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**NY
2X**

**New York is growing
2x faster than in 2019**

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The 5 County New York Area

	2019	2020	2021
JANUARY AND FEBRUARY	👤 -7,100 \$ +\$360 million	👤 -28,000 \$ -\$2 billion	👤 +1,900 (+9,000 vs 2019) \$ +\$1.2 billion (+233% vs 2019)
BOTTOM	JUNE 👤 -25,100 \$ -\$2.3 billion	MARCH 👤 -87,000 \$ -\$9.8 billion	JUNE* *based on 2019 data
PEAK	SEPTEMBER 👤 +3,800 \$ +\$554 million	SEPTEMBER 👤 +26,000 \$ +\$2.7 billion	SEPTEMBER** ** based on 2019 and 2020 data

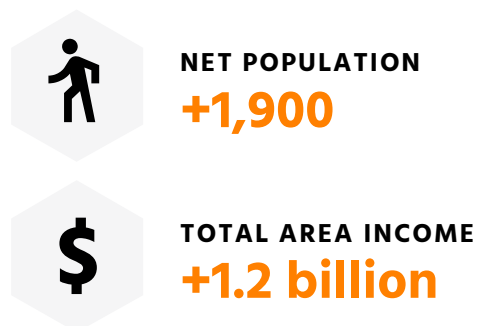
In January and February 2021, the five county New York area we studied grew by 1,900 people and an estimated \$1.2 billion. In January and February 2019, it was -7,100 and +\$360 million. That means the **population growth trend reversed +9,000 over 2019 and income growth rates were up 233%**, or more than 2x.

This defies a trend of nearly 111,000 in population loss in 2020 as COVID took hold. While the gain is small, the underlying data holds strong indications of resilience in the two most urban counties.

There are clear winners and losers among the five counties studied.

New York County and Bronx County demonstrate particular resilience. Combining January and February 2021, New York County gained 21,000 people and \$2 billion in income in early 2021, while Bronx County gained 2,100 people \$590 million in income.

Queens County continues to skid, down 10,400 people and \$655 million over January and February 2021. Kings County continues to lose population, down about 5,300 people in January and February 2021, along with some \$192 million in income. Richmond is also down both in population and income, having lost some 5,500 people and \$554 million in January and February 2021 combined.



2021 performance

Here we will detail the population flow and income flow patterns for each of the five counties studied.



- Growing population, Growing avg. income
- Shrinking population, Growing avg. Income
- Shrinking population, Shrinking avg. Income

Why Q3 2020 was the turning point

While clear indications of recovery are coming to light at the end of Q1 2021, an in-depth probing of the data suggests that things began to change in New York in Q3 of 2020 — the migration patterns seen in that period were unusual and perhaps an **indication of what to expect in Q3 of 2021.**

The five county New York area we examined had robust net population growth in Q3-2020, highlighted by population gains in New York County (+44,000), Kings County (+8,800) and Bronx County (+700).

Contextually, Q3 is typically a period of net population growth into New York City, largely driven by students flowing into areas surrounding the city's universities as classes begin in the fall. Looking only at these areas, Q3 2020's population bump was almost as large as Q3 2019's, meaning that significant constraints on student migration due to the pandemic had likely already passed by then.

Further, Q3 2020 also saw a net population bump in other (non-student) areas of the city, a pattern not mirrored in Q3 2019. There seem to have been two main drivers. First, **far fewer people left the city** in Q3 2020 than in Q3 2019; a somewhat counterintuitive notion. Second, **there was a large influx from areas surrounding the city** — perhaps the return of some who left NY County and the city at the height of the pandemic.

The drop in outflow means that the trend of people fleeing the city may have ended sooner than realized.

It's also fair to note that **2020's Q3 net population bump was 3x the size of 2019's**, although our internal metrics indicate the main difference in net population is that far fewer people left in Q3 2020 vs Q3 2019, not that more people arrived.

There may not be a boom wherein everybody returns at once but this reversal of typical Q3 population flows is a notable indicator to watch in 2021 and beyond as the New York area wrestles with the vagaries of a post-pandemic future.

