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**Oklahoma Municipal Retirement Fund**

**ACTUARIAL VALUATION OF FUNDING REQUIREMENTS**

Effective for the Year Starting  
July 1, 2021

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March 26, 2021

Prepared by

**DEAN ACTUARIES, LLC**

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## Certification

This report presents the actuarial position of the member plans of the Oklahoma Municipal Retirement Fund as of July 1, 2020, in accordance with generally accepted actuarial principles applied on a basis consistent with the preceding valuation. The purpose of the valuation is to determine the required contribution for the retirement program effective July 1, 2021.

The valuation results in this report are based on participant data provided by the member employers and financial data provided by the Oklahoma Municipal Retirement Fund.

In our opinion, each assumption used in combination to calculate liabilities and costs represents our best estimate of anticipated experience under the plan and is reasonably related to the plan experience and to reasonable expectations.

DEAN ACTUARIES, LLC

March 19, 2021  
Date



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Charles E. Dean, FSA, FCA  
Enrolled Actuary 20-1249



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Sean M. Sullivan, FSA  
Enrolled Actuary 20-3649

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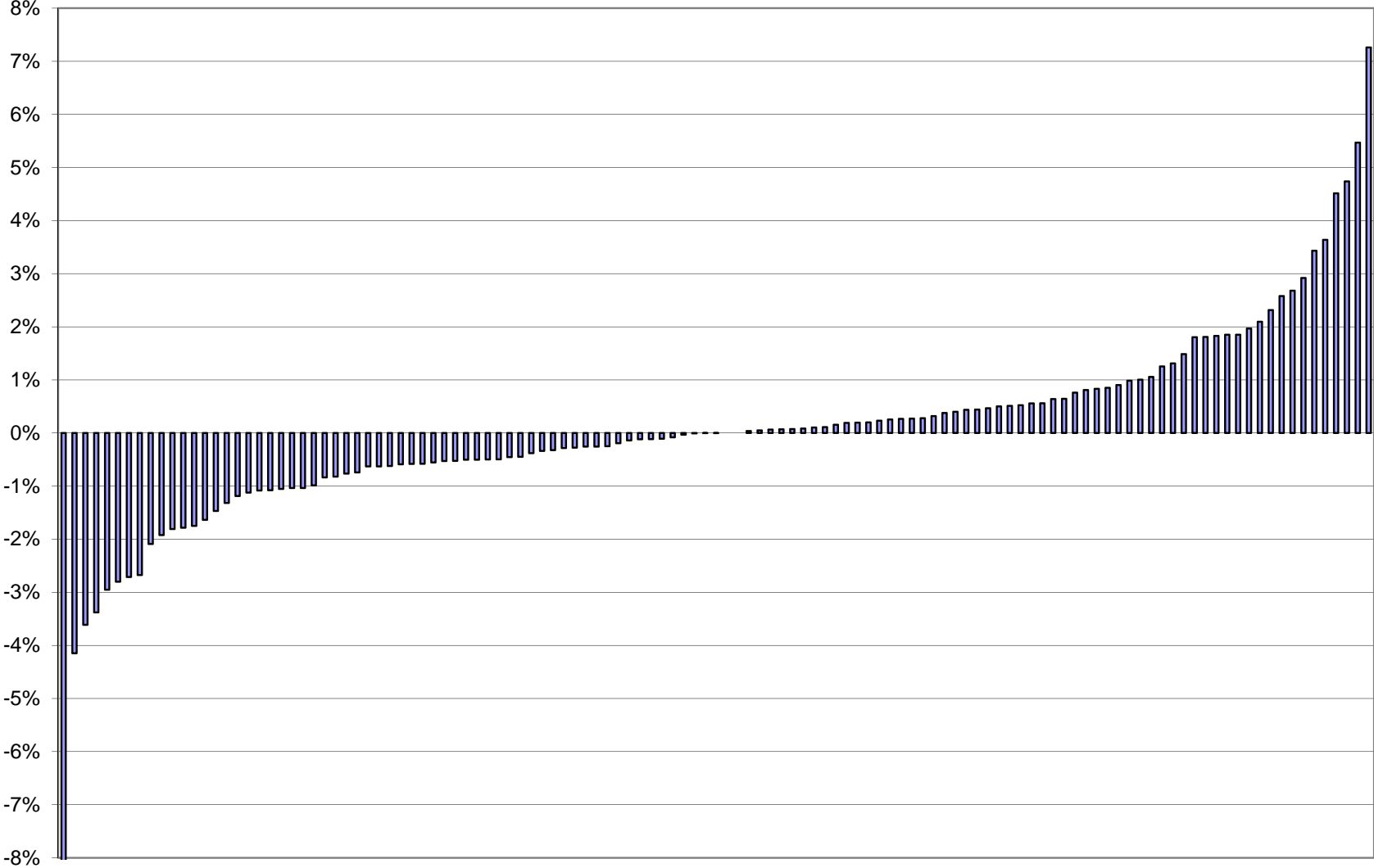
## A Comparison of Required Contribution Rates

The exhibit in this section shows the required contribution rates determined by the July 1, 2020 actuarial valuation. These rates will be in effect from July 1, 2021 through June 30, 2022. The following information is presented for each city:

- Whether the plan has an unfunded actuarial liability or a surplus (*UAL or Surplus*). In general, the unfunded actuarial accrued liability is amortized as a level dollar amount over a fixed 30-year period; this amount is then added to the normal cost to determine the total annual cost. For plans that have a surplus, the total annual cost is the normal cost reduced by interest on the surplus.
- The *total rate*. This is the aggregate contribution rate determined under the July 1, 2020 valuation for each plan. The total rate is generally equal to the total annual cost as a percentage of covered payroll, but not less than the employee contribution rate. If employees make hybrid contributions, the hybrid contribution rate is added to the total rate. The rate determined under the July 1, 2019 valuation is also shown for comparison.
- The *employee rate*. This rate, determined by plan provisions, is the percent of pay to be contributed to the plan by employees for the 2021-2022 plan year, and is equal to the employee contribution rate plus the hybrid contribution rate. The employer rate is generally determined by subtracting the employee contribution rate from the total rate. If the employee contribution rate actually exceeds the total annual cost because of favorable plan experience in the past (that is, investment performance better than assumed, or demographic changes more favorable than assumed), then the required employer contribution rate is 0.00%.
- A brief summary of the *plan provisions* elected in the adoption agreement. See Section E for a more detailed description of the plan provisions of the OkMRF Master Plan.
- Those cities which have upgraded the plan level or changed another fundamental plan provision since the prior valuation are indicated in the final column.

Oklahoma Municipal Retirement Fund

Change in Contribution Rate from July 1, 2020 to July 1, 2021  
as Percent of Covered Payroll



**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Adair	UAL	9.95%	9.94%	4.50%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Altus	UAL	17.72%	17.69%	4.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, no COLA	
Alva	UAL	8.77%	8.88%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Antlers	UAL	8.34%	8.74%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Ardmore	UAL	15.31%	14.82%	6.00%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, split COLA; 7/11 New Hires: Plan AAA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Bartlesville	UAL	25.95%	27.92%	6.00%	Plan BAR, normal retirement age 65, 7 year vesting, 0 years certain, no COLA	
Bethany	UAL	17.96%	15.01%	6.00%	Plan AAA, normal retirement age 65, 10 year vesting, 10 years certain, split COLA, Hybrid	ee cont, hybrid cont
Bethany/Warr Acres	UAL	20.61%	20.15%	6.00%	Plan AAA, Rule of 80, 7 year vesting, 10 years certain, no COLA	
Billings	Surplus	5.17%	5.93%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Binger	UAL	5.39%	5.66%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Blackwell	UAL	14.12%	14.31%	4.50%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Blair	UAL	11.89%	13.98%	3.41%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Boise City	UAL	11.89%	11.38%	0.00%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Bokchito	UAL	5.20%	8.84%	3.00%	Plan CC, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	upgrade, ee cont
Braman	UAL			6.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Bristow	UAL	14.36%	13.73%	5.25%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, COLA	terminate DROP
Broken Bow	UAL	16.06%	16.12%	6.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Buffalo	UAL	9.14%	11.72%	3.50%	Plan AA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Burns Flat	UAL	12.98%	13.81%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Calera	UAL	8.50%	8.41%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Central Oklahoma MCD	Surplus	11.00%	14.43%	6.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, COLA	
Chandler	UAL	10.51%	10.06%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Checotah	UAL	7.66%	7.37%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Cherokee & CDA	UAL	6.42%	6.50%	2.25%	Plan B, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Chickasha	Surplus	13.46%	14.71%	4.00%	Plan AAA, normal retirement age 65, 10 year vesting, 10 years certain, COLA	
Claremore	UAL	10.88%	10.76%	4.32%	Plan AAA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA; 7/10 New Hires: Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Cleo Springs	UAL	32.11%	28.73%	3.73%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Cleveland	UAL	24.82%	26.30%	6.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Clinton	Surplus	12.98%	14.81%	5.25%	Plan AAA, normal retirement age 62/30, 7 year vesting, 10 years certain, COLA	
Collinsville	UAL	13.35%	13.85%	4.00%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Copan	UAL	8.38%	5.57%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Cordell	Surplus	10.37%	8.28%	0.00%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, COLA	
Cushing	UAL	10.08%	10.64%	0.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, no COLA	
Davis	UAL	12.15%	12.96%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	

**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Del City	UAL	29.06%	28.53%	8.00%	Plan AAA, special retirement age, 7 year vesting, 10 years certain, split COLA, Hybrid; 7/20 new hires: Plan AA, normal retirement age 65, 10 year vesting, 10 years certain, no COLA	ee cont
Dewey	UAL	15.54%	13.75%	4.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Drumright	UAL	20.87%	18.95%	6.00%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Durant	UAL	12.61%	12.23%	5.00%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, split COLA	ee cont
El Reno	UAL	11.52%	11.59%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Eufaula	Surplus	7.85%	6.77%	3.75%	Plan CC, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Fort Cobb	UAL	11.31%	12.62%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Foss Reservoir Public Works	UAL	22.12%	10.94%	3.75%	Plan BB, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Frederick	UAL	13.04%	11.96%	4.33%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Garber	UAL	11.21%	11.47%	3.75%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Geary	UAL	11.76%	10.94%	3.28%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Goodwell	Surplus	5.67%	3.00%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Gore and Gore PWA	UAL	9.73%	9.48%	3.75%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Granite	UAL	23.49%	25.81%	4.00%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Guthrie	UAL	10.55%	10.99%	3.69%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Harrah	UAL	23.39%	24.04%	5.25%	Plan AA, Rule of 80, 5 year vesting, 5 years certain, no COLA; 1-2019: Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Healdton	UAL	17.42%	16.10%	6.00%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	



**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Henryetta	UAL	18.22%	18.87%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Hooker	UAL	15.65%	18.57%	4.25%	Plan AA, normal retirement age 65, 5 year vesting, 10 years certain, no COLA	upgrade, ee cont
Hulbert	UAL	10.90%	11.10%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Hydro	UAL	9.29%	7.54%	3.00%	Plan A, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Kansas	UAL	4.01%	3.87%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Kiefer	UAL	9.01%	8.89%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Kingston	UAL	12.84%	11.37%	3.75%	Plan CC, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Krebs & Krebs Utility Auth.	UAL	7.95%	7.45%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Laverne	Surplus	6.96%	7.86%	3.75%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Lindsay	Surplus	8.76%	9.81%	3.75%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Madiill	UAL	10.10%	15.57%	5.25%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	upgrade, ee cont
Mannford	UAL	30.23%	26.61%	6.00%	Plan AAA, Rule of 80, 5 year vesting, 5 years certain, no COLA	
Marietta	UAL	12.74%	12.40%	5.25%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Marietta PWA	UAL	24.07%	24.07%	5.00%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
McLoud	Surplus	6.77%	6.27%	3.00%	Plan A, normal retirement age 65, 7 year vesting, 5 years certain, COLA	
Medford	UAL	19.58%	19.00%	4.00%	Plan AA, normal retirement age 62/30, 10 year vesting, 10 years certain, split COLA, Hybrid	
Meeker	Surplus	8.88%	11.56%	3.00%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	

**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Miami	UAL	14.24%	13.20%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 10 years certain, no COLA	
Mooreland	UAL	14.11%	14.96%	4.00%	Plan AA, Rule of 80, 5 year vesting, 5 years certain, no COLA	
Mountain Park MCD	UAL	41.02%	36.88%	6.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Muldrow	UAL	14.78%	14.52%	4.50%	Plan BB, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Mustang	UAL	17.27%	17.73%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Nichols Hills	Surplus	17.67%	14.96%	11.00%	Plan BB, Rule of 80, 7 year vesting, 10 years certain, split COLA, Hybrid; 7/06 New Hires: Plan BB, normal retirement age 65, 7 year vesting, 10 years certain, no COLA, Hybrid	
Noble	UAL	12.98%	12.71%	4.25%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Nowata	Surplus	11.02%	11.25%	5.00%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Oilton	Surplus	10.36%	8.55%	4.50%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Okeene	Surplus	11.11%	11.00%	3.60%	Plan AAA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Okemah	UAL	11.55%	11.93%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Oklahoma Municipal League	Surplus	14.97%	15.24%	0.00%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, COLA; Part-timers: Plan AAA, normal retirement age 65, 0 year vesting, 5 years certain, COLA	
OkMRF Staff	UAL	16.77%	16.97%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 10 years certain, no COLA	
Okmulgee	UAL	10.68%	10.68%	0.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, COLA	
Owasso	UAL	13.17%	13.73%	4.26%	Plan AA, normal retirement age 62/30, 5 year vesting, 5 years certain, no COLA	
Pawnee	Surplus	12.96%	12.20%	6.00%	Plan AAA, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Perkins	Surplus	11.40%	9.77%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, COLA	

**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Perry	UAL	12.80%	11.77%	4.00%	Plan AA, normal retirement age 65, 10 year vesting, 10 years certain, no COLA	
Piedmont	UAL	6.77%	7.21%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Pond Creek	UAL	15.38%	19.90%	6.00%	Plan AAA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Porum	Surplus	5.22%	4.16%	2.25%	Plan B, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Poteau	UAL	13.79%	14.30%	4.25%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Ratliff City	UAL	6.83%	6.28%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Ringling	UAL	8.05%	9.04%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Roland	UAL	8.36%	8.63%	3.75%	Plan CC, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Sallisaw	UAL	20.47%	19.88%	7.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA; 11/14 New Hires: Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Seiling	Surplus	4.90%	4.90%	4.90%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Shawnee	UAL	41.42%	41.46%	4.25%	Plan AA, Rule of 80, 7 year vesting, 10 years certain, split COLA, Hybrid	
Skiatook	UAL	12.94%	12.75%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Spencer	Surplus	9.01%	8.43%	5.25%	Plan AA, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA, Hybrid	
Spiro	UAL	10.19%	9.57%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Stilwell	UAL	10.13%	10.20%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Stratford	Surplus	1.91%	1.39%	1.39%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Stroud	UAL	12.94%	11.82%	4.50%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	

**Oklahoma Municipal Retirement Fund  
COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Sulphur	UAL	21.26%	20.63%	5.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Talihina & TPWA	UAL	3.16%	10.42%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	dbled upgrade, ee cont
Thomas	UAL	21.43%	23.29%	5.25%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Tipton	UAL	10.34%	9.59%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Tishomingo	UAL	8.22%	8.27%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Tonkawa	UAL	13.16%	12.18%	3.50%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Velma	Surplus	3.00%	4.80%	3.00%	Plan CC, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	upgrade
Vian	Surplus	8.16%	8.48%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Vinita	UAL	24.27%	25.28%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, COLA	
Wakita	Surplus	2.25%	2.25%	2.25%	Plan B, normal retirement age 65, 7 year vesting, 5 years certain, COLA	
Warr Acres	UAL	16.96%	16.13%	4.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, no COLA; 7/11 New Hires: Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Watonga	UAL	20.15%	18.96%	4.00%	Plan AAA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Waukomis	Surplus	8.85%	8.96%	5.25%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Waurika	Surplus	11.53%	12.06%	4.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Weatherford	UAL	15.25%	15.41%	6.25%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Webbers Falls	Surplus	2.41%	4.26%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Wellston	Surplus	8.11%	7.86%	0.00%	Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	ee cont

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF REQUIRED CONTRIBUTION RATES**

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2020	7/1/2021			
Westville Utility Authority	UAL	13.49%	15.30%	7.68%	Plan AAA, Rule of 80, 7 year vesting, 5 years certain, no COLA	Rule of 80, ee cont
Wetumka	UAL	24.49%	29.23%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Wilburton	UAL	4.94%	4.62%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Yale	UAL	16.58%	16.96%	6.00%	Plan AAA, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Yukon	UAL	19.32%	20.92%	3.00%	Plan AAA, normal retirement age 62/30, 5 year vesting, 5 years certain, no COLA; 7/05 New Hires: Plan AAA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
<b>Weighted Avg Contribution Rates</b>		<b>14.79%</b>	<b>14.80%</b>	<b>4.50%</b>		

