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President's Report

Andy Byford, President

NYCT President Andy Byford and members of his executive team honored a number of employees with 'On The Spot' awards for embodying one or more of the NYCT Guiding Principles of: Safety, Customer Service, Teamwork, Leadership, Diversity & Inclusion, and Accountability. The program allows managers to recognize employees who are 'caught doing the right thing' in the field, going above and beyond to serve our customers, and their dedication to the Transit community.

November 2019 President's Commentary

My team continues to focus on the basics of running an effective and efficient transit system and the results show further progress.

Subway on-time performance was in excess of 80% for the fifth period in a row with major delays down by nearly 38%, year-over-year.

Meanwhile, our work to safely speed up the subway continues apace in conjunction with our union partners and with input from train operators and local managers. The Save Safe Seconds campaign has now delivered 197 civil speed increases and 239 signal recalibrations resulting in improved journey times across all lines.

Bus performance shows improvement in all metrics, year-over-year. Here again, our focus on basics and involvement of front-line teams to identify and tackle root causes of delay is paying off. I am particularly excited by the ongoing success of the busway on 14th Street and by the accelerating roll-out of camera enabled, automatic bus lane enforcement on key routes.

Progress also continues on our Fast Forward vision of a more accessible subway. I was proud to join Alex Elegudin and the Transit and contractor teams for the official opening of one of two elevators at 8th Avenue Station in Brooklyn, the 124th accessible station on our network. This elevator was installed just 4 months from the time ground broke to opening day, testament to the adoption of innovative off-site construction design specified by Transit's Capital Program team.

The fourth equal objective of Fast Forward, people and process reform and a customer-led philosophy, is also very much a priority. I have spent a lot of time out and about on the system in recent weeks, talking to front-line colleagues and showing appreciation for what they, and key partners such as NYPD do, every day, to successfully move 8 million riders around this great city.

We continue to work our way through prioritized upgrades of employee workspaces, many of which are long overdue for upgrades. This is a key objective for me, as is our ongoing push to reduce employee assaults. Business improvement is reliant on a well-led, motivated workforce and to that end, it is essential that we continue to engage with and cherish the 50,000 men and women of Transit, now more than ever.

Andy Byford
President

Customer Service Report: Subways
Sally Librera, Senior Vice President

NYCT celebrated the 115th anniversary of the subway system on October 27, 2019, with the first Subway Day. Events and activities included photos and historic images throughout the system, extended hours at the New York Transit Museum, and vintage train rides for the public.

November 2019 Highlights: Department of Subways

Although the figures are preliminary due to the early timing of this month's meeting, I am pleased to report that the ongoing trend of subway performance improvements continued in October 2019, which was the 5th consecutive month with weekday on-time performance (OTP) above 80% and the 14th consecutive month in which Subways' delay reduction target was met. There were 44 weekday major incidents, a 15% improvement compared to October 2018 and the third fewest on record despite an above average number of weekdays in the month. Other customer-focused metrics, including Additional Platform Time, Additional Train Time, and Customer Journey Time Performance, also had significant year-over-year improvements.

Weekday OTP and running times improved on every non-shuttle line compared to one year ago. Of the twenty non-shuttle lines, eight had weekday OTP above 80% in October 2019; a year ago, only the L line was above 80% and only four other lines were even above 70%. These results show how the efforts of the Subway Action Plan, Save Safe Seconds, and Fast Forward are coming together to drive real improvements for our customers.

Although we are enormously proud of the improvements in operational performance, an even better measure of our success comes directly from our customers in the form of increasing ridership and improving customer satisfaction scores. September was the fourth consecutive month of year-over-year weekday ridership increases, which also occurred in seven of the past nine months. As reported last month, the Customers Count survey saw a 13.1 percentage point improvement in satisfaction for the 3rd quarter of 2019 compared to the same period last year, with the greatest improvements in waiting time, travel time, and unexpected delays. This shows that customers recognize the improvement in service and are choosing the subway more.

Elevators and escalators are also showing a positive trend for performance in recent months. Although elevator availability decreased year-over-year due to a program of special inspections that began in August, there has been an improving trend over the past two months. Escalator availability increased year-over-year and has shown an improving trend since the spring of 2019 as a new maintenance protocol has increased frequency of preventive maintenance and improved escalator reliability.

On October 27, we were excited to celebrate the 115th anniversary of the opening of the first New York City subway line. Although we remain laser focused on continuing to drive up performance and deliver an improved customer experience, the anniversary was an opportunity to reflect on the technological marvel that the subway was in 1904, and continues to be. And our vintage trains not only provide a fun way to enjoy the nostalgia of the system, they also remind us of the modern amenities we've come to expect in place of ceiling fans and incandescent light bulbs.

The Subways team is committed to maintaining and building upon the improvements of the past year, and delivering the service our customers expect and deserve.

Sally Librera
Senior Vice President, Department of Subways

Subway Report (Weekday & Full Month)

Subway Report Performance Indicators						
Performance Indicator	**October 2019**			**12-Month Average**		
	This Year	**Last Year**	**% Change**	**This Year**	**Last Year**	**% Change**
Weekday Customer-Focused Metrics						
Weekday Major Incidents (Chart 1) Unplanned incidents delaying 50+ trains	44	52	-15.4%	48.6	66.6	-27.0%
Weekday Service Delivered (Chart 3) % of scheduled trains operated Weekday rush hours (7-10a and 4-7p)	96.3%	95.6%	+0.7%	96.4%	94.7%	+1.8%
Additional Platform Time (h:mm:ss) (Chart 7) Average added time spent waiting for trains, compared with scheduled wait time	0:01:12	0:01:17	-6.5%	0:01:12	0:01:19	-8.9%
Additional Train Time (h:mm:ss) (Chart 9) Average additional unanticipated time spent onboard train compared to scheduled travel time	0:00:56	0:01:14	-24.3%	0:00:57	0:01:22	-30.5%
Customer Journey Time Performance (Chart 11) % of customers whose journeys are completed within five minutes of schedule.	83.5%	79.9%	+4.5%	83.0%	79.1%	+4.9%
Inputs to Operations						
Mean Distance Between Failures* (Chart 13) Revenue car miles divided by the number of delays attributed to car-related causes						
Elevator Availability (Chart 14)** % of time elevators are operational systemwide	95.9%	96.3%	-0.4%	96.4%	96.5%	-0.1%
Escalator Availability (Chart 14)** % of time escalators are operational systemwide	91.7%	91.4%	+0.3%	89.5%	93.9%	-4.7%
Weekday Legacy Indicators						
Weekday Wait Assessment (Chart 15)	75.2%	72.2%	+4.2%	74.5%	70.4%	+5.8%
Weekday Terminal On-Time Performance (Chart 17)	81.5%	70.3%	+15.9%	78.7%	65.7%	+19.8%
Weekday Trains Delayed (Chart 19)	34,869	56,139	-37.9%	37,093	60,231	-38.4%

* Data still being compiled.

** Availability measures the percent of time that a unit is running and available for customer service. All service outages, regardless of cause, count as downtime in the availability calculation. (Note: Units out of service for capital rehabilitation are excluded from the calculations.)

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Report (Weekend)

Performance Indicator	October 2019			12-Month Average		
	This Year	Last Year	% Change	This Year	Last Year	% Change
Weekend Customer-Focused Metrics						
Weekend Major Incidents (Chart 2) Unplanned incidents delaying 50+ trains	2	7	-71.4%	4.8	8.7	-44.8%
Weekend Service Delivered (Chart 5) % of scheduled trains operated during Weekends (10a-6p)	98.9%	98.6%	+0.3%	98.5%	96.7%	+1.9%
Weekend Legacy Indicators						
Weekend Wait Assessment (Chart 16)	83.3%	81.5%	+2.2%	81.7%	76.8%	+6.4%
Weekend Terminal On-Time Performance (Chart 18)	85.0%	79.0%	+7.6%	82.4%	68.4%	+20.5%
Weekend Trains Delayed (Chart 20)	6,573	9,348	-29.7%	8,796	16,748	-47.5%

Subway Report Performance Indicators

Subway Report (Staten Island Railway)

Performance Indicator	October 2019			12-Month Average		
	This Year	Last Year	% Change	This Year	Last Year	% Change
On-Time Performance						
24 Hour On-Time Performance % of scheduled trains arriving within six minutes of their scheduled arrival time during a 24-hour period	90.8%	92.8%	-2.2%	95.5%	95.7%	-0.2%
AM Rush On-Time Performance % of scheduled trains arriving within six minutes of their scheduled arrival time	97.5%	97.0%	+0.5%	97.0%	96.7%	+0.3%
PM Rush On-Time Performance % of scheduled trains arriving within six minutes of their scheduled arrival time	90.3%	94.5%	-4.4%	94.3%	95.2%	-0.9%
Percentage of Completed Trips						
Percentage of Completed Trips	99.7%	99.3%	+0.4%	99.7%	99.7%	0.0%
Mean Distance Between Failures						
Mean Distance Between Failures Revenue car miles divided by the number of delays attributed to car-related causes	43,021	75,265	-42.8%	85,638	64,031	+33.7%

Subway Report Performance Indicators

Staten Island Railway On-Time Performance excludes delays from trains purposely held for connecting passengers from the Staten Island Ferry.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 1: Customer-Focused Metrics

The metrics in this section measure subway performance as it affects our passengers. By focusing on how many disruptive incidents have occurred in the subway, how closely actual service matches schedules, and how much longer passengers must wait and ride compared to schedules, these measures collectively reflect the customer experience.

Performance Indicator Definitions

Major Incidents (Weekday and Weekend)
An unplanned incident that delays 50 or more trains. Major incidents are separated into six categories: Track, Signals, Persons on Trackbed/Police/Medical, Stations & Structures, Subway Car and Other.

Service Delivered (Weekday and Weekend)
Measures NYCT's ability to deliver the service that's scheduled. Service Delivered is measured along the busiest part of the line, which reflects service across the entire line, and is reported as the percentage of scheduled trains that are provided during the following times:
 • Weekday Peak Hours – 7 a.m. to 10 a.m. and 4 p.m. to 7 p.m.
 • Weekends - 10 a.m. to 6 p.m.

Additional Platform Time (APT)
The average added time that customers spend waiting on the platform for a train, compared with their scheduled wait time. Additional Platform Time is measured using a combination of customers' MetroCard entry data into stations and train departure times from those stations, using information from the real-time train tracking technologies that provide train arrival information.

Additional Train Time (ATT)
The average additional unanticipated time customers spend onboard the train due to various service issues. Additional Train Time is measured using a combination of customers' MetroCard entry data into their starting stations and customers' arrival times at their destination stations, using information from the real-time train tracking technologies that provide train arrival information.

Customer Journey Time Performance (CJTP)
The percentage of customers whose journeys (waiting and travel time) are completed within five minutes of their scheduled journey time.

APT, ATT, and CJTP use ATS-A data (historical data available) for the A Division and beacon data calibrated with other sources for the B Division. B Division data is not available prior to March 2017. These are beta metrics and may change with further development.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

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Subway Weekday Major Incidents
(24 hours)

Desired trend

Legend: Monthly — 12-Month Average
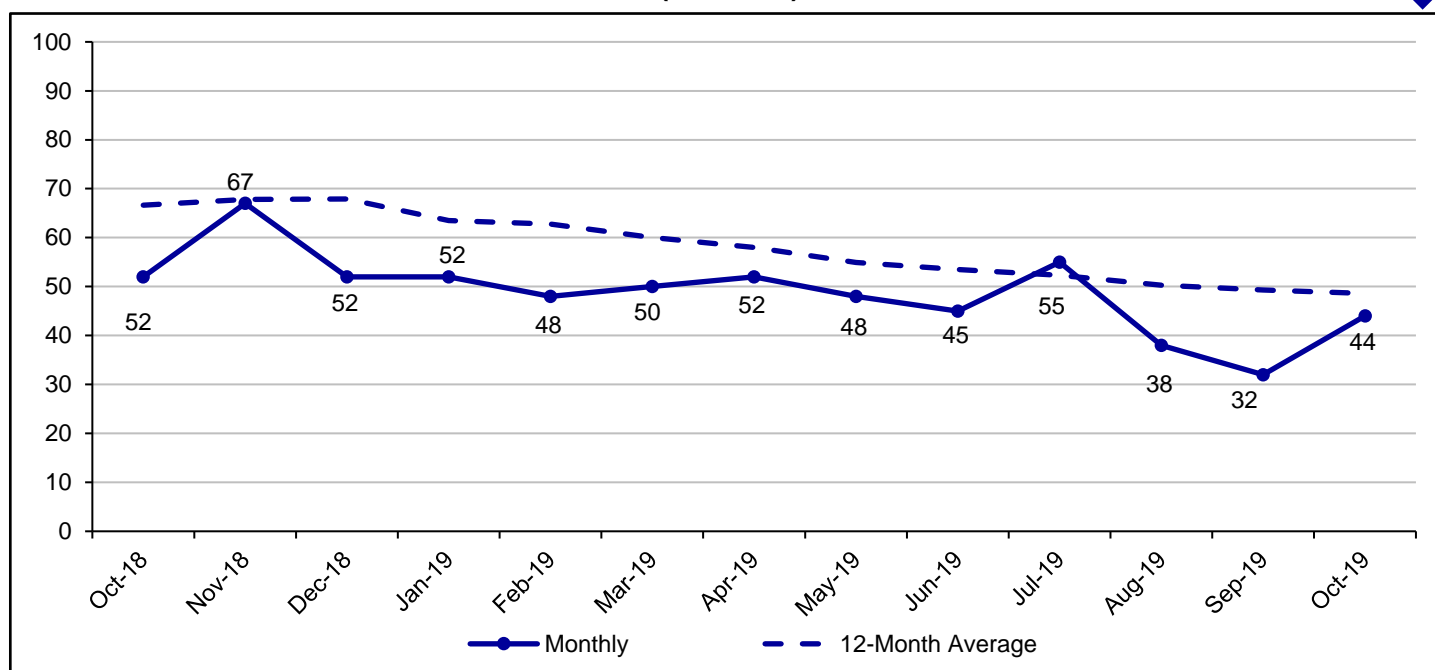
Categories	Monthly			12-Month Average		
	Oct 19	Oct 18	% Change	Oct 19	Oct 18	% Change
Track	8	8	0.0%	7.6	12.3	-38.2%
Signals	16	23	-30.4%	15.7	22.2	-29.3%
Persons on Trackbed/Police/Medical	6	11	-45.5%	12.2	12.6	-3.2%
Stations & Structures	4	3	+33.3%	1.8	6.3	-71.4%
Subway Car	4	2	+100.0%	4.4	3.6	+22.2%
Other	6	5	+20.0%	6.9	9.6	-28.1%
Subdivision A	**21**	**23**	**-8.7%**	**23.5**	**30.8**	**-23.7%**
Subdivision B	**23**	**29**	**-20.7%**	**25.1**	**35.8**	**-29.9%**
Systemwide	**44**	**52**	**-15.4%**	**48.6**	**66.6**	**-27.0%**
Avg Incident Duration (h:mm:ss)	0:22:54	0:19:24	+18.0%	0:16:12	0:17:24	-6.9%
Avg Trains Delayed per Incident	111	95	+16.8%	103	103	0.0%

Major Incidents Discussion

- There were 44 weekday major incidents in October 2019, a 15% improvement compared to a year ago, and the third fewest of any month since historical tracking began in 2015.
- The largest absolute decrease for the month was in Signals, which had 7 fewer major incidents than last October.
- Track, Signals, and Stations & Structures had the largest improvements in their 12-month averages.

Chart 1

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekend Major Incidents
(24 hours)

Desired trend

Legend: Monthly • • • 12-Month Average
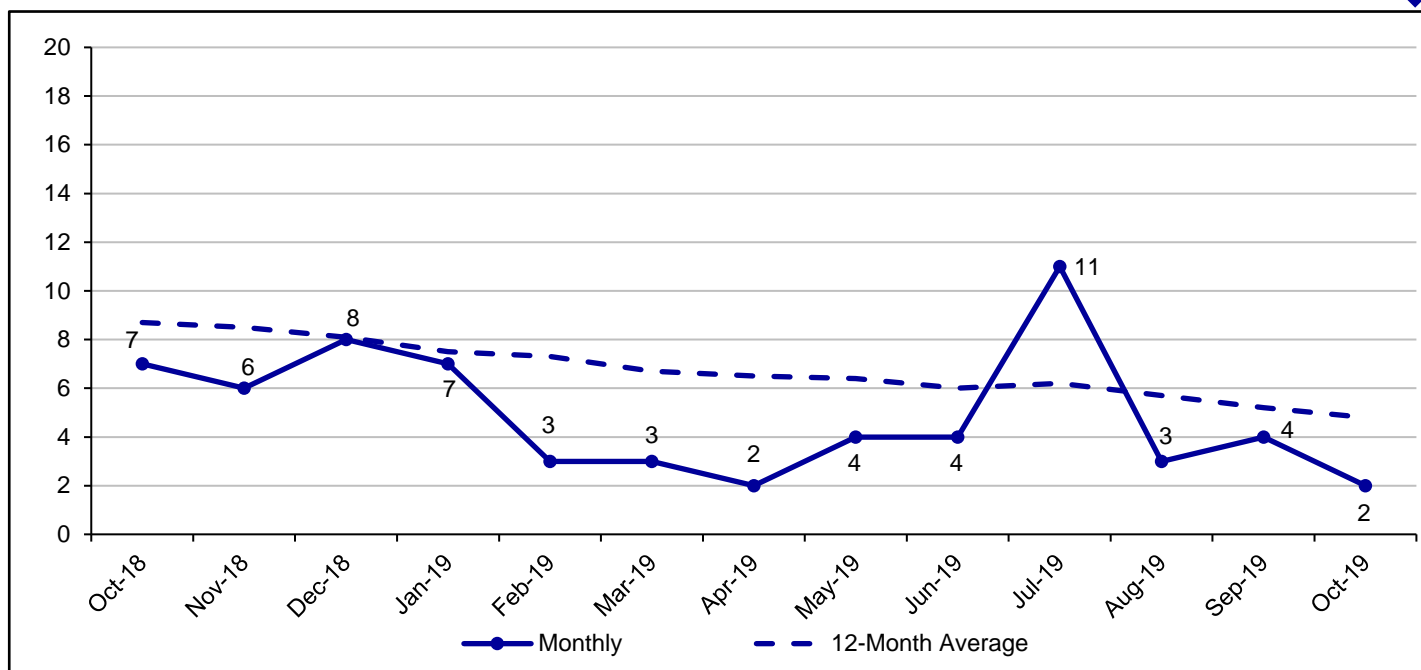
Categories	Monthly			12-Month Average		
	Oct 19	Oct 18	% Change	Oct 19	Oct 18	% Change
Track	0	2	-100.0%	0.7	1.3	-46.2%
Signals	0	0	N/A	0.8	2.8	-71.4%
Persons on Trackbed/Police/Medical	1	2	-50.0%	0.8	1.6	-50.0%
Stations & Structure	0	0	N/A	0.5	1.3	-61.5%
Subway Car	0	1	-100.0%	0.2	0.2	0.0%
Other	1	2	-50.0%	1.8	1.6	+12.5%
Subdivision A	**1**	**4**	**-75.0%**	**2.2**	**3.5**	**-37.1%**
Subdivision B	**1**	**3**	**-66.7%**	**2.6**	**5.2**	**-50.0%**
Systemwide	**2**	**7**	**-71.4%**	**4.8**	**8.7**	**-44.8%**
Avg Incident Duration (h:mm:ss)	0:39:00	0:12:24	+214.5%	0:16:30	0:19:12	-14.0%
Avg Trains Delayed per Incident	57	72	-20.8%	99	91	+8.8%

Major Incidents Discussion

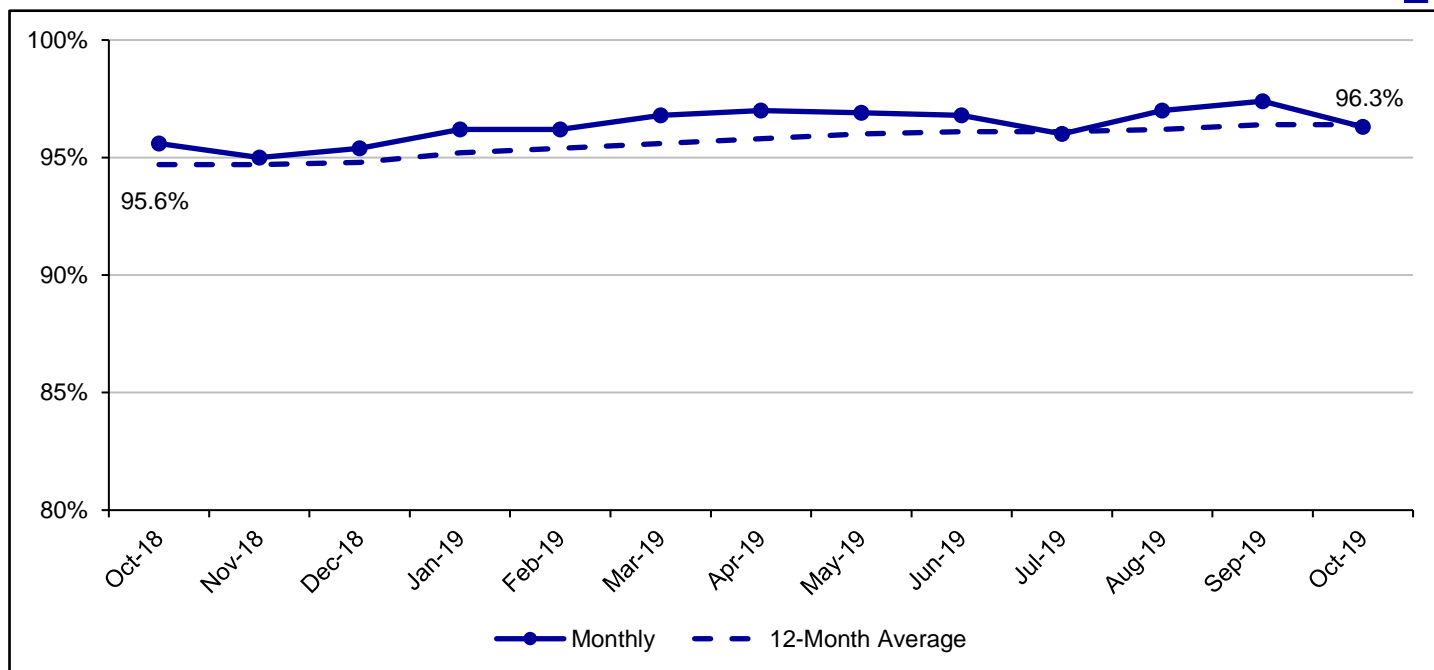- Weekend major incidents decreased by 5 from October 2018 and were below the 12-month average.
- This averaged less than one major incident per weekend, consistent with every month since February 2019 except July.

Chart 2

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

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Subway Weekday % Service Delivered
(Peak Hours)

Desired trend

95.6%

96.3%

Monthly   12-Month Average

	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Subdivision A	96.3%	94.6%	+1.8%	96.0%	93.0%	+3.2%
Subdivision B	96.4%	96.3%	+0.1%	96.8%	95.9%	+0.9%
Systemwide	**96.3%**	**95.6%**	**+0.7%**	**96.4%**	**94.7%**	**+1.8%**

Weekday Service Delivered Discussion

- Service Delivered was 96.3%, an increase of 0.7% compared to the prior year but a decrease of 1.1% from last month's recent high.

