



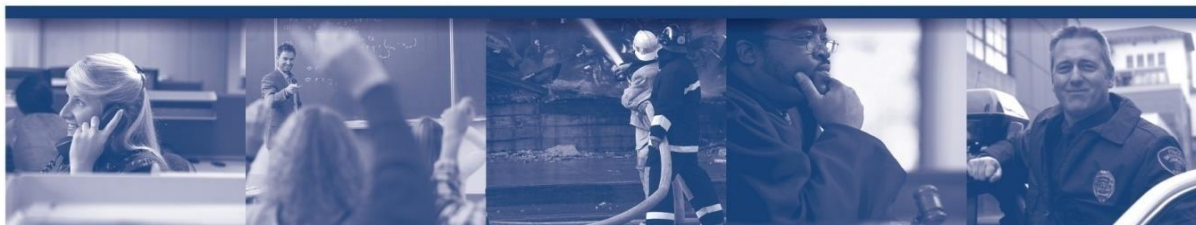
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Omaha School Employees' Retirement System January 1, 2021 Valuation Results

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May 6, 2021





Purposes of an Actuarial Valuation

- Measure assets and liabilities at single date
- Evaluate funding progress and the sufficiency of statutory fixed contribution rates. Determine any additional District funding requirements.
- Analyze experience (actual vs. expected) in last year
- Assess and disclose risks associated with funding the System
- 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 (normal cost + UAAL payment) is used to determine the contribution necessary to maintain the solvency of the system



Actuarial Valuation

- Snapshot picture of the system on a single date (January 1, 2021)
- No change in assumptions, methods or benefit structure this year
- 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
 - Variations are to be expected from year to year as assumptions are long-term in nature and experience unfolds year to year.
- Evaluation of funding progress and sufficiency of scheduled contributions. Calculation of any additional District contribution for the year.

Calendar Year 2020 Actual Experience



- Return of 9.4% on market value of assets and return on actuarial value of 6.0%. Resulted in an actuarial loss of \$21 million.
- Net actuarial gain on liabilities of \$7.7 million
- Revised valuation salary methodology increased UAAL \$49 million
- Additional District contribution in 2020 was \$21.4 million, higher than actuarial contribution of \$19.8 million
- Unfunded actuarial accrued liability increased from \$848M to \$914M
- Funded ratio decreased from 63% to 62% (market value increased from 58% to 59%)



System Membership

Provision	Tier 1 (Pre July 1, 2013)	Tier 2 (July 1, 2013)	Tier 3 (July 1, 2016)	Tier 4 (July 1, 2018)
Final Average Compensation (FAC)	Average of highest 3 fiscal years	Average of highest 5 fiscal years	Average of highest 5 fiscal years	Average of highest 5 fiscal years
Benefit formula	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service	2.0% * FAC * Years of Creditable Service
Cost of Living Adjustment	Lesser of 1.5% and actual CPI Medical COLA starting 10 years after retirement	Lesser of 1.0% and actual CPI. Medical COLA starting 10 years after retirement	Lesser of 1.0% and actual CPI. No medical COLA	Lesser of 1.0% and actual CPI. No medical COLA
Form of payment	5 years certain and life	5 years certain and life	5 years certain and life	5 years certain and life
Normal Retirement	35 Years of Service Age 65 and 5 Years of Omaha Service Age 62 and 10 Years of Service Rule of 85 (Min age of 55)	35 Years of Service Age 65 and 5 Years of Omaha Service Age 62 and 10 Years of Service Rule of 85 (Min age of 55)	Age 65 and 5 Years of Omaha Service Rule of 85 (Min age of 55)	Age 65 and 5 Years of Omaha Service Rule of 85 (Minimum age of 60)
State Service Annuity	\$3.50 * Years of Service	\$3.50 * Years of Service	No state service annuity	No state service annuity

