



Trends in New York City Subway Delays

Highlights

- Of the 2.7 million scheduled subway trains in 2024, 486,614 did not reach their destination as scheduled for an on-time performance of 82.2 percent, still slightly better than in 2019, prior to the pandemic.
- Nearly 80 percent of these delays arose from three causes: infrastructure and equipment problems, planned maintenance work along the subway's right-of-way and police or medical emergencies, including people on the tracks.
- Infrastructure and equipment problems, which include signal, subway car, track and station problems, made up 31 percent of these.
- Another 25 percent was due to planned maintenance work which has risen as more capital projects are undertaken, an issue which may continue in the coming years.
- Crew availability accounted for 7 percent of delays in 2024, a big improvement from 2021 when 26 percent of delays were due to worker absences, largely driven by a hiring freeze and COVID-19.
- Through June 2025, there have been 214,714 subway delays, 13 percent lower than the same period in 2024.
- The MTA refined how it categorizes train delay data for 2024, which led to an increase in major incidents (those that delay 50 or more trains).
- Through June 2025, there have been decreases in the police and medical category and a slight decrease in the signal category, but these were offset by major incidents caused by subway car problems nearly tripling from 27 to 77 in the six months of 2025 predominately on the E, F and R lines.

On-time performance (OTP), which captures trains arriving as scheduled, is a key performance indicator for whether transit services are frequent and reliable and addresses changes to service that may occur from year to year. In recognition of this goal, work done through the Metropolitan Transportation Authority (MTA) Subway Action Plan (SAP) in 2017 and 2018 allowed OTP to reach 81.1 percent in 2019, the highest level in six years. During the pandemic, OTP peaked at 85 percent in 2021 amid lower ridership and reduced overnight revenue service for enhanced cleaning. As [ridership returns](#), OTP has remained above 2019 levels and was 82.2 percent in 2024.

Some delays are inevitable in a system that runs 24 hours a day seven days a week in a city with more than 8.4 million people. However, despite sustained improvement in OTP, some causes of delays are more frequent than others. Delays overall, some of which are outside of the MTA's control, are slightly up since 2019, an expected outcome as the MTA has increased the number of trains. It is important to note the number of trains has risen more than delays, allowing for the sustained improvement to OTP.

During the course of this analysis, MTA reported to the Office of the State Comptroller (OSC) that it has revised its methodology for classifying delays in late 2023 to assign more delays to specific incidents. This change led to a rise in the number of incidents with 50 or more delays associated with them, known as major incidents. In the future, the MTA should provide some public explanation of such changes to the relevant board committees and the public on New York State OpenData to explain comparability and how details will improve targeting its operational response. For this reason, the OSC analysis focuses on comparisons of 2019 and 2023 separately from comparisons of 2024 and 2025.

Why Trains Are Delayed

A subway train is considered on time by New York City Transit if it arrives within five minutes of its scheduled arrival time and does not skip any scheduled stops. A train is considered late, or delayed, only if it arrives at its destination more than five minutes after its scheduled arrival time, skips scheduled stops or is cancelled altogether. By this measure, of the 2.7 million scheduled trains in 2024, 486,614 trains did not reach their destination as scheduled, for an on-time performance of 82.2 percent. The number of delays was 8 percent higher than in 2023 but not as high as in 2022 when there were 498,487 delays. The 2024 total was 1 percent higher than in 2019 but the number of scheduled trains in 2024 was 8 percent higher, or more than 200,000 trains. The MTA does not provide cause of delay information before 2020 that is comparable to current data. OSC suggests the MTA consider doing so for at least 2019 to compare the delay information to pre-pandemic numbers when ridership was higher than it is currently.

As shown in Figure 1, 31 percent of delays in 2024 were caused by infrastructure and equipment problems, up from 24 percent in 2023. About one-third of these delays were attributable to signal problems and another 14 percent were the result of problems with rails or with the roadbed. Another 25 percent are due to planned maintenance work along the subway's right-of-way (ROW). Delays from police actions or

medical responses were responsible for 23 percent of all delays in 2024 as ridership continues to return. This category includes unauthorized people on the roadbed and public conduct that leads to police action such as crime and sick passengers. Operating conditions such as overcrowding accounted for 12 percent of delays in 2024. Crew availability accounted for 7 percent of delays, a big improvement from 2021 when 26 percent of delays were due to worker absences. Crew availability was significantly affected by COVID-19. External factors such as inclement weather accounted for 2 percent of delays.

