
Oklahoma Municipal Retirement Fund

ACTUARIAL VALUATION OF FUNDING REQUIREMENTS

**Effective for the Year Starting
July 1, 2020**

March 27, 2020

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, 2019, 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, 2020.

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 20, 2020

Date



Charles E. Dean, FSA, FCA
Enrolled Actuary 17-1249



Sean M. Sullivan, FSA
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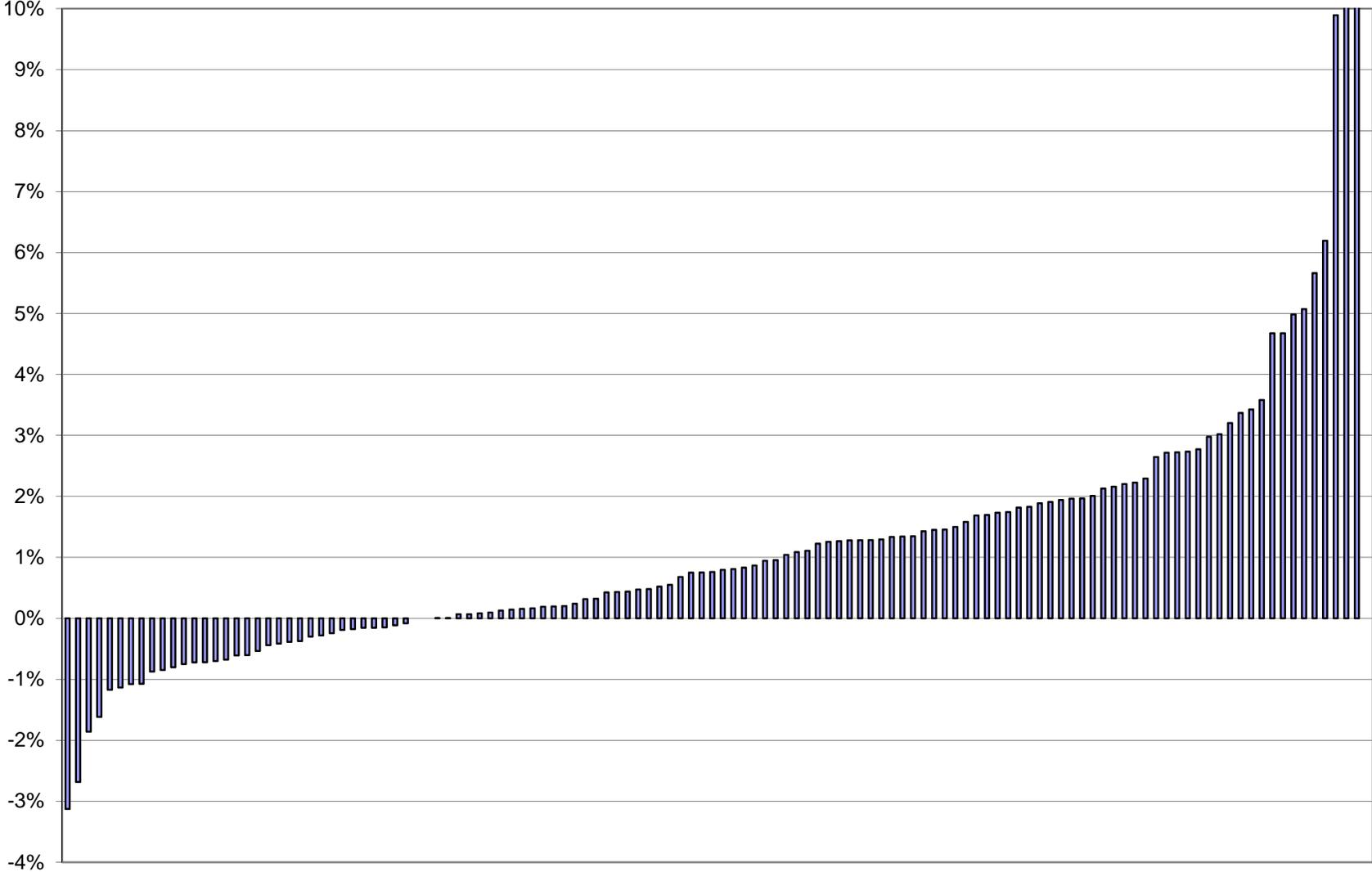
A Comparison of Required Contribution Rates

The exhibit in this section shows the required contribution rates determined by the July 1, 2019 actuarial valuation. These rates will be in effect from July 1, 2020 through June 30, 2021. 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, 2019 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, 2018 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 2020-2021 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 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
		7/1/2019	7/1/2020			
Adair	UAL	10.19%	9.95%	4.50%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Altus	UAL	16.85%	17.72%	4.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, no COLA	
Alva	UAL	9.07%	8.77%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Antlers	UAL	5.14%	8.34%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Ardmore	UAL	14.48%	15.31%	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	23.95%	25.95%	6.00%	Plan BAR, normal retirement age 65, 7 year vesting, 0 years certain, no COLA	
Bethany	UAL	16.51%	17.96%	4.60%	Plan AAA, normal retirement age 65, 10 year vesting, 10 years certain, split COLA, Hybrid	
Bethany/Warr Acres	UAL	20.52%	20.61%	6.00%	Plan AAA, Rule of 80, 7 year vesting, 10 years certain, no COLA	
Billings	Surplus	5.04%	5.17%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Binger	UAL	5.07%	5.39%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Blackwell	UAL	14.73%	14.12%	4.50%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Blair	UAL	10.66%	11.89%	3.41%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Boise City	UAL	9.73%	11.89%	0.00%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Bokchito	Surplus	4.52%	5.20%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	vstg
Braman	UAL	25.41%		6.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Bristow	UAL	13.10%	14.36%	5.25%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, COLA	
Broken Bow	UAL	14.60%	16.06%	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
		7/1/2019	7/1/2020			
Buffalo	Surplus	7.25%	9.14%	3.50%	Plan AA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Burns Flat	UAL	10.78%	12.98%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Calera	UAL	8.64%	8.50%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Central Oklahoma MCD	Surplus	8.87%	11.00%	6.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, COLA	
Chandler	UAL	10.44%	10.51%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Checotah	UAL	5.01%	7.66%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Cherokee & CDA	UAL	7.55%	6.42%	2.25%	Plan B, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Chickasha	Surplus	11.52%	13.46%	4.00%	Plan AAA, normal retirement age 65, 10 year vesting, 10 years certain, COLA	
Claremore	UAL	8.97%	10.88%	4.38%	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	8.59%	32.11%	3.73%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Cleveland	UAL	25.01%	24.82%	6.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Clinton	Surplus	11.17%	12.98%	5.25%	Plan AAA, normal retirement age 62/30, 7 year vesting, 10 years certain, COLA	
Collinsville	UAL	13.03%	13.35%	4.00%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Copan	UAL	7.58%	8.38%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Cordell	Surplus	8.40%	10.37%	0.00%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, COLA	
Cushing	UAL	7.86%	10.08%	0.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, no COLA	
Davis	UAL	12.96%	12.15%	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
		7/1/2019	7/1/2020			
Del City	UAL	29.78%	29.06%	6.00%	Plan AAA, special retirement age, 7 year vesting, 10 years certain, split COLA, Hybrid; 2/10 new hires: Plan AAA, special retirement age, 7 year vesting, 10 years certain, no COLA	
Dewey	UAL	14.79%	15.54%	4.00%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Drumright	UAL	19.59%	20.87%	6.00%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Durant	UAL	10.78%	12.61%	3.50%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, split COLA	
El Reno	UAL	12.60%	11.52%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Eufaula	Surplus	6.56%	7.85%	3.75%	Plan CC, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Fort Cobb	UAL	12.06%	11.31%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Foss Reservoir Public Works	UAL	19.15%	22.12%	3.75%	Plan BB, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Frederick	UAL	8.36%	13.04%	4.33%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade
Garber	UAL	6.23%	11.21%	3.75%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade
Geary	UAL	9.80%	11.76%	3.53%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Goodwell	UAL	5.58%	5.67%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Gore and Gore PWA	UAL	6.15%	9.73%	3.75%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	upgrade
Granite	UAL	17.83%	23.49%	4.00%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Guthrie	UAL	9.80%	10.55%	3.69%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Harrah	UAL	17.20%	23.39%	5.25%	Plan AA, Rule of 80, 5 year vesting, 5 years certain, no COLA; 4/19 New Hires: Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	Rule of 80; new hire vstg
Healdton	UAL	17.80%	17.42%	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
		7/1/2019	7/1/2020			
Henryetta	UAL	17.75%	18.22%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Hooker	UAL	16.82%	15.65%	3.75%	Plan BB, normal retirement age 65, 5 year vesting, 10 years certain, no COLA	
Hulbert	UAL	13.58%	10.90%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Hydro	UAL	8.85%	9.29%	3.00%	Plan A, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Kansas	UAL	4.38%	4.01%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Kiefer	UAL	9.00%	9.01%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Kingston	UAL	11.11%	12.84%	3.75%	Plan CC, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Krebs & Krebs Utility Auth.	UAL	7.47%	7.95%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Laverne	Surplus	6.89%	6.96%	3.75%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Lindsay	Surplus	7.49%	8.76%	3.75%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, COLA	
Madiill	UAL	8.81%	10.10%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Mannford	UAL	27.21%	30.23%	6.00%	Plan AAA, Rule of 80, 5 year vesting, 5 years certain, no COLA	
Marietta	UAL	11.16%	12.74%	5.25%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Marietta PWA	UAL	24.18%	24.07%	5.00%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
McLoud	Surplus	4.48%	6.77%	3.00%	Plan A, normal retirement age 65, 7 year vesting, 5 years certain, COLA	upgrade, ee cont
Medford	UAL	19.39%	19.58%	4.00%	Plan AA, normal retirement age 62/30, 10 year vesting, 10 years certain, split COLA, Hybrid	prob mos
Meeker	Surplus	5.51%	8.88%	3.00%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	upgrade

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

City	UAL or Surplus	Total rate		Employee Rate	Plan Provisions	Changes
		7/1/2019	7/1/2020			
Miami	UAL	13.81%	14.24%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 10 years certain, no COLA	vstg
Mooreland	UAL	15.18%	14.11%	4.00%	Plan AA, Rule of 80, 5 year vesting, 5 years certain, no COLA	
Mountain Park MCD	UAL	31.13%	41.02%	6.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Muldrow	UAL	13.43%	14.78%	4.50%	Plan BB, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Mustang	UAL	15.84%	17.27%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Nichols Hills	Surplus	14.95%	17.67%	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	11.29%	12.98%	4.25%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Nowata	Surplus	11.87%	11.02%	5.00%	Plan AAA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Oilton	UAL	9.32%	10.36%	4.50%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Okeene	Surplus	12.96%	11.11%	3.60%	Plan AAA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Okemah	UAL	12.23%	11.55%	3.75%	Plan CC, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Oklahoma Municipal League	Surplus	13.47%	14.97%	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	DROP feature terminated
OkMRF Staff	UAL	16.63%	16.77%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 10 years certain, no COLA	
Okmulgee	UAL	7.91%	10.68%	0.00%	Plan AA, special retirement age, 10 year vesting, 5 years certain, COLA	
Owasso	UAL	12.73%	13.17%	4.26%	Plan AA, normal retirement age 62/30, 5 year vesting, 5 years certain, no COLA	
Pawnee	Surplus	10.23%	12.96%	6.00%	Plan AAA, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA	
Perkins	Surplus	11.21%	11.40%	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
		7/1/2019	7/1/2020			
Perry	UAL	12.25%	12.80%	4.00%	Plan AA, normal retirement age 65, 10 year vesting, 10 years certain, no COLA	
Piedmont	Surplus	6.93%	6.77%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Pond Creek	UAL	11.96%	15.38%	5.25%	Plan AA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Porum	UAL	5.37%	5.22%	2.25%	Plan B, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Poteau	UAL	13.03%	13.79%	4.25%	Plan BB, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Ratliff City	UAL	6.31%	6.83%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Ringling	UAL	6.97%	8.05%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Roland	UAL	8.80%	8.36%	3.75%	Plan CC, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Sallisaw	UAL	19.53%	20.47%	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	5.77%	4.90%	4.90%	Plan AA, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Shawnee	UAL	19.52%	41.42%	4.25%	Plan AA, Rule of 80, 7 year vesting, 10 years certain, split COLA, Hybrid	
Skiatook	UAL	13.22%	12.94%	4.50%	Plan BB, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Spencer	Surplus	8.77%	9.01%	5.25%	Plan AA, normal retirement age 62/30, 7 year vesting, 5 years certain, no COLA, Hybrid	
Spiro	UAL	9.24%	10.19%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Stilwell	UAL	8.39%	10.13%	4.50%	Plan BB, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Stratford	Surplus	2.64%	1.91%	1.39%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Stroud	UAL	13.36%	12.94%	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
		7/1/2019	7/1/2020			
Sulphur	UAL	19.58%	21.26%	5.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Talihina & TPWA	Surplus	2.35%	3.16%	2.25%	Plan B, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Thomas	UAL	23.05%	21.43%	5.25%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Tipton	UAL	5.66%	10.34%	3.00%	Plan A, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Tishomingo	UAL	8.82%	8.22%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Tonkawa	UAL	13.00%	13.16%	3.50%	Plan AAA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Velma	Surplus	3.00%	3.00%	3.00%	Plan A, normal retirement age 65, 5 year vesting, 5 years certain, no COLA	
Vian	Surplus	5.44%	8.16%	3.75%	Plan CC, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	upgrade, ee cont
Vinita	UAL	23.00%	24.27%	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	15.86%	16.96%	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	20.32%	20.15%	4.00%	Plan AAA, normal retirement age 62/30, 10 year vesting, 5 years certain, no COLA	
Waukomis	Surplus	8.65%	8.85%	5.25%	Plan AA, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Waurika	Surplus	12.23%	11.53%	4.00%	Plan AAA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Weatherford	UAL	15.10%	15.25%	6.25%	Plan AA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Webbers Falls	Surplus	2.49%	2.41%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Wellston	Surplus	11.24%	8.11%	3.75%	Plan CC, 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
		7/1/2019	7/1/2020			
Westville Utility Authority	UAL	12.16%	13.49%	6.00%	Plan AAA, normal retirement age 65, 7 year vesting, 5 years certain, no COLA	
Wetumka	UAL	19.42%	24.49%	5.25%	Plan AA, Rule of 80, 10 year vesting, 5 years certain, no COLA	
Wilburton	UAL	4.93%	4.94%	1.50%	Plan C, normal retirement age 65, 10 year vesting, 5 years certain, no COLA	
Yale	UAL	15.24%	16.58%	6.00%	Plan AAA, Rule of 80, 7 year vesting, 5 years certain, no COLA	
Yukon	UAL	19.86%	19.32%	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	
Weighted Avg Contribution Rates		13.78%	14.79%	4.34%		