Active Membership Count by Tier

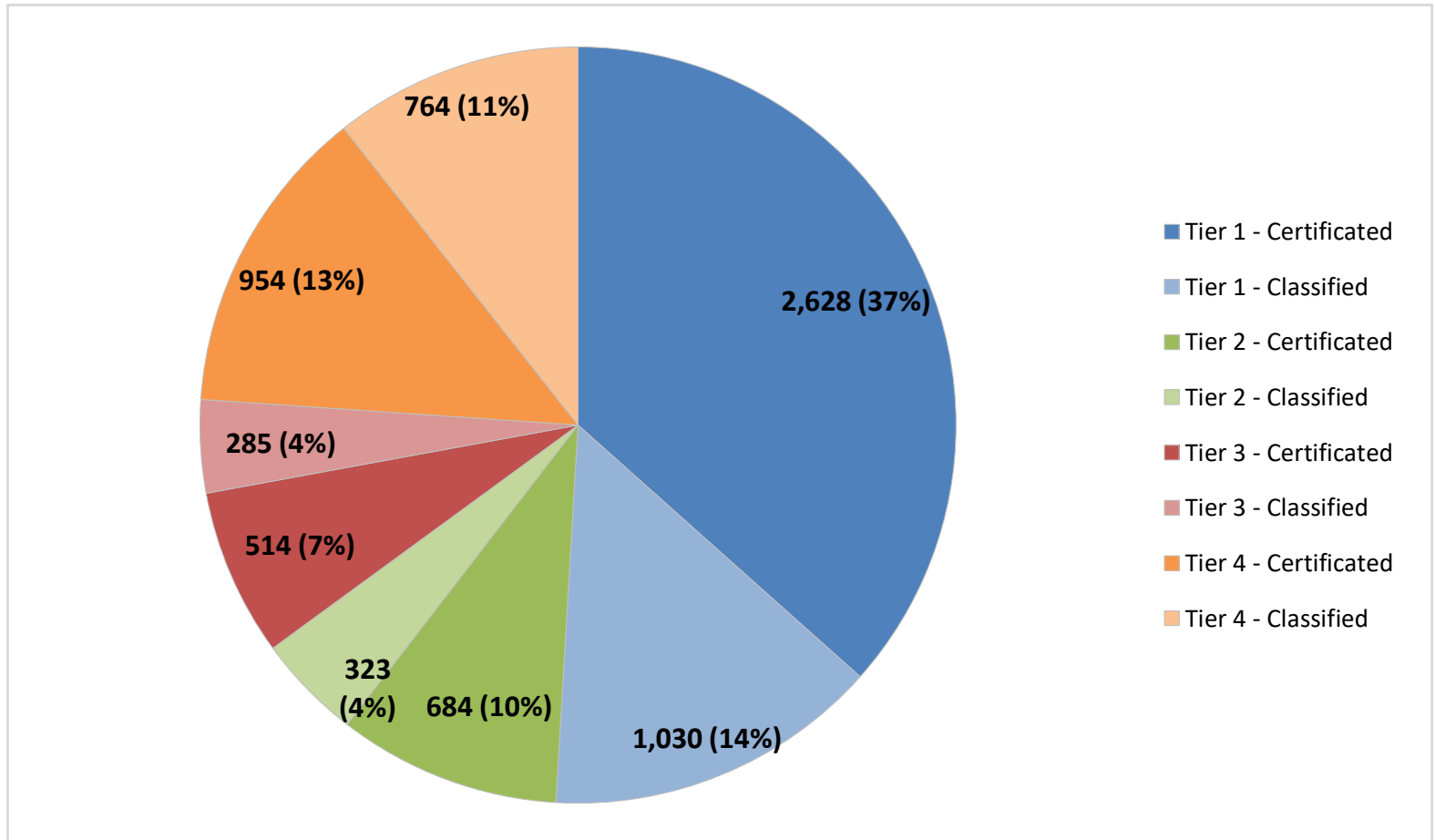


	1/1/2021	1/1/2020	% Change
Certificated			
- Tier 1	2,628	2,823	(6.9)
- Tier 2	684	778	(12.1)
- Tier 3	514	584	(12.0)
- Tier 4	<u>954</u>	<u>670</u>	42.4
- Total	4,780	4,855	(1.5)
Classified			
- Tier 1	1,030	1,183	(12.9)
- Tier 2	323	435	(25.7)
- Tier 3	285	304	(6.3)
-Tier 4	<u>764</u>	<u>589</u>	29.7
- Total	2,402	2,511	(4.3)
Total Actives	7,182	7,366	(2.5)

