



June 4, 2018

City # 00830

City Official  
City of McKinney  
P.O. Box 517  
McKinney, TX 75070-0517

**Subject: 2019 Municipal Contribution Rate**

Dear City Official:

Presented below are your city's contribution requirements to the Texas Municipal Retirement System (TMRS) for Plan Year 2019 (Calendar Year 2019, PY2019) as determined by the December 31, 2017 actuarial valuation. The actuarially determined contribution rates for retirement benefits and Supplemental Death Benefits (SDB), if any, are based on your city's plan provisions in effect as of April 1, 2018 and the actuarial assumptions and methods adopted by the TMRS Board. Effective January 1, 2019, your city's monthly contribution rates will be:

Normal Cost	11.51%
Prior Service	<u>3.56%</u>
Total Retirement Rate	15.07%
Supplemental Death Benefit	<u>0.13%</u>
Total Combined Contribution	15.20%

Full information on your contribution rate, including an explanation of changes and available rate stabilization techniques, is contained in the attached report. The Total Retirement Rate shown above represents the Actuarially Determined Employer Contribution (ADEC) for PY2019 based on current TMRS funding policy.

**IMPORTANT NOTE: The pension disclosure and financial statement information necessary to assist your city with the financial reporting requirements of the Governmental Accounting Standards Board (GASB) will be provided in a separate document available later this summer.**

If you have questions about your rate or if you wish to evaluate potential changes in your TMRS plan, contact TMRS at 800-924-8677.

Sincerely,

Eric W. Davis  
Deputy Executive Director

## Table of Contents

<b>Rate Stabilization Techniques</b>	A summary of the techniques currently available to assist cities in stabilizing their contribution rate including managing a funding surplus.
<b>Executive Summary</b>	A comparison of the highlights of the December 31, 2017 and December 31, 2016 actuarial valuations for your city. Included are membership counts, asset information, actuarial information, and contribution rate requirements.
<b>Calculation of Contribution Requirements</b>	Details the calculation of the Full Retirement Rate (TMRS Plan Year - ADEC) and the Supplemental Death Rate, if applicable, for your city. A comparison to the 2016 actuarial valuation results is included.
<b>Summary of Benefit Provisions</b>	A summary of plan provisions for plan years 2017 and 2018.
<b>Amortization Bases and Payments</b>	Information on the amortization bases and payments for your city.
<b>Historical and Projected Accumulation of the BAF Balance</b>	This schedule provides your city with historical cash flows, interest credits and the year-end balance of its Benefit Accumulation Fund (BAF), as well as projected values for calendar/plan years 2018 and 2019.
<b>Reconciliation of Full Retirement Rate from Prior Actuarial Valuation Report</b>	A detailed reconciliation of changes in your city's Full Retirement Rate (ADEC) since the prior valuation.

## Rate Stabilization Techniques

Contribution rate stabilization has been, and continues to be, a long term strategic goal of the TMRS Board of Trustees. Over the past several years, the Board has approved many actuarial changes in an effort to minimize the short term volatility in contribution rates while maximizing the long term sustainability of the System. Even so, some individual cities continue to experience significant changes in their contribution rate from year to year. Under the current funding policy in which rates are actuarially determined each year, contribution rate stabilization has been fully optimized at the System level; therefore, any further rate stabilization will have to be achieved at the city level.

One of the strategic goals of the Board of Trustees is to “Educate employers about the rate stabilization tools that are available to them through the current Plan design.” The TMRS Act and a Board Rule allow a TMRS employer to make additional contributions above the required contribution rate, on a voluntary basis, to its TMRS Benefit Accumulation Fund (BAF) account. Additional contributions can be in the form of a lump sum payment or additional monthly payments and are not subject to the statutory maximum contribution rate limits that are applicable to some TMRS employers.