Chart 3

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

# Subway Weekday % Service Delivered
Monthly
(Peak Hours)

Desired trend ⬆

Line	Oct 19	Oct 18	% Change
1	98.7%	97.6%	+1.1%
2	99.0%	96.1%	+3.0%
3	98.9%	96.8%	+2.2%
4	95.0%	92.3%	+2.9%
5	94.4%	90.8%	+4.0%
6	94.4%	94.1%	+0.3%
7	94.9%	91.7%	+3.5%
S 42nd	96.9%	99.1%	-2.2%
Subdivision A	**96.3%**	**94.6%**	**+1.8%**
A	93.9%	95.6%	-1.8%
B	96.7%	97.0%	-0.3%
C	96.2%	96.6%	-0.4%
D	96.5%	97.0%	-0.5%
E	95.4%	95.5%	-0.1%
F	95.1%	98.0%	-3.0%
S Fkln	100.0%	99.8%	+0.2%
G	97.7%	101.1%	-3.4%
S Rock	99.8%	98.6%	+1.2%
JZ	98.8%	97.4%	+1.4%
L	99.7%	96.9%	+2.9%
M	95.9%	92.7%	+3.5%
N	96.4%	95.1%	+1.4%
Q	95.7%	94.8%	+0.9%
R	96.2%	96.1%	+0.1%
W	95.3%	92.3%	+3.3%
Subdivision B	**96.4%**	**96.3%**	**+0.1%**
Systemwide	**96.3%**	**95.6%**	**+0.7%**

Chart 4

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekend % Service Delivered
(10 a.m. to 6 p.m.)

Desired trend
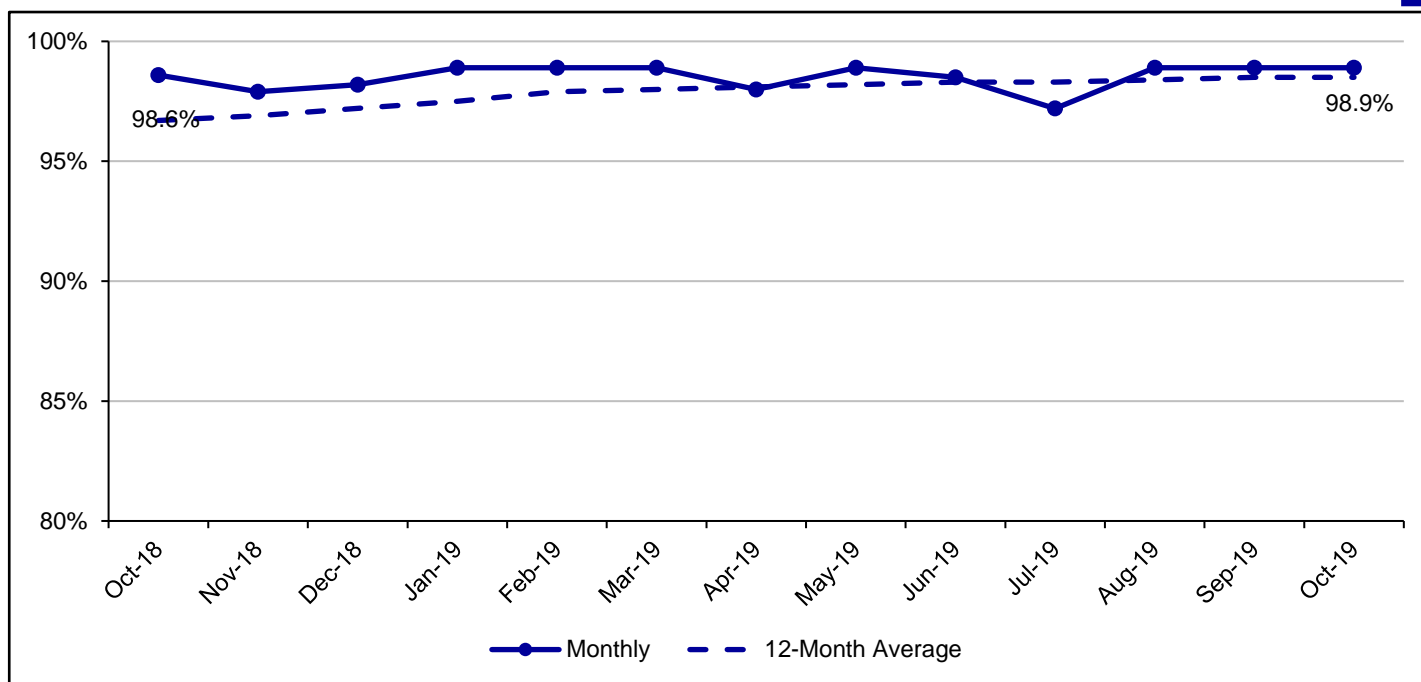
	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Subdivision A	99.1%	98.4%	+0.7%	98.2%	95.4%	+2.9%
Subdivision B	98.8%	98.8%	0.0%	98.7%	97.5%	+1.2%
Systemwide	**98.9%**	**98.6%**	**+0.3%**	**98.5%**	**96.7%**	**+1.9%**

Weekend Service Delivered Discussion

- October 2019 weekend Service Delivered improved by 0.3% year-over-year, and the 12-month average improved 1.9%.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 5

Subway Weekend % Service Delivered
Monthly
(10 a.m. to 6 p.m.)

Desired trend ⬆

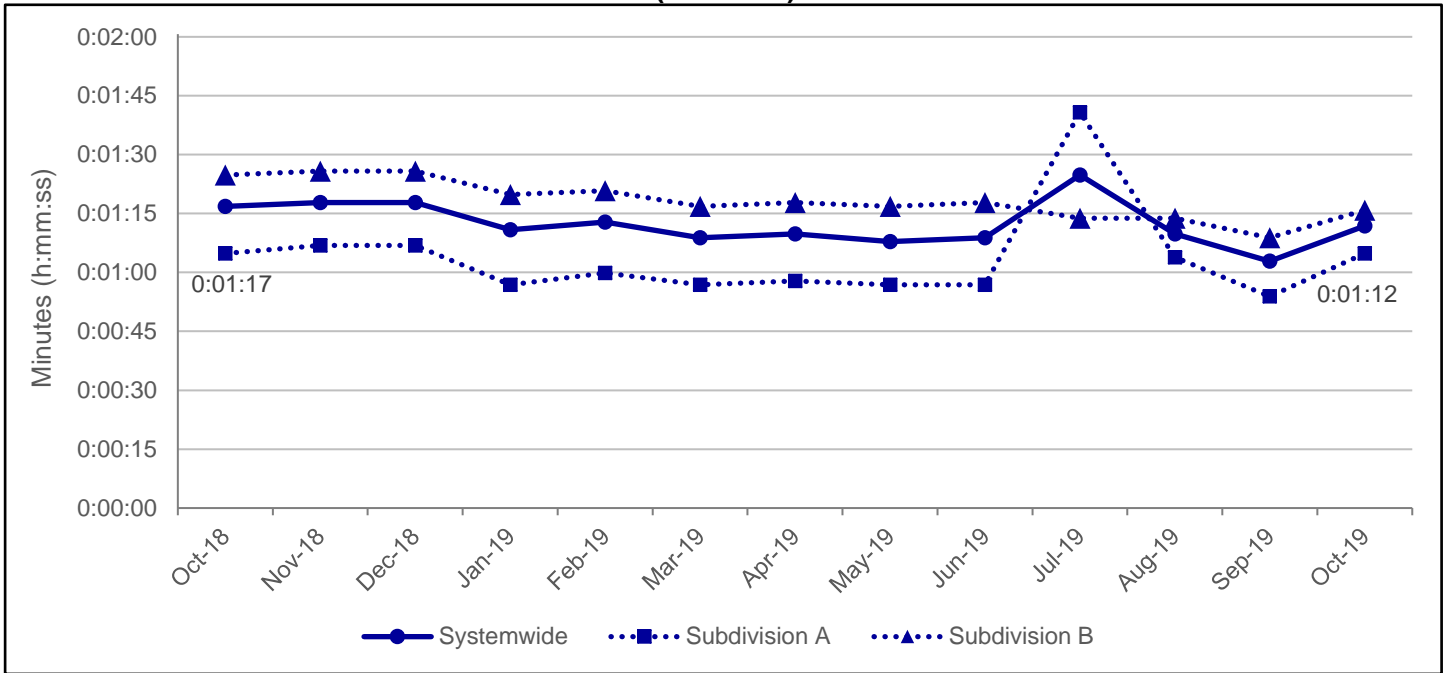| Line	Oct 19	Oct 18	% Change
1	99.5%	99.2%	+0.3%
2	98.9%	97.5%	+1.4%
3	99.3%	99.6%	-0.3%
4	97.9%	96.5%	+1.5%
5	99.9%	98.5%	+1.4%
6	99.4%	97.9%	+1.5%
7	98.8%	99.0%	-0.2%
S 42nd	99.9%	99.7%	+0.2%
Subdivision A	**99.1%**	**98.4%**	**+0.7%**
A	97.3%	98.0%	-0.7%
C	97.9%	98.9%	-1.0%
D	100.0%	99.8%	+0.2%
E	98.8%	99.0%	-0.2%
F	98.2%	100.1%	-1.9%
S Fkln	99.7%	100.0%	-0.3%
G	99.4%	99.0%	+0.4%
S Rock	100.3%	99.3%	+1.0%
JZ	97.9%	99.9%	-2.0%
L	99.0%	N/A	N/A
M	98.5%	99.7%	-1.2%
N	99.2%	95.2%	+4.2%
Q	99.3%	N/A	N/A
R	99.5%	98.5%	+1.0%
Subdivision B	**98.8%**	**98.8%**	**0.0%**
Systemwide	**98.9%**	**98.6%**	**+0.3%**

Note: B and W lines do not operate on weekends.

Chart 6

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekday Average Additional Platform Time
Monthly (Trips Starting 6 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend

	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Subdivision A	0:01:05	0:01:05	0.0%	0:01:04	0:01:08	-5.9%
Subdivision B	0:01:16	0:01:25	-10.6%	0:01:18	0:01:27	-10.3%
Systemwide	**0:01:12**	**0:01:17**	**-6.5%**	**0:01:12**	**0:01:19**	**-8.9%**

Additional Platform Time Discussion

- Weekday Additional Platform Time (APT) improved by 6.5% compared to October 2018 and improved 8.9% in the 12-month average.
- The largest increase in APT was on the 7 line due to multiple major incidents affecting rush hour service, including a person struck by train in the tunnel between Queens and Manhattan.
- Only four other non-shuttle lines had increases in APT, and all increased by fewer than 5 seconds.

Note: This metric uses electronic data made available systemwide by the MTA's investments in new train tracking technology and in more robust methods for determining how customers use the subway. It is likely that this measure will be refined and enhanced as the MTA gains experience integrating the latest technology and information.

Chart 7

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekday Average Additional Platform Time
Monthly (Trips Starting 6 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend ↓

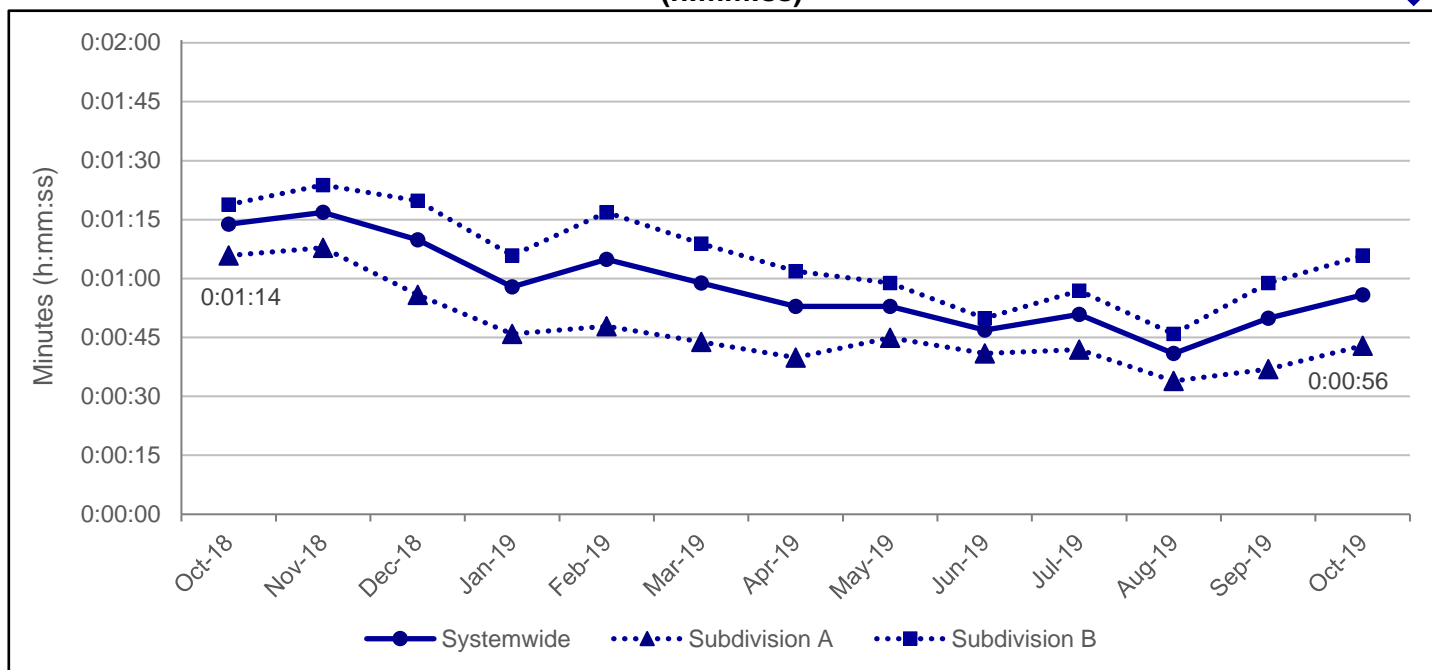| Line	Oct 19	Oct 18	% Change
1	0:00:52	0:01:08	-23.5%
2	0:01:02	0:01:09	-10.1%
3	0:00:47	0:01:00	-21.7%
4	0:01:06	0:01:04	+3.1%
5	0:01:08	0:01:12	-5.6%
6	0:01:05	0:01:08	-4.4%
7	0:01:34	0:01:05	+44.6%
S 42nd	0:00:49	0:00:26	+88.5%
Subdivision A	**0:01:05**	**0:01:05**	**0.0%**
A	0:01:21	0:01:20	+1.3%
B	0:01:43	0:01:55	-10.4%
C	0:01:43	0:01:39	+4.0%
D	0:01:28	0:01:40	-12.0%
E	0:01:03	0:01:07	-6.0%
F	0:01:22	0:01:25	-3.5%
S Fkln	0:00:24	0:00:14	+71.4%
G	0:01:10	0:01:34	-25.5%
S Rock	0:00:38	0:00:47	-19.1%
JZ	0:01:07	0:01:28	-23.9%
L	0:00:44	0:00:57	-22.8%
M	0:01:17	0:01:46	-27.4%
N	0:01:23	0:01:19	+5.1%
Q	0:01:25	0:01:36	-11.5%
R	0:01:05	0:01:31	-28.6%
W	0:00:47	0:00:52	-9.6%
Subdivision B	**0:01:16**	**0:01:25**	**-10.6%**
Systemwide	**0:01:12**	**0:01:17**	**-6.5%**

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 8

Subway Weekday Average Additional Train Time
Monthly (Trips Starting 6 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend

	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Subdivision A	0:00:43	0:01:06	-34.8%	0:00:45	0:01:16	-40.8%
Subdivision B	0:01:06	0:01:19	-16.5%	0:01:04	0:01:26	-25.6%
Systemwide	**0:00:56**	**0:01:14**	**-24.3%**	**0:00:57**	**0:01:22**	**-30.5%**

Additional Train Time Discussion

- Additional Train Time (ATT) improved by 18 seconds from last October, while the 12-month average improved 25 seconds year-over-year.
- The consistent improvements in ATT indicate that service has become faster with Save Safe Seconds efforts to update signal timers and speed limits throughout the system.
- The 7 line had a significant improvement in ATT despite the major incidents that affected APT. Those incidents mostly affected waiting times, while actual travel times on trains continued to improve.

Note: This metric uses electronic data made available systemwide by the MTA's investments in new train tracking technology and in more robust methods for determining how customers use the subway. It is likely that this measure will be refined and enhanced as the MTA gains experience integrating the latest technology and information.

Chart 9

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekday Average Additional Train Time
## Monthly (Trips Starting 6 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend ↓

Line	Oct 19	Oct 18	% Change
1	0:00:51	0:01:11	**-28.2%**
2	0:00:31	0:01:02	**-50.0%**
3	0:00:19	0:00:43	**-55.8%**
4	0:00:40	0:01:16	**-47.4%**
5	0:00:33	0:01:11	**-53.5%**
6	0:00:56	0:01:05	**-13.8%**
7	0:00:52	0:01:16	**-31.6%**
S 42nd	0:00:30	0:00:28	**+7.1%**
Subdivision A	**0:00:43**	**0:01:06**	**-34.8%**
A	0:01:41	0:01:38	**+3.1%**
B	0:01:45	0:01:45	**0.0%**
C	0:01:07	0:01:00	**+11.7%**
D	0:01:41	0:01:42	**-1.0%**
E	0:00:42	0:01:00	**-30.0%**
F	0:00:55	0:01:07	**-17.9%**
S Fkln	0:00:43	0:00:45	**-4.4%**
G	0:01:02	0:01:09	**-10.1%**
S Rock	0:00:06	0:00:24	**-75.0%**
JZ	0:01:34	0:02:16	**-30.9%**
L	-0:00:01	0:00:18	**N/A**
M	0:00:54	0:01:11	**-23.9%**
N	0:01:05	0:01:47	**-39.3%**
Q	0:01:32	0:01:41	**-8.9%**
R	0:00:44	0:01:10	**-37.1%**
W	0:00:40	0:01:00	**-33.3%**
Subdivision B	**0:01:06**	**0:01:19**	**-16.5%**
Systemwide	**0:00:56**	**0:01:14**	**-24.3%**

Chart 10

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Customer Journey Time Performance
Monthly (Trips Starting 6 a.m. - 11 p.m.)

Desired trend
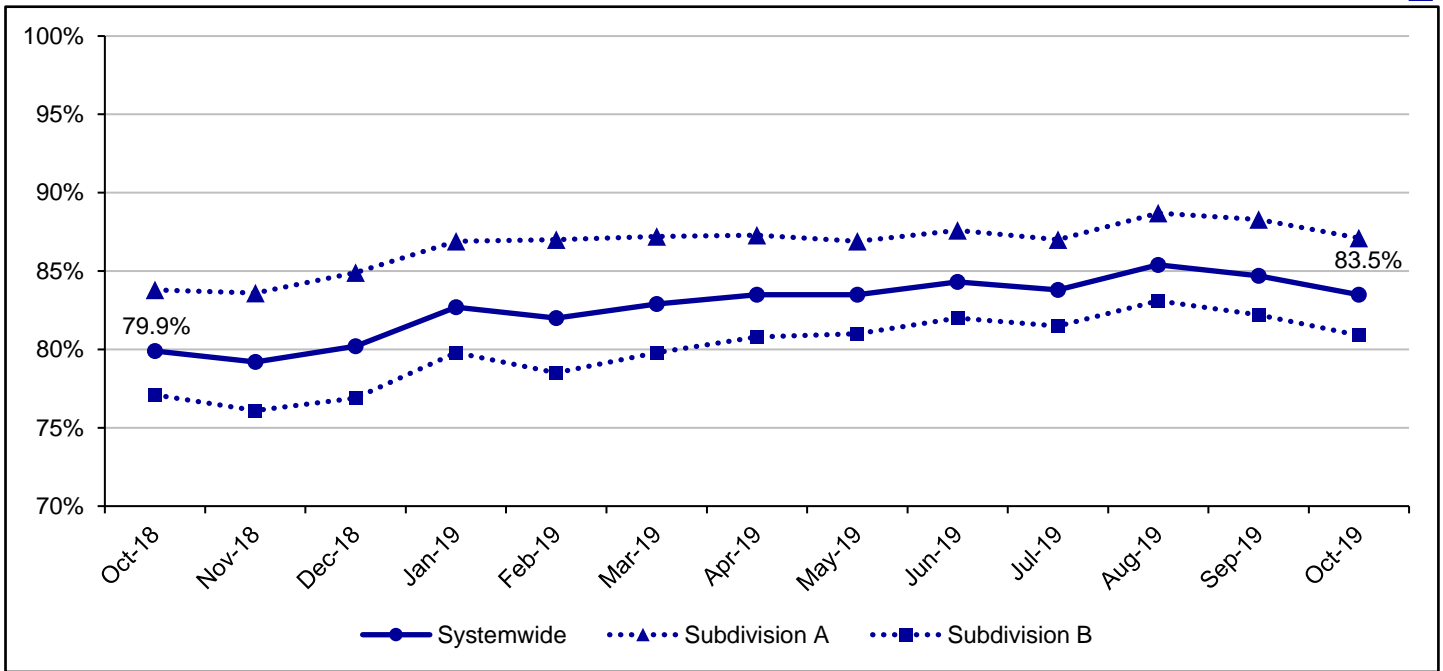
	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Subdivision A	87.1%	83.8%	+3.9%	86.9%	83.0%	+4.7%
Subdivision B	80.9%	77.1%	+4.9%	80.2%	76.3%	+5.1%
Systemwide	**83.5%**	**79.9%**	**+4.5%**	**83.0%**	**79.1%**	**+4.9%**

Weekday Customer Journey Time Performance Discussion

- Weekday Customer Journey Time Performance (CJTP) showed significant year-on-year improvement in both divisions.
- CJTP of 83.5% improved by 4.5% compared to the prior year and was better than the 12-month average.

Chart 11

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Customer Journey Time Performance
Monthly
(Trips Starting 6 a.m. - 11 p.m.)

Desired trend ↑

Line	Oct 19	Oct 18	% Change
1	89.1%	84.4%	+5.6%
2	85.9%	82.5%	+4.1%
3	90.1%	87.5%	+3.0%
4	85.0%	81.2%	+4.7%
5	85.5%	80.8%	+5.8%
6	86.7%	85.4%	+1.5%
7	86.2%	81.6%	+5.6%
S 42nd	96.3%	99.1%	-2.8%
Subdivision A	**87.1%**	**83.8%**	**+3.9%**
A	76.8%	74.8%	+2.7%
B	73.1%	71.6%	+2.1%
C	78.0%	76.5%	+2.0%
D	74.5%	69.7%	+6.9%
E	85.2%	81.6%	+4.4%
F	80.0%	77.9%	+2.7%
S Fkln	95.2%	96.6%	-1.4%
G	83.6%	81.8%	+2.2%
S Rock	93.0%	90.2%	+3.1%
JZ	78.4%	66.7%	+17.5%
L	93.3%	91.1%	+2.4%
M	82.4%	75.8%	+8.7%
N	82.5%	72.9%	+13.2%
Q	76.2%	73.9%	+3.1%
R	84.3%	77.3%	+9.1%
W	88.8%	86.2%	+3.0%
Subdivision B	**80.9%**	**77.1%**	**+4.9%**
Systemwide	**83.5%**	**79.9%**	**+4.5%**

Chart 12

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 2: Inputs to Operations

The metrics in this section address how NYCT provides service to its customers, by measuring the reliability of key assets, reflecting the effectiveness of maintenance practices, as well as age and condition. Historically, the only such measures that NYCT has provided to the Transit Committee and to the public are car fleet and elevator and escalator measures, defined below. NYCT is examining additional such measures to bring forward in coming months.