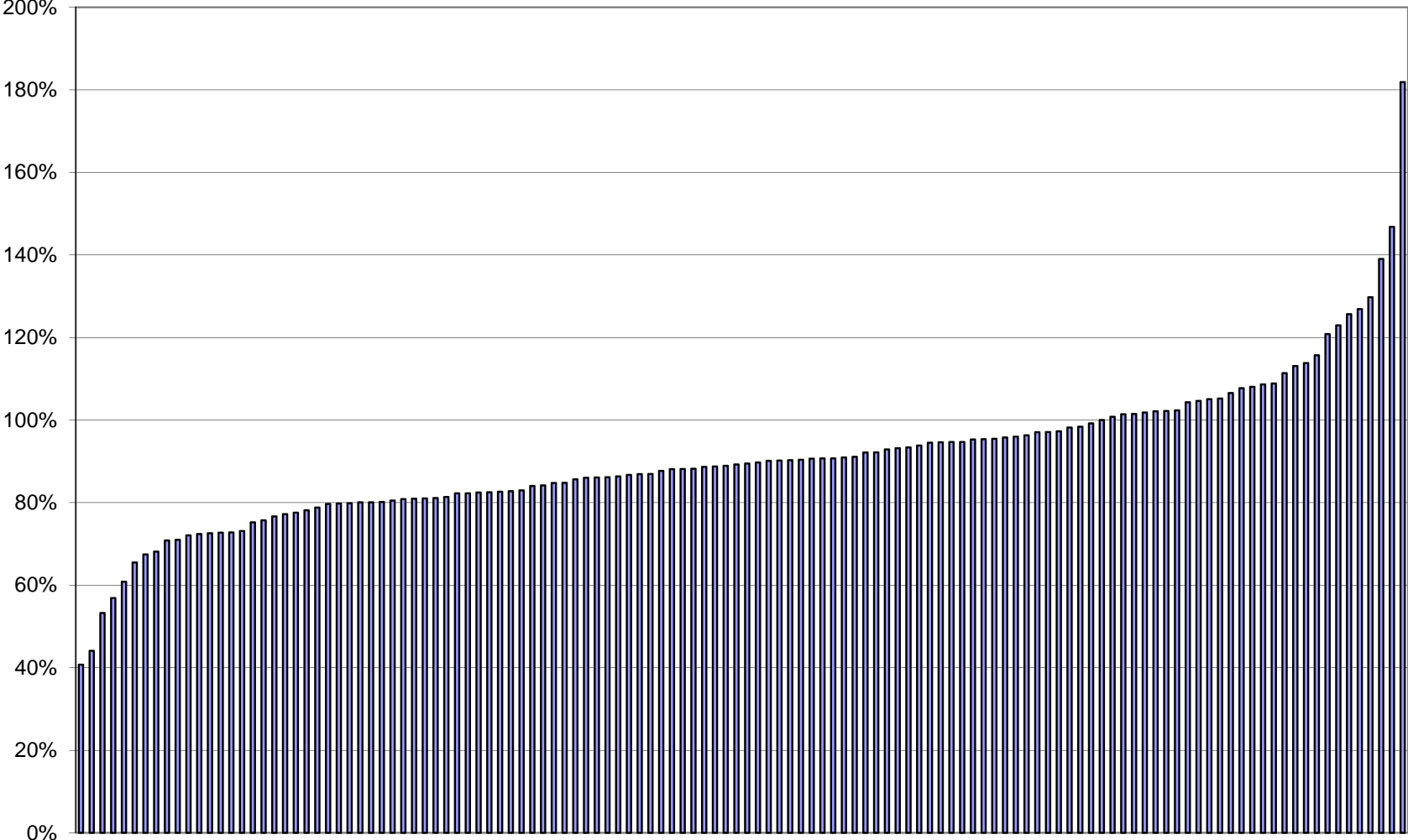
## B Comparison of Plan Assets and Obligations

The exhibit in this section shows the plan assets and obligations as of July 1, 2020, disclosure information formerly required under GASB 50 for information purposes only, and the number of active and nonactive participants. The following is presented for each plan with active participants:

- The *cost method* used for the plan. The entry age normal (EAN) cost method is used for all plans except Bartlesville, which uses the unit credit (UC) cost method. See Section E for a further description of the actuarial cost methods.
- The *valuation assets*. The valuation assets are generally the actuarial value of assets. For hybrid plans, however, the employee hybrid account balances are subtracted from the actuarial value of assets to determine the valuation assets. See Section D for the development of the actuarial value of assets.
- The *valuation payroll*. This is the total compensation paid in fiscal year 2020 to employees who were active participants on July 1, 2020. Pay for employees who worked less than a full year in fiscal 2020 is annualized in determining valuation payroll.
- The *present value of benefits (PVB)*. This is the total of all future benefits expected to be paid to plan participants as of July 1, 2020, discounted to the valuation date at the assumed rate of return (7.25% for all plans). The PVB is shown separately for active and nonactive participants.
- The *actuarial accrued liability (AAL)*. This amount is the liability for benefits attributable to past service under the cost method used for determining the required contribution rate.
- The *unfunded actuarial accrued liability (UAAL)*. This amount is the excess of the actuarial accrued liability over the valuation assets. If the assets exceed the actuarial accrued liability, the surplus is reported as a negative unfunded liability.
- The *funded ratio* is the valuation assets as a percent of the actuarial accrued liability.
- The *unfunded UAAL as % of val pay* is the unfunded actuarial accrued liability as a percent of valuation payroll.
- The number of *active and nonactive participants* included in the valuation. See Section F for more details on the participants included in the valuation.
- The *accumulated benefit obligation (ABO)*. This is the total of all benefits actually accrued under the plan as of July 1, 2020, discounted to the valuation date at the assumed rate of return (7.25% for all plans).

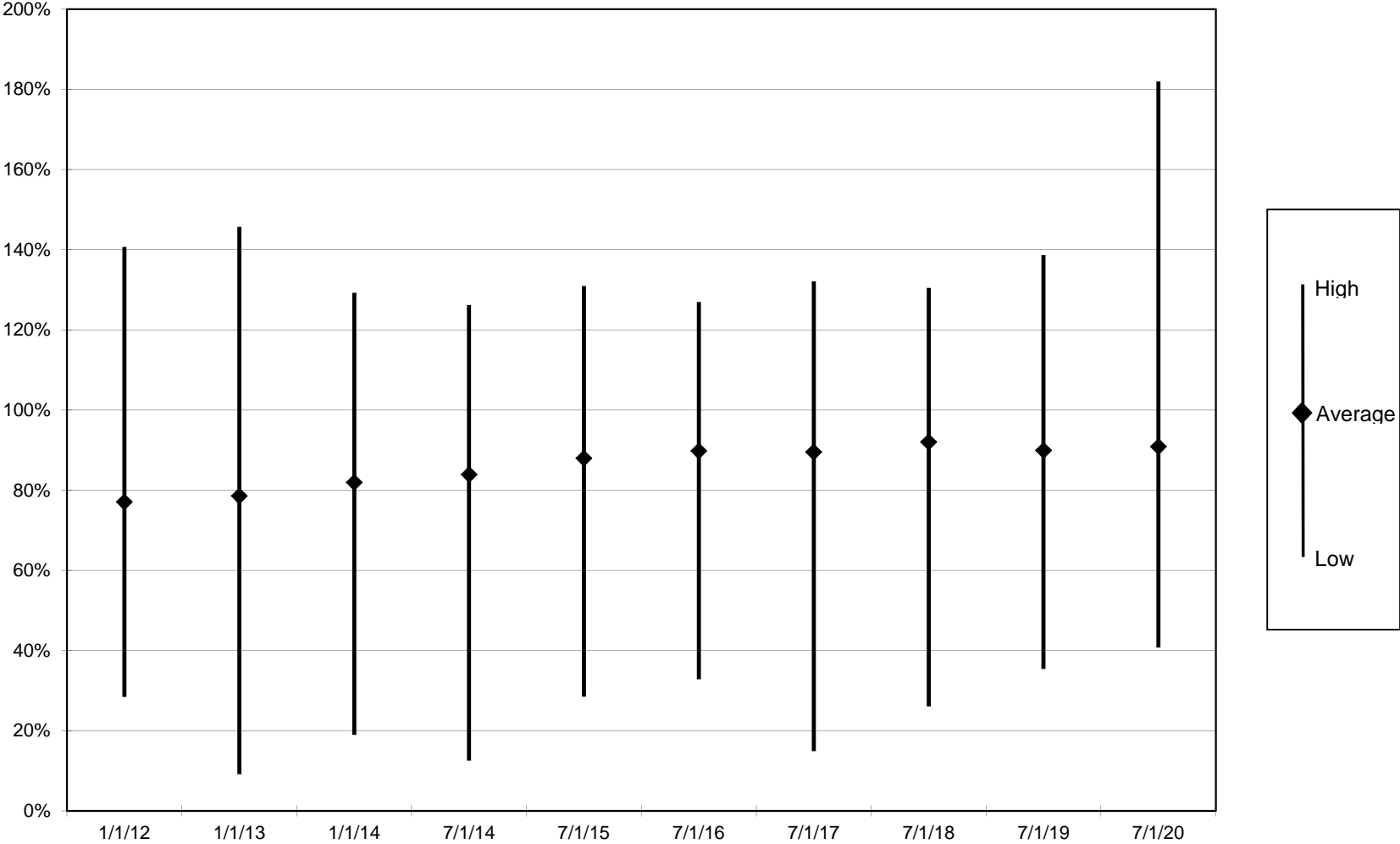
Oklahoma Municipal Retirement Fund

Funded Ratio as of 7/1/2020



Oklahoma Municipal Retirement Fund

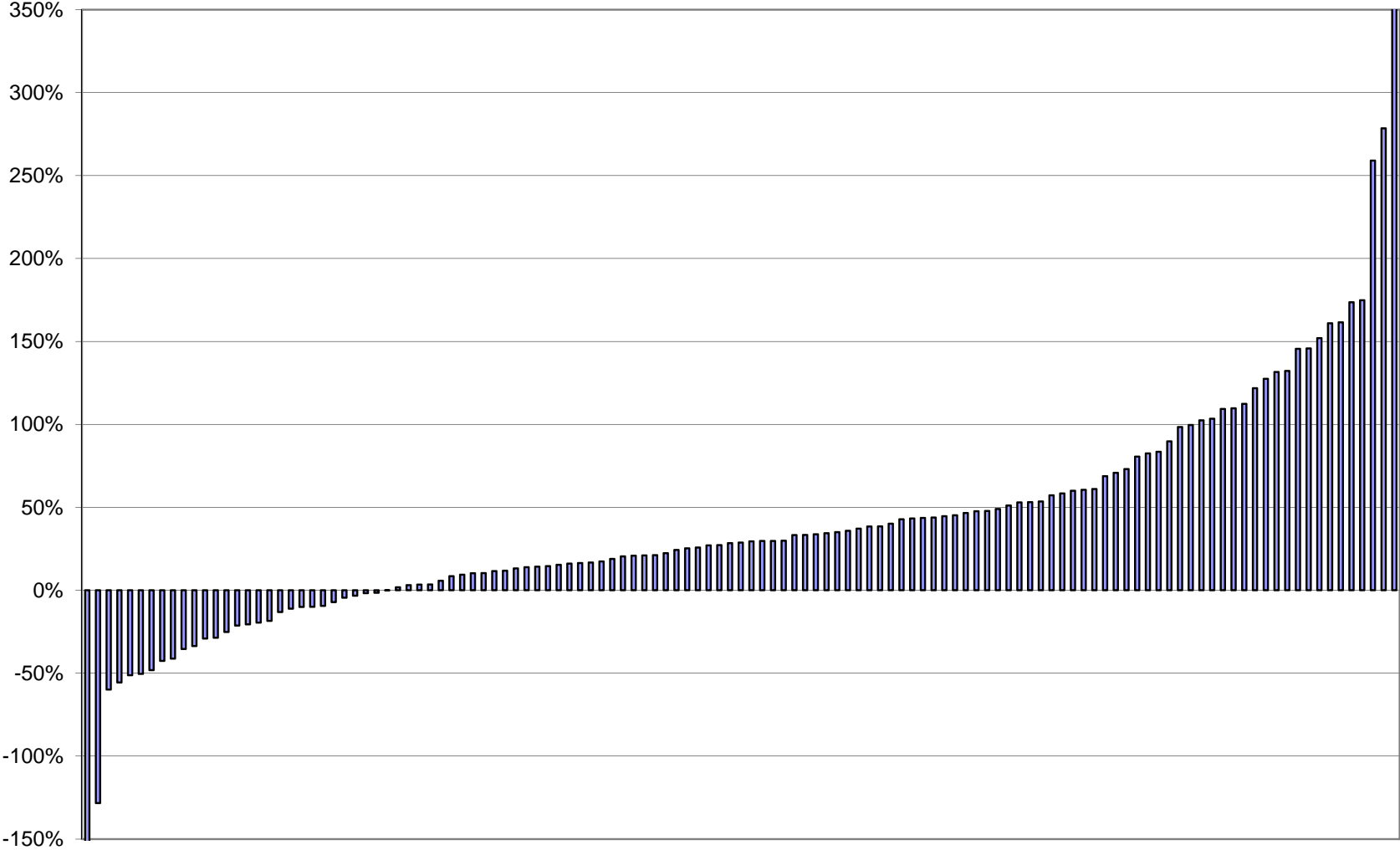
Funded Ratios



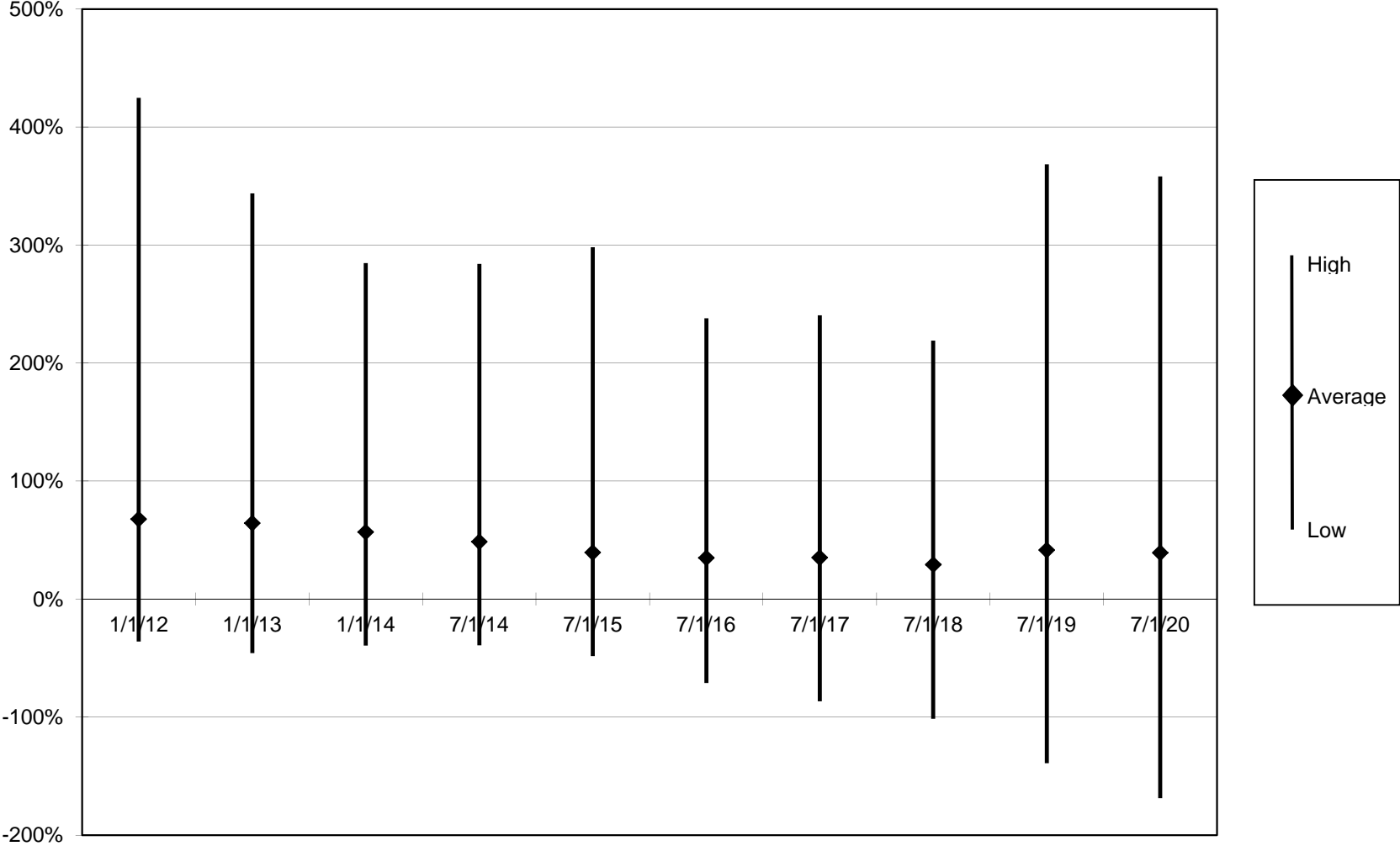


Oklahoma Municipal Retirement Fund

UAAL as Percent of Covered Payroll as of 7/1/2020



UAAL as Percent of Covered Payroll



**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Adair	EAN	313,351	191,008	237,207	212,245	345,395	32,044	90.7%	16.8%	6	5	281,731
Altus	EAN	21,471,397	6,067,663	14,611,750	15,976,011	26,918,051	5,446,654	79.8%	89.8%	146	91	23,209,773
Alva	EAN	4,617,118	1,857,770	3,802,341	2,006,014	5,068,783	451,665	91.1%	24.3%	46	19	4,157,730
Antlers	EAN	1,455,824	871,368	1,106,077	867,129	1,559,010	103,187	93.4%	11.8%	28	13	1,245,633
Ardmore	EAN	35,846,674	8,610,995	29,649,572	13,002,335	36,140,324	293,650	99.2%	3.4%	180	92	29,879,049
Bartlesville	UC	21,736,564	4,537,702	17,189,824	13,691,723	26,713,938	4,977,374	81.4%	109.7%	99	158	26,713,938
Bethany	EAN	25,518,531	3,688,284	14,073,222	15,235,846	26,998,890	1,480,359	94.5%	40.1%	76	54	23,637,572
Bethany/Warr Acres	EAN	2,821,625	345,014	2,038,320	1,378,414	3,178,466	356,841	88.8%	103.4%	7	9	2,807,361
Billings	EAN	236,663	119,537	70,452	155,961	170,213	(66,450)	139.0%	(55.6)%	4	4	162,325
Binger	EAN	234,832	126,527	73,994	205,284	252,811	17,980	92.9%	14.2%	5	2	236,921
Blackwell	EAN	5,612,141	1,835,992	3,510,359	3,799,083	5,931,387	319,246	94.6%	17.4%	47	36	5,172,800
Blair	EAN	588,038	170,100	707,820	53,169	678,098	90,060	86.7%	52.9%	4	1	470,464
Boise City	EAN	1,687,119	429,111	732,670	1,286,642	1,870,747	183,629	90.2%	42.8%	13	12	1,747,357
Bokchito	EAN	172,892	262,062	227,110	73,360	177,702	4,810	97.3%	1.8%	9	1	134,967
Braman	EAN	174,095	0	0	326,823	326,823	152,728	53.3%		0	2	326,823
Bristow	EAN	3,824,409	996,305	1,934,567	2,668,176	3,939,457	115,048	97.1%	11.5%	31	19	3,425,071
Broken Bow	EAN	6,639,719	2,146,600	6,195,125	2,772,166	7,354,318	714,599	90.3%	33.3%	58	19	5,654,313
Buffalo	EAN	1,044,545	202,471	576,907	604,325	1,063,609	19,064	98.2%	9.4%	7	5	902,660