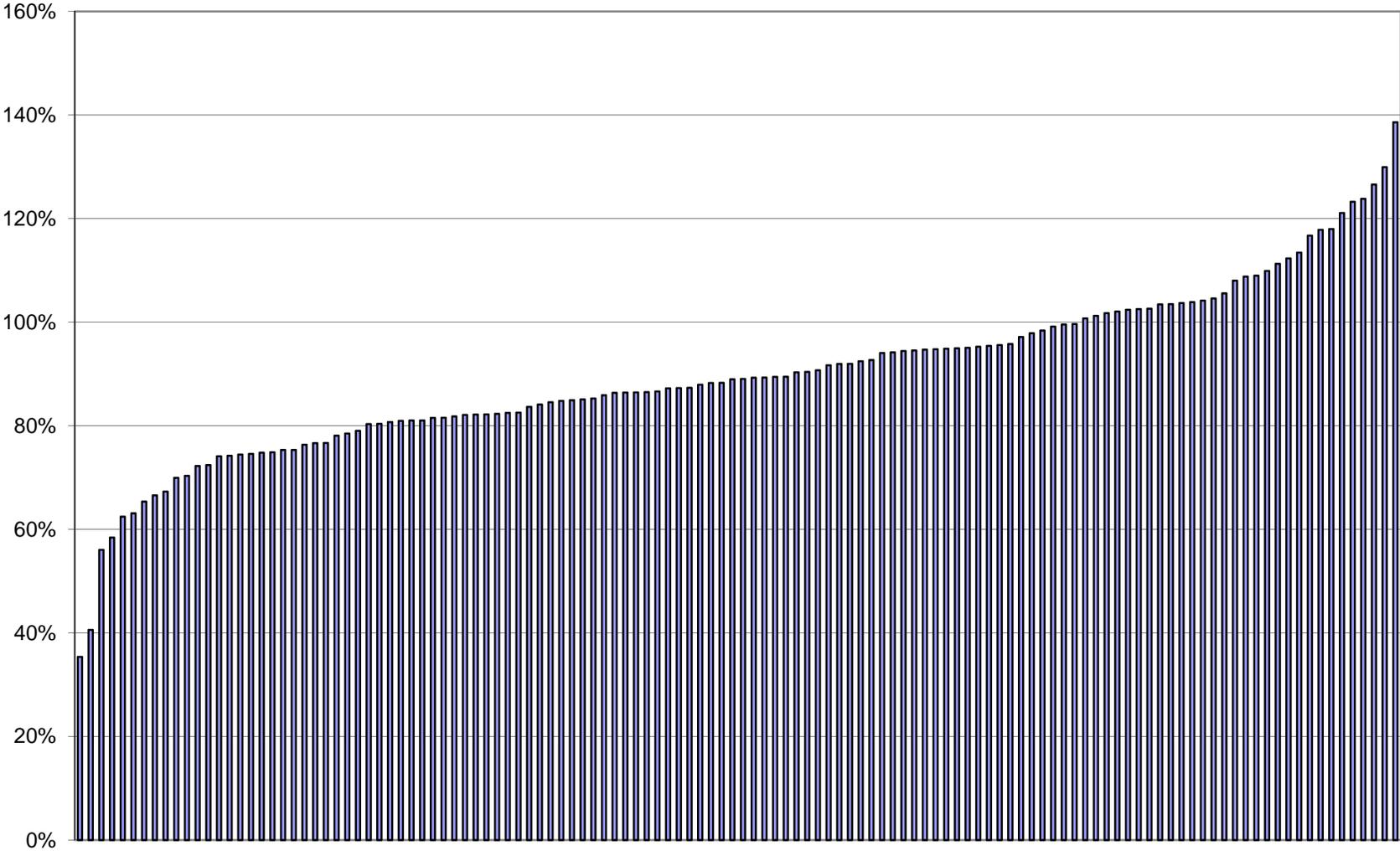
B Comparison of Plan Assets and Obligations

The exhibit in this section shows the plan assets and obligations as of July 1, 2019, 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 2019 to employees who were active participants on July 1, 2019. Pay for employees who worked less than a full year in fiscal 2019 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, 2019, 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, 2019, discounted to the valuation date at the assumed rate of return (7.25% for all plans).

