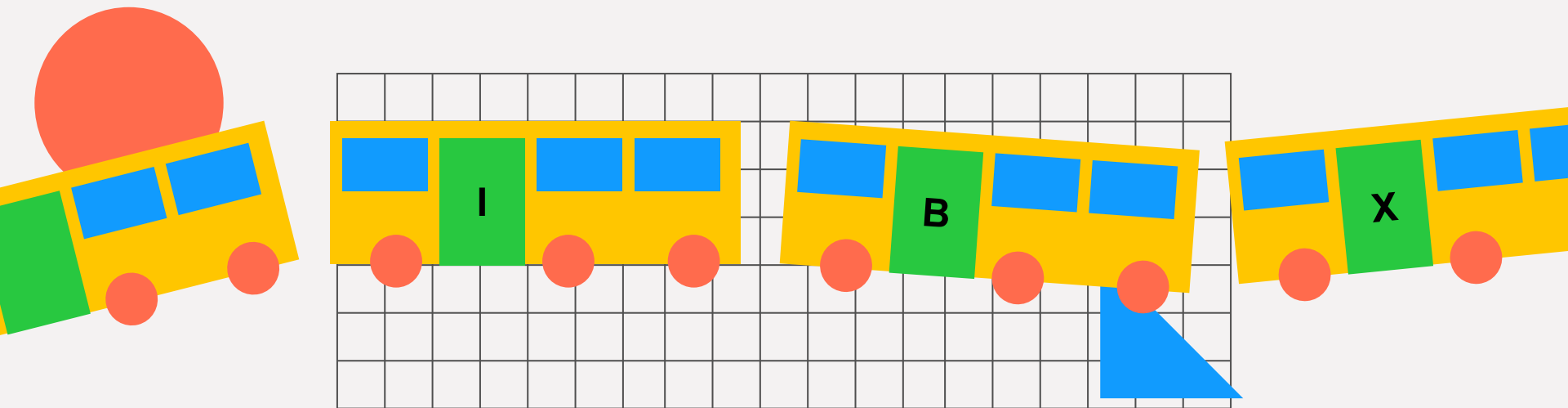


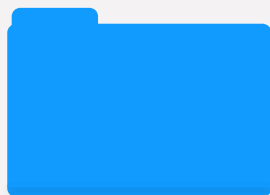
Interborough Express (IBX): Navigating densification & displacement



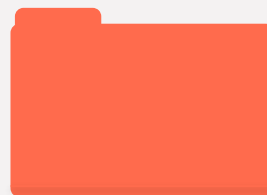
Agenda



Background &
Research Questions



Densification



Displacement
Pressures



Policy
Recommendations

Background

- The proposed IBX (Interborough Express) is a new rapid transit line that would connect Brooklyn and Queens
- Sits on existing freight rail corridor owned by LIRR, that operates 2x/day
- The proposed new line would be 14 miles long and connect 19 stations



Involved Stakeholders



NYC Residents

Access to transportation is a large factor in deciding where to live. Residents should also have the ability to be informed on ongoing infrastructure developments in their neighborhood.



Urban Planners and Designers

The IBX project has officially moved into the engineering and design phase, and is currently undergoing environmental review. Our deliverable may help involved agencies further visualize and understand the impacts of the IBX on local communities.



Municipal Agencies

Other cities and government agencies interested in pursuing a similar infrastructure project may find our deliverables helpful.

Research Question

Given this once-in-a-generation transportation infrastructure project, our group intends to explore how this new line would impact existing and future communities. How can we promote new dense housing supply to increase public transit usage without causing mass displacement and gentrification of existing communities?

Data Sources & Preparation



Data Source	Preparation/Notes
MTA Stations and Complexes	Filtered to Brooklyn and Queens Borough; counted lines for each station
IBX Station Shapefile	From ArcGIS (subject to change based on plans) Cleaned up data for consistency with MTA stations.
ACS Data (2023, 5-year)	Tract-level data for population and demographics, intersected with buffers from stations
NYC Open Data	Find all government owned land and extract all the vacant or no-use parcels
NYC Zoning Districts	Used QGIS to fix geometries before intersecting with tracts/buffers

