STAYING SAFE IN THE SUBWAY

THE MOST DANGEROUS STATIONS FOR WOMEN



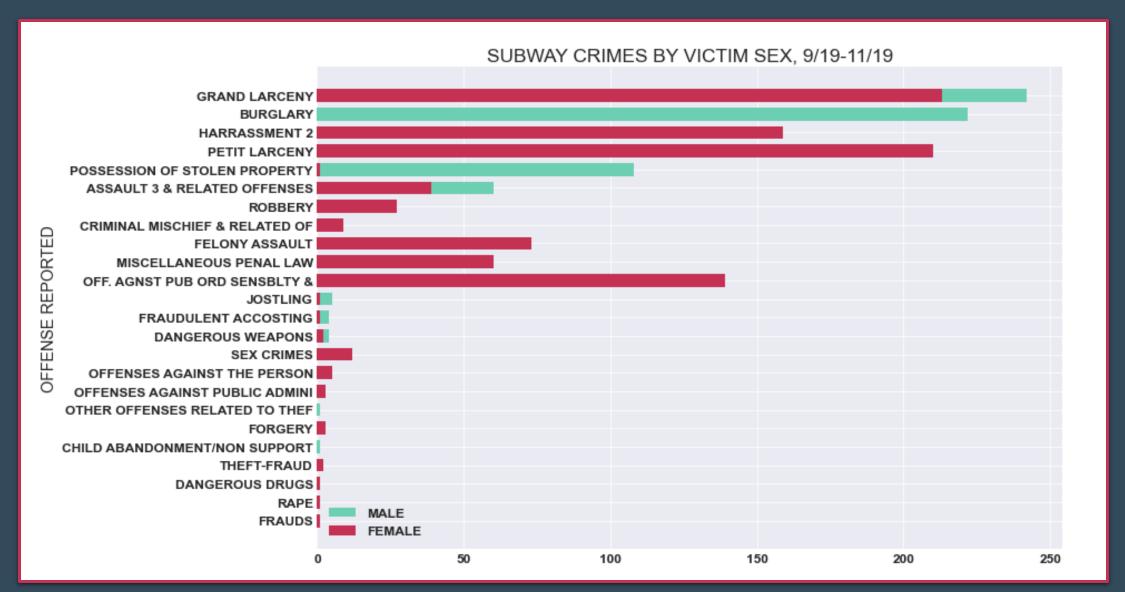
Background

- Safety on mass transit is an issue, and riders believe it's getting worse in NYC (and other cities)
- Women file 55% of complaints at MTA stations

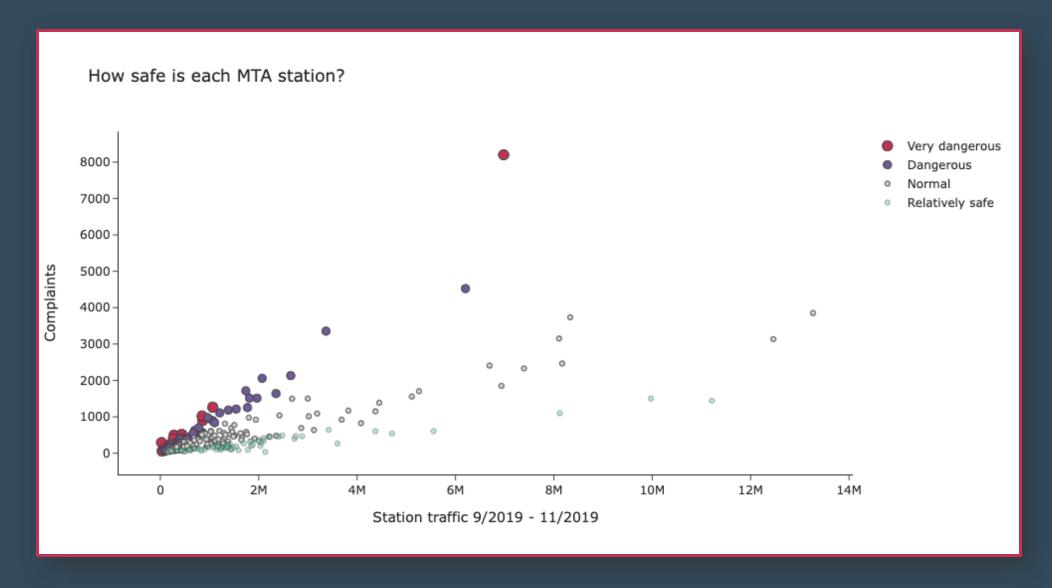
Questions

- Are some stations more dangerous than others, after controlling for traffic?
- Are some stations more dangerous to women specifically?