The most effective way for a city to stabilize its TMRS contribution rate is to determine, during the budget process, an affordable contribution rate that exceeds the required calculated contribution rate and continue to pay monthly at this level from year to year, even when the calculated contribution rate goes down. This is particularly true for cities with an Unfunded Actuarial Accrued Liability (UAAL). These additional monthly contributions at a predetermined fixed rate accomplish at least the following: provides the city with a stable contribution rate from year-to-year for budgeting purposes; directly reduces the UAAL; accelerates the years needed to attain full funding (i.e. pays off the UAAL quicker); produces cost savings over the long run; and provides a contribution rate cushion for future adverse plan experience. A city can also make one or more lump sum contributions during the year which has a similar impact on the plan’s funding status, but is less effective from a rate stabilization perspective.

For cities with an Overfunded Actuarial Accrued Liability (OAAL or surplus), their calculated contribution rate (not less than 0.00%) is determined by decreasing the normal cost rate by a rate equal to a 25 year open amortization of the surplus assets. The result is a required contribution less than the normal cost (the cost of the current year accruals for active employees). This not only produces contribution rate volatility, but pushes the city’s funded status back towards 100% by using the surplus assets to pay for the current year accruals. In order to dampen contribution rate volatility and to increase the likelihood of maintaining a funded ratio greater than 100%, TMRS encourages cities in a surplus position to consider paying the full normal cost rate (or as much as possible toward the full normal cost rate) until the funded ratio is at least 110%.

As noted above, additional contributions in the form of monthly payments or lump sum contributions are entirely voluntary. A city can always revert back to paying only the required calculated rate each

month if financial circumstances change during the year. There is no formal action that needs to be taken by a city to contribute at a higher level than the required monthly minimum. Additional monthly contributions may be made during the normal payroll reporting process by simply filling out line 2. A. of Form TMRS 3 with the increased employer contribution rate. Lump sum contributions should be reported separately from the regular payroll reporting process and submitted with Form TMRS 3ADD.

If your city would like to explore the impact of any of these rate stabilization techniques on your TMRS plan, please contact Leslee Hardy, Director of Actuarial Services, at [lhardy@tmrs.com](mailto:lhardy@tmrs.com).

## Executive Summary

Valuation as of TMRS Plan Year (PY) Ending	12/31/2017	12/31/2016
<b>Membership as of the Valuation Date</b>		
• Number of		
- Active members	1,030	962
- Retirees and beneficiaries	292	269
- Inactive members	<u>394</u>	<u>363</u>
- Total	1,716	1,594
• Prior year's payroll provided by TMRS	\$ 70,053,001	\$ 63,285,492
• Valuation Payroll	\$ 73,851,686	\$ 66,368,639
<b>Benefit Accumulation Fund (BAF) Assets</b>		
• Market BAF Balance	\$ 237,808,498	\$ 202,590,302
• BAF crediting rate for PY	13.05%	6.73%
• Interest credited on beginning BAF balance	\$ 26,430,724	\$ 12,291,410
• Municipal contributions ^	10,673,896	9,567,176
• Member contributions during year	4,903,710	4,433,984
• Benefit and refund payments ^	6,790,133	6,241,106
<b>Actuarial Value of Assets (AVA)</b>		
• Market BAF Balance	\$ 237,808,498	\$ 202,590,302
• Actuarial Value of Assets (AVA)	230,789,466	207,519,510
• AVA as a Percentage of BAF	97.0%	102.4%
• Return on AVA	6.98%	6.54%
<b>Actuarial Information</b>		
• Actuarial accrued liability (AAL)	\$ 274,679,818	\$ 249,860,330
• Actuarial value of assets (AVA)	230,789,466	207,519,510
• Unfunded actuarial accrued liability (UAAL)	43,890,352	42,340,820
• UAAL as % of pay	62.7%	66.9%
• Funded ratio (AVA/AAL)	84.0%	83.1%
• Employer normal cost	11.51%	11.62%
• Prior Service Rate	3.56%	3.74%
<b>Contribution Rates for TMRS Plan Year (PY)</b>		
• Member	2019 7.00%	2018 7.00%
• Full retirement rate (ADEC)	15.07%	15.36%
• Supplemental Death rate	0.13%	0.13%
<b>Total Employer Contribution Estimates for PY</b>		
• Projected payroll	2019 \$ 76,067,237	2018 \$ 68,359,698
• Combined contribution rate	15.20%	15.49%
• Estimated employer contribution	\$ 11,562,220	\$ 10,588,917

Note: TMRS Plan Year coincides with Calendar Year

Results from prior year reflect the plan provisions used in the 12/31/2017 valuation report.

