

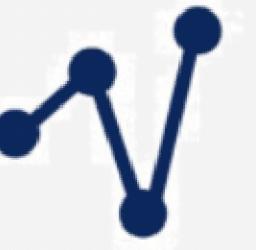
## Objective :

This project analyzes MTA daily ridership trends from March 1, 2020, to October 31, 2024, comparing pre-pandemic and current usage across transit modes. The goal is to identify the most utilized and efficient transportation options, helping optimize services and guiding strategic decisions.

We examine key performance indicators (KPIs), including:

- Ridership trends & patterns
- External factors affecting recovery:
- Major events
- Weather conditions
- Peak travel times
- Fuel price fluctuations

*Let's Dive in!*



# sigma six

By Sigma Six Team

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# MTA Ridership Trend | Overall

Analysis of Transportation Recovery at Pre-Pandemic

About

Overall

Other Factors

Recommendations

Year  
AllTransportation Mode  
All

## Total Ridership

## Subways

## Buses

## Bridges and Tunnels

## LIRR

## Metro-North

## Access-A-Ride

## Staten Island Railway

7,931M

4,280M

1,718M

1,460M

232M

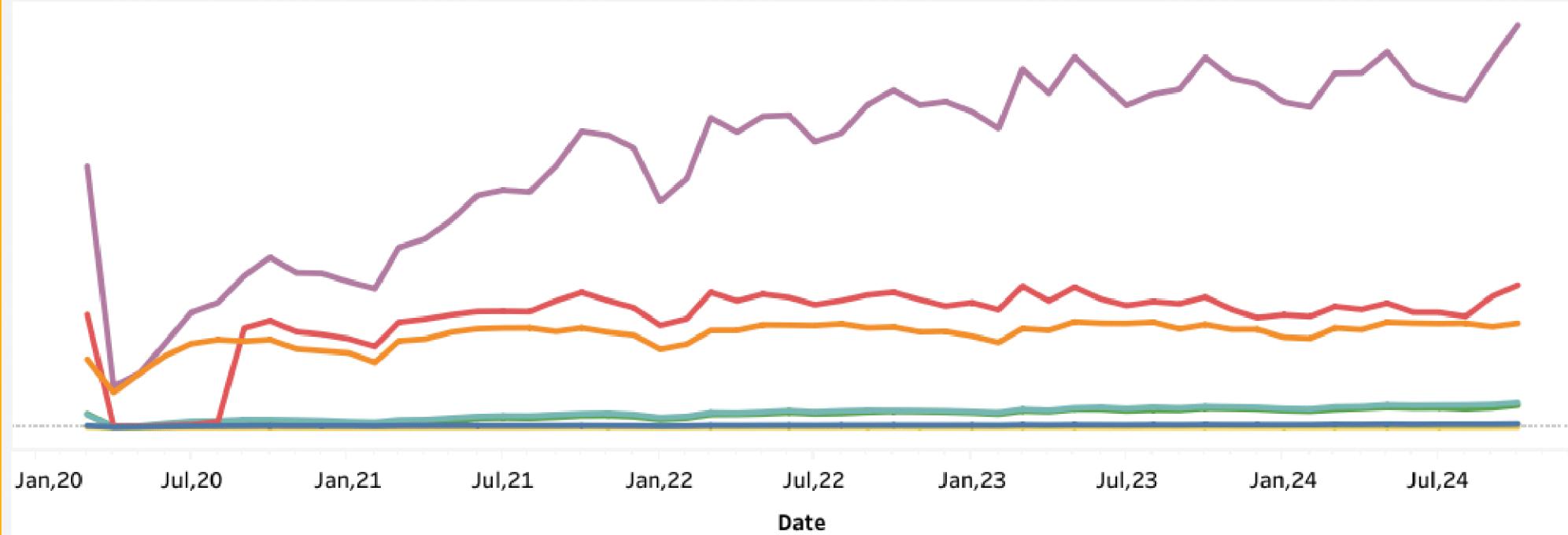
196M

37M

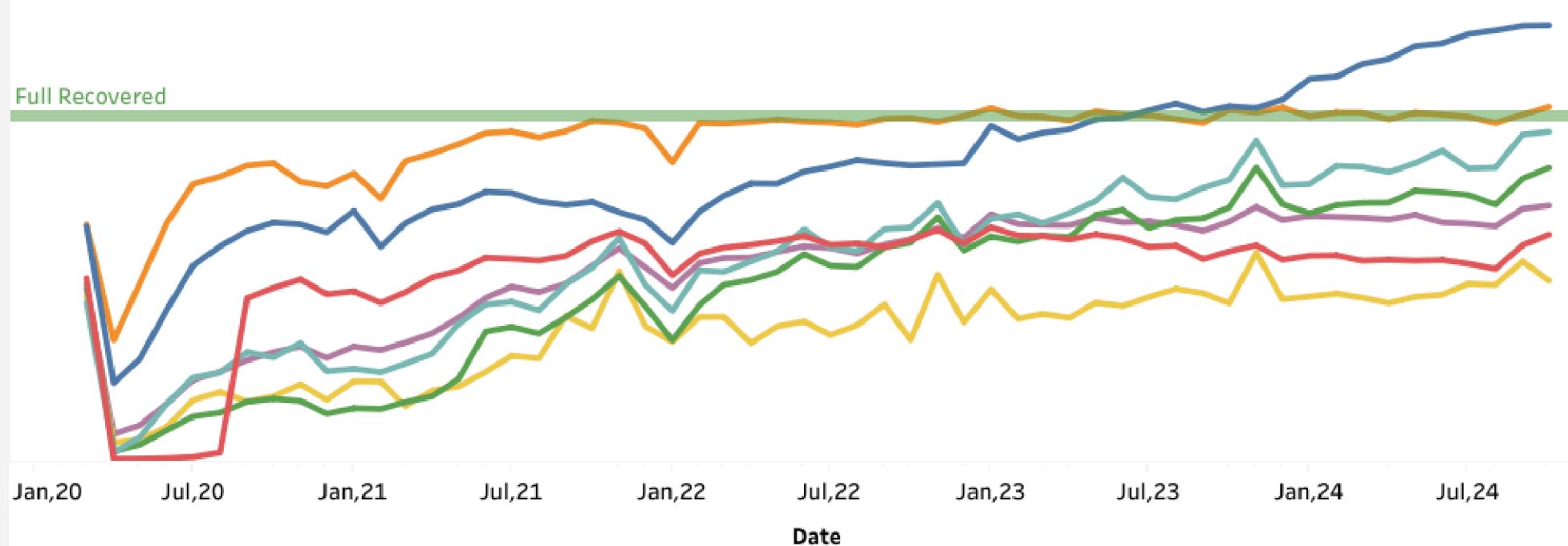
