# Response to the COVID-19 Pandemic and 2020 Police Brutality **Protests: Changes in Manhattan Policing Patterns**

## Introduction

The COVID-19 Pandemic and police brutality protests took place over a sustained period, and disproportionately impacted racial minorities. Both social and physical events highlighted long-standing disparities underrepresented peoples face while interacting with social organizations, particularly police. According to the New York Metropolitan Transportation Authority, an average of 7.76 million people used mass transit on a given 2018 weekday. However, ridership in Manhattan dropped 93% following the beginning of the PAUSE Program, the mandatory stay-at-home orders. Excluded from the PAUSE Program were essential workers,

disproportionately racial minorities, who often continued to take public transportation to work.

Following the police killings of George Floyd and Breonna Taylor, mass protests in New York quickly began. Mass arrests and police use of force were common throughout the summer. This research uses these two events to determine if there was a shift in policing tactics to target Manhattan subway stations, as public transportation is a coalescing point of racial minority groups.

## **Research Questions**

- 1. Did NPYD policing patterns in Manhattan geospatially change in relation to subway stations in response to the COVID-19 pandemic and 2020 police brutality protests?
- 2. If yes, are these shifting patterns motivated by race?

## Methodology

- This project gathered self-report race data from the 2010 American Community Survey. The arrest data is sourced from the NYC OpenData portal from the NYPD, and the NYC MTA reports the location of the subway stations and lines.
- The researcher divided the arrest data into three periods: January 1 through March 19 (a baseline), March 20 through May 25 (COVID-19 pandemic), and May 26 through September 30 (police brutality protests). March 20 is between when NYC Public Schools closed and the PAUSE Program started, and May 26 is the day after the police killing of George Floyd.
- Total arrest data was plotted for these periods, and Point Density run to determine spatial correlation with the subway system.
- This researcher then classified the arrest data between white and nonwhite arrested people. I placed an inclusion buffer of 700 feet around all subway stations, a waiting platform's length. All other arrest data was omitted.
- I then ran an Optimized Hot Spot Analysis bounded by census tract on each period divided by race to identify diverging enforcement patterns.



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	Figure 1 (Left): Point density map of total arrests from January 1, 2020 to March 19, 2020 in Manhattan overlaid on the subway system.			
	Figure 2 (Center): Point density map of total arrests from March 20, 2020 to May 25, 2020 in Manhattan overlaid on the subway system		To Ar Bla	rest ack
	Figure 3 (Right): Point density map of total arrests from May 26, 2020 to September 30, 2020 in Manhattan overlaid on the subway system.		•	Th sy W CC
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	Figure 4 (Left): Hot spot map bound by census tract of arrests made within 700 feet of a subway station where the arrested's race was not classified as white by the police between January 1, 2020 and			de bo
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# Results

	January 1 to March 19	March 20 to May 25	May 25 to September 30
Total Arrests	10,689 (133/Day)	4,863 (72/Day)	9,085 (75/Day)
Arrests Near Station	4,687 (43.84% of total)	1,630 (33.51% of total)	3,515 (38.69% of total)
Black Station Arrests	2,382 (50.4% of total)	854 (52.4% of total)	1,854 (52.7% of total)

- here are strong correlations between general arrest patterns and subway ystems. Arrests heavily congregate around stations.
- /hile the percentage of total arrests near subway stations decreased after the OVID-19 pandemic and police brutality protests, correlations grew stronger etween arrests and subway stations in East Harlem weaker around Central Park Figure 2, 3).
- rrests near stations decreased dramatically at the beginning of the PAUSE rogram and steadily increased throughout the year.
- lot spot pattern shifts differed between white and non-white arrests, increasing uring COVID-19 for non-white arrests (Figure 5). White arrest hot spots ecreased during COVID-19 (Figure 8). Hot spots mostly returned to normal for oth during the protests (Figure 6, 9).

## Discussion

- olicing changed in response to COVID-19, with arrest rates plummeting and hot pots appearing in majority non-white census tracts. In response to the protests, rrests increased around Times Square and 42nd station on the south side of entral Park, where there were many protests. A comprehensive map of protest ites is necessary for further analysis of the relationship between protest location nd arrest data. There are definitive shifts in policing in response to events, and hese shifts are correlated to subway stations and differ based on race.
- ue to incomplete 2020 subway ridership data divided by race, it is difficult to etermine if arrest rates align with expectations. According to the New York imes, Manhattan ridership is still around 20% pre-COVID levels, but most black eighborhoods in Brooklyn have returned to 50% ridership rates. Further analysis vould analyze these rates on a station-by-station basis and compare them to rrest rates.
- is essential to note that this analysis does not examine other police retaliatory nethods such as prolonged detainment, errant arrest, excessive use of force. ikewise, the arrest data ends on September 30, while protests were still ccurring. This potentially means police were still dealing with protests and did ot have time for community reaction.

### References

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