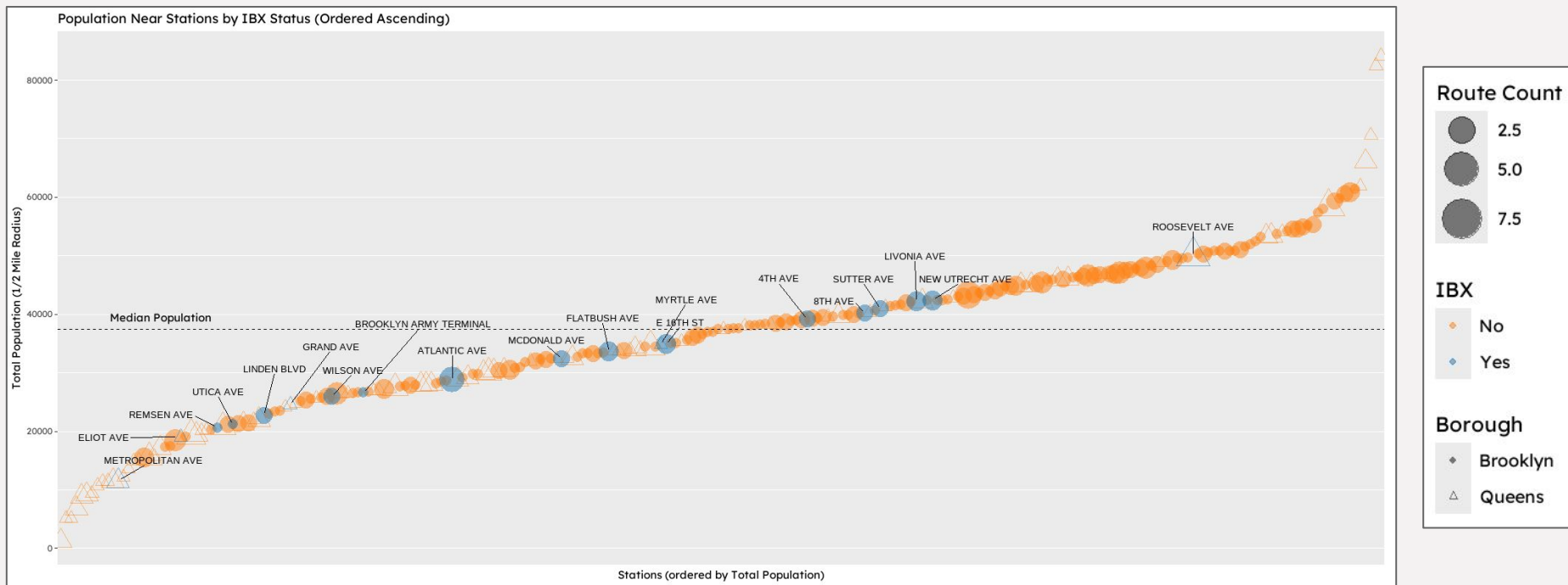
Methods and Data Considerations

Used ½-mile buffers around each station (15-minute walkshed) to intersect with demographic/geographic data, creating a variety of charts

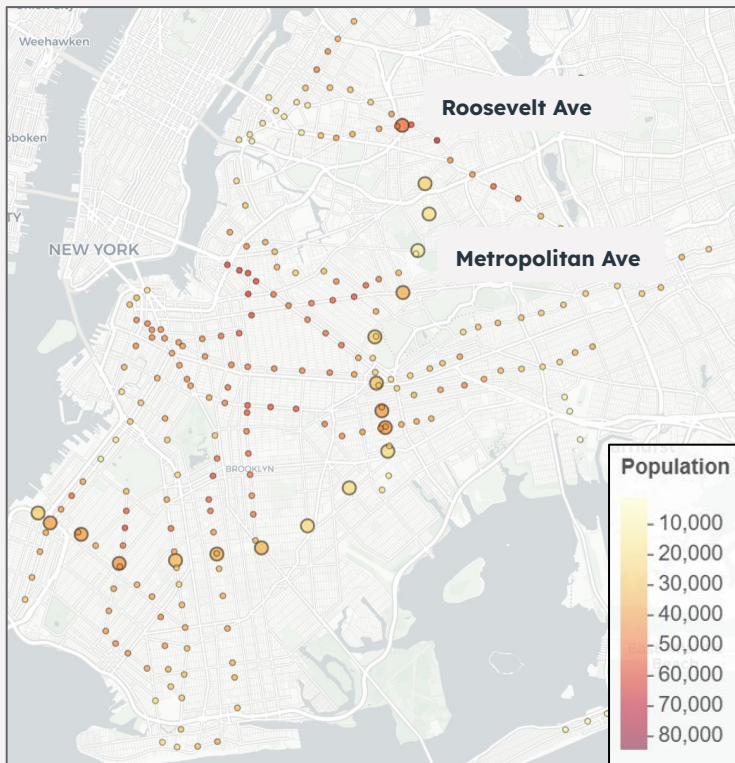
1. IBX stations not fully finalized
2. Did not incorporate other forms of public transportation - bus lines, CitiBike stations.
3. ½-mile straight-line buffer imperfectly reflects walkability

Existing Density

The majority of IBX stations have a population under the median of all subway stations in Brooklyn and Queens.



