



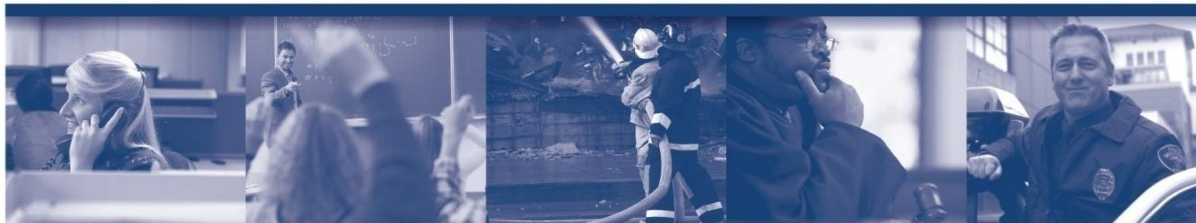
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# Omaha School Employees' Retirement System January 1, 2018 Draft Valuation Results

**Presented by: Patrice Beckham, FSA, EA, MAAA**

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# Purposes of an Actuarial Valuation

- Measure assets and liabilities at single date
- Evaluate funding progress and sufficiency of statutory fixed contribution rates. Determine any additional District funding requirements.
- Analyze experience (actual vs. expected) in last year
- Report on trends in assets, liabilities and contributions



# OSERS Funding

- Members contribute 9.78% of pay
- State of Nebraska contributes 2.00% of pay
- Nebraska statutes provide that the School District shall contribute the greater of:
  - 101% of the contributions made by members or
  - Amount necessary to maintain the solvency of the System, as determined annually by the Board upon recommendation of the Actuary and Trustees.
    - Actuarial contribution rate is used to determine the contribution necessary to maintain the solvency of the system



# Actuarial Valuation

- Snapshot picture of the system as of a single date (January 1, 2018)
- Statistical projection of the timing and amount of all future benefits to be paid
  - Uses one set (best estimate) of many assumption sets that could be considered reasonable
  - Assumptions used impact results
  - Variations are to be expected from year to year as assumptions are long-term in nature
- Evaluation of funding progress and sufficiency of scheduled contributions



# General Findings

- Despite a return of 10% on market value of assets, the return on the actuarial value of assets was 4.2%
  - Resulted in an actuarial loss of \$44 million
  - Deferred investment experience loss is now \$131 million (11% of market value), down from \$189 million in prior valuation
- Actuarial loss on liabilities largely due to retirement experience and actual salary increases that were higher than expected
  - Liability loss of \$12 million increased the UAAL
- Funded ratio decreased slightly from 65% last year to 64% in this valuation
- Result is an increase in the actuarial contribution rate from 26.29% to 27.05%



# January 1, 2018 Valuation

- No changes to actuarial assumptions or methods
- 2017 Legislative session created a new benefit structure for members hired on or after July 1, 2018
  - Changed minimum age from 55 to 60 for retirement under Rule of 85
  - No members currently under this benefit structure so no impact on the 2018 valuation
  - This change lowers the normal cost rate for new hires so over time, the cost to the System is expected to decrease slightly



# Active Membership

	1/1/2018	1/1/2017
Certificated		
- Tier 1	3,247	3,469
- Tier 2	988	1,023
- Tier 3	<u>637</u>	<u>316</u>
- Total	<b>4,872</b>	<b>4,808</b>
Classified		
- Tier 1	1,589	1,751
- Tier 2	701	736
- Tier 3	<u>407</u>	<u>167</u>
- Total	<b>2,697</b>	<b>2,654</b>
Total Actives	<b>7,569</b>	<b>7,462</b>

Tier 1: became a Member before July 1, 2016.  
Tier 2: became a Member on/after July 1, 2016 and before July 1, 2018  
Tier 3: became a Member on/after July 1, 2018



