NYC Pedestrian and Cyclist Fatalities Dashboard

My desire for this project came from the pandemic wherein I needed to find solo workout activity. Once I started biking I wondered how dangerous is was to bike the city and how borough or street selection might change my relative danger. NYC Open Data hosts the NYPD motor vehicle crash data set, which retains information on the deaths on pedestrians and cyclists. There are many fields in this data set, but I retained location, borough, vehicle involvement, reason for crash, and date.

Why is this important? As the city sees an increasing people running and biking both for exercise and commuting (largely due to the pandemic), if would be helpful to know if certain locations where better than others in terms of safety. Future work could include automating the cleaning to some extent streaming the data for more up-to-date results.

The biggest limitation of the data is that not all information about the roadside fatality is documented. There are dozens of deaths that have no location data (gps, borough, street) and many "unspecified" vehicle involved or reasons for crash. With those losses, we are limited in know the "true" reasons and locations of people killed while walking or biking.

One thing I also wanted to know was is the "vision zero" plan started in the 2014 making an impact. The answer appears to be, not really. Some boroughs have improved since 2014 only for other boroughs to become more dangerous. There appeared to be some year-over-year gains, leading to 2018 being the lowest yearly average deaths per borough since 2015, but that prompted ended in 2019 with a return to the same yearly average deaths per borough as 2016 or 2013. It also appears that 2020 is shaping up to be a very deadly year despite the lockdown and pandemic. So far "vision zero" has a two steps forward, one step back style result.

Notes:

All code and documentation located on Github: https://github.com/Shampjeff/nyc_pedestrian_deaths_dashboard

For code and documentation on data collection, extraction, and cleaning see the file `Pedestrian Deaths Data Load and Cleaning.ipynb` in the link above.