

MARTA NON-REPRESENTED PENSION PLAN

Actuarial Valuation Report as of January 1, 2019

Prepared by:

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July 22, 2019

Management Pension Committee
MARTA Non-Represented Pension Plan
Metropolitan Atlanta Rapid Transit Authority
2424 Piedmont Road, N.E.
Atlanta, Georgia 30324-3324

Actuarial Valuation as of January 1, 2019

Ladies and Gentlemen:

We are pleased to forward our 2019 Report.

Risk Discussion

Actuarial standards now require some discussion about funding risks. That is, the probability of some future assumptions being inaccurate and funding shortfalls arise. Over 90% of the Plan's approximate \$0.5 billion projected liability is for pensioners and those who will soon be pensioners.

Pensions are bond like year by year payments whose values depend on the payment periods and interest earned (net of expenses). We recently adopted an up to date mortality table with generational projection. We do not believe payment periods will be longer than expected. The funding risk for the Plan is whether the net yield assumption will be realized.

America's public pension plans' assets (but generally not other entities' pension plans' assets) are primarily invested in risky equities. These could produce highly volatile future yields and impact a plan's funding security. To protect against this, we have been lowering the yield assumption and recommending more assets be reallocated from equities to bonds.


This is the worldwide pattern of pension asset allocations and many experts recommend America's public pension plans do likewise. The historic bull market in the last 18 years of the last century tempted public plans to switch from bonds to equities. One forgets the 18 years prior and after the bull market period produced much lower yields. The move to conservatism is especially recommended for your closed off pension plan that may not have time (and support) to recover from low future yields. Moody's uses a 4.1% interest for valuing this Plan. Callan reports the last 20 years average yield as 5.75%. If this year's favorable market holds, we intend to lower the interest assumption from 6.0% to 5.75% or 5.50% on January 1, 2020.

January 1, 2019 Valuation Highlights

- A shortfall of 11.34% in investment yield increased Marta costs
- This shortfall also increased the unfunded liabilities
- The asset earnings recovery in 2019 YTD will be reflected in the next valuation.
- A one-time lump sum of approximately 3% of annual benefits was granted to pensioners.

We certify that the contributions satisfy the minimum funding requirements in Georgia Code Section 47-20-10.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.


Jarmon Welch, Enrolled Actuary

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Actuarial Valuation Report as of January 1, 2019

Table of Contents

	<u>Page</u>
I. <u>Valuation Results</u>	
Derivation of MARTA Cost	1
II. <u>Valuation Input</u> <i>(Reported by Marta and reviewed for reasonableness)</i>	
Participant Data	2
Actuarial Bases	6
Plan Outline	7
III. <u>Plan Assets</u> <i>(Reported by independent auditor)</i>	13
IV. <u>GASB Statements 67 and 68 Disclosures</u>	15

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section I: Valuation Results

Derivation of MARTA Cost

	<u>1/1/2018</u>	<u>1/1/2019</u>
1. Present Value of Future Benefits		
a. Active Participants	\$153,494,312	\$139,233,426
b. Inactive Participants	<u>\$379,601,691</u>	<u>\$385,950,265</u>
c. Total (a. + b.)	\$533,096,003	\$525,183,691
2. Market Value of Assets	\$417,678,560	\$379,413,798
3. Unfunded Actuarial Accrued Liability (UAAL)	\$79,382,178	\$115,024,549
4. Present Value of Future Normal Costs (PVFNC) (1) - (2) - (3)	\$36,035,265	\$30,745,344
5. Marta Minimum Contribution		
a. Amortization Payment for UAAL, 13 years remaining	\$8,056,910	\$12,257,722
b. Normal Cost related to PVFNC	\$2,530,530	\$2,220,845
c. Expenses	<u>\$1,866,713</u>	<u>\$1,554,023</u>
d. Total with 1/2 year's interest	\$12,822,335	\$16,506,562

The minimum Marta contribution increased by \$3,684,227 due to:

1. Net investment yield (5.34%) versus 6.0% assumed.	\$4,940,000
2. Decrease in active payroll and manager fees	(\$640,000)
3. Marta contribution greater than minimum less COLA	(\$603,000)
4. Net Experience	<u>(\$13,000)</u>

Net Increase: \$3,684,000

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Participant Data

<u>Class of Participant</u>	<u>01/01/15</u>	<u>01/01/16</u>	<u>01/01/17</u>	<u>01/01/18</u>	<u>01/01/19</u>
Continuing Actives					
Transit Police	276	294	257	217	174
Non Police	451	412	370	325	293
Pay Increase %:					
Transit Police	2.53%	5.44%	3.04%	2.81%	5.98%
Non Police	1.02%	4.78%	4.52%	4.04%	4.45%
Active	799	713	630	544	467
Average Age	46.7	47.0	47.7	47.9	48.9
Average Credited Service	11.7	12.0	13.0	13.5	14.3
Average Valuation Pay	\$56,445	\$59,409	\$62,022	\$63,549	\$66,700
Transfers to Union Plan	17	17	19	17	17
Average Age	50.0	48.9	49.1	48.9	49.9
Average Annual Benefit*	\$3,303	\$2,809	\$3,031	\$3,534	\$3,534
Retirees	1,085	1,131	1,161	1,203	1,217
Average Age	67.2	67.4	67.7	67.8	68.2
Average Annual Benefit	\$23,104	\$23,433	\$23,692	\$23,798	\$23,829
Beneficiaries	79	83	86	93	96
Average Age	72.6	73.4	73.5	72.2	72.6
Average Annual Benefit	\$12,563	\$12,904	\$13,129	\$13,660	\$13,761
Terminated Vested	102	102	116	120	141
Average Age	47.9	48.5	48.7	48.9	48.6
Average Annual Benefit	\$10,702	\$10,574	\$10,784	\$11,118	\$12,605
DROP Participants	63	69	64	66	64
Average Age	59.4	60.2	59.7	59.5	59.9
Average Annual Benefit	\$29,971	\$28,930	\$29,506	\$30,003	\$30,793