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

<b>City</b>	<b>Cost Method</b>	<b>Valuation Assets</b>	<b>Valuation Payroll</b>	<b>PVB Actives</b>	<b>PVB Retired</b>	<b>AAL</b>	<b>UAAL (Surplus)</b>	<b>Funded Ratio</b>	<b>UAAL as % of Val Pay</b>	<b>Actives</b>	<b>Nonactives</b>	<b>ABO</b>
Burns Flat	EAN	832,331	243,001	464,318	676,824	1,028,171	195,840	81.0%	80.6%	7	5	884,442
Calera	EAN	1,217,603	870,458	1,187,134	625,678	1,476,604	259,001	82.5%	29.8%	23	7	1,145,209
Central Oklahoma MCD	EAN	2,036,378	304,305	1,358,050	837,325	1,911,019	(125,359)	106.6%	(41.2)%	6	4	1,564,093
Chandler	EAN	3,373,603	994,850	3,423,208	492,743	3,533,702	160,099	95.5%	16.1%	24	9	2,959,693
Checotah	EAN	2,684,528	1,382,925	2,270,585	1,110,350	2,802,254	117,727	95.8%	8.5%	43	23	2,195,400
Cherokee & CDA	EAN	446,248	430,533	298,988	351,244	506,316	60,068	88.1%	14.0%	12	10	436,562
Chickasha	EAN	17,617,997	2,144,769	6,614,269	12,635,968	17,617,978	(19)	100.0%	(0.0)%	55	49	16,234,649
Claremore	EAN	18,986,894	6,555,590	12,847,470	11,635,338	20,933,890	1,946,997	90.7%	29.7%	142	81	17,391,294
Cleo Springs	EAN	213,043	29,447	27,362	253,823	257,814	44,772	82.6%	152.0%	1	2	255,156
Cleveland	EAN	2,890,612	675,900	1,828,992	2,691,031	3,982,465	1,091,854	72.6%	161.5%	14	15	3,562,616
Clinton	EAN	14,171,617	2,117,606	7,840,675	7,906,972	13,971,726	(199,891)	101.4%	(9.4)%	53	55	11,995,252
Collinsville	EAN	3,627,631	1,926,668	4,041,359	1,502,225	4,472,541	844,910	81.1%	43.9%	47	17	3,345,727
Copan	EAN	79,306	270,407	145,046	79,155	179,870	100,564	44.1%	37.2%	6	3	148,032
Cordell	EAN	5,348,510	640,507	2,370,277	3,006,261	4,965,166	(383,344)	107.7%	(59.9)%	16	27	4,493,703
Cushing	EAN	21,602,025	3,515,561	9,642,923	14,658,429	22,651,744	1,049,719	95.4%	29.9%	86	105	19,783,784
Davis	EAN	2,391,663	1,071,597	2,296,812	1,046,272	2,776,414	384,751	86.1%	35.9%	28	16	2,337,168
Del City	EAN	18,794,303	3,541,355	13,491,940	14,063,190	24,987,227	6,192,924	75.2%	174.9%	88	71	21,861,778
Dewey	EAN	2,125,862	623,396	2,195,893	533,301	2,397,974	272,112	88.7%	43.7%	18	8	1,761,262

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

<b>City</b>	<b>Cost Method</b>	<b>Valuation Assets</b>	<b>Valuation Payroll</b>	<b>PVB Actives</b>	<b>PVB Retired</b>	<b>AAL</b>	<b>UAAL (Surplus)</b>	<b>Funded Ratio</b>	<b>UAAL as % of Val Pay</b>	<b>Actives</b>	<b>Nonactives</b>	<b>ABO</b>
Drumright	EAN	2,590,508	561,783	1,003,517	2,484,269	3,150,032	559,524	82.2%	99.6%	16	25	2,935,458
Durant	EAN	25,223,228	5,248,527	13,404,850	15,734,179	25,989,282	766,054	97.1%	14.6%	131	102	22,778,186
El Reno	EAN	6,158,312	3,057,611	6,394,458	2,495,970	7,192,116	1,033,804	85.6%	33.8%	56	35	5,363,734
Eufaula	EAN	1,399,827	566,078	628,095	870,885	1,237,801	(162,027)	113.1%	(28.6)%	18	9	1,114,794
Fort Cobb	EAN	256,303	112,911	67,156	285,483	308,956	52,652	83.0%	46.6%	4	2	297,436
Foss Reservoir Public Works	EAN	978,252	309,805	881,949	383,775	1,125,855	147,603	86.9%	47.6%	6	3	799,228
Frederick	EAN	4,629,661	1,143,447	3,863,679	1,685,659	5,023,625	393,963	92.2%	34.5%	31	20	4,319,765
Garber	EAN	118,731	129,003	227,494	8,308	156,814	38,083	75.7%	29.5%	4	1	65,743
Geary	EAN	1,715,665	873,614	1,658,194	716,325	1,897,815	182,151	90.4%	20.9%	21	9	1,368,496
Goodwell	EAN	318,607	151,706	54,824	239,457	245,579	(73,028)	129.7%	(48.1)%	4	7	242,080
Gore and Gore PWA	EAN	926,527	671,342	1,219,155	77,318	965,282	38,755	96.0%	5.8%	24	5	594,325
Granite	EAN	1,725,729	283,050	799,133	1,488,539	2,098,085	372,356	82.3%	131.6%	7	5	1,903,473
Guthrie	EAN	6,871,436	2,066,539	5,223,163	3,208,714	7,209,907	338,471	95.3%	16.4%	53	20	5,595,449
Harrah	EAN	3,057,820	858,022	3,022,164	1,791,855	4,306,536	1,248,716	71.0%	145.5%	18	13	3,563,590
Healdton	EAN	1,671,600	549,133	1,362,092	949,343	1,854,731	183,131	90.1%	33.3%	15	8	1,574,170
Henryetta	EAN	3,782,766	1,488,924	4,425,516	1,795,649	5,248,420	1,465,654	72.1%	98.4%	40	17	4,000,608
Hooker	EAN	1,301,920	441,908	1,306,062	745,823	1,798,654	496,734	72.4%	112.4%	10	8	1,510,530
Hulbert	EAN	822,147	526,326	1,042,500	296,942	1,129,592	307,446	72.8%	58.4%	14	4	857,065

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

<b>City</b>	<b>Cost Method</b>	<b>Valuation Assets</b>	<b>Valuation Payroll</b>	<b>PVB Actives</b>	<b>PVB Retired</b>	<b>AAL</b>	<b>UAAL (Surplus)</b>	<b>Funded Ratio</b>	<b>UAAL as % of Val Pay</b>	<b>Actives</b>	<b>Nonactives</b>	<b>ABO</b>
Hydro	EAN	382,555	205,974	155,086	358,936	428,643	46,089	89.2%	22.4%	6	5	387,811
Kansas	EAN	142,095	202,512	113,003	98,399	168,809	26,715	84.2%	13.2%	6	5	132,303
Kiefer	EAN	155,144	276,434	301,316	47,547	229,978	74,834	67.5%	27.1%	8	1	143,901
Kingston	EAN	741,367	441,737	609,893	545,619	967,193	225,826	76.7%	51.1%	13	6	826,565
Krebs & Krebs Utility Auth.	EAN	556,732	533,247	561,650	314,608	691,494	134,762	80.5%	25.3%	14	6	547,354
Laverne	EAN	1,419,163	457,230	740,548	892,584	1,398,531	(20,632)	101.5%	(4.5)%	14	15	1,179,825
Lindsay	EAN	5,163,598	1,892,418	3,670,376	2,522,325	4,915,233	(248,365)	105.1%	(13.1)%	49	20	3,966,829
Madill	EAN	3,371,507	1,114,452	3,612,054	975,568	3,904,692	533,185	86.3%	47.8%	28	11	3,097,253
Mannford	EAN	3,329,574	1,068,487	3,279,286	2,515,980	4,887,452	1,557,877	68.1%	145.8%	22	19	4,013,653
Marietta	EAN	1,272,191	601,994	1,081,647	738,280	1,398,852	126,661	90.9%	21.0%	17	13	1,122,884
Marietta PWA	EAN	504,946	220,583	572,852	463,276	887,973	383,027	56.9%	173.6%	6	5	699,280
McLoud	EAN	863,402	698,769	568,428	470,947	714,582	(148,820)	120.8%	(21.3)%	22	14	604,983
Medford	EAN	3,204,617	466,383	2,618,434	1,111,882	3,534,853	330,236	90.7%	70.8%	11	4	2,941,271
Meeker	EAN	751,714	323,232	326,522	572,329	692,032	(59,682)	108.6%	(18.5)%	11	14	636,064
Miami	EAN	11,885,857	5,096,841	8,293,978	9,420,386	15,393,915	3,508,058	77.2%	68.8%	124	98	13,181,198
Mooreland	EAN	1,451,402	489,525	678,160	1,393,342	1,711,631	260,229	84.8%	53.2%	10	8	1,499,295
Mountain Park MCD	EAN	1,057,025	244,284	559,562	1,399,568	1,737,393	680,368	60.8%	278.5%	5	4	1,556,504
Muldrow	EAN	2,371,194	970,850	1,672,922	1,905,892	2,927,099	555,905	81.0%	57.3%	24	17	2,422,405

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

<b>City</b>	<b>Cost Method</b>	<b>Valuation Assets</b>	<b>Valuation Payroll</b>	<b>PVB Actives</b>	<b>PVB Retired</b>	<b>AAL</b>	<b>UAAL (Surplus)</b>	<b>Funded Ratio</b>	<b>UAAL as % of Val Pay</b>	<b>Actives</b>	<b>Nonactives</b>	<b>ABO</b>
Mustang	EAN	7,937,279	2,469,929	6,791,278	4,301,449	9,445,425	1,508,146	84.0%	61.1%	44	19	7,718,336
Nichols Hills	EAN	9,550,668	2,431,128	5,284,196	5,154,251	9,077,166	(473,502)	105.2%	(19.5)%	43	23	8,318,183
Noble	EAN	2,536,337	917,252	2,448,004	969,366	2,945,878	409,541	86.1%	44.6%	20	11	2,460,811
Nowata	EAN	2,487,530	901,025	1,928,884	1,025,988	2,302,079	(185,450)	108.1%	(20.6)%	28	27	1,849,640
Oilton	EAN	457,424	170,129	285,968	243,260	438,529	(18,895)	104.3%	(11.1)%	7	4	348,223
Okeene	EAN	1,231,206	254,654	502,793	851,884	1,205,525	(25,681)	102.1%	(10.1)%	7	8	1,072,926
Okemah	EAN	1,815,208	1,071,610	2,089,223	759,067	2,340,250	525,041	77.6%	49.0%	28	13	1,781,933
Oklahoma Municipal League	EAN	7,561,611	787,188	2,964,090	4,975,567	7,226,614	(334,997)	104.6%	(42.6)%	12	22	6,742,134
OkMRF Staff	EAN	1,678,324	712,839	2,135,192	355,395	2,105,834	427,510	79.7%	60.0%	10	4	1,494,900
Okmulgee	EAN	18,060,349	2,872,024	12,166,148	7,841,969	18,356,561	296,212	98.4%	10.3%	82	64	14,739,680
Owasso	EAN	20,391,024	8,147,125	21,686,249	6,625,071	23,250,342	2,859,318	87.7%	35.1%	154	70	17,052,877
Pawnee	EAN	3,230,502	979,506	2,129,186	1,540,489	2,901,022	(329,480)	111.4%	(33.6)%	24	19	2,499,305
Perkins	EAN	1,323,462	370,155	912,808	570,742	1,215,621	(107,841)	108.9%	(29.1)%	10	10	911,922
Perry	EAN	4,689,639	2,028,958	4,355,908	2,040,435	5,273,785	584,146	88.9%	28.8%	51	19	4,132,290
Piedmont	EAN	601,577	1,083,422	979,214	88,415	635,283	33,707	94.7%	3.1%	21	2	434,842
Pond Creek	EAN	1,471,503	443,829	1,796,090	512,384	2,012,339	540,836	73.1%	121.9%	12	5	1,609,446
Porum	EAN	468,615	312,449	350,989	196,062	458,489	(10,125)	102.2%	(3.2)%	7	5	364,489
Poteau	EAN	7,321,223	1,627,610	4,466,328	4,780,080	8,510,389	1,189,166	86.0%	73.1%	51	36	7,342,519

**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Ratliff City	EAN	167,687	209,562	176,156	97,522	207,354	39,667	80.9%	18.9%	5	2	155,053
Ringling	EAN	198,905	195,529	235,027	128,182	303,672	104,767	65.5%	53.6%	5	4	236,401
Roland	EAN	1,534,840	1,084,400	1,907,939	290,716	1,646,989	112,148	93.2%	10.3%	24	7	1,159,281
Sallisaw	EAN	17,267,265	4,535,072	15,406,227	9,672,604	21,914,382	4,647,118	78.8%	102.5%	114	59	17,831,835
Seiling	EAN	1,052,225	198,813	624,641	203,934	716,760	(335,465)	146.8%	(168.7)%	5	5	557,131
Shawnee	EAN	36,782,862	1,173,220	5,671,600	36,206,963	40,983,713	4,200,851	89.7%	358.1%	48	112	39,470,146
Skiatook	EAN	1,951,821	2,118,827	3,052,891	328,253	2,026,734	74,913	96.3%	3.5%	47	12	1,485,883
Spencer	EAN	1,074,842	397,597	487,187	622,541	874,294	(200,548)	122.9%	(50.4)%	12	13	808,104
Spiro	EAN	1,235,437	576,374	828,072	807,860	1,457,708	222,271	84.8%	38.6%	18	14	1,302,711
Stilwell	EAN	9,642,355	2,642,983	5,089,733	6,663,085	10,184,007	541,652	94.7%	20.5%	72	54	8,556,207
Stratford	EAN	345,093	303,319	164,329	113,566	189,733	(155,360)	181.9%	(51.2)%	9	3	141,778
Stroud	EAN	3,914,298	1,373,414	2,748,734	2,423,503	4,442,670	528,372	88.1%	38.5%	35	30	3,703,412
Sulphur	EAN	5,591,472	1,272,677	3,981,753	3,813,782	6,982,951	1,391,479	80.1%	109.3%	28	19	5,701,709
Talihina & TPWA	EAN	857,986	553,544	1,002,762	322,952	1,097,865	239,879	78.2%	43.3%	18	7	901,556
Thomas	EAN	1,012,147	258,892	797,573	801,074	1,428,802	416,655	70.8%	160.9%	7	9	1,176,346
Tipton	EAN	289,632	179,335	413,536	38,249	398,260	108,628	72.7%	60.6%	6	1	355,135
Tishomingo	EAN	538,538	412,959	476,085	272,095	601,903	63,364	89.5%	15.3%	13	9	501,259
Tonkawa	EAN	2,853,032	883,174	1,906,193	1,695,186	3,040,171	187,139	93.8%	21.2%	25	16	2,452,444