Density across MTA stations in Brooklyn and Queens

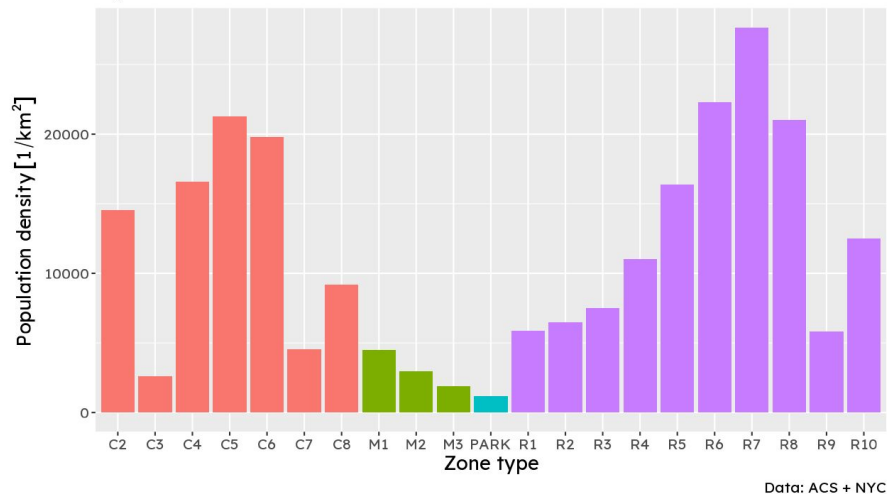


Station	Borough	Routes	Population (½ Mile)	station_order
BROOKLYN ARMY TERMINAL	Brooklyn	1	26640.20	1
4TH AVE	Brooklyn	2	39240.17	2
8TH AVE	Brooklyn	2	40185.50	3
NEW UTRECHT AVE	Brooklyn	3	42383.35	4
MCDONALD AVE	Brooklyn	2	32408.28	5
E 16TH ST	Brooklyn	3	34965.84	6
FLATBUSH AVE	Brooklyn	3	33673.38	7
UTICA AVE	Brooklyn	1	21217.39	8
REMSEN AVE	Brooklyn	1	20602.26	9
LINDEN BLVD	Brooklyn	2	22778.46	10
LIVONIA AVE	Brooklyn	3	42248.95	11
SUTTER AVE	Brooklyn	2	40949.24	12
ATLANTIC AVE	Brooklyn	7	28789.50	13
WILSON AVE	Brooklyn	2	26046.21	14
MYRTLE AVE	Queens	1	34890.72	15
METROPOLITAN AVE	Queens	2	11544.63	16
ELIOT AVE	Queens	1	19036.43	17
GRAND AVE	Queens	1	24585.90	18
ROOSEVELT AVE	Queens	6	49964.47	19

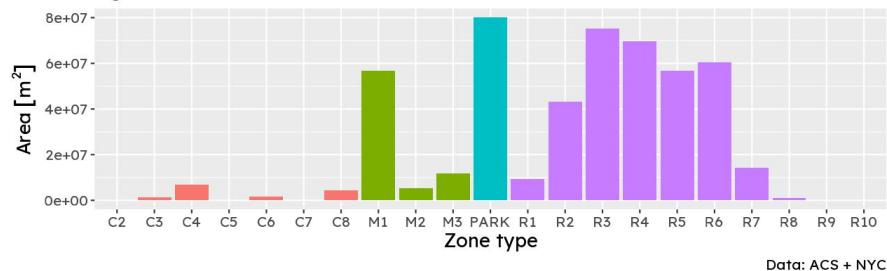
Zoning

- Zoning has a massive impact on density
 - NYC has a huge variety of residential zones, allowing different types of homes
 - Commercial zones can be dense (e.g. residences above storefronts)
 - C3: waterfront
 - C7: amusement parks
 - C8: automotive
 - There is very little data for R8-R10 in Brooklyn/Queens, so we see outliers

Population density by type of zone (Brooklyn and Queens)
e.g. "R1-2A" counted as R1