Tier 1: became a Member before July 1, 2013
 Tier 2: became a Member on/after July 1, 2013 and before July 1, 2016
 Tier 3: became a Member on/after July 1, 2016 and before July 1, 2018
 Tier 4: became a Member on/after July 1, 2018



Active Members By Tier





Total Membership – OSERS

	January 1, 2021	January 1, 2020	% Change
Actives			
- Certificated	4,780	4,855	(1.5)
- Classified	<u>2,402</u>	<u>2,511</u>	(4.3)
- Total Actives	7,182	7,366	(2.5)
Retirees and Disabled Members	4,829	4,711	2.5
Beneficiaries	260	269	(3.3)
Inactive Vested Members	1,223	1,163	5.2
Inactive Non-Vesteds	<u>917</u>	<u>709</u>	29.3
Total	14,411	14,218	1.4



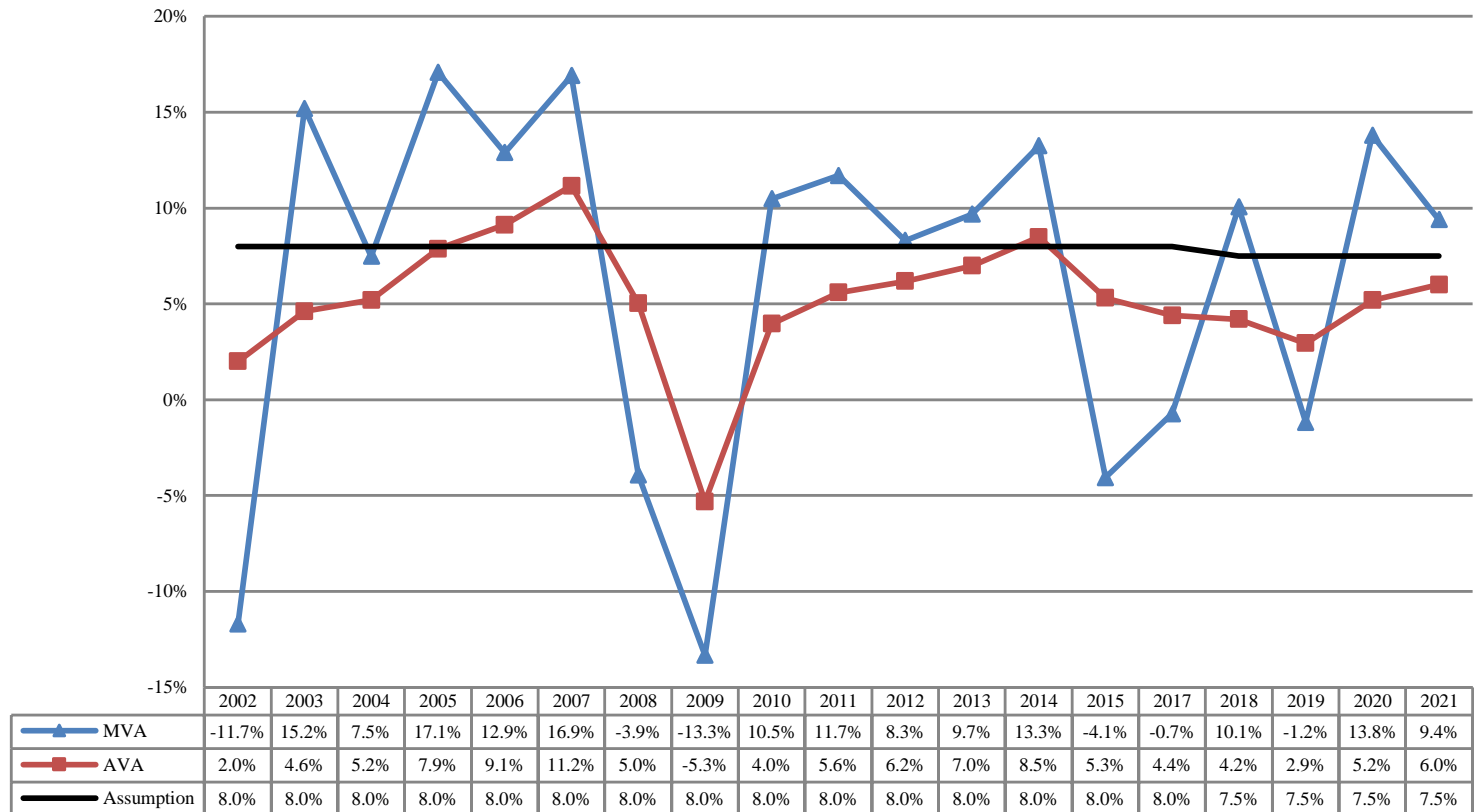
Actuarial Value of Assets

- Market value is not used directly in the valuation due to volatility in market returns
 - 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



