

How the MTA can transition into the New Normal

Getting Riders Back On-Board



Permanent Citizens
Advisory Committee
to the MTA

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Introduction

Mass transit has changed drastically as a result of the global COVID-19 pandemic. Following stay-at-home orders issued in March 2020, MTA ridership plummeted more than 90% from its pre-pandemic levels of more than eight million daily riders systemwide. At its lowest point, ridership on subways was down 91%; on the Long Island Rail Road (LIRR), 97%; and on Metro-North Railroad (MNR) 95%. While it is gradually increasing, weekday [ridership remains substantially depressed](#): as of January 20, 2021, it was down 71% on subways; 78% on the LIRR; and 81% on MNR. Additionally, in an analysis performed at the MTA's behest, [McKinsey & Company forecasts](#) a ridership recovery rate of only 80% by 2024.

A [Harvard Business School survey](#) anticipates that at least 16% of workers will switch from professional offices to working at home at least two days per week as a result of COVID-19. The work-from-home dynamic – coupled with concerns about riding the system and an overarching fear of contracting the virus – continues to change ridership levels and patterns.

Even as vaccine distribution has begun and [recent studies](#) have shown that transit does not exacerbate virus spread when users take known precautions, riders are still reluctant to return to transit in significant numbers. Increasing riders' comfort levels will help bring them back on-board instead of fleeing to cars and other modes of transportation, which would result in an even greater loss of revenue in the long run. In addition, further [scientific studies](#) now underway can contribute to a better understanding of how respiratory droplets spread in public transit, allowing the MTA to improve its efforts to reduce spread.

The following recommendations of measures the MTA should take to increase rider confidence were developed based on research into best practices currently being used in transit systems nationally and globally. We also include in the Appendix a review of extensive efforts the MTA has taken and continues to take across its three operating agencies.

The MTA's ability to adapt and respond to new and changing circumstances is integral to restoring riders' and workers' trust in the system. The ultimate goal is to encourage riders to return to subways, buses, and commuter rail by making them feel safe and comfortable while riding transit. Doing so will maintain equitable public transit options and allow the MTA – and [the economy](#) – to rebound. However, the MTA's ability to continue its efforts and implement additional best practices rests on an infusion of adequate federal funding.



Financial Overview, Fiscal Cliff

When stay-at-home orders began keeping riders home in mid-March, the MTA continued to operate to serve essential workers. Fewer people traveling resulted in a steep decline in farebox and toll revenue. While there has been some recovery in ridership and revenue, the shift to a broader work-from-home culture spells a future of uncertainty. To-date, the agency has spent hundreds of millions of dollars on cleaning and disinfecting the system – with more being spent every month the pandemic continues – adding to expenditures and debt.

The financial damage from the pandemic is profound. In late December, the federal government passed a stimulus package that included \$4 billion for the MTA. While those funds will not solve all of its financial problems, they will help stabilize the MTA's fiscal situation through 2021. An additional infusion of at least \$8 billion is needed to keep the MTA functioning through 2024 without significant service cuts.

Transit agencies' struggle for federal financial assistance in the era of COVID-19 has brought to light the importance of additional and flexible emergency funding options. As new federal transportation authorization legislation is being crafted in the coming year, new resources should be included that can be made available quickly during times of declared emergencies and disasters.

With more information available about techniques and technologies that keep riders and transit workers safe, now is the time for collaboration among transit agencies – led by USDOT– to allow for quick deployment and response to future health emergencies.

Under current circumstances, however, ongoing expenses, continuing revenue losses and uncertainty over [congestion pricing](#) – still pending a decision from Washington on next steps in the review process – mean the MTA will continue to have deficits over the coming years. The MTA and its riders are relying on the federal government to recognize the importance of transit to the region’s economy and recovery and support it with critically needed funds.

Sufficient and sustained funding is essential to the agency’s ability to maintain a safe, clean and disinfected system; run enough service to reduce crowding; and continue improvements that improve reliability.

COVID-19 and MTA

The MTA faced extraordinary challenges in the earliest days of the COVID-19 emergency as its frontline workers began to fall ill and pass away. While in much smaller numbers, deaths continue and to-date [one hundred thirty](#) MTA workers have died, over [4,000](#) have been infected, and thousands more have had to quarantine: at one point, more than 40% of the workforce was out sick. The sheer number of workers out sick or under quarantine forced service reductions – ominously foretelling the cuts that could have become reality without additional funding.

