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STATE OF NEW YORK  
OFFICE OF THE STATE COMPTROLLER

April 8, 2022

Janno Lieber  
Chairman and Chief Executive Officer  
Metropolitan Transportation Authority  
2 Broadway  
New York, NY 10004

Re: Selected Performance Measures  
Report 2021-F-26

Dear Mr. Lieber:

Pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law, we have followed up on the actions taken by officials of the Metropolitan Transportation Authority to implement the recommendations contained in our prior audit report, *Selected Performance Measures* ([2018-S-18](#)).

**Background, Scope, and Objective**

The Metropolitan Transportation Authority (MTA) is a public benefit corporation chartered by the New York State Legislature in 1965. There are six agencies of the MTA: Bridges and Tunnels, MTA Construction and Development, Metro-North Railroad (Metro-North), Long Island Rail Road (LIRR), New York City Transit (Transit), and MTA Bus Company (MTA Bus). (The latter four are the focus of this report and are herein collectively referred to as the Agencies.) The administrative arm is known as MTA Headquarters.

The MTA is required under the Public Authorities Law to report annually on its performance including specific performance measures for each Agency, such as ridership and mean distance between failures (MDBF). Performance and other measures are reported to committees of the MTA Board monthly. Certain measures are also reported on the Performance Metrics Dashboards on the MTA's website and during public meetings.

The Agencies are required to submit some of these measures to government oversight agencies such as the Federal Transit Administration (FTA) for inclusion in its National Transit Database (NTD). The FTA uses this information to allocate federal funding to urban and rural areas in the United States.

Our prior audit concluded that between January 1, 2015 and August 22, 2018, performance measurements were not consistent and accurate among MTA Agencies. There were deficiencies and inconsistencies in the Agencies' methodology and calculations for the two performance measures examined – MDBF and ridership.

For example, MDBF should measure the distance that each train travels before it experiences a mechanical failure. However, the two components used in the calculation – mileage and failures – were not accurate. Mileage was overstated and failures were understated.

Additionally, Transit and LIRR do not include failures for incidents that are under the threshold for reporting the train as delayed (5 minutes for Transit, 6 minutes for LIRR). Further, if more than one mechanical failure is found, only one is counted.

With regard to ridership, which should be counting the number of people traveling on the trains on a daily basis, LIRR and Metro-North reported based on ticket sales data and using estimates based on a 36-year-old survey, and MTA Bus did not include non-paying riders, such as employees. The NTD uses ridership to allocate federal funding; therefore, understating or overstating ridership may result in misleading and inaccurate information being reported and impacting funding.

We issued our initial audit report on January 6, 2020. The objective of our follow-up review was to assess the extent of implementation, as of March 16, 2022, of the seven recommendations included in the initial report.

### **Summary Conclusions and Status of Audit Recommendations**

We found that MTA made some progress in implementing the recommendations contained in our prior report. Of the seven prior audit recommendations, one was implemented, four were partially implemented, and two were not implemented.

### **Follow-Up Observations**

#### **Recommendation 1**

*Evaluate Transit Subways and LIRR MDBF to ensure it is an easily understood, accurate representation of car fleet reliability and service reliability and determine whether changes need to be made regarding how the metrics are calculated and presented.*

Status – Not Implemented

Agency Action – Both Agencies claimed to have evaluated the metric; however, no documentation of an evaluation was provided. MDBF is maintained by both Agencies as an operating statistic, and there were no changes to the formula or methodology for calculating MDBF since our initial audit. The Agencies stated that the metric is an industry-wide statistic, and officials are satisfied with how the metric is calculated; therefore, no change is necessary. Transit officials added that they are a member of the Community of Metros (CoMET) and one of the principles is to improve performance through benchmarking.

We maintain our position that, while the metric may measure overall fleet reliability, it is not a “performance measure” that could be used by customers as a measure of service reliability. Although the CoMET report lists MDBF as a key performance measure, it also states that, while this is a primary indicator, it only reflects the frequency of incidents and not the length of the delays, which is an important factor when considering reliability. Furthermore, the CoMET 2014 report states that MDBF does not reflect the extent to which passengers are affected. MTA officials restated their disagreement at the closing conference.

## **Recommendation 2**

*Ensure that all failures for canceled trains are evaluated for inclusion in the MDBF calculation. Ensure that each train car with a failure is included in the count of failures.*

Status – Not Implemented

Agency Action – The Agencies (LIRR and Transit) did not evaluate the inclusion of all failures for canceled trains in the MDBF calculation, stating that this methodology of calculating MDBF is used throughout the railroad industry and that revising it would create inconsistency in industry-wide comparisons. LIRR added that although the delays less than 6 minutes are excluded from the calculation, they are still being tracked and addressed because all breakdowns are entered in the system despite the length of the corresponding delay. LIRR officials did not feel that disclosing and including malfunctions and failures under 5 minutes is necessary.