Market vs Actuarial Rate of Return





System Assets

(\$ in millions)

	Market	Actuarial
Assets, 1/1/20	\$ 1,324	\$ 1,418
Adjustment for late reporting	1	0
▪ Contributions	103	103
▪ Benefit Payments	(137)	(137)
▪ Investment Income	<u>115</u>	<u>84</u>
Assets, 1/1/21	\$ 1,405	\$ 1,468
Rate of Return	9.4%	6.0%

Unrecognized investment loss at 1/1/21 is \$62 million.

Note: Numbers may not add due to rounding.



Funded Status

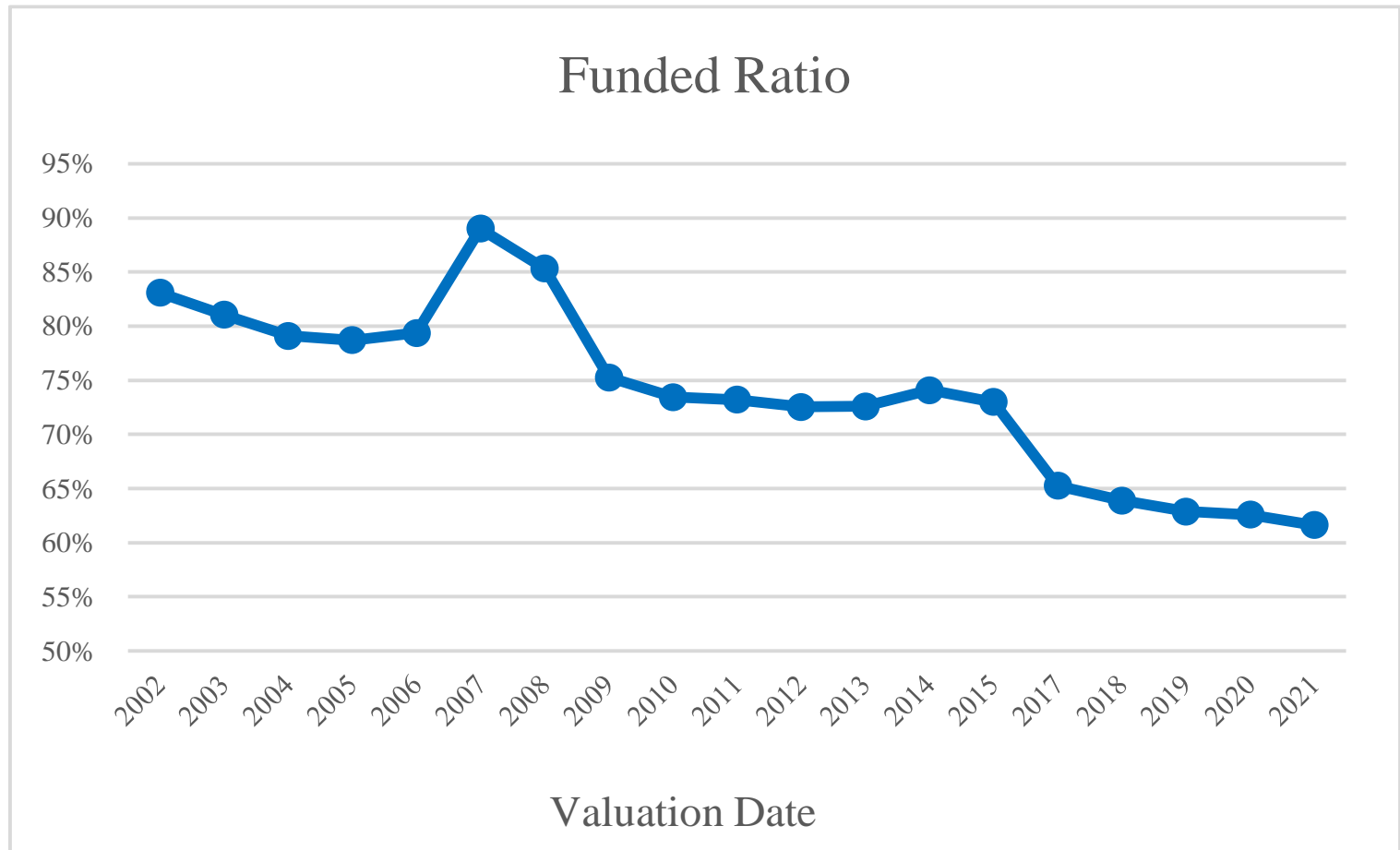
(\$ in millions)