*Estimated Benefits

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Reconciliation of Number of Participants by Status

	<u>Actives</u>	<u>Retirees</u>	<u>Benef- iciaries</u>	<u>Terminated Vesteds</u>	<u>to Union after 1/1/05</u>	<u>DROPs</u>
Number on 01/01/18	544	1,203	93	120	17	66
Terminated Vested	(21)			20		
Terminated with Final Payment	(14)	(1)				
Retirees	(26)	51		(7)		(18)
Deaths with Survivors		(7)	8	(1)		
Deaths no Survivors		(20)	(5)			
New DROP Members	(16)					16
Returned to Work		(9)		9		
Data Adjustments				1		
Number on 01/01/19*	<u>467</u>	<u>1,217</u>	<u>96</u>	<u>141</u>	<u>17</u>	<u>64</u>

* The 467 active count on 01/01/19 includes 174 Transit Police, 8 long-term disabilities accruing benefits and 111 transfers from the Union Plan between 1/1/2005 and 12/31/2017.

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Active Age and Service Distribution as of January 1, 2019

Cell Format: Number In Each Group, Average Age, Average Service, And Average Salary. Both Sexes Included.

	Non-Police	Transit Police	Transfers
Age		10	
>=25		28.5	
<30		5.0	
		52,980	
>=30		27	
<35		32.2	
		5.9	
		55,231	
>=35	1	31	7
<40	38.4	37.7	38.1
	18.5	8.8	9.3
	59,821	60,235	66,436
>=40	15	32	14
<45	42.8	42.6	42.0
	17.8	10.3	9.4
	73,945	62,487	64,447
>=45	27	53	27
<50	47.6	47.7	47.4
	20.4	13.7	9.1
	64,432	66,162	65,032
>=50	60	13	30
<55	52.7	51.6	52.9
	22.2	11.9	9.2
	71,070	63,898	62,746
>=55	50	6	25
<60	57.4	56.1	57.5
	19.9	20.3	9.5
	76,544	101,028	63,483
>=60	23	2	8
<65	61.9	63.1	61.5
	23.3	12.6	10.3
	71,496	74,922	61,311
>=65+	6		
	68.4		
	30.2		
	72,632		
ALL	182	174	111
	54.0	42.2	50.9
	21.3	10.6	9.4
	71,870	63,110	63,812
Present Value			
Future Benefits	\$67,092,999	\$50,845,147	\$21,295,280
TOTAL	\$139,233,426		

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Inactive Age and Benefit Distribution as of January 1, 2019

<u>AGE</u>	<u>Retirees</u>			<u>Beneficiaries</u>			<u>Terminated Vested</u>			<u>DROPs</u>		
	<u>Count</u>	<u>Avg Age</u>	<u>Average Monthly Benefit</u>	<u>Count</u>	<u>Avg Age</u>	<u>Average Monthly Benefit</u>	<u>Count</u>	<u>Avg Age</u>	<u>Average* Monthly Benefit</u>	<u>Count</u>	<u>Avg Age</u>	<u>Average Monthly Benefit</u>
30 to 34				1	33.6	\$111	3	34.0	\$496			
35 to 39				1	36.8	\$111	13	38.2	\$826			
40 to 44	1	44.9	\$570	2	44.3	\$652	23	42.1	\$814			
45 to 49	10	47.7	\$1,217	1	48.3	\$171	47	47.4	\$1,245			
50 to 54	80	52.9	\$1,555	2	51.2	\$655	30	52.7	\$1,467	8	52.6	\$4,144
55 to 59	129	57.6	\$1,980	3	56.4	\$653	17	57.2	\$660	22	57.9	\$2,885
60 to 64	200	62.8	\$1,972	10	62.5	\$1,663	6	62.6	\$507	29	62.3	\$2,069
65 to 69	293	67.5	\$2,059	14	67.8	\$1,436	2	66.9	\$190	5	65.6	\$1,525
70 to 74	259	72.3	\$2,248	24	72.4	\$1,196						
75 to 79	135	77.1	\$2,044	12	76.9	\$974						
80 to 84	67	82.3	\$1,744	11	82.3	\$1,053						
85 to 89	21	87.3	\$1,446	8	87.9	\$851						
90 to 94	21	92.2	\$905	6	92.8	\$1,463						
95 +	1	98.0	\$1,859	1	96.9	\$820						
<u>TOTALS:</u>												
COUNT /	1,217	68.2		96	72.7		158	48.8		64	59.8	
ANNUAL BENEFIT			\$28,999,518			\$1,321,027			\$1,837,427			\$1,970,759
PRESENT VALUE BENEFIT			\$324,617,078			\$12,442,751			\$16,050,420			\$32,840,016
												(includes \$7,536,533 accumulated benefits)
												<u>GRAND TOTALS</u>
												\$34,128,731
												\$385,950,265

* Monthly benefit amounts are estimated for the terminated vested listing.