^ Excludes contributions to/benefit payments from the IRC §415(m) Full Benefit Arrangement fund.

## Calculation of Contribution Requirements

	From Valuation Report as of	
	<u>December 31, 2017</u>	<u>December 31, 2016</u>
1. Prior year's payroll reported to TMRS	\$ 70,053,001	\$ 63,285,492
2. Valuation payroll	73,851,686	66,368,639
3. Employer normal cost rate	11.51%	11.62%
4. Actuarial liabilities		
a. Active members	\$ 168,282,143	\$ 154,239,865
b. Inactive members	32,011,941	29,896,426
c. Annuitants	<u>74,385,734</u>	<u>65,724,039</u>
d. Total actuarial accrued liability	\$ 274,679,818	\$ 249,860,330
5. Actuarial value of assets	<u>230,789,466</u>	<u>207,519,510</u>
6. Unfunded actuarial accrued liability (UAAL) (4d - 5)	\$ 43,890,352	\$ 42,340,820
7. Funded ratio (5 / 4d)	84.0%	83.1%
8. Equivalent Single Amortization Period*	26.0 years	27.0 years
9. Assumed payroll growth rate	3.0%	3.0%
Contribution Rate for TMRS Plan Year:		
	2019	2018
10. Full retirement rate		
a. Normal cost	11.51%	11.62%
b. Prior service	<u>3.56%</u>	<u>3.74%</u>
c. Full retirement rate	15.07%	15.36%
11. Supplemental Death rate	0.13%	0.13%
12. Combined contribution rates (10c + 11)	15.20%	15.49%

\* New Losses are laddered on 25-year period.

## Summary of Benefit Provisions

The plan provisions are adopted by the governing body of the City, within the options available in the state statutes governing TMRS. Plan provisions for the City were as follows:

	Plan Year 2018	Plan Year 2017
Employee deposit rate	7%	7%
Matching ratio (city to employee)	2 to 1	2 to 1
Years required for vesting	5	5
Retirement Eligibility (Age /Service)	60/5, 0/20	60/5, 0/20
Updated Service Credit	100% Repeating Transfers	100% Repeating Transfers
Annuity Increase (to retirees)	70% of CPI Repeating	70% of CPI Repeating
Supplemental Death Benefit to Active Employees	Yes	Yes
Supplemental Death Benefit to Retirees	Yes	Yes

## Amortization Bases and Payments

Year Established	Description	Years Remaining	Base	Payment
2013	2013 Valuation (Fresh Start)	26	\$40,826,077	\$2,447,345
2014	2014 Experience	26	(2,809,212)	(168,400)
2015	2015 Experience	28	2,143,002	122,932
2015	2015 Actuarial Changes	28	555,815	31,884
2016	2016 Experience	24	1,920,045	120,944
2017	2017 Experience	25	<u>1,254,625</u>	<u>77,038</u>
	<b>Total</b>		43,890,352	2,631,743



## Historical and Projected Accumulation of the BAF Balance

Year Ending December 31, (1)	Payroll for the Year (2)	Effective Retirement Contribution Rate <sup>a</sup> (3)	Employer Contributions for the Year <sup>c</sup> (4)	Member Contributions for the Year (5)	Benefit Payments <sup>c</sup> (6)	External Cash Flow for the Year (7)	Interest Credit (8)	BAF Balance <sup>b</sup> (9)
		(4) / (2)				(4) + (5) + (6)		
2015	\$ 61,939,002	15.67%	\$ 9,705,934	\$ 4,348,528	\$ (6,017,709)	\$ 8,036,753	\$ 103,825	\$ 182,538,837
2016	\$ 63,285,492	15.12%	\$ 9,567,176	\$ 4,433,984	\$ (6,241,106)	\$ 7,760,054	\$ 12,291,410	\$ 202,590,302
2017	\$ 70,053,001	15.24%	\$ 10,673,896	\$ 4,903,710	\$ (6,790,133)	\$ 8,787,473	\$ 26,430,724	\$ 237,808,498
2018	\$ 73,851,686	15.36%	\$ 11,343,619	\$ 5,169,618	\$ (8,597,554)	\$ 7,915,683	\$ 16,052,074	\$ 261,776,254
2019	\$ 76,067,237	15.07%	\$ 11,463,333	\$ 5,324,707	\$ (9,097,556)	\$ 7,690,484	\$ 17,669,897	\$ 287,136,636

