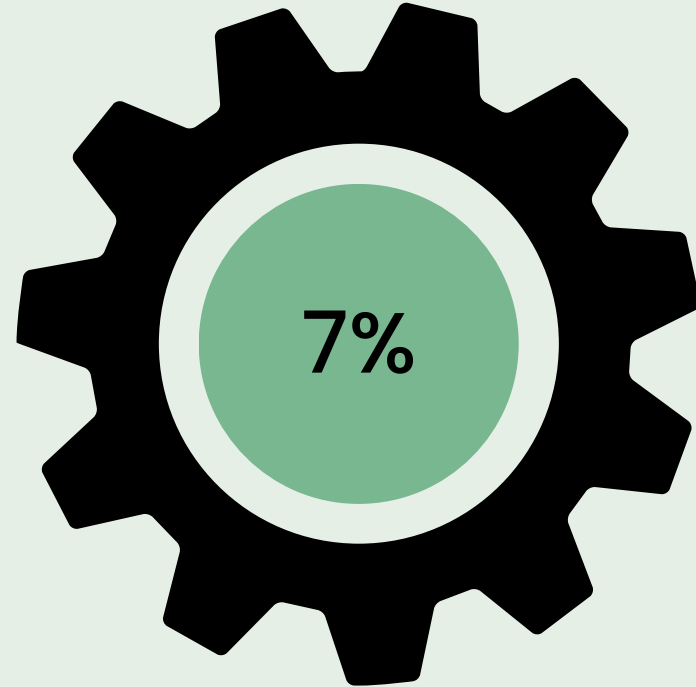


2024 PRESENTATION FOR FY2025 BUDGET

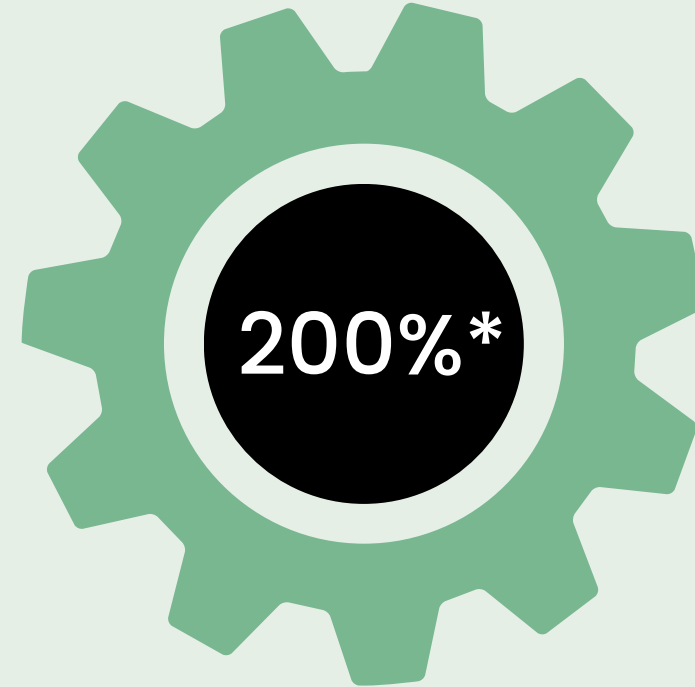
TCDRS RETIREMENT



BENEFITS PROVIDED



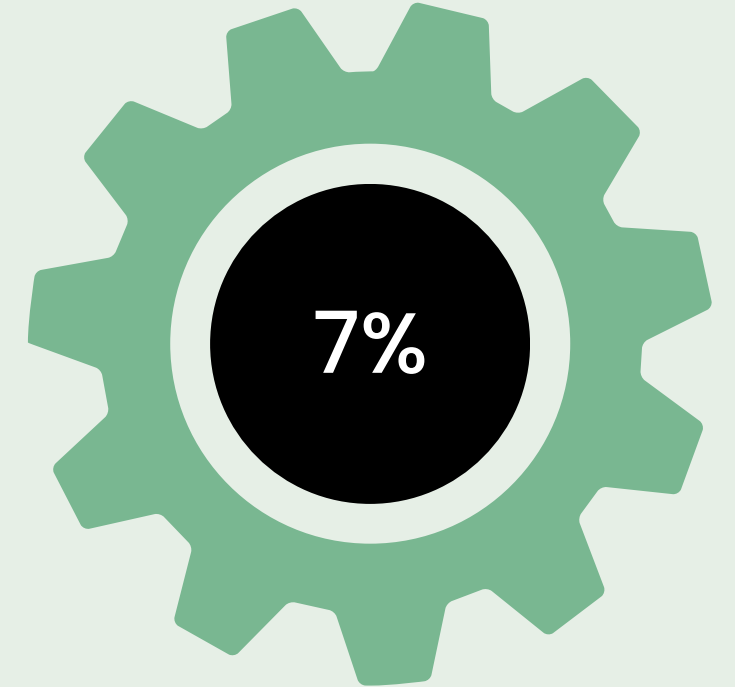
**Employee
Deposit Rate**



Matching Rate



Vesting Period



**Guaranteed
Interest Rate**

Retirement Eligibility

- Age 60 & 8 years of service
- Any age with 30 years of service
- Age + years of service = 75

*For employee contributions made on or after 1/1/2011

COUNTY COMPARISON

County	Employee Contribution %	County Match %	Years of Service for Vesting	Retirement Eligibility Rule	Most Recent Retiree COLA	Type and Rate of Retiree COLA	Group Term Life Benefit
Collin	7%	200%	8	75	2023	CPI 40%	No
Bexar*	7%	200%	8	75	2023	Flat 5%	No
Dallas	7%	200%	10	80	-	-	No
Fort Bend	7%	200%	8	75	2014	CPI 10%	No
Rockwall	7%	200%	8	75	2023	Flat 2%	No
Tarrant	7%	200%	8	75	2024	Flat 1%	No
Denton*	7%	225%	8	75	2023	Flat 3%	Active
Travis	7%	225%	8	75	2023	Flat 3%	No
Montgomery	6%	250%	8	75	2017	CPI 10%	No
Williamson	7%	250%	8	75	2024	Flat 1%	No

*Allows 20 years of service for retirement at any age, all others require 30 years of service for retirement at any age.

CITY COMPARISON

City	Employee Contribution %	City Match %	Years of Service for Vesting	Retirement Eligibility Rule	Rate of Retiree COLA*	Retiree Death Benefit
Allen	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 70%	Active & Retiree
Frisco	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 70%	Active & Retiree
McKinney	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 70%	Active & Retiree
Plano	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 70%	No
Richardson	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 50%	No
Wylie	7%	200%	5	Age 60 + 5 Years Any Age + 20 Years	CPI 70%	Active & Retiree

*All surveyed cities have adopted a repeating COLA that remains in effect until rescinded.