# Total Membership – OSERS

	January 1, 2018	January 1, 2017	% Change
Actives			
- Certificated	4,872	4,808	1.3%
- Classified	<u>2,697</u>	<u>2,654</u>	1.6%
- Total Actives	7,569	7,462	1.4%
Retirees and Disabled Members	4,426	4,295	3.1%
Beneficiaries	252	247	2.0%
Inactive Vested Members	1,043	1,035	0.8%
Inactive Non-Vesteds	<u>413</u>	<u>347</u>	19.0%
Total	13,703	13,386	2.4%



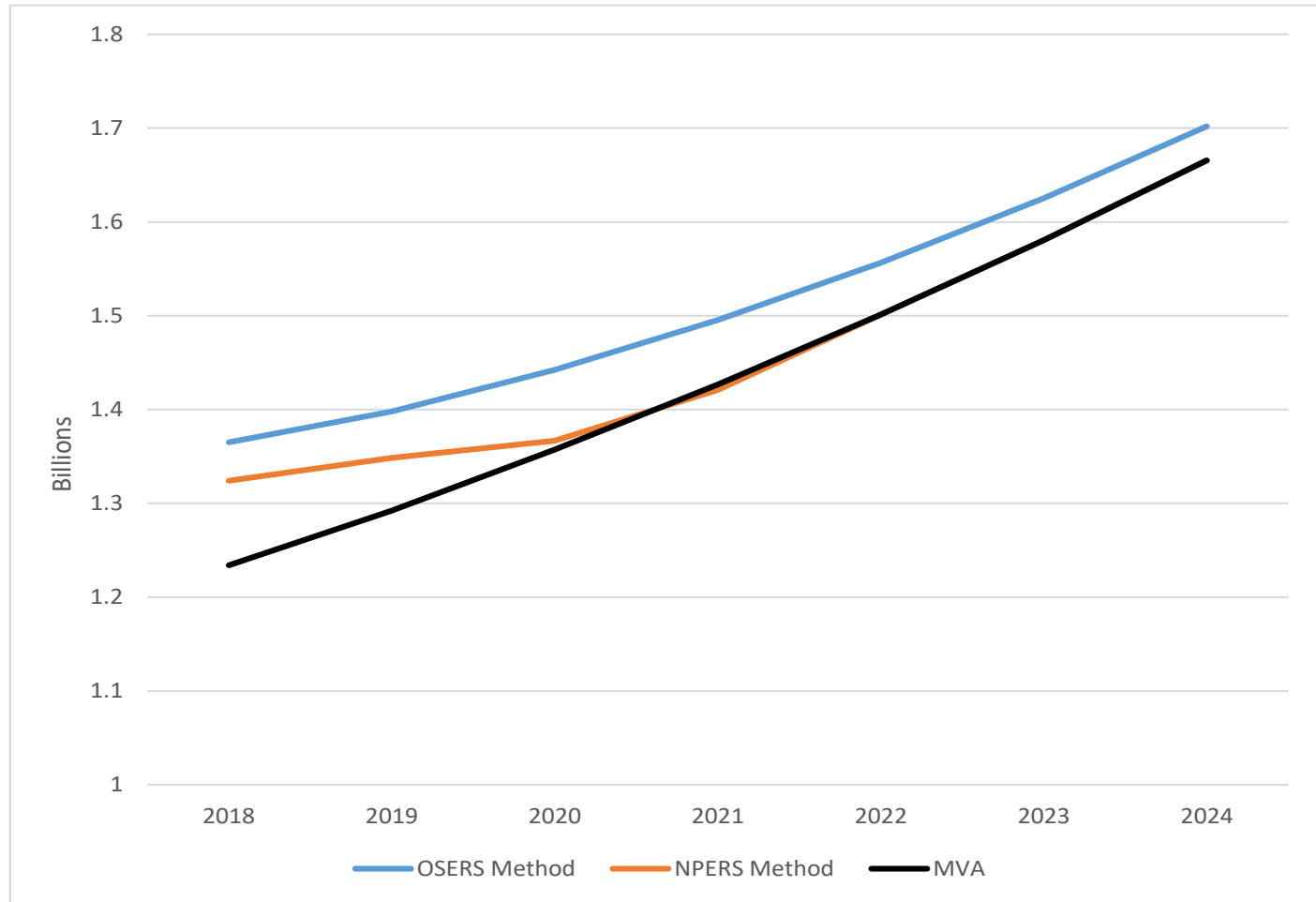


# Actuarial Value of Assets

- Market value is not used directly in the valuation due to volatility in market returns
  - Would create extreme volatility in actuarial contribution rate and, therefore, the additional District contribution
  - Smoothing method allows the ups and downs in market returns to average out over time
  - Helps create stability and predictability in the District's contribution rate
  