8M

Access-A-Ride   Bridges   Buses   LIRR   Metro-North   Staten Railway   Subways

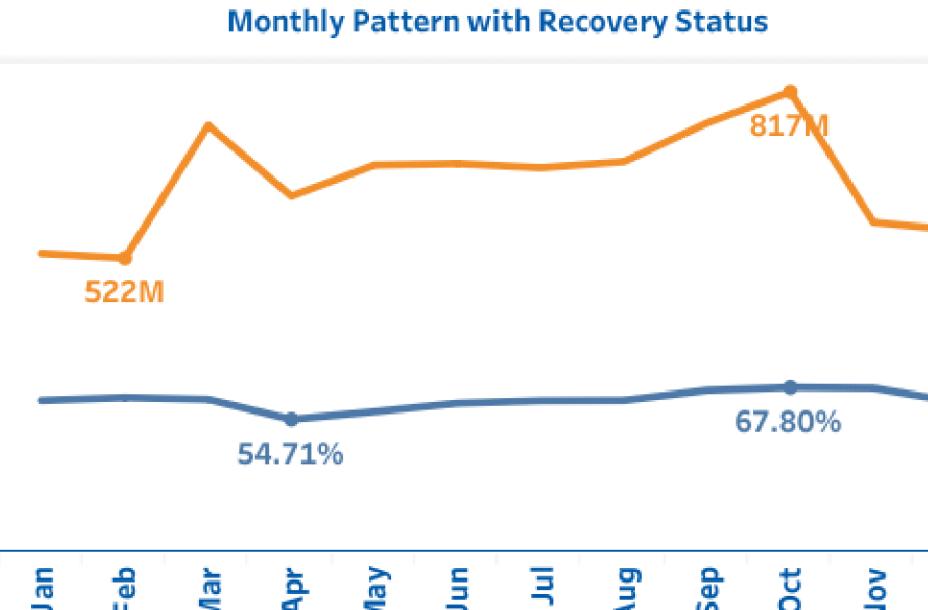
## Flow of Usage For Each Mode



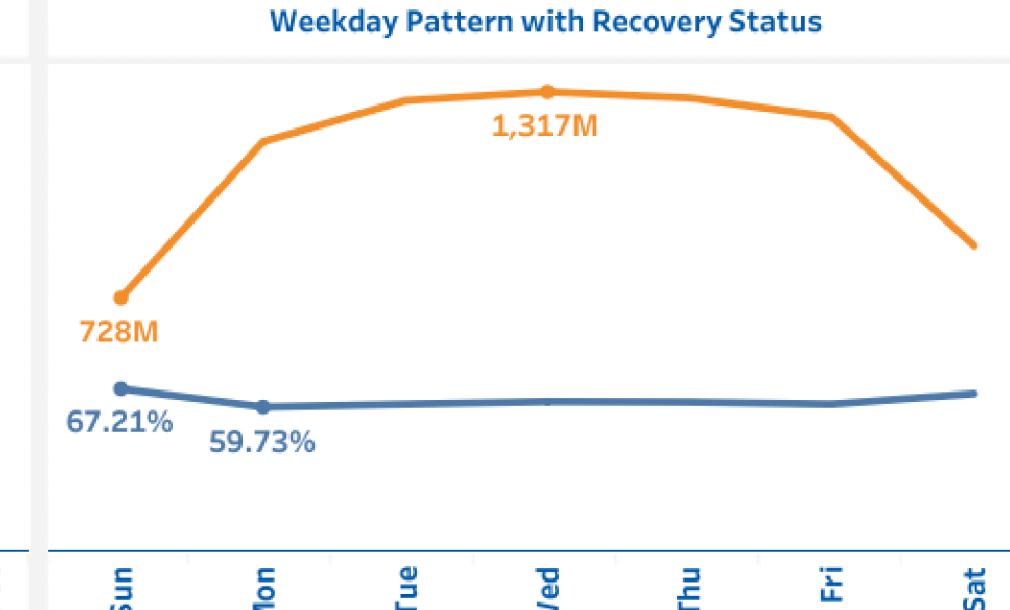
## Flow Of Overall Health For Each Mode



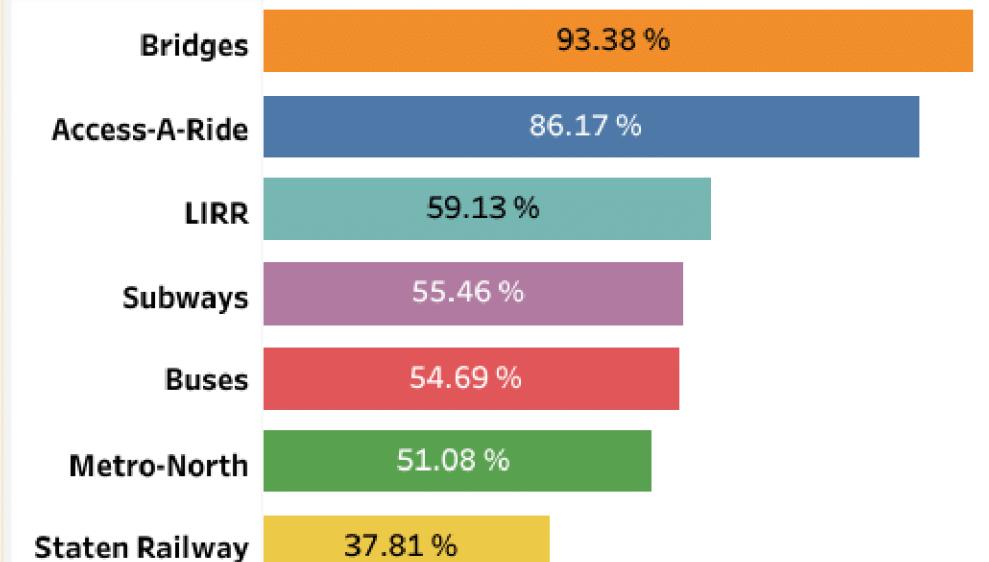
## Monthly Pattern with Recovery Status



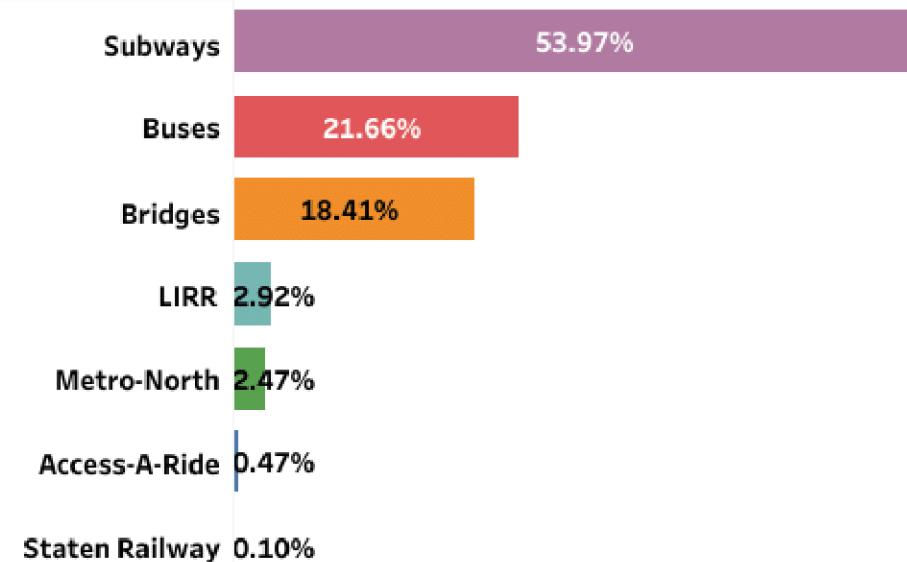