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Actuarial Bases

The most recent experience study was for the five years ending January 1, 2018.

Mortality: Pre- and Post-Retirement: RP-2014 Employee and Healthy Annuitant Mortality Tables, separate by sex, Projection Scale MP-2016 from 2007, fully generational.

Net Investment Yield: 6.0%, compounded annually.

Salary Increases: 3.0% Non Police, 3.5% Transit Police, plus seniority.

Termination Probabilities:

<u>Age</u>	<u>Non-Police</u>	<u>Transit Police</u>	
		<u>Under 5 YOS</u>	<u>5 YOS or more</u>
30	9.3%	16.7%	7.4%
35	6.1%	11.1%	4.9%
40	3.4%	7.9%	2.7%
45	2.6%	6.1%	2.1%

Retirement: Actual in recent years, age 53.8 for Transit Police and age 57.5 for Non Police.

<u>Age</u>	<u>Non-Police</u>	<u>Transit Police</u>
40-49	0.05	
50	0.10	0.30
51-54	0.10	0.20
55	0.12	0.50
56-61	0.20	0.20
62	0.60	1.00
63-64	0.30	
65-69	0.40	
70	1.00	

Expense Load: Assumed to be the same as actual expenses in the prior year.

Beneficiary: Assumed 100% married with females four years younger.

Sick Leave Accrual: 0.025 years of Credited Service per year.

Methods: Individual Entry Age and Market Value of Assets.

Changes Since Last Valuation:

1. Liability load updated to \$4 million for Transfers and \$2 million for Transit Police.
2. A 3% pensioner one-time lump sum COLA is included in pensioner liabilities.
Approved in 2018 and paid in January, 2019.

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section II: Valuation Input

Plan Outline

Effective Date: As amended through January 1, 2019.

Eligibility: Transit Police hired before January 1, 2015, and other non-union Employees hired before January 1, 2005. Transfers from the Union Plan hired before January 1, 2005, are eligible to join.

Compensation: Base salary, including bonuses, and Section 125 and 457 deferred compensation, paid during a calendar year. This excludes automobile allowance and excess life insurance taxable income. Prior to January 1, 2013, overtime and PTO sales are included.

Average Monthly Plan Compensation: One-twelfth of the average of Compensation for the highest three Plan years within the last eight Plan years prior to date of determination. Earnings during the final partial year are counted.

Credited Service: Years and complete calendar months of Continuous Service with MARTA or its predecessors plus accumulated sick leave.

Portability Credited Service: Years and completed calendar months of prior Credited Service, up to ten years (but not to exceed MARTA Credited Service) worked with accredited public organizations in Fulton, DeKalb, Clayton, and Gwinnett Counties and the City of Atlanta. Broken service under the Union Plan also may be connected under this formula. Portability service is credited if the Participant makes the required Participant contributions and has at least 5 years of Credited Service with MARTA. Effective January 1, 2003, in addition to any other service purchased, certain Participants who occupy specific key senior management positions will be eligible to purchase additional Credited Service up to five years.

Transfers from Union Plan: Effective 1/1/05 a transfer agreement was adopted and assets are no longer transferred. Benefits accrued at date of transfer are retained by the prior plan and may be increased by cost of living factors through 12/31/2016. Total service with both plans counts for vesting and retirement eligibility. Only Credited Service in the Non-Rep Plan counts for benefit accrual and the refund multiplier. Any retirements from active status on or after 1/1/2020 will have a minimum benefit computed as if all service were earned in the Represented Plan.

Effective 1/1/2018, this Plan is closed to all future transfers from the Represented Plan. A new transfer agreement, effective 1/1/2018, allows Represented Plan members to remain in the Represented Plan and accept a non-represented position with MARTA, or become a member of the Non Represented Defined Contribution Plan.

Normal Retirement Date: The last day of the month in which the Participant both attains age 62 and completes five years of Credited Service.

Accrued Retirement Benefit: The lifetime monthly benefit equal to (a) times (b) where

- (a) is the benefit accrual rate for each year of Credited Service (the rate is 2% for less than 20 years, 2.05% if years equal 20 thru 29 and 2.1% if years equal 30 or more), plus 1% for each year of Portability Credited Service, and
- (b) is the Average Monthly Plan Compensation.

Minimum Accrued Retirement Benefit: \$32.50 times Credited Service up to thirty years.

Form of Payment: Effective October 1, 1991, the normal form is a life annuity for single Participants and Participants married less than one year and an actuarial equivalent 50% joint and survivor annuity for other Participants.

Early Retirement:

(i) If age plus Credited Service is 60 or more (years and complete months) and the employee has at least five years of Credited Service, then the benefit payable immediately is the Accrued Retirement Benefit reduced by 3% for each point less than 80 (Note: This does not apply to Transit Police). The Minimum Accrued Retirement Benefit is also reduced. Portability service counts for retirement eligibility.

(ii) The benefit payable immediately is the Accrued Retirement Benefit with no reduction when:

- (a) Attained age 62, or
- (b) Completed thirty years Credited Service, or
- (c) Attained age plus Credited Service equals 80 (Note: This does not apply to Transit Police).