New York County

	2019	2020	2021
JANUARY AND FEBRUARY	👤 +11,300 \$ +\$1.3 billion	👤 -3,000 \$ -\$800 million	👤 +21,000 (+86% vs 2019) \$ +\$2 billion (+54% vs 2019)
BOTTOM	JUNE 👤 -8,000 \$ -\$1.3 billion	MARCH 👤 -61,000 \$ -\$7.8 billion	JUNE* *based on 2019 data
PEAK	AUGUST 👤 +3,800 \$ +\$554 million	AUGUST 👤 +15,000 \$ +\$1.2 billion	AUGUST** ** based on 2019 and 2020 data

POPULATION GROWTH
+0.59%
per month avg.
Jan and Feb 2021

In January and February 2021, New York County grew by 21,000 people, or about .59% per month, and an estimated \$2 billion. In January and February 2019, it was just 11,300 and \$1.3 billion. That means that both population and income growth rates are up significantly over 2019. Save the Q3 swell, population flow had been negative in New York County since Q1 of 2020 when the first wave left the city as Covid-19 dawned on it.

Following a loss of some 64,000 in the first quarter of 2020 alone, and loss of another 9,600 in Q2, the city was set for a disastrous start to 2021 until the population flow pattern reversed and New York County recorded the significant net gain of 21,000 people in January and February 2021.

Beyond this growing population, the new immigrants to New York County are comparatively affluent. Average median income for newcomers in January and February 2021 is \$102,000, nearly \$20,000 more than the county's 2020 average.

Accelerated population growth combined with higher than average income among newcomers mean New York is up \$2 billion to start 2021 — 54% better than 2019.

 **+21,000**

 **+2 billion**

New York neighborhoods

In our first research paper about the NYC area, Covid's \$34 billion bit out of the Big Apple, we used neighborhood-level data to study population and income flow. In this updated research post, we have refined our queries to county-level data sets.

This higher level data provides superior precision when looking at data gathered over many census tracts but can miss individual neighborhoods within their given county. To illustrate this, let's use the example of the Tribeca / SoHo neighborhood.

Tribeca and SoHo

	2019	2020	2021
JANUARY AND FEBRUARY	👤 +50 \$ -\$29 million	👤 -590 \$ -\$134 million	👤 +450 (+800% vs. 2019) \$ +\$7 million (+\$36 million vs 2019)
BOTTOM	JUNE 👤 -700 \$ -\$186 million	MARCH 👤 -2,100 \$ -\$454 million	JUNE* *based on 2019 data
PEAK	AUGUST 👤 +750 \$ +\$14 million	SEPTEMBER 👤 +730 \$ +\$36 million	AUGUST** ** based on 2019 data

POPULATION GROWTH
+.14%
per month avg.
Jan and Feb 2021

In January and February 2021, Tribeca and SoHo grew by 450 people, or about .14% per month, and an estimated \$7 million. In January and February 2019, the same area grew by 50 people but shrank by \$29 million. That means **even though income growth rates in Tribeca and Soho are well behind the New York curve, the neighborhoods set new highs** to start 2021.

Furthermore, a review of January and February foot traffic data for the same area shows activity among locals 20% above the same time in 2019. Foot traffic from area workers is also about 30% above 2019 in the same period. But not all New York County neighborhoods are faring so well.

The **Financial District** saw gains of 1,430 people and \$98 million in income over January and February 2021 but that is, in order, flat and declining by about 19% compared to 2019 — so not the same record growth we see in other neighborhoods and NY county as a whole.

New York's **Upper East Side**, meanwhile, is losing people but gaining income. In January and February 2021, the area shrank by 400 people and an estimated \$8 million. In January and February 2019, it shrank by just 150 people but a larger amount: \$163 million. That means that, **while population growth rate is negative, income growth is positive versus 2019.**

There are unique stories for each of New York's neighborhoods, each bearing valuable data points, but for now we will turn back to a county-level approach and move northward to the Bronx.

Bronx County

	2019	2020	2021
JANUARY AND FEBRUARY	👤 +1,100 \$ +\$250 million	👤 -3,000 \$ +\$120 million	👤 +2,100 (+91% vs. 2019) \$ +\$590 million (+96% vs 2019)
BOTTOM	JULY 👤 -3,300 \$ -\$41 million	NOVEMBER 👤 -3,100 \$ -\$171 million	JULY* *based on 2019 data
PEAK	AUGUST 👤 +1,300 \$ +\$310 million	AUGUST 👤 +1,300 \$ +\$310 million	AUGUST** ** based on 2019 and 2020 data

POPULATION GROWTH
+0.08%
 per month avg.
 Jan and Feb 2021

In January and February 2021, Bronx County grew by 2,100 people, or about .08% per month, and an estimated \$590 million. In January and February 2019, it was just 1,100 and \$250 million. That means that both population and income growth rates in the county are up more than 90% over 2019.