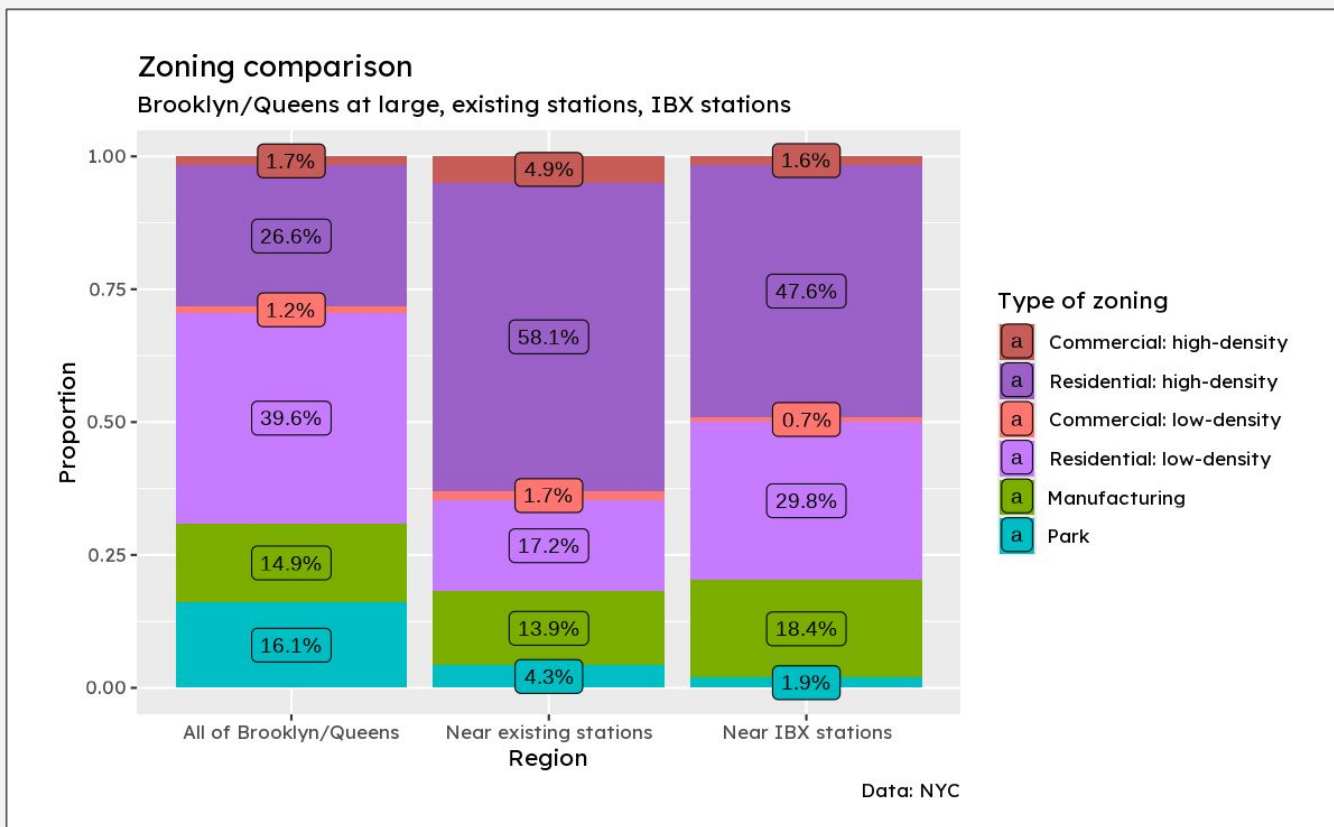


Area by type of zone (Brooklyn and Queens)
e.g. "R1-2A" counted as R1



Zoning

IBX stations are zoned more densely than Brooklyn/Queens as a whole, but there's room to upzone comparing to existing Brooklyn/Queens MTA stations.



Displacement: Background

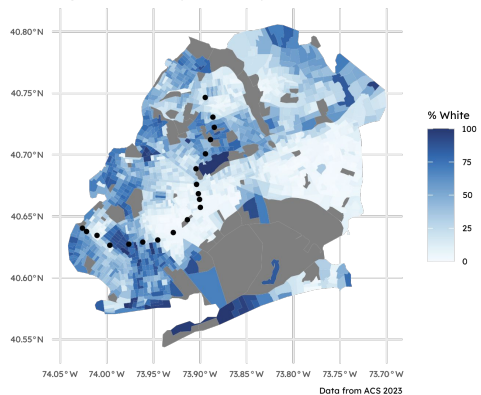
- Home values + rent prices increase due to greater connectivity, potentially displacing vulnerable communities
- Second Avenue Subway as reference (Zillow Observed Rent Index by zip code)
 - Since Dec 31, 2016 (9 years):
 - Average Manhattan zip code has a **40.7%** increase in rent
 - Average Upper East Side zip code (10021, 10028, 10128) has **46.6%** increase in rent
 - Considerations: Lots of different causes for different neighborhoods; not all of UES is best served by 2nd Avenue Subway (due to Lexington Ave Line)
- UES is wealthier in general than outer boroughs; how does it look for the IBX?



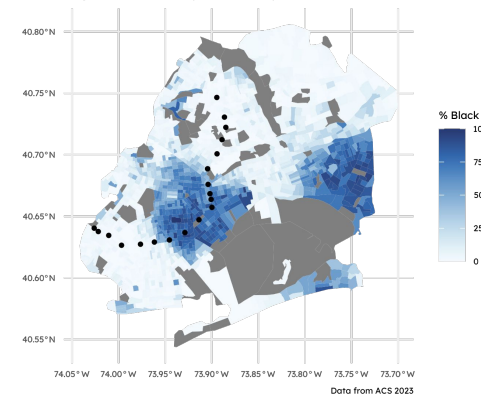
Race/ Ethnicity

Map illustrating race/ethnicity
population in Kings and Queens
county.

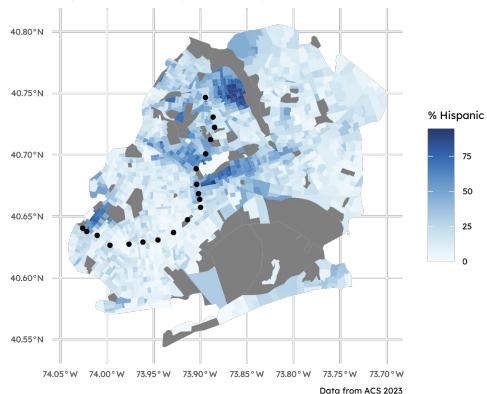
Percent White Population by Census Tract, NYC
Kings and Queens County, New York City



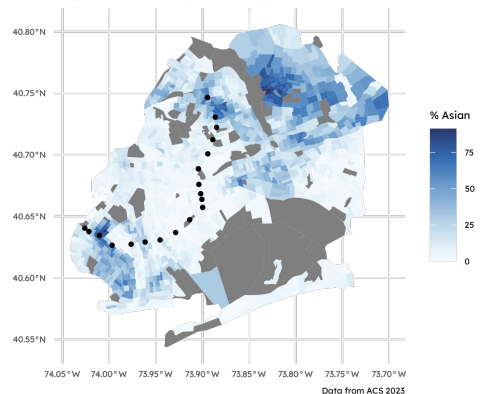
Percent Black Population by Census Tract, NYC
Kings and Queens County, New York City



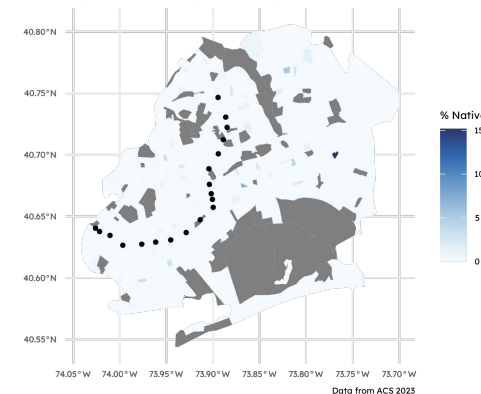
Percent Hispanic Population by Census Tract, NYC
Kings and Queens County, New York City