Otherwise, benefit is reduced by 3% (1.5% Police) per year or fraction thereof, between the commencement date (must be age 55, 50 Police) and age 62 (55 Police). There is no reduction of the Minimum Accrued Retirement Benefit.

Rule of 85 grandfathered for all hires prior to November 1, 1996 (both Transit Police and Non-Police); minimum five Years of Service and 52 points.

Points under the Rules of 80 and 85 are fixed at termination.

Disability Retirement: A Participant who is receiving Workman's Compensation or totally and permanently disabled will receive a monthly benefit equal to his Accrued Retirement Benefit, assuming Credited Service includes the period from inception of disability to his Normal Retirement Date, and assuming that his Compensation paid during the year prior to disability continues until his Normal Retirement Date. Benefits commence at the Normal Retirement Date.

Delayed Retirement: A Participant may work past his Normal Retirement Date and receive a monthly benefit commencing the first day of the month on or after the day he retires, equal to the Accrued Retirement Benefit based on Credited Service to date of retirement.

Cost of Living Increase: Each year, the Committee shall review the status of the Plan and is authorized to recommend any increases, if warranted, to the Board of Directors for consideration.

Termination of Service: A Participant who terminates employment after having completed at least five years of Credited Service, for any reason other than disability or retirement or death, may be entitled to a monthly benefit commencing at age 62. The benefit is equal to the Accrued Retirement Benefit at the date of determination.

The Participant may choose to begin receiving his benefit payments any time after age 55, but the benefit, including the minimum, is reduced 3% per year for age below 62. Actuarial increases occur for deferral past Normal Retirement Date.

Minimum Accrued Retirement Benefits will increase for terminated vested Participants each time the minimum is increased for pensioners, except for cost of living increases.

Refund of Contributions:

Participants terminating before five years Credited Service (or from five to ten, if elected) receive their employee contributions with 5% annual interest.

Participants with ten or more years of Credited Service (including Buyback but not Portability), who receive a refund of their pre or after tax contributions (or both), remain entitled to the Employer provided portion of their total Retirement Benefit (minimum 50%).

Alternately the following immediate multiple of employee contributions plus 5% interest may be elected. (This does not apply to Transit Police.)

Years of Non Represented

<u>Credited Service</u>	<u>Multiplier</u>
0	100%
1	120%
2	140%
3	160%
4	180%
5	200%

Notes:

1. Union transfers receive service credit for the above from the date of transfer only.
2. Participant forfeits all further benefits if above is elected.

Reemployment: Former Employees (not retired) rehired at any time, or retired Employees rehired (full-time, non-contract) within 5 years of last date of employment, can either return any cash refund and/or benefit payments plus 5% interest within one year and have prior Credited Service restored, or, otherwise, their new accruals are provided by the defined contribution plan. Retirement benefit payments to pensioners will cease while reemployed (full-time, non-contract). Effective January 1, 2014, these options shall only apply to Transit Police. Effective January 1, 2015, these options shall not apply to any rehired former or retired employee.

Survivor Benefits:

- (a) Death before termination of employment:

<u>Credited Service</u>	<u>Death Benefits</u>
1. Less than 5 years	Return of Employee Contributions and interest
2. 5 but not 10 years	(i) Refund of Employee Contributions plus interest, or (ii) Immediate 50% Joint and Survivor Benefit if completed 52* points (age & service) otherwise, upon date would have attained age 55 (50-Transit Police) as for vested terminations. *if hired before 11/1/1996; Alternately, 60 points for non-police
3. 10 or more years	The 50% J&S Benefit in (2) above is payable (immediately if 20 or more years). However, if Employee Contributions plus interest are refunded, an actuarially reduced gross benefit is payable with a minimum payable to the beneficiary of half the 50% J&S unreduced gross benefit.

The above death benefits are paid to the beneficiaries of all deceased non-retired participants.

- (b) Death on or after Normal Retirement Date and before termination of employment:

Benefit payable under normal or optional form elected by participant on or before Normal Retirement Date. The minimum death benefit will be as in (a) above.

- (c) Death after payments commence, no optional form chosen:

Beneficiary entitled to excess, if any, of Participant's contributions with 5% annual interest to benefit commencement date over the aggregate payments made under the Plan.

Optional Forms of Benefit Payment: Spousal consent must be obtained if married one year or more.

- (a) Single Life Annuity: a monthly pension payable for life.
- (b) Life Annuity with Period Certain: a monthly pension with a certain number of payments guaranteed (not exceeding 180 payments nor extending beyond age 85) and for life thereafter.
- (c) Joint and Survivor Annuity: 50%, 75% or 100% of Participant's reduced benefit continued to an eligible surviving Beneficiary upon Participant's death.
- (d) Modified Joint and Survivor Annuity with Pop Up: if designated Beneficiary dies within 2 years after payments commence, pensioner will have retirement benefit restored, or popped up, to original (Life Annuity) level.
- (e) Lump sum payment of Employee Contributions plus 5% interest. A participant or Beneficiary may elect this lump sum with the actuarial equivalent of the remaining benefit paid as per the above.
- (e) Under all options, the Participant is guaranteed at least a refund of employee contributions plus 5% annual interest calculated to date of retirement.

Deferred Retirement

Option Plan (DROP):

Effective 1/1/01 with the current following main provisions:

Eligible to DROP if eligible for unreduced retirement (62&5, rule of 80, or 30 years of service).

