Whistleblowers are often the genesis of an internal investigation when they report a problem such as accounting fraud or potential violations of the Foreign Corrupt Practices Act to the Company’s hotline or directly to the Securities and Exchange Commission. In New York City, we are seeing a new kind of whistleblower.

Mayor Bill de Blasio has asked New Yorkers en masse to report their neighbors for violations of social distancing guidelines. The Mayor has requested Gothamites send in photos and texts of social distancing violations to the City 311 service, comparing the current crisis to “wartime,” and emphasizing that New York is fighting an invisible enemy.

In war times, in a time when people’s lives are threatened...I’m sorry, this is not snitching, this is saving lives. ¹

The Mayor’s request had us wondering how many New Yorkers have answered his call and which neighborhoods in the city are most likely to file a complaint.

Analysis & Findings

We obtained the 311 data from NYC OpenData² and extracted the “social distancing” complaints. This yielded 13,632 complaints from March 29 to April 18, 2020, across the five boroughs. The borough with the highest number of complaints was Brooklyn, followed by Manhattan, with Staten Island being far in the rear. Given the relative density of Brooklyn and Manhattan, as compared to Staten Island, this is not all that surprising.
These Are People in Your Neighborhood

The social distancing complaints look a little more interesting when plotted on a heatmap. The darker red areas highlight the areas with more complaints.

When we dig into the data, it is thought-provoking to note which neighborhoods have had the most reported violations by whistleblowers. For example, South Williamsburg and DUMBO/Vinegar Hill appear to be hotspots for reporting social distancing violations, as does Borough Park.

We then wanted to contrast the neighborhoods with the most reported violations of social distancing with the neighborhoods with the fewest reported violations of social distancing. Notably, Rikers Island has the fewest complaints; however, it is home to New York City’s main jail complex, where it is likely that social distancing is next to impossible to implement. Numerous news outlets have reported on the impact of coronavirus on the inmates at Rikers, so while there are virtually no reported violations of social distancing, there are certainly accounts of the virus negatively impacting the prison population.
Whistleblowing by Neighborhood

Figure 4 illustrates the number of social distancing complaints by New York City neighborhood, color-coded by borough, again showing Borough Park and North-Side South-Side in Brooklyn to be hotspots.

Whistleblowing per Capita

Figure 4, however, does not consider differences in the total populations of the neighborhoods. To consider population differences, we measured the social distancing complaint rate per 1,000 people in the neighborhood.

When populations are factored in, as illustrated in the Figure 5, the top neighborhoods are slightly altered, now including South Williamsburg (North Side-South Side), Midtown South and DUMBO/Vinegar Hill as having the most whistleblowers reporting social distancing violations per capita at 5.8, 5.1 and 4.5 complaints per 1,000 people. This is approximately 15 to 19 times the social distancing complaint rate as Stuyvesant Town in Manhattan with a complaint rate of 0.3 per 1,000 people.
We also investigated the relationship between social distancing complaints to the average household incomes of the neighborhoods from which the complaints originated. Our analysis revealed that generally, the complaints are relatively evenly spread out between low and high-income neighborhoods.
Different Types of Social Distancing Complaints

The social distancing complaint data also includes the location of the complaints – playgrounds, residential, store, and street/sidewalks. The majority of the complaints are store-related, followed by residential and street, and this relative ranking was the same across the five boroughs.

Interestingly, the time of day that New Yorkers are making social distancing complaints differs by the type of complaints they are making. For store complaints, the ‘peak’ time for social distancing complaints is in the late afternoon, after 2pm. We can speculate that is when people are out after work and running errands to pick up supplies for home.

Park/playground complaints ‘peak’ in the evenings from 4 to 7pm. Similarly, street and sidewalk complaints peak in the early evening from 4 to 8pm. Both of these times are likely reflective of the need for people, including parents and children, to get outdoors after the workday is done.

Finally, residential complaints ‘peak’ in the later evenings between 7 and 10pm, possibly when people find the need to be social after an isolated day.
The Effect of Weather on Social Distancing Complaints

We also observed that weather plays a role in when New Yorkers report social distancing complaints. We see that on “bad weather days” there is a significant reduction in social distancing complaints versus “good weather days.” Specifically, there was roughly a 30% reduction in complaints for street/sidewalks and a 48% reduction in complaints for parks/playgrounds on bad weather days as compared to good weather days. This likely reflects New Yorkers obeying the Mayor’s mandate by staying indoors on cold/rainy days versus getting out and enjoying the sunshine, and correspondingly violating the order, on good weather days.
Conclusion

Many New Yorkers have answered the Mayor’s call to report social distancing violations throughout the city. While there is a wide geographical reporting of violations across the city, there are “hotspots” of whistleblowing in the city. We observed relative hotspots around the Brooklyn neighborhoods of South Williamsburg, DUMBO/Vinegar Hill and Borough Park; the Manhattan neighborhoods of the Upper Westside, East Village and Central Harlem; the Queens neighborhoods of Astoria and Hunter’s Point; the Bronx neighborhoods of Eastconcourse and Mott Haven; and no discernable hotspots in Staten Island. We also found no clear trend between social distancing reporting and the neighborhood’s household income. We did, however, find the peak time of day New Yorkers report the different types of social distancing violations varies with the type of reported violation – store, residential, parks/playgrounds, and sidewalk/streets. In addition, it appeared New Yorkers observe violations of the social distancing rules when the weather is good.

It will be interesting to see, assuming the lockdown continues and the temperatures continue to rise, how many social distancing violations are reported when New York becomes a hot town, and it is almost summer in the city.

1 @NYCMayor (Mayor Bill de Blasio) April 28, 2020 – 6:02AM https://twitter.com/NYCMayor/status/1252220472407851009
2 https://opendata.cityofnewyork.us/
3 New York City neighborhoods are defined by Neighborhood Tabulation Areas (NTA), which are combinations of 2010 U.S. Census tracts that are used the City of New York to approximate neighborhood boundaries.
5 The top 5 days of precipitation and cold temperatures.
6 The top 5 days with no precipitation and warm temperatures.