
Oklahoma Municipal Retirement Fund

ACTUARIAL VALUATIONS UNDER GASB STATEMENT 68

For Fiscal Years Ending on or Before July 1, 2024

April 26, 2024

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, 2023

Overview

123 plans with active participants

- Accrual method entities: 75
- Cash and modified cash method entities: 48

8 plans with no active participants

- Accrual method entities: 4
- Cash and modified cash method entities: 4

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: 275%
- Mountain Park MCD: 219%
- Yukon: 102%

Plans with an unusually high average employee age

- Braman: 60.8
- Bartlesville: 56.0
- Mountain Park MCD: 53.9

Plans with a high ratio of retirees to active employees

- Shawnee: 393%
- Yukon: 271%
- Bartlesville: 232%

Plans with no active participants reviewed for individual circumstances

DEAN ACTUARIES, LLC

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April 19, 2024

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, 2023 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 19, 2024
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- 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, 2023 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". The signature is fluid and cursive, 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 7/1/2022 | <u>\$ 702,282,927</u> | <u>\$ 645,075,340</u> | <u>\$ 57,207,587</u> |
| Changes for the Year: | | | |
| Service cost | 17,054,583 | | 17,054,583 |
| Interest cost | 51,177,562 | | 51,177,562 |
| Difference between expected and actual | 7,197,762 | | 7,197,762 |
| Assumption changes | 0 | | 0 |
| Contributions -- Employer | | 19,244,084 | (19,244,084) |
| Contributions -- Employee | | 8,472,734 | (8,472,734) |
| Net investment income | | 58,256,466 | (58,256,466) |
| Benefit payments, including ee contributions refunds | (40,564,203) | (40,564,203) | 0 |
| Benefit changes due to plan amendments | 5,205,177 | | 5,205,177 |
| Administrative expense | | (1,431,506) | 1,431,506 |
| Other changes | | | 0 |
| Net changes | <u>40,070,881</u> | <u>43,977,575</u> | <u>(3,906,694)</u> |
| Balance at 7/1/2023 | <u>\$ 742,353,808</u> | <u>\$ 689,052,915</u> | <u>\$ 53,300,893</u> |

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 | \$ 140,762,585 | \$ 53,300,893 |

Oklahoma Municipal Retirement Fund
All Plans Combined

PENSION EXPENSE

| | |
|---|-----------------------------|
| Service Cost | \$ 17,054,583 |
| Interest Cost | 51,177,562 |
| Expected Return on Plan Investments | (47,854,872) |
| Administrative Expenses | 1,431,506 |
| Employee Contributions | (8,472,734) |
| Amortization of Deferred Outflows and Inflows | |
| Actuarial gains and losses | (1,445,582) |
| Changes in assumptions | (3,663,166) |
| Investment gains and losses | 8,240,454 |
| Benefit Changes Due to Plan Amendments | <u>5,205,177</u> |
| Pension Expense for Fiscal 2023 | <u><u>\$ 21,672,928</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 | \$ (4,771,490) | 0.00-9.64 | \$ (228) | \$ 346 | \$ (574) |
| | 2017 | (6,603,760) | 0.00-9.19 | (12,176) | (7,002) | (5,174) |
| | 2018 | (3,969,410) | 0.00-8.40 | (301) | 75 | (376) |
| | 2019 | (6,014,848) | 0.00-7.97 | (73,301) | (82,563) | 9,262 |
| | 2020 | (2,817,230) | 0.00-7.46 | 242,418 | 219,420 | 22,998 |
| | 2021 | (3,066,736) | 0.00-7.24 | (355,639) | (351,948) | (3,691) |
| | 2022 | (8,141,308) | 0.00-7.58 | (3,323,423) | (1,544,492) | (1,778,931) |
| | 2023 | (3,530,467) | 0.00-6.58 | (2,392,158) | (780,759) | (1,611,399) |
| | 2024 | 7,197,762 | 0.00-6.88 | 7,197,764 | 1,101,341 | 6,096,423 |
| | | | | | <u>\$ (1,445,582)</u> | |
| Total current recognition | | | | | \$ (1,445,582) | |
| Remaining deferred (inflows) | | | | | | \$ (9,956,191) |
| Remaining deferred outflows | | | | | | \$ 12,684,729 |
| Changes in assumptions | | | | | | |
| | 2018 | \$ 11,550,291 | 0.00-8.40 | \$ 36,351 | \$ 30,722 | \$ 5,629 |
| | 2020 | 14,581,577 | 0.00-7.46 | 1,427,705 | 1,167,640 | 260,065 |
| | 2023 | (18,812,698) | 0.00-6.58 | (11,631,511) | (4,861,528) | (6,769,983) |
| | | | | | <u>\$ (3,663,166)</u> | |
| Total current recognition | | | | | \$ (3,663,166) | |
| Remaining deferred (inflows) | | | | | | \$ (7,154,763) |
| Remaining deferred outflows | | | | | | \$ 650,474 |
| Investment (gains)/losses | | | | | | |
| | 2020 | \$ 3,522,682 | 5 | \$ 704,485 | \$ 704,485 | \$ 0 |
| | 2021 | 19,540,909 | 5 | 7,816,360 | 3,908,232 | 3,908,128 |
| | 2022 | (119,741,170) | 5 | (71,844,680) | (23,948,209) | (47,896,471) |
| | 2023 | 148,281,144 | 5 | 118,624,919 | 29,656,261 | 88,968,658 |
| | 2024 | (10,401,594) | 5 | (10,401,594) | (2,080,315) | (8,321,279) |
| | | | | | <u>\$ 8,240,454</u> | |
| Total current recognition | | | | | \$ 8,240,454 | |
| Remaining deferred (inflows) | | | | | | \$ (57,157,869) |
| Remaining deferred outflows | | | | | | \$ 93,816,905 |