DROP period of one to five years (whole years only).

DROP investment yield: 5.0% annually, reduced effective January 1, 2013 for new DROPs to 1% annually.

Withdrawal from DROP and immediate retirement at member's sole option.

Employees do not contribute to the DROP.

Police are not eligible for the DROP.

Percentage cost of living increases granted during DROP period.

Employee contributions plus interest placed in DROP at entry (if elected).

Optional payment forms elected at end of DROP.

Remaining sick leave converted to a DROP cash deposit (upon retirement) of 1% of monthly pay per sick day.

Contributions:

<u>Effective Date</u>	<u>Non-Police</u>	<u>Transit Police</u>
07/01/89	3.5%	NA
11/01/96	3.5%	5.0%
02/01/02	3.5%	5.0%
07/01/04	5.0%	6.5%
07/01/06	5.0%	6.5%
01/01/13	6.0%	7.5%
7/1/2017	7.0%	8.5%

Employee contributions are waived during periods of disability or while receiving Workman's Compensation.

Special Plan Provisions for Transit Police:

All provisions are the same as the preceding except:

- (a) Normal Retirement Date is the last day of the month in which the Participant attains age 55 and completes five years of Credited Service.
- (b) Early Retirement eligibility from age 50 with a 1.5% reduction for each year prior to age 55.
- (c) Transit Police are not covered by the Rule of 80.
- (d) Transit Police contribute 8.5% of Compensation.
- (e) 2% accrual rate for years of service before 1/1/2000 and 2.25% for years of service after Decemebr 31, 1999.
- (f) The immediate 100% - 200% employee contributions plus 5% interest refund provision does not apply.
- (g) The DROP is not available to Transit Police.

Changes Since Last Valuation:

1. A one-time lump sum COLA was paid to pensioners and DROPs in January, 2019.

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section III: Plan Assets

Statement of Plan Fiduciary Net Position as of December 31, 2017 and 2018

	<u>2018</u>	<u>2017</u>
Investments, at fair value		
Equities	\$210,649,593	\$310,826,834
Fixed Income	\$140,827,353	\$77,204,192
Real Estate Funds	\$21,660,306	\$20,816,784
Short Term Investments	<u>\$10,411,116</u>	<u>\$9,541,568</u>
Total Investments*	\$383,548,368	\$418,389,378
Receivables		
Accrued Interest and Dividends	\$736,387	\$637,051
Employer and Participant Contributions	\$312,922	\$386,153
Due from Brokers	<u>\$11,832,182</u>	<u>\$517,830</u>
Total Receivables	\$12,881,491	\$1,541,034
Prepaid Expenses	\$0	\$31,150
Total assets	\$396,429,859	\$419,961,562
Liabilities	(\$17,016,061)	(\$2,283,002)
Plan Fiduciary Net Position	<u><u>\$379,413,798</u></u>	<u><u>\$417,678,560</u></u>

* Total Investments include:

Active employee contributions with interest		
Transit Police	\$9,336,791	\$10,567,345
Non-Police	\$18,194,201	\$18,485,166
DROP account accumulations	\$7,536,533	\$8,907,954

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section III: Plan Assets

Statement of Changes in Plan Fiduciary Net Position as of December 31, 2017 and 2018

	<u>2018</u>	<u>2017</u>
<u>Receipts During Year</u>		
Investment income		
Dividends and Interest	\$5,813,657	\$5,053,521
Real Estate Income	\$886,715	\$906,169
Realized gains	(\$43,849,359)	\$31,686,129
Market valuation adjustment	\$16,112,269	\$27,272,480
Less Investment Expenses		
Direct Investment Expenses	\$1,130,454	\$1,449,451
Investment Consultants	\$160,725	\$142,212
Net Investment Income	(\$22,327,897)	\$63,326,636
Securities Lending Income	\$124,414	\$86,068
Less Securities Lending Expense	\$43,507	\$30,084
Contributions		
Employer	\$19,434,388	\$13,539,866
Plan Participants	\$2,444,720	\$2,581,821
Miscellaneous receipts	<u>\$8,975</u>	<u>\$930</u>
Total Receipts	(\$358,907)	\$79,505,237
<u>Disbursements During Year</u>		
Benefit payments	\$30,356,819	\$29,576,284
Refunds/Lump Sums	\$7,286,192	\$7,071,188
Non Investment Expenses	\$262,844	\$275,050
Total Disbursements	\$37,905,855	\$36,922,522
Net increase	(\$38,264,762)	\$42,582,715
Plan Fiduciary Net Position		
Beginning of year	<u>\$417,678,560</u>	<u>\$375,095,845</u>
End of year	<u><u>\$379,413,798</u></u>	<u><u>\$417,678,560</u></u>
Non Investment Expenses		
Actuary Fees	\$100,000	\$96,134
Legal Fees	\$65,752	\$60,064
Audit Fees	\$14,500	\$13,800
Trustee and Custodial Fees	\$51,920	\$64,060
Insurance	\$24,751	\$33,982
Conferences, Training and Memberships	\$5,702	\$945
Other	<u>\$219</u>	<u>\$6,065</u>
	\$262,844	\$275,050

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section IV: GASB Statements 67 and 68 Disclosures

Financial Statements Notes
for the Year Ended December 31, 2018

Summary of Significant Accounting Policies

Method used to value investments. Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates.