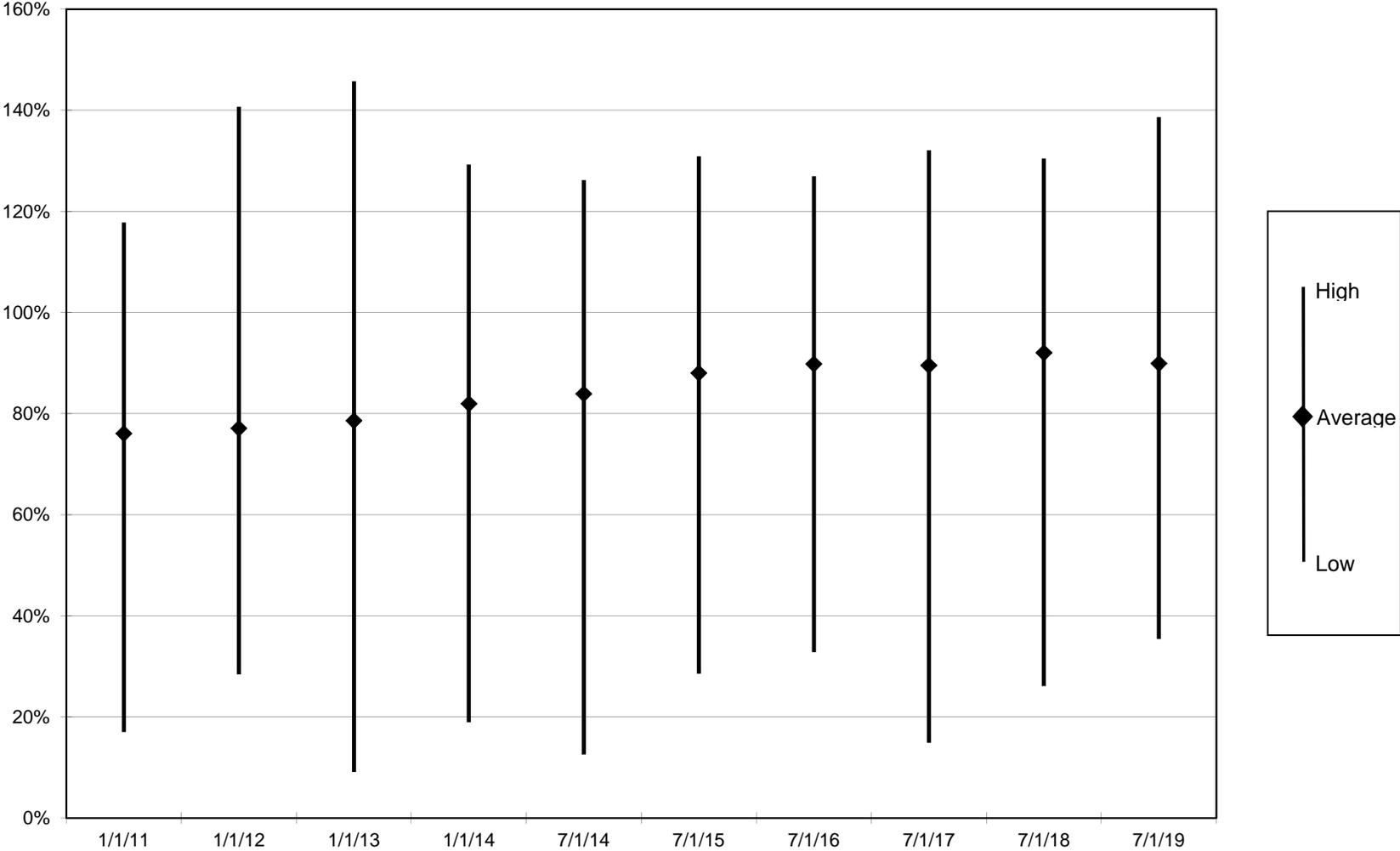
Oklahoma Municipal Retirement Fund

Funded Ratio as of 7/1/2019



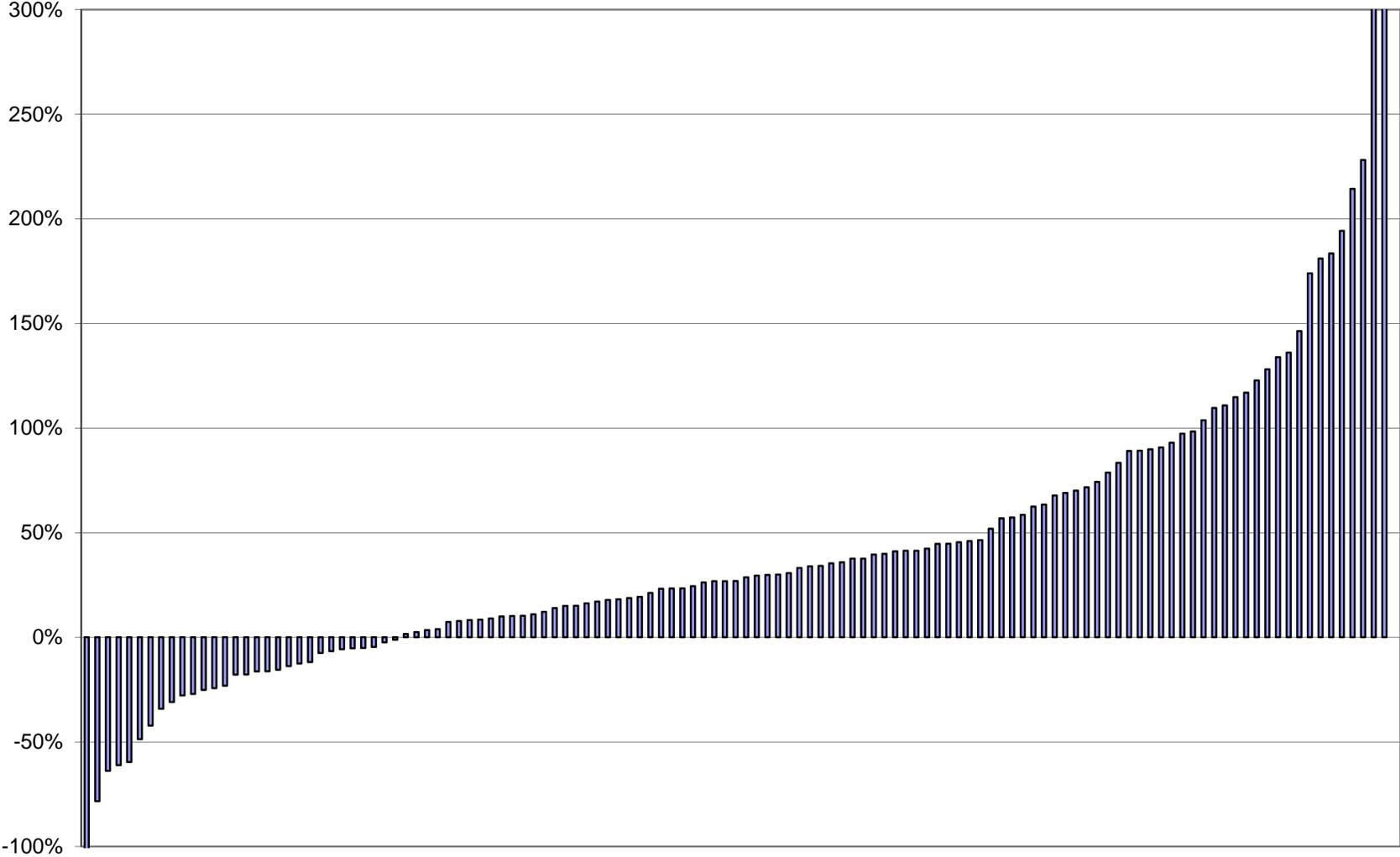
Oklahoma Municipal Retirement Fund

Funded Ratios

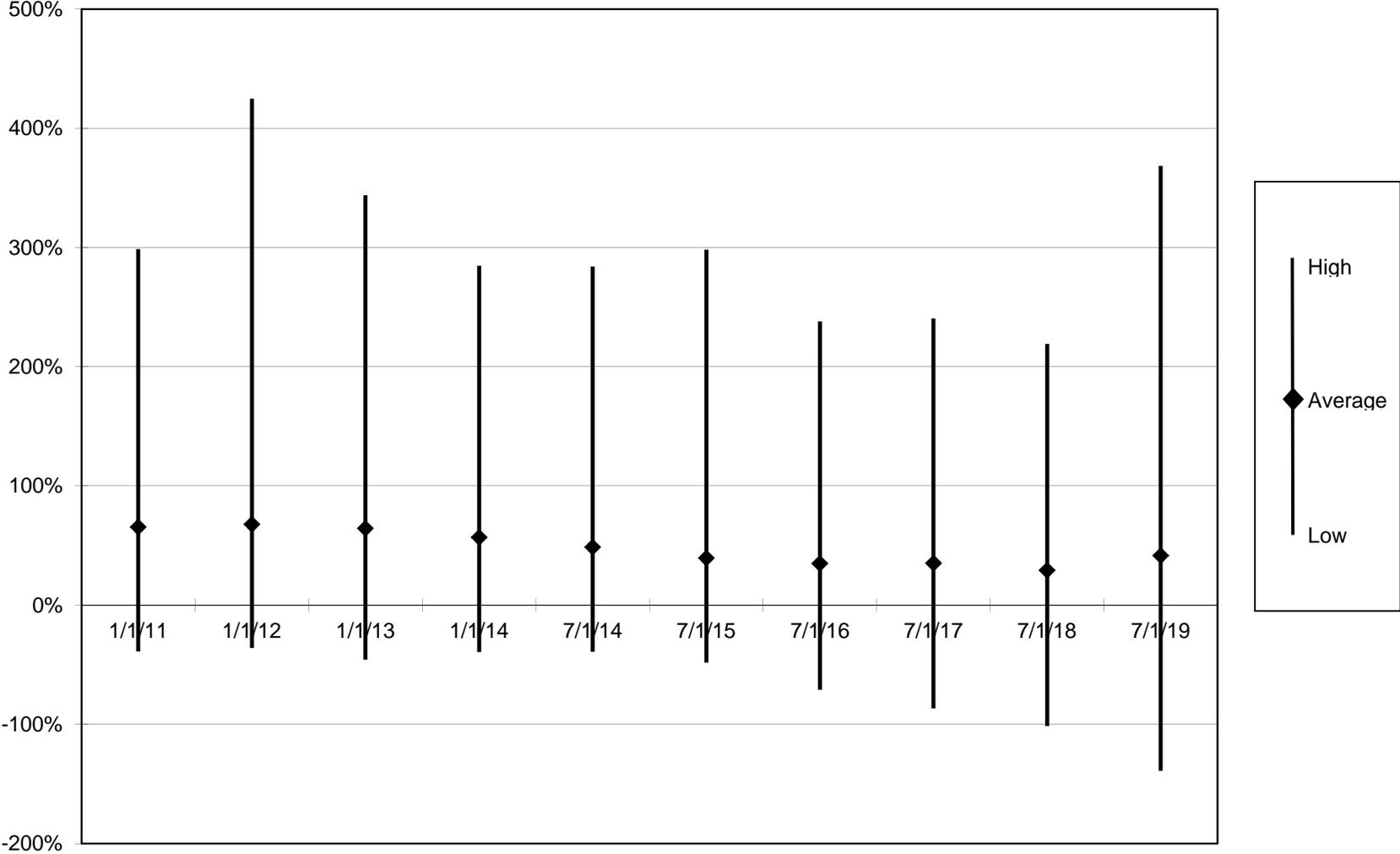


Oklahoma Municipal Retirement Fund

UAAL as Percent of Covered Payroll



UAAL as Percent of Covered Payroll



**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

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	288,965	163,232	193,538	209,304	311,764	22,799	92.7%	14.0%	6	5	260,029
Altus	EAN	21,348,616	5,380,354	13,486,257	15,940,057	26,179,981	4,831,364	81.5%	89.8%	134	92	22,782,056
Alva	EAN	4,313,227	1,973,134	4,402,626	1,160,641	4,770,762	457,536	90.4%	23.2%	48	15	3,761,351
Antlers	EAN	1,380,785	860,067	982,573	876,007	1,468,080	87,295	94.1%	10.1%	29	14	1,193,211
Ardmore	EAN	33,485,117	8,324,901	29,193,304	11,100,422	33,771,585	286,468	99.2%	3.4%	174	80	27,444,346
Bartlesville	UC	20,580,994	4,585,858	16,205,432	13,219,456	25,043,336	4,462,342	82.2%	97.3%	106	153	25,043,336
Bethany	EAN	24,580,328	3,995,154	14,987,600	13,341,812	25,934,516	1,354,188	94.8%	33.9%	86	51	22,135,972
Bethany/Warr Acres	EAN	2,711,627	325,178	1,879,310	1,419,128	3,071,990	360,363	88.3%	110.8%	7	9	2,727,580
Billings	EAN	308,159	91,056	94,974	189,785	250,036	(58,123)	123.2%	(63.8)%	3	5	234,926
Binger	EAN	230,972	170,811	223,355	67,502	243,469	12,497	94.9%	7.3%	5	1	210,031
Blackwell	EAN	6,174,857	1,676,496	3,674,004	3,986,670	6,447,273	272,416	95.8%	16.2%	44	35	5,660,841
Blair	EAN	535,751	161,169	615,380	49,308	590,667	54,916	90.7%	34.1%	4	1	408,794
Boise City	EAN	1,672,999	371,999	642,470	1,309,198	1,820,003	147,005	91.9%	39.5%	11	12	1,707,708
Bokchito	EAN	157,904	250,980	153,840	74,651	146,201	(11,703)	108.0%	(4.7)%	9	1	124,955
Braman	EAN	196,342	0	0	336,080	336,080	139,738	58.4%	#DIV/0!	0	2	336,080
Bristow	EAN	3,734,014	569,693	1,511,548	2,672,492	3,747,878	13,864	99.6%	2.4%	17	18	3,316,556
Broken Bow	EAN	6,178,717	2,096,737	5,660,744	2,856,816	6,919,336	740,619	89.3%	35.3%	59	20	5,305,350
Buffalo	EAN	1,034,608	214,025	510,441	614,903	999,656	(34,952)	103.5%	(16.3)%	8	5	867,839

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Burns Flat	EAN	798,901	346,720	578,752	621,566	1,041,759	242,858	76.7%	70.0%	10	4	851,491
Calera	EAN	1,111,579	785,059	1,082,255	572,509	1,352,280	240,701	82.2%	30.7%	22	6	1,047,659
Central Oklahoma MCD	EAN	1,945,457	272,074	1,149,037	831,611	1,732,159	(213,298)	112.3%	(78.4)%	6	4	1,439,964
Chandler	EAN	3,090,709	989,702	3,161,516	519,014	3,281,654	190,944	94.2%	19.3%	25	9	2,690,611
Checotah	EAN	2,493,082	1,337,878	2,184,184	1,011,610	2,640,443	147,361	94.4%	11.0%	41	21	2,067,278
Cherokee & CDA	EAN	419,274	472,390	404,552	245,634	507,920	88,646	82.5%	18.8%	13	8	428,947
Chickasha	EAN	17,358,249	1,751,504	5,940,531	12,362,546	16,952,246	(406,003)	102.4%	(23.2)%	47	48	15,762,590
Claremore	EAN	18,283,504	6,789,906	13,128,954	11,096,497	20,532,635	2,249,131	89.0%	33.1%	149	78	16,742,387
Cleo Springs	EAN	232,342	16,086	16,644	266,635	269,043	36,701	86.4%	228.2%	1	2	267,378
Cleveland	EAN	2,817,723	668,926	1,859,810	2,341,589	3,796,649	978,926	74.2%	146.3%	14	14	3,415,214
Clinton	EAN	13,671,172	1,962,487	7,731,116	7,036,858	13,125,190	(545,982)	104.2%	(27.8)%	49	54	11,141,122
Collinsville	EAN	3,361,097	1,467,413	3,452,109	1,349,714	3,963,986	602,889	84.8%	41.1%	40	18	3,116,853
Copan	EAN	67,486	143,224	103,107	83,858	166,243	98,757	40.6%	69.0%	3	3	141,091
Cordell	EAN	5,248,275	695,638	2,259,510	3,254,558	5,073,324	(174,951)	103.4%	(25.1)%	17	28	4,589,119
Cushing	EAN	21,402,018	3,555,614	10,283,389	13,450,087	22,035,199	633,181	97.1%	17.8%	88	99	19,164,240
Davis	EAN	2,242,452	1,093,162	2,127,253	1,030,291	2,567,651	325,199	87.3%	29.7%	30	14	2,152,831
Del City	EAN	18,204,934	3,385,849	12,775,378	14,142,912	24,415,245	6,210,311	74.6%	183.4%	87	71	21,467,828
Dewey	EAN	1,974,081	511,199	1,959,699	635,509	2,298,232	324,152	85.9%	63.4%	14	9	1,692,674

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Drumright	EAN	2,569,478	512,512	897,951	2,614,976	3,198,596	629,118	80.3%	122.8%	15	26	3,003,369
Durant	EAN	24,187,372	5,279,140	14,471,494	14,101,682	25,307,458	1,120,087	95.6%	21.2%	131	95	21,691,332
El Reno	EAN	5,588,911	3,477,440	6,582,381	2,201,982	6,896,749	1,307,838	81.0%	37.6%	69	31	4,938,895
Eufaula	EAN	1,385,163	582,304	696,021	869,554	1,311,971	(73,192)	105.6%	(12.6)%	19	9	1,176,281
Fort Cobb	EAN	254,467	145,416	78,611	287,526	309,168	54,701	82.3%	37.6%	5	2	297,266
Foss Reservoir Public Works	EAN	955,206	279,819	710,550	878,789	1,461,698	506,492	65.3%	181.0%	6	3	1,225,554
Frederick	EAN	4,355,699	1,043,223	3,532,986	1,783,082	4,822,109	466,410	90.3%	44.7%	28	21	4,143,831
Garber	EAN	99,224	131,621	206,486	7,761	129,964	30,740	76.3%	23.4%	4	1	50,717
Geary	EAN	1,612,973	571,429	1,458,598	615,802	1,698,749	85,776	95.0%	15.0%	15	8	1,252,325
Goodwell	EAN	315,862	250,867	232,625	203,064	341,650	25,788	92.5%	10.3%	7	4	261,944
Gore and Gore PWA	EAN	816,328	544,017	1,037,277	121,594	862,105	45,777	94.7%	8.4%	20	6	547,804
Granite	EAN	1,680,348	280,097	944,066	1,199,667	1,970,827	290,479	85.3%	103.7%	7	4	1,745,501
Guthrie	EAN	6,515,222	1,829,609	4,754,312	3,025,729	6,657,784	142,561	97.9%	7.8%	49	19	5,196,978
Harrah	EAN	2,806,255	798,695	2,817,508	1,540,636	3,875,548	1,069,293	72.4%	133.9%	18	12	3,205,112
Healdton	EAN	1,574,181	517,775	1,238,136	956,407	1,759,736	185,554	89.5%	35.8%	14	8	1,496,883
Henryetta	EAN	3,440,870	1,423,328	3,867,903	1,803,024	4,764,537	1,323,666	72.2%	93.0%	40	18	3,645,710
Hooker	EAN	1,215,839	451,408	1,143,501	725,337	1,625,415	409,577	74.8%	90.7%	10	7	1,347,380
Hulbert	EAN	722,021	404,114	773,745	349,825	974,384	252,363	74.1%	62.4%	12	5	790,363

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Hydro	EAN	376,655	230,825	166,432	387,614	468,659	92,004	80.4%	39.9%	7	6	431,040
Kansas	EAN	136,193	176,270	124,211	64,377	157,587	21,394	86.4%	12.1%	5	4	123,816
Kiefer	EAN	126,093	316,545	299,402	46,800	199,870	73,778	63.1%	23.3%	10	1	121,961
Kingston	EAN	711,352	426,326	525,076	659,008	1,016,900	305,547	70.0%	71.7%	14	6	895,957
Krebs & Krebs Utility Auth.	EAN	510,962	534,249	610,144	250,362	654,262	143,300	78.1%	26.8%	13	5	508,640
Laverne	EAN	1,347,449	405,611	645,598	888,612	1,337,564	(9,885)	100.7%	(2.4)%	12	15	1,137,320
Lindsay	EAN	4,929,721	1,671,688	3,155,708	2,476,214	4,523,516	(406,205)	109.0%	(24.3)%	42	19	3,716,425
Madill	EAN	3,144,184	896,027	2,614,902	1,008,710	3,158,217	14,033	99.6%	1.6%	24	11	2,606,330
Mannford	EAN	3,165,788	818,703	2,722,040	2,754,836	4,756,179	1,590,391	66.6%	194.3%	19	18	3,991,989
Marietta	EAN	1,228,821	624,174	1,092,137	714,273	1,381,311	152,489	89.0%	24.4%	18	13	1,086,897
Marietta PWA	EAN	473,817	213,714	514,915	477,151	845,530	371,713	56.0%	173.9%	6	5	677,194
McLoud	EAN	790,273	696,895	668,356	333,812	677,161	(113,112)	116.7%	(16.2)%	22	13	546,339
Medford	EAN	3,001,302	450,779	2,404,592	1,141,520	3,356,206	354,904	89.4%	78.7%	11	5	2,766,032
Meeker	EAN	732,909	254,060	236,918	568,039	646,056	(86,853)	113.4%	(34.2)%	9	13	606,338
Miami	EAN	11,379,685	4,576,812	7,745,930	9,548,019	15,194,534	3,814,849	74.9%	83.4%	117	96	13,053,456
Mooreland	EAN	1,416,108	502,441	579,191	1,417,442	1,623,803	207,694	87.2%	41.3%	11	8	1,480,820
Mountain Park MCD	EAN	1,056,309	186,968	445,562	1,421,002	1,691,594	635,285	62.4%	339.8%	4	4	1,542,640
Muldrow	EAN	2,279,944	916,795	1,509,481	1,929,929	2,816,534	536,590	80.9%	58.5%	23	17	2,361,259