	January 1, 2021	January 1, 2020
Actuarial Accrued Liability (AAL)	\$ 2,381	\$ 2,266
Actuarial Value of Assets (AVA)	<u>1,468</u>	<u>1,418</u>
Unfunded Actuarial Accrued Liability	\$ 914	\$ 848
Funded Ratio: Actuarial Assets/AAL	62%	63%
Funded Ratio: Market Value/AAL	59%	58%

Note: 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, 1/1/2020	\$ 848
▪ Expected increase from amortization method	11
▪ Contributions more than actuarial rate	(2)
▪ Investment experience	21
▪ Liability experience	(8)
▪ Valuation salary methodology	49
▪ Other experience	(5)
UAAL, 1/1/2021	\$ 914

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 was reset to January 1, 2019 UAAL and amortized over a closed 30-year period
 - New UAAL bases are amortized over a new closed 30-year periods commencing on the respective valuation date

Additional District Contribution

(\$ in millions)



	1/1/2021	1/1/2020
Actuarial Contribution Rate		
• Normal Cost	12.76%	12.88%
• Amortization of UAAL	<u>14.77%</u>	<u>14.37%</u>
• Total Contribution Rate	27.53%	27.25%
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)	5.87%	5.59%
• Projected Pay for Plan Year	\$ 374	\$ 350
• Additional Required District Contribution	\$ 22.2	\$ 19.8