The Scoop on Subway Station Crime

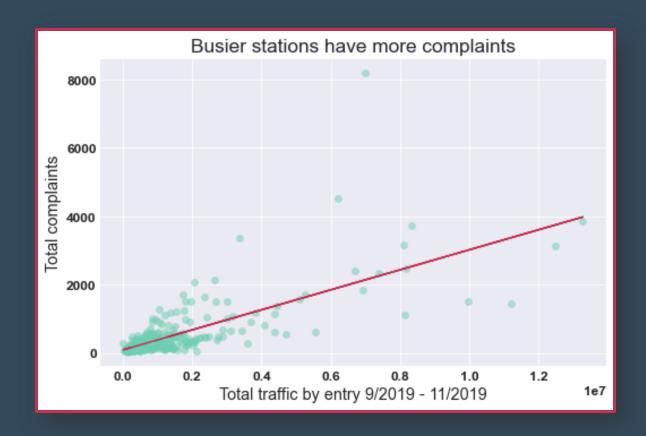


Safe, Normal, Dangerous....

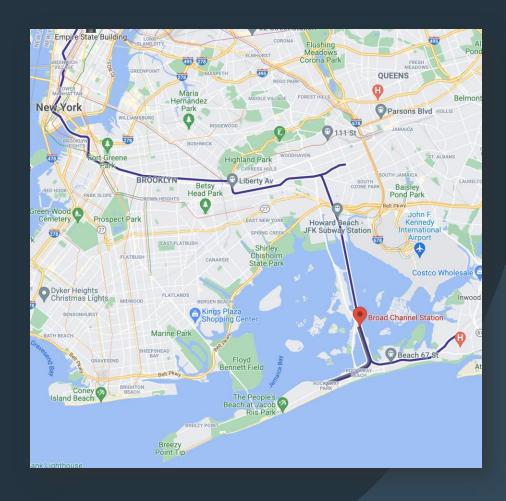


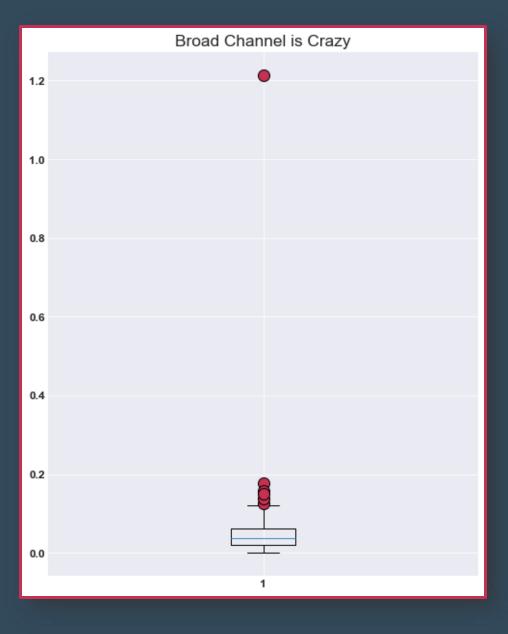
73% Correlation

Why not just look at total complaints?



A surprising finding





What's wrong with Broad Channel?

Broad Channel station

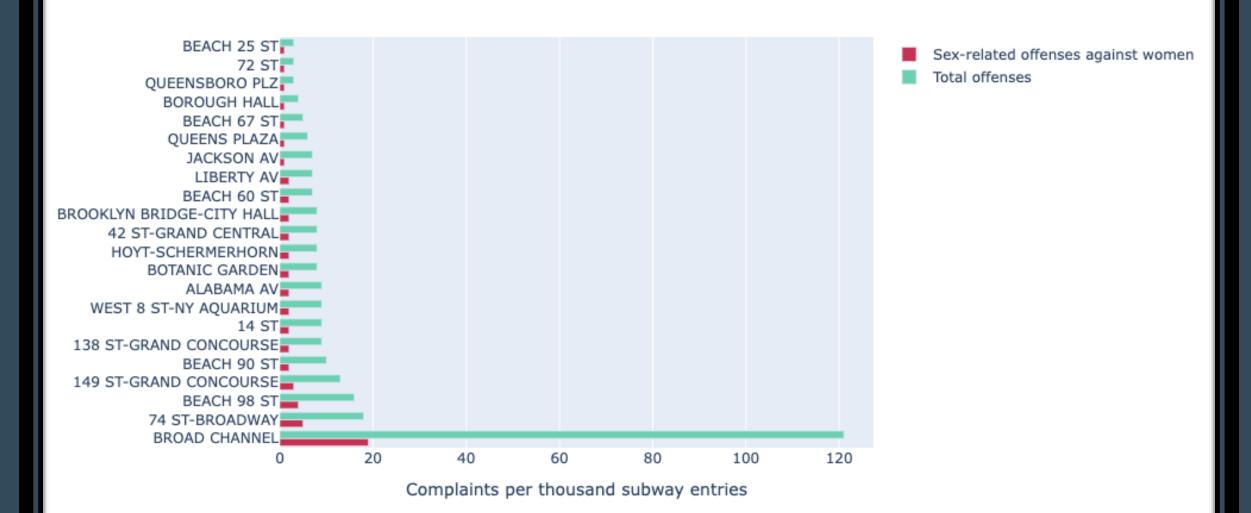
From Wikipedia, the free encyclopedia

Broad Channel is a station on the IND Rockaway Line of the New York City Subway, located in the neighborhood of the same name at Noel and West Roads in the borough of Queens. It is served by the A train and the Rockaway Park Shuttle at all times, the latter of which originates/terminates here.