Percent Asian Population by Census Tract, NYC
Kings and Queens County, New York City

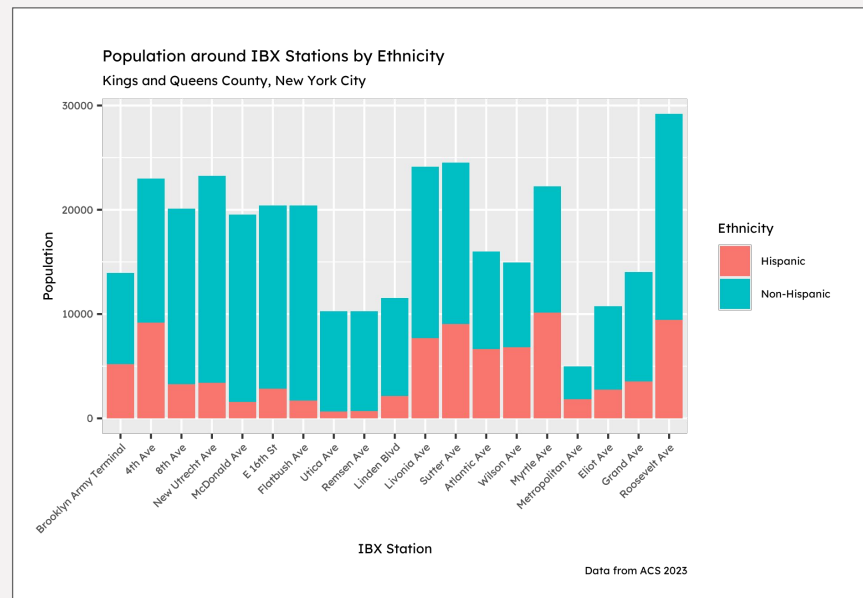
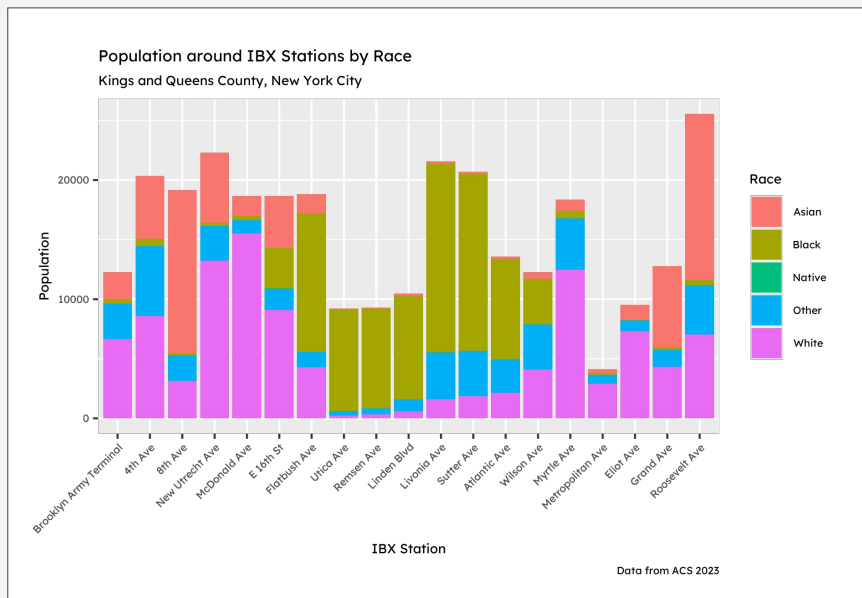


Percent Native Population by Census Tract, NYC
Kings and Queens County, New York City



Ethnicity

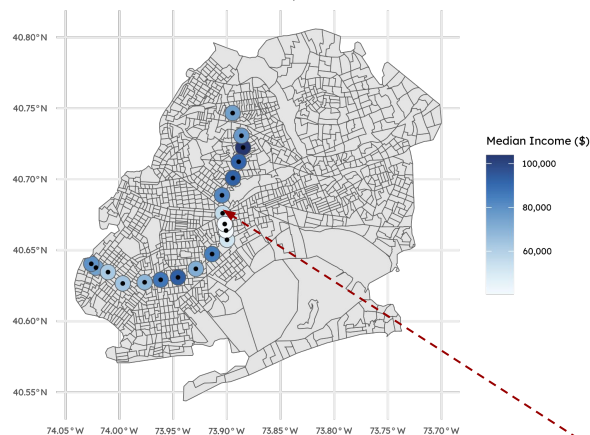
- Analysis: Serves White, Black, Asian, and Hispanic populations in NYC; Crucial for linking neighborhoods and cultures together.
- Opportunity: Increases transportation accessibility.
- Opportunity: Generates opportunity for Black communities to build generational wealth that has been historically denied.