- Current method = Expected asset value (based on assumed return) + 25% of the difference between actual market value and expected asset value
  - Equivalent to 75% of Expected Value + 25% Market Value
  - Nebraska Schools uses a 5-year smoothing method

# Asset Smoothing Method

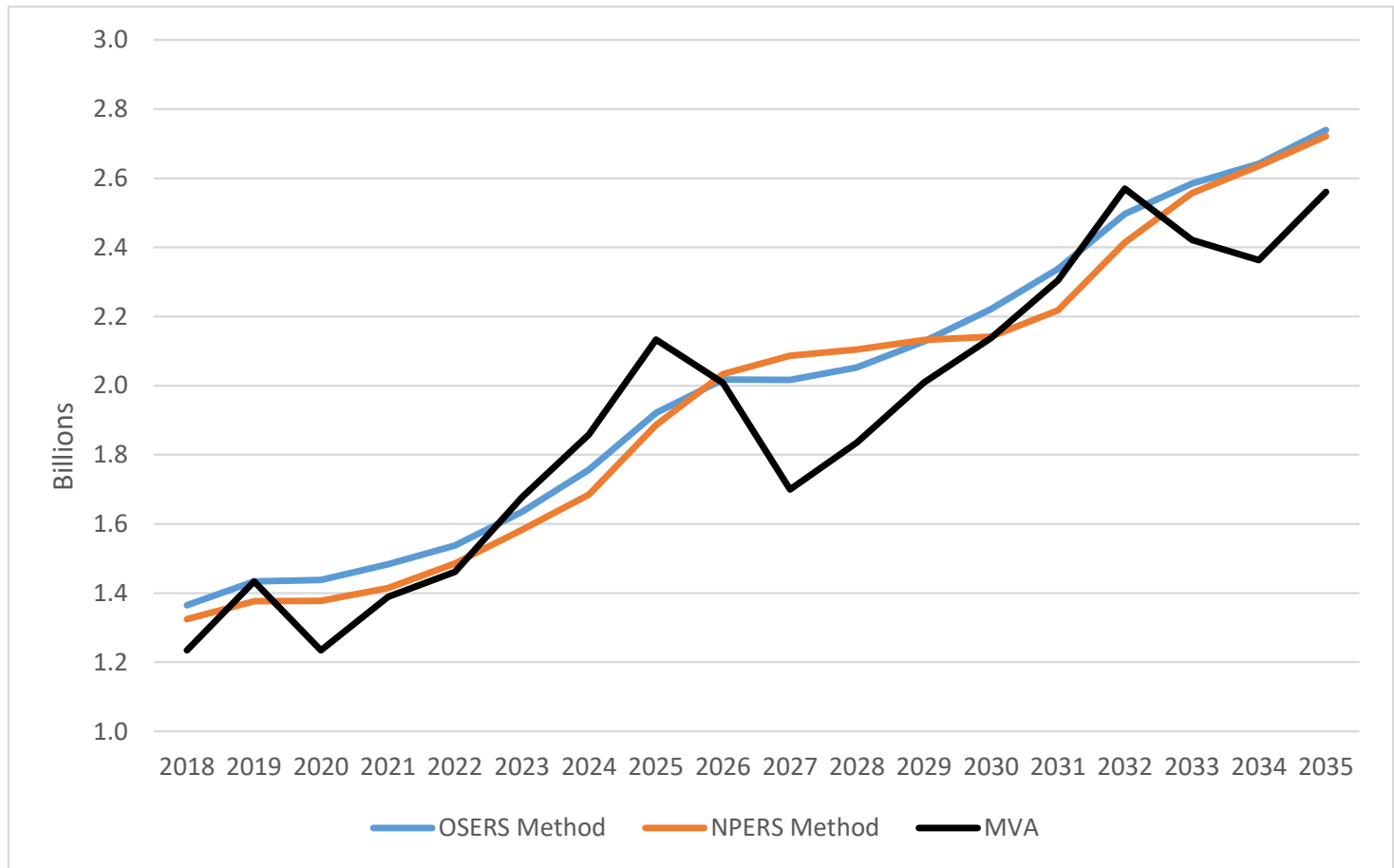
