
Oklahoma Municipal Retirement Fund

ACTUARIAL VALUATIONS UNDER GASB STATEMENT 68

For Fiscal Years Ending on or Before July 1, 2022

April 29, 2022

Prepared by

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Overview

Determines pension expense and balance sheet recognition for government entities on accrual method accounting

Effective for fiscal years beginning after June 15, 2014

Balance sheet entries determined on a measurement date no earlier than the end of the prior fiscal year

Pension expense determined over the 12-month period ending on the measurement date

Measurement date: July 1, 2021

Overview

124 plans with active participants

- Accrual method entities: 77
- Cash and modified cash method entities: 48

9 plans with no active participants

- Accrual method entities: 6
- Cash and modified cash method entities: 3

3 retiree health plans

- Accrual method entities: 2
- Cash and modified cash method entities: 1

Discount Rate

A single blended discount rate reflecting

- the expected long term rate of return to the extent assets are expected to be sufficient to meet benefit payments
- the yield on 20-year, tax exempt general obligation municipal bonds rated AA/Aa or higher on payments due after assets are depleted

Benefit payments are for all current participants, including expected future accruals

Assets include anticipated future contributions on behalf of current participants, and other contributions expected to be applied to the current unfunded liability

Discount Rate under OkMRF Funding Policy

The funding policy is designed to fund all participants' benefits over their working lifetimes

Unfunded liabilities may arise from:

- granting of past service upon joining OkMRF
- benefit improvements applied to past service
- actual experience less favorable than assumed

Unfunded liabilities funded over a fixed period not to exceed 30 years

General conclusion: member cities that faithfully contribute their actuarially determined contribution will not face a projected depletion date

Possible Exceptions

Plans with large unfunded liabilities relative to payroll

- Braman
- Mountain Park MCD: 253%
- Cleveland: 204%

Plans with an unusually high average employee age

- Bartlesville: 54.9
- OkMRF Staff: 52.5
- Frederick: 52.3

Plans with a high ratio of retirees to active employees

- Braman
- Shawnee: 269%
- Bartlesville: 178%

Plans with no active participants reviewed for individual circumstances

DEAN ACTUARIES, LLC

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April 22, 2022

Ms. Jodi Cox
CEO/ Executive Director
Oklahoma Municipal Retirement Fund
1001 NW 63rd Street
Suite 260
Oklahoma City, OK 73116

Re: Discount Rate for Member Cities under GASB 68 at the July 1, 2021 Measurement Date

Dear Jodi:

As you know, GASB 68 prescribes a discount rate that reflects the long-term expected rate of return on pension plan investments to the extent that plan assets are projected to be sufficient to make projected benefit payments, and the yield on high quality 20-year tax-exempt general obligation municipal bonds on any payments due after plan assets are projected to be depleted. This determination is generally made by a projection of future trust cashflows: benefit payments to current participants and beneficiaries, contributions from current participants, employer contributions on behalf of current participants, employer contributions on behalf of future participants in excess of their projected service costs, trust investment earnings, and administrative expenses. GASB 68 paragraph 29 also provides, however, that if plan assets can be shown to be sufficient without a separate projection of cashflows, the expected return on plan assets is used for the discount rate.

OkMRF has adopted a funding policy for its members that is designed to fund all benefits payable to participants over the course of their working careers. Any differences between actual and expected experience are funded over a fixed period to ensure all funds necessary to pay benefits have been contributed to the trust before those benefits are payable. Because the assumptions prescribed for the cashflow projection are the same as those used to determine funding requirements (while the funding assumes a net 7.25% return, the cashflow projection uses a 7.50% return with 0.25% assumed administrative expenses), and because the cashflow projection assumes no demographic or investment gains or losses in the future, to the extent that members make their actuarially determined contributions, they will not have a depletion date which would trigger the municipal bond rate for subsequent cashflows.

This conclusion is a mathematical certainty for any plan that does not have an unfunded liability (new plans that did not grant past service credit, and plans in a surplus position). Thus, the only risk for other plans is that the amortization period would defer contributions beyond the time they were needed to pay benefits. While this presents no risk to most plans as benefits to current participants are still being paid 50-75 years into the future (versus a fixed amortization period of 30 years), we ran a number of sample cashflow projections for cities most at risk. These included:

Ms. Jodi Cox
April 22, 2022
Page 2

- plans with large unfunded liabilities relative to payroll
- plans with an unusually high average employee age
- plans with a high ratio of retirees to active employees
- plans with no active participants.

In all these cashflow projections, the plans had no depletion date.