From January through June 2025, there have been 214,714 subway delays, 13 percent lower than the same period in 2024. Delays from crew unavailability declined by 48 percent during this period to 10,329 but those attributed to infrastructure and equipment problems increased by 11 percent to 76,760. Delays from police and medical responses were down 7 percent.

Major Incidents

The MTA defines major incidents as those that delay 50 or more trains. Investment and other responses to tackling delays must focus on

FIGURE 1

Causes of Subway Delays in 2024

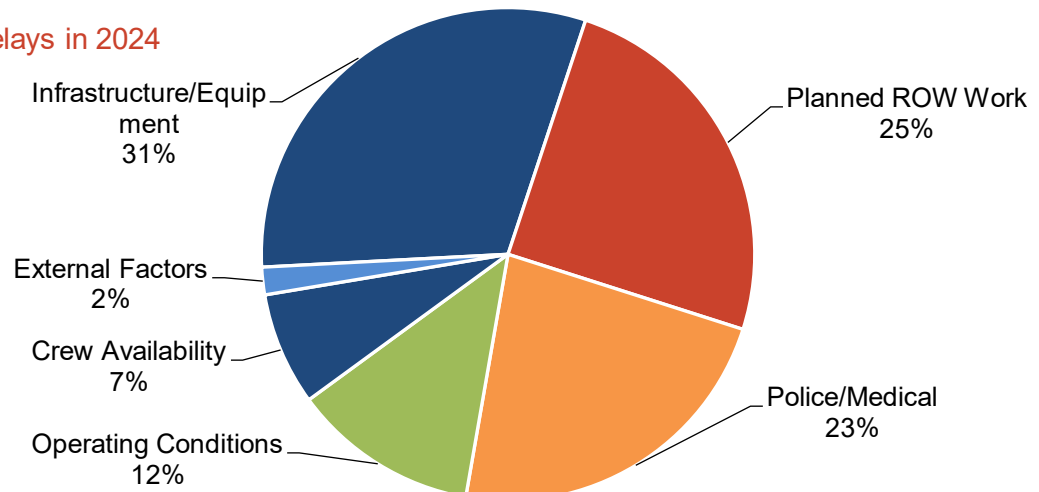
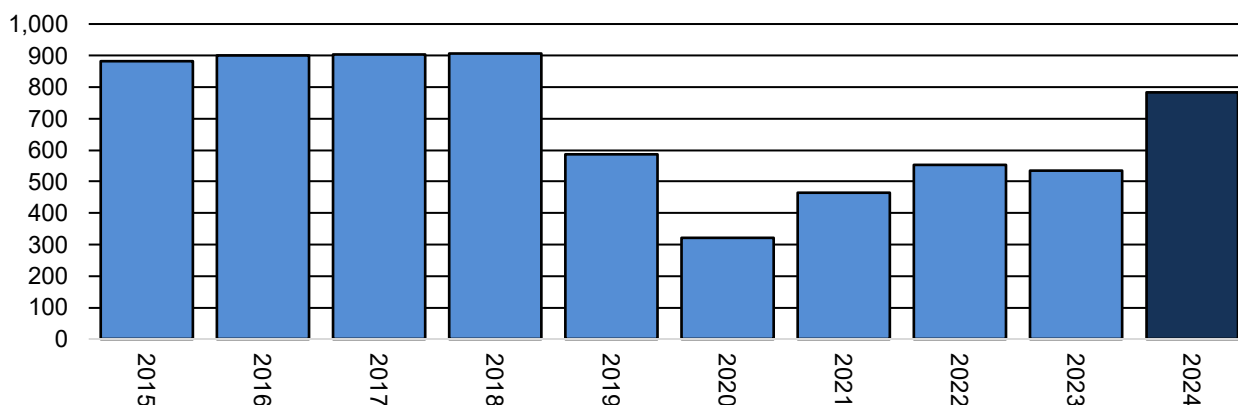