**Oklahoma Municipal Retirement Fund**  
**COMPARISON OF PLAN ASSETS AND OBLIGATIONS as of 7/1/2020**

<b>City</b>	<b>Cost Method</b>	<b>Valuation Assets</b>	<b>Valuation Payroll</b>	<b>PVB Actives</b>	<b>PVB Retired</b>	<b>AAL</b>	<b>UAAL (Surplus)</b>	<b>Funded Ratio</b>	<b>UAAL as % of Val Pay</b>	<b>Actives</b>	<b>Nonactives</b>	<b>ABO</b>
Velma	EAN	340,272	196,225	129,403	226,484	270,815	(69,457)	125.6%	(35.4)%	7	6	242,586
Vian	EAN	386,826	514,936	546,895	92,855	377,909	(8,917)	102.4%	(1.7)%	14	4	246,433
Vinita	EAN	8,441,733	1,378,089	3,680,112	7,589,573	10,198,792	1,757,059	82.8%	127.5%	41	44	9,348,879
Wakita	EAN	221,419	36,581	33,580	159,255	174,483	(46,935)	126.9%	(128.3)%	1	1	165,237
Warr Acres	EAN	9,009,994	1,623,212	5,352,998	5,830,781	10,365,631	1,355,637	86.9%	83.5%	37	33	9,081,773
Watonga	EAN	4,549,443	1,372,686	3,531,212	3,104,130	5,682,534	1,133,091	80.1%	82.5%	39	27	4,872,770
Waukomis	EAN	486,288	262,053	315,741	284,539	420,308	(65,980)	115.7%	(25.2)%	6	3	354,553
Waurika	EAN	1,161,809	293,767	619,934	767,803	1,140,860	(20,949)	101.8%	(7.1)%	9	6	954,323
Weatherford	EAN	6,442,611	3,020,571	6,188,754	3,595,881	7,808,077	1,365,466	82.5%	45.2%	77	38	6,508,542
Webbers Falls	EAN	205,134	250,288	174,993	87,389	180,224	(24,911)	113.8%	(10.0)%	7	10	152,193
Wellston	EAN	576,274	306,339	331,428	383,541	571,756	(4,518)	100.8%	(1.5)%	8	8	508,021
Westville Utility Authority	EAN	685,668	322,283	856,990	218,753	777,466	91,798	88.2%	28.5%	8	4	491,130
Wetumka	EAN	1,566,371	152,764	511,096	1,501,561	1,962,054	395,682	79.8%	259.0%	5	11	1,867,876
Wilburton	EAN	186,971	1,000,222	542,640	57,734	459,022	272,051	40.7%	27.2%	27	3	273,620
Yale	EAN	1,566,936	515,235	1,034,293	1,094,645	1,699,653	132,717	92.2%	25.8%	17	14	1,433,079
Yukon	EAN	28,375,242	5,305,571	23,091,113	15,384,134	35,392,485	7,017,243	80.2%	132.3%	75	117	28,313,495
<b>Total</b>		<b>597,935,718</b>	<b>156,643,409</b>	<b>410,266,507</b>	<b>357,139,795</b>	<b>672,351,504</b>	<b>74,415,786</b>	<b>88.9%</b>	<b>47.5%</b>	<b>3,777</b>	<b>2,673</b>	<b>572,551,170</b>

Totals exclude frozen plans and plans with only nonactive participants.

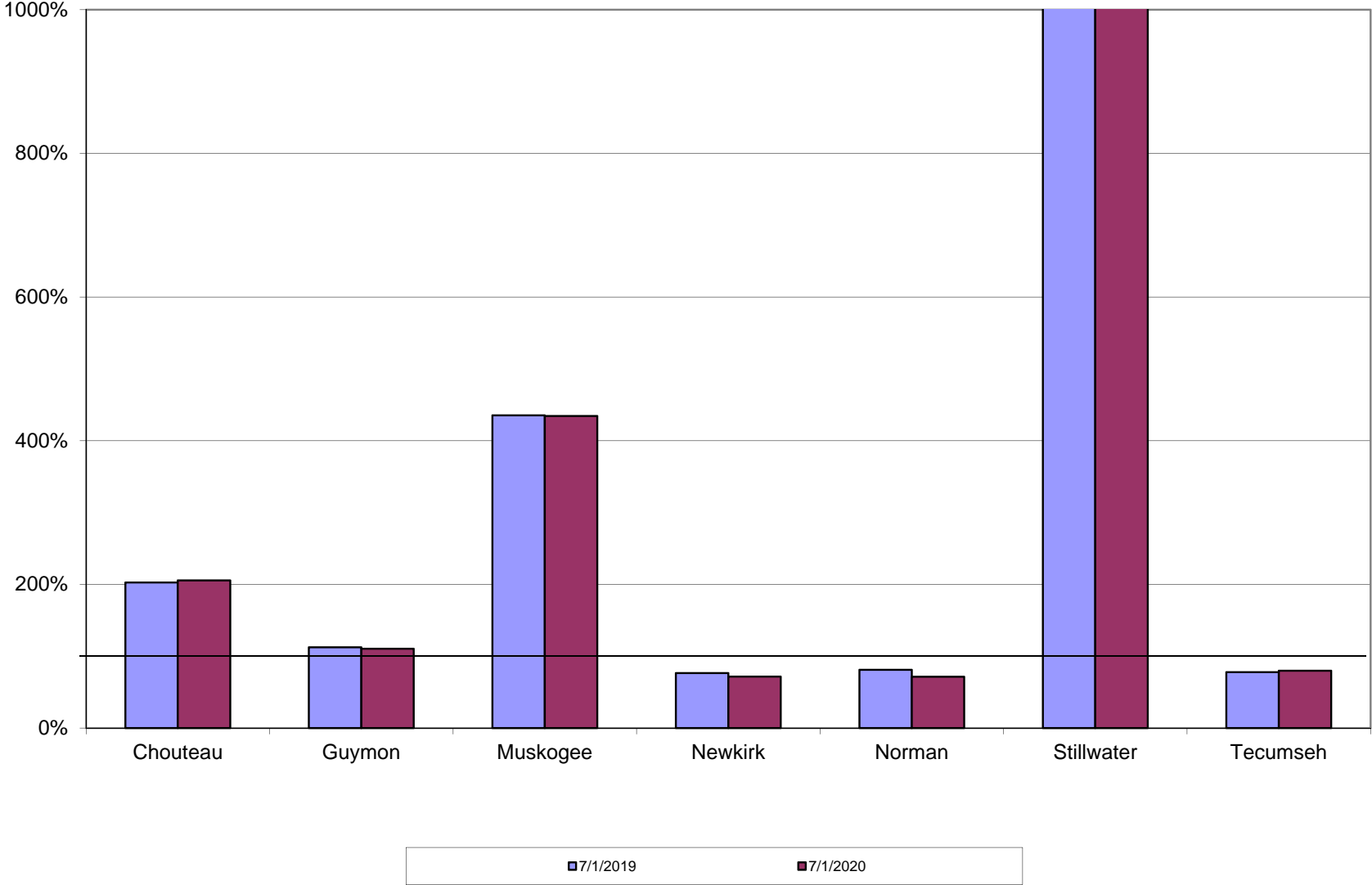
## C Funded Status of Plans with No Further Benefit Accruals

There are 7 plans that no longer have employees accruing benefits under the plan, but still have assets in the OkMRF Master Trust for paying benefits to nonactive participants. The following pages show key financial information for each of these plans:

- The number of participants due benefits from the Trust, both in total and by category. The participant categories are active employees with frozen benefits, retirees receiving benefits, beneficiaries of deceased participants entitled to benefits, participants receiving disability benefits, vested participants entitled to future benefits, and nonvested participants entitled only to a refund of their employee contributions with interest. See Section F for more details on the participants included in the valuation.
- The *present value of benefits*. This is the total of all future benefits expected to be paid to plan participants as of July 1, 2020, discounted to the valuation date at the assumed rate of return (7.25%). The present value of benefits is shown separately by participant category.
- The *market value of assets*. Assets for cities with no active participants accruing benefits are valued at fair market value. See Section D for more detail on the trust fund activity during fiscal 2020.
- The *deficiency (surplus)*. This is the excess of the plan obligations, measured as the present value of benefits, over the market value of assets. If the assets exceed the obligations, the surplus is reported as a negative amount.
- The *funded percentage*. This is the market value of assets as a percent of the plan obligations.
- The *plan funding requirement*. If plan obligations exceed assets, the annual payment required to amortize the deficiency over a specified number of years is reported.

Oklahoma Municipal Retirement Fund

Funded Status of Nonactive Plans



**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Chouteau, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	5,451
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	<b>\$5,451</b>
Market Value of Assets		<b>\$11,199</b>
Deficiency (Surplus)		<b>(\$5,748)</b>
Funded Percentage		<b>205%</b>

***Plan assets are currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 9 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>N/A</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	none
Retirement Age for Deferred Vested	65

**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Guymon, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	26	\$1,580,121
Retirees	23	2,235,058
Survivors	5	164,617
Disabled	4	121,077
Deferred Vested	42	1,424,182
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	100	<b>\$5,525,055</b>
Market Value of Assets		<b>\$6,098,547</b>
Deficiency (Surplus)		<b>(\$573,493)</b>
Funded Percentage		<b>110%</b>

***Plan assets are currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 9 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>N/A</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	none
Retirement Age for Deferred Vested	65

**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Muskogee, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	9,203
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	<b>\$9,203</b>
Market Value of Assets		<b>\$39,981</b>
Deficiency (Surplus)		<b>(\$30,778)</b>
Funded Percentage		<b>434%</b>

***Plan assets are currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 9 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>N/A</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	3% per annum
Retirement Age for Deferred Vested	65

**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Newkirk, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	3	\$92,997
Retirees	10	933,377
Survivors	2	119,445
Disabled	0	0
Deferred Vested	3	503,123
Nonvested (refunds due)	<u>3</u>	<u>16,537</u>
Totals	21	<b>\$1,665,478</b>
Market Value of Assets		<b>\$1,191,311</b>
Deficiency (Surplus)		<b>\$474,167</b>
Funded Percentage		<b>72%</b>

***Plan assets are not currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 4 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>\$140,778</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	none
Retirement Age for Deferred Vested	65

**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Norman, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	5	192,659
Survivors	1	34,420
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	6	<b>\$227,079</b>
Market Value of Assets		<b>\$162,162</b>
Deficiency (Surplus)		<b>\$64,917</b>
Funded Percentage		<b>71%</b>

***Plan assets are not currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 10 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>\$9,350</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	none
Retirement Age for Deferred Vested	65



**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Stillwater, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	13,663
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	<b>\$13,663</b>
Market Value of Assets		<b>\$10,466,083</b>
Deficiency (Surplus)		<b>(\$10,452,420)</b>
Funded Percentage		<b>76602%</b>

***Plan assets are currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 9 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>N/A</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	3% per annum
Retirement Age for Deferred Vested	65

**Oklahoma Municipal Retirement Fund  
Employee Retirement System of Tecumseh, Oklahoma**

**FUNDED STATUS OF THE PLAN AS OF JULY 1, 2020**

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	3	90,297
Survivors	0	0
Disabled	2	38,247
Deferred Vested	1	172
Nonvested (refunds due)	<u>21</u>	<u>32,854</u>
Totals	27	<b>\$161,570</b>
Market Value of Assets		<b>\$128,828</b>
Deficiency (Surplus)		<b>\$32,742</b>
Funded Percentage		<b>80%</b>

***Plan assets are not currently sufficient.***

***Plan Funding Requirement***

Annual contribution payable for 2 years commencing July 1, 2021 sufficient to amortize the funding deficiency	<b>\$18,172</b>
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**Actuarial Basis**

Interest rate	7.25% per annum
Mortality	PubG-2010 (projected)
Cost of Living Adjustments	none
Retirement Age for Deferred Vested	65

## **D Development of the Actuarial Value of Assets**

This section shows the development of the actuarial value of assets as of July 1, 2020.

For pension plans with active participants accruing benefits, the actuarial value of assets is related to market value, but smoothed to reduce the volatility of contribution requirements. The market value of plan assets is compared to the expected value based on the prior year market value to determine the investment gain or loss for the year. This gain or loss is then recognized ratably over a 5-year period beginning with the year ending on that valuation date.

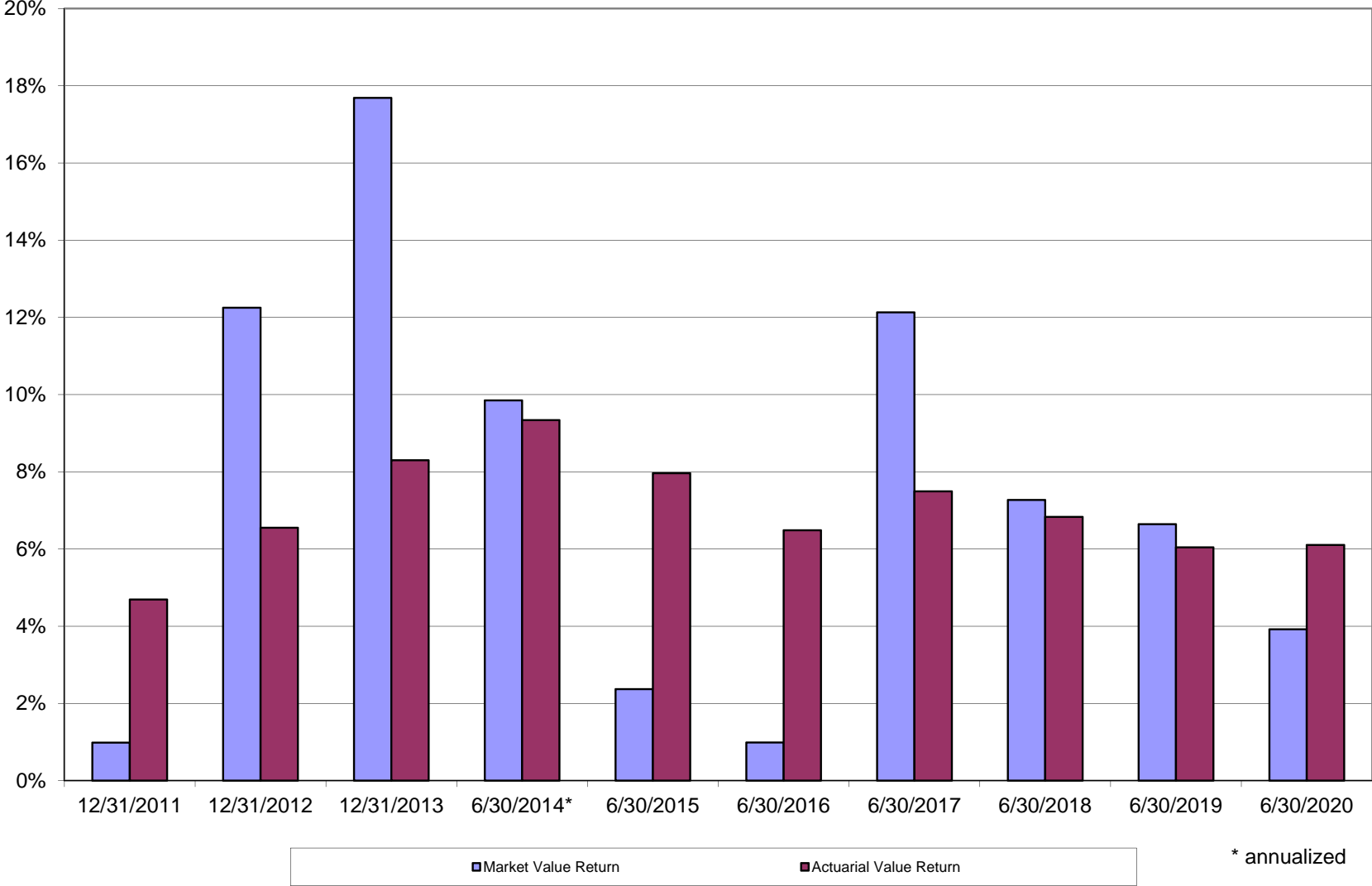
The actuarial value of assets is equal to the market value of assets, plus any unrecognized investment losses (or minus any unrecognized investment gains), subject to a 30% corridor. If the actuarial asset value would otherwise be outside this 30% corridor, it is instead equal to the relevant corridor limit.

For pension plans with no active participants accruing benefits, and for all retiree medical plans, the actuarial value of assets is equal to the current market value. All investment gains and losses are fully recognized on the valuation date.

