COVID's $34 billion bite out of the Big Apple

Some 70,000 people have left the NYC area since COVID began. Nowhere is the pain of that emigration felt more profoundly than in once busy, growing neighborhoods and points of interest the pandemic has made quiet and declining.

The hype is real. Just nine months into what we can measure about COVID-19 migration from big cities, the data is clear. People are emigrating from urban neighborhoods through-out the United States and the economic impacts both real and forecasted are staggering. Billions of dollars are changing address and New York City is a prime point of departure.

In this post, we use our Emerging Areas dataset and the Retail Impact Scoreboard to examine the effects of COVID-19 related migration on the Williamsburg, Astoria and Tribeca neighborhoods of New York. Beyond foot traffic and social distancing, the data tells a story of neighborhoods with a booming past now on a slow downwards trend, with significant consequences for local commerce and real estate markets.

In this post, we examine the impact of COVID-19 related migration on three neighborhoods in New York City: Williamsburg in Brooklyn, Astoria in Queens, and Tribeca in Lower Manhattan. Our objectives are to quantify the number of people that have moved from or to each neighborhood, and measure the economic impact of those movements based on their average income. We will also examine specific points of interest (POIs) in each neighborhood to get a sense of on-ground activity.

The data we'll use covers the period from January 1 2019 through December 7 2020. All data is collected with opt-in consent from millions of smartphones, then aggregated and anonymized. To complete our examination, we will use our **Emerging Areas** dataset and a simple ARCGIS visualization. We will also reference our **Retail Impact Scoreboard** and specifically the performance of the retail and restaurant industries in New York.

For our discussion, COVID Emigration will be defined as outward migration from a given neighborhood that occurred between February 1 2020 and December 7 2020. COVID Immigration will be defined as inward migration to the same neighborhood in the same period. This timeline includes both initial shutdown and multiple adaptations of restrictions, the suspension and re-start of school, and several **long weekends,** which we know to have amplifying effects on both local economies and the rate of COVID-19 infections. We begin with a birds-eye view of NYC migration patterns in the pandemic era.
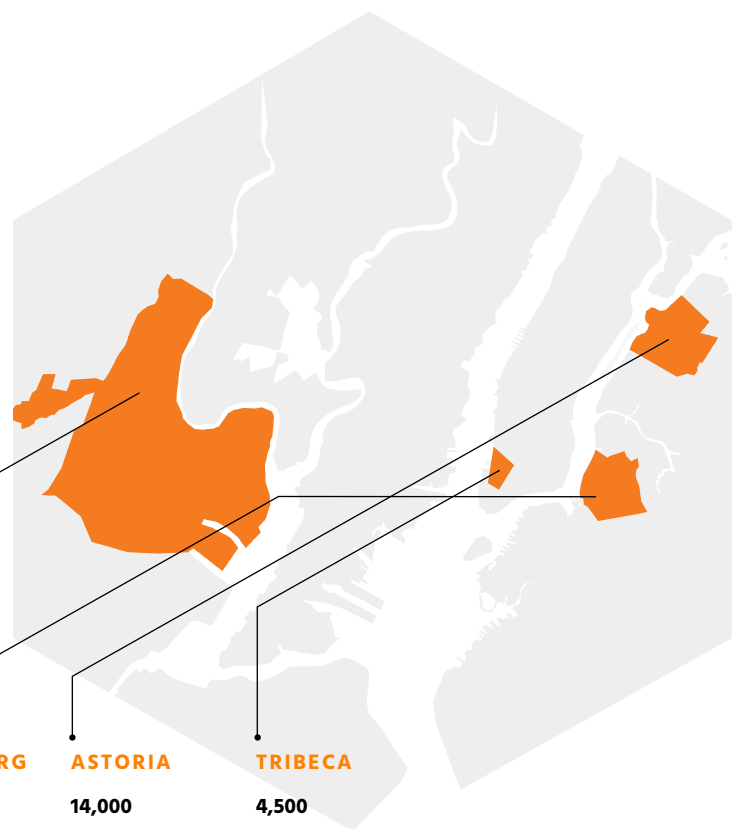
Area	NEW YORK-NEWARK	WILLIAMSBURG	ASTORIA	TRIBECA
Immigration	3,500,0000	13,000	14,000	4,500
Emigration	3,570,000	19,000	19,000	8,000
Net Migration	-70,000	-6,000	-5,000	-3,500
Income inflow	$264,000,000,000	$1,000,000,000	$1,000,000,000	$600,000,000
Income outflow	$298,000,000,000	$1,330,000,000	$1,290,000,000	$1,600,000,000
Net income loss	-$34,000,000,000	-$330,000,000	-$290,000,000	-$1,000,000,000

NYC area: 70,000 people and $34 billion in personal income is gone

Let's start with the bad news. Every neighborhood we examined is losing people — thousands, in fact. Collectively, about 3.57 million people emigrated from the New York City area in the period we examined. That's more emigrants than the entire population of any other US city, save Los Angeles. But that figure alone is deceiving. In the same period, about 3.5 million people have immigrated to New York, meaning the net outflow is only something in the range of 70,000 people. That seems a small figure until we probe the underlying economic impacts.

Those 3.57 million people that have emigrated (left town) took about $298 billion dollars of income with them, whereas the 3.5 million people that have immigrated (moved-in) bring about $264 billion dollars of income to town. That's about $34 billion in income gone in about 8 months of COVID-19. Downstream, there are clear implications.