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Mustang	EAN	7,441,854	2,324,039	6,367,123	4,024,874	8,763,284	1,321,430	84.9%	56.9%	43	18	7,104,362
Nichols Hills	EAN	9,243,571	2,268,609	5,236,166	4,971,899	8,837,697	(405,874)	104.6%	(17.9)%	40	24	8,100,449
Noble	EAN	2,315,296	964,709	2,288,117	974,809	2,753,336	438,040	84.1%	45.4%	22	11	2,282,330
Nowata	EAN	2,326,038	773,459	1,741,740	966,049	2,116,618	(209,420)	109.9%	(27.1)%	23	26	1,714,446
Oilton	EAN	447,249	227,091	437,858	199,562	512,426	65,177	87.3%	28.7%	8	3	373,780
Okeene	EAN	1,168,279	271,609	912,716	424,145	1,154,256	(14,023)	101.2%	(5.2)%	7	6	967,135
Okemah	EAN	1,636,738	1,200,797	2,013,696	745,781	2,172,982	536,244	75.3%	44.7%	32	13	1,618,671
Oklahoma Municipal League	EAN	7,433,623	967,723	3,116,447	4,998,571	7,282,995	(150,628)	102.1%	(15.6)%	16	20	6,729,707
OkMRF Staff	EAN	1,460,973	677,489	1,970,448	248,785	1,848,540	387,567	79.0%	57.2%	10	3	1,285,915
Okmulgee	EAN	17,368,437	2,874,984	11,446,763	7,886,962	17,654,609	286,172	98.4%	10.0%	84	64	14,031,990
Owasso	EAN	18,753,685	7,638,620	20,203,411	5,668,038	21,004,461	2,250,776	89.3%	29.5%	148	65	15,304,790
Pawnee	EAN	3,068,581	1,006,959	2,449,700	1,330,364	3,015,632	(52,950)	101.8%	(5.3)%	24	18	2,442,358
Perkins	EAN	1,275,208	485,676	1,042,897	568,267	1,242,935	(32,273)	102.6%	(6.6)%	14	9	891,955
Perry	EAN	4,538,553	1,877,071	4,426,169	1,990,430	5,333,593	795,040	85.1%	42.4%	47	17	4,231,852
Piedmont	EAN	483,747	961,024	772,894	37,854	471,790	(11,957)	102.5%	(1.2)%	20	2	332,207
Pond Creek	EAN	1,293,675	497,838	1,806,941	194,390	1,737,531	443,857	74.5%	89.2%	14	4	1,409,681
Porum	EAN	414,514	402,265	459,591	116,727	450,792	36,278	92.0%	9.0%	9	3	305,243
Poteau	EAN	7,132,631	1,626,989	4,707,672	4,250,065	8,234,686	1,102,055	86.6%	67.7%	50	36	7,063,515

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

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	153,553	139,866	140,376	99,253	190,219	36,667	80.7%	26.2%	3	2	145,776
Ringling	EAN	189,007	222,075	218,399	130,690	280,854	91,847	67.3%	41.4%	6	4	224,216
Roland	EAN	1,375,362	966,494	1,637,319	304,164	1,454,778	79,416	94.5%	8.2%	22	8	1,030,447
Sallisaw	EAN	16,385,449	4,092,306	14,473,451	9,265,278	20,871,094	4,485,645	78.5%	109.6%	107	58	17,103,500
Seiling	EAN	995,437	248,305	631,216	350,641	843,692	(151,745)	118.0%	(61.1)%	7	5	674,399
Shawnee	EAN	37,079,508	1,381,807	6,325,606	36,891,716	42,168,676	5,089,168	87.9%	368.3%	60	108	40,368,647
Skiatook	EAN	1,606,016	2,001,050	2,748,569	268,225	1,683,253	77,238	95.4%	3.9%	45	9	1,212,740
Spencer	EAN	1,023,775	329,960	546,548	493,198	826,896	(196,879)	123.8%	(59.7)%	10	11	720,258
Spiro	EAN	1,181,622	560,505	868,297	759,289	1,439,267	257,645	82.1%	46.0%	18	12	1,248,925
Stilwell	EAN	9,517,084	2,605,176	4,757,338	6,757,768	9,989,637	472,553	95.3%	18.1%	73	53	8,453,829
Stratford	EAN	323,922	290,965	151,463	168,981	233,733	(90,189)	138.6%	(31.0)%	9	4	190,675
Stroud	EAN	3,711,743	1,519,736	2,957,759	2,367,058	4,499,396	787,653	82.5%	51.8%	39	29	3,685,275
Sulphur	EAN	5,334,866	1,088,438	3,906,650	3,379,546	6,583,593	1,248,728	81.0%	114.7%	25	18	5,333,637
Talihina & TPWA	EAN	808,819	459,479	535,910	321,367	726,869	(81,950)	111.3%	(17.8)%	16	7	643,456
Thomas	EAN	993,187	239,247	606,331	854,402	1,318,660	325,473	75.3%	136.0%	7	10	1,146,967
Tipton	EAN	268,649	152,489	388,054	38,036	381,930	113,281	70.3%	74.3%	5	1	342,032
Tishomingo	EAN	501,156	520,365	470,832	288,130	579,393	78,238	86.5%	15.0%	18	10	490,418
Tonkawa	EAN	2,756,169	834,853	1,691,848	1,875,240	3,006,587	250,418	91.7%	30.0%	24	18	2,484,539

**Oklahoma Municipal Retirement Fund
COMPARISON OF PLAN ASSETS AND OBLIGATIONS**

City	Cost Method	Valuation Assets	Valuation Payroll	PVB Actives	PVB Retired	AAL	UAAL (Surplus)	Funded Ratio	UAAL as % of Val Pay	Actives	Nonactives	ABO
Velma	EAN	330,283	118,003	65,314	252,828	272,792	(57,491)	121.1%	(48.7)%	5	7	259,982
Vian	EAN	326,725	461,689	441,479	88,099	300,329	(26,396)	108.8%	(5.7)%	14	4	200,975
Vinita	EAN	8,427,062	1,203,661	4,012,892	6,825,239	9,968,355	1,541,293	84.5%	128.1%	37	41	9,054,353
Wakita	EAN	221,306	36,618	27,970	160,022	170,309	(50,997)	129.9%	(139.3)%	1	2	163,807
Warr Acres	EAN	8,761,735	1,541,634	5,032,571	5,935,299	10,134,800	1,373,065	86.5%	89.1%	37	32	8,895,579
Watonga	EAN	4,435,837	1,373,983	3,490,368	3,234,271	5,787,524	1,351,687	76.6%	98.4%	39	28	4,957,071
Waukomis	EAN	464,134	166,435	223,699	287,763	393,879	(70,255)	117.8%	(42.2)%	4	3	340,904
Waurika	EAN	1,114,917	336,006	707,784	609,120	1,075,033	(39,884)	103.7%	(11.9)%	10	5	901,790
Weatherford	EAN	5,966,781	2,915,499	5,658,495	3,537,224	7,319,799	1,353,017	81.5%	46.4%	78	41	6,043,203
Webbers Falls	EAN	192,084	291,619	113,833	95,088	151,767	(40,318)	126.6%	(13.8)%	9	12	134,516
Wellston	EAN	542,535	268,225	265,306	384,667	522,308	(20,227)	103.9%	(7.5)%	7	8	485,147
Westville Utility Authority	EAN	687,902	339,794	860,175	222,863	779,246	91,344	88.3%	26.9%	8	4	467,927
Wetumka	EAN	1,587,018	144,680	418,183	1,537,161	1,897,085	310,067	83.7%	214.3%	6	12	1,820,706
Wilburton	EAN	132,194	900,779	471,982	34,277	373,598	241,404	35.4%	26.8%	28	2	243,023
Yale	EAN	1,508,296	461,697	875,641	1,111,449	1,586,942	78,646	95.0%	17.0%	15	14	1,358,335
Yukon	EAN	27,004,245	5,134,492	21,110,655	14,917,224	33,005,242	6,000,997	81.8%	116.9%	81	115	26,708,867
Total		574,250,331	150,272,256	394,352,597	343,094,534	645,684,097	71,433,766	88.9%	47.5%	3,726	2,586	549,098,236

Totals exclude frozen plans and plans with only nonactive participants.

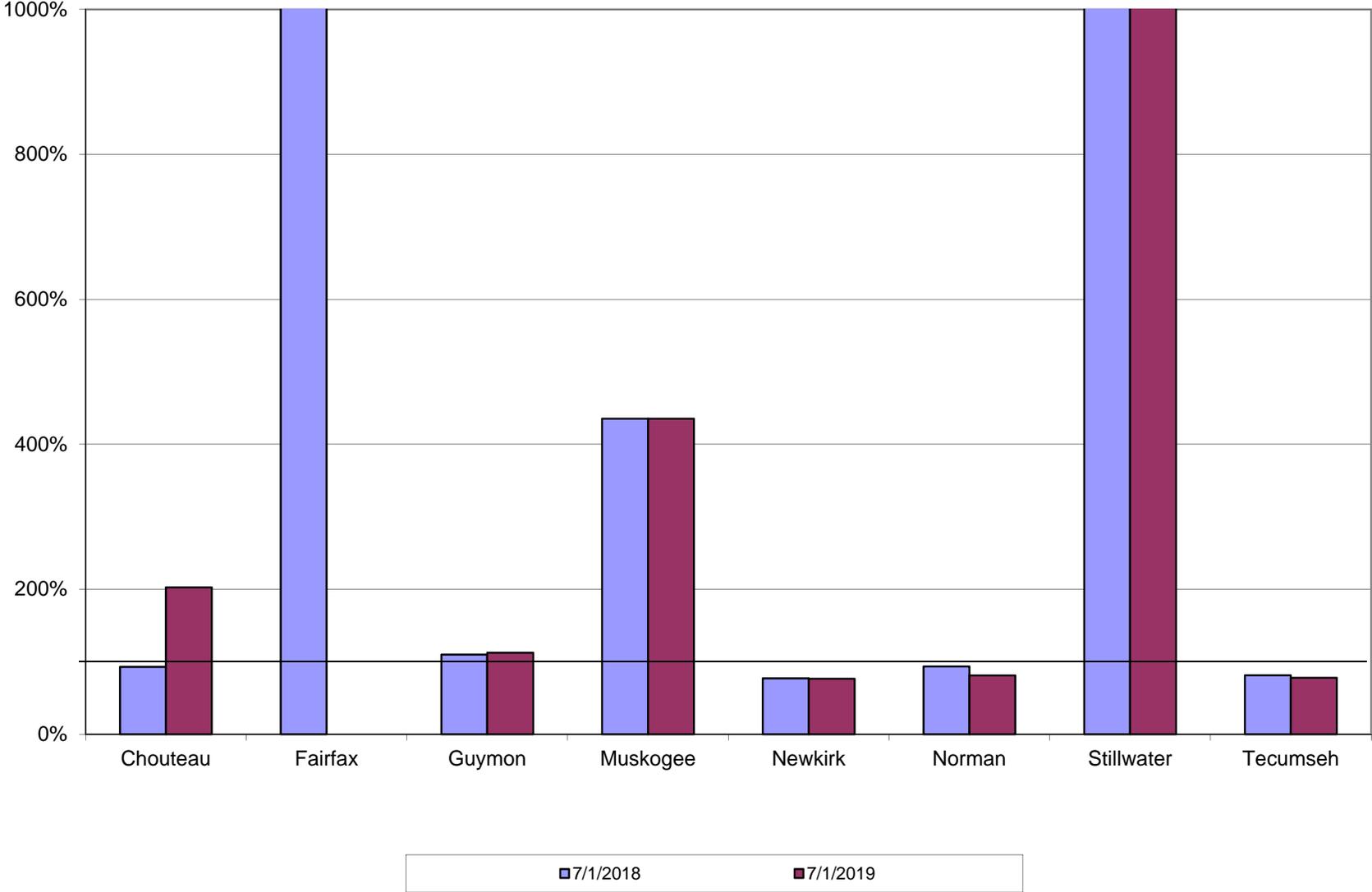
C Funded Status of Plans with No Further Benefit Accruals

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, 2019, 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 2019.
- 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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	5,632
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	\$5,632
Market Value of Assets		\$11,409
Deficiency (Surplus)		(\$5,777)
Funded Percentage		203%

Plan assets are currently sufficient.

Plan Funding Requirement

Annual contribution payable for 10 years commencing July 1, 2020 sufficient to amortize the funding deficiency	N/A
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	29	\$1,601,600
Retirees	22	2,206,004
Survivors	5	168,234
Disabled	4	123,538
Deferred Vested	42	1,353,250
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	102	\$5,452,626
Market Value of Assets		\$6,130,981
Deficiency (Surplus)		(\$678,355)
Funded Percentage		112%

Plan assets are currently sufficient.

Plan Funding Requirement

Annual contribution payable for 10 years commencing July 1, 2020 sufficient to amortize the funding deficiency	N/A
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	9,472
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	\$9,472
Market Value of Assets		\$41,238
Deficiency (Surplus)		(\$31,766)
Funded Percentage		435%

Plan assets are currently sufficient.

Plan Funding Requirement

Annual contribution payable for 10 years commencing July 1, 2020 sufficient to amortize the funding deficiency	N/A
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	4	\$281,827
Retirees	10	955,122
Survivors	2	125,120
Disabled	0	0
Deferred Vested	2	274,551
Nonvested (refunds due)	<u>3</u>	<u>15,601</u>
Totals	21	\$1,652,221
Market Value of Assets		\$1,262,699
Deficiency (Surplus)		\$389,522
Funded Percentage		76%

Plan assets are not currently sufficient.

Plan Funding Requirement

Annual contribution payable for 5 years commencing July 1, 2020 sufficient to amortize the funding deficiency	\$95,638
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	6	254,290
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	6	\$254,290
Market Value of Assets		\$206,350
Deficiency (Surplus)		\$47,940
Funded Percentage		81%

Plan assets are not currently sufficient.

Plan Funding Requirement

Annual contribution payable for 10 years commencing July 1, 2020 sufficient to amortize the funding deficiency	\$6,905
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	1	14,193
Survivors	0	0
Disabled	0	0
Deferred Vested	0	0
Nonvested (refunds due)	<u>0</u>	<u>0</u>
Totals	1	\$14,193
Market Value of Assets		\$10,070,864
Deficiency (Surplus)		(\$10,056,671)
Funded Percentage		70957%

Plan assets are currently sufficient.

Plan Funding Requirement

Annual contribution payable for 10 years commencing July 1, 2020 sufficient to amortize the funding deficiency	N/A
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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, 2019

	<u>Count</u>	<u>Present Value of Benefits</u>
Employees with frozen benefits	0	\$0
Retirees	3	93,187
Survivors	0	0
Disabled	2	39,277
Deferred Vested	1	160
Nonvested (refunds due)	<u>22</u>	<u>31,040</u>
Totals	28	\$163,664
Market Value of Assets		\$127,181
Deficiency (Surplus)		\$36,483
Funded Percentage		78%

Plan assets are not currently sufficient.