Performance Indicator Definitions

Mean Distance Between Failures (MDBF)
Subway MDBF is a measure of car fleet reliability. It is calculated as revenue car miles divided by the number of delay incidents attributed to car-related causes.

Elevator and Escalator Availability
The percent of time that elevators or escalators are operational system wide. Most elevators and escalators in the subway are maintained by New York City Transit and are electronically monitored 24-hours a day. Some elevators and escalators in the subway are owned and maintained by outside parties; these are inspected by NYCT personnel multiple times daily.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Elevator and Escalator Availability
(24 Hours)

Desired trend
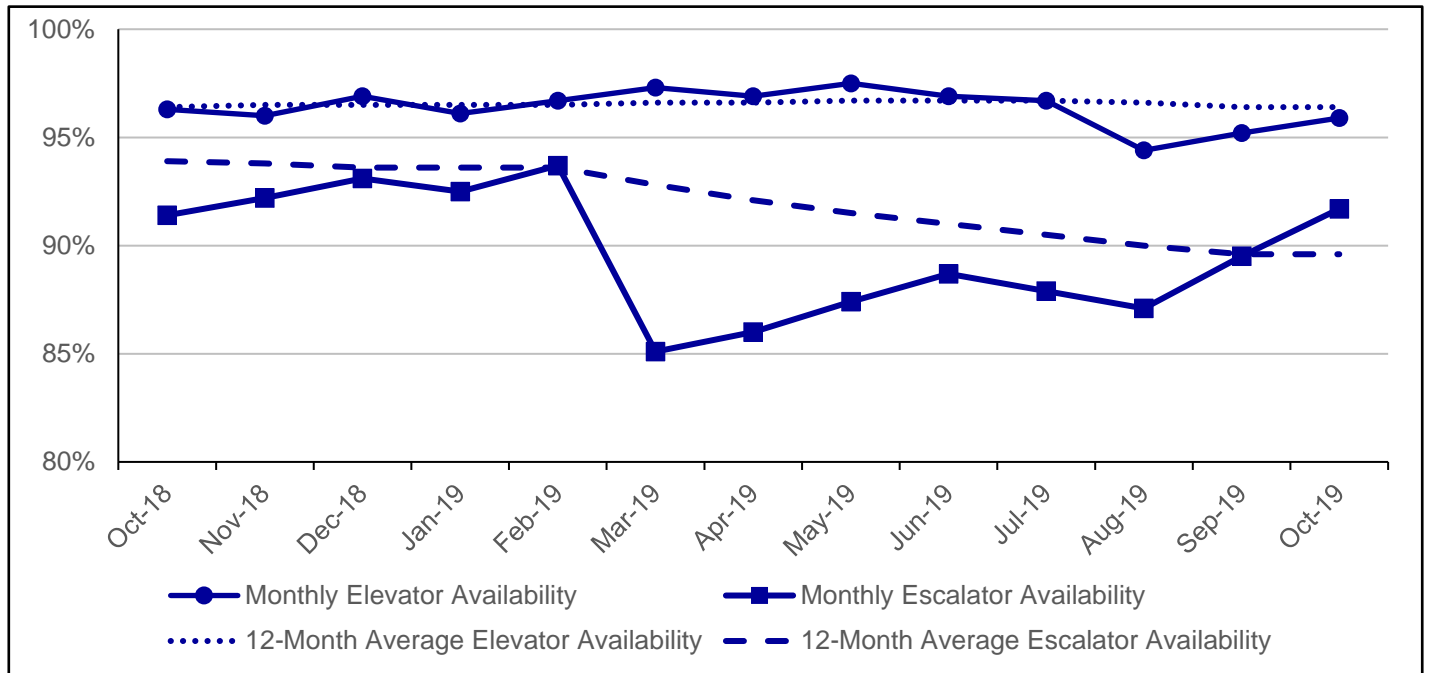
	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Elevator Availability	95.9%	96.3%	-0.4%	96.4%	96.5%	-0.1%
Escalator Availability	91.7%	91.4%	+0.3%	89.5%	93.9%	-4.7%

Elevator and Escalator Availability Discussion

- Elevator availability decreased year-over-year due to a program of special inspections that began in August, but has shown an improving trend over the past two months.
- Escalator availability increased year-over-year and has shown an improving trend since the spring of 2019 as a new maintenance protocol has increased frequency of preventive maintenance and improved escalator reliability.

Chart 14

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 3: Legacy Indicators

The metrics in this section have been shared with the public for many years. While less reflective of the customer experience, they are included here for continuity purposes.

Performance Indicator Definitions

Wait Assessment (Weekday and Weekend)
Wait Assessment is measured as the percentage of intervals between trains that are no more than the scheduled interval plus 25%. Minor gaps are more than 25% to 50% over the scheduled headway, medium gaps are more than 50% to 100% over the scheduled headway, and major gaps are more than 100% over the scheduled headway, or missed intervals. This is measured from 6am to midnight.

Terminal On-Time Performance (Weekday and Weekend)
Terminal On-Time Performance is the percentage of scheduled trains arriving at the terminal locations within five minutes of their scheduled arrival time during a 24-hour period. An on-time train is defined as a train arriving at its destination terminal on-time, early, or no more than five minutes late, and that has not skipped any planned station stops.

Train Delays (Weekday and Weekend)
Train delays are the number of trains that arrived at terminal locations more than five minutes late, or that have skipped any planned station stops during a 24-hour period.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekday Wait Assessment
(6 am - midnight)

Desired trend ↑

Line	Oct 19 Monthly Meets Standard	Monthly GAP Minor	Monthly GAP Medium	Monthly GAP Major	Oct 19 12 month Meets Standard	Oct 18 Monthly Meets Standard	Monthly GAP Minor	Monthly GAP Medium	Monthly GAP Major	Oct 18 12 month Meets Standard	Monthly Standard % Change
1	**79.5%**	9.0%	7.0%	4.5%	78.9%	**74.6%**	9.9%	8.5%	7.0%	75.5%	**+6.6%**
2	**73.5%**	10.8%	8.7%	6.9%	71.2%	**70.1%**	11.3%	10.0%	8.5%	67.0%	**+4.9%**
3	**77.6%**	11.3%	7.4%	3.6%	74.9%	**72.8%**	11.7%	9.0%	6.5%	70.0%	**+6.6%**
4	**72.5%**	10.4%	8.7%	8.4%	71.0%	**68.1%**	10.8%	9.8%	11.3%	66.5%	**+6.5%**
5	**69.7%**	10.6%	9.4%	10.3%	69.5%	**65.4%**	11.2%	10.8%	12.6%	63.7%	**+6.6%**
6	**75.4%**	8.9%	7.2%	8.5%	74.5%	**72.4%**	9.1%	8.5%	10.0%	67.3%	**+4.1%**
7	**76.0%**	10.1%	7.2%	6.7%	75.8%	**69.4%**	10.7%	10.4%	9.5%	67.1%	**+9.5%**
S 42nd	**91.7%**	3.1%	3.5%	1.8%	94.4%	**92.6%**	4.0%	1.8%	1.7%	93.8%	**-1.0%**
Subdivision A	**75.3%**	9.9%	7.8%	7.0%	74.3%	**71.2%**	10.4%	9.3%	9.2%	69.1%	**+5.8%**
A	**68.4%**	9.9%	9.8%	11.9%	69.5%	**67.8%**	9.5%	10.6%	12.1%	66.8%	**+0.9%**
B	**73.9%**	11.1%	8.1%	7.0%	75.0%	**73.3%**	11.8%	8.7%	6.2%	71.9%	**+0.8%**
C	**77.0%**	11.8%	7.4%	3.9%	75.3%	**73.8%**	12.3%	9.3%	4.7%	70.8%	**+4.3%**
D	**72.0%**	11.5%	9.6%	6.9%	74.0%	**71.1%**	11.9%	10.4%	6.6%	70.6%	**+1.3%**
E	**73.0%**	11.1%	9.1%	6.9%	71.3%	**70.1%**	11.7%	10.0%	8.2%	66.6%	**+4.1%**
F	**70.4%**	9.9%	9.6%	10.1%	70.8%	**71.2%**	10.5%	9.3%	9.0%	68.7%	**-1.1%**
S Fkln	**98.5%**	0.5%	0.2%	0.7%	98.3%	**99.0%**	0.5%	0.4%	0.1%	97.9%	**-0.5%**
G	**80.5%**	11.3%	5.8%	2.4%	80.5%	**81.2%**	10.5%	5.3%	3.0%	80.1%	**-0.9%**
S Rock	**96.0%**	2.4%	0.6%	0.9%	94.7%	**91.6%**	4.4%	2.1%	1.9%	93.4%	**+4.8%**
JZ	**82.0%**	9.9%	5.3%	2.8%	79.8%	**76.4%**	10.5%	8.1%	5.0%	75.7%	**+7.3%**
L	**79.4%**	10.7%	6.4%	3.6%	76.9%	**76.0%**	11.4%	7.9%	4.7%	76.1%	**+4.5%**
M	**76.1%**	10.5%	7.7%	5.7%	75.8%	**74.5%**	10.7%	8.1%	6.6%	72.1%	**+2.1%**
N	**75.5%**	11.8%	7.5%	5.2%	74.1%	**70.1%**	11.6%	10.0%	8.2%	69.6%	**+7.7%**
Q	**74.0%**	10.4%	8.8%	6.8%	76.1%	**72.8%**	11.0%	9.1%	7.1%	74.4%	**+1.6%**
R	**75.9%**	10.8%	8.0%	5.2%	73.8%	**71.1%**	10.7%	9.8%	8.4%	69.7%	**+6.8%**
W	**78.6%**	10.6%	6.2%	4.6%	76.2%	**72.3%**	10.9%	7.8%	9.0%	70.3%	**+8.7%**
Subdivision B	**75.2%**	10.6%	7.9%	6.3%	74.6%	**73.0%**	10.8%	8.9%	7.3%	71.6%	**+3.0%**
Systemwide	**75.2%**	10.3%	7.9%	6.6%	74.5%	**72.2%**	10.6%	9.1%	8.1%	70.4%	**+4.2%**

Weekday Wait Assessment Discussion

- October 2019 weekday Wait Assessment improved year-over-year to 75.2%.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 15

Subway Weekend Wait Assessment
(6 am - midnight)

Desired trend ↑

Line	Oct 19 Monthly Meets Standard	Monthly GAP Minor	Monthly GAP Medium	Monthly GAP Major	12 month Meets Standard	Oct 18 Monthly Meets Standard	Monthly GAP Minor	Monthly GAP Medium	Monthly GAP Major	12 month Meets Standard	Monthly Standard % Change
1	**88.9%**	7.2%	2.8%	1.1%	88.8%	**87.8%**	8.1%	3.3%	0.8%	80.6%	**+1.3%**
2	**76.1%**	11.9%	8.1%	3.9%	75.2%	**74.2%**	11.4%	9.6%	4.8%	68.2%	**+2.6%**
3	**87.3%**	8.6%	2.8%	1.3%	84.2%	**84.9%**	9.4%	4.1%	1.6%	84.2%	**+2.8%**
4	**79.3%**	10.1%	7.0%	3.6%	75.6%	**73.7%**	11.5%	8.1%	6.7%	67.3%	**+7.6%**
5	**83.5%**	10.1%	4.7%	1.7%	84.4%	**85.8%**	8.3%	3.7%	2.2%	72.9%	**-2.7%**
6	**90.3%**	6.4%	2.1%	1.1%	84.0%	**83.2%**	8.6%	4.7%	3.4%	80.2%	**+8.5%**
7	**83.7%**	9.5%	4.7%	2.1%	84.4%	**87.4%**	7.9%	3.8%	1.0%	77.8%	**-4.2%**
S 42nd	**98.4%**	0.9%	0.3%	0.4%	98.5%	**98.2%**	0.9%	0.5%	0.4%	98.5%	**+0.2%**
Subdivision A	**84.2%**	8.9%	4.7%	2.2%	82.1%	**81.9%**	9.3%	5.6%	3.2%	75.6%	**+2.8%**
A	**75.3%**	11.3%	8.0%	5.4%	74.9%	**75.3%**	10.7%	8.4%	5.5%	71.5%	**0.0%**
C	**82.2%**	10.7%	5.1%	2.0%	80.0%	**82.2%**	11.5%	4.9%	1.3%	73.5%	**0.0%**
D	**81.5%**	9.5%	5.9%	3.1%	80.2%	**81.1%**	11.0%	6.0%	1.9%	75.3%	**+0.5%**
E	**86.5%**	8.6%	3.5%	1.4%	84.8%	**81.0%**	11.0%	5.8%	2.2%	80.0%	**+6.8%**
F	**81.5%**	10.1%	5.4%	3.1%	80.0%	**82.4%**	10.7%	5.7%	1.2%	77.7%	**-1.1%**
S Fkln	**99.1%**	0.4%	0.4%	0.1%	98.3%	**97.6%**	1.4%	0.3%	0.7%	98.4%	**+1.5%**
G	**86.7%**	8.7%	3.1%	1.5%	85.6%	**87.4%**	8.9%	2.9%	0.8%	86.0%	**-0.8%**
S Rock	**97.0%**	2.2%	0.5%	0.4%	95.0%	**95.4%**	2.7%	0.3%	1.6%	94.1%	**+1.7%**
JZ	**85.9%**	8.5%	3.7%	1.9%	87.4%	**86.3%**	9.3%	3.5%	0.9%	84.2%	**-0.5%**
L	**92.7%**	4.4%	2.2%	0.7%	84.0%	**97.7%**	2.1%	0.2%	0.1%	79.0%	**-5.1%**
M	**77.0%**	10.9%	7.1%	5.0%	78.6%	**78.9%**	11.3%	6.7%	3.1%	87.9%	**-2.4%**
N	**81.9%**	10.3%	5.3%	2.5%	79.9%	**74.4%**	11.9%	8.9%	4.8%	72.1%	**+10.1%**
Q	**80.0%**	10.8%	6.1%	3.1%	82.6%	**97.6%**	1.8%	0.6%	0.0%	80.1%	**-18.0%**
R	**82.7%**	9.6%	5.4%	2.2%	80.1%	**78.0%**	11.7%	7.3%	3.0%	73.6%	**+6.0%**
Subdivision B	**82.5%**	9.5%	5.2%	2.8%	81.4%	**81.1%**	10.4%	6.0%	2.6%	77.7%	**+1.7%**
Systemwide	**83.3%**	9.2%	5.0%	2.5%	81.7%	**81.5%**	9.9%	5.8%	2.8%	76.8%	**+2.2%**

Weekend Wait Assessment Discussion

- October 2019 weekend Wait Assessment improved to 83.3% from 81.5% the prior year.

Note: B and W lines do not operate on weekends.

Chart 16

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekday Terminal On-Time Performance
Monthly
(24 hours)

Desired trend ⬆

Line	Oct 19	Oct 18	% Change
1	86.0%	76.2%	+12.9%
2	79.0%	61.1%	+29.3%
3	88.9%	73.1%	+21.6%
4	77.4%	62.6%	+23.6%
5	80.7%	68.8%	+17.3%
6	77.0%	68.5%	+12.4%
7	87.8%	76.2%	+15.2%
S 42nd	98.3%	99.4%	-1.1%
Subdivision A	**84.9%**	**75.3%**	**+12.7%**
A	65.7%	54.0%	+21.7%
B	66.3%	55.8%	+18.8%
C	75.0%	63.4%	+18.3%
D	62.7%	52.5%	+19.4%
E	78.5%	63.8%	+23.0%
F	67.8%	57.2%	+18.5%
S Fkln	99.7%	99.8%	-0.1%
G	79.2%	70.2%	+12.8%
S Rock	97.5%	94.4%	+3.3%
JZ	82.4%	54.2%	+52.0%
L	93.7%	93.2%	+0.5%
M	80.1%	66.3%	+20.8%
NW	78.0%	57.7%	+35.2%
Q	83.1%	69.3%	+19.9%
R	76.9%	48.0%	+60.2%
Subdivision B	**78.9%**	**66.5%**	**+18.6%**
Systemwide	**81.5%**	**70.3%**	**+15.9%**

Weekday Terminal On-Time Performance Discussion

- October 2019 weekday On-Time Performance (OTP) was 81.5%, a 15.9% increase from a year ago in October 2018.
- Every non-shuttle line saw an increase in OTP year-over-year.
- Of the 20 non-shuttle lines, eight had weekday OTP above 80% in October 2019; a year ago, only the L line was above 80% and only four other lines were even above 70%.

Chart 17

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

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Subway Weekend Terminal On-Time Performance
Monthly
(24 hours)

Desired trend

Line	Oct 19	Oct 18	% Change
1	92.7%	90.1%	+2.9%
2	57.7%	40.6%	+42.1%
3	81.2%	51.9%	+56.5%
4	70.1%	72.1%	-2.8%
5	84.0%	79.2%	+6.1%
6	89.3%	75.1%	+18.9%
7	83.4%	76.8%	+8.6%
S 42nd	99.8%	99.8%	+0.0%
Subdivision A	**83.7%**	**76.0%**	**+10.1%**
A	84.6%	76.5%	+10.6%
C	86.2%	80.7%	+6.8%
D	72.3%	80.1%	-9.7%
E	92.4%	83.7%	+10.4%
F	86.3%	75.0%	+15.1%
S Fkln	99.9%	99.0%	+0.9%
G	85.6%	75.7%	+13.1%
S Rock	97.6%	95.2%	+2.5%
JZ	83.5%	86.2%	-3.1%
L	94.9%	98.0%	-3.2%
M	83.4%	87.0%	-4.1%
N	73.3%	42.9%	+70.9%
Q	80.1%	96.8%	-17.3%
R	87.7%	76.4%	+14.8%
Subdivision B	**86.1%**	**81.0%**	**+6.3%**
Systemwide	**85.0%**	**79.0%**	**+7.6%**

Weekend Terminal On-Time Performance Discussion

- October 2019 Weekend On-Time Performance improved year-over-year to 85.0%.
- The improvements in weekend OTP were due in part to differences in planned work and more accurate schedules for planned service changes.

Note: B and W Lines do not operate on weekends.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 18

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Subway Weekday Trains Delayed
Monthly - October 2019
(24 hours)

Delay Categories	Trains Delayed	Delayed Trains Per Day (23)	% of Delayed Trains
Track Failures and Emergency Remediation	2,378	103	6.8%
Rail and Roadbed	1,885	82	5.4%
Fire, Smoke, Debris	493	21	1.4%
Signal Failures and Emergency Remediation	4,258	185	12.2%
Subway Car	2,062	90	5.9%
Door-Related	543	24	1.6%
Propulsion	360	16	1.1%
Braking	385	17	1.1%
Other	774	34	2.2%
Other Unplanned Disruptions (e.g. station defect)	500	22	1.5%
Train Brake Activation - cause unknown	330	14	0.9%
Service Delivery (e.g., crew performance)	1,113	48	3.2%
External	7,288	317	20.9%
Public Conduct, Crime, Police Response	3,120	136	9.0%
Sick/Injured Customer	1,447	63	4.2%
Persons on Roadbed (including persons struck by train)	613	27	1.8%
External Debris on Roadbed (e.g., trees, shopping cart)	205	9	0.6%
Other Passenger-Related (e.g., retrieval of property from track)	518	23	1.5%
Public Event (e.g., civil demonstration, parade)	229	10	0.7%
Inclement Weather	817	36	2.4%
Other External Disruptions	339	15	1.0%
Operating Environment	9,162	398	26.3%
Planned Right-of-Way Work	7,778	338	22.3%
Total Trains Delayed	**34,869**	**1,516**	**100%**

Baseline average daily delays for January-June 2018	2,939
Target average daily delays to achieve reduction of 18,000 monthly delays	2,346
% to Target	240%

Note: Based on new electronic feeds. Root cause analysis and improved categorization of delays are ongoing.

Chart 19

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Subway Weekend Trains Delayed
Monthly - October 2019
(24 hours)

Delay Categories	Trains Delayed	Delayed Trains Per Day (8)	% of Delayed Trains
Track Failures and Emergency Remediation	<u>188</u>	<u>24</u>	<u>2.9%</u>
Rail and Roadbed	149	19	2.3%
Fire, Smoke, Debris	39	5	0.6%
Signal Failures and Emergency Remediation	395	49	6.0%
Subway Car	<u>154</u>	<u>19</u>	<u>2.3%</u>
Door-Related	55	7	0.8%
Propulsion	39	5	0.6%
Braking	23	3	0.3%
Other	37	5	0.6%
Other Unplanned Disruptions (e.g. station defect)	115	14	1.7%
Train Brake Activation - cause unknown	54	7	0.8%
Service Delivery (e.g., crew performance)	213	27	3.2%
External	<u>1,117</u>	<u>140</u>	<u>17.0%</u>
Public Conduct, Crime, Police Response	364	46	5.5%
Sick/Injured Customer	180	23	2.7%
Persons on Roadbed (including persons struck by train)	222	28	3.4%
External Debris on Roadbed (e.g., trees, shopping cart)	17	2	0.3%
Other Passenger-Related (e.g., retrieval of property from track)	51	6	0.8%
Public Event (e.g., civil demonstration, parade)	117	15	1.8%
Inclement Weather	166	21	2.5%
Other External Disruptions	0	0	0.0%
Operating Environment	1,625	203	24.7%
Planned Right-of-Way Work	2,712	339	41.3%
Total Trains Delayed	**6,573**	**822**	**100%**

Baseline average daily delays for January-June 2018	1,944
Target average daily delays to achieve reduction of 18,000 monthly delays	1,261
% to Target	164%

Note: Based on new electronic feeds. Root cause analysis and improved categorization of delays are ongoing.

Chart 20

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

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Subway Action Plan Accomplishments July 2017 - October 2019

Phase I of the Subway Action Plan represented a surge of activity in 2017-18 to improve the reliability of subway assets, enhance response to delay-causing incidents, and improve the customer environment. 2019 targets reflect continued focus in strategic areas consistent with the ongoing SAP financial plan.

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
TRACK: Clean track and improve ride quality	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Clean underground subway track (in miles) *	467	440	3,224	3,691
High priority track repairs (in number of defects cleared)	19,138	599	7,943	27,081
Rail grinding to improve ride quality and reduce defects (in miles)	-	27	163	163
Install Continuous Welded Rail to provide strong tracks and a smoother ride for customers (in miles)	40	2	15	54
Add 16 specialized, multidisciplinary teams (for a total of 24) to improve incident response and recovery times	Established	Ongoing	Ongoing	Ongoing

* Cleaning underground subway track includes vacuum train totals starting in Jan 2019.