## OSERS vs NPERS



**Assumes 7.50% return in all future years.**

# Asset Smoothing Method

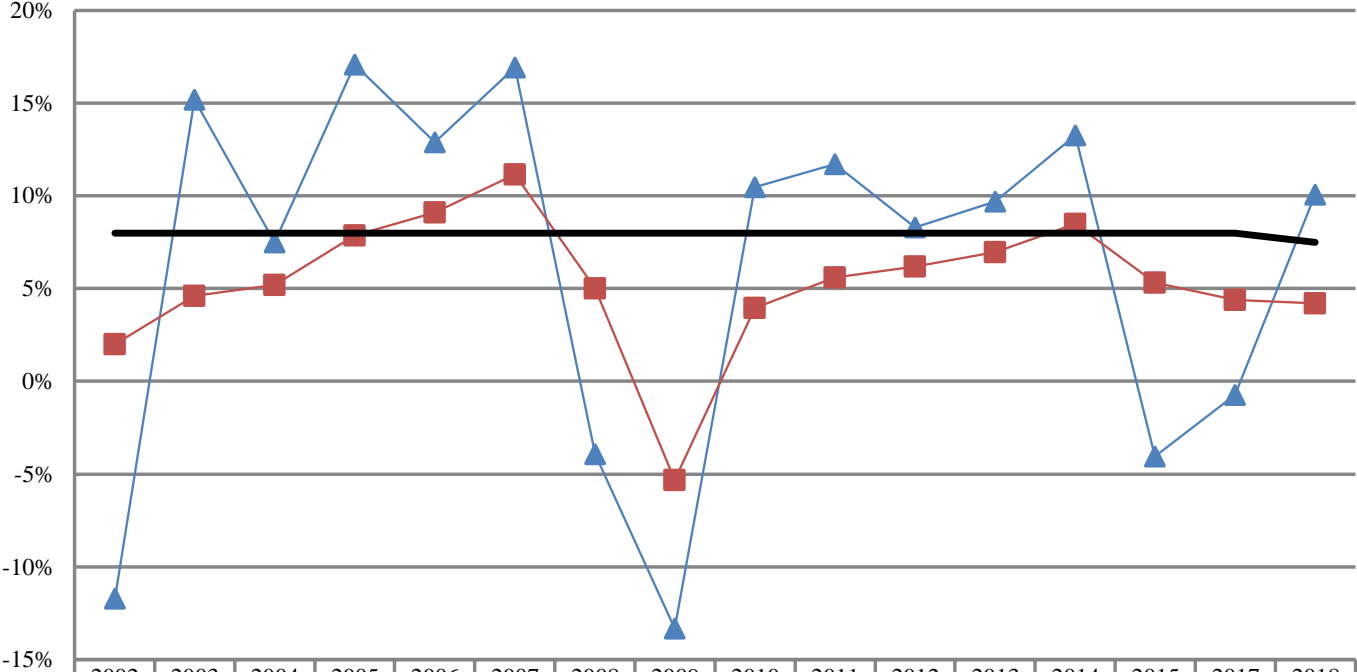
## OSERS vs NPERS



Return of 19% in 2018 permits actuarial value to return to market value in the 2019 valuation. Historical returns are then used to model the smoothing of actual vs expected returns.