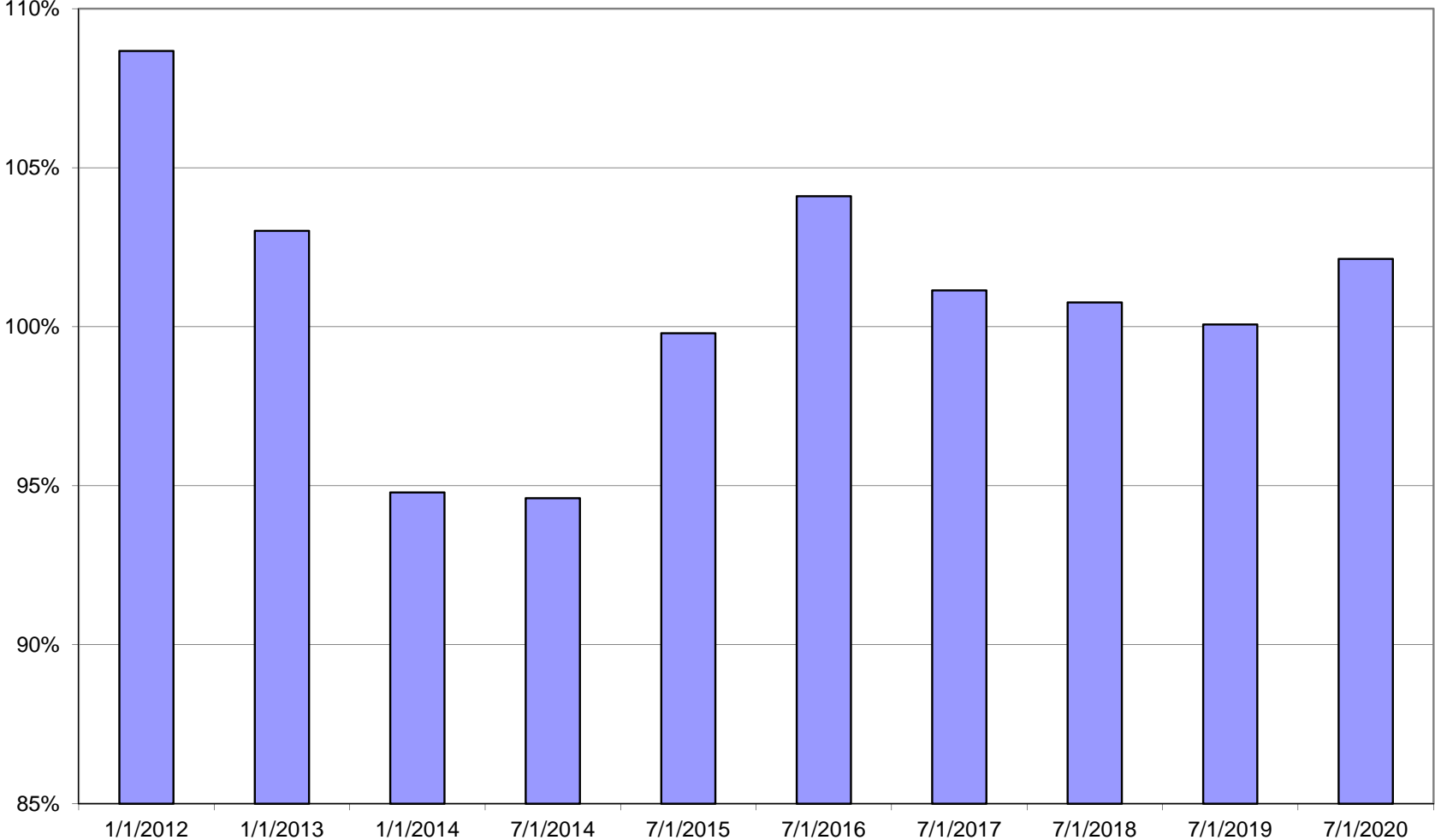
For most plans, the actuarial value of assets also serves as the valuation assets. In a hybrid plan, however, hybrid contributions are used to provide additional benefits, and these amounts are not available to pay the regular retirement benefits. For plans that have adopted the hybrid provision, therefore, the total value of the employee hybrid accounts (accumulated hybrid contributions with earnings) is subtracted from the actuarial value of assets to determine valuation assets.

Oklahoma Municipal Retirement Fund

Historical Return on Plan Assets



**Actuarial Value of Assets as Percent of Market Value**



DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee	Distributions						
Adair	267,032	269,235	288,984	288,965	13,678	8,207	(15,521)	21,182	316,530	306,855	9,676	6,496	313,351
Altus	20,545,473	20,714,910	21,345,976	21,348,616	746,348	244,527	(2,128,980)	1,506,327	21,714,199	21,022,341	691,858	449,057	21,471,397
Alva	3,945,864	3,988,201	4,305,694	4,313,227	120,025	59,232	(138,448)	313,642	4,660,146	4,518,593	141,553	98,525	4,617,118
Antlers	1,286,819	1,296,292	1,379,699	1,380,785	44,266	32,778	(86,741)	99,677	1,469,679	1,424,376	45,303	31,448	1,455,824
Ardmore	31,106,541	31,300,774	33,490,497	33,485,117	738,814	521,654	(986,141)	2,438,005	36,202,830	35,095,886	1,106,944	750,788	35,846,674
Bartlesville	19,216,232	19,346,115	20,568,119	20,580,994	875,145	277,090	(1,263,472)	1,487,156	21,944,039	21,263,188	680,851	473,376	21,736,564
Bethany *	26,443,190	26,670,973	27,485,896	27,515,711	477,415	184,401	(1,477,560)	1,963,157	28,633,308	27,721,492	911,817	621,913	28,343,405
Bethany/Warr Acres	2,585,826	2,608,123	2,709,408	2,711,627	50,536	20,701	(124,493)	194,502	2,850,653	2,761,218	89,436	60,407	2,821,625
Billings	286,516	287,847	308,451	308,159	1,510	4,391	(93,164)	19,199	240,388	228,600	11,788	8,063	236,663
Binger	213,637	214,956	230,837	230,972	4,210	3,565	(17,747)	16,374	237,239	228,877	8,363	5,955	234,832
Blackwell	6,297,288	6,347,689	6,163,881	6,174,857	192,268	84,575	(1,180,918)	414,109	5,673,915	5,465,537	208,379	146,604	5,612,141
Blair	486,723	489,591	535,744	535,751	12,426	5,841	0	39,504	593,514	575,694	17,820	12,344	588,038
Boise City	1,625,541	1,640,612	1,671,280	1,672,999	47,325	0	(131,516)	118,116	1,705,204	1,649,782	55,422	37,337	1,687,119
Bokchito	152,957	153,710	157,130	157,904	8,622	7,373	(10,705)	11,584	174,004	168,420	5,583	4,472	172,892
Braman	228,445	232,075	195,917	196,342	9,000	0	(41,284)	13,034	176,666	170,284	6,382	3,811	174,095
Bristow	3,651,284	3,684,543	3,731,085	3,734,014	74,160	40,132	(245,222)	265,757	3,865,912	3,742,455	123,457	81,954	3,824,409
Broken Bow	5,675,841	5,708,497	6,181,483	6,178,717	288,342	128,152	(344,679)	450,761	6,704,058	6,502,691	201,367	137,028	6,639,719
Buffalo	1,021,902	1,032,670	1,032,855	1,034,608	14,236	7,665	(72,055)	73,064	1,055,765	1,021,460	34,304	23,085	1,044,545
Burns Flat	743,833	747,312	799,050	798,901	23,375	11,687	(50,956)	57,355	840,510	814,144	26,367	18,187	832,331
Calera	1,008,847	1,014,651	1,111,868	1,111,579	59,992	25,785	(50,434)	81,892	1,229,103	1,192,133	36,969	25,470	1,217,603
Central Okla MCD	1,836,215	1,844,510	1,946,451	1,945,457	8,734	18,258	(56,621)	140,044	2,056,865	1,992,592	64,273	43,787	2,036,378
Chandler	2,836,774	2,854,680	3,088,762	3,090,709	88,350	45,341	(45,499)	227,132	3,404,087	3,301,986	102,101	71,617	3,373,603
Checotah	2,314,421	2,331,394	2,493,193	2,493,082	98,805	51,563	(114,438)	182,059	2,711,182	2,630,089	81,093	54,439	2,684,528
Cherokee & CDA	376,902	378,280	419,507	419,274	24,153	10,254	(34,011)	30,429	450,332	436,602	13,730	9,646	446,248
Chickasha	16,989,975	17,141,011	17,345,637	17,358,249	158,286	84,195	(1,006,784)	1,229,853	17,811,187	17,243,450	567,737	374,547	17,617,997
Claremore	18,072,637	18,223,929	18,228,074	18,283,504	466,760	291,897	(1,138,940)	1,307,750	19,155,541	18,552,241	603,300	434,653	18,986,894

Oklahoma Municipal Retirement Fund

Exhibit D

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee	Distributions						
Cleo Springs	212,273	213,618	232,363	232,342	2,313	1,740	(36,637)	15,665	215,445	207,870	7,575	5,173	213,043
Cleveland	2,674,124	2,696,427	2,815,224	2,817,723	137,498	43,317	(276,116)	200,649	2,920,572	2,826,743	93,829	63,869	2,890,612
Clinton	13,285,652	13,398,754	13,651,922	13,671,172	126,817	112,466	(556,880)	978,251	14,312,576	13,861,117	451,459	310,500	14,171,617
Collinsville	3,079,935	3,116,977	3,354,836	3,361,097	163,543	72,444	(172,797)	245,516	3,663,541	3,552,060	111,481	75,571	3,627,631
Copan	58,022	58,550	67,376	67,486	16,053	3,918	(12,534)	5,154	79,967	77,500	2,467	1,806	79,306
Cordell	5,058,423	5,102,413	5,242,747	5,248,275	56,778	0	(267,842)	372,448	5,404,132	5,231,648	172,484	116,862	5,348,510
Cushing	20,967,002	21,137,353	21,374,203	21,402,018	369,351	0	(1,421,827)	1,511,478	21,833,206	21,129,618	703,588	472,407	21,602,025
Davis	2,157,254	2,179,532	2,239,097	2,242,452	95,315	50,649	(133,090)	162,801	2,414,772	2,341,206	73,565	50,457	2,391,663
Del City *	17,516,818	17,670,083	18,202,227	18,221,947	503,135	215,629	(1,218,032)	1,301,563	19,004,521	18,407,062	597,459	404,949	18,812,011
Dewey	1,821,368	1,834,635	1,974,066	1,974,081	70,264	23,422	(64,933)	144,162	2,146,981	2,081,541	65,441	44,321	2,125,862
Drumright	2,537,624	2,562,586	2,565,996	2,569,478	80,487	35,221	(244,432)	181,368	2,618,640	2,533,657	84,983	56,851	2,590,508
Durant	23,051,507	23,227,689	24,174,110	24,187,372	407,750	245,863	(1,084,067)	1,737,019	25,480,676	24,681,957	798,718	541,271	25,223,228
El Reno	4,594,921	4,618,760	5,578,196	5,588,911	282,870	162,075	(231,491)	412,157	6,203,807	6,021,012	182,796	137,300	6,158,312
Eufaula	1,322,674	1,336,624	1,383,313	1,385,163	26,526	19,892	(112,662)	97,889	1,414,958	1,369,259	45,699	30,568	1,399,827
Fort Cobb	252,427	254,538	253,977	254,467	11,197	5,050	(29,310)	17,940	258,854	250,312	8,542	5,992	256,303
Foss Reservoir Public Wo	929,459	936,896	954,928	955,206	47,710	11,618	(93,217)	68,004	989,043	957,544	31,499	20,708	978,252
Frederick	4,093,161	4,126,207	4,353,569	4,355,699	143,902	47,930	(185,023)	315,881	4,676,259	4,532,257	144,002	97,405	4,629,661
Garber	82,082	82,632	99,179	99,224	7,998	4,837	0	7,656	119,671	116,309	3,362	2,422	118,731
Geary	1,486,275	1,495,817	1,613,212	1,612,973	46,909	20,104	(64,651)	117,043	1,732,617	1,679,430	53,187	36,235	1,715,665
Goodwell	290,525	292,529	315,450	315,862	10,758	5,957	(32,795)	22,287	321,657	311,067	10,590	7,540	318,607
Gore and Gore PWA	720,845	724,302	816,725	816,328	42,020	22,898	(8,110)	61,272	934,806	907,174	27,633	19,353	926,527
Granite	1,614,867	1,626,086	1,679,118	1,680,348	43,761	12,657	(112,186)	119,714	1,743,065	1,687,322	55,743	38,407	1,725,729
Guthrie	6,198,242	6,233,094	6,525,687	6,515,222	156,806	77,458	(280,224)	471,446	6,951,174	6,735,115	216,059	136,321	6,871,436
Harrah	2,550,702	2,566,698	2,804,644	2,806,255	172,702	45,335	(143,474)	206,040	3,085,247	2,992,224	93,023	65,596	3,057,820
Healdton	1,497,532	1,509,447	1,573,359	1,574,181	61,670	31,358	(91,980)	114,107	1,688,514	1,636,453	52,061	35,147	1,671,600
Henryetta	3,285,198	3,315,905	3,439,206	3,440,870	193,244	78,042	(142,673)	254,005	3,821,823	3,706,381	115,443	76,385	3,782,766

Oklahoma Municipal Retirement Fund

Exhibit D

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee	Distributions						
Hooker	1,136,108	1,144,423	1,215,186	1,215,839	74,668	18,253	(81,919)	88,500	1,314,687	1,273,822	40,865	28,098	1,301,920
Hulbert	650,537	656,435	721,346	722,021	67,334	20,920	(34,259)	54,255	829,596	805,713	23,883	16,433	822,147
Hydro	366,344	371,148	375,307	376,655	19,755	6,915	(42,353)	26,641	386,265	373,757	12,508	8,797	382,555
Kansas	129,999	130,869	136,133	136,193	4,232	2,185	(8,848)	9,782	143,483	138,958	4,526	3,137	142,095
Kiefer	93,316	93,188	126,392	126,093	18,255	9,127	(7,352)	9,890	156,311	152,002	4,310	3,142	155,144
Kingston	682,088	687,301	710,480	711,352	36,600	18,648	(68,331)	51,036	748,433	724,875	23,558	16,492	741,367
Krebs & Krebs Utility Auth.	459,119	462,129	510,927	510,962	29,558	16,543	(32,564)	37,533	561,997	544,914	17,083	11,818	556,732
Laverne	1,267,383	1,275,916	1,346,630	1,347,449	49,382	16,609	(77,096)	97,228	1,432,752	1,388,405	44,348	30,758	1,419,163
Lindsay	4,663,047	4,699,158	4,929,056	4,929,721	90,520	67,884	(223,840)	354,984	5,218,604	5,055,762	162,842	107,836	5,163,598
Madill	2,969,489	2,992,502	3,143,094	3,144,184	103,383	46,522	(117,026)	229,066	3,405,040	3,301,599	103,441	69,907	3,371,507
Mannford	3,055,776	3,081,173	3,162,041	3,165,788	214,306	60,624	(302,734)	228,240	3,362,477	3,257,531	104,947	72,044	3,329,574
Marietta	1,185,688	1,194,640	1,227,748	1,228,821	36,396	32,331	(99,405)	87,900	1,284,970	1,244,349	40,621	27,842	1,272,191
Marietta PWA	443,579	448,302	472,719	473,817	49,455	11,029	(57,980)	34,363	509,586	493,677	15,909	11,269	504,946
McCloud	714,483	718,510	790,923	790,273	39,326	19,642	(36,069)	58,172	871,994	845,462	26,532	17,940	863,402
Medford *	3,133,923	3,150,282	3,388,801	3,386,893	125,923	18,655	(118,353)	246,639	3,661,666	3,548,615	113,051	76,514	3,625,129
Meeker	714,277	719,402	732,551	732,909	13,109	9,254	(47,540)	52,197	759,571	735,625	23,946	16,090	751,714
Miami	10,816,305	10,914,501	11,366,659	11,379,685	657,277	185,855	(1,021,818)	817,605	12,005,577	11,629,625	375,952	256,232	11,885,857
Mooreland	1,390,402	1,404,967	1,413,561	1,416,108	58,789	21,034	(127,646)	100,750	1,466,487	1,419,816	46,671	31,586	1,451,402
Mountain Park MCD	977,751	985,509	1,055,102	1,056,309	52,907	12,632	(127,434)	74,251	1,067,459	1,032,702	34,757	24,323	1,057,025
Muldrow	2,142,003	2,156,393	2,279,384	2,279,944	109,929	43,973	(201,120)	163,544	2,395,709	2,318,128	77,582	53,066	2,371,194
Mustang	6,900,700	6,971,228	7,431,524	7,441,854	288,814	128,607	(374,567)	540,339	8,014,718	7,767,802	246,916	169,477	7,937,279
Nichols Hills *	10,545,785	10,630,110	10,842,963	10,853,901	195,261	268,485	(775,832)	774,802	11,305,679	10,958,846	346,833	235,360	11,194,206
Noble	2,082,537	2,092,139	2,318,785	2,315,296	124,034	40,549	(91,481)	170,762	2,562,650	2,485,702	76,948	50,636	2,536,337
Nowata	2,194,867	2,210,633	2,325,165	2,326,038	57,396	41,821	(81,327)	169,223	2,512,278	2,435,046	77,232	52,483	2,487,530
Oilton	419,840	422,692	447,296	447,249	15,155	9,329	(41,530)	31,811	462,061	448,185	13,876	9,239	457,424
Okeene	1,106,387	1,114,577	1,167,103	1,168,279	31,988	12,303	(52,671)	84,311	1,243,035	1,204,574	38,460	26,632	1,231,206



