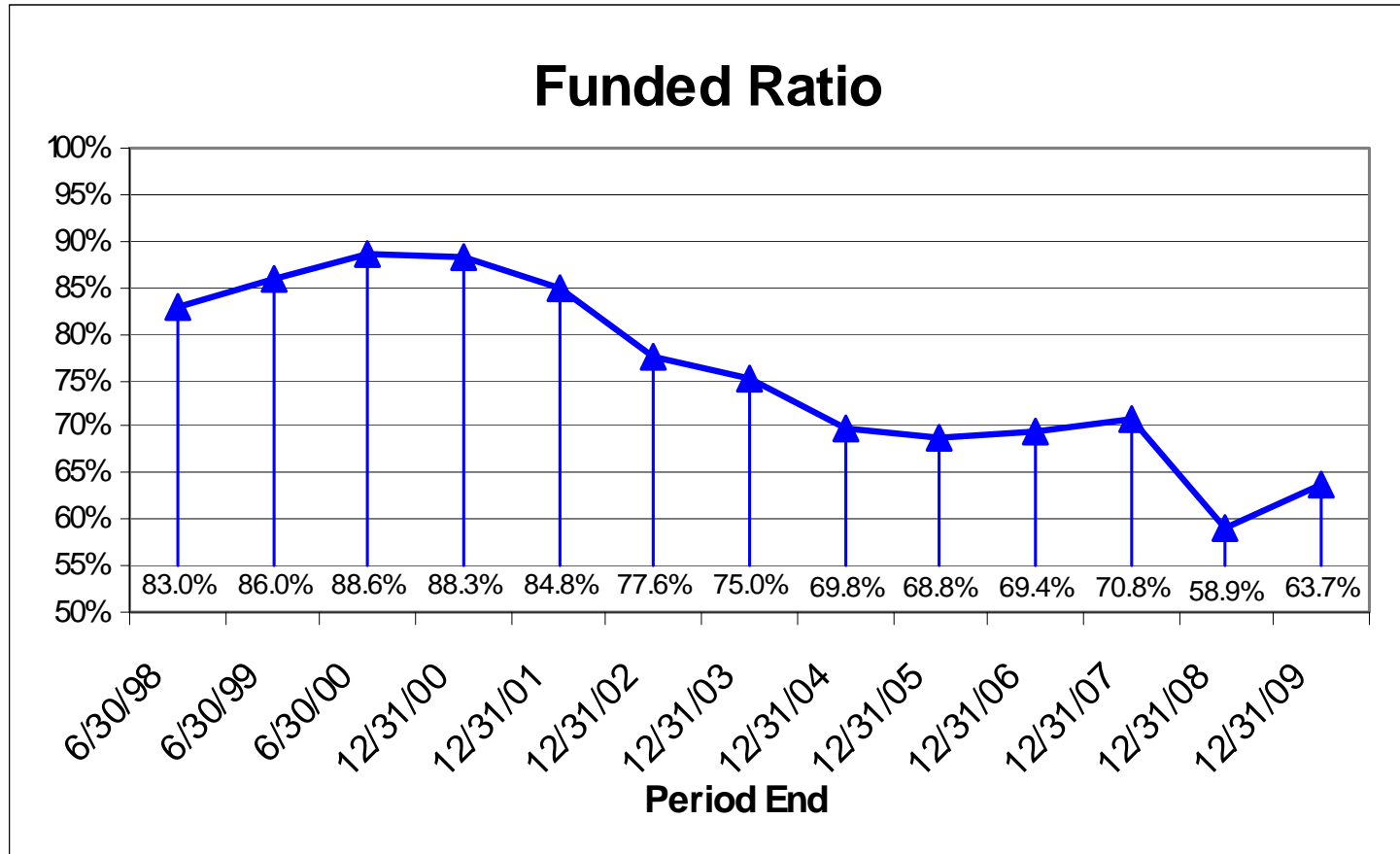
Change in Unfunded Actuarial Liability (\$M)

UAL 12/31/08	\$ 8,279
Cap/Timing/Method	480
Experience	
– Investment	(1,011)
– Other	(71)
Assumption Change	0
Benefit Change	0
UAL 12/31/09	\$ 7,677

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

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
State	85%	86%	87%	72%	78%
School	61%	61%	63%	52%	56%
Local	67%	69%	70%	59%	64%
KP&F	80%	83%	86%	71%	76%
Judges	85%	87%	89%	75%	82%
Total	69%	69%	71%	59%	64%

Historical Funded Ratio



Funded Ratio on Actuarial and Market Value

	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09
Using Actuarial Value of Assets:						
Funded Ratio (AVA/AL)	70%	69%	69%	71%	59%	64%
Unfunded Actuarial Liability (AL-AVA)	\$4,743	\$5,152	\$5,364	\$5,552	\$8,279	\$7,677
Using Market Value of Assets:						
Funded Ratio (MVA/AL)	71%	72%	76%	75%	49%	56%
Unfunded Actuarial Liability (AL-MVA)	\$4,536	\$4,583	\$4,184	\$4,817	\$10,250	\$9,384

Contribution Rates

<u>System</u>	<u>Actuarial</u>		<u>Statutory</u>
	<u>12/31/08</u>	<u>12/31/09</u>	<u>12/31/09</u>
State	11.13%	9.55%	9.37%
School	14.96%	14.69%	9.37%
Local	10.42%	9.44%	7.34%
KP&F	17.88%	16.54%	16.54%
Judges	26.38%	23.75%	23.75%