MTA continues to look at the failures in terms of whether or not the trains are late and the initial cause of the delays. It uses the information to schedule future maintenance and repairs. However, riders depend on accurate information in order to make decisions on their use of the services provided. If the information is available related to all canceled trains, there is nothing that prevents the MTA from providing this information to riders and other interested stakeholders.

## **Recommendation 3**

*Update the survey used to calculate commuter railroads' ridership statistics, including, but not limited to, consideration of ticket use patterns; changes in the composition and travel habits of customers; and changes in ticket, pass, and refund policies.*

Status – Partially Implemented

Agency Action – LIRR and Metro-North officials stated that they assessed the methodology and determined it to be applicable, even considering changes in commuter patterns resulting from the COVID-19 pandemic. However, the MTA provided no evidence that it assessed the methodology or had any discussions about it. Officials believe the current model is reasonable and works no matter which type of pass a rider chooses. They indicated the methodology will be revisited once the new fare payment system (OMNY) is in place, estimated to be in 2024. Considering the drastic changes resulting from the shift in the economic landscape, emerging trends, and customer preferences as well as the changes due to working from home as a result of the COVID-19 pandemic, it is questionable that a survey performed in 1983 or LIRR's reassessment in 2013 could reflect or still be applicable to commuter patterns today.

## **Recommendation 4**

*Examine methods used by other commuter railroads to develop ridership counts and technology changes to improve counting methodologies.*

Status – Partially Implemented

Agency Action – Officials at LIRR stated that it is the largest system in the country and that there are not many comparable systems. However, they contacted Chicago Transit Authority regarding its process. Officials at Metro-North referenced a few internal pilot

programs and demonstration projects to count daily ridership by validating tickets at different locations. However, the results were inconclusive. They did not provide any documentation to support their actions.

#### **Recommendation 5**

*Enhance transparency in disclosure of the ridership metric by explaining the means by which the statistic is developed.*

Status – Partially Implemented

Agency Action – In their reporting, LIRR officials included a note, which states that “Ridership is based on ticket sales.” While this is a change from what was previously done, it does not provide more clarity to users. Metro-North officials included a note in their internal report, which states that “Ridership is calculated based on the number of tickets sold multiplied by a factor related to each different type of ticket. Monthly/Weekly factor is based on the number of weekdays and weekend days per month.” While this may provide additional information, the note is not included in reports available to the public. As such, it does not meet the intent of the recommendation.

#### **Recommendation 6**

*Both commuter railroads should evaluate the use of electronic ticket activation data as part of their ridership calculation and document the results.*

Status – Partially Implemented

Agency Action – According to LIRR and Metro-North officials, the available ticket activation data is not considered complete and is not used to calculate ridership. The use of data from electronic tickets is dependent on the installation of the new fare payment system, OMNY. However, installation efforts have been slowed by the COVID-19 pandemic, and it will not be fully implemented on the commuter railroads until 2024. The e-ticket and paper ticket systems will continue until the new system is rolled out.

#### **Recommendation 7**

*Adjust the MTA Bus ridership methodology for FTA reporting to properly identify non-revenue riders.*

Status – Implemented

Agency Action – MTA Bus started to include non-revenue riders in 2018. The revised methodology identifies riders classified as unlinked passenger trips and both local bus and express bus ridership were increased to account for employee swipes, fare box errors, and other underpayments. From 2018 through the first 3 months of 2020, a factor was developed from sample observations done by employees and projected to calculate the total unpaid ridership. (Fare collections were suspended on MTA and Transit buses in March 2020 because of the COVID-19 pandemic, and surveys were not performed.) In 2021, the non-revenue riders’ figure was developed using automatic passenger counters (APC). However, only half the buses have APC, and a factor was applied to the fare box counts for all buses to develop unpaid ridership.

Major contributors to the report were Robert C. Mehrhoff, Susan Gordon, and Aurora Caamano.

We would appreciate your response to this report within 30 days, indicating any actions planned to address the unresolved issues discussed in this report. We also thank the management and staff of MTA for the courtesies and cooperation extended to our auditors during this review.

Very truly yours,

Carmen Maldonado  
Audit Director

cc: M. Woods, AG  
D. Jurgens, Assistant AG  
Division of the Budget