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

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

| | Fiscal Year 2024 | Fiscal Year 2023 | Fiscal Year 2022 | Fiscal Year 2021 | Fiscal Year 2020 |
|---|------------------------------|------------------------------|-------------------------------|------------------------------|------------------------------|
| Total Pension Liability | | | | | |
| Service cost | \$ 17,054,583 | \$ 17,226,857 | \$ 16,976,940 | \$ 16,100,887 | \$ 15,407,193 |
| Interest cost | 51,177,562 | 50,582,247 | 48,866,589 | 46,958,457 | 44,066,988 |
| Benefit changes due to plan amendments | 5,205,177 | 1,729,120 | 1,991,714 | 832,308 | 1,930,759 |
| Difference between expected and actual experience | 7,197,762 | (3,530,467) | (8,155,007) | (3,065,830) | (2,825,218) |
| Changes of assumptions | 0 | (18,812,698) | 0 | 0 | 14,581,825 |
| Benefit payments, including refunds of employee contributions | (40,564,203) | (37,997,083) | (35,655,117) | (35,122,491) | (34,113,132) |
| Net change in total pension liability | <u>40,070,881</u> | <u>9,197,976</u> | <u>24,025,119</u> | <u>25,703,331</u> | <u>39,048,415</u> |
| Total pension liability -- beginning | <u>702,282,927</u> | <u>693,084,951</u> | <u>669,059,832</u> | <u>643,356,501</u> | <u>604,308,086</u> |
| Total pension liability -- ending | <u><u>\$ 742,353,808</u></u> | <u><u>\$ 702,282,927</u></u> | <u><u>\$ 693,084,951</u></u> | <u><u>\$ 669,059,832</u></u> | <u><u>\$ 643,356,501</u></u> |
| Plan Fiduciary Net Position | | | | | |
| Contributions -- Employer | \$ 19,244,084 | \$ 18,776,938 | \$ 17,906,087 | \$ 16,337,157 | \$ 16,854,878 |
| Contributions -- Employee | 8,472,734 | 7,730,669 | 7,366,573 | 6,958,176 | 6,714,244 |
| Net investment income | 58,256,466 | (92,476,838) | 166,150,016 | 24,410,780 | 38,753,068 |
| Benefit payments, including refunds of employee contributions | (40,564,203) | (37,997,083) | (35,655,117) | (35,122,491) | (34,113,132) |
| Administrative expense | (1,431,506) | (1,290,017) | (1,247,169) | (1,236,633) | (1,182,498) |
| Other | 0 | 0 | (12,450,842) | 0 | 0 |
| Net change in plan fiduciary net position | <u>43,977,575</u> | <u>(105,256,331)</u> | <u>142,069,548</u> | <u>11,346,989</u> | <u>27,026,560</u> |
| Plan fiduciary net position -- beginning | <u>645,075,340</u> | <u>750,331,671</u> | <u>608,262,123</u> | <u>596,915,134</u> | <u>570,171,261</u> |
| Plan fiduciary net position -- ending | <u><u>\$ 689,052,915</u></u> | <u><u>\$ 645,075,340</u></u> | <u><u>\$ 750,331,671</u></u> | <u><u>\$ 608,262,123</u></u> | <u><u>\$ 597,197,821</u></u> |
| Net pension liability -- ending | <u><u>\$ 53,300,893</u></u> | <u><u>\$ 57,207,587</u></u> | <u><u>\$ (57,246,720)</u></u> | <u><u>\$ 60,797,709</u></u> | <u><u>\$ 46,158,680</u></u> |
| Plan fiduciary net position as percentage of total pension liability | 92.82% | 91.85% | 108.26% | 90.91% | 92.83% |
| Covered employee payroll | \$ 180,507,264 | \$ 166,355,961 | \$ 158,893,230 | \$ 156,643,410 | \$ 150,272,252 |
| Net pension liability position as percentage of covered employee payroll | 29.53% | 34.39% | -36.03% | 38.81% | 30.72% |