PORTFOLIO RATE OF RETURN - TCDRS

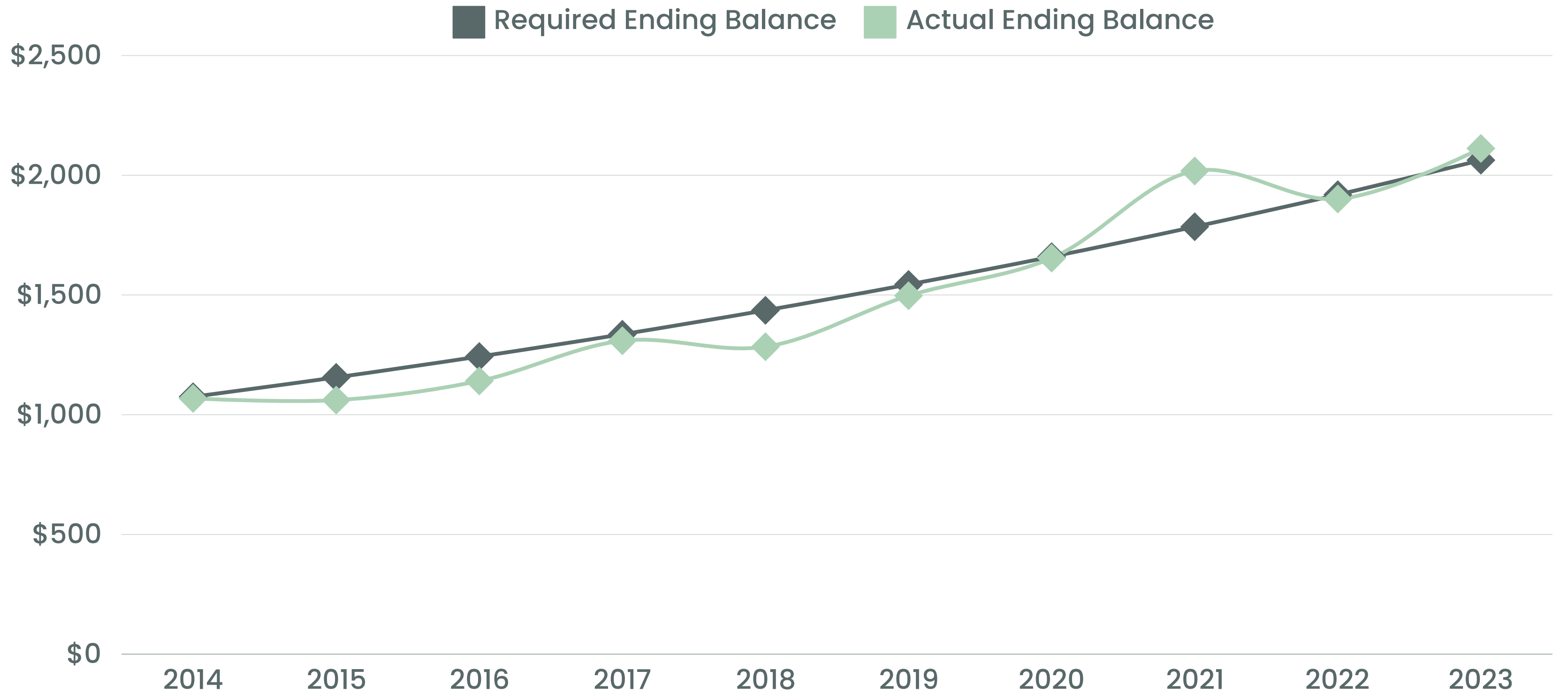
Year	Return
2014	6.8%
2015	-0.7%
2016	7.5%
2017	14.7%
2018	-1.9%
2019	16.6%
2020	10.5%
2021	22.0%
2022	-5.8%
2023	11.1%

Total Fund Return		
	As of 12/2023	As of 12/2022
1 year	11.1%	-5.8%
3 years	8.5%	8.3%
5 years	10.5%	7.8%
10 years	7.8%	8.3%
20 years	7.3%	7.8%
30 years	7.6%	7.6%

10 YEAR RATE OF RETURN (ILLUSTRATION ONLY) – TCDRS

Year	Required Account Value	Required Rate of Return	Required Ending Balance	Actual Account Value	Actual Rate of Return	Actual Ending Balance
2014	\$1,000	\$75	\$1,075	\$1,000	\$68	\$1,068
2015	\$1,075	\$81	\$1,156	\$1,068	-\$7	\$1,061
2016	\$1,156	\$87	\$1,243	\$1,061	\$80	\$1,141
2017	\$1,243	\$93	\$1,336	\$1,141	\$168	\$1,309
2018	\$1,336	\$100	\$1,436	\$1,309	-\$25	\$1,284
2019	\$1,436	\$108	\$1,544	\$1,284	\$213	\$1,497
2020	\$1,544	\$116	\$1,660	\$1,497	\$157	\$1,654
2021	\$1,660	\$125	\$1,785	\$1,654	\$364	\$2,018
2022	\$1,785	\$134	\$1,919	\$2,018	-\$117	\$1,901
2023	\$1,919	\$144	\$2,063	\$1,901	\$211	\$2,112