# Market vs Actuarial Rate of Return



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2017	2018
—▲— MVA	-11.7%	15.2%	7.5%	17.1%	12.9%	16.9%	-3.9%	-13.3%	10.5%	11.7%	8.3%	9.7%	13.3%	-4.1%	-0.7%	10.1%
—■— AVA	2.0%	4.6%	5.2%	7.9%	9.1%	11.2%	5.0%	-5.3%	4.0%	5.6%	6.2%	7.0%	8.5%	5.3%	4.4%	4.2%
— Assumption	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	7.5%



# System Assets

(\$ in millions)

	Market	Actuarial
Assets, 1/1/17	\$ 1,149	\$ 1,338
▪ Contributions	92	92
▪ Benefit Payments	(121)	(121)
▪ Administrative Expenses	(2)	(2)
▪ Investment Income	116	58
Assets, 1/1/18	\$ 1,234	\$ 1,365
Estimated Rate of Return	+ 10.1%	+ 4.2%

Unrecognized investment loss at 1/1/18 is \$131 million.



# Funded Status

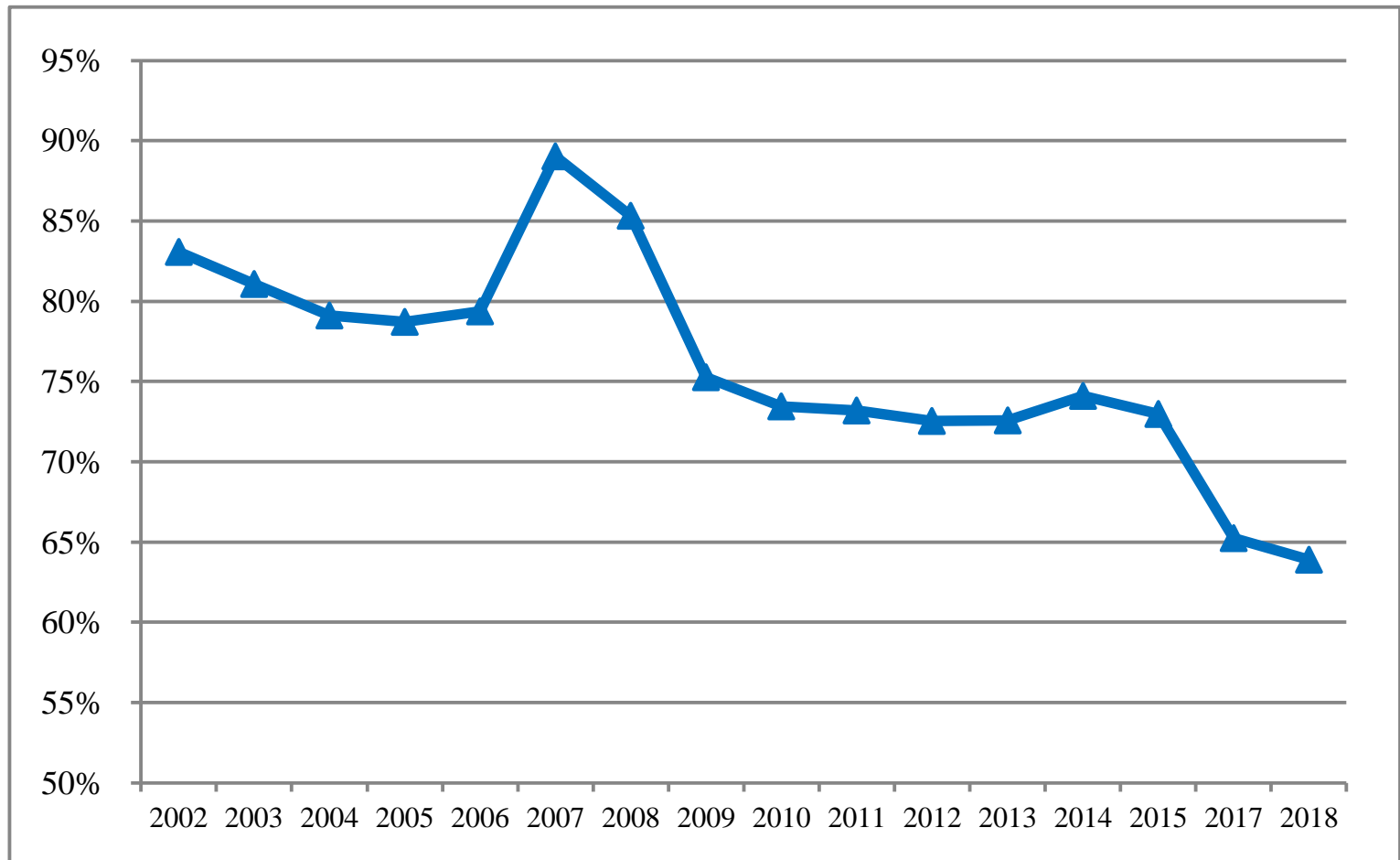
(\$ in millions)