Funding Projections

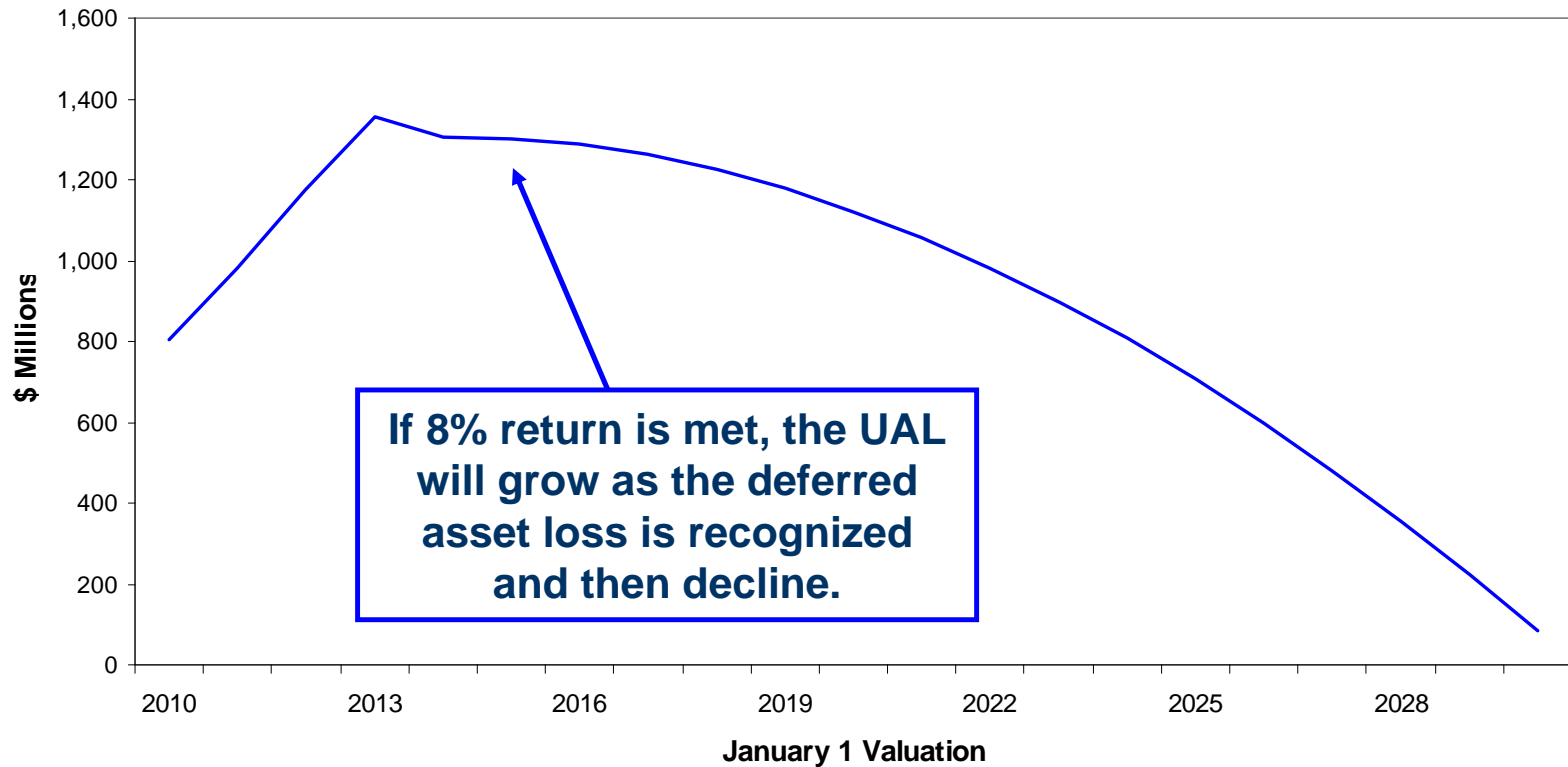
- Not precise predictions but general estimates
 - Preliminary model results – final review being performed
 - Final ARC dates/rates may change

- Based on many assumptions
 - 8% return on market value from 12/31/09 forward
 - All actuarial assumptions met
 - Current plan provisions
 - Current statutory caps and timing lag
 - New entrant profile