Oklahoma Municipal Retirement Fund

Exhibit D

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee	Distributions						
Okemah	1,448,878	1,457,335	1,636,863	1,636,738	107,492	46,709	(81,018)	121,325	1,831,372	1,777,245	54,126	37,963	1,815,208
Oklahoma Municipal Leagu	7,451,068	7,516,128	7,430,218	7,433,623	175,008	0	(488,431)	527,329	7,644,124	7,401,708	242,416	159,903	7,561,611
OkMRF Staff	1,259,778	1,265,534	1,461,287	1,460,973	114,558	31,842	(25,583)	110,323	1,692,427	1,642,095	50,332	36,229	1,678,324
Okmulgee	16,633,620	16,771,702	17,355,313	17,368,437	291,189	0	(645,852)	1,245,404	18,246,053	17,673,714	572,340	386,635	18,060,349
Owasso	17,079,147	17,187,090	18,758,772	18,753,685	687,855	345,957	(579,704)	1,376,472	20,589,352	19,967,706	621,646	423,318	20,391,024
Pawnee	2,877,946	2,899,815	3,065,172	3,068,581	42,118	59,432	(127,151)	221,297	3,260,868	3,159,966	100,902	70,537	3,230,502
Perkins	1,169,829	1,179,014	1,275,415	1,275,208	31,614	21,131	(82,172)	91,401	1,337,389	1,295,962	41,427	27,500	1,323,462
Perry	4,221,335	4,248,475	4,540,890	4,538,553	172,866	83,814	(383,781)	324,607	4,738,396	4,596,437	141,959	93,202	4,689,639
Piedmont	383,158	382,619	484,751	483,747	52,800	31,680	(1,348)	38,158	606,041	589,590	16,451	11,987	601,577
Pond Creek	1,104,329	1,110,032	1,294,502	1,293,675	115,376	23,998	(46,730)	97,210	1,484,356	1,441,214	43,141	30,289	1,471,503
Porum	362,475	364,054	414,674	414,514	27,231	8,753	(9,043)	31,040	472,655	458,785	13,870	9,830	468,615
Poteau	6,868,964	6,925,666	7,125,163	7,132,631	164,110	69,747	(470,839)	507,984	7,396,164	7,160,220	235,944	161,003	7,321,223
Ratliff City	141,172	141,453	153,679	153,553	9,305	4,089	(9,182)	11,294	169,185	164,083	5,103	3,605	167,687
Ringling	176,566	178,120	188,710	189,007	10,694	5,098	(17,368)	13,624	200,758	194,510	6,248	4,395	198,905
Roland	1,222,294	1,231,524	1,373,069	1,375,362	65,037	39,022	(32,095)	102,156	1,547,190	1,499,920	47,270	34,921	1,534,840
Sallisaw	15,443,388	15,568,046	16,374,459	16,385,449	564,725	315,488	(997,728)	1,182,888	17,439,833	16,901,455	538,378	365,810	17,267,265
Seiling	957,358	964,695	995,728	995,437	10,887	13,270	(28,445)	72,035	1,063,475	1,030,662	32,813	21,563	1,052,225
Shawnee *	37,378,066	37,747,268	37,216,989	37,281,892	196,900	54,705	(2,704,493)	2,609,314	37,373,415	36,152,984	1,220,431	823,585	36,976,569
Skiatook	1,269,813	1,266,272	1,610,191	1,606,016	181,136	93,262	(43,166)	125,121	1,966,543	1,913,247	53,297	38,574	1,951,821
Spencer *	1,092,232	1,101,555	1,116,332	1,117,145	15,373	22,839	(50,513)	80,488	1,184,518	1,147,636	36,882	24,391	1,172,028
Spiro	1,128,222	1,138,512	1,180,450	1,181,622	39,438	16,902	(73,595)	84,957	1,248,152	1,209,191	38,961	26,246	1,235,437
Stilwell	9,327,000	9,420,121	9,487,402	9,517,084	105,197	121,694	(658,129)	672,204	9,728,369	9,417,470	310,899	224,886	9,642,355
Stratford	312,360	313,937	324,017	323,922	4,105	4,666	(7,787)	23,527	348,527	337,841	10,686	7,252	345,093
Stroud	3,494,646	3,519,758	3,711,443	3,711,743	175,262	65,724	(265,861)	268,178	3,954,745	3,832,000	122,745	82,298	3,914,298
Sulphur	5,112,566	5,150,346	5,334,986	5,334,866	185,968	63,775	(319,204)	384,269	5,649,793	5,473,471	176,323	118,001	5,591,472
Talihina & TPWA	760,903	766,481	808,506	808,819	14,387	11,569	(26,366)	58,602	866,698	839,772	26,925	18,214	857,986

Oklahoma Municipal Retirement Fund

Exhibit D

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invmnt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee	Distributions						
Thomas	964,732	973,732	991,402	993,187	44,823	13,220	(97,584)	70,443	1,022,304	989,396	32,908	22,751	1,012,147
Tipton	243,040	244,219	268,816	268,649	4,808	1,697	(2,519)	19,634	292,435	283,479	8,956	6,153	289,632
Tishomingo	467,620	470,620	500,776	501,156	29,467	15,189	(38,536)	36,528	543,424	527,284	16,140	11,255	538,538
Tonkawa	2,690,692	2,717,759	2,752,207	2,756,169	82,677	30,460	(179,696)	197,122	2,882,771	2,792,168	90,602	60,864	2,853,032
Velma	321,799	325,548	329,688	330,283	6,225	5,065	(20,531)	23,567	344,014	333,125	10,889	7,146	340,272
Vian	282,822	284,382	326,827	326,725	25,646	18,077	(5,620)	25,076	390,007	379,316	10,691	7,510	386,826
Vinita	8,220,712	8,271,553	8,439,605	8,427,062	247,323	73,152	(806,738)	594,244	8,547,586	8,275,473	272,114	166,260	8,441,733
Wakita	223,715	226,314	220,757	221,306	308	823	(13,633)	15,552	223,807	216,546	7,261	4,873	221,419
Warr Acres	8,447,983	8,507,240	8,757,019	8,761,735	203,051	65,529	(547,868)	624,760	9,102,490	8,815,643	286,847	194,351	9,009,994
Watonga	4,222,137	4,260,944	4,431,487	4,435,837	225,616	54,737	(431,433)	315,806	4,596,213	4,452,329	143,884	97,114	4,549,443
Waukomis	447,120	451,318	463,269	464,134	12,356	11,683	(29,632)	33,384	491,060	475,131	15,929	11,157	486,288
Waurika	1,080,736	1,090,126	1,114,718	1,114,917	25,999	12,636	(58,834)	80,085	1,174,604	1,137,634	36,970	24,175	1,161,809
Weatherford	5,454,203	5,477,297	5,972,300	5,966,781	277,859	194,703	(375,313)	436,517	6,506,067	6,306,839	199,227	135,771	6,442,611
Webbers Falls	167,064	167,984	192,171	192,084	6,464	6,420	(11,950)	13,966	207,072	200,644	6,428	4,490	205,134
Wellston	552,329	556,306	538,947	542,535	35,535	0	(34,037)	39,128	579,573	561,797	17,776	14,477	576,274
Westville Utility Authority	627,632	630,612	688,373	687,902	19,319	21,440	(84,449)	48,323	693,006	669,959	23,047	15,710	685,668
Wetumka	1,577,691	1,590,399	1,586,773	1,587,018	27,488	10,184	(151,686)	110,908	1,583,667	1,532,620	51,047	33,752	1,566,371
Wilburton	87,736	87,967	131,839	132,194	35,233	15,408	(6,067)	11,174	187,588	182,964	4,624	4,008	186,971
Yale	1,478,148	1,491,962	1,506,878	1,508,296	47,568	30,043	(108,937)	108,113	1,583,666	1,533,097	50,569	33,839	1,566,936
Yukon	25,620,302	25,799,306	26,994,495	27,004,245	916,886	163,671	(1,360,287)	1,946,961	28,661,726	27,769,368	892,357	605,874	28,375,242
Bartlesville **	535,225	535,225	544,604	544,604	0	0	(36,008)	38,178	546,774	528,924	17,850		528,924
Mannford **	66,286	66,286	64,256	64,256	0	0	(6,678)	4,416	61,994	59,893	2,101		59,893
Weatherford **	86,844	86,844	102,677	102,677	25,116	0	(27,659)	7,352	107,486	104,046	3,440		104,046
Chouteau *	11,448	11,448	11,409	11,409	0	0	(639)	804	11,574	11,199	375		11,199
Fairfax *	267,380	267,380	282,687	282,687	0	0	(208)	20,487	302,966	0	302,966		0
Guymon *	6,081,981	6,081,981	6,130,981	6,130,981	0	0	(266,391)	434,839	6,299,430	6,098,547	200,883		6,098,547

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Market Value of Assets as of 7/1/2019	Actuarial Value of Assets as of 7/1/2019	Contributions		Distributions	Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2020	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2020
					Employer	Employee							
Muskogee *	41,286	41,286	41,238	41,238	0	0	(2,502)	2,899	41,635	39,981	1,654		39,981
Newkirk *	1,300,142	1,300,142	1,262,699	1,262,699	0	0	(117,373)	87,291	1,232,617	1,191,311	41,306		1,191,311
Norman *	247,773	247,773	206,350	206,350	0	0	(50,659)	13,124	168,815	162,162	6,653		162,162
Stillwater *	9,439,311	9,439,311	10,070,864	10,070,864	0	0	(2,390)	730,051	10,798,525	10,466,083	332,442		10,466,083
Tecumseh *	129,254	129,254	127,181	127,181	13,965	0	(17,196)	9,104	133,054	128,828	4,226		128,828
<b>Total</b>	<b>570,859,617</b>	<b>575,216,932</b>	<b>597,909,355</b>	<b>598,339,346</b>	<b>16,362,278</b>	<b>6,958,179</b>	<b>(35,193,044)</b>	<b>42,918,047</b>	<b>628,954,815</b>	<b>608,954,980</b>	<b>19,999,835</b>	<b>12,969,239</b>	<b>621,924,218</b>

\* Frozen plan, or plan with only nonactive participants; the Actuarial Value of Assets is equal to the Market Value.

\*\* Retiree medical plan; the Actuarial Value of Assets is equal to the Market Value.

\* Hybrid city; hybrid account balances are subtracted from the Actuarial Value of Assets to determine the Valuation Assets.

## **E Summary of Plan Provisions and Actuarial Method and Assumptions**

This section outlines the plan provisions and actuarial method and assumptions used in the valuation.

The first exhibit outlines the provisions of the OkMRF Master Plan. The second exhibit outlines the provisions for the City of Bartlesville, which has not adopted the OkMRF Master Plan.

The following exhibits outline the two actuarial methods used to value plan obligations: the entry age normal cost method and the unit credit cost method. See Section D for a description of the actuarial methods used to value assets.

The final exhibit in this section presents the actuarial assumptions.

## Oklahoma Municipal Retirement Fund

### Summary of Plan Provisions

<b>Eligibility</b>	All regular, full-time employees of a participating employer except police, firefighters and other employees covered under a state system. Cities may elect to cover part-time employees.
<b>Probationary period</b>	Participation may begin immediately, or may commence after completion of a probationary period, as specified in the adoption agreement.
<b>Service</b>	
Credited service	The last period of continuous employment with the employer excluding any periods before the effective date of the plan specified in the adoption agreement. Cities may elect to limit the maximum service credited. Employees of Collinsville may receive additional credit for unused sick leave.
Vesting	Credited service plus transferred service from other OkMRF employers.
<b>Employee contributions</b>	As specified in the adoption agreement. The options that may be elected are the standard contribution rate, a fixed amount which is less than the standard contribution rate, a fixed percentage of the total contribution rate determined each year (but not in excess of the standard contribution rate), or no employee contributions. The standard contribution rates are:  <ul style="list-style-type: none"><li>- Plan AAA 6.00%</li><li>- Plan AA 5.25%</li><li>- Plan BB 4.50%</li><li>- Plan CC 3.75%</li><li>- Plan A 3.00%</li><li>- Plan B 2.25%</li><li>- Plan C 1.50%</li></ul>
<b>Service requirement for benefit eligibility</b>	5, 7 or 10 years of vesting service, as specified in the adoption agreement.
<b>Final Average Compensation</b>	The average of the five highest consecutive annual salaries out to the last 10 calendar years of service.
<b>Accrued Benefit</b>	The percentage of final average compensation specified in the adoption agreement, multiplied by the number of years of credited service. The percentages that may be elected are:  <ul style="list-style-type: none"><li>- Plan AAA 3.000%</li><li>- Plan AA 2.625%</li><li>- Plan BB 2.250%</li><li>- Plan CC 1.875%</li><li>- Plan A 1.500%</li><li>- Plan B 1.125%</li><li>- Plan C 0.750%</li></ul>

## Oklahoma Municipal Retirement Fund

### Summary of Plan Provisions

#### Normal Retirement Age

Age 65 with service requirement fulfilled.

If specified in the adoption agreement, normal retirement age for an employee with 30 years of vesting service may be as early as age 62.

Also if specified in the adoption agreement, normal retirement age may be as early as 55 when the sum of an employee's age in years and number of years of credited service equals 80 or more, as provided under the Rule of 80 alternative.

Four cities have adopted special retirement provisions not provided in the standard adoption agreements:

- For employees of Cushing, normal retirement age is 60 with 10 years of service.
- Normal retirement age for an employee of Altus with 25 years of vesting service may be as early as age 62.
- For employees of Warr Acres hired before July 1, 2011, normal retirement age may be as early as 55 when the sum of an employee's age in years and number of years of credited service equals 75 or more.
- For employees of Del City hired before July 1, 2020, normal retirement age is 60 with 7 years of service, or as early as age 55 with 20 years of vesting service.

#### Normal Retirement

Eligibility

Termination of employment on or after normal retirement age.

Benefit

The accrued benefit payable immediately.

#### Early Retirement

Eligibility

Termination after age 55 with service requirement fulfilled.

Benefit

The accrued benefit payable starting at normal retirement age, or an actuarially reduced benefit starting at early retirement age.

#### Disability Retirement

Eligibility

Total and permanent disability.

Benefit

The accrued benefit is payable upon disablement without reduction for early payment.

#### Termination of Service

Before vesting

Return of member contributions with interest.

After vesting

The accrued benefit payable starting at normal retirement age, or an actuarially reduced benefit starting at early retirement age.

## Oklahoma Municipal Retirement Fund

### Summary of Plan Provisions

#### **In-service Death**

Before vesting	Return of member contributions with interest.
After vesting (married participants only)	50% of the accrued benefit is payable to the spouse until death or remarriage. For employees of Bethany, this benefit is payable for life with 10 years certain.
After vesting (other participants)	50% of the accrued benefit is payable to the designated beneficiary for 60 or 120 months, as specified in the adoption agreement.

#### **Payment Options**

Normal form	The normal form of payment of the accrued benefit is a monthly lifetime annuity with 5 or 10 years certain, as specified in the adoption agreement.
Optional forms	Other annuity forms available on an actuarial equivalent basis are: <ul style="list-style-type: none"><li>- Joint and 50% survivor annuity</li><li>- Joint and 66-2/3rds last survivor annuity (no longer allowed for employees of Chickasha)</li><li>- Joint and 100% survivor annuity</li><li>- If specified in the adoption agreement (with or without restrictions), a single lump sum payment</li></ul>

#### **Cost of Living Option**

If specified in the adoption agreement, benefits in payment status are adjusted each July 1st based on the percentage change in the CPI. The maximum increase in any year is 3%. For prior plan participants of Skiatook, the increase is 3% per year, regardless of the change in CPI.

#### **Hybrid Option**

If specified in the adoption agreement, any employee contributions designated as hybrid contributions are accumulated at the actual rate earned by the retirement fund and paid to the employee upon retirement in addition to the formula amount.

#### **DROP Feature**

If specified in the adoption agreement, after reaching age 65, an employee may start their pension, accumulating the payments with earnings as specified in the adoption agreement. This amount, and subsequent monthly payments, are payable upon retirement within 5 years of such election.

**Employee Retirement System of  
Bartlesville, Oklahoma**

**SUMMARY OF PLAN PROVISIONS**

<b>Eligibility</b>	All regular, full-time employees except police, firefighters and other employees who are covered under an approved system, who joined the plan before 1/1/2010.
<b>Probationary period</b>	<ul style="list-style-type: none"><li>▪ Prior to 7/1/2006: 2 years.</li><li>▪ On or after 7/1/2006: none.</li></ul>
<b>Employee contributions</b>	<ul style="list-style-type: none"><li>▪ Prior to 7/1/2006: none.</li><li>▪ On or after 7/1/2006, but before 1/1/2010: 3% of pay.</li><li>▪ On or after 1/1/2010: 6% of pay.</li></ul>
<b>Service</b>	Participants receive service credit for benefit eligibility for all employment on or after joining the plan (subject to the plan's break in service rules), regardless of whether they opted out of the plan effective 1/1/2010.
<b>Accrued Benefit</b>	<p>The past service benefit plus the future service benefit:</p> <p><u>Past Service Benefit</u> is equal to 2.50% of base pay rate on 7/1/1978 times full years of service from hire to 7/1/1978. Available only to employees whose participation in the plan began before 7/1/1978.</p> <p><u>Future Service Benefit</u> is equal to the sum of: Accumulation of 2.50% of base pay rate in effect on each July 1 from 7/1/1978 through 7/1/2005. Benefit for a plan year is prorated if the employee does not complete the year. Accumulation of 2.50% of actual compensation received during plan years beginning 7/1/2006 and after. Employees who opted out of the plan effective 1/1/2010 accumulate no benefits on compensation earned on or after 1/1/2010.</p>
<b>Benefit Eligibility</b>	
Normal Retirement	Age 65. Normal retirement date is first of the month on or after age 65 and completion of 7 years of service.
Early Retirement	Age 55 with 7 years of service, or meeting the Rule of 80.
Disability Retirement	Total and permanent disability with 7 or more years of service.
Vested Termination	7 years of service.
Nonvested Termination	Not eligible for any other benefit.