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
INFRASTRUCTURE: Remediate conditions that damage track, signals and power sources	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Clean street grates systemwide (number of grates)	40,987	6,536	34,267	75,254
Seal leaks (number of leaks addressed)	3,925	506	3,437	7,362
Clean and repair all 418 miles of drain lines (in track miles)	385	-	42	418

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
POWER: Ensure supporting infrastructure reliability	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Install "SAGs" to mitigate the impact of electric voltage variations that could cause signal failures (number of SAGs)	384	Ongoing maintenance	Ongoing maintenance	384
Install new third rail insulators in high fire areas (number of locations)	-	43	475	475

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
CARS: Reduce downtime and upgrade critical components	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Accelerate the major car overhaul cycle from 7 years to 6 years (number of cars overhauled)	2,278	115	744	3,022
Install LED lighting and double-loop stanchions (in cars upgraded)	1,235	60	1,004	2,239
Deep cleaning of subway cars (in cars cleaned)	-	-	3,046	3,046
Add 20 Emergency Car Response teams for in-service car incidents	Established	Ongoing	Ongoing	Ongoing

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
SIGNALS: Improve signal reliability	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Rebuild signal stops, air lines and cables (in assets repaired)	224	42	210	434
Priority maintenance and repair tasks to improve reliability of signal and switch equipment (in number of tasks)	-	69	1,580	1,580

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
STATIONS: Improve overall Station environment	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Deep cleaning of subway stations (in stations cleaned)	-	-	106	106
Focused cleaning and repair campaign led by Group Station Managers (in stations enhanced)	-	-	217	217
Expand dedicated EMT deployment by 7 teams for a total of 12	Established	Ongoing	Ongoing	Ongoing

	Phase I SAP	This Month	Ongoing SAP YTD	Full Campaign to date
COMMUNICATIONS	**Jul 2017- Dec 2018**	**Oct-19**	**Jan - Oct 2019**	**Jul 2017- Oct 2019**
Add Dedicated Announcers to better inform customers regarding current service status	Established	Ongoing	Ongoing	Ongoing

Customer Service Report: Buses

Craig Cipriano, Acting President, MTA Bus Company/
Senior Vice President, NYCT Department of Buses

On October 30, we expanded our new automated bus lane enforcement (ABLE) cameras to a second bus route, the B44 SBS. As the fifth-busiest route citywide, the B44 SBS, travels on approximately 10 miles of dedicated bus lanes (implemented by the New York City Department of Transportation), which are also used by the B44 local and B49 local. This latest expansion of ABLE will speed up rides for over 37,000 daily customers.

If you're a motorist in New York City, Acting President/Acting Senior Vice President, Craig Cipriano has a message for you: **STAY OUT OF THE BUS LANE!**

November 2019 Highlights: Buses

On October 7, new automated bus lane enforcement (ABLE) camera systems were mounted on 51 buses on the M15 route to capture real-time bus lane violations as part of citywide efforts to increase bus speeds and keep traffic moving on congested streets. In the three weeks since then we have caught approximately 5,600 vehicles illegally blocking our bus lane.

Building on this momentum and working closely with our partners at NYC Department of Transportation (NYC DOT), on October 30 we implemented ABLE on 33 buses on the B44 SBS route in Brooklyn. This is the 5th busiest route citywide and is shared with the B44 local and B49 local routes. That means our new bus mounted cameras will help enforce the right of way for 37,000 customers on all three routes.

It's important for motorists to know that the graduated fine structure is tied to the type of violation and not to any specific bus route. That means if you are ticketed for blocking a bus lane on the M15 SBS and subsequently caught within a 12-month period for blocking a bus lane right here on the B44 SBS route, you will be subject to an increased fine of $100 for the second offense.

The MTA's bus-mounted camera enforcement program will be expanded to the M14 SBS by the end of November, with the ABLE system to be deployed on a total of 123 buses serving the M15 SBS, B44 SBS and M14 SBS routes. This is a turning point for NYCT, because for the first time in our history we can help NYC DOT and the NYPD enforce traffic laws that directly affect our service. We now have an unprecedented level of focus and enforcement efforts to make transit priority even more effective, which means faster rides for everyone.

In other exciting news, on October 22, President Byford and myself, along with Bronx Borough President Ruben Diaz Jr., officially announced the release of the final plan for the Bronx Bus Network Redesign. The redesigned network establishes a strong foundation on which we can continue to build a successful, high-frequency network that serves the largest number of riders at the times when they most need service. Our work on the Bronx Bus Network will not end with the release of this report or the implementation of the proposed changes but will continue as we refine service based on ridership and performance and respond to customer feedback.

Moreover, this month we just received our first MTA owned all-electric articulated bus on our journey towards an all-electric fleet by 2040. The MTA Board awarded a contract in January to New Flyer of America Inc. for 15 all-electric articulated buses, 16 in-depot chargers and one mobile charging unit. This new contract for the all-electric articulated buses makes MTA NYCT one of the first public transit systems in the country -- and the nation's largest public bus network -- to use zero-emissions technology on these larger, heavier vehicles.

Craig Cipriano
Acting President, MTA Bus Company/
Senior Vice President, NYCT Department of Buses

Bus Report

Category	Performance Indicator	Current Month: October 2019			12-Month Average		
		This Year	Last Year	% Change	This Year	Last Year	% Change
Customer Focused Metrics	Service Delivered (Chart 1)	97.2%	96.6%	+0.6%	97.3%	97.0%	+0.3%
	Additional Bus Stop Time (h:mm:ss) (Chart 3)	0:01:48	0:01:53	-4.4%	0:01:45	0:01:46	-1.2%
	Additional Travel Time (h:mm:ss) (Chart 5)	0:00:56	0:01:13	-23.3%	0:00:48	0:00:54	-11.3%
	Customer Journey Time Performance (Chart 7)	70.9%	69.0%	+2.8%	72.1%	+71.7%	+0.6%
Inputs To Operations	Mean Distance Between Failures (Chart 9)	8,187	7,322	+11.8%	7,673	6,426	+19.4%
	Speed (MPH) (Chart 11)	7.9	7.9	0.0%	8.0	7.9	+1.3%
Legacy Indicators	Wait Assessment (Chart 13)	77.1%	75.8%	+1.7%	77.6%	77.7%	-0.1%
	System MDBSI (Chart 15)	3,219	2,951	+9.1%	3,021	2,791	+8.2%
	NYCT Bus	3,101	2,774	+11.8%	2,864	2,605	+9.9%
	MTA Bus	3,664	3,720	-1.5%	3,674	3,610	+1.8%
	System Trips Completed (Chart 16)	99.4%	99.2%	+0.2%	99.2%	99.1%	+0.1%
	NYCT Bus	99.4%	99.3%	+0.1%	99.3%	99.1%	+0.2%
	MTA Bus	99.2%	99.1%	+0.1%	98.9%	99.2%	-0.3%
	System AM Pull Out (Chart 17)	99.9%	99.8%	+0.1%	99.8%	99.8%	0.0%
	NYCT Bus	100.0%	99.8%	+0.2%	99.8%	99.9%	-0.1%
	MTA Bus	99.7%	99.7%	0.0%	99.5%	99.7%	-0.2%
	System PM Pull Out (Chart 18)	99.9%	99.8%	+0.1%	99.8%	99.9%	-0.1%
	NYCT Bus	100.0%	99.8%	+0.2%	99.9%	99.9%	0.0%
	MTA Bus	99.7%	99.8%	-0.1%	99.5%	99.8%	-0.3%
	System Buses>=12 years	19.0%	22.0%				
	NYCT Bus	6.7%	17.7%				
	MTA Bus	62.0%	35.0%				
	System Fleet Age	7.0	8.0				
	NYCT Bus	5.9	7.5				
	MTA Bus	10.9	9.9				

System refers to the combined results of NYCT Bus and MTA Bus

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 1: Customer Focused Metrics

The metrics in this section measure bus performance as it affects our passengers. By focusing on how closely actual service matches schedules and how much longer passengers must wait and ride compared to schedules, these measures collectively reflect customer experience.

Performance Indicator Definitions

Service Delivered

Service Delivered (sometimes referred to as throughput) measures our ability to deliver the scheduled service. It is calculated as the percentage of scheduled bus trips that are actually provided during peak hours (7-9am and 4-7pm on weekdays). Service Delivered is measured at the peak load point, which is the stop on the route where the bus is most crowded, using GPS tracking data from buses as well as bus depot operations records.

Additional Bus Stop Time (ABST)

Additional Bus Stop Time (ABST) is the estimated average extra time that customers wait at a stop for a bus, compared with their scheduled wait time. The measure assumes customers arrive at the bus stop at a uniform rate, except for routes with longer headways, where customers arrive more closely aligned to the schedule. ABST (sometimes referred to as Excess Wait Time) is a new indicator for the MTA, and is considered an industry best practice worldwide. ABST is estimated using customers' MetroCard swipes on buses combined with GPS tracking data from Bus Time. This indicator is likely to be refined and enhanced over time as the MTA gains experience integrating the latest technology. ABST is reported for trips starting between 4am to 11pm on weekdays.

Additional Travel Time (ATT)

Additional Travel Time (ATT) is the estimated average extra time customers are onboard the bus compared to their scheduled onboard time. ATT (sometimes referred to as Excess In-Vehicle Travel Time) is a new indicator for the MTA, and is considered an industry best practice worldwide. ATT is estimated using customers' MetroCard swipes on buses combined with GPS tracking data from Bus Time. This indicator is likely to be refined and enhanced over time as the MTA gains experience integrating the latest technology. ATT is reported for trips starting between 4am to 11pm on weekdays.
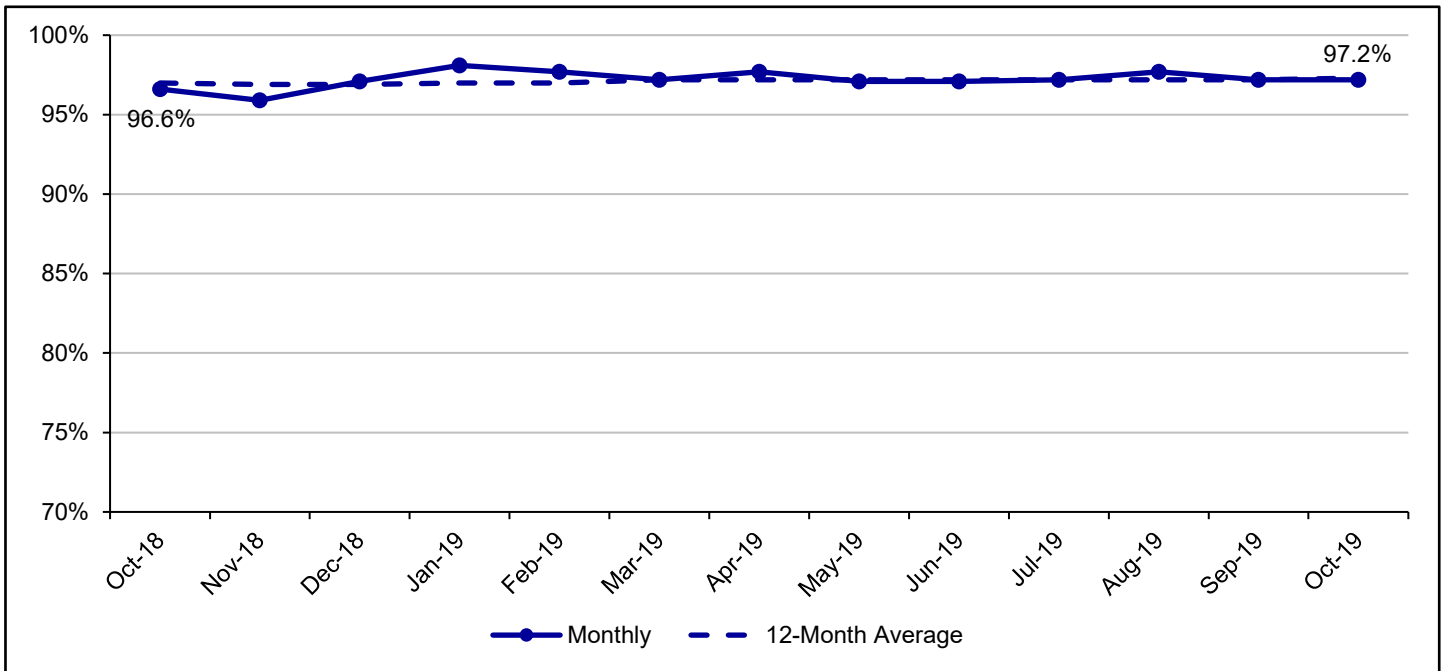
Customer Journey Time Performance (CJTP)

Customer Journey Time Performance (CJTP) estimates the percentage of customers who complete their journey (ABST + ATT) within 5 minutes of the scheduled time. This is a new indicator for the MTA, but is used by other transit agencies to measure service. CJTP is measured using customers' MetroCard swipes on buses combined with GPS tracking data from Bus Time. This indicator is likely to be refined and enhanced over time as the MTA gains experience integrating the latest technology. CJTP is reported for trips starting between 4am to 11pm on weekdays.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Service Delivered
(Peak Hours)

Desired trend ↑

Chart showing Service Delivered (Peak Hours) from Oct-18 to Oct-19. Y-axis ranges from 70% to 100%. First data point labeled 96.6%, last data point labeled 97.2%. Legend: Monthly (solid line), 12-Month Average (dashed line).

	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	96.7%	97.6%	-0.9%	97.5%	97.5%	0.0%
Brooklyn	97.9%	97.3%	+0.6%	97.6%	97.3%	+0.3%
Manhattan	97.4%	97.5%	-0.1%	97.5%	97.2%	+0.3%
Queens	96.8%	96.8%	0.0%	96.8%	96.8%	0.0%
Staten Island	97.7%	94.2%	+3.7%	97.3%	96.3%	+1.0%
Systemwide	**97.2%**	**96.6%**	**+0.6%**	**97.3%**	**97.0%**	**+0.3%**

Service Delivered Discussion

- October 2019 Service Delivered improved by 0.6% compared to October 2018.
- Service Delivered improved by 0.3% on a 12-month average.

Chart 1

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Service Delivered
Monthly
(Peak Hours)

Desired trend ⬆

Borough	Oct 19	Oct 18	% Change
Bronx	**96.7%**	**97.6%**	**-0.9%**
Local/Limited	96.8%	97.8%	-1.0%
Select Bus Service	96.6%	98.1%	-1.5%
Express	96.1%	96.1%	+0.0%
Brooklyn	**97.9%**	**97.3%**	**+0.6%**
Local/Limited	97.6%	97.2%	+0.4%
Select Bus Service	98.3%	96.5%	+1.9%
Express	99.8%	98.8%	+1.0%
Manhattan	**97.4%**	**97.5%**	**-0.1%**
Local/Limited	97.0%	97.0%	+0.0%
Select Bus Service	98.3%	99.2%	-0.9%
Express	N/A	N/A	N/A
Queens	**96.8%**	**96.8%**	**+0.0%**
Local/Limited	96.6%	96.6%	+0.0%
Select Bus Service	97.7%	98.9%	-1.2%
Express	98.2%	96.9%	+1.3%
Staten Island	**97.7%**	**94.2%**	**+3.7%**
Local/Limited	97.9%	97.0%	+0.9%
Select Bus Service	100.7%	99.3%	+1.4%
Express	97.3%	92.7%	+5.0%
Systemwide	**97.2%**	**96.6%**	**+0.6%**
Local/Limited	97.0%	97.0%	+0.0%
Select Bus Service	98.1%	98.4%	-0.3%
Express	97.7%	94.5%	+3.4%

Chart 2

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Additional Bus Stop Time
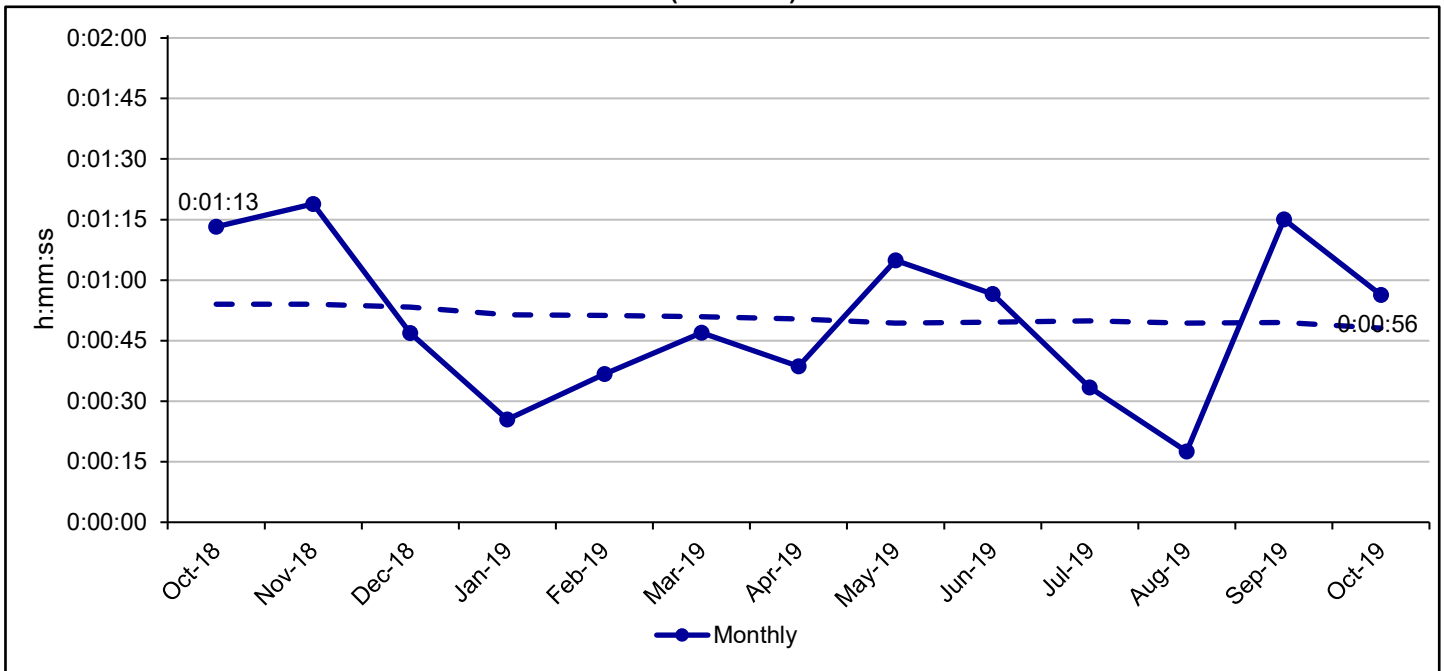## (4 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend
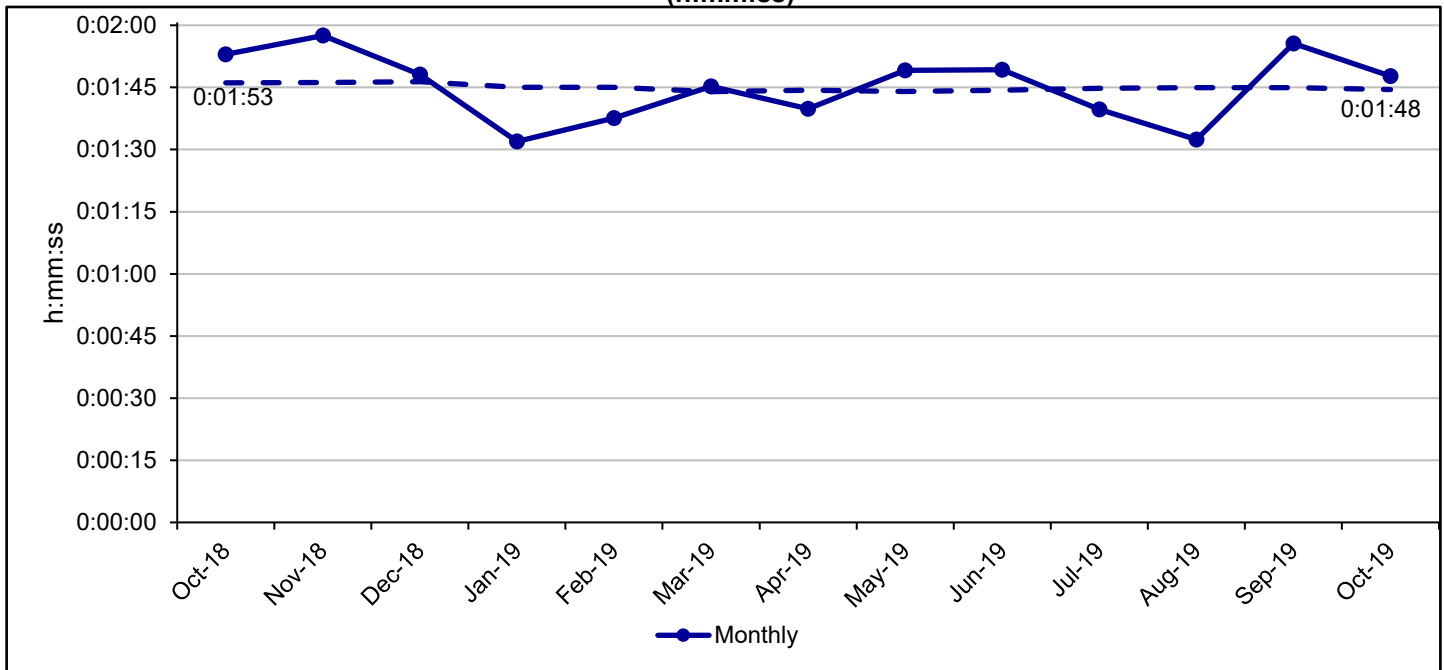
	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	0:01:54	0:01:50	+3.6%	0:01:45	0:01:41	+3.6%
Brooklyn	0:01:55	0:02:01	-5.0%	0:01:54	0:01:56	-1.7%
Manhattan	0:01:25	0:01:42	-16.7%	0:01:27	0:01:31	-4.8%
Queens	0:01:47	0:01:51	-3.6%	0:01:43	0:01:46	-2.6%
Staten Island	0:02:14	0:02:15	-0.7%	0:02:01	0:02:07	-4.7%
Systemwide	**0:01:48**	**0:01:53**	**-4.4%**	**0:01:45**	**0:01:46**	**-1.2%**

Additional Bus Stop Time Discussion

- Additional Bus Stop Time improved by five seconds (or 4.4%) in October 2019 compared to October 2018, and improved by one second (or 1.2%) in the 12-month average.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 3

Additional Bus Stop Time
(4 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend ⬇

Borough	Oct 19	Oct 18	% Change
Bronx	**0:01:54**	**0:01:50**	**+3.6%**
Local/Limited	0:01:54	0:01:52	+1.8%
Select Bus Service	0:01:37	0:01:22	+18.3%
Express	0:02:46	0:02:32	+9.2%
Brooklyn	**0:01:55**	**0:02:01**	**-5.0%**
Local/Limited	0:01:57	0:02:04	-5.6%
Select Bus Service	0:01:24	0:01:29	-5.6%
Express	0:02:02	0:02:09	-5.4%
Manhattan	**0:01:25**	**0:01:42**	**-16.7%**
Local/Limited	0:01:37	0:01:52	-13.4%
Select Bus Service	0:01:02	0:01:17	-19.5%
Express	N/A	N/A	N/A
Queens	**0:01:47**	**0:01:51**	**-3.6%**
Local/Limited	0:01:49	0:01:53	-3.5%
Select Bus Service	0:01:13	0:01:27	-16.1%
Express	0:01:53	0:02:19	-18.7%
Staten Island	**0:02:14**	**0:02:15**	**-0.7%**
Local/Limited	0:02:34	0:02:34	0.0%
Select Bus Service	0:01:36	0:01:22	+17.1%
Express	0:01:28	0:01:42	-13.7%
Systemwide	**0:01:48**	**0:01:53**	**-4.4%**
Local/Limited	0:01:53	0:01:57	-3.4%
Select Bus Service	0:01:15	0:01:23	-9.6%
Express	0:01:52	0:02:02	-8.2%

Chart 4

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Additional Travel Time
(4 a.m. - 11 p.m.)
(h:mm:ss)

Desired trend ⬇

	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	0:01:16	0:01:21	-6.2%	0:01:01	0:01:01	-0.8%
Brooklyn	0:00:45	0:01:06	-31.8%	0:00:47	0:00:54	-13.0%
Manhattan	0:00:34	0:00:47	-27.7%	0:00:28	0:00:30	-6.6%
Queens	0:01:10	0:01:21	-13.6%	0:00:56	0:01:01	-8.7%
Staten Island	0:00:33	0:01:46	-68.9%	0:00:23	0:00:54	-57.1%
Systemwide	**0:00:56**	**0:01:13**	**-23.3%**	**0:00:48**	**0:00:54**	**-11.3%**

Additional Travel Time Discussion

- Additional Travel Time improved by 17 seconds (or 23.3%) in October 2019 compared to October 2018, and improved by six seconds (or 11.3%) on a 12-month average.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 5

Additional Travel Time

Monthly (4 a.m. - 11 p.m.)