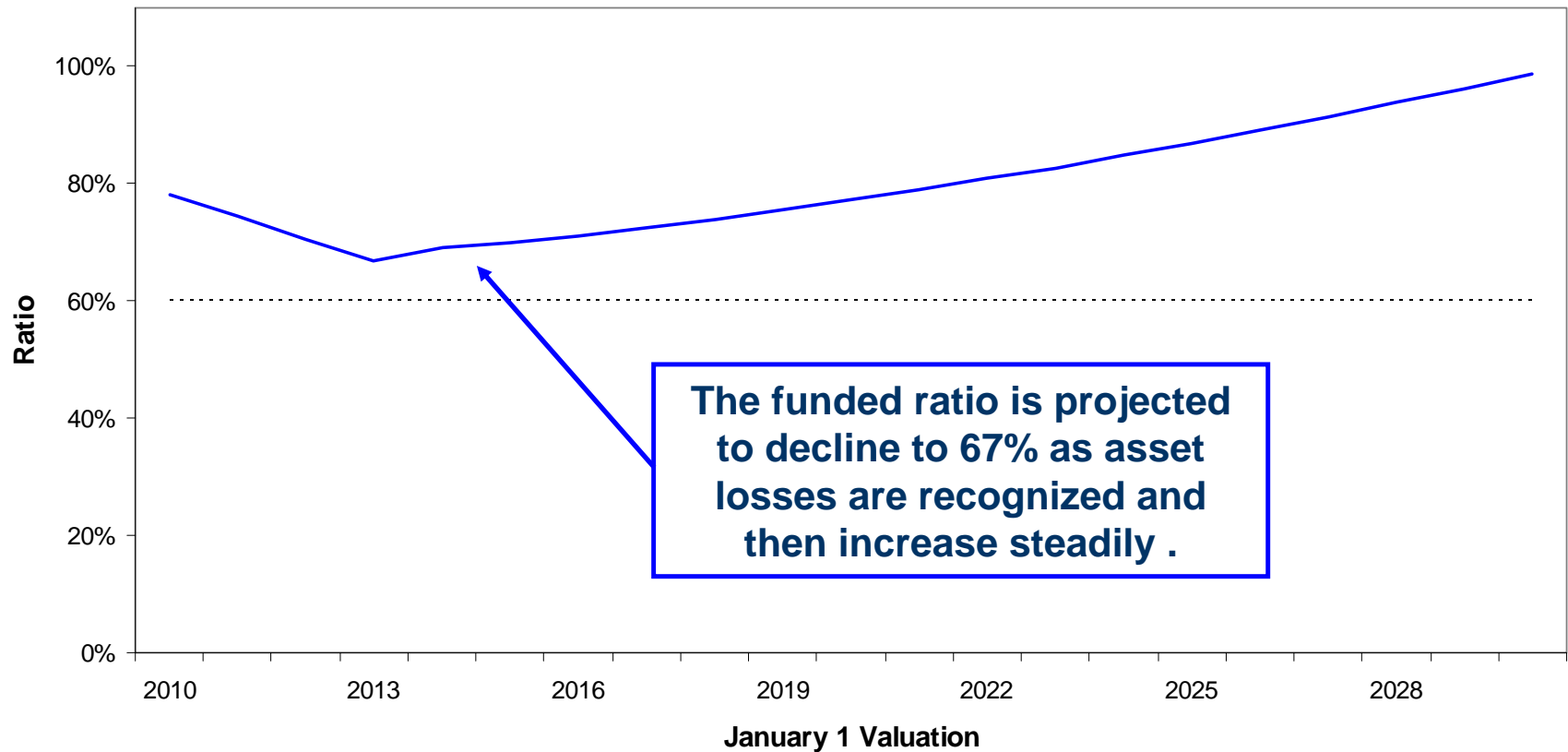
State Funding

- 12/31/09 Valuation
 - Funded Ratio: 78%
 - Actuarial rate: 9.55%
 - Statutory rate: 9.37%
- ARC Date/Rate
 - Date: FY2018
 - Rate: 11.86%