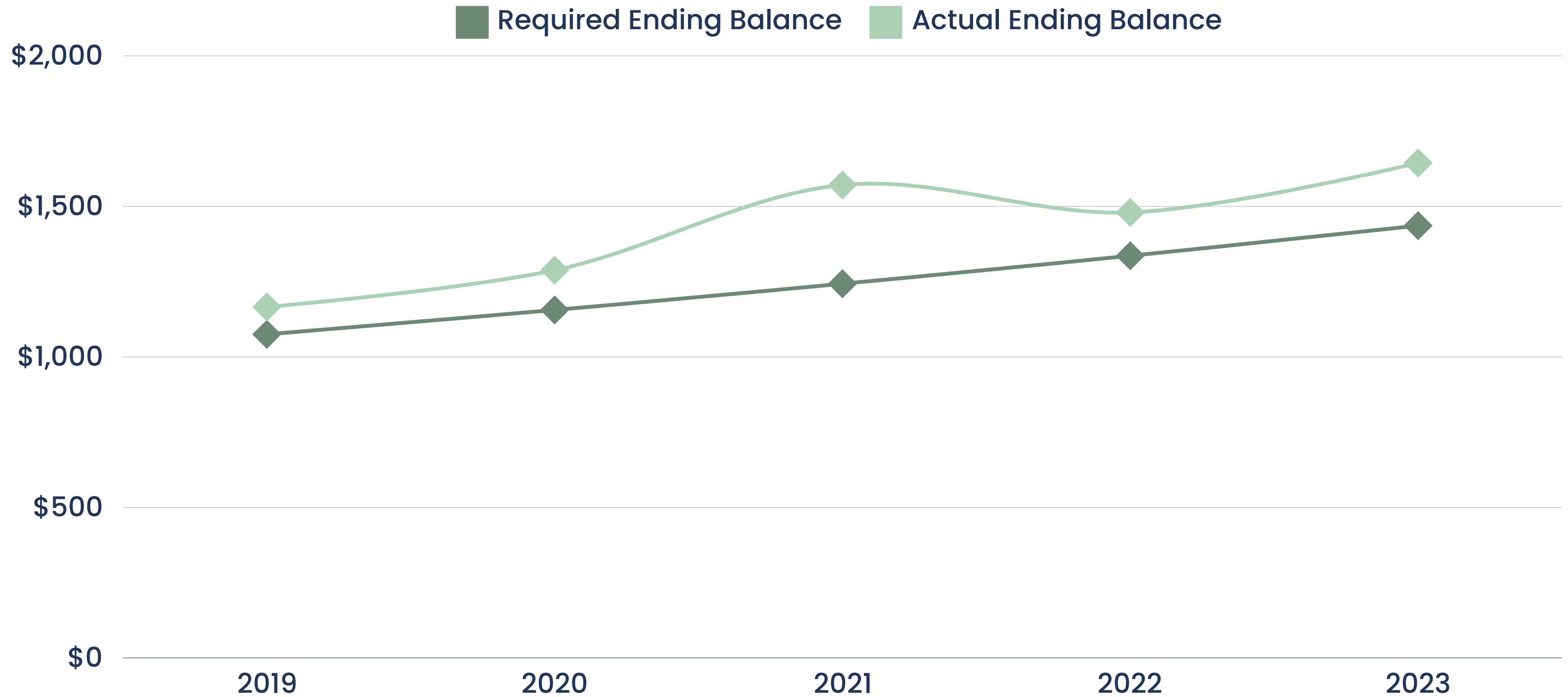
10 YEAR RATE OF RETURN (ILLUSTRATION ONLY) - TCDRS



5 YEAR RATE OF RETURN (ILLUSTRATION ONLY) – TCDRS

Year	Required Account Value	Required Rate of Return	Required Ending Balance	Actual Account Value	Actual Rate of Return	Actual Ending Balance
2019	\$1,000	\$75	\$1,075	\$1,000	\$166	\$1,166
2020	\$1,075	\$81	\$1,156	\$1,166	\$122	\$1,288
2021	\$1,156	\$87	\$1,243	\$1,288	\$283	\$1,571
2022	\$1,243	\$93	\$1,336	\$1,571	-\$91	\$1,480
2023	\$1,336	\$100	\$1,436	\$1,480	\$164	\$1,644

5 YEAR RATE OF RETURN (ILLUSTRATION ONLY) - TCDRS



PORTFOLIO RATE OF RETURN – TMRS

Year	Return
2014	6.0%
2015	0.3%
2016	7.4%
2017	14.3%
2018	-2.1%
2019	15.0%
2020	7.7%
2021	12.9%
2022	-7.4%
2023	11.6%

Total Fund Return		
	As of 12/2023	As of 12/2022
1 year	11.6%	-7.4%
3 years	5.3%	4.1%
5 years	7.8%	4.8%
10 years	6.2%	6.0%

RATE OF RETURN (ILLUSTRATION ONLY) - TMRS



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Rate of Return	6.0%	0.3%	7.4%	14.3%	-2.1%	15.0%	7.7%	12.9%	-7.4%	11.6%

6.75% return required to cover guaranteed return for employee accounts.