Retiree Health Plans

3 cities fund through Master Trust

Covered by GASB Statement 75

Effective for fiscal years beginning after June 15, 2017

Due to plan provisions, 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 7/1/2022 | \$ 371,504 | \$ 726,974 | \$ (355,470) |
| Changes for the Year: | | | |
| Service cost | 9,130 | | 9,130 |
| Interest cost | 26,675 | | 26,675 |
| Difference between expected and actual experience | 2,089 | | 2,089 |
| Assumption changes | | | 0 |
| Contributions -- Employer | | 3,684 | (3,684) |
| Contributions -- Employee | | 0 | 0 |
| Net investment income | | 64,848 | (64,848) |
| Benefit payments, including ee contributions refunds | (32,256) | (32,256) | 0 |
| Benefit changes due to plan amendments | 0 | | 0 |
| Administrative expense | | (1,594) | 1,594 |
| Other changes | | | 0 |
| Net changes | 5,638 | 34,682 | (29,044) |
| Balance at 7/1/2023 | \$ 377,142 | \$ 761,656 | \$ (384,514) |

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 | \$ (368,519) | \$ (384,514) |

Oklahoma Municipal Retirement Fund
All Plans Combined

OPEB EXPENSE

| | | |
|---|----|------------------------|
| Service Cost | \$ | 9,130 |
| Interest Cost | | 26,675 |
| Expected Return on Plan Investments | | (46,262) |
| Administrative Expenses | | 1,594 |
| Employee Contributions | | 0 |
| Amortization of Deferred Outflows and Inflows | | |
| Actuarial gains and losses | | (58,974) |
| Changes in assumptions | | (1,094) |
| Investment gains and losses | | 2,522 |
| Benefit Changes Due to Plan Amendments | | <u>0</u> |
| Pension Expense for Fiscal 2023 | \$ | <u><u>(66,409)</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 | | | | | | |
| | 2019 | \$ (85,907) | 5.53-8.30 | \$ (13,900) | \$ (9,147) | \$ (4,753) |
| | 2020 | (87,785) | 5.33-7.89 | (25,090) | (15,672) | (9,418) |
| | 2021 | (34,660) | 4.93-7.49 | (11,047) | (7,871) | (3,176) |
| | 2022 | (89,310) | 5.10-7.53 | (55,510) | (16,900) | (38,610) |
| | 2023 | (45,985) | 4.59-7.48 | (36,683) | (9,302) | (27,381) |
| | 2024 | 2,089 | 4.90-7.23 | 2,089 | (82) | 2,171 |
| | | | | | <u>\$ (58,974)</u> | |
| Total current recognition | | | | | | \$ (98,590) |
| Remaining deferred (inflows) | | | | | | \$ 17,423 |
| Remaining deferred outflows | | | | | | |
| Changes in assumptions | | | | | | |
| | 2020 | \$ 7,701 | 5.33-7.89 | \$ 2,564 | \$ 1,285 | \$ 1,279 |
| | 2023 | (15,059) | 4.59-7.48 | (12,680) | (2,379) | (10,301) |
| | | | | | <u>\$ (1,094)</u> | |
| Total current recognition | | | | | | \$ (10,301) |
| Remaining deferred (inflows) | | | | | | \$ 1,279 |
| Remaining deferred outflows | | | | | | |
| Investment (gains)/losses | | | | | | |
| | 2020 | (1,330) | 5 | \$ (265) | \$ (265) | \$ 0 |
| | 2021 | 12,586 | 5 | 5,035 | 2,518 | 2,517 |
| | 2022 | (142,232) | 5 | (85,339) | (28,446) | (56,893) |
| | 2023 | 162,161 | 5 | 129,729 | 32,432 | 97,297 |
| | 2024 | (18,586) | 5 | (18,586) | (3,717) | (14,869) |
| | | | | | <u>\$ 2,522</u> | |
| Total current recognition | | | | | | \$ (71,762) |
| Remaining deferred (inflows) | | | | | | \$ 99,814 |
| Remaining deferred outflows | | | | | | |