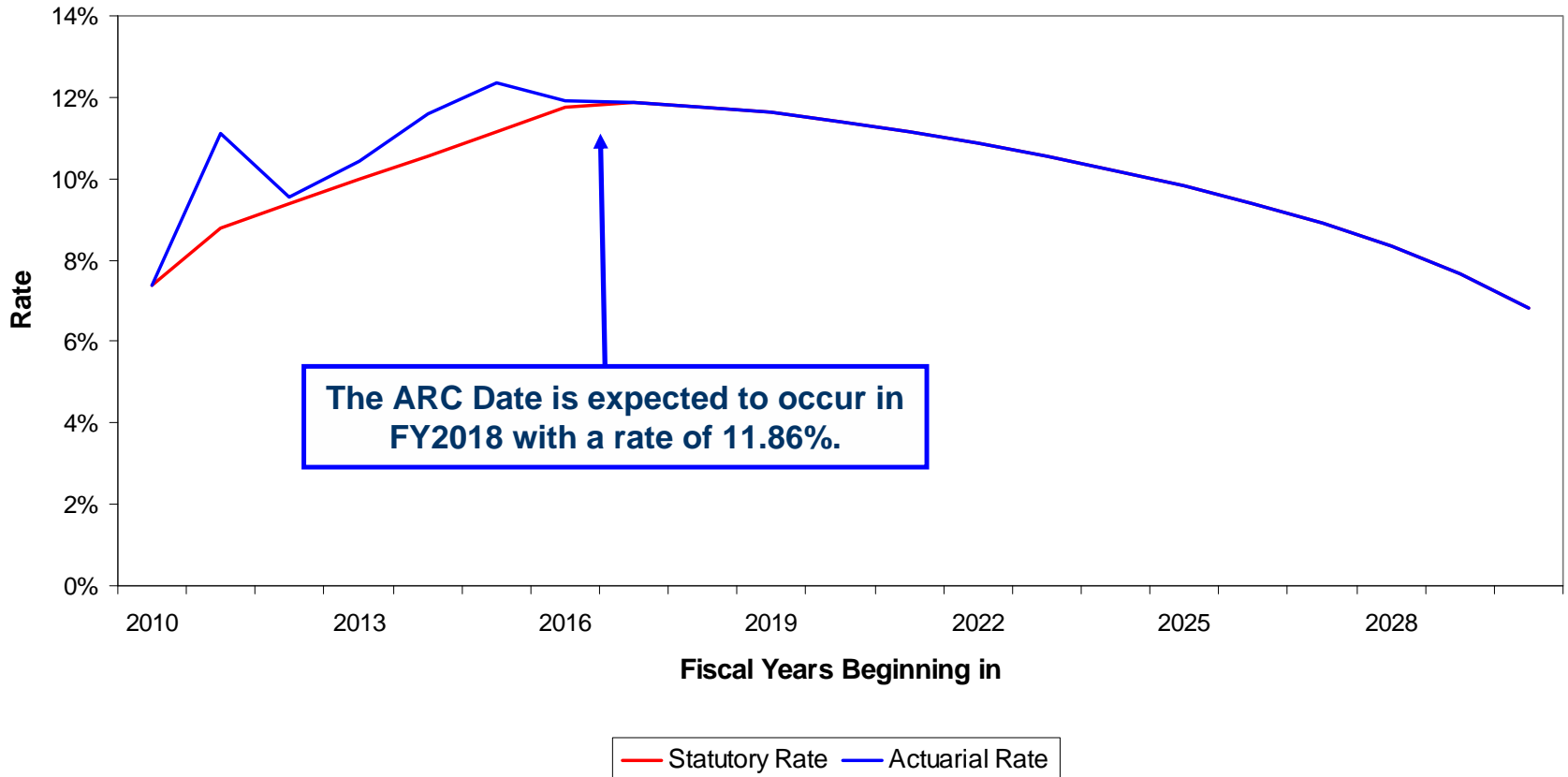
State Projected UAL



State Projected Funded Ratio



Projected State Employer Contribution Rates

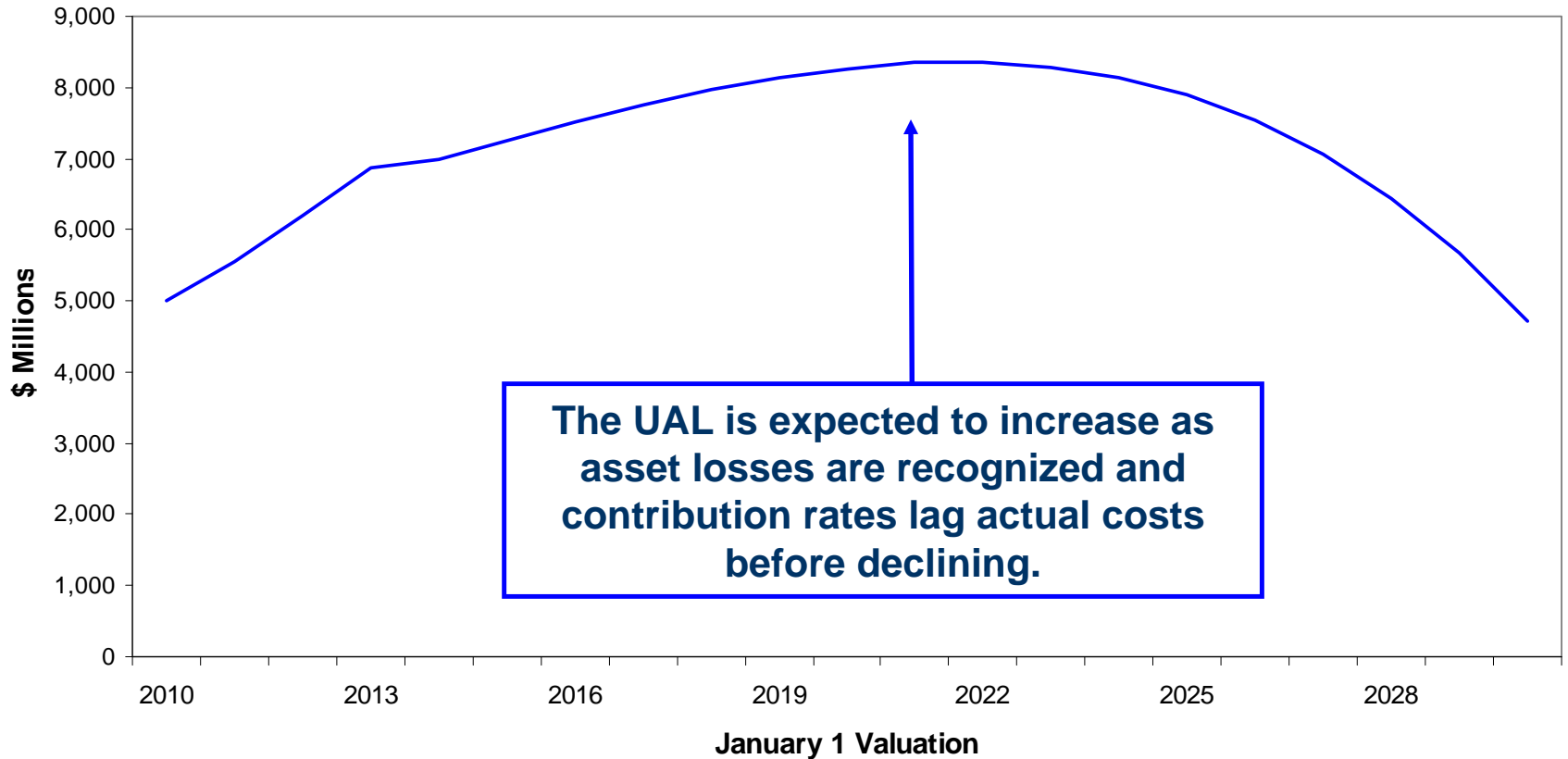