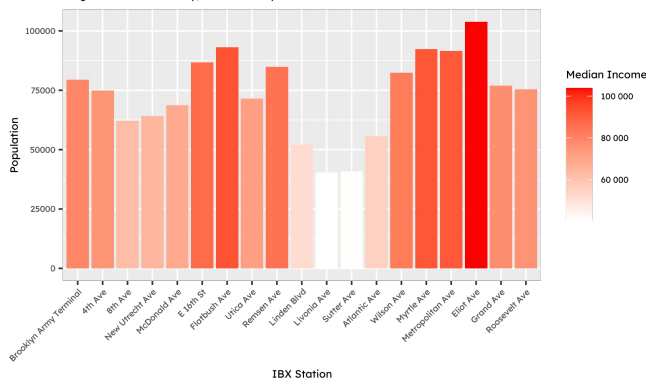
Household Income

- Analysis: Depression of median income correlated with increased Black population around Livonia Ave (11) and Sutter Ave (12) stations
- Opportunity: Will increase transportation options for low-income households/those without cars.

Median Income Around IBX Station, NYC



Median Income Around IBX Stations
Kings and Queens County, New York City



Data from ACS 2025

Median Income Around IBX Stations

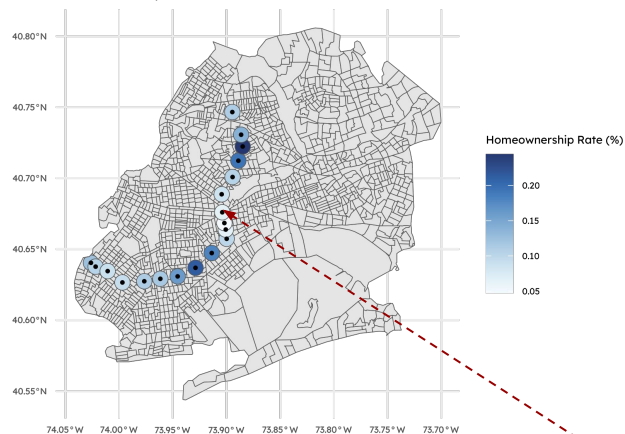
Kings and Queens County, New York City

IBX Station	Median Income	Station Order
Brooklyn Army Terminal	\$79,370	1
4th Ave	\$74,937	2
8th Ave	\$62,190	3
New Utrecht Ave	\$64,145	4
McDonald Ave	\$68,747	5
E 16th St	\$86,799	6
Flatbush Ave	\$93,169	7
Utica Ave	\$71,476	8
Remsen Ave	\$84,856	9
Linden Blvd	\$52,069	10
Livonia Ave	\$40,386	11
Sutter Ave	\$40,819	12
Atlantic Ave	\$55,616	13
Wilson Ave	\$82,441	14
Myrtle Ave	\$92,267	15
Metropolitan Ave	\$91,611	16
Eliot Ave	\$103,838	17
Grand Ave	\$76,886	18
Roosevelt Ave	\$75,424	19

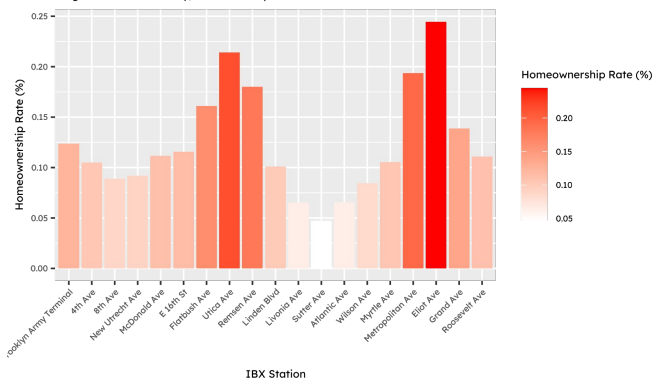
Home-ownership

- Analysis: Depression of homeownership correlated with low household incomes.
- Risk: Decreased homeownership rate indicate higher risk of gentrification and displacement from potential increased rent or property sales.
- Opportunity: Initiatives to increase homeownership around IBX station.