Plan Description

Plan administration. The Plan Administrator (appointed by the Management Pension Committee) administers the MNRPP -- a single-employer defined benefit pension plan that covers all Transit Police employees hired before January 1, 2015, and non-Union hires before January 1, 2005. MARTA is granted the authority to establish and amend the benefit terms.

Management of the MNRPP is vested in the Management Pension Committee, which consists of between three and ten members.

Plan membership. At December 31, 2018, plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	1,313
Inactive plan members entitled to but not yet receiving benefits	158
Active plan members	467
DROP members	<u>64</u>
Total	2,002

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section IV: GASB Statements 67 and 68 Disclosures

Benefits provided. The MNRPP provides retirement and death benefits. Retirement benefits for non-Transit Police generally are calculated as 2.0%, (or 2.05%, or 2.10%) times Years of Credited Service times Average Monthly Plan Compensation. Transit Police have a 2.25% benefit percentage.

Employees are eligible for non-duty related death benefits after 5 years of service and for duty-related death benefits upon hire. Terminated employees may, or must, withdraw their contributions.

COLA. A one-time lump sum COLA for pensioners was approved in 2018 and paid in January, 2019.

Contributions. The Management Pension Committee establishes contributions based on an actuarially determined rate recommended by an independent actuary. This rate is the estimated costs of benefits earned by employees during the year, with an additional amount to fund the unfunded accrued liability. MARTA is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. For the year ended December 31, 2018, MARTA contributed \$19,434,388 and employees contributed \$2,424,2472 plus \$20,248 for portability service.

Investments

Investment policy. The pension plan's policy for the allocation of invested assets is established by a majority vote of the Management Pension Committee. It pursues an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The policy discourages the use of cash equivalents, except for liquidity purposes, and refrains from dramatically shifting asset class allocations over short time spans. The following was the Management Pension Committee's target asset allocation and Callan's expected real returns:

<u>Asset Class</u>	<u>Allocation 12/31/2018</u>	<u>Real Return (gross less 2.25% inflation)</u>
US Broad Equity	33.0%	4.90%
Global Ex-US Equity	12.0%	5.00%
International Equity	12.0%	4.75%
Domestic Fixed Income	25.5%	1.50%
Non US Fixed	7.5%	(0.85%)
Real Estate	5.0%	4.00%
Convertibles	<u>5.0%</u>	3.95%
Total	100.0%	

Rate of return. For the year ended December 31, 2018, the net money-weighted return was (5.34%) percent. This reflects the changing amounts actually invested.

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section IV: GASB Statements 67 and 68 Disclosures

Deferred Retirement Option Program for Non Police

Eligible to DROP if eligible for unreduced retirement. Maximum period 5 years. 5.0% annual interest credited for DROPs before January 1, 2013, 1.0% thereafter. COLAs granted during DROP period. The DROP balance as of December 31, 2018 is \$7,536,533.

Actuarial assumptions. The actuarial assumptions used in the January 1, 2018, valuation were based on the results of an actuarial experience study for the period January 1, 2013 – January 1, 2018.

Inflation	2.5 percent
Salary increases	3.0 percent for Non-Police and 3.5% for Transit Police; including inflation plus seniority increases averaging under 1%
Investment (discount rate)	6.0 percent, including inflation
Mortality rates	RP-2014 Employee and Healthy Annuitant Mortality Tables, MP-2016 from 2007, fully generational.

The expected arithmetic real rates of return were determined for each major asset class. These are combined to produce the 6.0 percent expected rate of return, or discount rate, by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 2.5% (diversification and volatility also impact this).

Discount rate. The projection of cash flows used to determine the 6.0 percent discount rate assumed that contributions will continue at the current rates. The fiduciary net position was projected to cover all future benefit payments of current plan members.

Sensitivity of the net pension liability to changes in the discount rate.

	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
MARTA's net pension liability	\$170,000,000	\$115,000,000	\$69,000,000

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Schedule of Changes in Net Pension Liability and Related Ratios
Last 10 Plan Years