School Funding

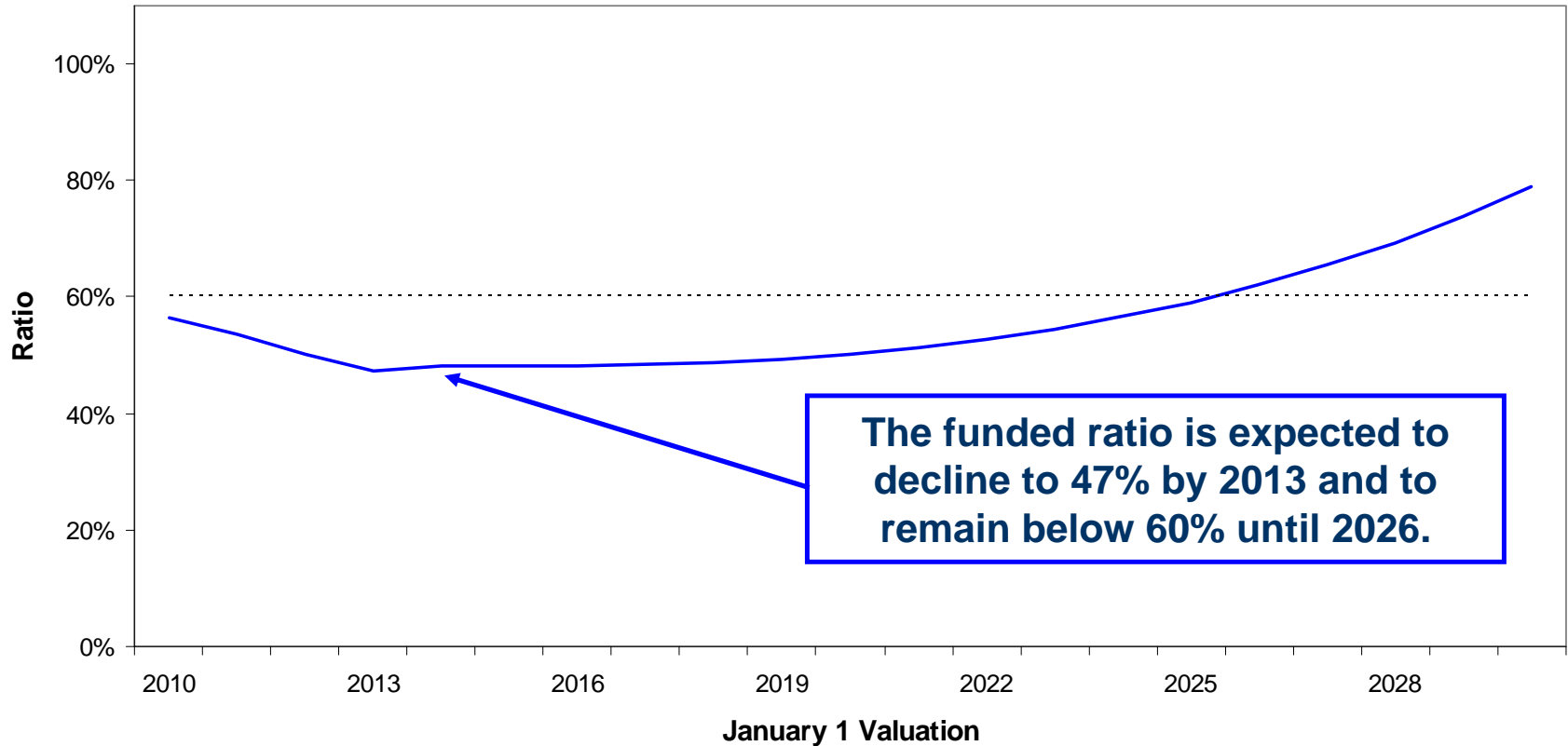
- 12/31/09 Valuation
 - Funded Ratio: 56%
 - Actuarial rate: 14.69%
 - Statutory rate: 9.37%