Homeownership Rate Around IBX Stations, NYC



Homeownership Rate Around IBX Stations
Kings and Queens County, New York City



Data from ACS 2023

Homeownership Rate Around IBX Stations

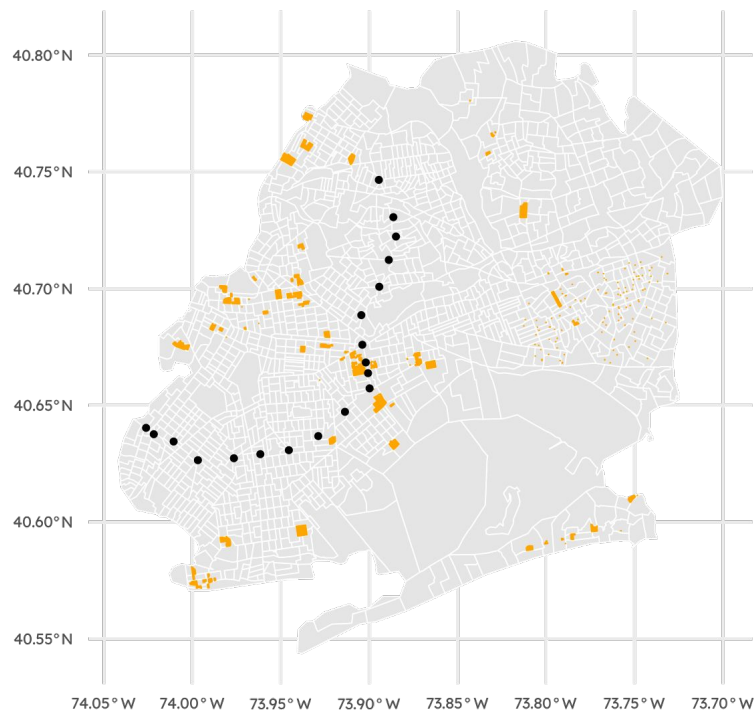
Kings and Queens County, New York City

IBX Station	Owner Rate (%)	Station Order
Brooklyn Army Terminal	12.4%	1
4th Ave	10.5%	2
8th Ave	8.9%	3
New Utrecht Ave	9.2%	4
McDonald Ave	11.2%	5
E 16th St	11.6%	6
Flatbush Ave	16.1%	7
Utica Ave	21.4%	8
Remsen Ave	18.0%	9
Linden Blvd	10.1%	10
Livonia Ave	6.5%	11
Sutter Ave	4.7%	12
Atlantic Ave	6.6%	13
Wilson Ave	8.5%	14
Myrtle Ave	10.6%	15
Metropolitan Ave	19.4%	16
Eliot Ave	24.5%	17
Grand Ave	13.9%	18
Roosevelt Ave	11.1%	19

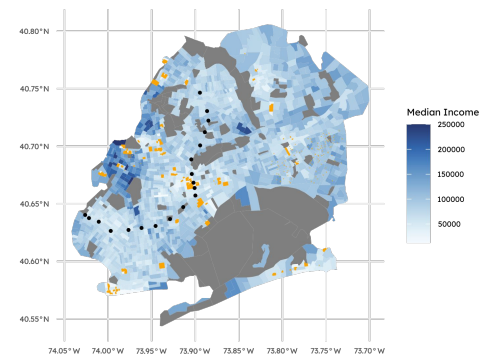
NYCHA housing

- Analysis: Existing NYCHA housing clustered around Linden Blvd (10), Livonia Ave (11), Sutter Ave (12), and Atlantic Ave (13).
- Livonia Ave (288 units); Sutter Ave (100 units).
- Opportunity: Presents opportunity to build more affordable housing near IBX station.
- Risk: Low-income neighborhoods should not bear burden of NYCHA housing

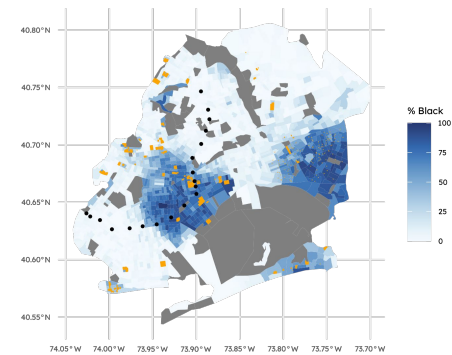
NYCHA Developments in NYC
NYCHA 2025



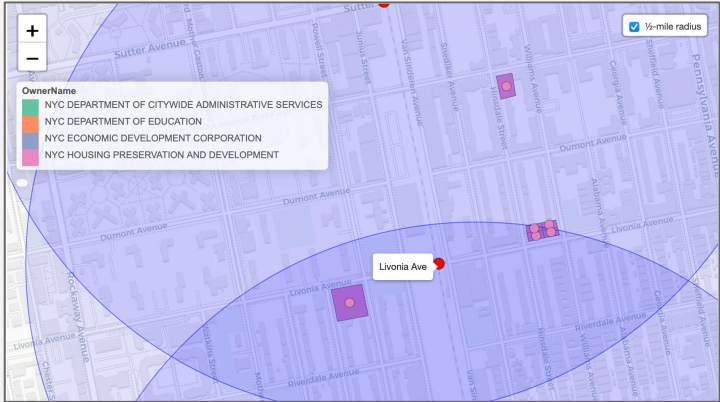
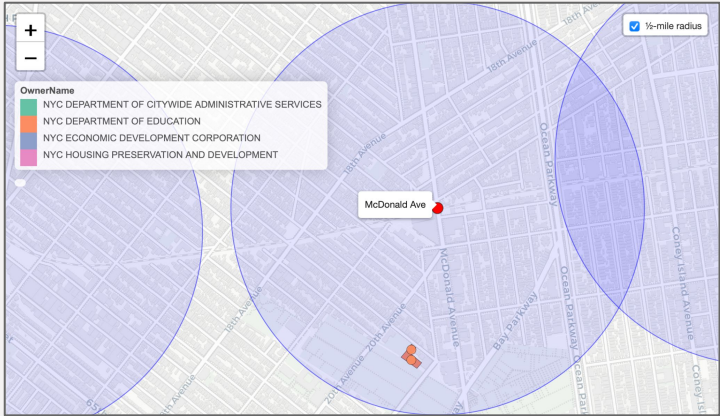
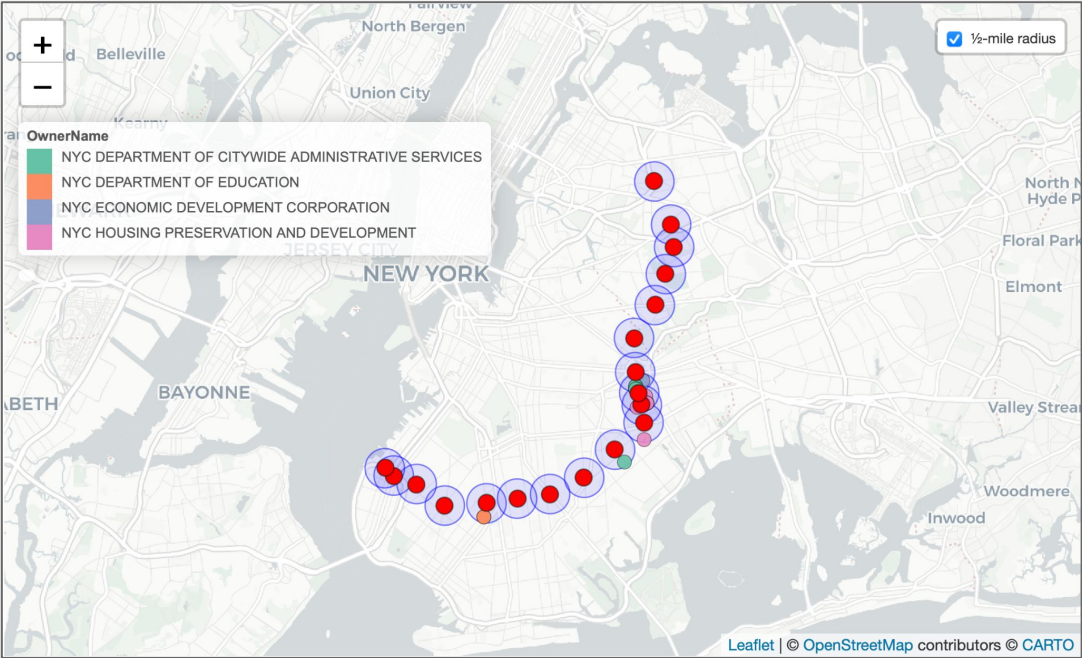
NYCHA Developments in NYC
NYCHA 2025