(h:mm:ss)

Desired trend ⬇

Borough	Oct 19	Oct 18	% Change
Bronx	**0:01:16**	**0:01:21**	**-6.2%**
Local/Limited	0:01:07	0:01:10	-4.3%
Select Bus Service	0:01:29	0:01:38	-9.2%
Express	0:06:17	0:07:23	-14.9%
Brooklyn	**0:00:45**	**0:01:06**	**-31.8%**
Local/Limited	0:00:44	0:01:03	-30.2%
Select Bus Service	0:00:40	0:01:18	-48.7%
Express	0:02:08	0:03:15	-34.4%
Manhattan	**0:00:34**	**0:00:47**	**-27.7%**
Local/Limited	0:00:39	0:00:57	-31.6%
Select Bus Service	0:00:25	0:00:19	+31.6%
Express	N/A	N/A	N/A
Queens	**0:01:10**	**0:01:21**	**-13.6%**
Local/Limited	0:01:06	0:01:13	-9.6%
Select Bus Service	0:00:54	0:00:56	-3.6%
Express	0:05:08	0:09:39	-46.8%
Staten Island	**0:00:33**	**0:01:46**	**-68.9%**
Local/Limited	0:00:53	0:01:05	-18.5%
Select Bus Service	0:01:30	0:01:25	+5.9%
Express	-0:00:43	0:03:36	N/A
Systemwide	**0:00:56**	**0:01:13**	**-23.3%**
Local/Limited	0:00:56	0:01:07	-16.4%
Select Bus Service	0:00:45	0:00:56	-19.6%
Express	0:02:12	0:05:29	-59.9%

Chart 6

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Customer Journey Time Performance
(4 a.m. - 11 p.m.)

Desired trend
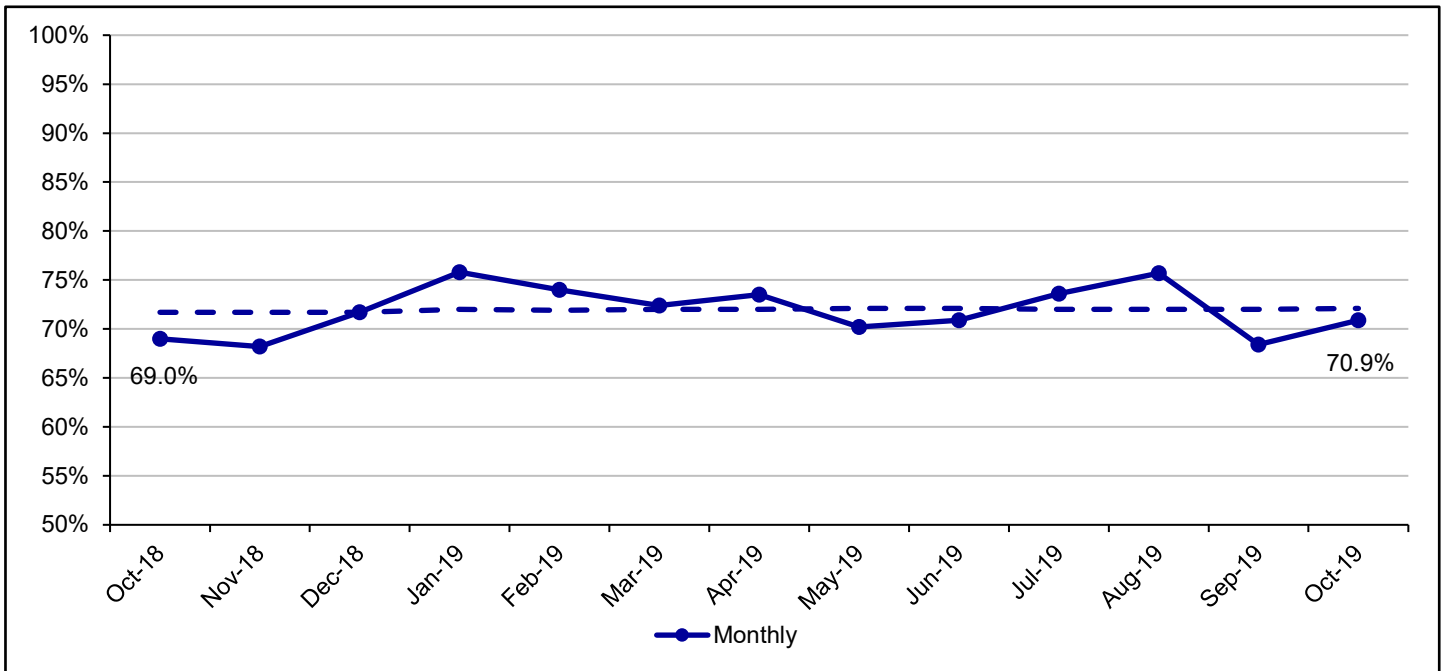
	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	68.9%	68.8%	+0.1%	71.2%	71.7%	-0.7%
Brooklyn	71.0%	68.4%	+3.8%	71.0%	70.5%	+0.7%
Manhattan	75.9%	72.7%	+4.4%	76.4%	75.5%	+1.2%
Queens	69.9%	68.8%	+1.6%	71.8%	71.4%	+0.6%
Staten Island	67.4%	62.7%	+7.5%	69.8%	68.1%	+2.5%
Systemwide	**70.9%**	**69.0%**	**+2.8%**	**72.1%**	**71.7%**	**+0.6%**

Customer Journey Time Performance Discussion

- Customer Journey Time Performance in October 2019 improved by 2.8% compared to October 2018, and improved by 0.6% on a 12-month average.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 7

Customer Journey Time Performance
Monthly

Desired trend ↑

Borough	Oct 19	Oct 18	% Change
Bronx	**68.9%**	**68.8%**	**+0.1%**
Local/Limited	69.8%	69.7%	+0.1%
Select Bus Service	66.9%	67.6%	-1.0%
Express	41.2%	38.1%	+8.1%
Brooklyn	**71.0%**	**68.4%**	**+3.8%**
Local/Limited	70.8%	68.3%	+3.7%
Select Bus Service	75.3%	70.8%	+6.4%
Express	59.1%	54.7%	+8.0%
Manhattan	**75.9%**	**72.7%**	**+4.4%**
Local/Limited	73.3%	70.6%	+3.8%
Select Bus Service	80.8%	78.1%	+3.5%
Express	N/A	N/A	N/A
Queens	**69.9%**	**68.8%**	**+1.6%**
Local/Limited	70.3%	69.3%	+1.4%
Select Bus Service	72.5%	71.6%	+1.3%
Express	46.8%	29.2%	+60.3%
Staten Island	**67.4%**	**62.7%**	**+7.5%**
Local/Limited	66.6%	65.2%	+2.1%
Select Bus Service	66.8%	70.9%	-5.8%
Express	69.9%	53.8%	+29.9%
Systemwide	**70.9%**	**69.0%**	**+2.8%**
Local/Limited	70.6%	69.2%	+2.0%
Select Bus Service	75.9%	73.1%	+3.8%
Express	58.3%	46.0%	+26.7%

Chart 8

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 2: Inputs to Operations

The metrics in this section address how NYCT provides service to its customers by measuring the reliability of bus performance and the impact of bus speed on operations.

Performance Indicator Definitions

Mean Distance Between Failures (MDBF)

Mean Distance Between Failures (MDBF) reports how frequently mechanical problems such as engine failures or electrical malfunctions cause delays. It is calculated by dividing the number of miles buses run in service by the number of incidents due to mechanical problems.

MDBF numbers include weekdays and weekends. This borough and trip-type combinations (Chart 10) are reported as a 12-month average.

Bus Speeds

Bus speeds measure how quickly buses travel along their routes. The average end-to-end speed is the total distance traveled along a route divided by the total time, using bus GPS data.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Mean Distance Between Failures
(24 Hours)
Miles

Desired trend
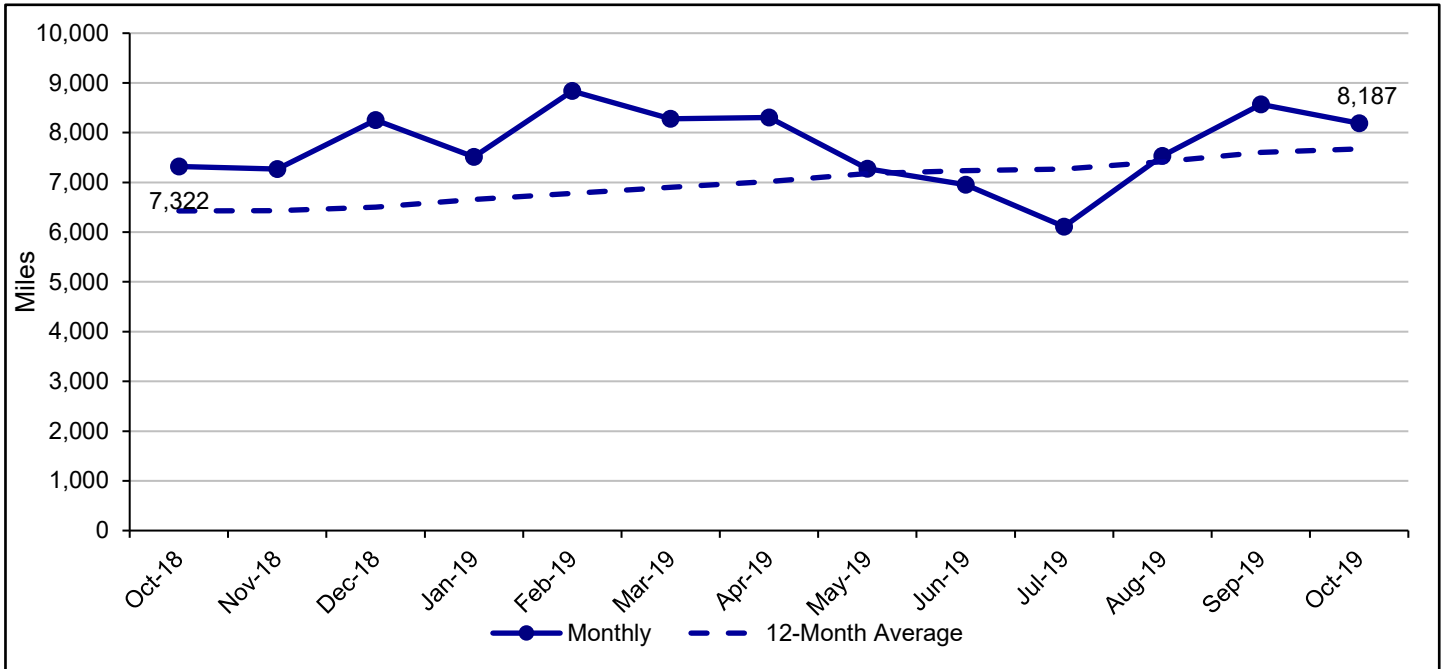
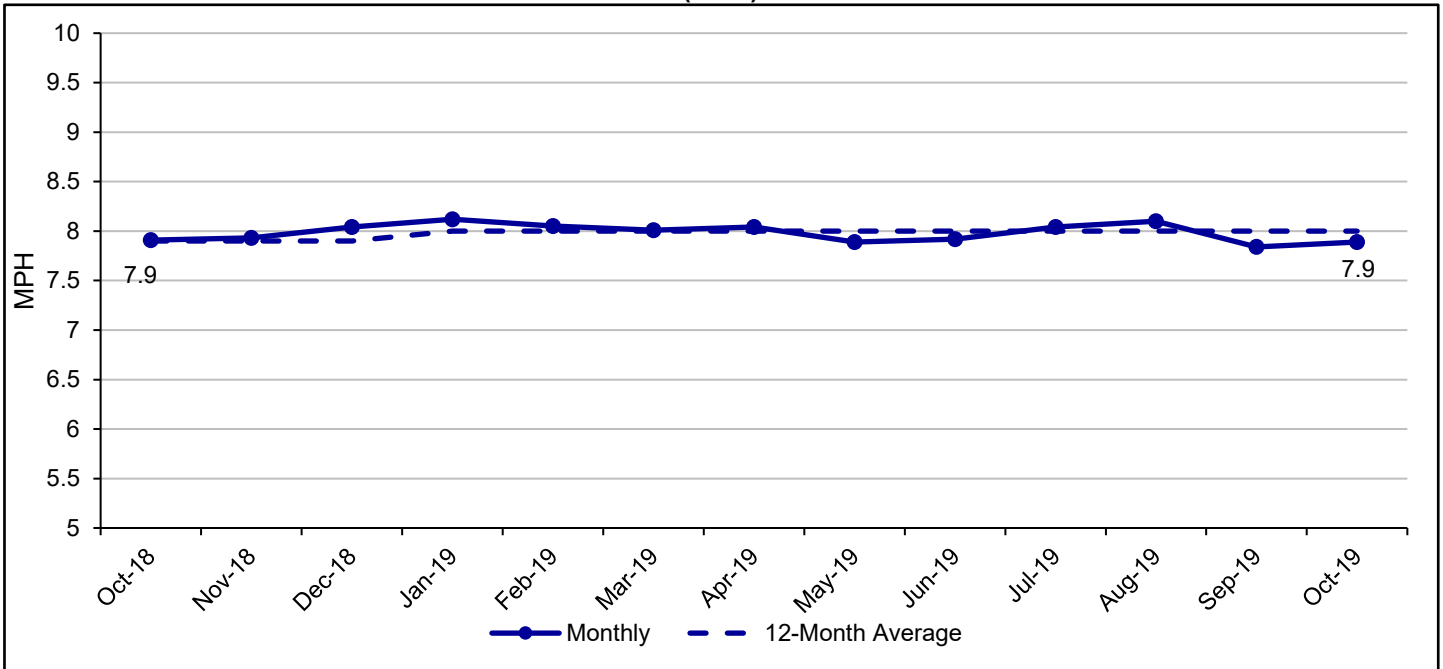|	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	6,544	5,061	+29.3%	6,010	4,466	+34.6%
Brooklyn	8,857	7,350	+20.5%	8,514	6,260	+36.0%
Manhattan	4,851	4,351	+11.5%	4,466	3,788	+17.9%
Queens	7,709	7,929	-2.8%	7,253	7,294	-0.6%
Staten Island	21,739	21,109	+3.0%	21,054	19,474	+8.1%
Systemwide	**8,187**	**7,322**	**+11.8%**	**7,673**	**6,426**	**+19.4%**

Mean Distance Between Failures Discussion

- Mean Distance Between Failures improved by 11.8% from 7,322 in October 2018 to 8,187 in October 2019.
- The 12-month average through October 2019 also improved by 19.4%.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 9

Mean Distance Between Failures
12 Month Rolling Average (24 Hours)
Miles

Desired trend ↑

Borough	Oct 19	Oct 18	% Change
Bronx	**6,010**	**4,466**	**+34.6%**
Local/Limited	5,152	3,768	+36.7%
Select Bus Service	11,268	5,755	+95.8%
Express	10,543	10,451	+0.9%
Brooklyn	**8,514**	**6,260**	**+36.0%**
Local/Limited	8,307	6,097	+36.2%
Select Bus Service	12,188	7,882	+54.6%
Express	8,842	8,703	+1.6%
Manhattan	**4,466**	**3,788**	**+17.9%**
Local/Limited	3,896	3,421	+13.9%
Select Bus Service	8,737	6,703	+30.3%
Express	N/A	N/A	N/A
Queens	**7,253**	**7,294**	**-0.6%**
Local/Limited	7,021	6,897	+1.8%
Select Bus Service	9,507	11,869	-19.9%
Express	7,598	8,037	-5.5%
Staten Island	**21,054**	**19,474**	**+8.1%**
Local/Limited	21,649	17,090	+26.7%
Select Bus Service	14,914	11,178	+33.4%
Express	21,131	23,842	-11.4%
Systemwide	**7,673**	**6,426**	**+19.4%**
Local/Limited	6,835	5,610	+21.8%
Select Bus Service	10,186	8,148	+25.0%
Express	12,041	12,463	-3.4%

Chart 10

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Bus Speeds
(24 Hours)
(MPH)

Desired trend

	Monthly			12-Month Average		
	Oct 19	Oct 18	% Change	Oct 19	Oct 18	% Change
Bronx	7.3	7.3	0.0%	7.4	7.5	-1.3%
Brooklyn	7.1	7.0	+1.4%	7.1	7.1	0.0%
Manhattan	5.8	5.8	0.0%	5.9	5.9	0.0%
Queens	8.7	8.7	0.0%	8.8	8.9	-1.1%
Staten Island	13.5	13.7	-1.5%	13.9	13.3	+4.5%
Systemwide	**7.9**	**7.9**	**0.0%**	**8.0**	**7.9**	**+1.3%**

Speed Discussion

- Bus Speeds in October 2019 remained at 7.9 mph compared to October 2018.
- Speeds improved by 1.3% on a 12-month average.

Chart 11

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Bus Speeds
Monthly (24 Hours)
MPH

Desired trend ↑

Borough	Oct 19	Oct 18	% Change
Bronx	**7.3**	**7.3**	**0.0%**
Local/Limited	6.6	6.7	-1.5%
Select Bus Service	8.4	8.5	-1.2%
Express	11.1	10.9	+1.8%
Brooklyn	**7.1**	**7.0**	**+1.4%**
Local/Limited	6.8	6.8	0.0%
Select Bus Service	8.7	8.4	+3.6%
Express	12.1	11.7	+3.4%
Manhattan	**5.8**	**5.8**	**0.0%**
Local/Limited	5.5	5.5	0.0%
Select Bus Service	6.7	7.0	-4.3%
Express	N/A	N/A	N/A
Queens	**8.7**	**8.7**	**0.0%**
Local/Limited	8.4	8.4	0.0%
Select Bus Service	11.1	11.3	-1.8%
Express	12.9	12.4	+4.0%
Staten Island	**13.5**	**13.7**	**-1.5%**
Local/Limited	11.6	11.6	0.0%
Select Bus Service	14.2	14.3	-0.7%
Express	16.6	16.6	0.0%
Systemwide	**7.9**	**7.9**	**0.0%**
Local/Limited	7.4	7.3	+1.4%
Select Bus Service	8.8	9.1	-3.3%
Express	13.5	13.5	0.0%

Chart 12

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Section 3: Legacy Indicators

The metrics in this section have been shared with the public for many years. While less reflective of the customer experience, they are included here for continuity purposes.

Performance Indicator Definitions

Wait Assessment
Wait Assessment (WA) measures how evenly buses are spaced at selected timepoints along each route. It is defined as the percentage of actual intervals between buses that are no more than three minutes over the scheduled interval for the morning (7-9am) and afternoon (4-7pm) peak periods and no more than five minutes over the scheduled interval for the rest of the day. This measure provides a percentage of buses passing the standard, but it does not account for extra service operated, it is not weighted to how many customers are waiting for buses at different stops, it does not distinguish between relatively minor gaps in service and major delays, and it is not a true measurement of time customers spend waiting at stops.

Bus Mean Distance Between Service Interruptions
Bus Mean Distance Between Service Interruptions is the average distance traveled by a bus between all delays and/or inconveniences to customers within a 12-month period. All road calls caused by both mechanical and non-mechanical failures are included.

Bus Percentage of Completed Trips
Bus Percentage of Completed Trips is the percent of trips completed system wide for the 12-month period. The sytemwide metric is the combined results of NYCT Bus and MTA Bus.

Bus AM Weekday Pull Out Performance
Bus AM Weekday Pull Out Performance is the percent of required buses and operators available in the AM peak period. The sytemwide metric is the combined results of NYCT Bus and MTA Bus.
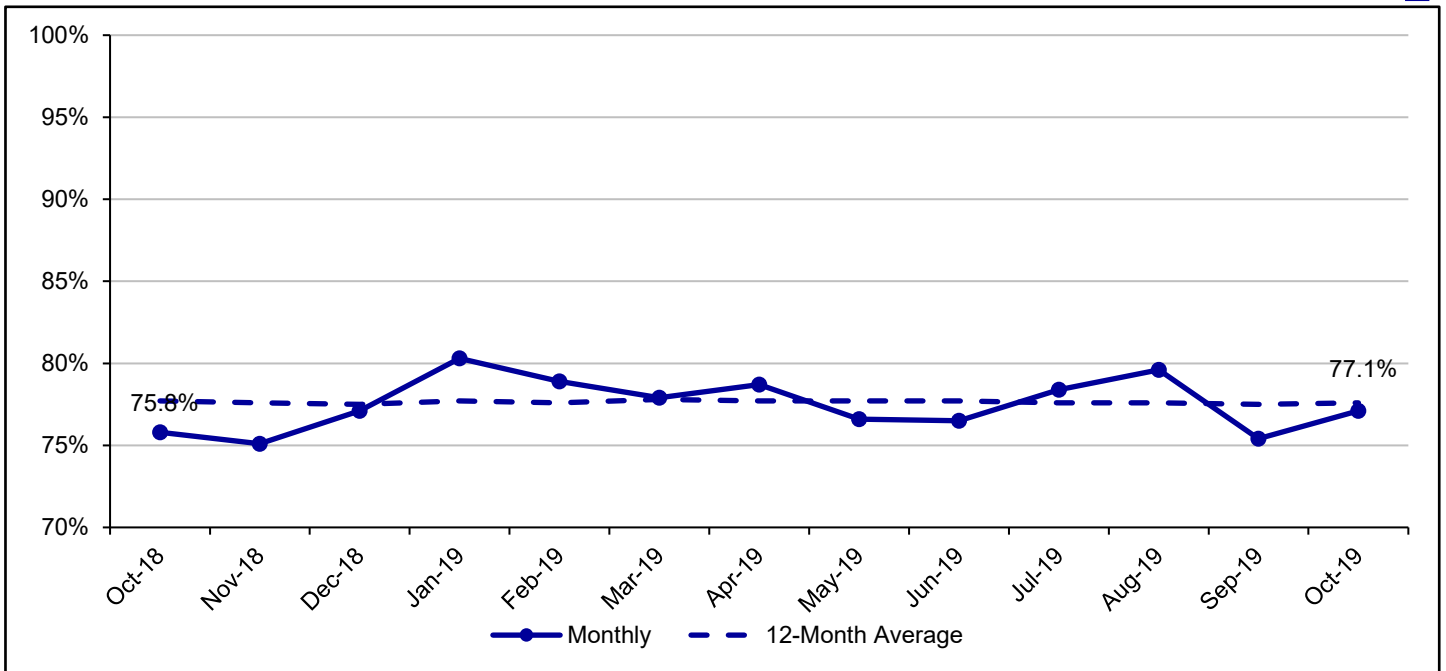
Bus PM Weekday Pull Out Performance
Bus PM Weekday Pull Out Performance is the percent of required buses and operators available in the PM peak period. The sytemwide metric is the combined results of NYCT Bus and MTA Bus.