**Employee Retirement System Of  
Bartlesville, Oklahoma**

**SUMMARY OF PLAN PROVISIONS**

**Benefit Amount**

Normal Retirement      The Accrued Benefit is payable as a life only annuity or another annuity option with actuarial reduction. An employee may elect to defer the start of this annuity.

Early Retirement      The Accrued Benefit is payable as a life only annuity starting at age 65. An employee may elect earlier payment as follows:

If age plus service equals 80 or more:  
The full benefit unreduced.

If age plus service are less than 80:  
Actuarially reduced (based on 6% interest and UP84 mortality).

Disability Retirement      The Accrued Benefit is payable during the period of disability up to age 65. An employee who becomes disabled after age 55 with less than 7 years of service is fully vested in the Accrued Benefit payable at age 65.

Termination      The accrued benefit payable at age 65, or at the participant's option, the actuarially reduced accrued benefit payable after age 55.

Nonvested Termination      Return of employee contributions with interest.

**Death Benefits**

Before vesting  
Return of employee contributions with interest.

After vesting (married participants)  
The surviving spouse receives 50% of the participant's accrued benefit for life or until remarriage.

After vesting (unmarried participants)  
The beneficiary receives 120 monthly payments in the amount of 50% of the participant's accrued benefit at the time of death.

**Payment Options**

Disability retirement benefits are payable during the participant's lifetime only. Benefits cease when the participant reaches age 65, at which time the participant becomes entitled to a normal retirement benefit equal to the accrued benefit.

If a disabled participant recovers from disability prior to age 65, disability retirement benefits cease. The participant is then entitled to the accrued benefit as a termination benefit.

Normal retirement, early retirement, and termination benefits may be received either as a life annuity, or an actuarially equivalent benefit under one of the following forms:

1. Life with 5, 10, 15 or 20 years certain
2. Joint and 100% survivor annuity (spouse only)
3. Joint and 100% survivor annuity with 5, 10 or 15 years certain.

Actuarial equivalency based on 6% interest, UP84 mortality.

Oklahoma Municipal Retirement Fund

**SUMMARY OF THE ACTUARIAL COST METHOD**

**(Entry Age Normal)**

Pension funding requirements are allocated to periods of time using the entry age normal cost method. Assets and liabilities reflect only benefits payable from the OkMRF Trust.

Under the entry age normal cost method, the normal cost is computed as the level percent of pay which, if paid from the time an employee became a participant until assumed retirement, would accumulate to a fund sufficient to pay all plan benefits.

The actuarial liability for active participants is the hypothetical accumulation with interest of prior normal costs less payments, from the employee's date of participation to present.

The actuarial liability for non-active participants is the present value of future benefits anticipated to be paid to current retirees, beneficiaries and deferred vested participants, discounted for interest and mortality, plus the accumulated employee contributions with interest for non-vested terminated participants.

The unfunded actuarial liability (UAL) is the excess of the total actuarial liability for active and non-active participants, over the actuarial value of plan assets. This amount (redetermined each year) is amortized as a level dollar amount over 30 years from the amortization base date. The amortization base date was initially set as 7/1/2013, or if later, the first amortization date after joining OkMRF. Because of significant differences in implementing the first-ever mortality study specific to public pension plans, the initial amortization base date was reset to 7/1/2020 for all plans. We do not anticipate resetting the amortization base again, except as described in the last paragraph in this exhibit. Experience gains (decreases in cost due to favorable experience), or experience losses (increases in cost due to adverse experience), attributable to deviations between the assumed and actual experience of the Plan, are amortized as part of the UAL.

The total annual cost for the year is the normal cost plus the amortization amount. This total cost is expressed as a percent of covered payroll to determine the total required contribution rate, which is then separated into the employee-paid and municipality-paid portions as specified in the adoption agreement.

If assets exceed the actuarial liability, the total annual cost for the year is the normal cost minus interest on the surplus assets. If the surplus subsequently is exhausted, either through changes in plan provisions or adverse experience, a new 30-year amortization base date is established as the contribution effective date for the first valuation when the plan again has an unfunded actuarial liability.

Oklahoma Municipal Retirement Fund

**SUMMARY OF THE ACTUARIAL COST METHOD**

**(Unit Credit)**

Pension funding requirements are allocated to periods of time using the unit credit cost method.

Under the unit credit cost method, the normal cost is computed as the present value of the increase in accrued retirement income for each employee's service during the following year.

The actuarial liability of the plan is the present value of the accrued retirement income earned to date. Present values are discounted for interest, mortality, turnover, and retirement rates by age.

The actuarial liability for non-active participants is the present value of future benefits anticipated to be paid to current retirees, beneficiaries and deferred vested participants, discounted for interest and mortality.

The unfunded actuarial liability (UAL) is the excess of the total actuarial liability for active and non-active participants, over the actuarial value of plan assets. This amount (redetermined each year) is amortized as a level dollar amount over 30 years from the amortization base date. The amortization base date is the 2010 valuation date. Experience gains (decreases in cost due to favorable experience), or experience losses (increases in cost due to adverse experience), attributable to deviations between the assumed and actual experience of the Plan, are amortized as part of the UAL.

The total annual cost for the year is the normal cost plus the amortization amount. This total cost is expressed as a percent of covered payroll to determine the total required contribution rate, which is then separated into the employee-paid and municipality-paid portions as specified in the plan document.

If assets exceed the actuarial liability, the total annual cost for the year is the normal cost minus interest on the surplus assets. If the surplus subsequently is exhausted, either through changes in plan provisions or adverse experience, a new 30-year amortization base date is established at the first valuation date when the plan again has an unfunded actuarial liability.

Oklahoma Municipal Retirement Fund

SUMMARY OF ACTUARIAL ASSUMPTIONS

Interest Rates <i>Purpose</i>	<i>Rate</i>	Age	Rates per Thousand					Annual Pay Increase	
			Mortality (M)	Mortality (F)	Turnover	Disability	Retire-N		Retire-E
Basic valuation		20	0.398	0.125	150.00	0.80	0	0	7.50%
Before retirement	7.25%	21	0.400	0.120	145.90	0.85	0	0	7.50%
After retirement	7.25%	22	0.385	0.110	141.80	0.91	0	0	7.50%
		23	0.378	0.105	137.70	0.96	0	0	7.50%
<b>Mortality Tables</b>		24	0.363	0.095	133.70	1.01	0	0	7.50%
<i>Before retirement (employee rates)</i>		25	0.368	0.100	129.60	1.07	0	0	7.50%
PubG-2010 (25% A/75% B) males		26	0.388	0.110	125.60	1.15	0	0	7.20%
PubG-2010 (50% A/50% B) females		27	0.405	0.120	121.60	1.23	0	0	6.90%
with projected mortality improvement		28	0.423	0.135	117.60	1.31	0	0	6.60%
<i>After retirement (annuitant rates)</i>		29	0.450	0.145	113.60	1.39	0	0	6.30%
PubG-2010 (25% A/75% B) males		30	0.468	0.160	109.60	1.47	0	0	6.00%
PubG-2010 (50% A/50% B) females		31	0.495	0.180	105.70	1.60	0	0	6.10%
with projected mortality improvement		32	0.520	0.190	101.70	1.73	0	0	6.20%
<i>Disabled (disabled retiree rates)</i>		33	0.548	0.215	97.80	1.87	0	0	6.30%
PubG-2010, males and females		34	0.583	0.230	93.90	2.00	0	0	6.40%
		35	0.613	0.255	90.00	2.13	0	0	6.50%
<b>Pay Increase Assumption</b>		36	0.655	0.275	87.30	2.40	0	0	6.40%
Annual rates of pay increase		37	0.693	0.305	84.60	2.67	0	0	6.30%
as shown		38	0.745	0.335	81.90	2.93	0	0	6.20%
		39	0.800	0.365	79.20	3.20	0	0	6.10%
<b>COLA Increase Assumption</b>		40	0.863	0.400	76.50	3.47	0	0	6.00%
For benefits subject to adjustment		41	0.925	0.435	73.80	3.97	0	0	5.82%
based on change in CPI      2.75%		42	1.005	0.470	71.10	4.48	0	0	5.64%
		43	1.088	0.515	68.50	4.99	0	0	5.49%
<b>Turnover</b>		44	1.185	0.565	65.80	5.49	0	0	5.34%
Select and ultimate rates		45	1.285	0.615	63.20	6.00	0	0	5.21%
Ultimate rates are age-related as shown		46	1.403	0.665	60.50	6.00	0	0	5.09%
Additional rates per thousand are		47	1.528	0.720	57.90	6.00	0	0	4.99%
added during the first 5 years:		48	1.663	0.780	55.20	6.00	0	0	4.89%
Year 1:      225		49	1.805	0.845	52.60	6.00	0	0	4.82%
Year 2:      140		50	1.958	0.915	50.00	6.00	0	0	4.75%
Year 3:      100		51	2.120	0.985	53.30	6.80	0	0	4.71%
Year 4:      70		52	2.290	1.060	56.50	7.60	0	0	4.67%
Year 5:      40		53	2.470	1.150	59.80	8.40	0	0	4.63%
		54	2.668	1.240	63.10	9.20	0	0	4.61%
<b>Retirement Age</b>		55	2.875	1.345	66.40	10.00	250	70	4.58%
Normal (N) and early (E) rates		56	3.100	1.455	69.70	11.23	170	70	4.55%
Normal rates apply when employee		57	3.335	1.580	73.00	12.45	170	70	4.54%
is at or above normal retirement age.		58	3.595	1.710	76.40	13.68	170	70	4.53%
Early rates apply when employee		59	3.880	1.865	79.70	14.91	170	70	4.51%
is eligible for early (reduced) retirement.		60	4.185	2.035	83.10	16.13	170	70	4.50%
		61	4.510	2.225	86.40	16.13	170	70	4.50%
<b>Other Assumptions</b>		62	4.870	2.435	89.80	16.13	300	300	4.50%
Percent married      100%		63	5.255	2.675	93.20	16.13	200	175	4.50%
Spouse age difference      3		64	5.670	2.945	96.60	16.13	150	175	4.50%
(female spouses younger)		65	6.128	3.250	100.00	0.00	300		4.50%
		66	6.623	3.585	100.00	0.00	300		4.50%
		67	7.178	3.960	100.00	0.00	300		4.50%
		68	7.780	4.380	100.00	0.00	300		4.50%
		69	8.463	4.850	100.00	0.00	300		4.50%
		70	9.210	5.360		0.00	1000		

Base mortality rates for employees are shown; valuation rates are projected for mortality improvement by the Society of Actuaries' table AA based on the employee's year of birth.

## **F Summary of Plan Participants**

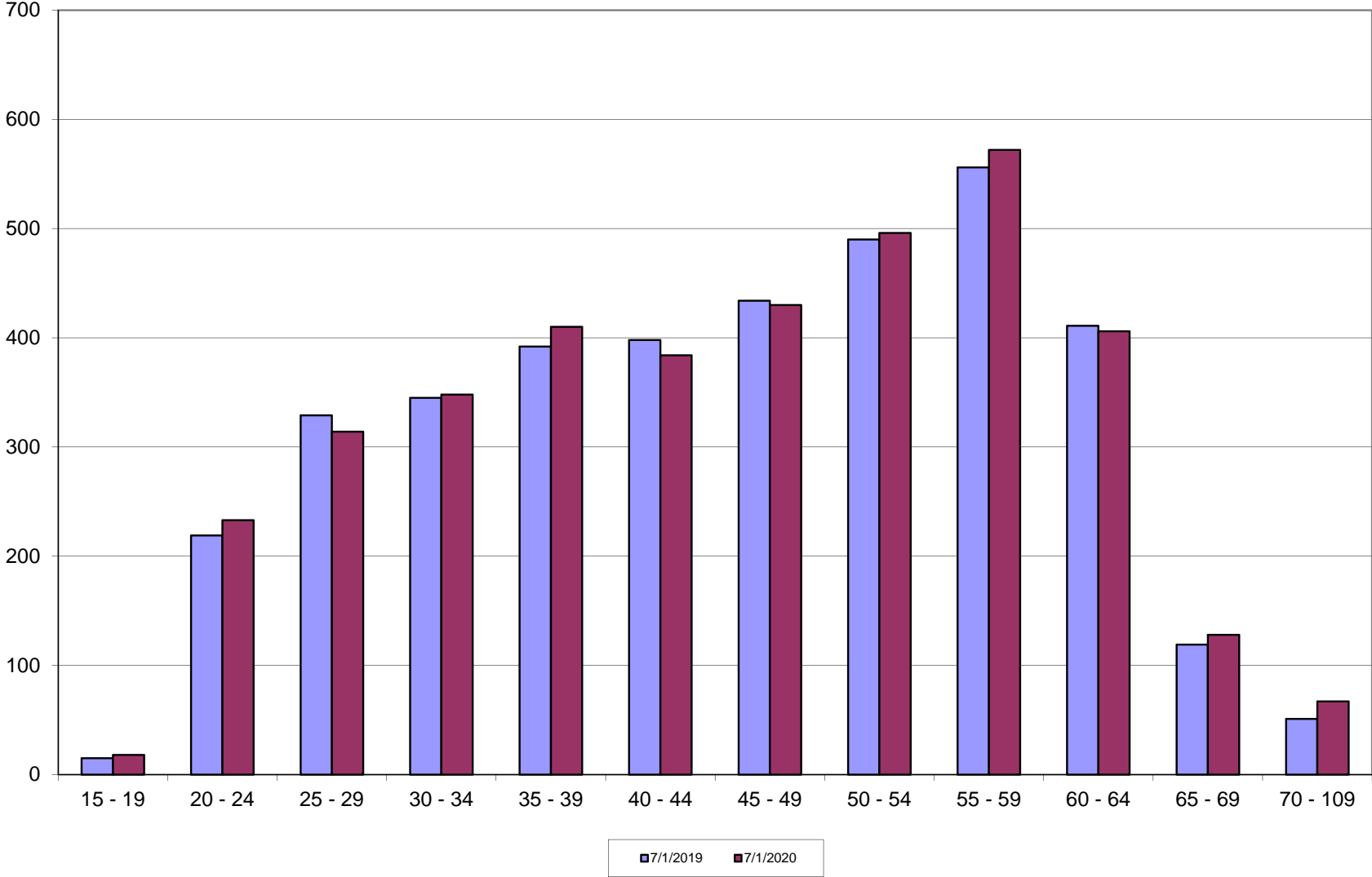
The first three exhibits in this section depict the age and service distribution for active participants as of July 1, 2020 (OkMRF Master Trust in total). The City of Bartlesville is included in the count although it has not adopted the OkMRF master plan. Exhibits F1 and F2 show the July 1, 2019 distributions for comparison, while Exhibit F3 shows more detail on the current year's distribution, including average pay.

The last three exhibits in this section depict the age distribution and average benefit for nonactive participant as of July 1, 2020 (OkMRF Master Trust in total). Again, participants in the City of Bartlesville plan are included. Exhibit F4 breaks down the distribution by each category of nonactive participants, while Exhibit F5 shows the July 1, 2019 distributions for comparison. Exhibit F6 shows more detail on the current year's distribution, including average benefit.

Participants in retiree medical plans are not separately identified.