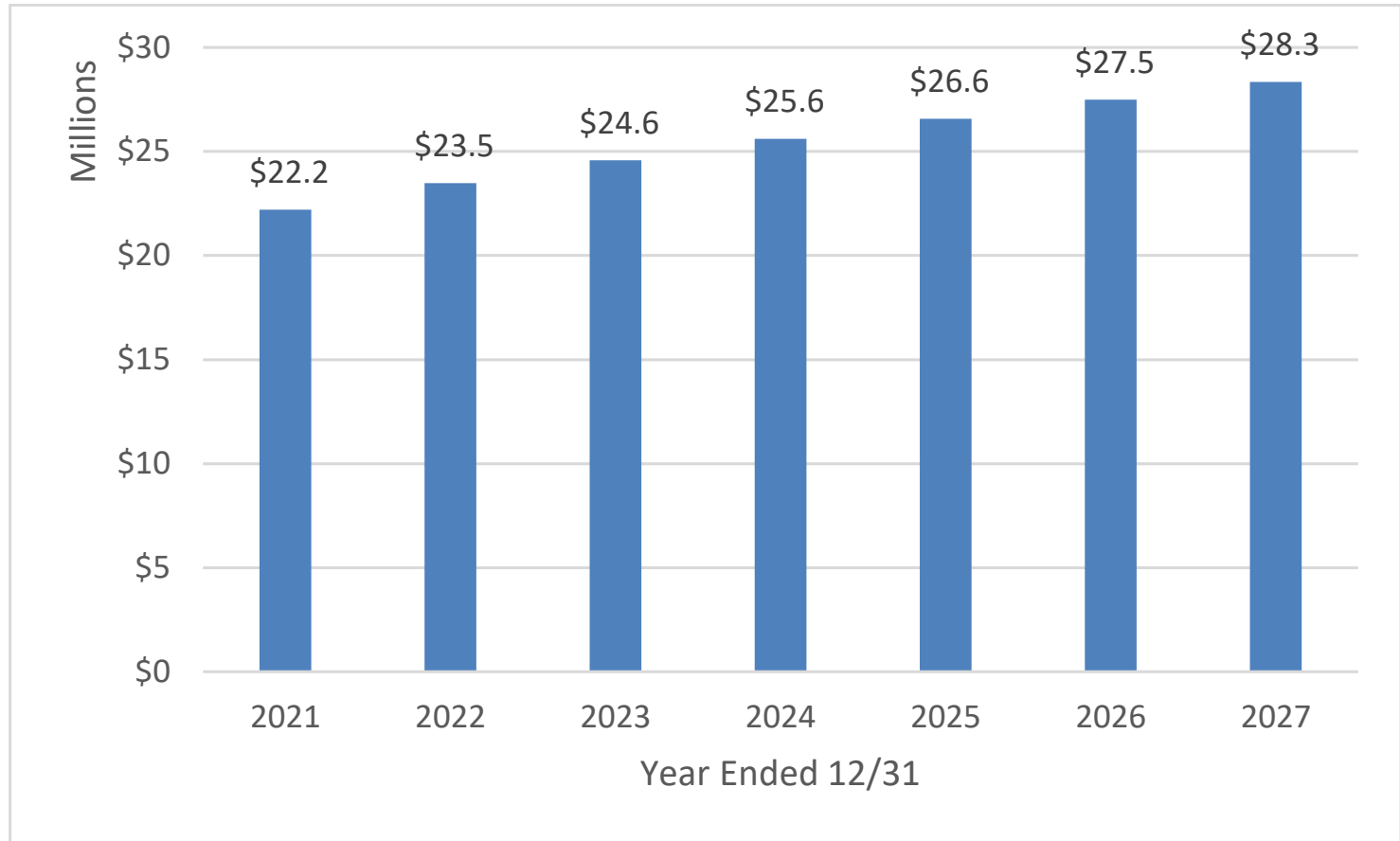


Change in the Actuarial Required Contribution

Total Contribution Rate as of 1/1/2020	27.25%
▪ Contributions different than actuarial rate	(0.03%)
▪ Investment experience	0.34%
▪ Liability experience	(0.13%)
▪ Change in normal cost rate	(0.10%)
▪ Payroll growth different than expected	0.37%
▪ Valuation salary methodology	(0.07%)
▪ Other experience	<u>(0.10%)</u>
Total Contribution Rate as of 1/1/2021	27.53%

Projected Additional District Contribution

(If All Assumptions Are Met)



Projections assume there is no change in actuarial assumptions over this period and assumptions are met each year.