As the size and scope of the pandemic grew, the MTA began to significantly expand its efforts to clean and disinfect subway and rail cars, stations, and buses to keep riders and workers safe. While initially following what we now know was improper CDC guidance regarding mask wearing, the agency pivoted and ultimately took additional steps to protect its workforce by providing them with masks and Personal Protective Equipment (PPE). In April, the MTA developed its first media campaign around the [Governor's Executive Order](#) requiring that all users of its system wear face coverings; it has since expanded its media efforts – including a campaign showing riders how to properly wear masks. It later began to distribute free masks to customers and instituted a \$50 fine for riders who refuse to follow the face covering mandate.

The significant efforts that the MTA is currently undertaking must be continued to get riders back on-board:

- Thoroughly and visibly cleaning stations, trains, and touchpoints;
- Expediting installation and system integration of touchless payment system [OMNY](#);
- Making masks available to all riders and enforcing mask compliance;
- Testing new technology for [improved ventilation](#) and expanding its use across the system;
- Replacing [air filters regularly](#);
- Increasing signage on platforms, stations, elevators, and seats to promote distancing, where possible; installing signage and messaging at all entrance points, including at the top or bottom of the stairs, in elevators, and at bus stops to encourage 100% compliance with face covering mandates;
- Improving technology to provide riders with constant information about crowding levels.

To complement these efforts, the MTA is involved in the [Transit Tech Lab](#) accelerator program, launched with the Partnership for New York City, which allows for new and pioneering technologies to be tested in the MTA environment with little to no risk and no cost for the MTA. In July 2020, the [COVID-19 Response Challenge](#) was announced to learn how to “...make transit safer, healthier and more responsive amid the COVID-19 pandemic.” The Transit Innovation Partnership provides the structure to allow the MTA and other regional transit agencies to be nimble and technologically advanced in addressing and countering the impact of COVID-19. With these pilot programs due to begin in February, promising technologies are one step closer to testing on a larger scale.



Keeping Riders Safe in the New Normal

Following is a compilation of measures gathered from other systems and various sources that can further guide the MTA's continuing response to COVID-19 to make riders feel safer and encourage their return to transit. The largest barrier to implementation is a lack of funding.

1. Transparency and Communication
2. Make the Cleaning and Disinfecting Regime Public
3. Capacity Control and Social Distancing
4. Enhanced Mask Distribution
5. Rider Return Campaign
6. Encourage Spread Out Ridership
7. Improving Bus Service

1. TRANSPARENCY AND COMMUNICATION

Making as much information as possible available about conditions in stations and on-board trains and buses will empower passengers to make travel decisions that make them feel comfortable on transit. The following actions would increase transparency and allow riders to make choices that are best for them. The MTA should consider:

- Using technology, such as turnstile counts, cameras, LiDAR or WiFi usage, to monitor station and on-board [crowding](#), and making the information available to riders in real-time both online and on electronic signage at mezzanines and street level;

- Adding historical crowding data features on Metro-North’s Train Time app, and for the subways and buses on the MYmta app;
- Including alerts on the MTA website, apps and other communication platforms to let riders know where crowding is occurring and directing them to less crowded stations and lines;
- Visualizing daily ridership numbers to the NYCT dashboard [with breakdowns](#) by route/line, time of day, and stations/stops available online and in apps. A similar dashboard should be created for MNR and LIRR to enable all riders to choose the best routes and time of day to travel when planning their trips; (i.e. CTA – bus and rail [crowding dashboard](#));
- Establishing and publicizing the capacity of each station and showing the percentage of capacity reached in real-time;
- Expediting the expansion of the MYmta bus crowding technology [pilot](#) to all buses;
- Releasing results of rider surveys to gauge concerns and detailing steps being taken to address them;
- As part of the state’s [contact tracing](#) program, be as transparent as possible about [potential exposure](#) along routes/lines to both reduce spread and increase trust;
- Relaying up-to-date information about how virus spreads and measures being taken throughout the system in order to [reduce fear](#) of transit.
- Publicly report updates and progress on the Transit Tech Lab’s proof of concepts and pilot programs for each of the challenges.

2. MAKE THE CLEANING AND DISINFECTING REGIME PUBLIC

Cleanliness has always been an important issue for riders. Finding the right balance of visible and proper cleaning and disinfecting, and sharing that information with riders, will give them peace of mind.