FIGURE 2
Subway Major Incidents



Sources: Metropolitan Transportation Authority; OSC analysis

Note: 2024 data are not comparable to earlier years as greater specificity in the classification of delays was undertaken in that year.

reducing these events. The MTA publishes data for major incidents prior to the pandemic, which is helpful for providing a benchmark for service provision as ridership recovered until 2023. As part of the initial analysis, the Office of the State Comptroller undertook an analysis comparing 2024 to 2023. However, MTA has since reported that major incident data is not comparable due to changes in the methodology, initiated in 2023 and applied in 2024, for classifying delays that previously were not tied to specific incidents, but are now more accurately captured. This process increased the number of delays tied to incidents, thereby increasing the number of major incidents.

For that reason, this analysis makes comparisons of 2019 with 2023 and compares the first half of 2024 with 2025 to illustrate potential areas of improvement and deterioration in regard to major incidents.

As shown in Figure 2, major incidents averaged about 900 annually from 2015 through 2018, a time that coincided with low on-time performances and deferred maintenance which led to the launch of the SAP in July 2017. The SAP dedicated City and State funds for emergency repairs to tracks and signals to allow the subway system to improve its condition and service. As a result, major incidents dropped 35 percent in 2019 to 586. [Progress made on](#)

[reducing delays](#) through the SAP suggests there is much that can be accomplished when the MTA directs its resources toward major incidents and works with its partners, especially New York City, to commit to these efforts.

In 2020, partly as a result of reduced revenue service due to overnight cleaning and subway ridership being decimated by the pandemic, major incidents dropped to 322 (down

FIGURE 3
Causes of Major Subway Incidents

Cause	2019	2023
Signal Problems	190	128
Police/Medical/People on Tracks	145	192
Track Problems	87	92
Subway Car Problems	50	44
Stations and Structures	24	41
Other	90	37
Total	586	534

Sources: Metropolitan Transportation Authority; OSC analysis

45 percent). As would be expected, when ridership returned and revenue service increased, major incidents increased by 66 percent to 534 in 2023, but were still below 2019 levels.

As of 2023, major incidents remained slightly below pre-pandemic levels, however their causes shifted from 2019, and some major incidents did vary in their contribution to delays in 2023 (see Figure 3). Signal problems were responsible for 190 major incidents in 2019 but dropped to 128 in 2023, after the Queens Boulevard Line West communications-based train control (CBTC) signals went operational in 2022. CBTC signals are a modernized signal system that allows trains to run closer to each other thus increasing service and dependability.

Major incidents caused by police or medical action or people on the trackbed, increased by 32 percent rising from 145 in 2019 to 192 in 2023. This suggests the need for more outreach to riders on safely using the system and better coordination with City agencies working with the mentally ill and homeless populations. The MTA has noted that more enforcement of rule violations by the New York City Police Department in the subway system can also reduce these delays.

Comparing the first half of 2024 with 2025, there has been significant progress on police/medical/people on tracks, potentially due to the continued partnership between MTA and NYPD. Signal problems were the second-most significant major incident in 2025 still, but total major incidents due to signal problems remain near 2024 levels. However, subway car problems have risen substantially. While incidents caused by subway car problems are expected to decline as new train cars are introduced, the slow pace of replacement has resulted in more than one-quarter of cars at or beyond their 40-year useful life likely leading to more breakdowns and subsequent delays. Track problems have also risen in 2025; however this includes delays caused by track fires, which can be due to human behavior.

The number of major incidents caused by police action or people on the tracks has increased since 2019. An analysis by OSC of the City’s 311 service requests has shown an increase in riders reporting behavior that may require police or medical attention, such as public urination and homeless person assistance.