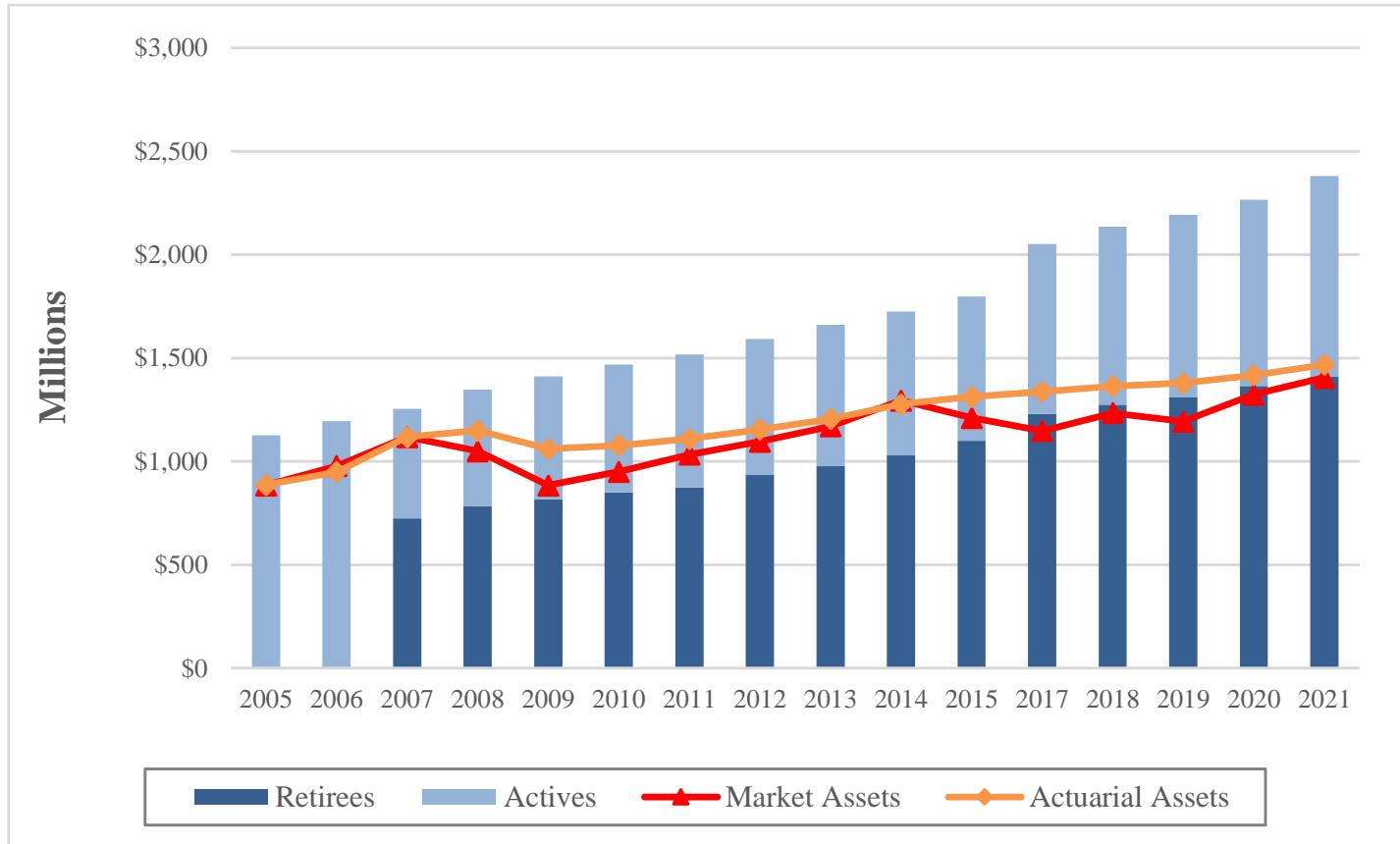


ASOP 51: Maturity Measurements

- OSERS is a very mature System
 - The more mature the system, the more sensitive it is to investment volatility, i.e., harder to recover from investment losses with increased contributions (higher contribution rates)
 - Significant differences between actual and expected returns, which are not unexpected given the standard deviation of the portfolio, have a large impact on contribution amounts. Variations flow directly through to the additional District contribution amount, resulting in high volatility in that amount.



Historical Assets versus Liabilities



The lines compare the market and actuarial value of assets to the retiree portion of the total actuarial accrued liability.