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

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Wait Assessment

Desired trend ↑

Legend: ● Monthly ━ ━ 12-Month Average

	Monthly			**12-Month Average**		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Bronx	75.2%	75.3%	-0.1%	76.5%	77.1%	-0.8%
Brooklyn	76.2%	74.5%	+2.3%	75.9%	76.2%	-0.4%
Manhattan	76.8%	73.8%	+4.1%	77.1%	76.3%	+1.0%
Queens	78.4%	77.6%	+1.0%	79.1%	79.1%	0.0%
Staten Island	79.9%	77.9%	+2.6%	80.9%	80.4%	+0.6%
Systemwide	**77.1%**	**75.8%**	**+1.7%**	**77.6%**	**77.7%**	**-0.1%**

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Chart 13

Wait Assessment
Monthly

Desired trend

Borough	Oct 19	Oct 18	% Change
Bronx	**75.2%**	**75.3%**	**-0.1%**
Local/Limited	75.0%	75.0%	+0.0%
Select Bus Service	74.9%	77.7%	-3.6%
Express	79.5%	79.9%	-0.5%
Brooklyn	**76.2%**	**74.5%**	**+2.3%**
Local/Limited	76.0%	74.3%	+2.3%
Select Bus Service	80.8%	80.2%	+0.7%
Express	78.0%	76.3%	+2.2%
Manhattan	**76.8%**	**73.8%**	**+4.1%**
Local/Limited	76.0%	73.4%	+3.5%
Select Bus Service	82.9%	79.5%	+4.3%
Express	N/A	N/A	N/A
Queens	**78.4%**	**77.6%**	**+1.0%**
Local/Limited	78.2%	77.4%	+1.0%
Select Bus Service	83.7%	80.6%	+3.8%
Express	81.5%	79.3%	+2.8%
Staten Island	**79.9%**	**77.9%**	**+2.6%**
Local/Limited	78.9%	76.8%	+2.7%
Select Bus Service	78.0%	79.6%	-2.0%
Express	84.6%	82.1%	+3.0%
Systemwide	**77.1%**	**75.8%**	**+1.7%**
Local/Limited	76.7%	75.5%	+1.6%
Select Bus Service	81.5%	79.8%	+2.1%
Express	81.7%	80.2%	+1.9%

Chart 14

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Bus Mean Distance Between Service Interruptions

Desired trend ⬆
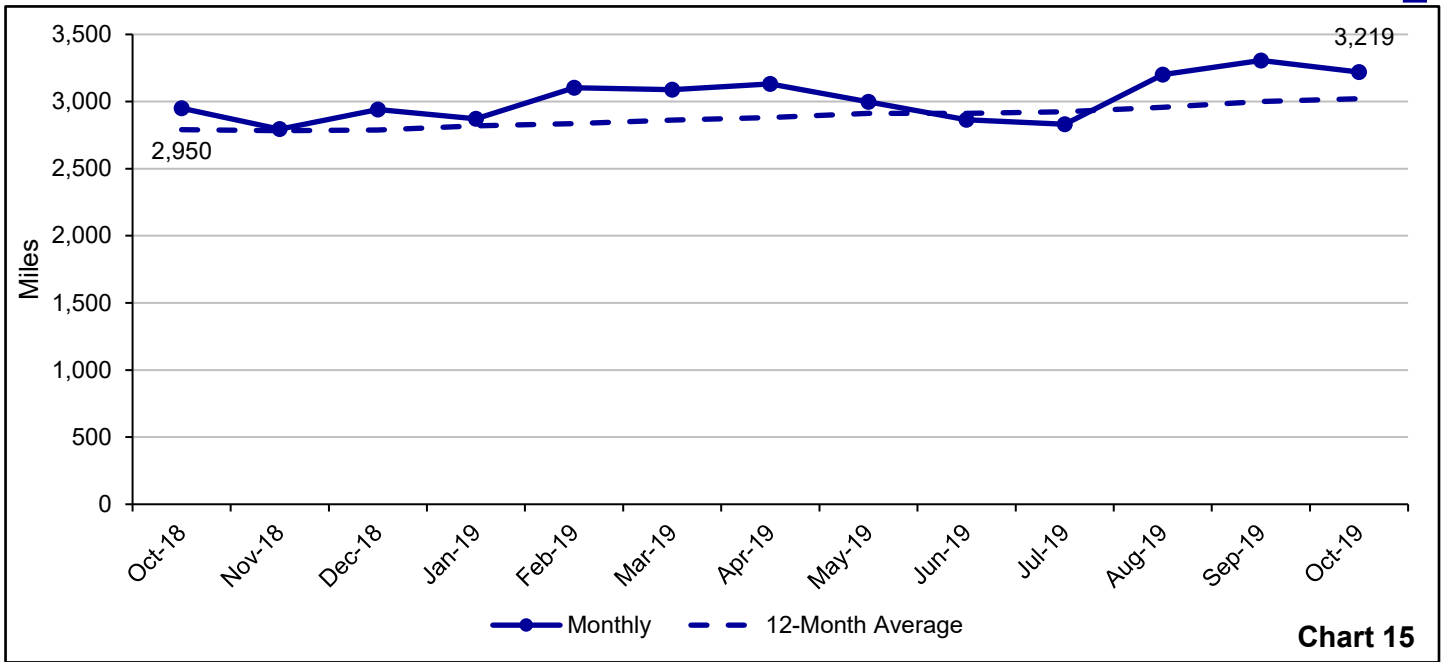
Chart 15
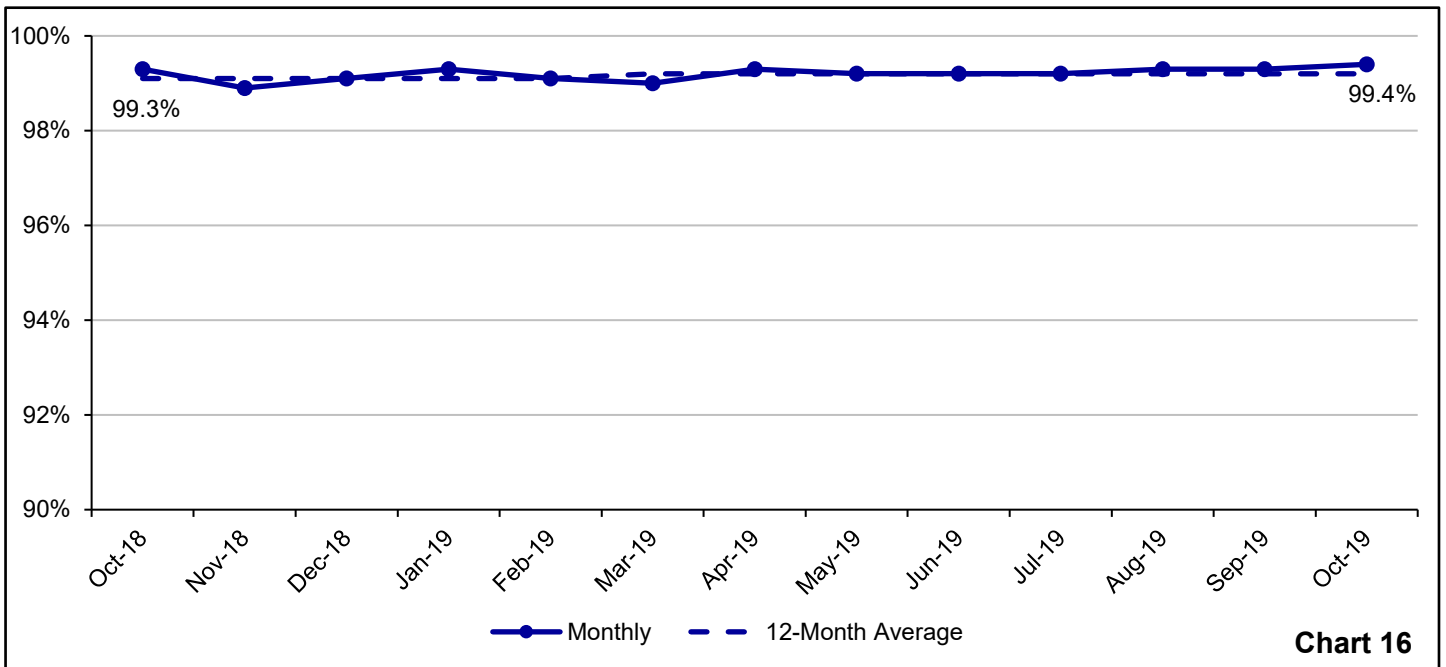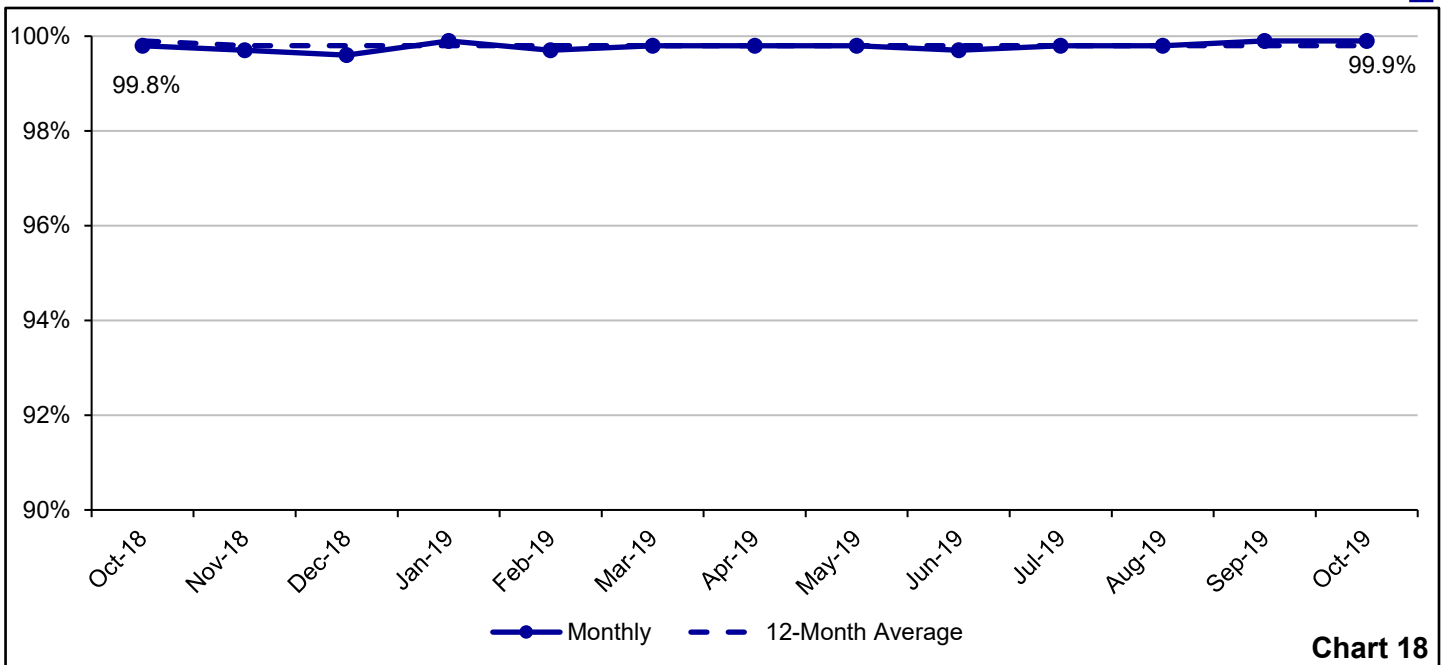
	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Systemwide	**3,219**	**2,950**	**+9.1%**	**3,021**	**2,790**	**+8.3%**

Bus Percentage of Completed Trips

Desired trend ⬆

Chart 16

	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Systemwide	**99.4%**	**99.3%**	**+0.1%**	**99.2%**	**99.1%**	**+0.1%**

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Bus AM Weekday Pull Out Performance

Desired trend ⬆

99.8%

99.9%

	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Systemwide	**99.9%**	**99.8%**	**+0.1%**	**99.8%**	**99.8%**	**0.0%**

Chart 17

Bus PM Weekday Pull Out Performance

Desired trend ⬆

99.8%

99.9%

	Monthly			12-Month Average		
	Oct 19	**Oct 18**	**% Change**	**Oct 19**	**Oct 18**	**% Change**
Systemwide	**99.9%**	**99.8%**	**+0.1%**	**99.8%**	**99.9%**	**-0.1%**

Chart 18

Note: Due to the shortened reporting cycle, the preliminary metrics in this report are subject to change.

Accessibility Report
Alex Elegudin, Senior Advisor for Systemwide Accessibility

On Oct. 16, NYCT launched the Accessible Station Lab at Jay St–MetroTech station. With over a dozen new features — including both physical infrastructure and smartphone apps – the Lab is designed to test features that can help make subway travel more accessible for riders of all abilities. In the top left, President Byford and Senior Advisor for Systemwide Accessibility Alex Elegudin demonstrate each feature. In the top right, Systemwide Accessibility Director Rachel Cohen reveals an interactive map at the station. In the bottom photo, new signage explains the five smart phone apps customers can test as part of the Lab.

October 2019 Accessibility Update

Last month I introduced the Accessible Station Lab, a ten-week pilot we are running to test a range of new accessibility features at the Jay St - MetroTech station in downtown Brooklyn. Early feedback from customers and advocates has been positive, and it's great to see the excitement and questions we are getting about the new maps, apps, and tactile surfaces. The features will be in place until the end of the year, and I encourage everyone who is interested in subway accessibility to visit the station and share their feedback on our website at new.mta.info/accessibility/stationlab.

Even as we look to the future, we continue to complete projects that will increase vertical accessibility in the existing subway system. Just last week, I joined President Byford to take an inaugural ride on a new elevator at the 8th Av (N) station in South Brooklyn. This opening was an exciting event for me as a life-long resident of South Brooklyn and created yet another important access point for this neighborhood and this subway line. The station is now accessible in the Manhattan-bound direction, and work continues on the southbound platform elevator. We also built this elevator in a very short amount of time, using methods we will be exploring for the next Capital Plan as we look to make an additional 70 stations accessible.

We continue to expand the ways in which we are getting elevator status information to our customers, with a focus on bringing information to you where you are in the system. You should be seeing elevator and escalator status information on more and more of the new OutFront Customer Information Center screens around the system - and these will start telling you elevator status at the station *before* you enter, so you can plan your travels accordingly. We are also piloting elevator status announcements on the 1 and E lines and at several accessible stations on the 6 and Q lines - please listen up for these announcements and share your feedback on whether you think they are useful and how they can be improved to make your travels easier.

Finally, we remain focused on training NYCT staff on disability etiquette and accessibility features across our system. We have provided in-person training to more than 500 employees, with a focus on customer-facing employees such as wayfinders, who we trained earlier this month. These trainings are a vital part of our Fast Forward efforts to not just increase accessibility but to change the culture at Transit, and we are looking forward to training the next 500.

Alex Elegudin
Senior Advisor for Systemwide Accessibility

Strategy & Customer Experience
Sarah Meyer, Senior Vice President & Chief Customer Officer

Our teams are committed to continuing to improve the customer experience and one of the many 2019 Q3 Customer Commitments met was to reconfigure fare payment areas at six subway stations to improve passenger flow. Upgrades were at made at fare control areas at 72 St/1, 2, 3 (shown above), 14 St–8 Av, 57 St–7 Av, Forest Hills–71 Av, Grand Central–42 St, and Union Sq. These changes are making it easier for customers to enter and exit the system and alleviate congestion during high volume times.

November 2019 Highlights:
Strategy and Customer Experience

I am proud to announce that our @NYCTSubway Twitter handle reached one million followers. This is quite an accomplishment and a testament to the commitment and hard work of our 24/7 digital communications social media team. This month, despite a 55% increase of incoming comments, the team successfully responded to 53% more tweets than last year. And, customers are responding positively with a 12% improved customer satisfaction score (C-sat) from than last year.

Commendations about Subway, Bus, and non-service issues (including MetroCard) were up 12.6%, 17.5%, and 87%, respectively, from October 2018. Access-A-Ride commendations decreased slightly by 0.5%.

Complaints about Subway and Access-A-Ride services were up 26.5% and 35.9%, respectively, compared to October last year. It should be noted, however, complaints for both services are trending down in recent months. Bus complaints were also down compared to last month and flat (a 0.2% increase) since October 2018. MetroCard complaints were down again this month and 12.2% lower from last year. Complaints about non-service issues have been trending down for the past year and are 50% lower than October 2018.

Customers may be noticing changes in how service status appear on digital screens and on our app. Our Digital Communications team implemented new service change labels that better explain how service is running on certain days or during specific times of the day. *Extra Service, Holiday Service, Special Event, Saturday Schedule, Sunday Schedule* labels let customers know when service is running on a modified schedule*.*

We are also testing the roll out of targeted service messaging on digital screens at station mezzanines and platforms, where customers wait for trains. This includes letting customers know if there are service changes impacting the train they are waiting for at that station. In addition, new route strip maps let customers know what stops the train will make in the same direction customers are boarding. This puts timely, useful information in the hands of customer when they are traveling and gives them better control of their journey. Given the complexity of the transit network and the nuances of many routes, we recognize the value granular information provides our riders and will continue working on enhancements to improve the customer experience.

We are happy with reports on the progress of the M14 SBS and wanted to measure the impact these changes are having. We conducted a rider survey last month and I am happy to report that 82% of respondents said they believe overall service on the M14 has gotten better. Eighty percent say their travel times improved—45% of the respondents attributed the improvements to enforcement of dedicated bus lanes and 37% believe prepaid fare

payment and all-door boarding are critical reasons. Twelve percent said fewer bus stops added to their travel time savings.

In October, we released the Bronx Bus Network Redesign plan that proposes to add three new bus routes, improve service frequency on 11 Lines and along nine corridors, streamlines 18 routes and balances bus stop spacing to speed up bus rides. From now until the end of the year, our street teams will be out and about and there will be several evening presentations scheduled to gather additional valuable feedback on the redesign. As we have said, this is an evolving plan that will be tweaked to ensure we are meeting the greatest needs for the majority of customers. All Bronx riders are encouraged to review the proposed plan and comment before it is finalized at the end of the year.

This month, our community engagement teams were active at 26 public meeting or events. This included two Town Hall meetings, three Bus Network Redesign Plan meetings in Brooklyn, and seven Community Board and/or civic meetings covering transit issues. We also hosted two pop-up Help Desk customer assistance events to help N Line customer navigate around the flood prevention project at Stillwell Av Terminal.
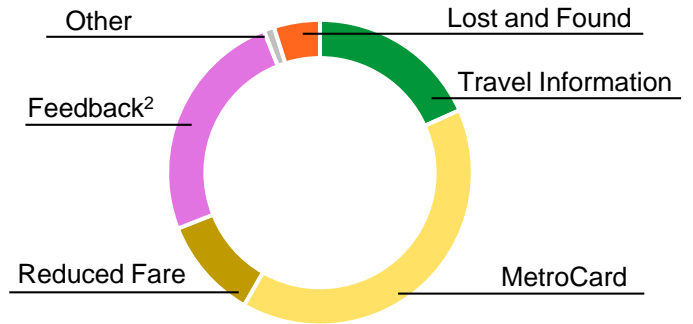

Sarah Meyer
Senior Vice President & Chief Customer Officer
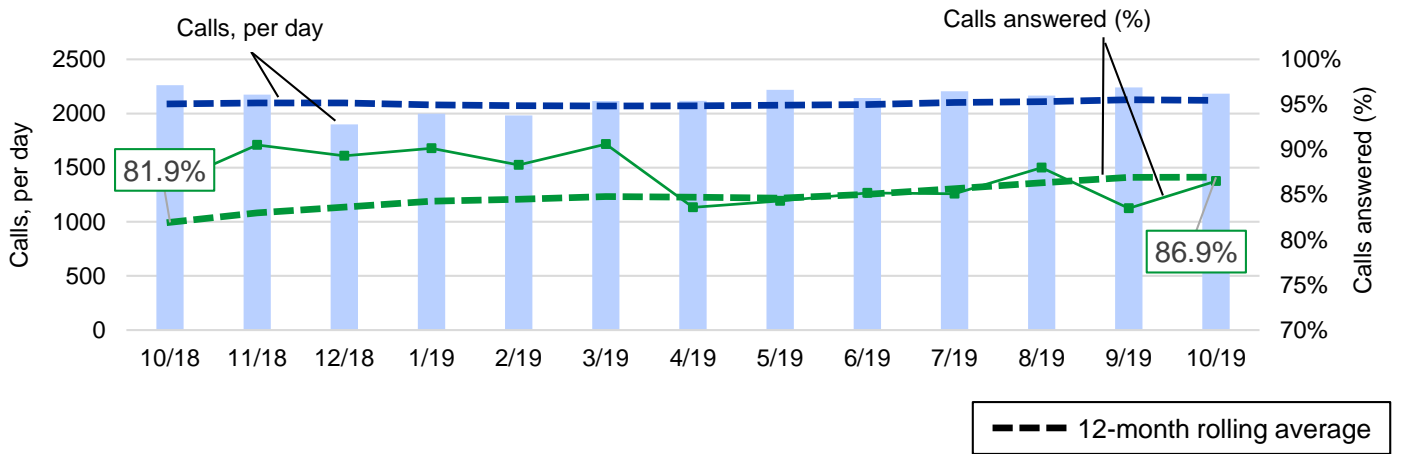
Customer engagement