	2018	2017	2016	2015	2014
Total pension liability					
Service Cost (BOY)	\$5,135,757	\$4,747,378	\$5,656,354	\$6,050,922	\$5,602,324
Interest	\$29,002,499	\$30,291,818	\$32,429,561	\$31,568,974	\$31,474,967
Changes of benefit terms	\$1,000,000	\$2,800,000	(\$37,000,000)		
Difference between expected and actual experience	(\$117,636)	\$4,409,026	\$1,986,731	\$9,180,855	\$4,158,277
Changes in assumptions	\$0	\$26,063,990	\$15,000,000		\$15,913,775
Benefit payments, including refunds of member contributions	(\$37,643,011)	(\$36,647,472)	(\$33,469,613)	(\$34,382,956)	(\$34,023,368)
Net change in total pension liability	(\$2,622,391)	\$31,664,740	(\$15,396,967)	\$12,417,795	\$23,125,975
Total pension liability -- beginning	\$497,060,738	\$465,395,998	\$480,792,965	\$468,375,170	\$445,249,195
Total pension liability -- ending(a)	\$494,438,347	\$497,060,738	\$465,395,998	\$480,792,965	\$468,375,170
Plan fiduciary net position					
Contributions--employer	\$19,434,388	\$13,539,866	\$26,338,819	\$20,114,201	\$20,623,400
Contributions--member	\$2,424,472	\$2,533,358	\$2,625,561	\$2,817,941	\$2,901,714
Member Buybacks--(portability, reemployment, transfers)	\$20,248	\$48,463	\$54,576	\$81,592	\$44,474
Net investment income	(\$22,246,990)	\$63,382,620	\$22,568,207	(\$2,993,731)	\$19,772,328
Benefit payments, including refunds of member contributions	(\$37,643,011)	(\$36,647,472)	(\$33,469,613)	(\$34,382,956)	(\$34,023,368)
Admin expense	(\$262,844)	(\$275,050)	(\$231,370)	(\$244,556)	(\$226,870)
Other	\$8,975	\$930	\$133,427	\$9,179	\$9,996
Net change in plan fiduciary net position	(\$38,264,762)	\$42,582,715	\$18,019,607	(\$14,598,330)	\$9,101,674
Plan fiduciary net position -- beginning	\$417,678,560	\$375,095,845	\$357,076,238	\$371,674,568	\$362,572,894
Plan fiduciary net position -- ending	\$379,413,798	\$417,678,560	\$375,095,845	\$357,076,238	\$371,674,568
Total Plan fiduciary net position					
less Reserves	\$0	\$0	\$0	\$19,264,430	\$19,697,427
Total Plan fiduciary net position -- ending(b)	\$379,413,798	\$417,678,560	\$375,095,845	\$337,811,808	\$351,977,141
MARTA's net pension liability--ending(a)-(b)	\$115,024,549	\$79,382,178	\$90,300,153	\$142,981,157	\$116,398,029
Plan fiduciary net position as a percentage of the total pension liability	76.74%	84.03%	80.60%	70.26%	75.15%
Covered-employee payroll	\$31,144,524	\$34,570,833	\$38,965,707	\$42,300,642	\$45,099,368
MARTA's net pension liability as a percentage of covered employee payroll	369.33%	229.62%	231.74%	338.01%	258.09%

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Schedule of Changes in Net Pension Liability and Related Ratios
Last 10 Plan Years

	2013	2012	2011	2010	2009
Total pension liability					
Service Cost (BOY)	\$5,994,159	\$7,358,027	\$7,123,868	\$7,043,256	\$7,978,311
Interest	\$30,517,434	\$31,877,811	\$30,053,752	\$28,593,241	\$28,402,472
Changes of benefit terms		(\$26,142,611)			
Difference between expected and actual experience	(\$1,032,275)	\$2,451,624	\$9,121,262	\$10,085,686	(\$9,538,595)
Changes of assumptions	\$10,647,945	\$11,227,777	\$5,540,290		
Benefit payments, including refunds of member contributions	(\$31,084,213)	(\$27,985,947)	(\$27,527,412)	(\$25,173,767)	(\$21,617,625)
Net change in total pension liability	\$15,043,050	(\$1,213,319)	\$24,311,760	\$20,548,416	\$5,224,563
Total pension liability -- beginning	\$430,206,145	\$431,419,464	\$407,107,704	\$386,559,288	\$381,334,725
Total pension liability -- ending(a)	\$445,249,195	\$430,206,145	\$431,419,464	\$407,107,704	\$386,559,288
Plan fiduciary net position					
Contributions--employer	\$21,619,156	\$24,035,761	\$21,824,994	\$20,542,964	\$17,323,663
Contributions--member	\$3,388,561	\$3,415,861	\$3,365,722	\$3,225,401	\$3,410,560
Member Buybacks--(portability, reemployment, transfers)	\$89,506	\$30,974	\$21,495	\$33,070	\$120,935
Net investment income	\$66,798,252	\$33,193,646	\$3,999,287	\$28,563,975	\$37,663,929
Benefit payments, including refunds of member contributions	(\$31,084,213)	(\$27,985,947)	(\$27,527,412)	(\$25,173,767)	(\$21,617,625)
Admin expense (prior 2013 includes NT investment expense)	(\$350,527)	(\$1,314,940)	(\$1,191,766)	(\$1,086,081)	(\$902,904)
Other	\$340,690	\$415,070	\$242,361	\$135,747	\$172,425
Net change in plan fiduciary net position	\$60,801,425	\$31,790,425	\$734,681	\$26,241,309	\$36,170,983
Plan fiduciary net position -- beginning	\$301,771,469	\$269,981,044	\$269,246,363	\$243,005,054	\$206,834,071
Plan fiduciary net position -- ending	\$362,572,894	\$301,771,469	\$269,981,044	\$269,246,363	\$243,005,054
Total Plan fiduciary net position					
less Reserves	\$14,367,761	\$11,232,400	\$10,730,232	\$10,638,138	\$8,446,717
Total Plan fiduciary net position -- ending(b)	\$348,205,133	\$290,539,069	\$259,250,812	\$258,608,225	\$234,558,337
MARTA's net pension liability--ending(a)-(b)	\$97,044,062	\$139,667,076	\$172,168,652	\$148,499,479	\$152,000,951
Plan fiduciary net position as a percentage of the total pension liability	78.20%	67.53%	60.09%	63.52%	60.68%
Covered-employee payroll	\$45,668,014	\$49,338,475	\$58,224,734	\$58,139,764	\$58,614,242
MARTA's net pension liability as a percentage of covered-employee payroll	212.50%	283.08%	295.70%	255.42%	259.32%