FIGURE 4
Causes of Major Subway Incidents

Cause	Through June 2024	Through June 2025
Signal Problems	99	93
Police/Medical/ People on Tracks	129	104
Track Problems	60	69
Subway Car Problems	27	77
Stations and Structures	28	26
Other	25	16
Total	368	385

Sources: Metropolitan Transportation Authority; OSC analysis

Through June 2025, there have been 385 major incidents, 17 (5 percent) more than there were during the same period in 2024 (see Figure 4), even as overall delays have declined. While there have been decreases in the police and medical category and a slight decrease in the signal category, these were offset by major incidents caused by subway car problems nearly tripling from 27 to 77 in the six months of 2025, predominately on the E, F and R lines. The MTA has attributed this to a wheel wear issue which required cars be taken out of service to address, which MTA undertook earlier this year.

Subway Line Analysis

The MTA’s subway system has 21 different subway lines for which delays are reported,

FIGURE 5
Subway Lines with the Best and Worst On-Time Performance, 2024

Worst	
B	64.2%
C	68.6%
F	70.0%
2	70.2%
D	72.7%
Best	
L	91.9%
7	91.5%
G	87.4%
M	86.7%
J/Z	84.3%

Note: Excludes shuttles.

Sources: Metropolitan Transportation Authority; OSC analysis

excluding shuttles.¹ Although the system had an overall OTP of 82.2 percent in 2024, the performance of individual lines varied widely. Four lines were on time more than 87 percent of the time (the L, 7, G and M trains) with the L train on time 91.9 percent in 2024 (see Figure 5). Each of these lines have rolling stock that is less than 20 years old. The L and the 7 trains have CBTC signals and relatively newer cars, which help reduce delays, although these lines also do not share track with other lines. Another 10 lines averaged an OTP between 77 percent to 87 percent. Seven train lines averaged an OTP lower than 77 percent, with the B train having the worst OTP at 64.2 percent and the C train at 68.6 percent

Each subway line has different reasons for train delays. As seen in Figure 6, the 6 train, which provides local service along Lexington Avenue—the system’s most heavily traveled line—had the most delays in 2024 mainly because of more than 12,000 trains delayed by police and medical responses, mostly from public conduct or crime.

¹ The W train is not included in the MTA’s delay and major incident data. Such delays, however, are included with the N train’s data.

FIGURE 6
Subway Lines with the Most and Least Delays, 2024

Most Delays	
6	38,898
F	37,879
N	37,236
2	33,270
A	32,444
Least Delays	
M	12,818
G	13,409
L	14,803
J/Z	16,256
3	16,571

Note: Excludes shuttles.

Sources: Metropolitan Transportation Authority; OSC analysis

The F train had more than 13,000 of its nearly 38,000 delays that were the result of planned maintenance on the tracks, which suggests better coordination of capital work may help reduce some delays. More than 12,000 of the N train’s 37,000 plus delays were from infrastructure and equipment problems, including more than 4,000 from signal problems. The Broadway line, which includes the N train, is expected to get CBTC signals as part of the MTA’s 2025-2029 capital program, which should help alleviate this problem. (see Appendix A for information on delays and major incidents by each line).

As expected, the three train lines with the fewest number of delays in 2024 had some of the best OTPs, led by the L train, which benefits from CBTC signals and newer cars than the systemwide average.

As shown in Figure 7, planned maintenance accounted for more than 97,000 delays or 20 percent of total delays in 2024. Those on the A, F, and N lines accounted for 29 percent of the total. There is a lack of detail on why exactly

planned maintenance causes delays. Given the MTA's control over its own maintenance schedules, more information would be useful to better understand the issue, as would data from 2019 to assess whether the problem has worsened during this period of ridership recovery.

Delays caused by public conduct and crime leading to a police response accounted for more than 71,000 delays in 2024. Such delays on the 6 train alone were 11 percent of the total. OSC analyzed 311 data for service requests that may correlate with these incidents, including panhandling, encampments, homeless person assistance, animal abuse and urinating in public (311 does not include smoking complaints at subway stations as a service request). In 2024, the 2, R, F, E, A and 6 trains each had more than 1,000 of these types of complaints, suggesting the importance of quality of life enforcement in potentially reducing such delays. It is also notable that persons on the roadbed or tracks, which may also be correlated with these types of complaints, caused more than 22,000 delays, with the highest number occurring on the 6, 2 and F trains.