Plan Funding Requirement

Annual contribution payable for 3 years commencing July 1, 2020 sufficient to amortize the funding deficiency	\$13,965
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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, 2019.

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.

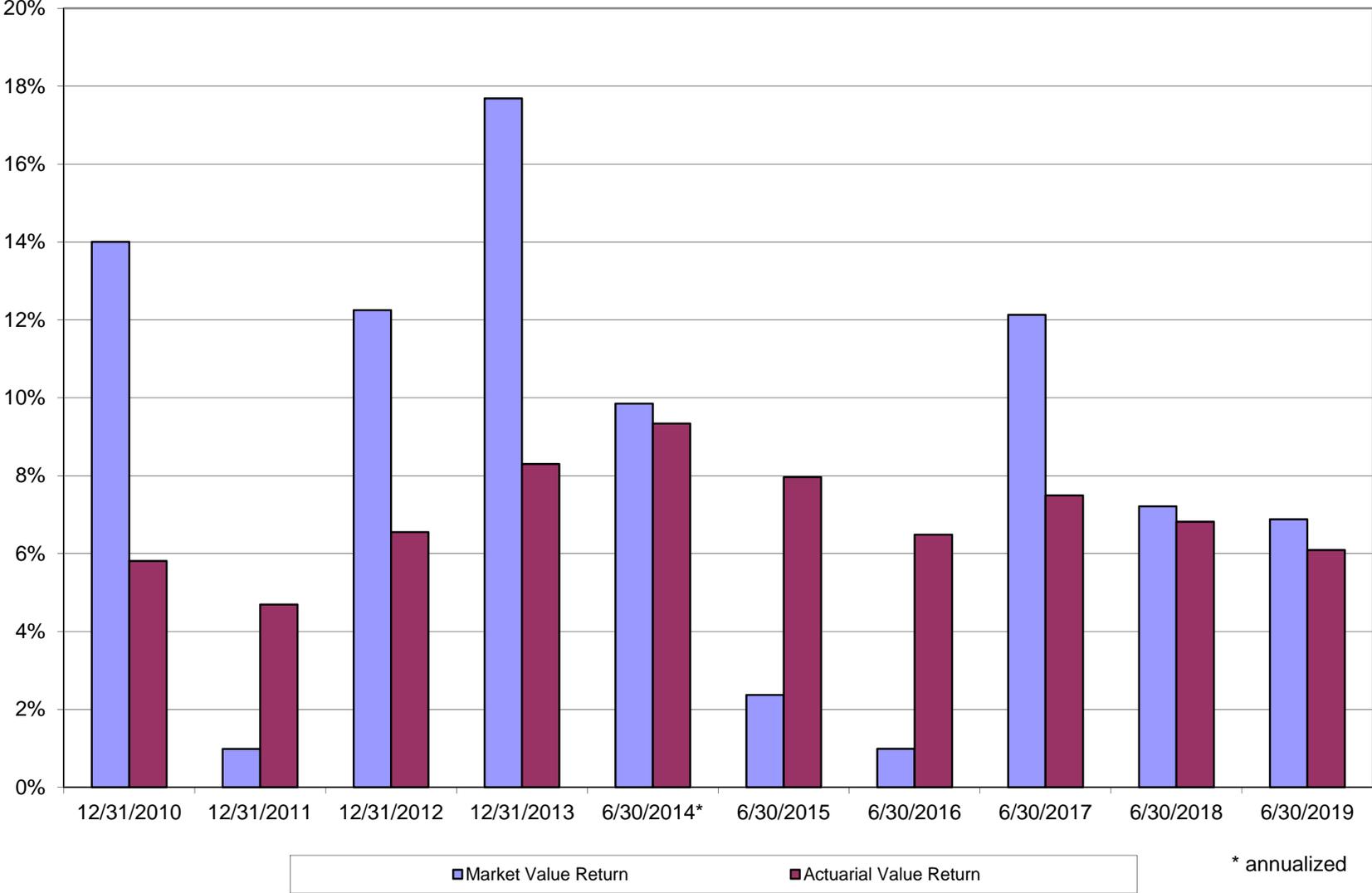
The actuarial value of assets is equal to the market value of assets, plus any unrecognized investment losses (or minus any unrecognized investment gains), subject to a 30% corridor. If the actuarial asset value would otherwise be outside this 30% corridor, it is instead equal to the relevant corridor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

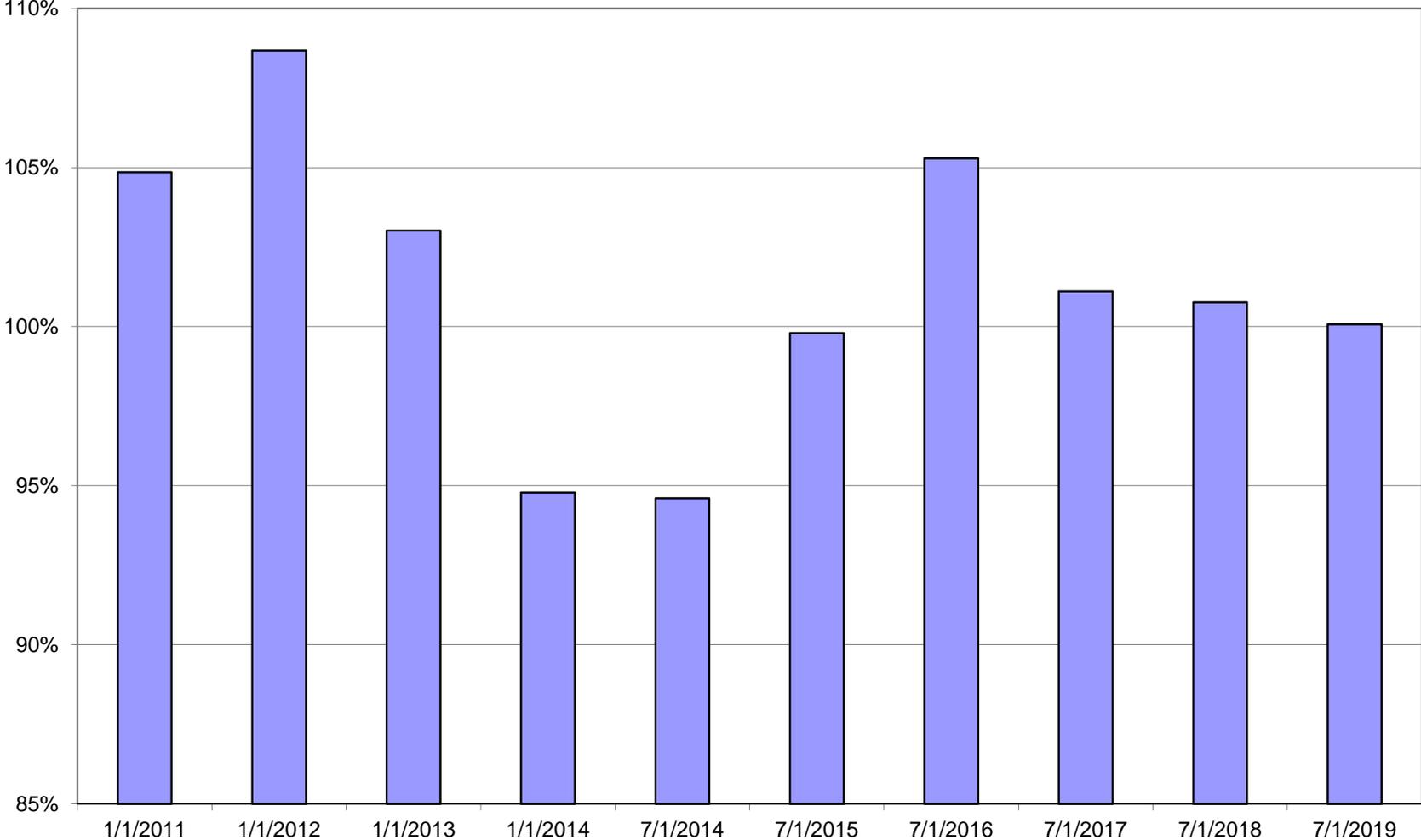
For most plans, the actuarial value of assets also serves as the valuation assets. In a hybrid plan, however, hybrid contributions are used to provide additional benefits, and these amounts are not available to pay the regular retirement benefits. For plans that have adopted the hybrid provision, therefore, 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 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee	Distributions						
Adair	249,244	252,097	267,032	269,235	11,791	7,075	(15,172)	19,494	290,219	288,984	1,235	(19)	288,965
Altus	20,343,560	20,598,931	20,545,473	20,714,910	796,724	224,053	(1,564,676)	1,469,830	21,471,404	21,345,976	125,428	2,640	21,348,616
Alva	3,558,961	3,613,089	3,945,864	3,988,201	123,510	60,978	(93,968)	289,356	4,325,740	4,305,694	20,046	7,533	4,313,227
Antlers	1,192,460	1,204,252	1,286,819	1,296,292	44,790	30,795	(69,149)	93,528	1,386,782	1,379,699	7,083	1,086	1,380,785
Ardmore	28,851,291	29,121,864	31,106,541	31,300,774	749,482	513,871	(986,938)	2,265,244	33,648,200	33,490,497	157,703	(5,380)	33,485,117
Bartlesville	17,599,884	17,773,163	19,216,232	19,346,115	955,002	283,664	(1,176,086)	1,395,445	20,674,259	20,568,119	106,139	12,875	20,580,994
Bethany *	25,316,823	25,614,824	26,443,190	26,670,973	472,645	189,929	(1,346,023)	1,892,356	27,652,098	27,485,896	166,202	29,815	27,515,711
Bethany/Warr Acres	2,461,849	2,491,955	2,585,826	2,608,123	58,044	19,511	(124,493)	185,771	2,724,659	2,709,408	15,252	2,220	2,711,627
Billings	273,500	275,747	286,516	287,847	4,058	2,813	(4,295)	20,866	309,957	308,451	1,506	(292)	308,159
Binger	193,343	194,980	213,637	214,956	5,500	3,843	(6,616)	15,588	231,952	230,837	1,114	134	230,972
Blackwell	5,981,476	5,984,487	6,297,288	6,347,689	206,927	80,901	(818,064)	437,332	6,204,384	6,163,881	40,503	10,976	6,174,857
Blair	440,987	444,697	486,723	489,591	11,592	5,074	(1,095)	35,852	538,145	535,744	2,402	7	535,751
Boise City	1,552,019	1,572,209	1,625,541	1,640,612	47,585	0	(107,875)	115,666	1,680,917	1,671,280	9,638	1,719	1,672,999
Bokchito	141,978	143,232	152,957	153,710	7,197	7,042	(19,216)	10,909	158,889	157,130	1,759	774	157,904
Braman	227,901	232,845	228,445	232,075	12,951	4,403	(63,764)	14,880	196,914	195,917	998	426	196,342
Bristow	3,529,105	3,578,174	3,651,284	3,684,543	66,708	37,537	(261,652)	259,012	3,752,889	3,731,085	21,804	2,929	3,734,014
Broken Bow	5,106,662	5,148,317	5,675,841	5,708,497	291,896	129,732	(306,946)	415,656	6,206,177	6,181,483	24,695	(2,766)	6,178,717
Buffalo	998,508	1,013,151	1,021,902	1,032,670	13,047	7,025	(74,418)	72,118	1,039,673	1,032,855	6,819	1,754	1,034,608
Burns Flat	687,401	692,376	743,833	747,312	26,796	13,398	(35,010)	54,116	803,134	799,050	4,084	(149)	798,901
Calera	921,870	929,170	1,008,847	1,014,651	57,974	24,920	(49,632)	74,347	1,116,457	1,111,868	4,589	(290)	1,111,579
Central Okla MCD	1,650,249	1,663,788	1,836,215	1,844,510	25,902	16,325	(54,584)	132,678	1,956,535	1,946,451	10,084	(994)	1,945,457
Chandler	2,555,972	2,579,181	2,836,774	2,854,680	90,108	46,235	(76,675)	207,829	3,104,271	3,088,762	15,509	1,947	3,090,709
Checotah	2,145,043	2,168,048	2,314,421	2,331,394	100,723	42,057	(121,614)	168,563	2,504,151	2,493,193	10,958	(110)	2,493,082
Cherokee & CDA	325,195	327,134	376,902	378,280	27,240	10,549	(21,470)	27,917	421,139	419,507	1,632	(233)	419,274
Chickasha	16,676,743	16,893,554	16,989,975	17,141,011	179,914	78,651	(1,001,049)	1,204,858	17,452,349	17,345,637	106,712	12,612	17,358,249
Claremore	17,339,150	17,549,523	18,072,637	18,223,929	290,784	299,314	(1,549,219)	1,275,498	18,389,014	18,228,074	160,940	55,429	18,283,504