- Projected ARC Date/Rate
 - Date: None

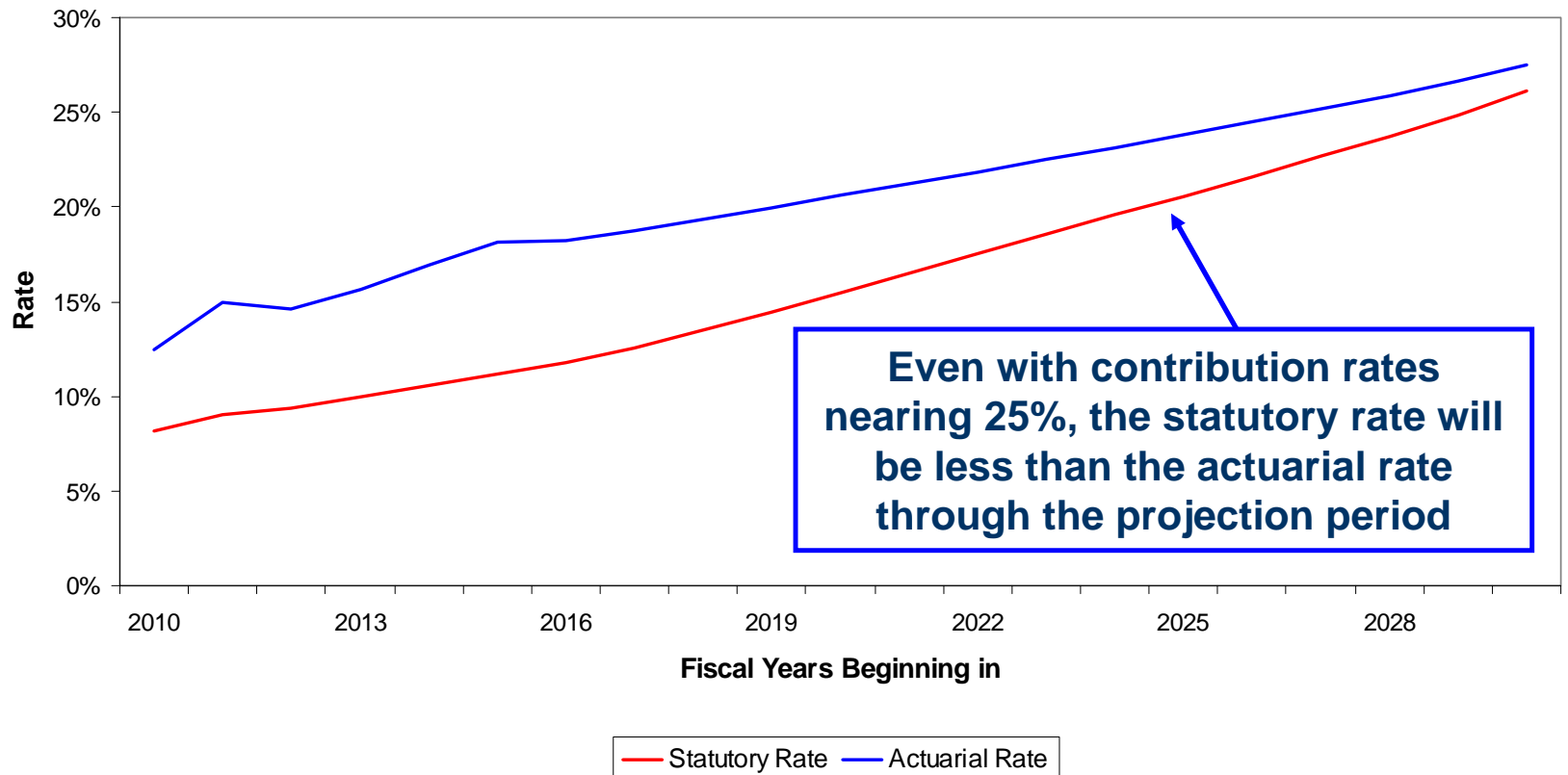
School Projected UAL



School Projected Funded Ratio



Projected School Employer Contribution Rates