## Weekday Pattern with Recovery Status



## Status Of Recovery



## Contribution Of Transportation





# MTA Ridership Trend | Other Factors

Analysis of Transportation Recovery at Pre-Pandemic

About

Overview

Other Factors

Recommendations

Year  
AllSelect Event  
All

Total Events Ridership

Subways

Buses

Bridges and Tunnels

LIRR

Metro-North

Access-A-Ride

Staten Island Railway

5,868.4M

3,084.3M

1,302.2M

1,153.7M

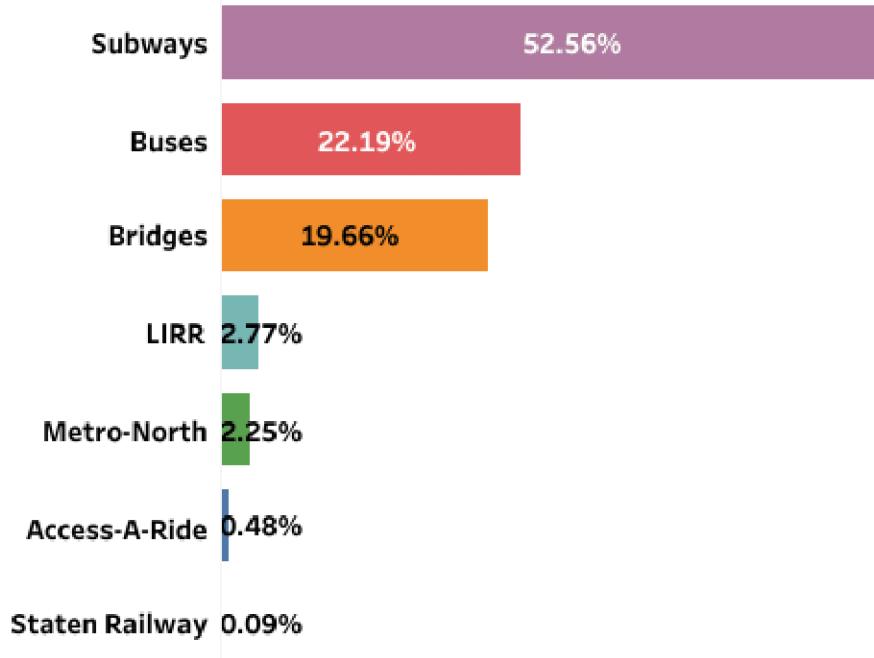
162.7M

131.8M

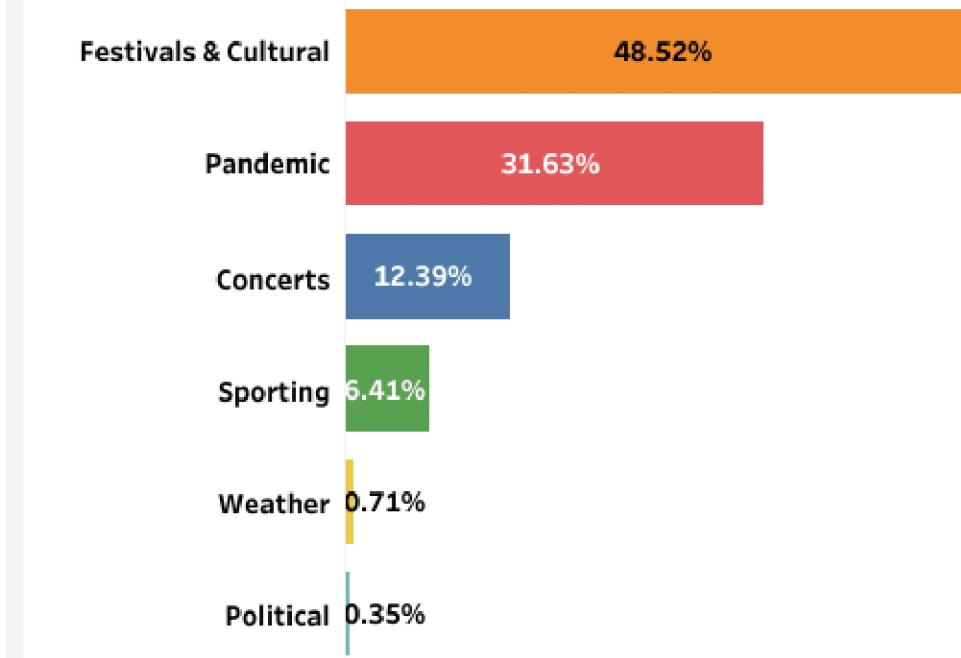
28.3M

5.3M

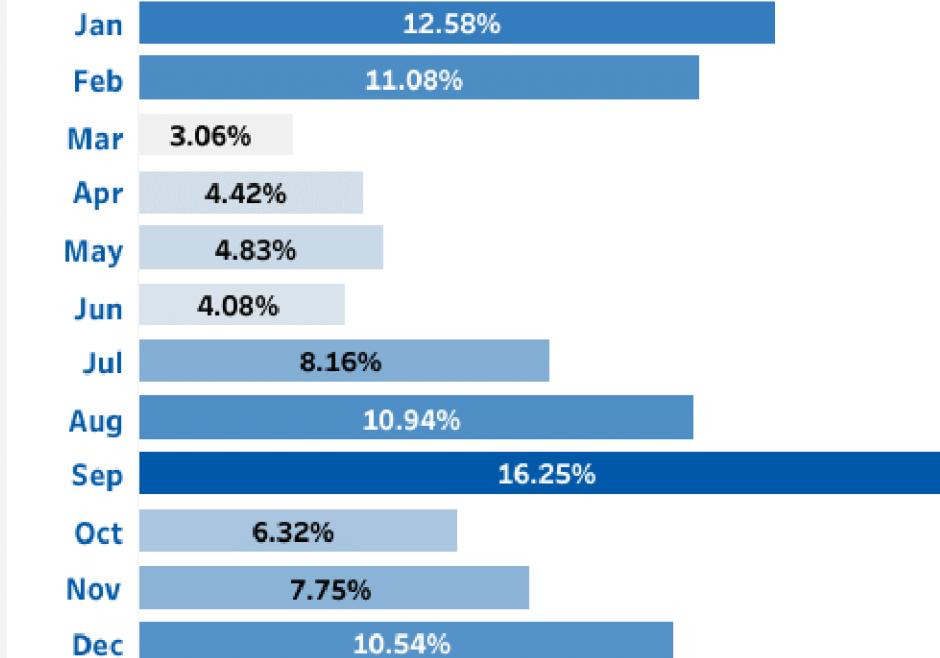
## Contribution for Mode in Event Ridership



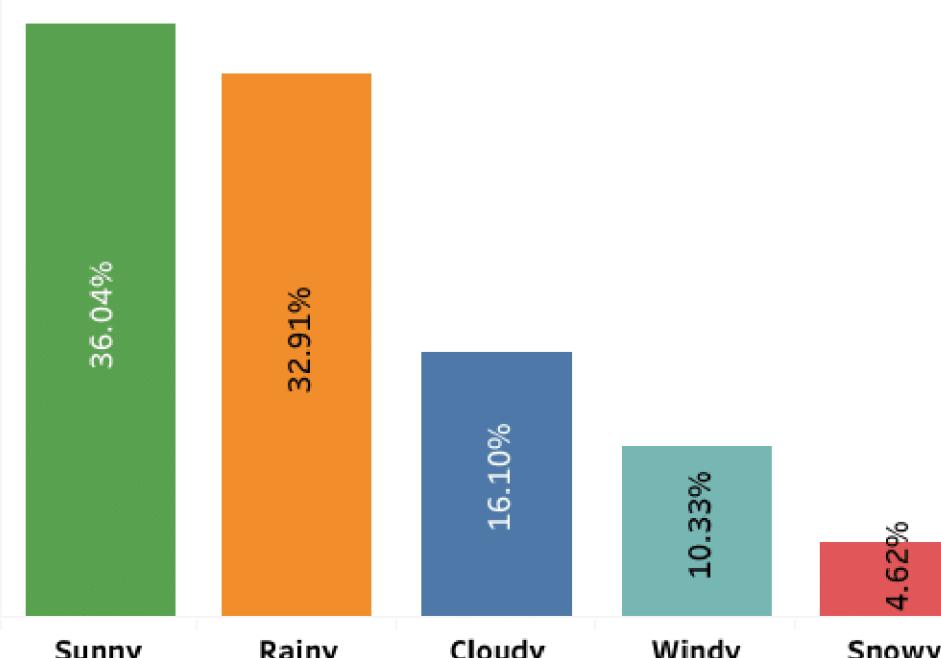
## Event Category Contribution to Event Ridership