Telephone

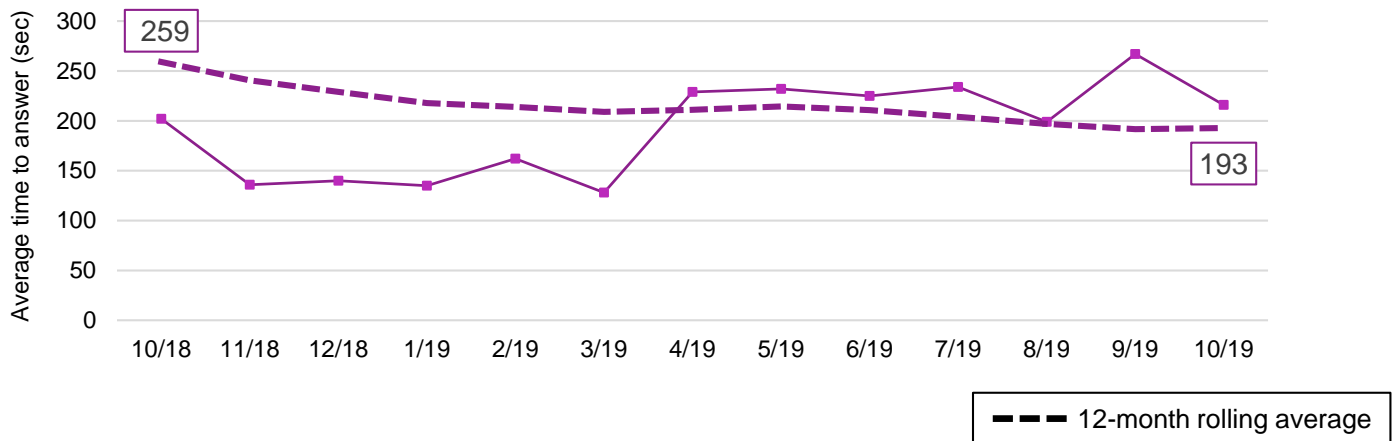|	Oct 2019	Oct 2018	Variance
Telephone calls	67,692	70,105	▼3.4%
Calls answered	86.5%	86.3%	▲0.2%
Average time to answer[1] (seconds)	216	202	▲6.9%

1. Excludes automated self-service calls
2. Feedback is customers calling with comments or concerns

Telephone: calls received and answered

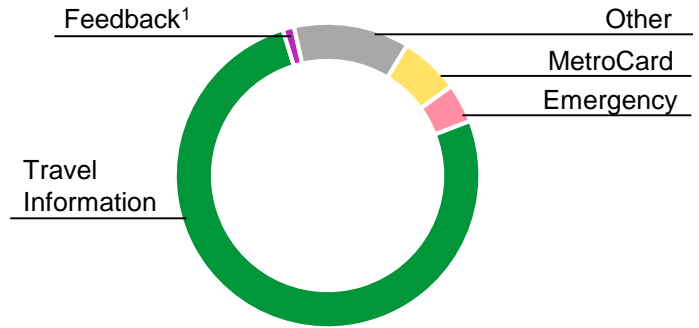
Telephone: average time to answer
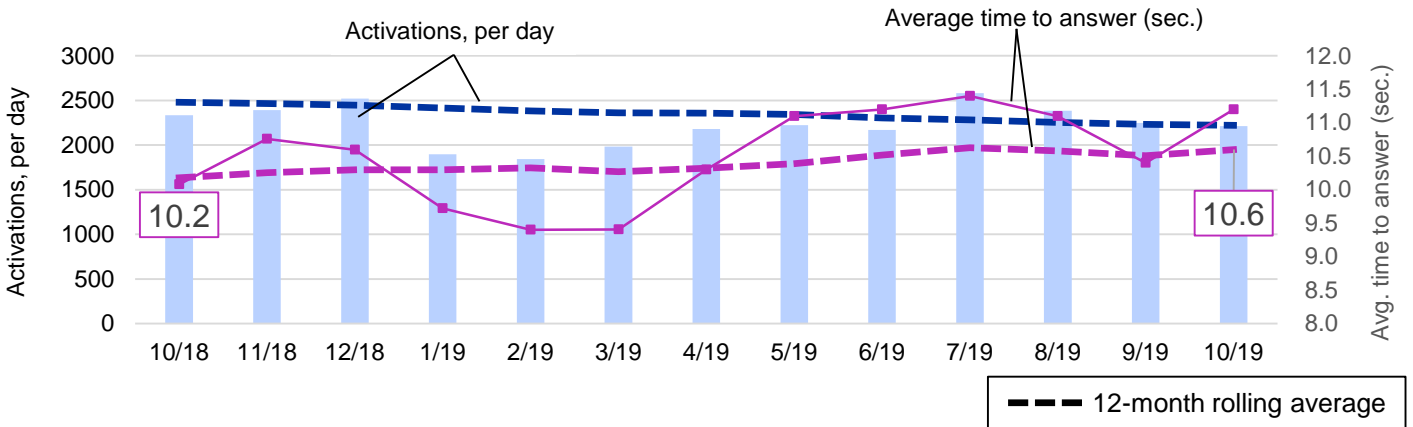
Customer engagement

Help Point

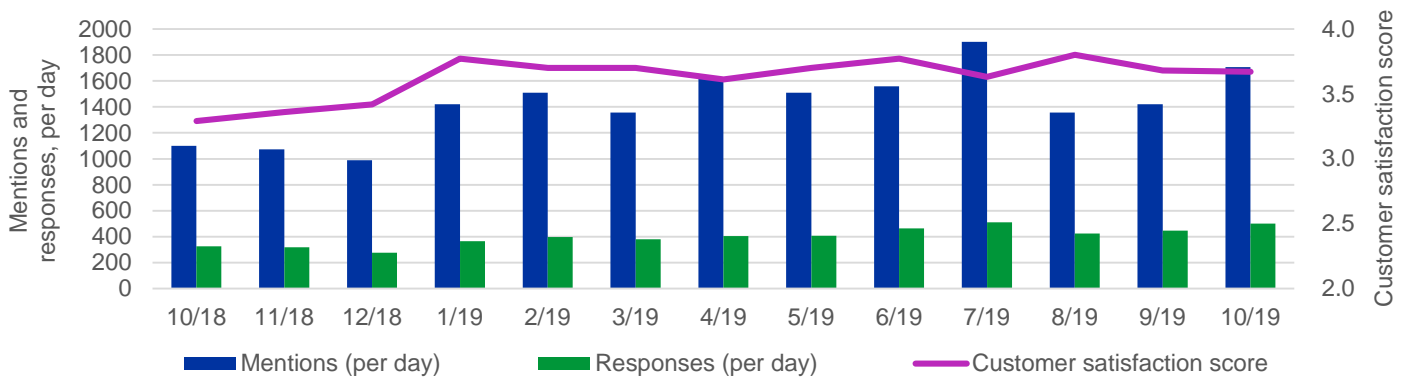|	Oct 2019	Oct 2018	Variance
Help Point activations	68,618	72,415	▼5.2%
Average time to answer (seconds)	11.2	10.1	▲10.7%

1. Feedback is customers calling with comments or concerns

Feedback[1] Other
MetroCard
Emergency
Travel Information

Help Point: activations and average time to answer

Activations, per day
Average time to answer (sec.)
10.2
10.6
12-month rolling average

Social media

	Oct 2019	Oct 2018	Variance
Social media mentions[1]	52,909	34,106	▲55.1%
Responses sent	15,555	10,147	▲53.3%
Customer satisfaction score[2]	3.67	3.29	▲11.6%

1. Social media mentions include Tweets, Facebook posts, and comments
2. Customers were asked *How would you rate your experience on Twitter with NYCT Subway?* using a scale of 1 to 5

Real-Time Service	63%
MetroCard/AFC	7%
Stations	6%
Temperature Control	5%
Employee	5%
Planned Work	4%
Fare Evasion	3%
Homeless	3%
Car Equipment	3%
Accessibility	2%

Mentions (per day) Responses (per day) Customer satisfaction score
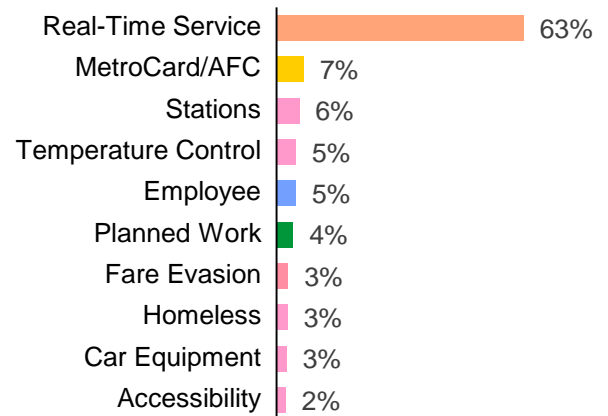
Customer engagement

Web, mobile app, and written feedback

	Oct 2019	Oct 2018	Variance
Received	7,662	7,431	▲3.1%
Responses sent[1]	10,447	11,773	▼11.3%

1. Includes automated and manual responses
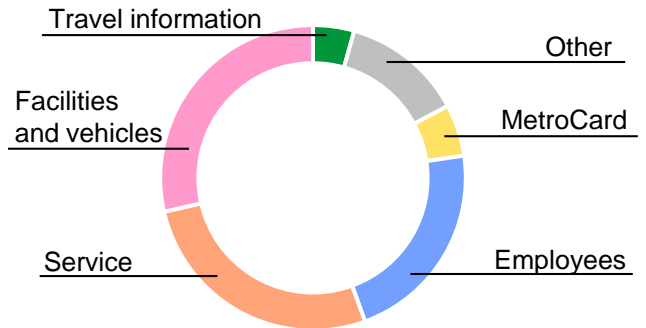
Keeping customers informed

Alerts and service notices

	Oct 2019
Web	5,723
Twitter	3,451
Kiosks / Digital Displays[1]	1,349
Email and text alerts	
• Service	3,898
• Elevator and escalator status	12,082
Service Notice posters developed	635

1. Excludes countdown clocks

Social media followers

		Oct 2019	Oct 2018	Variance
Twitter	@NYCTSubway	999.4k	959.0k	▲4.2%
	@NYCTBus	25.6k	21.6k	▲18.5%
	@MTA	1,314.5k	1,289.0k	▲2.0%
Facebook	NYCT	64.3k	60.6k	▲6.1%
Instagram	@mtanyctransit	23.8k	17.6k	▲35.2%

Customer feedback

Complaints per 100,000 journeys

	Oct 2019	Oct 2018	Variance
Subway	2.49	1.97	▲26.5%
Bus	8.93	8.92	▲0.2%
MetroCard	0.23	0.26	▼12.2%
Access-A-Ride	538.5	396.3	▲35.9%
Non-service issues[1]	0.086	0.174	▼50.4%

1. Includes customer experiences related to agency-wide information channels, property, policies, and other actionable, but non-subway or bus service related issues.

Commendations per 100,000 journeys

	Oct 2019	Oct 2018	Variance
Subway	0.085	0.075	▲12.6%
Bus	0.51	0.38	▲17.5%
Access-A-Ride	121.1	121.8	▼0.5%
Non-service issues incl. MetroCard	0.020	0.011	▲86.6%

Complaints per 100,000 journeys: trends

System Safety Specialists Jon Floridia and Walley Richards along with Group Station Manager James Lamorte complete station inspection.

November 2019 Highlights: Safety

Subway Customer Accident Rates were slightly down when comparing the most recent 12-month period to the previous one; However, the Actual Accident Counts continue to show decreases monthly for the past several months.

Bus Collisions, Collision Injuries, and Customer Accidents have shown increases when comparing the most-recent 12-month period to the previous one. It is worth noting that Bus Collisions have decreased on a monthly basis and the Department of Buses continue with their messaging to all depots related to seasonal trends.

Employee Lost Time Accidents have shown an increase. The Office of System Safety is working with the Operating Departments to identify root causes for the most prevalent accident types and to develop a focused campaign to address them.

NYCT continues to make progress against all our Leading Indicator goals.

Lastly, the Department of Subways continues to make significant strides in the reduction of Fires.

Robert Diehl
Senior Vice President, Safety and Security

* Except for Fires, all numbers reported refer to rates.

Monthly Operations Report

Statistical results for the 12-Month period are shown below

Safety Report			
	12-Month Average		
Performance Indicators	**Nov 16 - Oct 17**	**Nov 17 - Oct 18**	**Nov 18 - Oct 19**
Subways			
Subway Customer Accidents per Million Customers [1]	2.80	2.97	2.95
Subway Collisions [2]			
Total	0	3	1
Mainline	0	0	0
Yard	0	3	1
Subway Derailments [2]			
Total	8	6	5
Mainline	5	2	1
Yard	3	4	4
Subway Fires [2]	935	937	706
Buses			
Bus Collisions Per Million Miles Regional	55.25	53.33	54.41
Bus Collision Injuries Per Million Miles Regional	6.45	5.83	6.21
Bus Customer Accidents Per Million Customers [1] Regional	1.27	1.27	1.49
Total NYCT and MTA Bus Lost Time Accidents per 100 Employees [1]	3.64	3.67	3.92

[1] 12-month Average data from October through September.

[2] 12-month figures shown are totals rather than averages.

Leading Indicators			
Subways	**October**	**YTD**	**Goal**	**YTD as % of Goal**
Roadway Worker Protection				
Joint Track Safety Audits -- Actual Count	38	321	340	94.4%
Joint Track Safety Audits -- Compliance Rate	99.4%	98.6%	100.0%	98.6%
Mainline Collision/Derailment Prevention				
Continuous Welded Rail Initiative (# of Track Feet)	4,439	76,343	47,520	160.7%
Friction Pad Installation	3,482	67,607	33,500	201.8%
Buses	**October**	**YTD**	**Goal**	**YTD as % of Goal**
Collision Prevention				
Audible Pedestrian Turn Warning System	23	601	630	95.4%
Vision Zero Employee Training	524	5,627	6,200	90.8%

Subway Fires
October 2019

Fire severity is classified as follows:

Severity	Criteria
Severity	**Criteria**
Low	No disruption to service
	No damage to NYC Transit property
	No reported injuries
	No discharge/evacuation of passengers
	Fire self-extinguished or extinguished without Fire Department
Average	Delays to service 15 minutes or less
	Minor damage to NYC Transit property (no structural damage)
	No reported injuries/fatalities due to fire/smoke
	Discharge of passengers in station
	Minor residual smoke present (haze)
Above Average	Delays to service greater than 15 minutes
	Moderate to heavy damage to NYC Transit property
	Four or less injuries due to fire/smoke
	Discharge of train or transfer of passengers to another train (not in station)
	Station/platform/train filled with smoke
High	Major delays in service (over one hour)
	Major structural damage
	Five or more reported injuries or one or more fatalities
	Evacuation of passengers to benchwall or roadbed
	Mass evacuation of more than one train

Severity & Location of fires during the current month were as follows:

Low:	98.3%	Train:	5
Average:	1.7%	Right-of-way:	35
Above Average:	0.0%	Station:	18
High:	0.0%	Other:	0
		Total:	58

Top Items Burnt by Location during the current month were as follows:

Train:		Right-of-Way:		Station:	
Debris:	3	Debris:	24	Debris:	14
High Volt Wiring:	1	Tie:	6	Electrical:	3
				Electronic Device:	1
Trolley Lead:	1	Insulator:	2		
		Undetermined:	1		
		Slatting/Walkway:	1		

Monthly Operations Report

Safety Report Definitions:

Joint Track Safety Audits are conducted by a joint team of personnel from the Office of System Safety, the Transport Workers Union, and the Subway Surface Supervisors Association (SSSA). The teams look at critical items for on-track safety such as flagging, third rail safety and lighting. These reviews are conducted at various Department of Subways, Capital Program Management and MTA Capital Construction work sites along the right of way to assess compliance with the rules and procedures, identify deficiencies in training and equipment, and improve on-track safety.

Continuous Welded Rail (CWR) significantly reduces the number of rail joints, which lessens the occurrence of broken rails while also providing a smoother ride. Track Engineering analyzed system-wide broken rail data and set forth a CWR installation plan to help reduce broken rails and improve track conditions. We anticipate expanded use of the Critter Rail Stringer and "E" Clip installer to help us achieve this goal.

Friction Pad Installations will increase resiliency of the rail, resulting in reduced broken rail incidents and, overall, will reduce the potential for development of rail defects.

Audible Pedestrian Warning System technology produces an audible voice alert to pedestrians when a bus is making a left- or a right-hand turn. The system turns on automatically without a bus operator's intervention and alerts pedestrians with a street- and curb-side speaker. Volume automatically adjusts based on outside ambient noise.

Vision Zero Training provides focused Safety Awareness Training to all Bus Operators, which engages them on all aspects of Pedestrian Safety issues, emphasizing the current challenges of managing their buses in an environment with distracted pedestrians, motorists and cyclists. The program incorporates testimonial videos from "Families for Safer Streets" along with a series of videos of serious bus and pedestrian accidents secured from onboard bus cameras as well as external traffic and security cameras. The training, which will be delivered over two years, is in the midst of a new cycle that began in April 2019 and will run through March 2021.

A flood mitigation project at the Hammels Wye facility on the Rockaway line in Queens was completed in October. The facility, which houses a power substation and signal tower, was flooded during Superstorm Sandy. Installation of a perimeter wall and improvements to storm water drainage will help protect the facility's critical assets against future storm events.

November 2019 Highlights: Capital Program Status

The Capital Program Status Report provides a monthly and year-to-date overview of the progress of NYCT's Capital Program including a brief discussion of the reporting month's highlights. The report focuses primarily on providing a summary of achievements regarding project awards, project completions and project closeouts for the period ending one month prior to the presentation of the report. In addition, year-to-date performance for all five major capital program milestones, as well as a quarterly report on fan plant status are presented.

Through October 31, 2019, NYCT's performance against its 2019 Capital Project Milestones was:

($ in Millions)

	Planned	**Achieved**	**%**
Design Starts	$38.7	$80.3	207
Design Completions	$141.9	$106.2	75
Construction Awards	$2,833.7	$1,665.1	59
Substantial Completions	$3,427.8	$3,303.0	96
Closeouts	$9,474.4	$1,644.1	17

In October 2019, NYCT awarded projects totaling $39.8 million, including bus depot projects at East New York Depot and Fresh Pond Depot for $24.8 million and a track replacement project on the Manhattan Bridge between Manhattan and Brooklyn for $4.2 million.

Also in October, NYCT completed projects totaling $164.1. million, including purchase of 108 articulated buses for 99.5 million, a flood mitigation project at the Hammels Wye facility on the Rockaway Line for $22.1 million and track replacement project on the Broadway-7th Avenue line for $13.3 million.

Capital Program Status
October 2019

NYCT awarded projects totaling $39.8 million in October, including bus depot projects at East New York Depot and Fresh Pond Depot for $24.8 million. East New York Depot in Brooklyn will be provided with new administration spaces for employees and operational capabilities so that it can accommodate articulated buses for the first time. The modification involves replacement of chassis washes and lifts, provision of new storage areas, construction of the new administration building, rehabilitation of existing office spaces, and construction of a new radio repair room and communication room. A rehabilitation project at Fresh Pond Depot in Queens was also awarded. That project will replace the existing roof with new metal decking and EPDM materials.

NYCT also awarded a track replacement project on the Manhattan Bridge between Manhattan and Brooklyn for $4.2 million. Track replacement work includes replacement of track and associated equipment such as signals, contact rail, and ballast.

NYCT completed projects totaling $164.1. million in October, including purchase of 108 articulated buses for $99.5 million. These buses will replace older buses in the city-wide fleet while providing new and improved safety and customer service technologies. The buses will be equipped with USB chargers, Wi-Fi and digital information screens with route and next stop information for improved customer service. Furthermore, all buses will come equipped with pedestrian turn warning (PTW) technology, additional on-bus cameras and exterior cameras, hi-vis windows and traffic signal priority (TSP) hardware technology.

NYCT also completed a flood mitigation project at the Hammels Wye facility on the Rockaway Line for $22.1 million. The area, which houses a power substation and signal tower, was vulnerable to the flooding and system disruptions that occurred during Superstorm Sandy. The project made improvements to stormwater drainage and installed a perimeter wall around the area in order to provide Sea, Lake and Overland Surges from Hurricanes (SLOSH) Category 2+3' flood protection. These mitigation improvements will help protect the facility's critical assets against future storm events.

Lastly, NYCT completed a track replacement project on the Broadway-7th Avenue line for $13.3 million. Track replacement work includes replacement of track and associated equipment such as signals, contact rail, and ballast.

In addition, NYCT started 5 design projects for $2.6 million, completed 4 design projects for $4.7 million, and closed out 14 projects for $41.0 million.

The following table presents the base and current budget, closeout target date, and schedule variance for the projects that NYCT closed out in October.

Projects Closed in October 2019

($ in millions)

Project	Base Budget	Current Budget	Original Date	Months Delay
Williamsburg Bridge Plaza Transit Building	$2.1	$2.1	3/2017	31
RTO Facilities Hardening Ph 2	$12.9	$13.5	6/2019	4
RTO Master Tower Hardening	$3.0	$3.0	6/2019	4
Elevated Street Stairs: 238th St / BW7 (S1) [SBMP]	$1.2	$1.2	7/2019	3
2 Stairs: Kingsbridge Rd / Concourse (S7/M2-M3) [SBMP]	$0.9	$0.9	8/2019	2
Rehab Abutment & Retaining Walls, Livonia Yard [SBMP Tier2]	$2.6	$2.5	9/2019	1
Track Intrusion Detection: Pilot Phase 2	$4.8	$5.7	9/2019	1
1 Stair: Fulton Street / Crosstown (S4/P10) [SBMP]	$0.7	$0.7	9/2019	1
Station Lighting: 4 Locations / Various (2016) [SBMP]	$1.6	$2.2	10/2019	0
Sandy Mitigation: Yukon Depot [SBFP]	$2.2	$2.3	10/2019	0
Mezzanine Components: Bowery / Nassau [SBMP]	$1.3	$1.3	11/2019	(1)
Upgrade One and Install New Paint Booth -Zerega [SBMP Tier2]	$3.3	$3.1	12/2019	(2)
Subway Stairs: Winthrop St-Nostrand (S1,M1AB) [SBMP]	$0.7	$0.7	1/2020	(3)
Subway Stairs: Bergen St-E Pkwy (S5/P5 AB) [SBMP]	$0.9	$0.9	2/2020	(4)

Capital Project Milestone Summary
2019
(Through October 31, 2019)

	Milestones Planned $M	#	Milestones Accomplished $M	#	Percent Performance %($)	%(#)
October						
Design Starts	$0.0	0	$2.6	5	N/A	N/A
Design Completions	7.0	5	4.7	4	67.0	80.0
Construction Awards	279.6	10	39.8	6	14.2	60.0
Substantial Completions	83.9	6	164.1	9	195.5	150.0
Closeouts	470.9	26	41.0	14	8.7	53.8
2019 Year-To-Date						
Design Starts	$38.7	31	$80.3	85	207.3	274.2
Design Completions	141.9	115	106.2	90	74.9	78.3
Construction Awards	2,833.7	122	1,665.1	76	58.8	62.3
Substantial Completions	3,427.8	164	3,303.0	131	96.4	79.9
Closeouts	9,474.4	227	1,644.1	99	17.4	43.6

2019 Projected To-Year-End	Initial Plan		Current Forecast		%($)	%(#)
Design Starts	$39.8	32	$105.8	103	266.1	321.9
Design Completions	155.0	127	136.8	122	88.3	96.1
Construction Awards	3,719.5	144	2,711.3	118	72.9	81.9
Substantial Completions	4,176.7	207	4,424.4	202	105.9	97.6
Closeouts	10,213.7	264	8,579.3	241	84.0	91.3

Totals do not include contingency, emergency funds and miscellaneous reserves; performance percentages include early accomplishments.