The MTA should consider:

- Reporting on the effectiveness of its [cleaning regimen](#) and [ventilation system](#) at reducing/eliminating virus spread based on scientific standards;
- Creating an online cleaning dashboard with real-time and historical data of cleaning history by station and line to reassure riders of cleanliness, and posting schedules in stations with actual date/time last cleaned;
- Developing publicly-available metrics and milestones for reopening overnight subway service, and/or adjusting the cleaning regimen in order to condense but otherwise maintain the same level of cleanliness;
- Reporting on staffing and contracting levels dedicated to cleaning to ensure appropriate staffing levels and right-size as needed.



3. CAPACITY CONTROL AND SOCIAL DISTANCING

Monitoring capacity closely as ridership shifts is imperative to reduce crowding by ensuring there is sufficient service at any given time and proper protocols are followed at the station level to mitigate overcrowding scenarios. The MTA should consider:

- [Increasing service](#) or adjusting schedules where feasible to allow for social distancing on-board, with a renewed focus on improved bus travel (see #7, below);
- Adding available train cars and longer buses, where possible, to allow for more capacity and passenger distribution;
- Coordinating with Group Station Managers or other appropriate MTA staff to deploy workers to [disperse crowds](#) and queue passengers before allowing them to enter stations if trains or platforms are too crowded;
- Reviewing stations to determine where it is feasible to designate [separate exit and entrances](#) to better control foot traffic;
- Opening existing closed entrances and exits, where feasible, to increase access and flow;
- Accelerating accessibility improvements, such as elevators and escalators, to increase passenger flow.

4. ENHANCED MASK DISTRIBUTION

Masks have proven to be [highly effective](#) at reducing the spread of the virus. The MTA has embarked on a public campaign to ensure that everyone in the transit system is wearing a proper face covering, and in September implemented a [\\$50 fine](#) throughout the MTA system ([\\$100 in Connecticut](#)). The agency also enlisted a volunteer MaskForce to distribute masks across the system. These mask distribution efforts are excellent ways to improve compliance but are labor intensive.

While the vaccine is being distributed and the population at large is vaccinated, it is still imperative that riders not only wear masks, but that they are made available by the MTA and its contracted vending partners. The MTA should consider:

- Making masks available on all LIRR trains for riders who need one (similar to the MNR effort);
- Expanding its [vending machines](#) across the system that sell masks, gloves, hand sanitizer and PPE;
- Making masks available on buses by improving dispensers to continue efforts introduced in the mask dispenser [pilot program](#) and also test at select unattended subway stations;
- Using cameras and CCTV to collect data on mask compliance and creating targeted outreach.



5. RIDER RETURN CAMPAIGN

While riders continue slowly returning to the system, a rider-confidence campaign should be implemented illustrating how to travel in the new normal. Educating riders that it's safe to get back on-board and how they can help make it even safer to ride will go a long way. The MTA should consider:

- Having community and business leaders, trusted elected and appointed officials, and celebrities promote and ride transit to demonstrate that the system is safe that includes the efforts the MTA has and is currently taking;
- Educating riders how [not speaking can reduce the spread](#) – especially in closed spaces – and asking them to keep their masks on if speaking and to refrain from speaking if possible.

6. ENCOURAGE SPREAD OUT RIDERSHIP

Spreading out ridership throughout the day can reduce peak hour loads and allow for more spacing on-board buses and trains and at stations. The MTA has taken steps in this direction, but more will be needed as people continue to return to the transit system. The MTA should consider:

- Instituting time-of-day [fare discounts](#), including expanding [LIRR's Atlantic Ticket](#) program, to incentivize travel during off-peak periods, which can encourage riders with flexibility to travel at times with greater capacity to reduce pressure on peak service;
- Another targeted [outreach](#) campaign to myriad industries and employers – such as was done through Partnership for New York and Association for a Better New York – to [stagger or disperse travel](#) times;
- Rebalancing service or increasing off-peak service to manage the spread of riders as feasible.