Bronx County is the second fastest grower and net gainer of area income. 2,100 people immigrated to the Bronx in January and February 2021. Save the Q3 swell, population flow had been negative in Bronx County since Q1 of 2020.

Following a loss of some 9,000 people in the first half of 2020 and a slight rise of 650 during Q3, Bronx County again plummeted to nearly -6,500 in population loss in Q4 2020. Like New York County though, the Bronx found its legs again early in 2021, attracting a new class of earners to the county.

With an average 2020 income of \$38,000, the Bronx is by far the least affluent of the five counties studied. That’s changing as newcomers with nearly twice that average income move-in.

The average median income in Bronx County in 2020 was about \$38,000. That’s \$18,000 less than in the next lowest, Kings County, and less than half of the average income in New York County and Queens County. The influx of People with Money is having a huge impact.

Bronx County gained more than \$590 million in income in January and February 2021 alone. While the gap in average income may eventually shrink, population growth and upward mobility seem like fair bets for Bronx County in the coming year.

 **+2,100**
 **+590 million**

Kings County

	2019	2020	2021
JANUARY AND FEBRUARY	👤 -7,800 \$ -\$304 million	👤 -8,500 \$ -\$375 million	👤 -5,300 (+32% vs. 2019) \$ -\$192 million (+37% vs 2019)
BOTTOM	JUNE 👤 -11,400 \$ -\$721 million	MARCH 👤 -18,500 \$ -\$1.6 billion	JUNE* *based on 2019 data
PEAK	AUGUST 👤 -500 \$ +\$390 million	SEPTEMBER 👤 +7,200 \$ -\$640 million	AUGUST** ** based on 2019 data

POPULATION GROWTH
-0.11%
 per month avg.
 Jan and Feb 2021

In January and February 2021, Kings County shrank by 5,300 people, or about .11% per month, and an estimated \$192 million. In January and February 2019, it shrank by 7,800 and \$304 million. That means that **both population and income growth rates in the county are up more than 32% over 2019**. But set aside the Q3 swell, when Kings grew by some 8,800 people, and the county is down by some 37,000 since 2020 began.

Following a loss of 27,000 people in the first quarter of 2020 alone and loss of another 12,000 in Q2, Kings County's rate of population decline dropped sharply heading into 2021.

Though the population continues to shrink, Kings' economic outlook is trending net positive.

Despite a loss of population since 2021 began, Kings County has managed to achieve relative economic gains versus 2019 by welcoming newcomers with average income more than \$19,000 above that of the county's 2020 average. In short, there are fewer people in Kings County, but they have more money now.

👤 **-5,300**

💰 **-192 million**

Queens County

	2019	2020	2021
JANUARY AND FEBRUARY	👤 -7,200 \$ -\$428 million	👤 -10,000 \$ -\$637 million	👤 -10,400 (-44% vs. 2019) \$ -\$655 million (-53% vs 2019)
BOTTOM	AUGUST 👤 -10,700 \$ -\$674 million	MARCH 👤 -5,500 \$ -\$409 million	AUGUST* *based on 2019 data
PEAK	MAY 👤 +6,300 \$ +364 million	NOVEMBER 👤 +3,300 \$ +\$115 million	MAY** ** based on 2019 data

POPULATION GROWTH
-.23%
 per month avg.
 Jan and Feb 2021

In January and February 2021, Queens County shrank by 10,400 people, or about -.23% per month, and an estimated \$655 million. In January and February 2019, it shrank by 7,200 and \$428 million. That means that **both population and income growth rates in the county are down sharply over 2019.**

Following a loss of some 16,000 people in the first quarter of 2020 and loss of another 2,400 in Q2, Queens failed to catch the Q3 rebound, losing another 5,600 people that quarter. Things took a brief turn for the better in Q4 of 2020 when the population grew by 350, before dropping precipitously again early in January and February 2021.

Though Queens gained average area income since 2019, accumulating population loss sapped more than \$655 million from the county in the first two months of 2021.

The bad news does not end there for Queens County. A rise in average income of \$10,500 among the inflow population is not nearly enough to offset the loss of 35,000 people since 2020 began and there is no clear indication that population flow will turn positive soon.