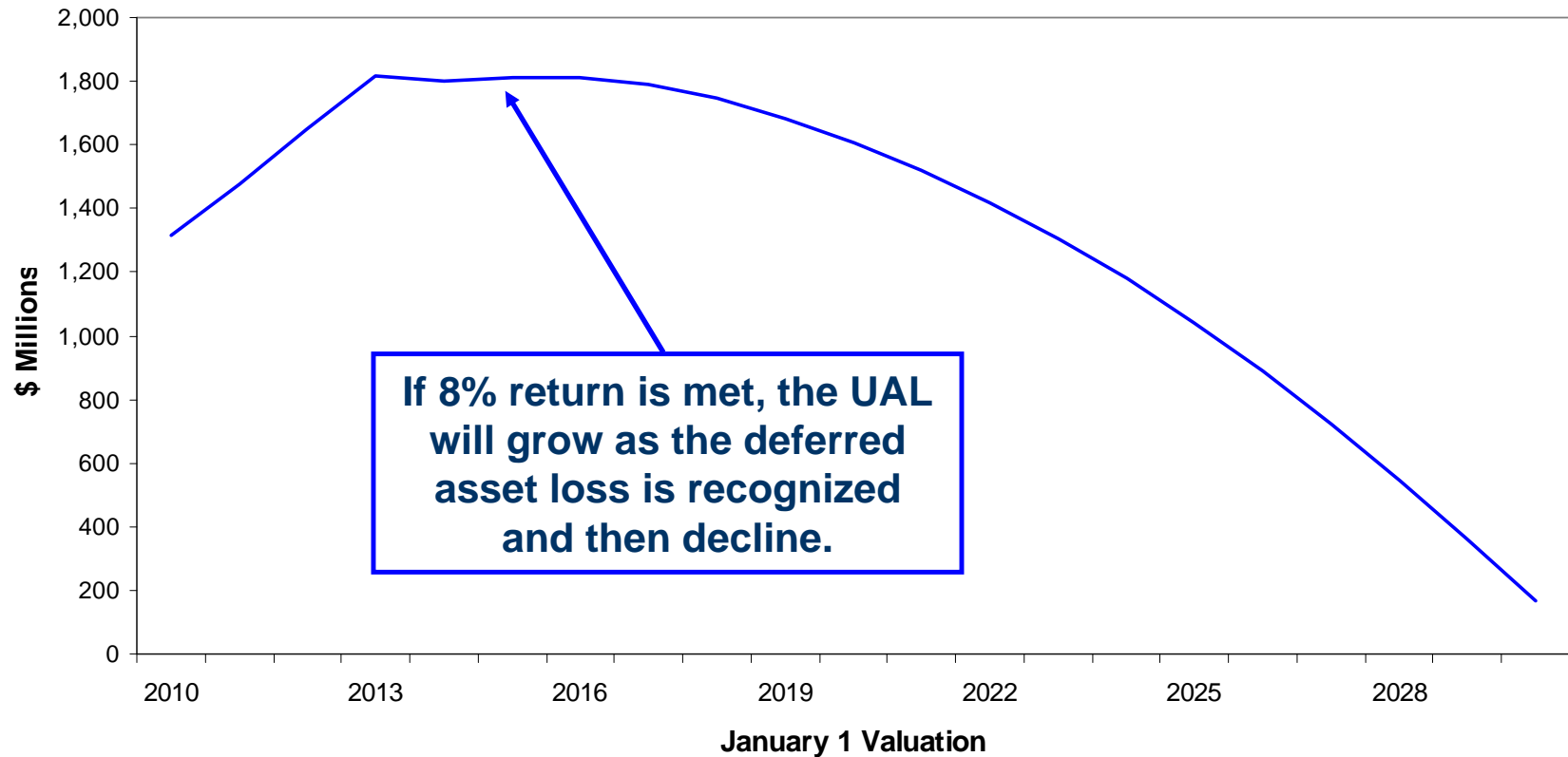


Local Funding

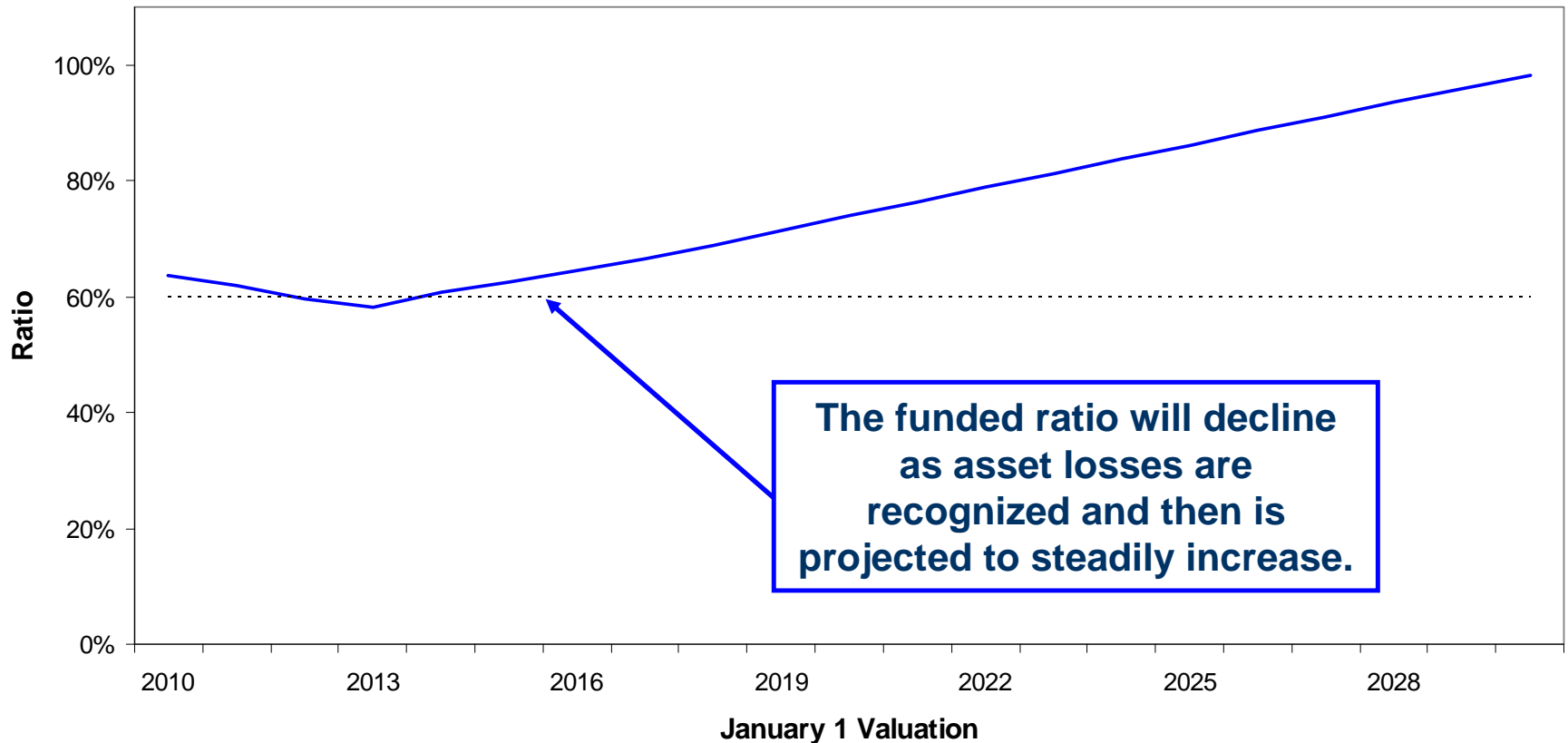
- 12/31/09 Valuation
 - Funded ratio: 64%
 - Actuarial rate: 9.44%
 - Statutory rate: 7.34%