7. IMPROVING BUS SERVICE

Throughout the pandemic, bus travel has seen [less of a drop](#) in – and a faster return of – ridership than train travel. Some riders are more comfortable on buses due to the potential of fresh air circulation from open windows. They can also see if a bus is crowded before boarding. Promoting buses as a viable travel option can also help relieve some crowding pressure on subways. There is a lot of room for improving bus travel – and riders can no longer wait for upgrades to make it a more efficient mode of transport. The time is now for the MTA and New York City to work together to improve bus service and prioritize this effort, including:

- Prioritizing the opening of NYC Transit’s new [bus command center](#);
- Controlling headways to reduce bus bunching;
- Exploring a policy to implement skip-stop service for overcrowding, while ensuring there is no gap in service;
- Resuming work on [Bus Network Redesigns](#) with new travel patterns in mind [using re-imagined community engagement techniques](#);
- Identifying and addressing chronic chokepoints to speed travel;
- Adapting schedules and adding bus service to account for increased ridership, as feasible;
- Working with elected officials to fully restore funding for New York City’s [Better Bus Plan](#);
- Quickly adding miles of dedicated [bus lanes](#) in all boroughs;
- Expediting testing of bus lane barriers, including setting up temporary bus lane barriers with cones;
- Expediting expansion of [bus lane camera enforcement](#);
- Expediting [transit signal priority](#) for key – and then all – intersections along bus routes.

Into the Future

Safe, reliable, and efficient public transit is critical to our region's reopening and recovery. Ensuring that the MTA is prepared and able to meet ongoing COVID-19-related challenges as the vaccine is being distributed will be vital to those efforts and will help prepare the MTA and the region for future emergency disruptions. The above recommendations are designed to instill rider confidence in returning to the system – but without additional federal funding options, the agency could be forced to choose between taking these steps and providing service that is necessary to meet riders' needs.



Providing improved transparency and communication; capacity control and social distancing measures; a rider return campaign; encouraging spread out ridership; and improving bus service are several ways the MTA can attract riders back by making them feel safer traveling in our new normal.

Adequate funding and service will ensure that all riders will be able to get where they need to go and will help get them back on-board. Keeping riders and workers safe now and into the future is crucial for our region's economic recovery and maintaining equitable modes of travel.

Transit is critical to riders and the economic health of the region and to the nation: it cannot be a victim of the COVID-19 crisis.

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Appendix

Below are [measures the MTA has taken](#) to ensure the safety of its workers and riders:

MARCH

- Instituted [rear-door boarding](#) on all local and Select Bus Service buses, and chained off the first three rows of seats to separate drivers and riders on all buses;
- Implemented improved and more robust station cleaning schedules;
- Commenced daily on-board cleaning;
- Expedited implementation of the OMNY contactless payment option in subways and on buses.

APRIL

- Began cleaning stations twice daily;
- Began distributing PPE to its workers;
- Following the Governor's Executive Order mandating the use of face coverings on transit, developed a [media campaign](#) – with signs and announcements – on how to properly wear a face mask.

MAY

- Began [piloting](#) the use of UVC light to disinfect subway cars;
- Initiated testing of an [antimicrobial biostat](#) spray to keep surfaces clean longer;
- Began testing real-time air filtration;
- Installed plastic curtain barriers alongside blocked off seats on buses to protect operators;
- Started releasing [daily total NYC Transit ridership](#) numbers;
- Began [closing the subway](#) system from 1AM-5AM to enable deeper cleaning of cars and stations and to remove homeless from the system;

- Implemented [Essential Connector](#) service for 11,000 essential overnight subway riders;
- Reached out to NYC employers and business associations to encourage [staggered work hours](#), and announced it would stagger its own workforce's return hours.

JUNE

- Released its [13-Point Action Plan for a Safe Return](#);
- Launched [Operation Respect](#), distributing free masks and hand sanitizer bottles to riders;
- Installed free hand sanitizer dispensers at stations, and made free masks available at station agent booths and at select Metro-North and LIRR stations;
- Installed [decals on subway](#) station floors to indicate what 6 feet looks like and how to maintain a safe distance;
- Implemented a pilot program with 12 [vending machines](#) at 10 subway stations selling masks, sanitizers, gloves, and PPE at select stations;
- Began installation of plexiglass and screen [barriers to protect](#) and separate bus drivers from riders;
- Upgraded the LIRR's [TrainTime app](#) to include on-board crowding levels for its electric fleet, and made the information available on monitors at platforms;
- Released WSP international best practices report entitled [Global Practices for Protecting Employee and Customer Health During the COVID-19 Pandemic](#).