The new people in town make considerably less money than those who lived there before. That means they can afford less in terms of mortgages, rent, restaurants, retail and other consumer expenditures. As a result, stores etc. that are more accustomed to catering to higher-end clientele will likely lose market share to more affordable brands. Where Chanel and Ruth's Chris once reigned, H&M and an Outback may find a new generation of customers.

Both the Retail (-33% foot traffic vs. 2019) and Restaurant (-34%) industries have and continue to suffer greatly in New York. The popular interpretation is that this is foot traffic-related, but a tertiary cause is net outflow in city neighborhood populations every-where, coupled with a reduction in average income and therefore reduced buying power.

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Zooming-in, we'll now examine each of our target neighborhood's emigration, immigration, and downstream local economic impacts.

Emigration

WILLIAMSBURG – About 19,000 people had left Williamsburg by September 7. That group represents about $1.33 billion in lost income for the neighborhood, a significant blow in this community of some 80,000. This is one of the hardest-hit individual NYC neighborhoods we examined.

ASTORIA – Some 18,000 people had left Astoria in the same timeframe, a very similar figure and percentage of the population to Williamsburg. The economic loss is something in the range of $1.29 billion in net lost income. This is a simple matter of average net median income in Astoria being lower than it is in Williamsburg.

TRIBECA – More than 8,000 of the some 20,000 residents of Tribeca had emigrated from the neighborhood within nine months of the February 2020 pandemic breakout. The better than $200,000 income they each averaged, and the higher-end retail and restaurant tastes they were willing to spend to satisfy, left with them.

Immigration

WILLIAMSBURG – More than 13,000 people immigrated to Williamsburg by December 7. That group represents about $1 billion in new income for the neighborhood, a net loss of about $330 million. That is a great deal of forfeited discretionary spending in a small community with many local brands that currently show little sign of resilience or recovery.

TRIBECA – About 4,500 people moved to Tribeca in the measured period, enough to reduce the total loss of population in the neighborhood to around 3,500, or -15%. The new folks are doing okay for themselves, but not nearly as well as those who have left, bringing about $1 billion less in income and buying power. This is a clear leading indicator of a depressed real estate market and a harbinger of rough times ahead for local retailers and restaurants accustomed to a wealthier clientele.

ASTORIA – With some 14,000 new immigrants, Astoria is ahead of the curve compared to Williamsburg. The net loss is about 4,000 people, or about 5% of the population, but the resulting income gap is about the same at $290 million. Why? Because the people immigrating to Astoria have a lower average median income, meaning – even though total population loss isn't as high – the income gap between new residents and old residents of Astoria is greater than in Williamsburg, so the economic impact of immigration is muffled.

Local POIs

WILLIAMSBURG – Just 4% of all the CBGs (census block groups) that we examined in this research have reached a state of recovery i.e. foot traffic is back to within 10% of pre-COVID levels. Another 74% of Williamsburg's CBGs are heading towards recovery (down 20 to 60%). Top POIs here include Blink Fitness at 287 Broadway (-61%), Pressed Juicery at 166 N 7th (-70%), and Hotel Indigo on Metropolitan Avenue, where traffic is now -77% versus 2019, with a slight downward trend.

TRIBECA – Only 2% of the neighborhood's CBGs have recovered with another 41% indicating movement towards recovery. Some POIs here include Costco, where traffic is down just 14% with an upwards trend, and Starbucks, where traffic is down 57% and flat. In each case, the brand performance is about inline with broader industry trends around discount big box stores vs. small urban storefront operations.

ASTORIA – None of the CBGs in Tribeca that we examined have recovered, though 63% are trending that way. The area around Independence Plaza, bereft of most of its workers, is the least recovered in Tribeca, hovering near -80% foot traffic compared to 2019. Though POIs throughout Tribeca are suffering, many are also recovering. Brands as diverse as Target, Papyrus and Wolfgang Puck are all experiencing strong upward trends heading into the end of 2020, though further lockdowns will mitigate these gains.

In Summary

The effects of migration on New York's neighborhoods are multiple. A net loss of people through emigration and/or a long term reduction in worker mobility results in lower total foot traffic thereby limiting organic opportunity for retailers and restaurants in a second ripple, i.e. beyond the effects of restrictions and social distancing alone.

A net loss of local buying power in the form of reduced average net median income – something that is happening in big cities everywhere – results in weaker markets for both rented and purchased housing, and reduced commercial lease rates in order to either keep struggling retail tenants, or replace them with new ones. This shows up in neighborhoods in the form of empty storefronts and deserted commercial, office and mixed-use spaces.

The other, very significant impact of long term shifts in migration and human mobility that we are just beginning to understand has to do with provisioning adequate services for the future of these and other neighborhoods and cities. The remaining impacts still to be measured will certainly come in at many more billions, or collectively even trillions of dollars.

Public schools, healthcare systems, utilities, transit and a plethora of other infrastructure providers rely on population density and mobility models to plan new locations and configure adequate community resources. The significant shifts of population brought on by COVID-19 migration will hugely impact the decision making processes behind those infrastructure projects, e.g. if Williamsburg is truly shrinking then maybe a cardio clinic or a grade school that was planned for that area would now be better placed in another neighborhood. Of course it works both ways.

Perhaps a mid market clothing retailer or eatery that has lacked the rent money or addressable market to tackle Tribeca previously can leverage the weak commercial leasing market to acquire a quality storefront and find success with the thousands of less affluent folks that are moving to the neighborhood. It's only possible to figure out each opportunity when we dive into the data.

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