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee	Distributions						
Cleo Springs	193,885	195,626	212,273	213,618	4,322	2,214	(1,017)	15,590	233,381	232,363	1,018	(21)	232,342
Cleveland	2,564,561	2,595,171	2,674,124	2,696,427	156,045	42,558	(233,912)	192,594	2,831,409	2,815,224	16,185	2,499	2,817,723
Clinton	12,600,364	12,753,610	13,285,652	13,398,754	155,073	108,119	(755,301)	945,371	13,738,914	13,651,922	86,992	19,250	13,671,172
Collinsville	3,053,871	3,107,017	3,079,935	3,116,977	164,237	62,089	(160,152)	225,694	3,371,805	3,354,836	16,969	6,261	3,361,097
Copan	51,077	51,777	58,022	58,550	14,714	2,906	(12,435)	4,395	67,602	67,376	226	110	67,486
Cordell	4,846,882	4,907,015	5,058,423	5,102,413	85,328	0	(231,327)	361,443	5,273,868	5,242,747	31,120	5,527	5,248,275
Cushing	20,400,326	20,683,226	20,967,002	21,137,353	391,031	0	(1,331,783)	1,486,005	21,512,255	21,374,203	138,052	27,815	21,402,018
Davis	2,033,335	2,059,548	2,157,254	2,179,532	89,133	51,157	(199,756)	154,245	2,252,034	2,239,097	12,937	3,355	2,242,452
Del City *	16,764,037	16,971,996	17,516,818	17,670,083	487,845	209,076	(1,155,770)	1,253,336	18,311,305	18,202,227	109,079	19,720	18,221,947
Dewey	1,679,623	1,697,221	1,821,368	1,834,635	85,629	22,741	(79,979)	133,078	1,982,838	1,974,066	8,772	15	1,974,081
Drumright	2,476,496	2,511,151	2,537,624	2,562,586	75,090	32,360	(241,482)	179,119	2,582,711	2,565,996	16,715	3,482	2,569,478
Durant	21,826,366	22,070,537	23,051,507	23,227,689	386,867	182,243	(968,910)	1,656,741	24,308,448	24,174,110	134,337	13,261	24,187,372
El Reno	4,125,972	4,156,697	4,594,921	4,618,760	751,917	154,313	(243,865)	357,143	5,614,429	5,578,196	36,233	10,715	5,588,911
Eufaula	1,265,578	1,285,303	1,322,674	1,336,624	29,077	21,807	(77,375)	94,934	1,391,117	1,383,313	7,804	1,850	1,385,163
Fort Cobb	235,537	238,396	252,427	254,538	12,078	4,617	(31,243)	17,774	255,654	253,977	1,677	489	254,467
Foss Reservoir Public Wo	913,472	924,514	929,459	936,896	51,824	10,538	(97,375)	66,117	960,562	954,928	5,634	278	955,206
Frederick	3,850,477	3,894,654	4,093,161	4,126,207	142,348	47,413	(203,465)	296,257	4,375,714	4,353,569	22,146	2,130	4,355,699
Garber	68,946	69,515	82,082	82,632	7,345	4,936	(1,220)	6,352	99,496	99,179	316	45	99,224
Geary	1,359,937	1,372,359	1,486,275	1,495,817	45,898	19,644	(40,265)	108,671	1,620,223	1,613,212	7,011	(239)	1,612,973
Goodwell	265,792	268,437	290,525	292,529	13,385	7,381	(15,301)	21,261	317,252	315,450	1,801	412	315,862
Gore and Gore PWA	632,895	636,864	720,845	724,302	39,424	21,644	(16,139)	53,890	819,664	816,725	2,939	(398)	816,328
Granite	1,492,842	1,508,238	1,614,867	1,626,086	38,018	11,698	(91,282)	115,571	1,688,872	1,679,118	9,754	1,230	1,680,348
Guthrie	6,126,494	6,151,602	6,198,242	6,233,094	145,941	72,078	(304,166)	446,250	6,558,344	6,525,687	32,657	(10,465)	6,515,222
Harrah	2,286,832	2,306,356	2,550,702	2,566,698	126,838	44,321	(91,503)	187,813	2,818,172	2,804,644	13,529	1,611	2,806,255
Healdton	1,423,385	1,439,929	1,497,532	1,509,447	50,725	29,578	(103,642)	107,725	1,581,919	1,573,359	8,560	822	1,574,181
Henryetta	3,043,742	3,082,522	3,285,198	3,315,905	181,455	73,470	(318,507)	235,872	3,457,489	3,439,206	18,283	1,665	3,440,870

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee	Distributions						
Hooker	1,064,698	1,075,816	1,136,108	1,144,423	68,174	16,666	(81,919)	82,474	1,221,502	1,215,186	6,316	653	1,215,839
Hulbert	592,958	600,861	650,537	656,435	50,385	15,654	(40,198)	48,101	724,480	721,346	3,134	675	722,021
Hydro	368,268	374,907	366,344	371,148	19,834	6,943	(41,404)	26,030	377,746	375,307	2,439	1,348	376,655
Kansas	117,415	118,502	129,999	130,869	5,049	2,715	(10,320)	9,332	136,776	136,133	643	60	136,193
Kiefer	66,110	65,643	93,316	93,188	21,406	8,584	(4,596)	7,686	126,396	126,392	4	(300)	126,093
Kingston	644,444	650,991	682,088	687,301	32,709	16,688	(65,799)	48,857	714,544	710,480	4,064	873	711,352
Krebs & Krebs Utility Auth.	413,176	416,955	459,119	462,129	29,266	16,373	(25,683)	34,010	513,085	510,927	2,158	35	510,962
Laverne	1,173,555	1,184,845	1,267,383	1,275,916	43,343	14,577	(63,167)	91,695	1,353,830	1,346,630	7,201	819	1,347,449
Lindsay	4,460,115	4,514,483	4,663,047	4,699,158	100,350	62,421	(207,333)	336,456	4,954,941	4,929,056	25,885	665	4,929,721
Madill	2,740,588	2,770,539	2,969,489	2,992,502	85,116	45,061	(155,285)	214,378	3,158,758	3,143,094	15,663	1,089	3,144,184
Mannford	2,876,139	2,910,379	3,055,776	3,081,173	171,506	51,607	(316,128)	218,172	3,180,932	3,162,041	18,891	3,746	3,165,788
Marietta	1,112,687	1,125,147	1,185,688	1,194,640	29,776	32,567	(97,714)	84,680	1,234,997	1,227,748	7,249	1,073	1,228,821
Marietta PWA	416,486	422,404	443,579	448,302	47,915	10,686	(58,823)	32,151	475,507	472,719	2,788	1,098	473,817
McCloud	661,597	667,021	714,483	718,510	40,736	17,185	(31,253)	52,767	793,917	790,923	2,994	(650)	790,273
Medford *	2,895,234	2,919,092	3,133,923	3,150,282	121,676	18,026	(97,418)	228,742	3,404,949	3,388,801	16,148	(1,908)	3,386,893
Meeker	681,582	688,972	714,277	719,402	11,887	8,361	(48,352)	50,766	736,939	732,551	4,388	359	732,909
Miami	10,342,425	10,504,607	10,816,305	10,914,501	646,533	182,834	(992,188)	778,280	11,431,764	11,366,659	65,106	13,026	11,379,685
Mooreland	1,337,651	1,357,493	1,390,402	1,404,967	54,558	18,542	(139,479)	98,398	1,422,421	1,413,561	8,860	2,548	1,416,108
Mountain Park MCD	903,594	913,543	977,751	985,509	64,752	14,567	(67,644)	71,310	1,060,737	1,055,102	5,635	1,207	1,056,309
Muldrow	2,027,065	2,046,857	2,142,003	2,156,393	107,925	43,133	(156,578)	155,095	2,291,578	2,279,384	12,193	560	2,279,944
Mustang	6,288,095	6,382,682	6,900,700	6,971,228	276,791	123,363	(337,002)	502,590	7,466,441	7,431,524	34,917	10,330	7,441,854
Nichols Hills *	9,903,238	10,028,912	10,545,785	10,630,110	183,116	251,786	(822,926)	750,504	10,908,265	10,842,963	65,302	10,938	10,853,901
Noble	1,968,403	1,984,624	2,082,537	2,092,139	123,520	40,382	(72,840)	154,285	2,327,883	2,318,785	9,098	(3,489)	2,315,296
Nowata	2,053,428	2,073,606	2,194,867	2,210,633	44,452	41,320	(101,554)	158,556	2,337,641	2,325,165	12,476	873	2,326,038
Oilton	388,418	392,090	419,840	422,692	17,681	10,884	(29,501)	30,404	449,308	447,296	2,012	(47)	447,249
Okeene	1,034,742	1,045,842	1,106,387	1,114,577	27,457	10,583	(50,311)	79,768	1,173,884	1,167,103	6,781	1,176	1,168,279

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions		Distributions	Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee							
Okemah	1,251,724	1,261,312	1,448,878	1,457,335	110,484	48,009	(73,041)	108,141	1,642,472	1,636,863	5,609	(125)	1,636,738
Oklahoma Municipal Leagu	7,089,911	7,177,189	7,451,068	7,516,128	151,984	0	(654,875)	521,973	7,470,150	7,430,218	39,932	3,405	7,433,623
OkMRF Staff	1,061,663	1,067,201	1,259,778	1,265,534	96,703	30,697	(16,680)	95,348	1,465,846	1,461,287	4,559	(314)	1,460,973
Okmulgee	15,810,000	15,998,043	16,633,620	16,771,702	257,057	0	(629,209)	1,192,447	17,453,915	17,355,313	98,602	13,124	17,368,437
Owasso	15,562,628	15,702,190	17,079,147	17,187,090	649,774	322,615	(470,431)	1,256,434	18,837,539	18,758,772	78,767	(5,088)	18,753,685
Pawnee	2,687,056	2,714,821	2,877,946	2,899,815	85,540	58,769	(148,728)	208,491	3,082,018	3,065,172	16,846	3,409	3,068,581
Perkins	1,098,505	1,110,942	1,169,829	1,179,014	38,266	21,128	(34,139)	85,728	1,280,812	1,275,415	5,397	(207)	1,275,208
Perry	3,882,024	3,919,674	4,221,335	4,248,475	174,914	81,056	(221,169)	307,308	4,563,444	4,540,890	22,554	(2,337)	4,538,553
Piedmont	292,282	290,952	383,158	382,619	48,127	28,876	(5,164)	30,383	485,381	484,751	630	(1,004)	483,747
Pond Creek	940,534	946,266	1,104,329	1,110,032	120,116	22,859	(33,459)	84,034	1,297,879	1,294,502	3,377	(828)	1,293,675
Porum	311,858	313,610	362,475	364,054	26,452	8,502	(8,586)	27,235	416,079	414,674	1,406	(160)	414,514
Poteau	6,550,608	6,628,861	6,868,964	6,925,666	161,273	68,541	(421,690)	491,044	7,168,133	7,125,163	42,970	7,468	7,132,631
Ratliff City	121,260	121,590	141,172	141,453	7,965	3,542	(8,669)	10,338	154,348	153,679	670	(126)	153,553
Ringling	163,498	165,272	176,566	178,120	10,660	4,997	(15,314)	12,813	189,722	188,710	1,012	297	189,007
Roland	1,047,271	1,057,045	1,222,294	1,231,524	67,464	39,957	(41,704)	90,999	1,379,009	1,373,069	5,941	2,293	1,375,362
Sallisaw	14,552,216	14,719,330	15,443,388	15,568,046	581,492	290,746	(969,828)	1,116,108	16,461,906	16,374,459	87,447	10,990	16,385,449
Seiling	899,850	909,895	957,358	964,695	11,313	13,789	(50,752)	68,479	1,000,186	995,728	4,458	(290)	995,437
Shawnee *	36,704,496	37,209,504	37,378,066	37,747,268	318,345	87,108	(2,929,614)	2,618,409	37,472,313	37,216,989	255,324	64,902	37,281,892
Skiatook	957,333	949,972	1,269,813	1,266,272	191,884	93,248	(44,010)	100,802	1,611,737	1,610,191	1,546	(4,175)	1,606,016
Spencer *	1,090,816	1,104,566	1,092,232	1,101,555	11,871	15,087	(73,422)	77,502	1,123,270	1,116,332	6,938	813	1,117,145
Spiro	1,088,535	1,102,668	1,128,222	1,138,512	34,976	16,815	(73,729)	81,001	1,187,284	1,180,450	6,834	1,172	1,181,622
Stilwell	9,106,808	9,241,711	9,327,000	9,420,121	103,042	117,048	(657,515)	660,351	9,549,926	9,487,402	62,524	29,682	9,517,084
Stratford	291,756	294,037	312,360	313,937	4,608	4,159	(17,672)	22,323	325,779	324,017	1,762	(94)	323,922
Stroud	3,294,677	3,329,939	3,494,646	3,519,758	184,597	69,224	(270,519)	252,756	3,730,703	3,711,443	19,260	300	3,711,743
Sulphur	4,737,569	4,788,376	5,112,566	5,150,346	176,790	55,247	(351,127)	366,344	5,359,820	5,334,986	24,833	(121)	5,334,866
Talihina & TPWA	727,895	736,145	760,903	766,481	12,897	10,429	(26,366)	55,055	812,918	808,506	4,412	313	808,819

Oklahoma Municipal Retirement Fund

Exhibit D

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions			Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee	Distributions						
Thomas	927,483	939,215	964,732	973,732	44,425	13,315	(93,214)	68,657	997,914	991,402	6,513	1,785	993,187
Tipton	220,333	221,994	243,040	244,219	8,911	3,511	(3,525)	17,943	269,879	268,816	1,063	(167)	268,649
Tishomingo	428,866	432,701	467,620	470,620	26,169	14,094	(38,269)	33,975	503,590	500,776	2,814	380	501,156
Tonkawa	2,608,523	2,645,120	2,690,692	2,717,759	69,288	28,836	(210,456)	191,003	2,769,363	2,752,207	17,156	3,962	2,756,169
Velma	321,375	327,199	321,799	325,548	6,424	3,067	(22,390)	22,863	331,762	329,688	2,074	595	330,283
Vian	246,623	248,129	282,822	284,382	22,565	15,930	(14,877)	21,361	327,801	326,827	974	(102)	326,725
Vinita	8,485,936	8,588,714	8,220,712	8,271,553	208,804	63,110	(585,515)	584,634	8,491,746	8,439,605	52,141	(12,543)	8,427,062
Wakita	221,606	225,338	223,715	226,314	829	1,279	(19,063)	15,605	222,363	220,757	1,606	548	221,306
Warr Acres	8,045,894	8,133,807	8,447,983	8,507,240	268,254	63,718	(574,660)	603,681	8,808,976	8,757,019	51,958	4,717	8,761,735
Watonga	4,008,580	4,058,087	4,222,137	4,260,944	273,439	57,676	(400,941)	303,574	4,455,885	4,431,487	24,398	4,350	4,435,837
Waukomis	425,944	431,362	447,120	451,318	14,110	13,256	(40,468)	31,941	465,959	463,269	2,690	865	464,134
Waurika	1,045,505	1,059,117	1,080,736	1,090,126	24,051	12,642	(73,798)	77,008	1,120,639	1,114,718	5,921	199	1,114,917
Weatherford	4,958,241	4,991,505	5,454,203	5,477,297	281,859	189,078	(329,044)	400,573	5,996,668	5,972,300	24,368	(5,519)	5,966,781
Webbers Falls	149,054	150,055	167,064	167,984	18,358	4,533	(9,777)	12,587	192,765	192,171	594	(86)	192,084
Wellston	510,595	515,904	552,329	556,306	21,423	9,727	(75,801)	38,425	546,103	538,947	7,156	3,588	542,535
Westville Utility Authority	578,874	583,081	627,632	630,612	20,108	19,150	(21,589)	46,144	691,445	688,373	3,072	(471)	687,902
Wetumka	1,483,285	1,499,511	1,577,691	1,590,399	93,979	22,329	(210,777)	110,958	1,594,180	1,586,773	7,407	245	1,587,018
Wilburton	45,793	45,073	87,736	87,967	29,974	13,302	(6,690)	7,687	132,010	131,839	171	355	132,194
Yale	1,418,292	1,437,231	1,478,148	1,491,962	37,507	27,906	(132,951)	104,718	1,515,328	1,506,878	8,450	1,418	1,508,296
Yukon	24,207,646	24,459,871	25,620,302	25,799,306	884,550	165,233	(1,375,280)	1,845,673	27,140,478	26,994,495	145,983	9,750	27,004,245
Bartlesville **	505,208	505,208	535,225	535,225	7,253	0	(32,492)	37,889	547,876	544,604	3,272		544,604
Mannford **	60,769	60,769	66,286	66,286	0	0	(6,113)	4,584	64,757	64,256	501		64,256
Weatherford **	65,375	65,375	86,844	86,844	35,250	0	(25,870)	6,636	102,860	102,677	183		102,677
Chouteau *	10,971	10,971	11,448	11,448	1,028	0	(1,770)	803	11,509	11,409	100		11,409
Fairfax *	251,837	251,837	267,380	267,380	0	0	(2,502)	19,294	284,173	282,687	1,485		282,687
Guymon *	5,986,850	5,986,850	6,081,981	6,081,981	0	0	(339,287)	428,645	6,171,339	6,130,981	40,358		6,130,981