Delays caused by operating conditions are delays that are not attributed to specific incidents and accounted for more than 59,000 or 12 percent of

total delays. These delays were mainly found on the 2 and 6 trains (nearly 17,000 delays), two of the busiest lines in the system, which also serve major commuter rail hubs. Among the operating conditions that cause delays is overcrowding, which impacts boarding and exiting times.

Crew availability was responsible for more than 36,000 delays, with the highest number of these delays on the N, A and the D trains. The MTA has improved on this cause of delay since 2021 when there were more than 126,000 such delays. The MTA has partly attributed this to additional hiring and a reduction in sickness-related absences, which rose substantially during the pandemic.

As shown in Figure 8, the N train had the most major incidents in 2024, a total of 63 with 23 the result of signal problems, 17 the result of subway car problems and 13 from track problems. The N train uses some of the oldest train cars in the system with some more than 40 years old. The F train had 57 major incidents with 18 from persons on the trackbed or other police and medical responses and 10 from track problems. The 6

FIGURE 7
Top 10 Causes of Subway Delays, 2024

Planned Maintenance	97,680
Public Conduct, Crime	71,235
Operating Conditions	59,278
Signal Problems	48,595
Crew Availability	36,230
Persons on Roadbed	22,434
Rail/Roadbed Problems	20,972
Sick/Injured Customer	17,476
CE Problems	16,047
Other Capital Work	14,829
Service Delivery	13,474

Sources: Metropolitan Transportation Authority; OSC analysis

FIGURE 8
Subway Lines with the Most and Least Major Incidents, 2024

Most Major Incidents	
N	63
F	57
6	57
2	56
4	51
Least Major Incidents	
G	5
J/Z	10
C	24
M	24
Q	24

Note: Excludes shuttles.

Sources: Metropolitan Transportation Authority; OSC analysis

train also had 57 major incidents in 2024 with 25

the result of persons on the trackbed or other police and medical responses and another 12 caused by signal problems. The 2 and the 4 trains also had more than 50 major incidents with the leading causes of delay also from police action and signal problems.

Conclusion

Improvements to OTP that began following the SAP have been sustained as ridership has continued its recovery after the pandemic period. Still, the system does experience delays which are attributable to various causes including the actions of individuals in the system and the state of the MTA's infrastructure, particularly signals and subway cars. These experiences, along with past success reducing delays, suggest that if the MTA targets capital investment and prioritizes maintenance, operational tactics and educational outreach, it can improve the frequency and reliability of service.

In 2024, more than three out of every 10 delays were associated with infrastructure or equipment issues, suggesting the MTA's aging service delivery assets would benefit from planned upgrades included in its capital plans. The MTA must remain vigilant and focus on delivering these projects on schedule and on budget. Recent data from the MTA's independent engineering consultant suggests some incremental improvements have been made in procuring rolling stock with less customization; however signal upgrades have been plagued by schedule and cost overruns.

The MTA also needs to communicate its investment plans and the benefits of signal and car upgrades for reducing delays and accelerate this capital work where possible, particularly on lines that are most affected by delays. A number of these projects are in the process of or are expected to receive funding for these capital projects in the coming years. Given ongoing delays in CBTC signal projects, the MTA should remain focused on maintaining the existing signal systems so delays caused by signal failures do

not rise in the interim as it transitions to more advanced technology. The MTA has more control over these delays through work done in its capital programs and should be able to lower these delays in the long run but in the short term, the MTA should do as much maintenance as possible to keep these subway cars and signals that are past their useful lives from negatively impacting service.

Greater analysis of planned work, which made up a quarter of delays in 2024, is also necessary. Planned work delays are largely due to flagging for workers, which requires trains to operate at reduced speed. Given anticipated growth in capital spending and related projects, the MTA should work on solutions to better coordinate work to reduce impact on commuters.