In conclusion, in accordance with our analysis, all OkMRF members reporting on an accrual basis who consistently make their actuarially determined contributions should use the long-term expected rate of return (7.50%) as their discount rate as of the July 1, 2021 measurement date, as none of these members have a depletion date which would trigger the municipal bond rate for subsequent cashflows.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean M. Sullivan", with a horizontal line extending to the right.

Sean M. Sullivan, FSA
Consulting Actuary

Valuation Results

Summary for all OkMRF plans combined

**Oklahoma Municipal Retirement Fund
All Plans Combined**

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance at 7/1/2020	\$ 669,059,832	\$ 608,262,123	\$ 60,797,709
Changes for the Year:			
Service cost	16,976,940		16,976,940
Interest cost	48,866,592		48,866,592
Difference between expected and actual experience	(8,155,010)		(8,155,010)
Assumption changes	0		0
Contributions -- Employer		17,906,087	(17,906,087)
Contributions -- Employee		7,366,573	(7,366,573)
Net investment income		166,150,016	(166,150,016)
Benefit payments, including ee contributions refunds	(35,655,117)	(35,655,117)	0
Benefit changes due to plan amendments	1,991,714		1,991,714
Administrative expense		(1,247,169)	1,247,169
Other changes		(12,450,842)	12,450,842
Net changes	24,025,119	142,069,548	(118,044,429)
Balance at 7/1/2021	\$ 693,084,951	\$ 750,331,671	\$ (57,246,720)

SENSITIVITY OF NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

	1% Decrease 6.50%	Current Disc Rate 7.50%	1% Increase 8.50%
	Net Pension Liability	\$ 26,729,448	\$ (57,246,720)

Oklahoma Municipal Retirement Fund
All Plans Combined

PENSION EXPENSE

Service Cost	\$ 16,976,940
Interest Cost	48,866,592
Expected Return on Plan Investments	(45,191,432)
Administrative Expenses	1,247,169
Employee Contributions	(7,366,573)
Amortization of Deferred Outflows and Inflows	
Actuarial gains and losses	(5,869,107)
Changes in assumptions	4,461,909
Investment gains and losses	(23,886,575)
Benefit Changes Due to Plan Amendments	<u>1,991,714</u>
Pension Expense for Fiscal 2022	<u><u>\$ (8,769,363)</u></u>

**Oklahoma Municipal Retirement Fund
All Plans Combined**

AMORTIZATION OF DEFERRED (INFLOWS) AND OUTFLOWS

	Fiscal Year Established	Deferred (Inflow)/Outflow	Amortization Years	Balance before Current Recognition	Current Recognition	Balance after Current Recognition
Actuarial (gains)/losses						
	2016	\$ (4,768,736)	0.00-9.64	\$ (34,294)	\$ (30,439)	\$ (3,855)
	2017	(6,600,863)	0.00-9.19	(343,579)	(330,427)	(13,152)
	2018	(3,965,946)	0.00-8.40	(458,144)	(417,554)	(40,590)
	2019	(6,022,161)	0.00-7.97	(1,412,476)	(844,803)	(567,673)
	2020	(2,816,442)	0.00-7.46	(939,404)	(1,032,738)	93,334
	2021	(3,065,830)	0.00-7.24	(1,112,213)	(388,945)	(723,268)
	2022	(8,155,007)	0.00-7.58	(8,155,007)	(2,824,201)	(5,330,806)
Total current recognition					\$ (5,869,107)	
Remaining deferred (inflows)						\$ (13,425,064)
Remaining deferred outflows						\$ 6,839,054
Changes in assumptions						
	2018	\$ 11,550,366	0.00-8.40	\$ 1,722,230	\$ 1,292,059	\$ 430,171
	2020	14,581,825	0.00-7.46	6,857,165	3,169,850	3,687,315
Total current recognition					\$ 4,461,909	
Remaining deferred (inflows)						\$ (956)
Remaining deferred outflows						\$ 4,118,442
Investment (gains)/losses						
	2018	(22,311,083)	5	\$ (4,462,161)	\$ (4,462,161)	\$ 0
	2019	383,117	5	153,240	76,659	76,581
	2020	3,576,405	5	2,145,818	715,252	1,430,566
	2021	19,876,822	5	15,901,454	3,975,390	11,926,064
	2022	(120,958,579)	5	(120,958,579)	(24,191,715)	(96,766,864)
Total current recognition					\$ (23,886,575)	
Remaining deferred (inflows)						\$ (96,777,834)
Remaining deferred outflows						\$ 13,444,181