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

SCHEDULE OF CHANGES IN NET OPEB LIABILITY AND RELATED RATIOS

| | Fiscal Year 2024 | Fiscal Year 2023 | Fiscal Year 2022 | Fiscal Year 2021 | Fiscal Year 2020 |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Total OPEB Liability | | | | | |
| Service cost | \$ 9,130 | \$ 9,152 | \$ 9,714 | \$ 9,553 | \$ 9,573 |
| Interest cost | 26,675 | 30,540 | 36,156 | 39,067 | 45,960 |
| Benefit changes due to plan amendments | 0 | 0 | 0 | 0 | 0 |
| Difference between expected and actual experience | 2,089 | (45,985) | (89,310) | (34,660) | (87,785) |
| Changes of assumptions | 0 | (15,059) | 0 | 0 | 7,701 |
| Benefit payments, including refunds of employee contributions | (32,256) | (28,191) | (34,553) | (70,345) | (64,475) |
| Net change in total OPEB liability | <u>5,638</u> | <u>(49,543)</u> | <u>(77,993)</u> | <u>(56,385)</u> | <u>(89,026)</u> |
| Total OPEB liability -- beginning | <u>371,504</u> | <u>421,047</u> | <u>499,040</u> | <u>555,425</u> | <u>644,451</u> |
| Total OPEB liability -- ending | <u><u>\$ 377,142</u></u> | <u><u>\$ 371,504</u></u> | <u><u>\$ 421,047</u></u> | <u><u>\$ 499,040</u></u> | <u><u>\$ 555,425</u></u> |
| Plan Fiduciary Net Position | | | | | |
| Contributions -- Employer | \$ 3,684 | \$ 6,798 | \$ 10,131 | \$ 25,116 | \$ 42,503 |
| Contributions -- Employee | 0 | 0 | 0 | 0 | 0 |
| Net investment income | 64,848 | (104,355) | 187,128 | 27,997 | 46,555 |
| Benefit payments, including refunds of employee contributions | (32,256) | (28,191) | (34,553) | (70,345) | (64,475) |
| Administrative expense | (1,594) | (1,457) | (1,390) | (1,442) | (1,402) |
| Other | 0 | 0 | 0 | 0 | 0 |
| Net change in plan fiduciary net position | <u>34,682</u> | <u>(127,205)</u> | <u>161,316</u> | <u>(18,674)</u> | <u>23,181</u> |
| Plan fiduciary net position -- beginning | <u>726,974</u> | <u>854,179</u> | <u>692,863</u> | <u>711,537</u> | <u>688,356</u> |
| Plan fiduciary net position -- ending | <u><u>\$ 761,656</u></u> | <u><u>\$ 726,974</u></u> | <u><u>\$ 854,179</u></u> | <u><u>\$ 692,863</u></u> | <u><u>\$ 711,537</u></u> |
| Net OPEB liability -- ending | <u><u>\$ (384,514)</u></u> | <u><u>\$ (355,470)</u></u> | <u><u>\$ (433,132)</u></u> | <u><u>\$ (193,823)</u></u> | <u><u>\$ (156,112)</u></u> |
| Plan fiduciary net position as percentage of total OPEB liability | 201.95% | 195.68% | 202.87% | 138.84% | 128.11% |
| Covered employee payroll | \$ 9,810,573 | \$ 8,771,989 | \$ 8,724,926 | \$ 8,626,760 | \$ 8,320,060 |
| Net OPEB liability position as percentage of covered employee payroll | -3.92% | -4.05% | -4.96% | -2.25% | -1.88% |