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

City	Market Value of Assets as of 7/1/2017	Actuarial Value of Assets as of 7/1/2017	Market Value of Assets as of 7/1/2018	Actuarial Value of Assets as of 7/1/2018	Contributions		Distributions	Assumed Yield at Valuation Rate (7.25%)	Expected Market Value	Market Value of Assets as of 7/1/2019	Investment (Gain)/Loss	Cumulative Unrec Invt (Gains)/Losses	Actuarial Value of Assets as of 7/1/2019
					Employer	Employee							
Muskogee *	41,187	41,187	41,286	41,286	0	0	(2,417)	2,906	41,775	41,238	537		41,238
Newkirk *	1,350,099	1,350,099	1,300,142	1,300,142	15,000	0	(132,364)	90,006	1,272,784	1,262,699	10,085		1,262,699
Norman *	287,009	287,009	247,773	247,773	0	0	(54,760)	15,978	208,991	206,350	2,642		206,350
Stillwater *	8,810,445	8,810,445	9,439,311	9,439,311	0	0	(2,345)	684,265	10,121,230	10,070,864	50,367		10,070,864
Tecumseh *	143,567	143,567	129,254	129,254	8,839	0	(18,883)	9,007	128,217	127,181	1,036		127,181
Total	541,610,550	547,604,324	570,859,617	575,216,932	16,897,383	6,714,244	(34,177,586)	41,004,306	601,297,964	597,909,355	3,388,609	429,991	598,339,346

* 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. For plans using the entry age normal cost method, the amortization period was reset to 30 years; this period is fixed so that all current unfunded liabilities are schedule to be funded by June 30, 2050. This change is detailed in bold text in the exhibit. See Section D for a description of the actuarial methods used to value assets.

The final exhibit in this section presents the actuarial assumptions. The mortality assumptions were updated, adopting tables based on the first-ever mortality study specific to public plan pension participants that was released by the Society of Actuaries. The results of this study generally revealed that OkMRF participants tend to live longer than previously assumed, increasing the liability associated with lifetime benefits. This increased longevity was most pronounced among disabled participants. The revised assumptions are detailed in the exhibit.

Oklahoma Municipal Retirement Fund

Summary of Plan Provisions

Eligibility	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.
Probationary period	Participation may begin immediately, or may commence after completion of a probationary period, as specified in the adoption agreement.
Service	
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.
Employee contributions	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">- Plan AAA 6.00%- Plan AA 5.25%- Plan BB 4.50%- Plan CC 3.75%- Plan A 3.00%- Plan B 2.25%- Plan C 1.50%
Service requirement for benefit eligibility	5, 7 or 10 years of vesting service, as specified in the adoption agreement.
Final Average Compensation	The average of the five highest consecutive annual salaries out to the last 10 calendar years of service.
Accrued Benefit	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">- Plan AAA 3.000%- Plan AA 2.625%- Plan BB 2.250%- Plan CC 1.875%- Plan A 1.500%- Plan B 1.125%- Plan C 0.750%

Oklahoma Municipal Retirement Fund

Summary of Plan Provisions

Normal Retirement Age	<p>Age 65 with service requirement fulfilled.</p> <p>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.</p> <p>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.</p> <p>Four cities have adopted special retirement provisions not provided in the standard adoption agreements:</p> <ul style="list-style-type: none">▪ 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 an employee of Warr Acres 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, 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">- Joint and 50% survivor annuity- Joint and 66-2/3rds last survivor annuity (no longer allowed for employees of Chickasha)- Joint and 100% survivor annuity- If specified in the adoption agreement (with or without restrictions), a single lump sum payment

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

Eligibility	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.
Probationary period	<ul style="list-style-type: none">▪ Prior to 7/1/2006: 2 years.▪ On or after 7/1/2006: none.
Employee contributions	<ul style="list-style-type: none">▪ Prior to 7/1/2006: none.▪ On or after 7/1/2006, but before 1/1/2010: 3% of pay.▪ On or after 1/1/2010: 6% of pay.
Service	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.
Accrued Benefit	<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>
Benefit Eligibility	
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%
Mortality Tables		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%
Pay Increase Assumption		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%
COLA Increase Assumption		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%
Turnover		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%
Retirement Age		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%
Other Assumptions		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

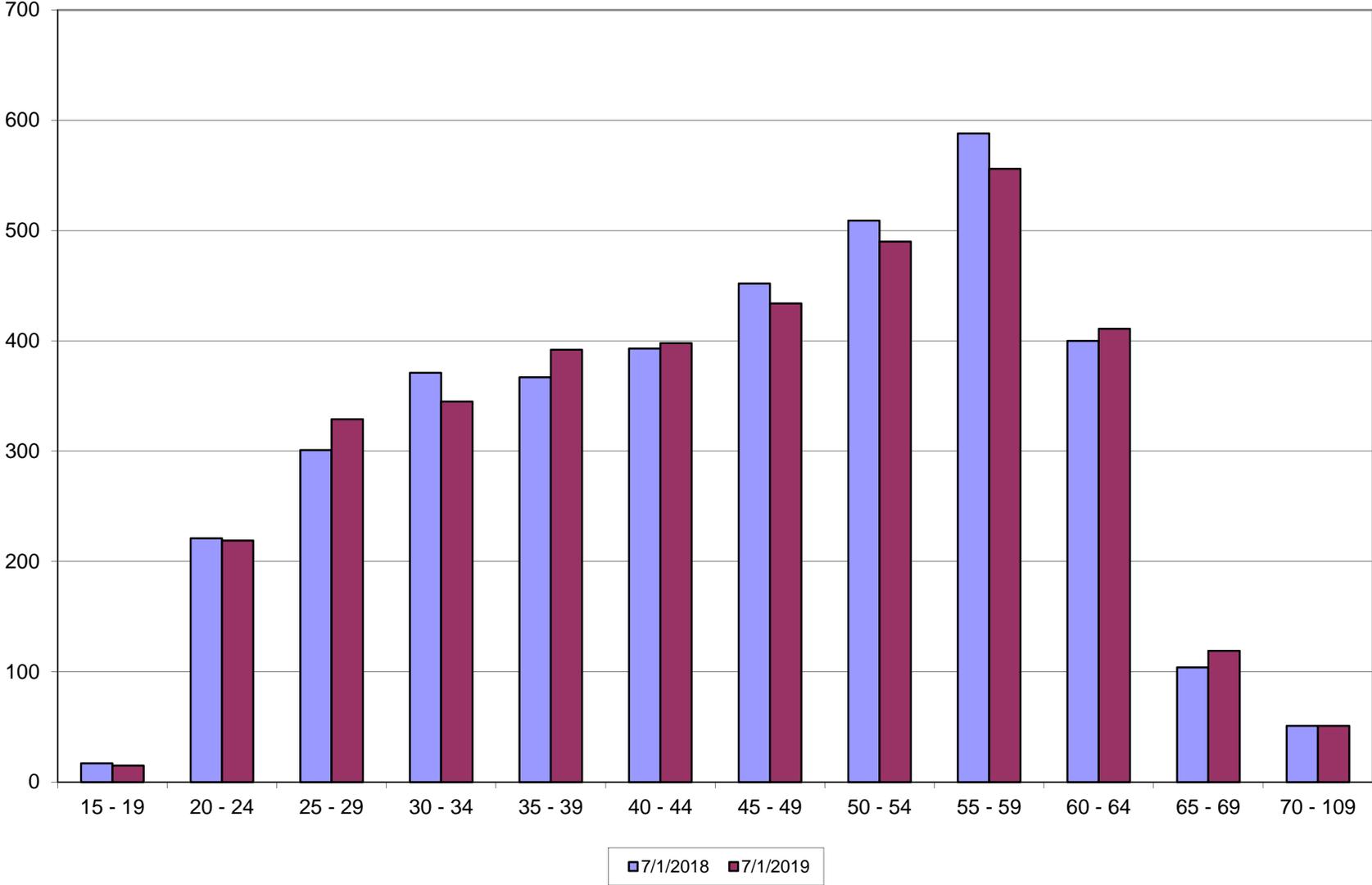
The first three exhibits in this section depict the age and service distribution for active participants as of July 1, 2019 (OkMRF Master Trust in total). The City of Bartlesville is included in the count although it has not adopted the OkMRF master plan. Exhibits F1 and F2 show the July 1, 2018 distributions 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, 2019 (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, 2018 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.