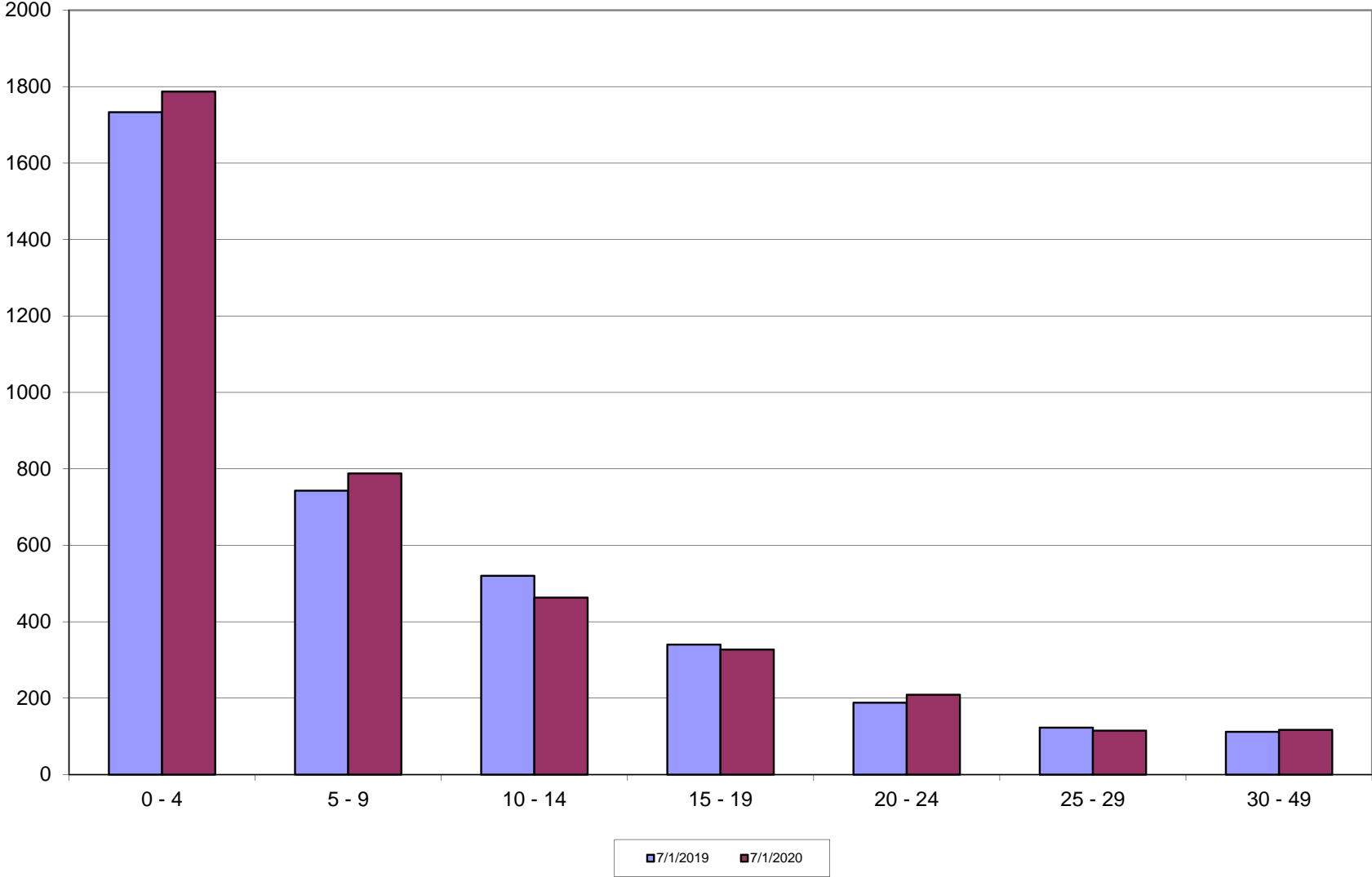
Oklahoma Municipal Retirement Fund

Distribution of Active Employees by Age



Oklahoma Municipal Retirement Fund

Distribution of Active Employees by Service



**Oklahoma Municipal Retirement Fund**  
**All Cities Combined**  
**AGE AND SERVICE OF ACTIVE PARTICIPANTS**  
 July 1, 2020

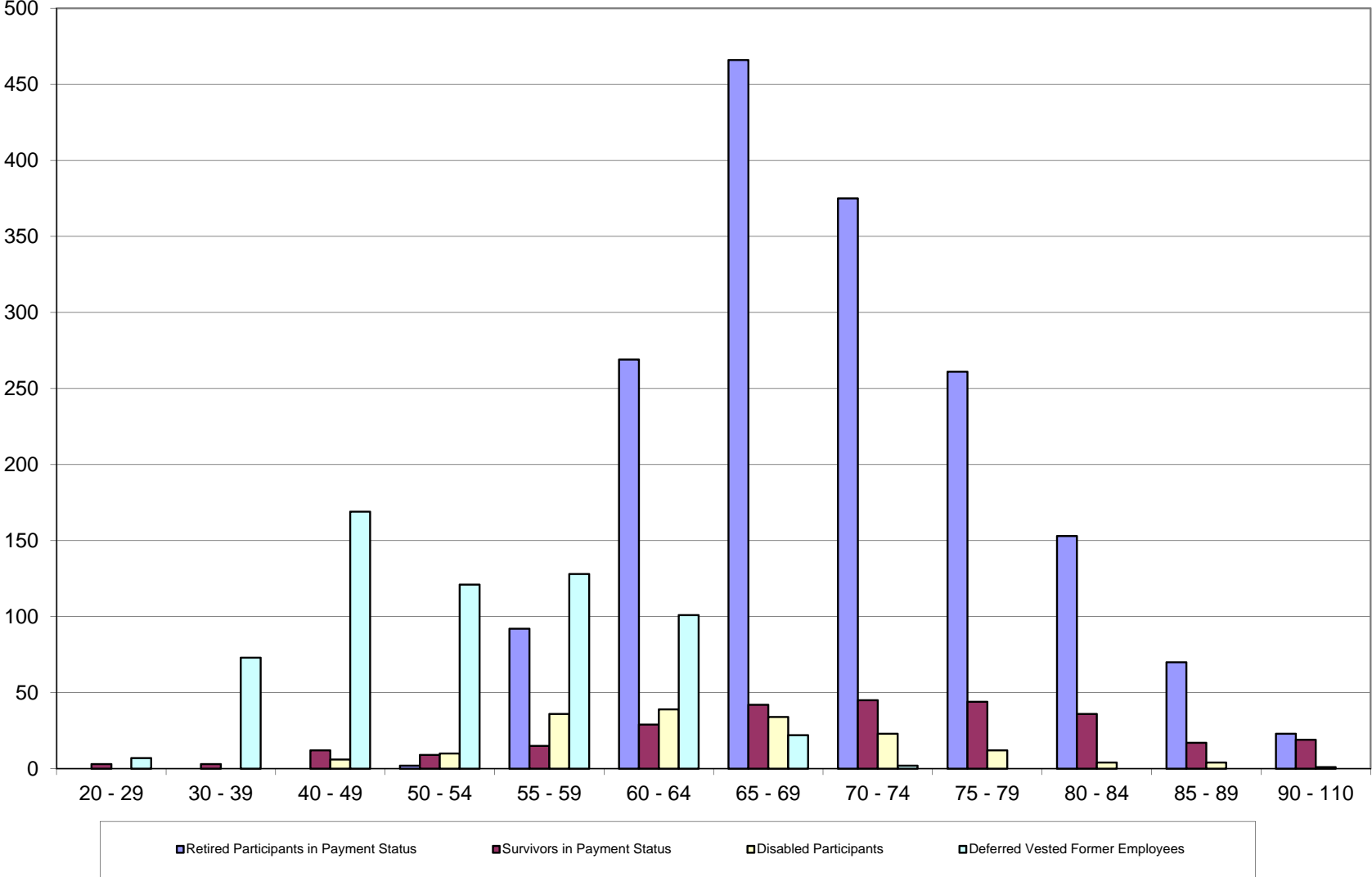
Age Group	Years of Service														All Service	
	0 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		30 - 49		Count	Ave Pay
	Count	Ave Pay	Count	Ave Pay	Count	Ave Pay	Count	Ave Pay	Count	Ave Pay	Count	Ave Pay	Count	Ave Pay		
15 - 19	18	8,817													18	8,817
20 - 24	228	24,189	5	37,558											233	24,476
25 - 29	251	27,306	62	38,469	1	40,966									314	29,554
30 - 34	229	29,175	87	39,897	32	43,200									348	33,145
35 - 39	231	32,129	99	41,808	56	45,796	22	48,684	2	48,464					410	37,301
40 - 44	182	30,353	92	42,722	49	52,119	39	52,307	19	48,838	3	62,336			384	39,488
45 - 49	178	30,427	100	41,347	57	45,277	48	53,458	33	54,331	14	64,316			430	40,444
50 - 54	161	29,216	104	43,588	71	43,979	65	48,429	49	55,061	26	60,963	20	58,924	496	42,276
55 - 59	164	31,353	108	41,297	83	50,382	83	48,678	50	52,273	34	57,971	50	59,359	572	44,365
60 - 64	90	34,472	88	42,403	72	47,104	44	46,204	42	55,161	33	47,325	37	50,278	406	44,328
65 - 69	40	30,507	24	41,657	27	42,627	18	42,426	8	40,648	4	49,607	7	36,088	128	38,366
70 - 109	15	33,751	19	50,635	15	38,013	8	47,310	6	52,822	1	70,175	3	42,066	67	43,736
<b>All Ages</b>	<b>1,787</b>		<b>788</b>		<b>463</b>		<b>327</b>		<b>209</b>		<b>115</b>		<b>117</b>		<b>3,806</b>	

Age is in completed years (age last birthday) on the census date.  
 Service is completed years of benefit service on the census date.  
 Pay is the total pay for the plan year preceding the census date.



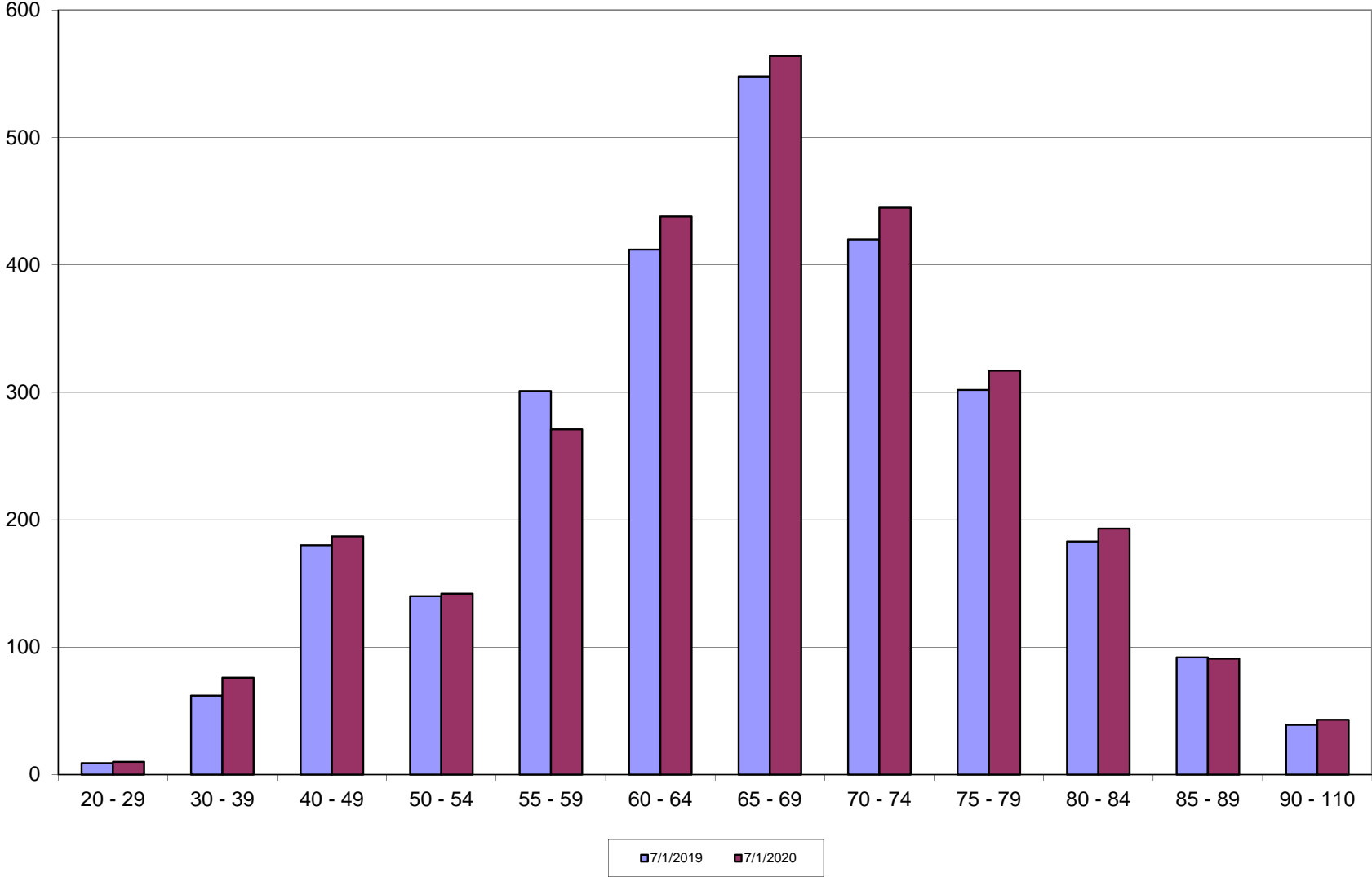
Oklahoma Municipal Retirement Fund

**Distribution of Nonactive Participants by Status and Age as of 7/1/2020**



Oklahoma Municipal Retirement Fund

Distribution of Nonactive Participants by Age



Oklahoma Municipal Retirement Fund

All Cities Combined

SUMMARY OF NONACTIVE PARTICIPANTS

July 1, 2020

Age Group	Males			Females			Total		
	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age
<b>Retired Participants in Payment Status</b>									
40 - 49									
50 - 54	2	41,244	52.63				2	41,244	52.63
55 - 59	73	1,304,216	58.23	19	251,543	58.00	92	1,555,758	58.19
60 - 64	195	3,642,247	62.86	74	1,346,475	62.64	269	4,988,722	62.80
65 - 69	317	5,817,298	67.48	149	2,489,711	67.68	466	8,307,009	67.54
70 - 74	227	3,623,237	72.16	148	2,107,482	72.43	375	5,730,720	72.26
75 - 79	164	2,316,869	77.50	97	1,307,787	77.39	261	3,624,656	77.46
80 - 84	94	958,030	81.99	59	821,034	82.55	153	1,779,065	82.25
85 - 89	40	433,083	87.13	30	264,280	86.76	70	697,364	86.99
90 - 110	11	70,295	91.62	12	93,846	92.71	23	164,141	92.25
110									
<b>Totals</b>	<b>1123</b>	<b>18,206,519</b>	<b>69.39</b>	<b>588</b>	<b>8,682,159</b>	<b>71.49</b>	<b>1711</b>	<b>26,888,678.40</b>	<b>70.07</b>
<b>Ave amount</b>		<b>16,212.39</b>			<b>14,765.58</b>			<b>15,715.18</b>	
<b>Survivors in Payment Status</b>									
0 - 29	1	3,650	23.58	2	16,505	21.43	3	20,154	21.82
30 - 39	3	25,857	35.49				3	25,857	35.49
40 - 49	4	22,922	44.76	8	63,126	43.31	12	86,048	43.70
50 - 54	2	66,149	51.84	7	59,077	53.95	9	125,226	52.83
55 - 59	1	2,153	55.65	14	142,820	58.23	15	144,973	58.19
60 - 64	4	39,285	62.95	25	296,303	61.97	29	335,588	62.09
65 - 69	10	89,519	66.79	32	316,712	67.32	42	406,231	67.20
70 - 74	7	78,220	72.98	38	359,898	72.90	45	438,118	72.91
75 - 79	2	52,792	75.16	42	329,869	77.19	44	382,661	76.91
80 - 84	4	18,631	83.20	32	249,351	82.02	36	267,982	82.11
85 - 89	2	19,916	87.22	15	86,035	86.93	17	105,951	86.98
90 - 110	1	4,132	94.66	18	177,903	92.93	19	182,035	92.97
110									
<b>Totals</b>	<b>41</b>	<b>423,226</b>	<b>64.70</b>	<b>233</b>	<b>2,097,600</b>	<b>71.72</b>	<b>274</b>	<b>2,520,825.36</b>	<b>70.54</b>
<b>Ave amount</b>		<b>10,322.58</b>			<b>9,002.57</b>			<b>9,200.09</b>	
<b>Disabled Participants</b>									
20 - 29									
30 - 39									
40 - 49	6	54,394	46.02				6	54,394	46.02
50 - 54	9	102,999	52.45	1	11,205	54.12	10	114,204	52.61
55 - 59	30	548,324	57.81	6	129,162	57.79	36	677,486	57.81
60 - 64	26	461,029	62.50	13	171,868	62.49	39	632,897	62.50
65 - 69	27	338,867	67.34	7	48,209	67.67	34	387,076	67.38
70 - 74	18	212,306	72.17	5	76,950	73.22	23	289,256	72.45
75 - 79	10	78,952	77.57	2	29,322	78.31	12	108,273	77.77
80 - 84	3	30,099	82.34	1	8,359	83.53	4	38,458	82.60
85 - 89	3	24,022	86.64	1	11,062	86.27	4	35,084	86.53
90 - 110				1	11,385	90.08	1	11,385	90.08
110									
<b>Totals</b>	<b>132</b>	<b>1,850,992</b>	<b>63.34</b>	<b>37</b>	<b>497,522</b>	<b>65.69</b>	<b>169</b>	<b>2,348,513.52</b>	<b>63.84</b>
<b>Ave amount</b>		<b>14,022.66</b>			<b>13,446.54</b>			<b>13,896.53</b>	
<b>Deferred Vested Former Employees</b>									
20 - 29	4	5,789	29.00	3	4,490	26.36	7	10,280	27.85
30 - 39	48	328,614	35.75	25	152,825	35.76	73	481,439	35.76
40 - 49	104	1,022,442	45.41	65	501,030	45.86	169	1,523,472	45.56
50 - 54	86	817,445	52.28	35	413,268	52.37	121	1,230,713	52.31
55 - 59	87	944,795	57.21	41	371,374	57.22	128	1,316,169	57.21
60 - 64	64	523,935	62.29	37	354,683	62.05	101	878,618	62.20
65 - 69	14	94,163	66.56	8	37,644	67.35	22	131,806	66.78
70 - 74				2	5,053	70.22	2	5,053	70.22
75 - 79									
<b>Totals</b>	<b>407</b>	<b>3,737,183</b>	<b>51.92</b>	<b>216</b>	<b>1,840,366</b>	<b>52.35</b>	<b>623</b>	<b>5,577,549.60</b>	<b>52.06</b>
<b>Ave amount</b>		<b>9,182.27</b>			<b>8,520.21</b>			<b>8,952.73</b>	
<b>Grand Totals</b>	<b>1703</b>	<b>24,217,920</b>	<b>66.15</b>	<b>1074</b>	<b>13,117,647</b>	<b>68.62</b>	<b>2777</b>	<b>37,335,567</b>	<b>67.02</b>
<b>Ave amount</b>		<b>14,220.74</b>			<b>12,213.82</b>			<b>13,444.57</b>	