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section IV: GASB Statements 67 and 68 Disclosures

Contributions

PYE	Actual and Actuarially Required MARTA Contribution (a)	Employee Contributions (b)	Total Required Contribution (a) + (b) = (c)	Covered Payroll (d)	(c) / (d)
2018	\$19,434,388	\$2,424,472	\$21,858,860	\$31,144,524	70.19%
2017	\$13,539,866	\$2,533,358	\$16,073,224	\$34,570,833	46.49%
2016*	\$46,847,696	\$2,625,561	\$49,473,257	\$38,965,707	126.97%
2015	\$20,386,799	\$2,817,941	\$23,204,740	\$42,300,642	54.86%
2014	\$16,205,479	\$2,901,714	\$19,107,193	\$45,099,368	42.37%
2013	\$21,087,045	\$3,388,561	\$24,475,606	\$45,668,014	53.59%
2012	\$24,806,039	\$3,415,861	\$28,221,900	\$49,338,475	57.20%
2011	\$21,891,970	\$3,365,722	\$25,257,692	\$58,224,734	43.38%
2010	\$19,414,817	\$3,225,401	\$22,640,218	\$58,139,764	38.94%
2009	\$20,193,356	\$3,410,560	\$23,603,916	\$58,614,242	40.27%

* includes reserves of \$20,813,026 as of 12/31/2016 moved to the Fund

Notes to Schedule

Valuation date: Actuarially determined contribution rates are calculated as of January 1 of the Plan Year in which contributions are reported.

Methods used to determine contribution rates:

Actuarial cost method	Individual Entry age
Amortization method	Fixed Dollar; Closed
Remaining amortization period	13 years
Asset valuation method	Market Value

Investment Returns

Money-weighted return, net of
investment expense beginning 2014

<u>Arithmetic:</u>		2018	-5.34%
2014-2018	4.6%	2017	17.25%
2009-2013	13.4%	2016	6.41%
		2015	-0.82%
		2014	5.51%
		2013	22.62%
		2012	12.46%
		2011	1.65%
		2010	11.93%
		2009	18.35%

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section III: GASB Statements 67 and 68 Disclosures

Statement 68 Pension Expense

	<u>12/31/2018</u>
Service Cost (BOY)	\$5,135,757
Employee Contributions	(\$2,424,472)
Portability purchase plus other	(\$29,223)
6.0% Interest on Accrued Liability (page 18)	\$29,002,499
Expected 6.0% Interest on Net Assets	(\$24,996,618)
Transfer Minimum Benefit and Pensioner Lump Sum	\$2,400,000
Non Investment Expense	\$262,844
Current period recognition of deferred outflow/(inflows)	
Non-investment actuarial experience	\$4,692,306
Actual investment experience	\$8,283,544
Assumption changes	<u>\$18,771,217</u>
TOTAL	\$41,097,854

Future fiscal years outflows(inflows) to be recognized

	Non-investment Actuarial Experience	Actual Investment Experience	Assumption Changes	<u>TOTAL</u>
2020	\$2,487,793	\$7,157,993	\$5,739,222	\$15,385,008
2021	\$2,049,925	\$2,040,869	\$1,989,222	\$6,080,016
2022	\$519,785	\$1,695,833	\$1,989,222	\$4,204,840
2023	<u>\$0</u>	<u>\$9,448,722</u>	<u>\$0</u>	<u>\$9,448,722</u>
	\$5,057,503	\$20,343,417	\$9,717,666	\$35,118,586

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
NON-REPRESENTED PENSION PLAN

Section III: GASB Statements 67 and 68 Disclosures

Statement 68 Fiscal Year Required Supplementary Information

FISCAL YEAR ENDED	<u>6/30/2019</u>	<u>6/30/2018</u>	<u>6/30/2017</u>	<u>6/30/2016</u>	<u>6/30/2015</u>
<u>Contributions</u>					
Actuarially Determined Contribution	\$14,664,449	\$13,181,101	\$19,787,268	\$23,210,735	\$18,296,139
Actual Employer Contributions	\$17,646,915	\$17,158,360	\$24,346,177	\$19,786,653	\$20,368,801
Contribution Deficiency (Excess)	(\$2,982,467)	(\$3,977,260)	(\$4,558,909)	\$3,424,081	(\$2,072,662)
Covered Payroll	\$31,424,511	\$34,157,487	\$38,230,714	\$43,401,577	\$43,700,005
Actual Contributions as % of Covered Payroll	56.16%	50.23%	63.68%	45.59%	46.61%

FISCAL YEAR ENDED	<u>6/30/2014</u>	<u>6/30/2013</u>	<u>6/30/2012</u>	<u>6/30/2011</u>	<u>6/30/2010</u>
<u>Contributions</u>					
Actuarially Determined Contribution	\$18,646,262	\$22,946,542	\$23,349,005	\$20,653,394	\$19,804,087
Actual Employer Contributions	\$21,121,278	\$22,827,459	\$22,930,378	\$21,183,979	\$18,933,314
Contribution Deficiency (Excess)	(\$2,475,016)	\$119,084	\$418,627	(\$530,586)	\$870,773
Covered Payroll	\$45,383,691	\$47,503,245	\$53,781,605	\$58,182,249	\$58,377,003
Actual Contributions as % of Covered Payroll	46.54%	48.05%	42.64%	36.41%	32.43%