## Monthly Pattern for Events



## Usage Based on Weather Conditions



## Impact Of Time On Recovery

Access-A-Ride 0.88

Metro-North 0.87

Subways 0.80

LIRR 0.78

Bridges 0.64

Staten Railway 0.59

Buses 0.53

## Impact Of Weather On Recovery

Access-A-Ride 0.13

Bridges 0.11

LIRR 0.08

Metro-North 0.07

Staten Railway 0.02

Subways 0.01

Buses -0.10

## Impact Of Gasoline Price On Recovery

Metro-North 0.64

Subways 0.63

Buses 0.61

Bridges 0.60

LIRR 0.51

Staten Railway 0.46

Access-A-Ride 0.44

The Most Events Occured  
(With Their times)

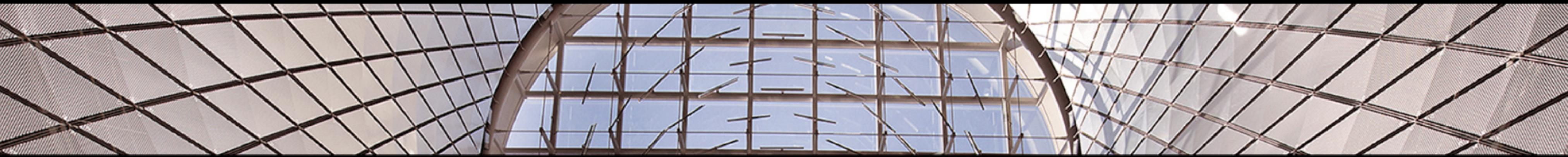
Gradual Reopening 345 Day

Christmas Spectacular 208 Day

Major Restrictions Lifted 166 Day

NYC Restaurant Week (Summer) 133 Day

NYC Restaurant Week (Winter) 94 Day



## Key Insights from MTA Ridership Analysis:

### 1) Subway Dominance

- The subway system remains the most utilized mode of transportation.

2024 Ridership: 987M

2020 Ridership (pandemic year): 370M

Total Ridership (overall): 4,280M

### 2) Least Used Mode: Staten Island Railway

- 2024 Ridership: 1.74M
- 2020 Ridership: 0.72M
- Total Ridership (overall): 7.55M

This suggests that remote work has impacted ridership recovery in this area.

### 3) Pandemic Impact & Recovery

- A sharp drop in ridership occurred in March 2020, coinciding with the COVID-19 pandemic.
- Ridership gradually increased after July 2020, especially for subways and bridges.
- Bridges and tunnels were the fastest to recover, reaching pre-pandemic levels by September 2022.

### 4) Seasonal Trends

- March and October show peak ridership due to seasonal transitions and events.
- Warmer weather in March and increased movement in October contribute to higher usage.

## Strategic Recommendations:

### 1) Enhance Staten Island Railway Service :

- Increase frequency and improve connectivity.
- Offer discounts and integrate better with buses.

### 2) Leverage Peak Seasons :

- Target marketing efforts in March & October to maximize ridership.
- Provide seasonal passes and incentives.

### 3) Support Hybrid & Remote Workers :

- Introduce flexible fare options for part-time commuters.
- Promote subscription-based plans.

### 4) Boost Subway & Bus Efficiency :

- Improve train/bus frequency, especially during peak hours.
- Enhance real-time tracking and notifications.

### 5) Expand High-Demand Infrastructure :

- Develop express services for key subway lines.
- Upgrade stations with better accessibility and digital signage.

### 6) Sustain Pandemic Recovery Gains :

- Maintain strong service for bridges & tunnels (fastest recovered).
- Continue sanitation and safety measures.

### 7) Leverage Events for Ridership Growth

- 74% of ridership spikes occur during events—increase concerts, sports, and cultural festivals.
- Prepare for Club World Cup 2025 & FIFA World Cup 2026 by enhancing transport near stadiums.
- Offer event-based transit passes and optimize scheduling for visitor demand.

[Schedules](#)[Maps](#)[Fares & Tolls](#)[Planned Work](#)

The Interface of the official  
Website for MTA

**Plan a Trip**

See Saved Trips ▾

From Address, station, landmark

To Address, station, landmark

Leave now Change Time ▾

Travel Preferences >

.Accessible Trip □