The MTA should also improve communications and public outreach campaigns to educate riders on how they can help reduce delays, including the danger of throwing trash on tracks and calling for help if sick. The MTA should continue to work with the New York City Police Department to reduce erratic and criminal behavior in the system. As part of the SAP, the MTA added emergency medical technicians to reduce response time to sick customers. This can be reviewed and potentially reinstituted in other stations if needed.

Improved collection of data, maintenance of updated records and definitions of delay and major incident data would also support continued oversight on the state of efforts to reduce delays in the system. A lack of comparable delay data prior to 2019, data on the categorization of delays for major incidents and a lack of definitional data on both delays and major incidents makes further analysis of the issues creating delays more difficult to undertake. This data also can help show where progress has been made, such as for worker availability, which has seen a decline over the analysis period.

The Final After Action Report released by the MTA in 2020, published after the initiation of the

SAP, confirms that the Authority recognized the importance of targeted responses to asset-based incidents and highlighted some successes, including a decline in track fires and water-related damages during that period. The SAP is ongoing (about \$300 million annually) and the MTA's spending data provides a good picture on how the funds are being used. The MTA reports variances against its budget for its SAP spending, but further explanation for the variances, especially where funding is being redirected to problem issues, would be welcome. In addition, any changes to the collection of data that may affect comparability or analysis of the data should be provided to its board committees and the public to avoid confusion over the meaning of the findings.

Six months into 2025, OTP is higher and the number of delays are lower but major incidents are higher than last year as subway car problems continue to plague the system. While making improvements is complex and will require continued investment and working across divisions within MTA and with City agencies, including the Police Department and Homeless Services, progress on reducing delays can help show the MTA is continuously working to improve the ridership experience, further encouraging riders' return.

APPENDIX A

2024 Subway Delays and Major Incidents by Subway Line

	Delays	Major Incidents	Top Three Causes of Delay
6	38,898	57	Public Conduct/Crime; Op. Conditions; Planned Maintenance
F	37,879	57	Planned Maintenance; Public Conduct/Crime; Crew Availability
N	37,236	63	Planned Maintenance; Public Conduct/Crime; Signal Problems
2	33,270	56	Op. Conditions; Planned Maintenance; Public Conduct/Crime
A	32,444	33	Planned Maintenance; Public Conduct/Crime; Crew Availability
E	28,726	50	Planned Maintenance; Public Conduct/Crime; Signal Problems
1	27,927	47	Planned Maintenance; Public Conduct/Crime; Op. Conditions
D	26,620	36	Planned Maintenance; Public Conduct/Crime; Crew Availability
4	24,404	51	Public Conduct/Crime; Op. Conditions; Signal Problems
Q	22,987	24	Planned Maintenance; Public Conduct/Crime; Op. Conditions
C	22,700	24	Public Conduct/Crime; Planned Maintenance; Op. Conditions
R	21,714	40	Planned Maintenance; Public Conduct/Crime; Crew Availability
5	18,832	43	Public Conduct/Crime; Op. Conditions; Signal Problems
B	18,190	36	Public Conduct/Crime; Planned Maintenance; Op. Conditions
7	17,293	45	Planned Maintenance; Signal Problems; Public Conduct/Crime
3	16,571	37	Op. Conditions; Public Conduct/Crime; Signal Problems
J/Z	16,256	10	Planned Maintenance; Public Conduct/Crime; Crew Availability
L	14,803	35	Planned Maintenance; Signal Problems; Crew Availability
G	13,409	5	Planned Maintenance; Public Conduct/Crime; Signal Problems
M	12,818	24	Planned Maintenance; Public Conduct/Crime; Crew Availability
Rockaways Shuttle	2,222	1	External Agency; Planned Maintenance; Signal Problems
Grand Central Shuttle	916	5	Infrastructure/Equipment; Public Conduct/Crime; Sick Customers
Franklin Ave. Shuttle	499	1	Public Conduct/Crime; Signal Problems; Rail/Roadbed Problems
Unknown Line	-	3	
Total	486,614	783	

Sources: Metropolitan Transportation Authority; OSC analysis

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