- Projected ARC Date/Rate
 - Date: FY 2019
 - Rate: 10.64%

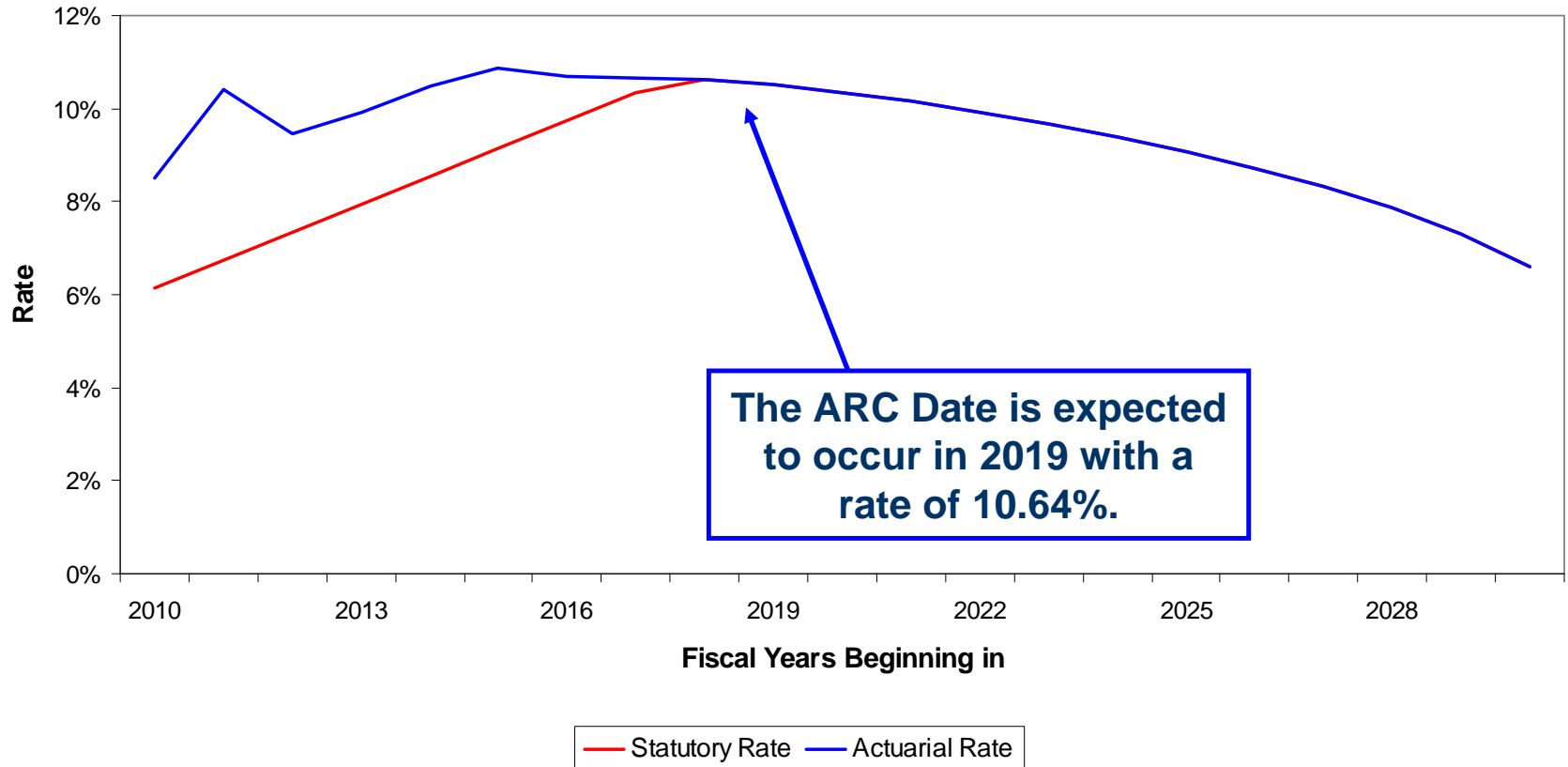
Local Projected UAL



Local Projected Funded Ratio



Projected Local Employer Contribution Rates



Short Term Projections – Total System

Return in 2010

Valuation Date (12/31)	8%		0%		-8%	
	<u>UAL</u>	<u>Funded Ratio</u>	<u>UAL</u>	<u>Funded Ratio</u>	<u>UAL</u>	<u>Funded Ratio</u>
2009	\$7,677	64%	\$7,677	64%	\$7,677	64%
2010	8,681	61%	8,867	60%	9,571	57%
2011	9,814	58%	10,259	56%	10,703	54%
2012	10,920	55%	11,628	52%	12,412	49%

Funding Standards

- Purpose is to evaluate financial condition on a consistent basis
- Triggering events occurred on all tests last year
- Still apply this year
- Concern for long term funding given current funded levels and projected employer contributions.
- Need to continue analysis and make progress on funding plan.

GASB Preliminary Views Document

- Presents general principles and concepts
- Significant changes to current standards
- Recognizes that pension benefits are part of compensation package
 - Plan is primarily responsible for funded portion
 - Employer is primarily responsible for any unfunded obligation
- Separates accounting and funding standards
- ARC (Annual Required Contribution) no longer exists

GASB Preliminary Views Document

- Single discount rate based on when expected assets are projected to run out
 - Expected return for payments before assets run out
 - Municipal bond rate for rest of payments
- Required to use Entry Age Normal cost method
- Acceptable asset smoothing would change
- Changes in Net Pension Liability amortized over shorter periods
 - Three separate sets of rules for amortizing changes: (1) active liability, (2) retired liability, and (3) assets
- Net Pension Liability(NPL) shown on employer's financial statement

GASB Preliminary Views Document

- Potential increase in liability; could be significant
- Amortization periods are much shorter. Creates higher pension expense (cost)
- For many systems accounting numbers will vary from funding (valuation) numbers
 - Creates two sets of “cost” numbers
 - Potential confusion or misunderstanding
- Timeline
 - September 2010: Public comments
 - October 2010: Public hearings
 - 2011: Exposure draft (ED)
 - Comments on ED
 - Final Standard: maybe 2012
 - Effective Date: Not sure (2013 or 2014)

Additional 2010 Projects

- Long Term Funding
 - Revisit “sustainability” measures
 - Focus on downside risk
- Triennial Experience Study
 - Split study into two parts
 - October meeting: Demographic assumptions
 - After A/L Study: Economic assumptions
- More on GASB Preliminary Views