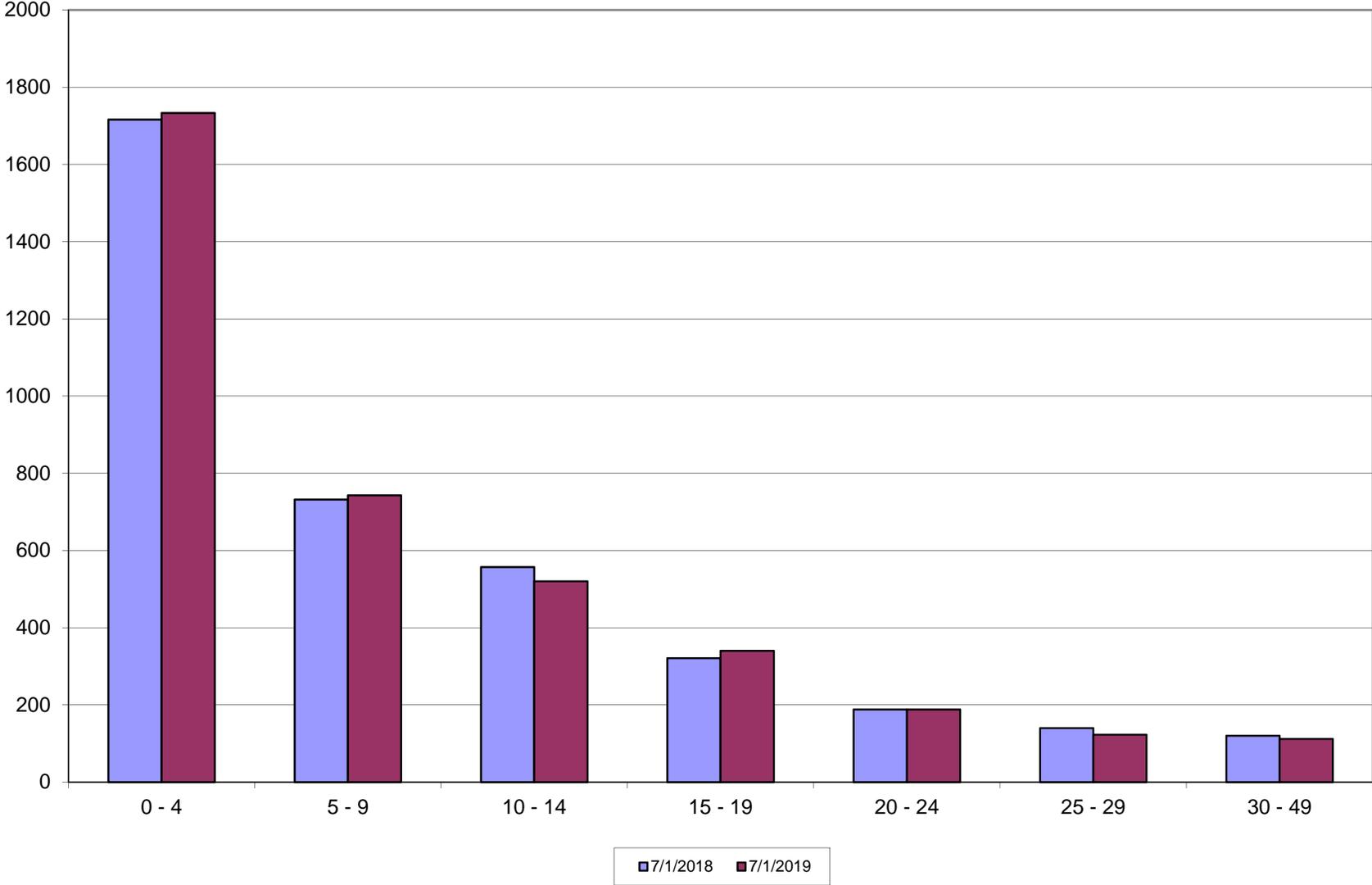
Oklahoma Municipal Retirement Fund

Distribution of Active Employees by Age



Oklahoma Municipal Retirement Fund

Distribution of Active Employees by Service



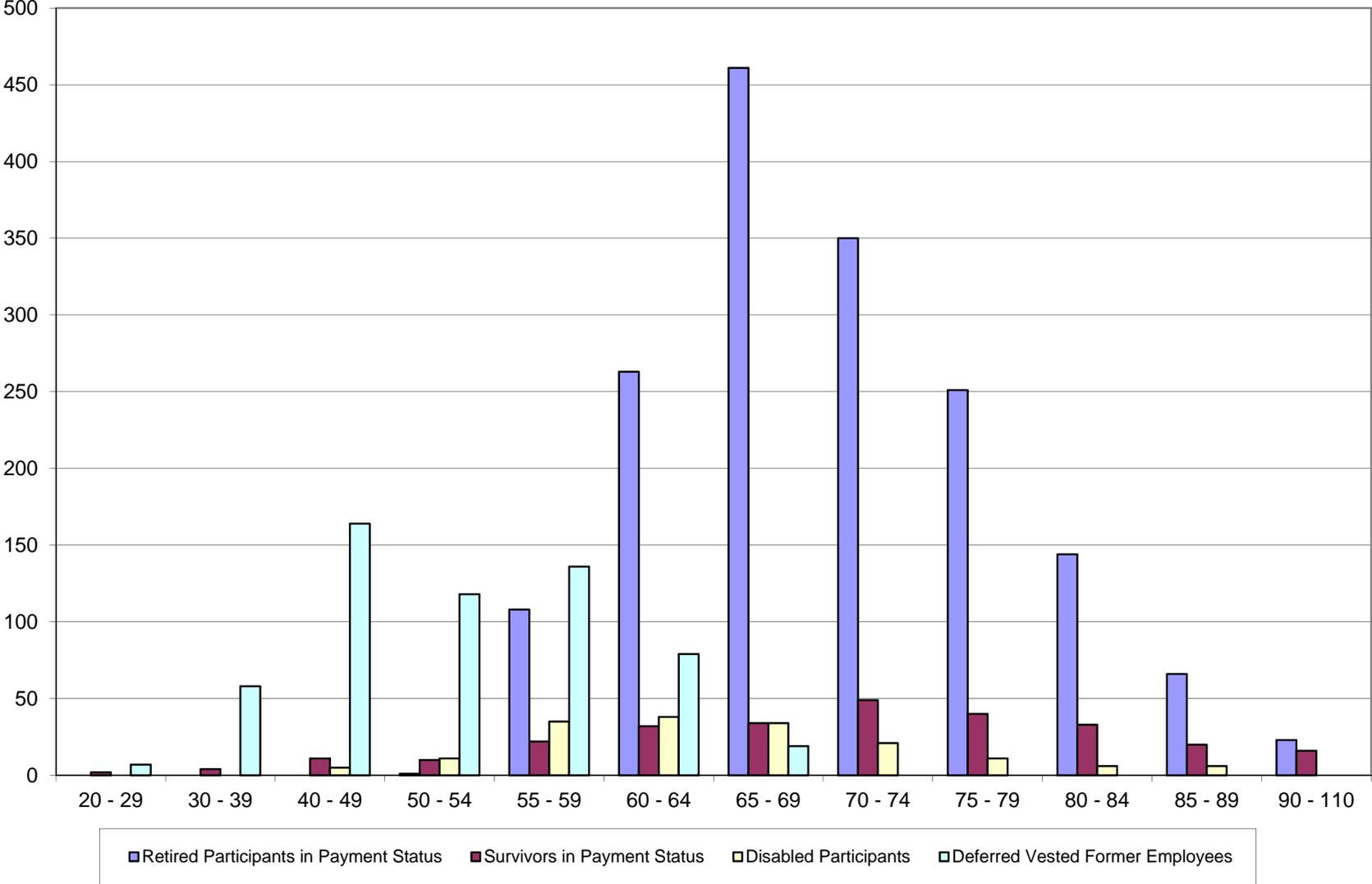
Oklahoma Municipal Retirement Fund
All Cities Combined
AGE AND SERVICE OF ACTIVE PARTICIPANTS
July 1, 2019

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	15	15,766													15	15,766
20 - 24	213	22,465	6	28,801											219	22,638
25 - 29	271	26,019	57	36,238	1										329	27,711
30 - 34	218	27,711	93	37,892	33	46,713	1	48,164							345	32,332
35 - 39	227	30,102	92	38,439	52	43,814	21	52,101							392	35,056
40 - 44	184	28,177	89	43,164	65	48,702	42	49,807	17	54,540	1	53,743			398	38,353
45 - 49	160	31,047	101	41,014	69	42,748	56	50,880	34	50,413	14	57,975			434	40,172
50 - 54	155	32,834	97	40,767	84	42,716	65	47,180	38	52,053	32	54,980	19	60,185	490	41,998
55 - 59	138	28,780	93	43,816	112	47,662	80	50,048	48	49,112	41	54,264	44	55,351	556	43,896
60 - 64	106	29,879	81	38,396	64	44,507	55	46,794	37	53,769	31	47,727	37	48,390	411	41,262
65 - 69	29	32,869	21	40,767	31	38,374	14	42,069	12	46,953	4	44,337	8	43,528	119	39,302
70 - 109	17	26,609	13	51,539	9	46,803	6	43,867	2	46,059			4	39,694	51	40,347
All Ages	1,733		743		520		340		188		123		112		3,759	

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.

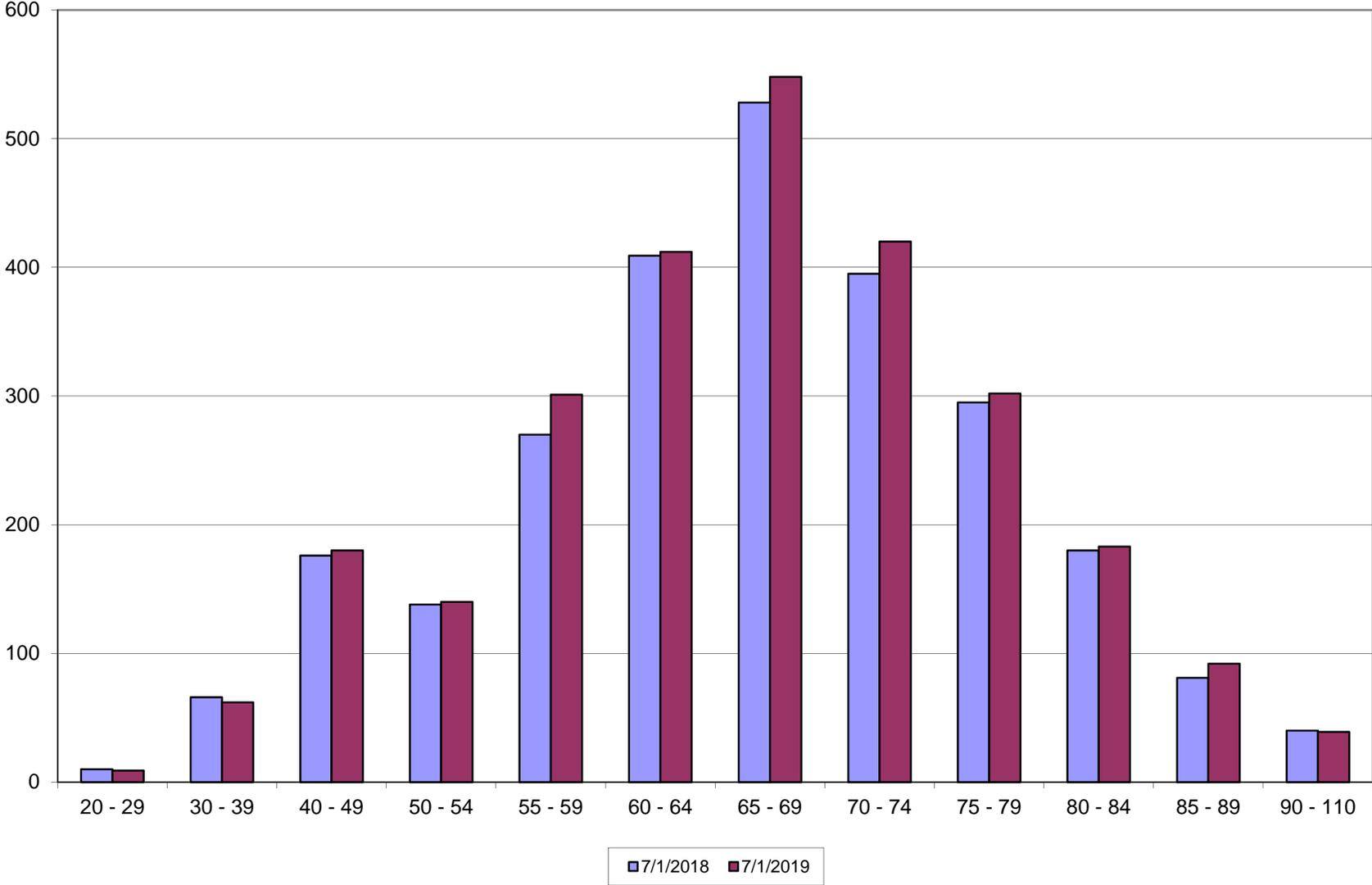
Oklahoma Municipal Retirement Fund

Distribution of Nonactive Participants by Status and Age



Oklahoma Municipal Retirement Fund

Distribution of Nonactive Participants by Age



Oklahoma Municipal Retirement Fund

All Cities Combined

SUMMARY OF NONACTIVE PARTICIPANTS

July 1, 2019

Age Group	Males			Females			Total		
	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age
Retired Participants in Payment Status									
40 - 49									
50 - 54	1	19,656	53.56				1	19,656	53.56
55 - 59	84	1,549,155	58.06	24	403,681	58.24	108	1,952,835	58.09
60 - 64	186	3,489,639	62.91	77	1,259,231	62.41	263	4,748,870	62.78
65 - 69	305	5,489,939	67.38	156	2,605,440	67.45	461	8,095,380	67.40
70 - 74	220	3,341,691	72.31	130	1,984,213	72.37	350	5,325,904	72.33
75 - 79	157	2,089,865	77.47	94	1,156,467	77.50	251	3,246,332	77.48
80 - 84	88	857,133	81.96	56	723,644	82.38	144	1,580,777	82.15
85 - 89	38	400,226	87.11	28	244,636	86.86	66	644,862	87.02
90 - 110	12	89,348	91.95	11	82,109	95.44	23	171,457	93.62
110									
Totals	1091	17,326,651	69.10	576	8,459,422	70.90	1667	25,786,073.40	69.69
Ave amount		15,881.44			14,686.50			15,468.55	
Survivors in Payment Status									
0 - 29	1	3,650	22.58	1	11,912	27.68	2	15,561	26.48
30 - 39	3	22,556	34.25	1	8,505	39.39	4	31,061	35.65
40 - 49	5	22,071	45.45	6	40,988	43.52	11	63,060	44.20
50 - 54	2	5,487	51.88	8	63,127	53.08	10	68,614	52.99
55 - 59	1	9,367	59.51	21	259,842	58.12	22	269,209	58.17
60 - 64	5	65,386	63.69	27	250,245	63.31	32	315,632	63.39
65 - 69	8	52,319	66.71	26	239,557	67.71	34	291,876	67.53
70 - 74	11	191,717	72.48	38	372,878	72.68	49	564,595	72.61
75 - 79	2	4,259	79.61	38	280,724	77.38	40	284,983	77.42
80 - 84	3	22,379	83.46	30	180,944	82.33	33	203,323	82.45
85 - 89	2	27,726	87.66	18	138,510	88.14	20	166,236	88.06
90 - 110	1	4,039	93.66	15	127,612	92.85	16	131,651	92.88
110									
Totals	44	430,956	67.91	229	1,974,845	71.27	273	2,405,800.92	70.67
Ave amount		9,794.46			8,623.78			8,812.46	
Disabled Participants									
20 - 29									
30 - 39									
40 - 49	5	48,848	45.70				5	48,848	45.70
50 - 54	10	137,322	53.86	1	11,063	53.12	11	148,385	53.80
55 - 59	29	521,776	57.45	6	109,381	57.51	35	631,157	57.46
60 - 64	27	493,907	62.68	11	135,529	62.68	38	629,436	62.68
65 - 69	29	316,864	67.15	5	29,700	67.72	34	346,563	67.20
70 - 74	15	183,083	71.75	6	88,401	71.99	21	271,484	71.83
75 - 79	9	68,623	76.81	2	28,662	77.31	11	97,286	76.96
80 - 84	4	42,495	82.29	2	23,762	82.15	6	66,257	82.24
85 - 89	4	16,009	87.18	2	22,191	87.18	6	38,200	87.18
90 - 110									
110									
Totals	132	1,828,927	62.96	35	448,689	66.53	167	2,277,616.44	63.66
Ave amount		13,855.51			12,819.69			13,638.42	
Deferred Vested Former Employees									
20 - 29	3	3,797	28.48	4	4,538	25.40	7	8,335	26.81
30 - 39	42	291,757	35.95	16	82,472	35.34	58	374,229	35.81
40 - 49	96	940,319	45.64	68	568,933	45.79	164	1,509,251	45.70
50 - 54	86	765,371	52.69	32	429,569	52.59	118	1,194,939	52.66
55 - 59	88	937,520	57.48	48	394,932	57.46	136	1,332,453	57.47
60 - 64	54	453,525	62.69	25	208,702	62.14	79	662,227	62.51
65 - 69	9	29,048	65.84	10	37,834	67.48	19	66,882	66.77
70 - 74									
75 - 79									
Totals	378	3,421,336	52.05	203	1,726,979	52.05	581	5,148,315.12	52.05
Ave amount		9,051.15			8,507.29			8,861.13	
Grand Totals	1645	23,007,871	66.06	1043	12,609,935	68.22	2688	35,617,806	66.82
Ave amount		13,986.55			12,090.06			13,250.67	