PORTFOLIO RATE OF RETURN COMPARISON

Year	TCDRS Return	TMRS Return
2014	6.8%	6.0%
2015	-0.7%	0.3%
2016	7.5%	7.4%
2017	14.7%	14.3%
2018	-1.9%	-2.1%
2019	16.6%	15.0%
2020	10.5%	7.7%
2021	22.0%	12.9%
2022	-5.8%	-7.4%
2023	11.1%	11.6%

Total Fund Return as of 12/2023		
	TCDRS	TMRS
1 year	11.1%	11.6%
3 years	8.5%	5.3%
5 years	10.5%	7.8%
10 years	7.8%	6.2%

COST

Year	Normal Rate (%)	UAAL Rate (%)	COLA Rate (%)	Total (%)	County Contribution (%)
2016	7.44	-1.73	.00	5.71	8.00
2017	7.08	-0.86	.00	6.22	8.00
Made a lump sum payment of \$2,471,616 in December 2017 (COLA)					
2018	7.09	-0.32	.00	6.77	8.00
Made a lump sum payment of \$1,160,641 in October 2018					
2019	6.94	0.01	.00	6.95	8.00
Made a lump sum payment of \$13,274,348 in November 2019					
2020	6.93	0.91	.00	7.84	8.00
Made a lump sum payment of \$3,800,554 in August 2020					
2021	6.91	-0.05	.00	6.86	8.00
Made a lump sum payment of \$14,500,000 in October 2021					
2022	8.47	0.54	.00	9.01	9.50
Made a lump sum payment of \$14,591,176 in December 2022 (COLA)					
2023	7.67	0.31	.00	7.98	9.50
Made a lump sum payment of \$8,352,824 in August 2023					
2024	7.66	0.41	.00	8.07	10.00
2025	7.67	-0.17	.00	7.5	10.00 (Budgeted)

COUNTY RATE COMPARISON

Entity	2024 Required Rate	2024 Elected Rate	2025 Required Rate
Collin	8.07%	10.0%	7.5%
Rockwall	9.21%	9.00%	9.36%
Montgomery	12.06%	12.54%	11.91%
Tarrant	12.07%	19.50%	11.54%
Dallas	12.91%	N/A	13.05%
Fort Bend	13.10%	N/A	12.61%
Denton	14.90%	N/A	14.32%
Bexar	15.08%	N/A	14.41%
Williamson	15.28%	15.54%	15.04%
Travis	17.60%	17.17%	16.66%

CITY RATE COMPARISON

City	2024 Required Rate	2025 Required Rate
Allen	15.19%	16.08%
Frisco	14.33%	15.16%
McKinney	15.48%	15.89%
Plano	17.64%	18.20%
Richardson	16.05%	15.45%
Wylie	15.30%	15.61%

TMRS does not have elected rates. Cities contribute the required rate but have the option to make additional payments during the year.

EMPLOYER CONTRIBUTIONS

Calendar Year	Payment Type	Total Employer Deposits	Contributing Employees	Cost Per Employee
2014	Standard Payment	\$7,222,299	1,848	\$3,908
2015	Standard Payment	\$7,368,276	1,854	\$3,974
2016	Standard Payment	\$7,652,829	1,898	\$4,032
2017	Standard Payment Lump Sum Payment	\$8,045,603 \$2,471,616	1,943	\$4,141 \$1,272
2018	Standard Payment Lump Sum Payment	\$8,721,011 \$1,160,641	1,943	\$4,488 \$597
2019	Standard Payment Lump Sum Payment	\$8,839,887 \$13,274,384	2,010	\$4,398 \$6,604
2020	Standard Payment Lump Sum Payment	\$9,826,263 \$3,800,554	1,986	\$4,948 \$1,914
2021	Standard Payment Lump Sum Payment	\$9,296,008 \$14,500,000	2,033	\$4,573 \$7,132
2022	Standard Payment Lump Sum Payment	\$11,757,288 \$14,591,176	2,082	\$5,647 \$7,008
2023	Standard Payment Lump Sum Payment	\$12,735,670 \$8,352,824	2,112	\$6,030 \$3,955
2014-2023	Total Payments	\$149,616,329	1,971	\$75,909

UNFUNDED LIABILITY UPDATE

Unfunded liability as of
December 2023:

\$57,737

Using the five-year asset recognition method which is a funded ratio of 99.9%.