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

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018
Total Pension Liability					
Service cost	\$ 16,976,940	\$ 16,100,887	\$ 15,407,193	\$ 15,352,994	\$ 15,626,001
Interest cost	48,866,592	46,958,457	44,066,988	42,569,241	41,183,450
Benefit changes due to plan amendments	1,991,714	832,308	1,930,759	1,299,891	2,656,166
Difference between expected and actual experience	(8,155,010)	(3,065,830)	(2,825,218)	(6,055,722)	(4,016,372)
Changes of assumptions	0	0	14,581,825	0	11,550,341
Benefit payments, including refunds of employee contributions	(35,655,117)	(35,122,491)	(34,113,132)	(32,312,243)	(29,342,644)
Net change in total pension liability	<u>24,025,119</u>	<u>25,703,331</u>	<u>39,048,415</u>	<u>20,854,161</u>	<u>37,656,942</u>
Total pension liability -- beginning	<u>669,059,832</u>	<u>643,356,501</u>	<u>604,308,086</u>	<u>583,453,925</u>	<u>545,796,983</u>
Total pension liability -- ending	<u><u>\$ 693,084,951</u></u>	<u><u>\$ 669,059,832</u></u>	<u><u>\$ 643,356,501</u></u>	<u><u>\$ 604,308,086</u></u>	<u><u>\$ 583,453,925</u></u>
Plan Fiduciary Net Position					
Contributions -- Employer	\$ 17,906,087	\$ 16,337,157	\$ 16,854,878	\$ 16,288,080	\$ 18,138,331
Contributions -- Employee	7,366,573	6,958,176	6,714,244	6,529,292	6,445,905
Net investment income	166,150,016	24,410,780	38,753,068	39,857,277	59,931,192
Benefit payments, including refunds of employee contributions	(35,655,117)	(35,122,491)	(34,113,132)	(32,312,243)	(29,342,644)
Administrative expense	(1,247,169)	(1,236,633)	(1,182,498)	(1,124,653)	(1,054,626)
Other	(12,450,842)	0	0	(814,549)	(64,111)
Net change in plan fiduciary net position	<u>142,069,548</u>	<u>11,346,989</u>	<u>27,026,560</u>	<u>28,423,204</u>	<u>54,054,047</u>
Plan fiduciary net position -- beginning	<u>608,262,123</u>	<u>596,915,134</u>	<u>570,171,261</u>	<u>541,748,057</u>	<u>487,694,010</u>
Plan fiduciary net position -- ending	<u><u>\$ 750,331,671</u></u>	<u><u>\$ 608,262,123</u></u>	<u><u>\$ 597,197,821</u></u>	<u><u>\$ 570,171,261</u></u>	<u><u>\$ 541,748,057</u></u>
Net pension liability -- ending	<u><u>\$ (57,246,720)</u></u>	<u><u>\$ 60,797,709</u></u>	<u><u>\$ 46,158,680</u></u>	<u><u>\$ 34,136,825</u></u>	<u><u>\$ 41,705,868</u></u>
Plan fiduciary net position as percentage of total pension liability	108.26%	90.91%	92.83%	94.35%	92.85%
Covered employee payroll	\$ 158,893,230	\$ 156,643,410	\$ 150,272,252	\$ 148,080,657	\$ 147,101,191
Net pension liability position as percentage of covered employee payroll	-36.03%	38.81%	30.72%	23.05%	28.35%

Retiree Health Plans

3 cites fund through Master Trust

Covered by GASB Statement 75

Very similar to Statement 68

**Oklahoma Municipal Retirement Fund
All Plans Combined**

CHANGES IN NET OPEB LIABILITY

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Balance at 7/1/2020	\$ 499,040	\$ 692,863	\$ (193,823)
Changes for the Year:			
Service cost	9,714		9,714
Interest cost	36,156		36,156
Difference between expected and actual experience	(89,314)		(89,314)
Assumption changes	0		0
Contributions -- Employer		10,131	(10,131)
Contributions -- Employee		0	0
Net investment income		187,128	(187,128)
Benefit payments, including ee contributions refunds	(34,553)	(34,553)	0
Benefit changes due to plan amendments	0		0
Administrative expense		(1,390)	1,390
Other changes			0
Net changes	(77,997)	161,316	(239,313)
Balance at 7/1/2021	\$ 421,043	\$ 854,179	\$ (433,136)

SENSITIVITY OF NET OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE

	1% Decrease 6.50%	Current Disc Rate 7.50%	1% Increase 8.50%
	Net Pension Liability	\$ (428,508)	\$ (433,136)