	January 1, 2018	January 1, 2017
Actuarial Accrued Liability (AAL)	\$ 2,136	\$ 2,051
Actuarial Value of Assets (AVA)	<u>1,365</u>	<u>1,338</u>
Unfunded Actuarial Accrued Liability	\$ 771	\$ 713
Funded Ratio: Actuarial Assets/AAL	64%	65%
Funded Ratio: Market Value/AAL	58%	56%

Numbers may not add due to rounding



# Historical Funded Ratio



The increase in 2007 reflects resetting actuarial value to market value. The decline from 2007 to 2012 reflects the impact of the Great Recession and the decrease in 2017 is due to the change in assumptions, which included lowering the investment return assumption from 8.0% to 7.5%.



# Change in UAAL

(\$ in millions)

UAAL, 1/1/2017	\$ 713
▪ Expected increase from amortization method	7
▪ Contributions less than actuarial rate	3
▪ Investment experience	44
▪ Liability experience	12
▪ Other experience	(8)
UAAL, 1/1/2018	\$ 771

**UAAL = Unfunded Actuarial Accrued Liability**





# Actuarial Contribution Rate

- Normal cost – ongoing cost for active members
  
- UAAL Payment – payment to fund the UAAL based on the Board of Trustees’ funding policy
  - Level percent of payroll (increasing dollars)
  - “Layered” approach
    - Legacy UAAL is amortized over a closed 30-year period that began with the September 1, 2013 valuation (26 years remain)
    - All ensuing UAAL bases are amortized over a new closed 25-year period commencing on the respective valuation date

# Actuarial Required Contribution

(\$ in millions)



	1/1/2018	1/1/2017
Actuarial Contribution Rate		
• Normal Cost	13.00%	13.07%
• Amortization of UAAL	<u>14.05%</u>	<u>13.22%</u>
• Total Contribution Rate	27.05%	26.29%
Statutory Member Rate	(9.78%)	(9.78%)
Statutory Employer Rate (101% of member rate)	(9.88%)	(9.88%)
Statutory State Rate	(2.00%)	(2.00%)
Additional Required District Contribution		
• Contribution Shortfall/(Margin)	5.39%	4.63%
• Projected Pay for Plan Year	\$ 350	\$ 336
• Additional Required District Contribution	\$ 18.9	\$ 15.5

# Results Using Market Value of Assets

(\$ in millions)



	Actuarial Value of Assets	Market Value of Assets
Actuarial Accrued Liability (AAL)	\$ 2,136	\$ 2,136
Value of Assets	<u>1,365</u>	<u>1,234</u>
Unfunded Actuarial Accrued Liability	\$ 771	\$ 902
Funded Ratio: Assets/AAL	64%	58%
Normal Cost Rate	13.00%	13.00%
UAAL Contribution Rate	<u>14.05%</u>	<u>16.46%</u>
Actuarial Contribution Rate	27.05%	29.46%
Total Statutory Contribution Rate	<u>(21.66%)</u>	<u>(21.66%)</u>
Contribution Shortfall	5.39%	7.80%
Additional Contribution	\$18.9M	\$27.3M



# Comments

- Funded status held steady
  - Actuarial loss on smoothed value of assets
  - Actuarial loss on liabilities
  - District shortfall contribution of 5.39% of payroll (\$18.9M)
  
- Cost impact of new Tiers will unfold over time as more members and payroll reside in those Tiers
  
- Given deferred investment experience, additional District contributions, in increasing amounts, are likely in the foreseeable future