 **-10,400**
 **-\$655 million**

Richmond County

	2019	2020	2021
JANUARY AND FEBRUARY	👤 -4,500 \$ -\$438 million	👤 -3,300 \$ -\$310 million	👤 -5,500 (-22% vs. 2019) \$ -\$554 million (-26% vs 2019)
BOTTOM	JANUARY 👤 -4,500 \$ -\$411 million	JANUARY 👤 -4,000 \$ -\$328 million	JANUARY* *based on 2019 data
PEAK	MAY 👤 +2,800 \$ +132 million	NOVEMBER 👤 +3,100 \$ +\$196 million	MAY** ** based on 2019 and 2020 data

POPULATION GROWTH
-0.59%
per month avg.
Jan and Feb 2021

In January and February 2021, Richmond County shrank by 5,500 people, or about -.59% per month, and an estimated \$554 million. In January and February 2019, it shrank by 4,500 and \$438 million. That means that **both population and income growth rates in the county are down more than 22% over 2019.**

Following a loss of some 2,800 people over Q1 and Q2 of 2020, Richmond County missed the Q3 swell to lose another 2,900 before recording a gain of 3,400 people in Q4, for a net 2020 loss of 2,300, or about .5% of its population. The rate of decline accelerated slightly in January and February 2021 to about .59%. Coupled with a drop in average area income since 2020, this is a foreboding set of indicators for Richmond County.

With income of new residents fully \$9,000 below the 2020 county average and continuing population loss Richmond County faces difficult prospects for recovery in 2021.

-5,500
-\$554 million

In Summary

New York is growing again, faster than it ever has. At least in some neighborhoods and counties. In others, the pandemic has worsened the situation in places that were already declining.

Net population flow as of Q1 2021 is now modestly positive to the tune of +1,900 people and \$1.2 billion — a welcome indication of resilience in the city that never sleeps, in an area that is defying the odds.

As we move further into 2021, the trend is towards continued strength in New York and Bronx counties, overall population growth for the five county area, and net positive income growth in three of the counties examined.

We will revisit the New York area again later in 2021 to challenge the efficacy of these findings and our interpretation of the data.

MIGRATION PATTERNS AND OUR DATASETS

Our Migration Patterns offering is a set of products for analyzing shifts in population. Currently, the package consists of two datasets: Home-based Origin-Destination Flux (OD Flux) and Emerging Areas.

Home-based Origin-Destination Flux (OD Flux) derives moves from changes in home location of a device and therefore is able to capture the origin and destination of each move. In order to assess that a move happened with certain confidence, an observation window of several weeks (currently 8) is required, which means that our insights are more certain, however, come with a delay of approximately half of the observation window (4 weeks).

Emerging Areas calculates the inflow, outflow, and net flow of people as well as the accompanying change in income for a given area. To calculate the total net flow of an area, we sum up all inflows into and outflows from an area and calculate the difference. Weekly data from Migration Patterns is aggregated monthly for this purpose.

If you'd like to know more, please talktous@unacast.com.

How to use Migration Patterns

So how can you use migrations patterns in real life? It can be applied in many different aspects from research to business, real estate, and government development. Here are a few examples

Researchers and Data Scientists

Add more depth to your research by connecting to different data sets across the entirety of your country, state, city, and neighborhood. Track things like human mobility, emerging areas, and population migration patterns. Probe insights already connected to the American Census Service. Assess and benchmark performance from 2018 to current day. Unacast offers both free and paid data as a service to help you plug in and get started.

Journalists and Media

Provide a local angle on the bigger picture by using powerful, location-centric tools to get a clear picture of human mobility and migration in your hometown and on your beat. Covering an urban exodus at the state level, or a local small town boom? Select a location to start, then measure and visualize foot traffic, population growth and income flow.

Retailers and Restaurateurs

Study changes in local consumer population to determine ideal sites for new locations. Assess cross-visitation patterns to inform partnership marketing and advertising spend. Businesses can easily identify where visitors originate from and if they are locals, workers, or tourists. Migration patterns data is especially useful for businesses in developing markets.

CRE Investors

Research areas with increasing foot traffic to identify possible investment and/or development opportunities in potential areas of need. Accurately measure migration patterns and population flows concerning points of immigration and emigration. This will inform other data points, such as current lease rates, projected sales, etc. Quickly augment and/ or validate knowledge from other CRE data sources.

Public Sector

Measure changes in where people are living and how people are moving around and using public spaces now compared to previous periods. This optimizes population density models and needs assessments for civic planners and engineers. Common use cases include:

- Planning and operations for public transit
- Real estate acquisition and development
- Maintenance and security of public spaces
- Location planning for essential services
- Urban land use classification