Oklahoma Municipal Retirement Fund
All Plans Combined

OPEB EXPENSE

Service Cost	\$	9,714
Interest Cost		36,156
Expected Return on Plan Investments		(44,896)
Administrative Expenses		1,390
Employee Contributions		0
Amortization of Deferred Outflows and Inflows		
Actuarial gains and losses		(54,845)
Changes in assumptions		1,285
Investment gains and losses		(30,425)
Benefit Changes Due to Plan Amendments		<u>0</u>
Pension Expense for Fiscal 2022	\$	<u><u>(81,621)</u></u>

**Oklahoma Municipal Retirement Fund
All Plans Combined**

AMORTIZATION OF DEFERRED (INFLOWS) AND OUTFLOWS

	Fiscal Year Established	Deferred (Inflow)/Outflow	Amortization Years	Balance before Current Recognition	Current Recognition	Balance after Current Recognition
Actuarial (gains)/losses						
	2018	\$ 0	N/A	\$ 0	\$ 0	\$ 0
	2019	(85,907)	5.53-8.30	(42,703)	(14,401)	(28,302)
	2020	(87,785)	5.33-7.89	(56,437)	(15,673)	(40,764)
	2021	(34,660)	4.93-7.49	(26,789)	(7,871)	(18,918)
	2022	(89,314)	5.33-7.89	(89,314)	(16,900)	(72,414)
Total current recognition				\$	(54,845)	
Remaining deferred (inflows)					\$	(172,501)
Remaining deferred outflows					\$	12,103
Changes in assumptions						
	2020	\$ 7,701	5.33-7.89	\$ 5,133	\$ 1,285	\$ 3,848
Total current recognition				\$	1,285	
Remaining deferred (inflows)					\$	0
Remaining deferred outflows					\$	3,848
Investment (gains)/losses						
	2018	(24,708)	5	\$ (4,941)	\$ (4,941)	\$ 0
	2019	3,550	5	1,419	710	709
	2020	(1,330)	5	(796)	(265)	(531)
	2021	12,587	5	10,070	2,517	7,553
	2022	(142,232)	5	(142,232)	(28,446)	(113,786)
Total current recognition				\$	(30,425)	
Remaining deferred (inflows)					\$	(115,468)
Remaining deferred outflows					\$	9,412

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

SCHEDULE OF CHANGES IN NET OPEB LIABILITY AND RELATED RATIOS

	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018
Total OPEB Liability					
Service cost	\$ 9,714	\$ 9,553	\$ 9,573	\$ 9,602	\$ 6,861
Interest cost	36,156	39,067	45,960	52,667	53,760
Benefit changes due to plan amendments	0	0	0	0	0
Difference between expected and actual experience	(89,314)	(34,660)	(87,785)	(85,907)	0
Changes of assumptions	0	0	7,701	0	0
Benefit payments, including refunds of employee contributions	(34,553)	(70,345)	(64,475)	(67,073)	(69,552)
Net change in total OPEB liability	(77,997)	(56,385)	(89,026)	(90,711)	(8,931)
Total OPEB liability -- beginning	499,040	555,425	644,451	735,162	744,093
Total OPEB liability -- ending	<u>\$ 421,043</u>	<u>\$ 499,040</u>	<u>\$ 555,425</u>	<u>\$ 644,451</u>	<u>\$ 735,162</u>
Plan Fiduciary Net Position					
Contributions -- Employer	\$ 10,131	\$ 25,116	\$ 42,503	\$ 78,754	\$ 80,002
Contributions -- Employee	0	0	0	0	0
Net investment income	187,128	27,997	46,555	46,639	68,743
Benefit payments, including refunds of employee contributions	(34,553)	(70,345)	(64,475)	(67,073)	(69,552)
Administrative expense	(1,390)	(1,442)	(1,402)	(1,316)	(1,200)
Other	0	0	0	0	0
Net change in plan fiduciary net position	161,316	(18,674)	23,181	57,004	77,993
Plan fiduciary net position -- beginning	692,863	711,537	688,356	631,352	553,359
Plan fiduciary net position -- ending	<u>\$ 854,179</u>	<u>\$ 692,863</u>	<u>\$ 711,537</u>	<u>\$ 688,356</u>	<u>\$ 631,352</u>
Net OPEB liability -- ending	<u>\$ (433,136)</u>	<u>\$ (193,823)</u>	<u>\$ (156,112)</u>	<u>\$ (43,905)</u>	<u>\$ 103,810</u>
Plan fiduciary net position as percentage of total OPEB liability	202.87%	138.84%	128.11%	106.81%	85.88%
Covered employee payroll	\$ 8,724,926	\$ 8,626,760	\$ 8,320,060	\$ 8,673,624	\$ 8,796,151
Net OPEB liability position as percentage of covered employee payroll	-4.96%	-2.25%	-1.88%	-0.51%	1.18%