If an immediate asset recognition method were used instead of a delayed asset recognition the unfunded liability would be \$1,477,951 which is a funded ratio of 99.8%.

Minimum required
contribution rate
for 2025

7.5%

TCDRS exceeded their investment return goal of 7.5% for 2023. Actual return was 11.1%.

Five-year asset recognition method is used by TCDRS. Actuarial gains and losses are smoothed over 5 years.

LIABILITY HISTORY

Calendar Year End	Budget Year	Five-year Asset Recognition Unfunded Liability	Five-year Asset Recognition Funded Percentage	Immediate Asset Recognition Unfunded Liability	Immediate Asset Recognition Funded Percentage
2014	2016	(\$21,504,628)	106.2%	(\$27,012,753)	107.8%
2015	2017	(\$11,689,647)	103.1%	\$23,468,041	93.7%
2016	2018	(\$4,076,091)	100.8%	\$22,292,175	95.5%
2017	2019	\$1,160,641	99.8%	\$3,114,182	99.4%
Made a lump sum payment of \$2,471,616 in December 2017 (paid to fund COLA)					
2018	2020	\$13,274,348	97.6%	\$60,434,843	89%
Made a lump sum payment of \$1,160,641 in October 2018					
2019	2021	\$267,254	100.0%	\$3,800,554	99.4%
Made a lump sum payment of \$13,274,348 in November 2019					
2020	2022	\$21,536,178	96.8%	\$24,080,153	96.4%
Made a lump sum payment of \$3,800,554 in August 2020					
2021	2023	\$6,319,320	99.1%	(\$4,474,343)	100.6%
Made a lump sum payment of \$14,500,000 in October 2021					
2022	2024	\$8,352,824	98.9%	\$30,596,486	96%
Made a lump sum payment of \$14,591,176 in December 2022 (paid to fund COLA)					
2023	2025	\$57,737	99.9%	\$1,477,951	99.8%
Made a lump sum payment of \$8,352,824 in August 2023					

UNFUNDED LIABILITY

Actual Unfunded Liability as of 12/31/2022	\$8,352,824
Adjustment due to Decrease in Discount Period	\$1,209,217
Scheduled UAAL Change	(\$921,828)
Recognition of Investment Gains and Losses for 2020-2024 (Using the Five-Year Recognition Method)	\$21,891
Gain due to Additional Employer Contributions (Elected Rate Greater than Required Rate)	(\$2,037,707)
Gain due to Additional Employer Contributions (Lump Sum Contribution)	(\$8,352,824)
Loss due to payroll and salary increase variations	\$1,248,191
Loss due to Termination and Withdrawal Experience	\$225,413
Loss due to Retirements Different than Expected (Includes Disability)	\$198,433
Gain due to Less than Expected Retiree Mortality	(\$82,473)
Net Actuarial Loss from All Other Sources (Active Death, Proportionate Service, Etc.)	\$196,600
Actual Underfunded Liability as of 12/31/2023	\$57,737

UNFUNDED LIABILITY HISTORY

	2018	2019	2020	2021	2022
Actual (Over)/Unfunded Liability as of December 31st	\$13,274,000	\$267,254	\$21,536,178	\$6,319,320	\$8,352,824
Adjustment due to Decrease in Discount Period	\$1,062,000	\$302,903	\$2,626,841	\$1,491,938	\$1,209,217
Scheduled UAAL Change	\$42,000	(\$218,851)	\$1,166,318	(\$2,626,130)	(\$921,828)
Recognition of Investment Gains and Losses for Previous Five Years (Using the Five-Year Recognition Method)	\$821,000	\$938,067	(\$3,110,114)	\$5,166,218	\$21,891
Gain/Loss due to Additional Employer Contributions (Elected Rate Greater than Required Rate)	(\$1,238,000)	(\$1,326,544)	(\$1,568,701)	(\$606,426)	(\$2,037,707)
Gain/Loss due to Additional Employer Contributions (Lump Sum Contribution)	(\$13,274,000)	(\$3,800,554)	(\$14,500,000)	(\$14,591,176)	(\$8,352,824)
Gain/Loss due Plan Changes				\$14,591,176	
Gain/Loss due to Change in Actuarial Assumptions and Methods		\$25,257,661	\$2,861,511		
Gain/Loss due to Greater/Less than Expected Salary Increases	\$303,000	\$1,574,395	(\$1,855,587)	\$984,722	\$1,248,191
Gain/Loss due to Greater/Less than Expected Terminations and Withdrawals	(\$611,000)	(\$437,598)	(\$1,040,315)	(\$776,906)	\$225,413
Gain/Loss due to Retirements Different than Expected (Includes Disability)	(\$329,000)	(\$60,197)	(\$262,963)	\$5,969	\$198,433
Gain/Loss due to Greater/Less than Expected Retiree Mortality	\$143,000	(\$1,099,343)	\$230,787	(\$1,790,854)	(\$82,473)
Net Actuarial Gain/Loss from All Other Sources (Active Death, Proportionate Service, Etc.)	\$74,000	\$138,985	\$235,365	\$184,973	\$196,600
Actual Under/Overfunded Liability as of December 31st of the Following Year	\$267,000	\$21,536,178	\$6,319,320	\$8,352,824	\$57,737