a. Effective retirement contribution rate is the actual rate determined by dividing the employer contribution received by the payroll paid.

b. BAF Balance may not sum due to rounding.

c. Excludes contributions to/benefit payments from the IRC §415(m) Full Benefit Arrangement fund.

## Reconciliation of Full Retirement Rate from Prior Actuarial Valuation Report

Actuarial valuations are based on long-term assumptions, and actual results in a specific year can, and almost certainly will, differ as actual experience deviates from the assumptions. The following table provides a detailed breakdown of changes in the retirement portion of your city’s contribution rate. This analysis reconciles the change in the retirement portion (ADEC) of your city’s contribution rate from 2018 to 2019, but will not reflect any change in the cost of the Supplemental Death Benefit (SDB), if your city currently has this provision. (Any changes in the cost of the SDB are primarily due to the changes in the average age of your city’s employee group and/or the number of covered retirees.) Following the table below is a brief description of the common sources for deviation from the expected.

Change in Full Retirement Rate	
Full Rate from 12/31/2016 Valuation (PY 2018 Rate)	15.36 %
Benefit changes	0.00 %
Return on Actuarial Value of Assets	(0.04)
Contribution lag/fully amortized prior bases	(0.05)
Payroll growth	(0.29)
Normal cost	(0.11)
Liability growth	0.20
Total change	(0.29) %
Full Rate from 12/31/2017 Valuation (PY 2019 Rate)	15.07 %

**Benefit Changes** - Shows the increase or decrease in the contribution rate associated with any modifications made to the member city’s TMRS plan provisions. This will also include any changes to the amortization period adopted by ordinance.

**Return on Actuarial Value of Assets (AVA)** - Shows the change in the contribution rate associated with the return on the AVA being different than the assumed 6.75%. For the year ending December 31, 2017, the return on an AVA basis was 6.98%. The impact may show as 0.00% due to rounding.

**Contribution Lag/Fully Amortized Prior Bases** - Shows the total increase or decrease in the contribution rate associated with the phase in of contributions and/or any additional contributions above the full rate. The effect of the “Contribution Lag” is also included here and refers to the time delay between the actuarial valuation date and the date the contribution rate becomes effective. For TMRS member cities, the “Contribution Lag” is one year (i.e., the Actuarial Valuation as of December 31, 2017 sets the rate effective for Calendar Year 2019). **The impact of the**

**“Contribution Lag” is expected to become immaterial once a city is contributing the Full Rate and the Full Rate stabilizes.**

In addition, it shows the impact of the bases, if any, which became fully amortized as of this valuation since payments for those bases are no longer part of the calculation of the prior service rate.

**Payroll Growth** - Shows the increase or decrease in the contribution rate associated with higher or lower than expected growth in the member city’s overall payroll. The amortization payments were calculated assuming payroll grows at 3.0% per year. Overall payroll growth in excess of 3.0% will typically cause a decrease in the prior service rate.

**Normal Cost** - Shows the increase or decrease in the contribution rate associated with changes in the average normal cost rate for the individual city’s population. The normal cost rate for an employee is the contribution rate which, if applied to a member’s compensation throughout their period of anticipated covered service with the municipality, would be sufficient to meet all benefits payable on their behalf. The salary-weighted average of the individual rates is the total normal cost rate.

**Liability Growth** - Shows the increase or decrease in the contribution rate associated with larger or lower than expected growth in the member city’s overall plan liabilities. The most significant sources for variance will be individual salary increases compared to the assumption and turnover.