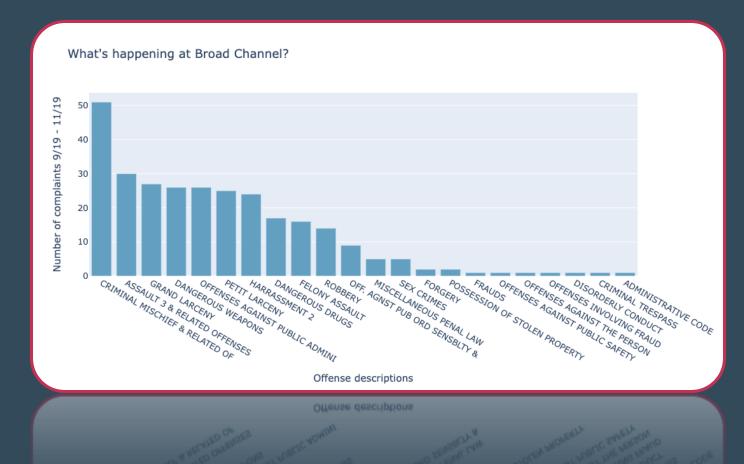
Broad Channel originally opened in 1880 as a Long Island Railroad station. The LIRR discontinued service in 1950 after a fire on the trestle across Jamaica Bay, to the station's north. The station reopened June 28, 1956, as a subway station.

Broad Channel is the only subway station serving the island of Broad Channel, which is located in Jamaica Bay and only has about 3,000 residents. Thus it is the second least-used in the subway as of 2019. However, this station is the only transfer point or riders traveling between Brooklyn and Manhattan (which the A train travels to) and the four other stations served by the Rockaway Park Shuttle.

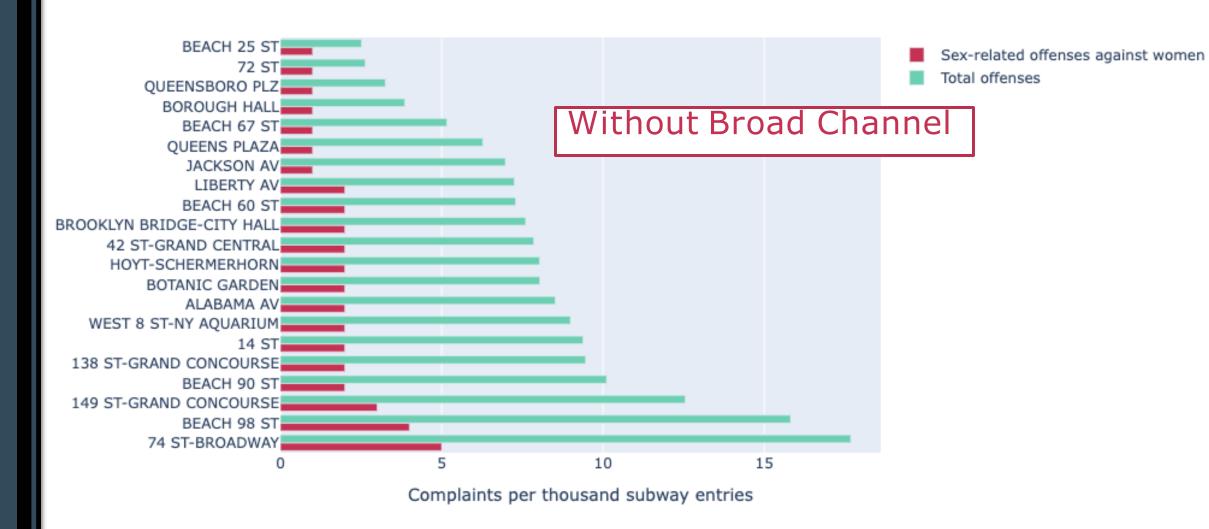
The Most Dangerous Subway Stations



Criminal Mischief!



The Most Dangerous Subway Stations



Recommendations

Score potential routes by averaging safety score across included stations

All else being equal, default to routes with safer stations

Display warning to users for "very dangerous" stations

Future Analysis

- Pre-pandemic vs. post-pandemic comparison?
- Are sex-related crimes against women seasonal?
- How does time of day influence complaint numbers?

Sources

- NYPD Complaints Dataset
- MTA Turnstile Dataset
- New York City Travel Survey
- NY Daily News Report on Subway Crime