GASB STATEMENT 68

- Requires Collin County to report TCDRS pension liability/assets on the Comprehensive Annual Financial Report.
- Reporting requirements do not change how TCDRS plan funding is calculated.

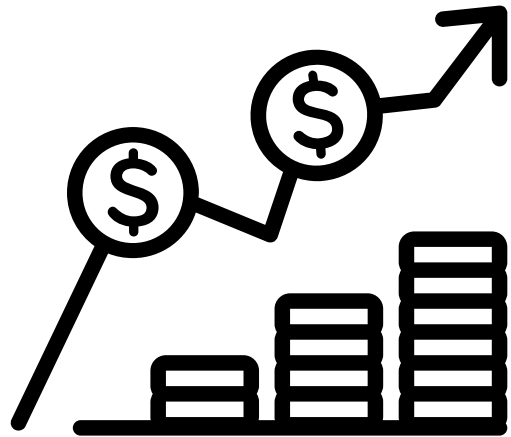
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- Any significant volatility experience in pension liability will be reflected on the Comprehensive Annual Financial Report.

- Repeating Cost of Living Adjustments (COLAs) increase the calculated rate of financial reporting, as they assume annual COLAs for all plan participants continuously into the future and require this pension liability to be reported on the Comprehensive Annual Financial Report.
- The repeating COLA designation has no effect on the plan funding. It does not impact the plan's funded ratio or the required contribution rate, which are calculated for the purpose of funding the plan.

COST OF LIVING ADJUSTMENT (COLA)

- The TCDRS retirement benefit is a fixed benefit payment.
- The costs of goods and services, such as health care expenses, may go up each year due to inflation.
- A Cost of Living Adjustment (COLA) restores some of the purchasing power that the benefit loses over time.
- Electing a COLA is only effective for one plan year and is reassessed on a year-to-year basis. Court determines if a cost of living increase will be awarded each year.

Calendar Year	Budget Year	COLA Type	Lump Sum Payment to Fund COLA
2017	2018	40% CPI	\$2,471,616
2022	2023	40% CPI	\$14,591,176



There are three options:

- **Flat Rate COLA:** Flat percentage increase is applied to all retiree benefits.
- **CPI-based COLA:** Based on how much inflation has occurred since each employee retired. Adjustments for one retiree could differ from that of another retiree if they retired at different times.
- **No COLA.**



RETIREE COLA

COLAs are funded over a 15-year period.

Collin County has historically adopted various COLA options including:

- 40% to 100% of CPI
- 1% - 8% Flat Rate
- No COLA

The last COLA adopted was 40% CPI, which was approved for plan year 2023.

1,024

Individuals collecting TCDRS benefits as of the end of December 2023, an increase of 39 since the prior year.

433

Active employees eligible to retire.

370

Additional employees who will be eligible to retire in the next 5 years.

Pre-funded cost to add COLA in 2024:

Type of COLA	Pre-fund Cost
40% of CPI	\$13,437,675
60% of CPI	\$29,664,494
80% of CPI	\$46,304,058
1% Flat Rate	\$3,432,695

COURT DETERMINATION BUDGET INFORMATION

- Employer contribution rate
- Payment of any lump sum contribution for unfunded liability
- Determination of any retiree COLA