JULY

- Began a [B99 bus](#) for overnight service between Midwood, Brooklyn and Columbus Circle in midtown Manhattan;
- Launched the [Transit Innovation Partnership COVID-19 Response Challenge](#), a technology-development partnership with private industry;

- Announced a “[Hack-a-thon](#)” to bring crowding information technology to Metro-North;
- Instituted “Mask Force: [Operation Respect](#)” initiative, with free mask distribution on-board subway, bus and across the [LIRR and Metro-North](#) for customers, with three million masks handed out over the first two days;
- Added a brand-new capacity tracking feature that provides the number of [passengers onboard](#) a bus for 40% of the bus fleet across all boroughs, available on the MYmta app and [MTA website](#);
- Piloted [100 mask dispensers](#) on select buses on six routes in the Bronx, Queens, and Staten Island; the pilot program was meant to expand to 400 buses on 20 routes by the end of August, however, by mid-September it was expanded to [360 Buses on 15 routes](#);
- Announced that through the end of July, it had distributed 5.2 million masks, 7.3 million pairs of gloves, 50,000 gallons of hand sanitizer, 4.5 million individual sanitizing wipes, 145,000 gallons of cleaning solution and 10,000 face shields to its heroic frontline employees.

AUGUST

- Announced Metro-North Hack-a-Thon winning team design –[TrainSpace](#);
- MTA Chairman reminds riders that masks are mandatory on transit, and [anyone without one may be asked to leave the system](#);
- Rolled out [two new overnight interborough bus routes](#): Bx99 and M99 Essential Connector bus service to account for overnight subway closures;
 - The Bx99 runs between Woodlawn in the Bronx and the West Village serving the east and west sides of Manhattan, crossing Midtown along 57 St;
 - The M99 runs between East New York in Brooklyn and the West 42 St Pier in Manhattan;

- Began testing [hydrogen peroxide and ultraviolet light](#) in the HVAC system of four out-of-service subway cars;
- Asked Apple to make [facial recognition system work with masks](#) to prevent riders from removing face coverings to unlock their smartphones while commuting;
- Conducted second round of Mask Force face mask distribution on subways and buses;
- LIRR launched [PPE vending machines](#) at Penn Station;
- Announced restoration of [front door boarding and fare collection](#) on local and SBS buses – effective 8/31/2020 – following completion of installation of plexiglass screen barriers and moving the line back two feet to protect drivers.

SEPTEMBER

- Instituted a [\\$50 fine](#) for MTA riders who refuse to wear a mask in the system in New York;
 - Connecticut instituted a similar [\\$100 fine](#) for those who are not wearing masks where it is required;
- Updated the LIRR TrainTime app to include crowding levels based on [historic ridership](#) from the previous week;
- Updated the [Metro-North Train Time app](#) to include tracking of real-time status along with destination, track assignment, and real-time status of the next 12 trains at a given station.

OCTOBER

- Metro-North and the LIRR began piloting a [new technology](#) to filter and purify air inside rail cars using an electrical field to generate a wave of ionized particles that destroy airborne viruses, bacteria and particulate matter, including COVID-19;
- The MTA launched a voluntary [COVID-19 screening program](#) for frontline employees;
- MTA distributed nearly [15 million masks](#) for Operation Respect.

NOVEMBER

- Metro-North released [capacity tracking](#) with real-time location features in their TrainTime App;
- Metro-North expanded [PPE vending machines](#) by 10 for a total of 22 machines across the system.

DECEMBER

- Launched a new [public information campaign](#) featuring local TV news, weather and sports anchors, reporters and celebrities – including NY Mets great John Franco – reminding customers that masks are required on public transit and that free masks are available at all station booths.

JANUARY

- The Federal Transit Administration [awarded the MTA](#) a \$600,000 grant to examine how people move and how COVID-19 travels throughout the metropolitan region by studying aerosol dispersion on the LIRR and MNR.

Report Produced by

Sheila Binesh, Transportation Planner

Lisa Daglian, Executive Director

With Special Thanks to

Bradley Brashears, Planning Manager

Andrew Albert, PCAC Chair

Graphic Design by Polina Vasilyeva

PCAC Executive Committee

Andrew Albert

Randolph Glucksman

Marilyn N. Poterson

Gerard P. Bringmann

William Guild

Burton M. Straus Jr.

Orrin Getz