Measure of Contribution Rate Volatility

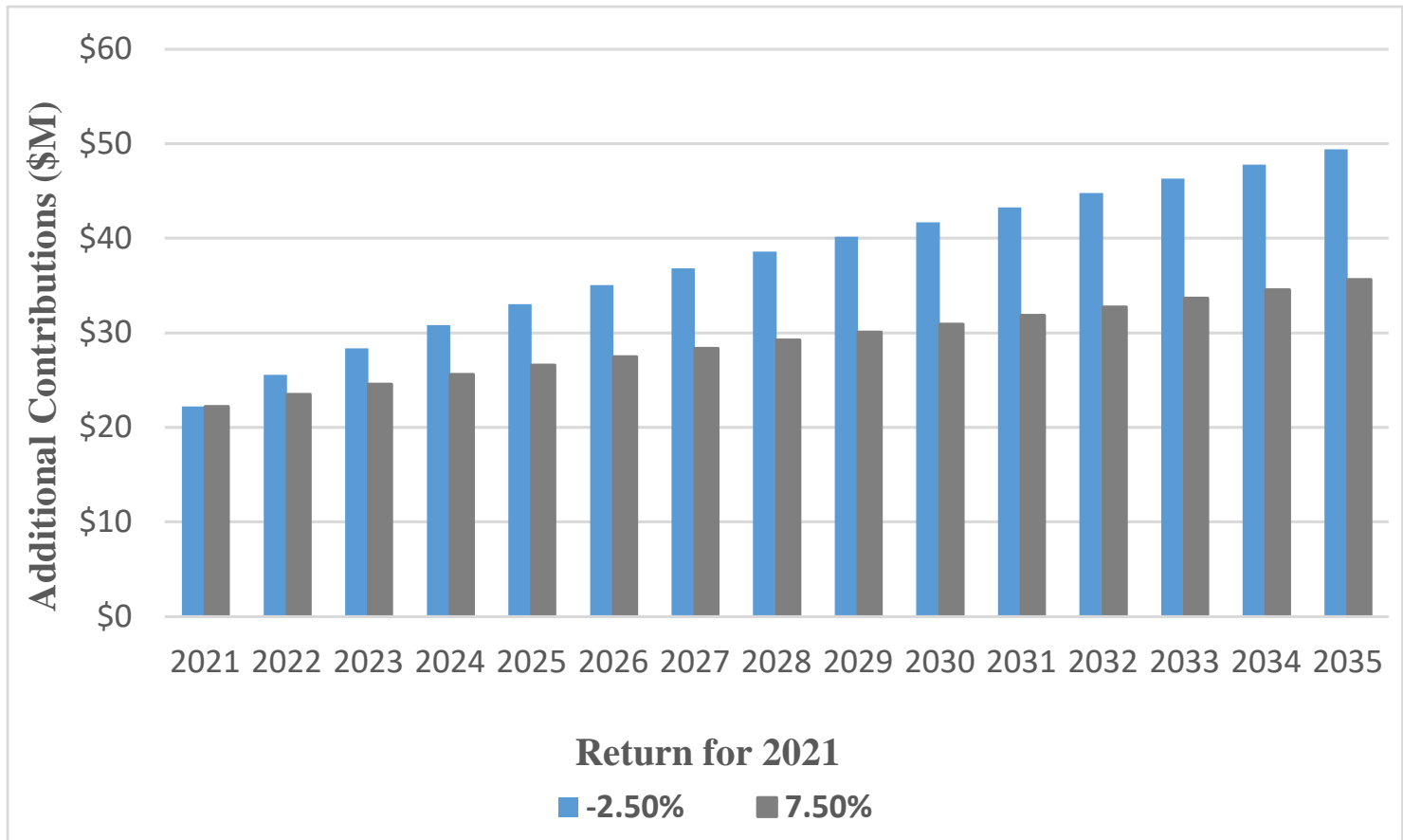
- Asset Volatility Ratio is market value of assets divided by covered payroll

Year	Assets	Payroll	Ratio
2021	\$1,405 M	\$364.3 M	3.86

- Any shortfall in investment return has to be recouped via higher contributions
 - Assets are about 3.9 times payroll so a return of -2.50% (underperforming the investment return assumption by 10%) generates a loss of \$141 million (39% of payroll)
 - Resulting increase in the actuarial contribution is 2.25% of payroll (without smoothing)
 - The impact of this experience is directly reflected in the additional District contribution amount (see next slide)



Additional District Contribution Under Different 2021 Return Scenarios



Projections assume that the 7.5% assumed return is met in all years other than 2021.

Impact of Alternate Investment Return Assumptions



Valuation Results at	7.00%	7.25%	7.50%
Actuarial contribution rate	30.51%	29.00%	27.53%
Statutory contribution rate	21.66%	21.66%	21.66%
Contribution Shortfall	8.85%	7.34%	5.87%
Additional District Contribution	\$33.4M	\$27.7M	\$22.2M
UAAL	\$1,058M	\$984M	\$914M
Funded Ratio	58%	60%	62%



Comments

- Funded ratio decreased slightly
 - Actuarial loss on smoothed value of assets
 - Net actuarial gain on liabilities
 - Revised valuation salary methodology increased UAAL \$49M
 - Deferred investment loss decreased, but still exists

- District shortfall contribution for 2021 is 5.87% (or \$22.2 million), up from 5.59% of payroll (\$19.8M)

- Given funded status and deferred investment experience, additional District contributions are likely in the foreseeable future