2019 Design Starts Charts

As of October 2019
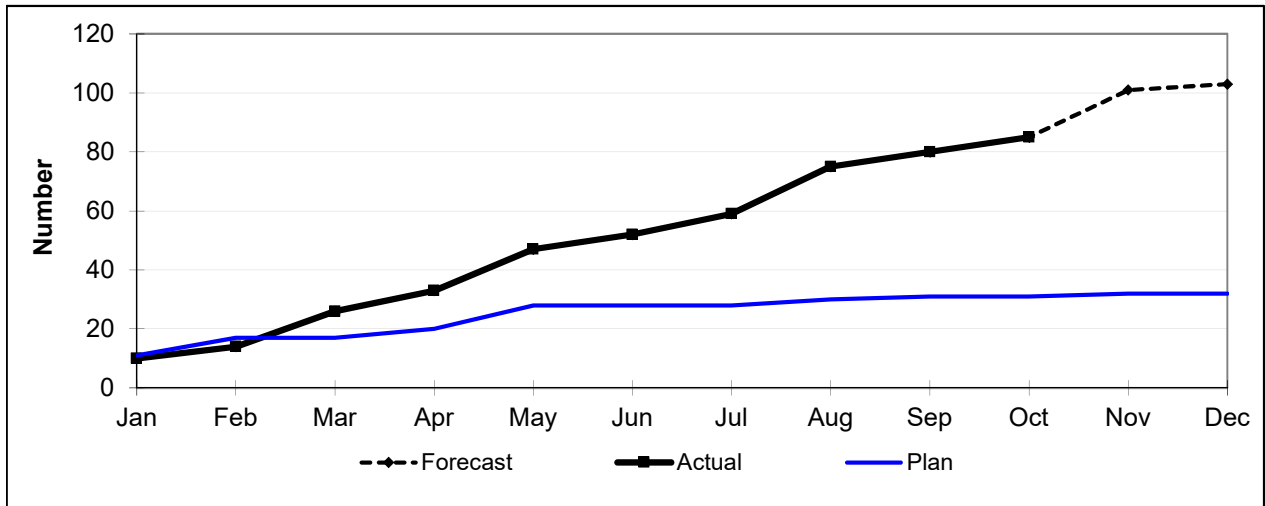
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											16	2
Actual	10	4	12	7	14	5	7	16	5	5		
Plan	11	6	0	3	8	0	0	2	1	0	1	0
Cummulative												
Forecast											101	103
Actual	10	14	26	33	47	52	59	75	80	85		
Plan	11	17	17	20	28	28	28	30	31	31	32	32

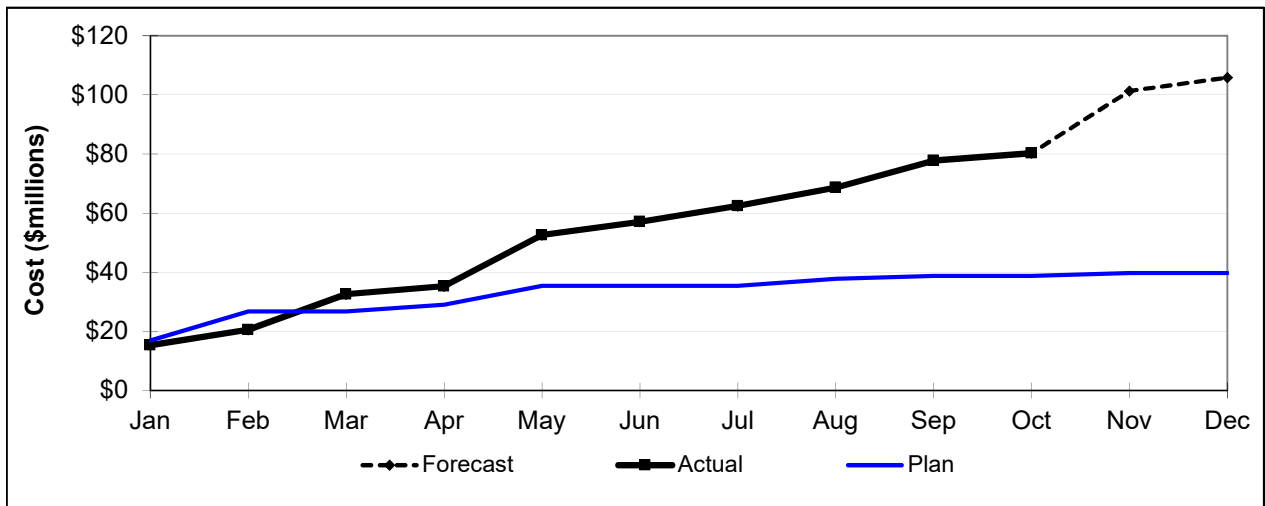|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											21.0	4.5
Actual	15.3	5.3	12.0	2.7	17.3	4.5	5.4	6.2	9.1	2.6		
Plan	16.9	9.8	0.0	2.3	6.4	0.0	0.0	2.3	1.0	0.0	1.0	0.0
Cummulative												
Forecast											101.3	105.8
Actual	15.3	20.5	32.6	35.3	52.6	57.1	62.5	68.7	77.7	80.3		
Plan	16.9	26.8	26.8	29.0	35.5	35.5	35.5	37.8	38.7	38.7	39.8	39.8

2019 Design Completions Charts

As of October 2019
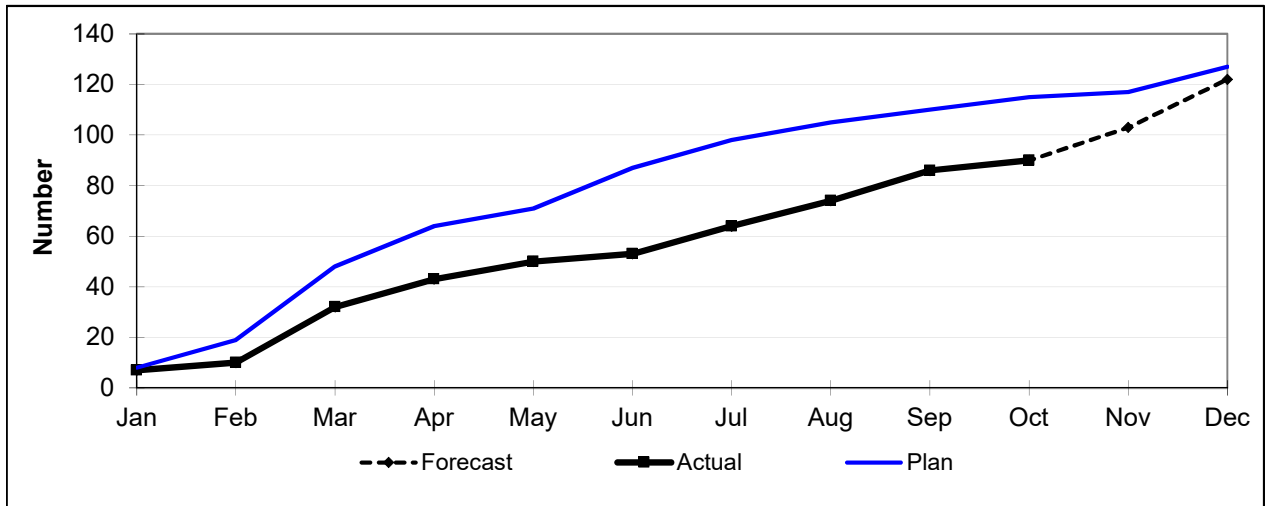
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											13	19
Actual	7	3	22	11	7	3	11	10	12	4		
Plan	8	11	29	16	7	16	11	7	5	5	2	10
Cummulative												
Forecast											103	122
Actual	7	10	32	43	50	53	64	74	86	90		
Plan	8	19	48	64	71	87	98	105	110	115	117	127
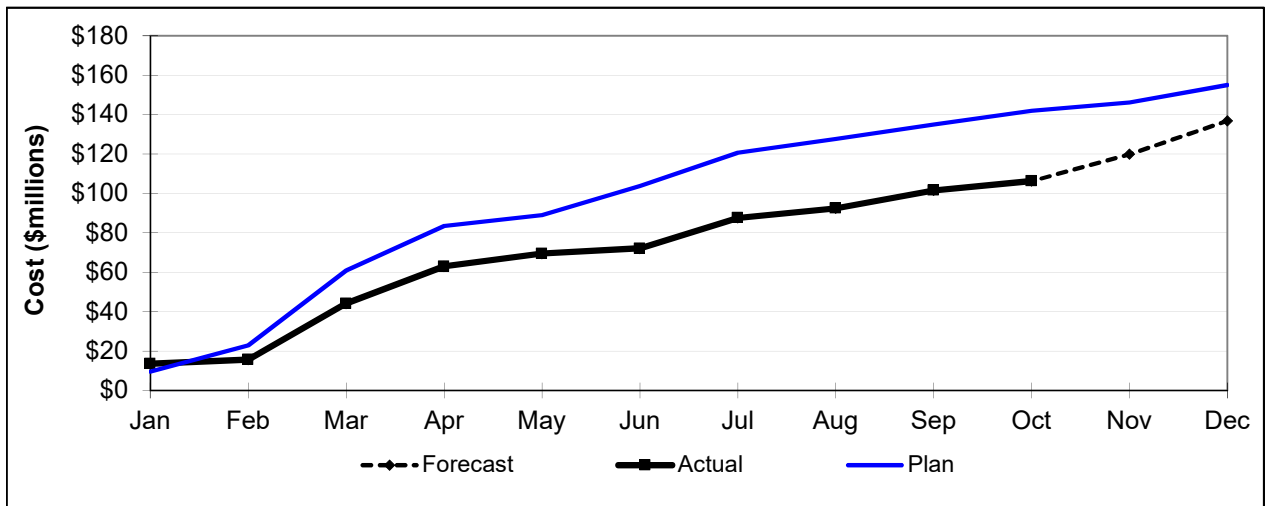
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											13.7	16.9
Actual	13.6	2.0	28.5	18.8	6.5	2.6	15.5	4.9	9.1	4.7		
Plan	9.5	13.4	38.0	22.4	5.6	14.7	16.8	7.1	7.2	7.0	4.3	8.9
Cummulative												
Forecast											119.9	136.8
Actual	13.6	15.6	44.1	63.0	69.5	72.0	87.6	92.5	101.5	106.2		
Plan	9.5	23.0	61.0	83.4	89.0	103.8	120.6	127.7	134.9	141.9	146.1	155.0

2019 Awards Charts

As of October 2019

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											13	29
Actual	2	8	17	6	9	8	7	5	8	6		
Plan	1	17	15	13	11	13	18	12	12	10	9	13
Cummulative												
Forecast											89	118
Actual	2	10	27	33	42	50	57	62	70	76		
Plan	1	18	33	46	57	70	88	100	112	122	131	144

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											106.1	940.1
Actual	4.7	544.6	455.7	135.0	120.7	163.6	75.6	46.1	79.4	39.8		
Plan	3.2	675.6	249.5	187.8	198.9	651.6	226.0	116.3	245.3	279.6	174.9	710.9
Cummulative												
Forecast											1,771.2	2,711.3
Actual	4.7	549.3	1,004.9	1,139.9	1,260.6	1,424.2	1,499.8	1,545.9	1,625.3	1,665.1		
Plan	3.2	678.8	928.2	1,116.0	1,314.9	1,966.5	2,192.5	2,308.8	2,554.1	2,833.7	3,008.6	3,719.5

2019 Substantial Completions Charts

As of October 2019
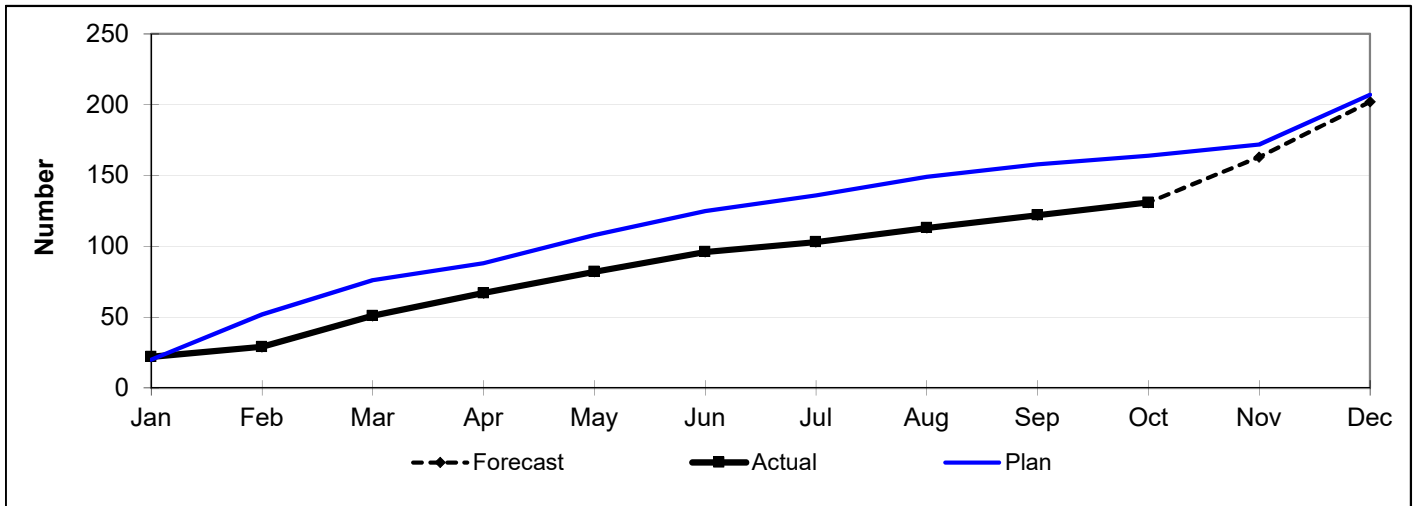
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											23	39
Actual	22	7	22	16	15	14	7	10	9	9		
Plan	20	32	24	12	20	17	11	13	9	6	8	35
Cummulative												
Forecast											163	202
Actual	22	29	51	67	82	96	103	113	122	131		
Plan	20	52	76	88	108	125	136	149	158	164	172	207
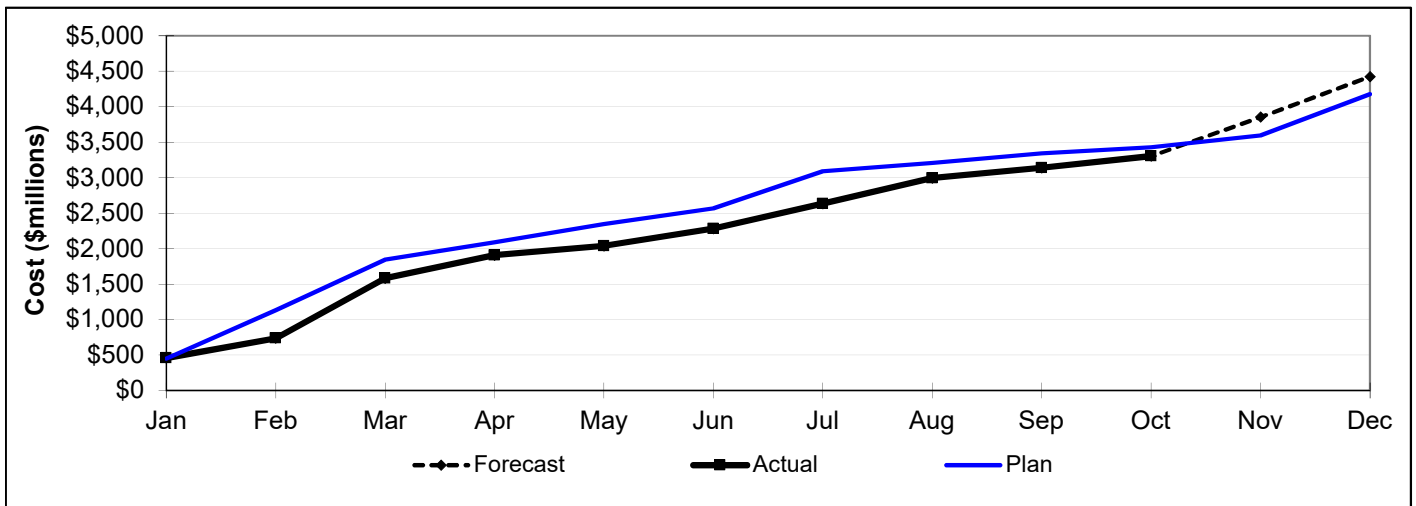
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											240.5	571.7
Actual	456.6	279.4	846.9	323.4	132.7	242.7	352.3	361.3	143.7	164.1		
Plan	448.9	684.7	710.1	244.6	255.6	224.6	523.6	116.4	135.4	83.9	169.5	579.5
Cummulative												
Forecast											3,852.7	4,424.4
Actual	456.6	736.0	1,582.8	1,906.2	2,039.0	2,281.6	2,634.0	2,995.3	3,138.9	3,303.0		
Plan	448.9	1,133.5	1,843.7	2,088.2	2,343.9	2,568.5	3,092.1	3,208.4	3,343.9	3,427.8	3,597.3	4,176.7

2019 Closeouts Charts

As of October 2019
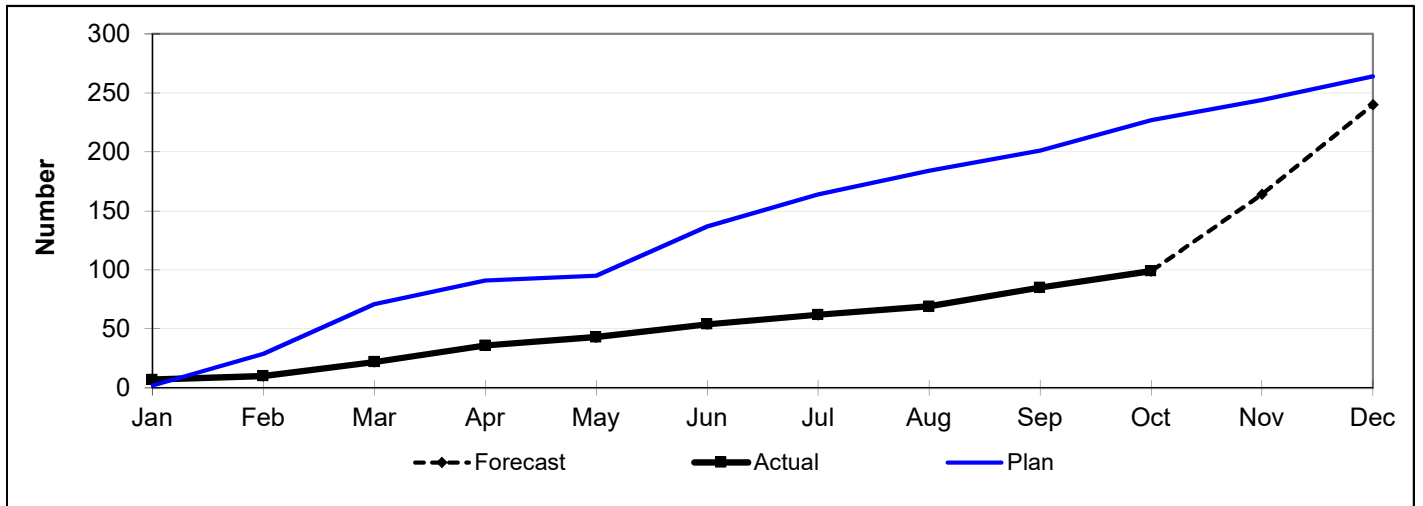
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											65	76
Actual	7	3	12	14	7	11	8	7	16	14		
Plan	2	27	42	20	4	42	27	20	17	26	17	20
Cummulative												
Forecast											164	240
Actual	7	10	22	36	43	54	62	69	85	99		
Plan	2	29	71	91	95	137	164	184	201	227	244	264
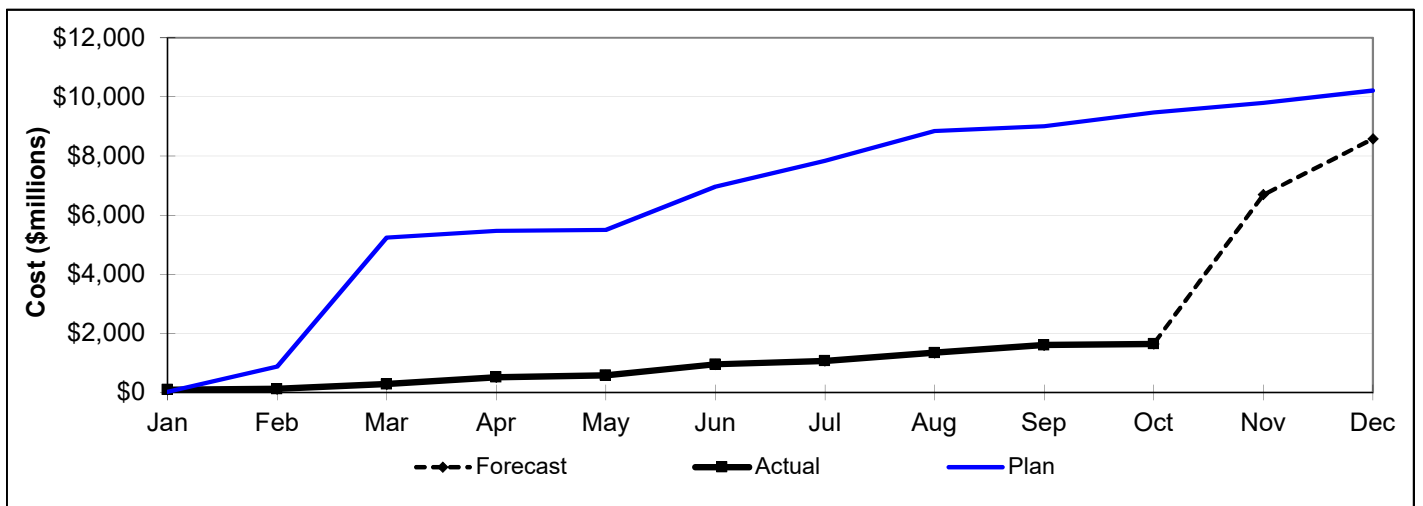
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Forecast											5,046.9	1,887.5
Actual	90.9	24.3	163.1	235.2	63.5	375.7	113.1	272.9	264.4	41.0		
Plan	22.4	852.5	4,367.1	230.4	30.8	1,460.3	876.4	1,004.2	159.5	470.9	323.8	415.6
Cummulative												
Forecast											6,690.9	8,578.4
Actual	90.9	115.2	278.3	513.5	577.0	952.7	1,065.8	1,338.7	1,603.1	1,644.1		
Plan	22.4	874.9	5,242.0	5,472.4	5,503.1	6,963.5	7,839.8	8,844.0	9,003.5	9,474.4	9,798.1	10,213.7