NYCHA Developments in NYC
NYCHA 2025

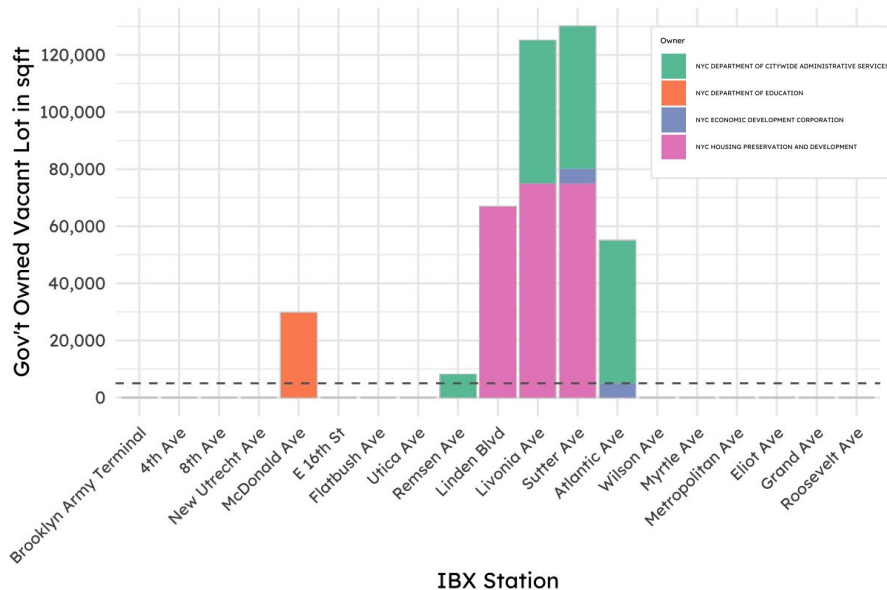


Vacant Government Parcels Around IBX

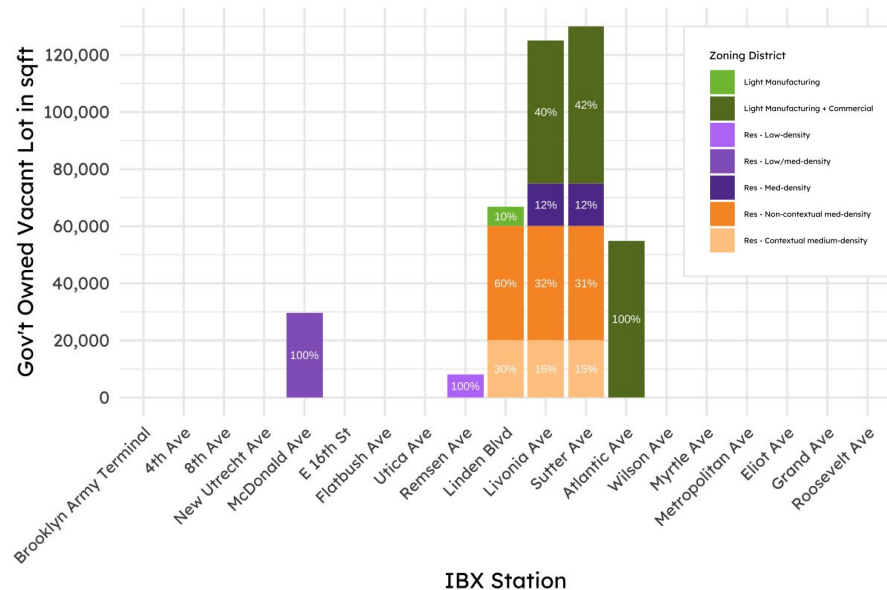


Vacant Government Parcels Available Land

Available Vacant Public Land Near IBX Stations By Owner

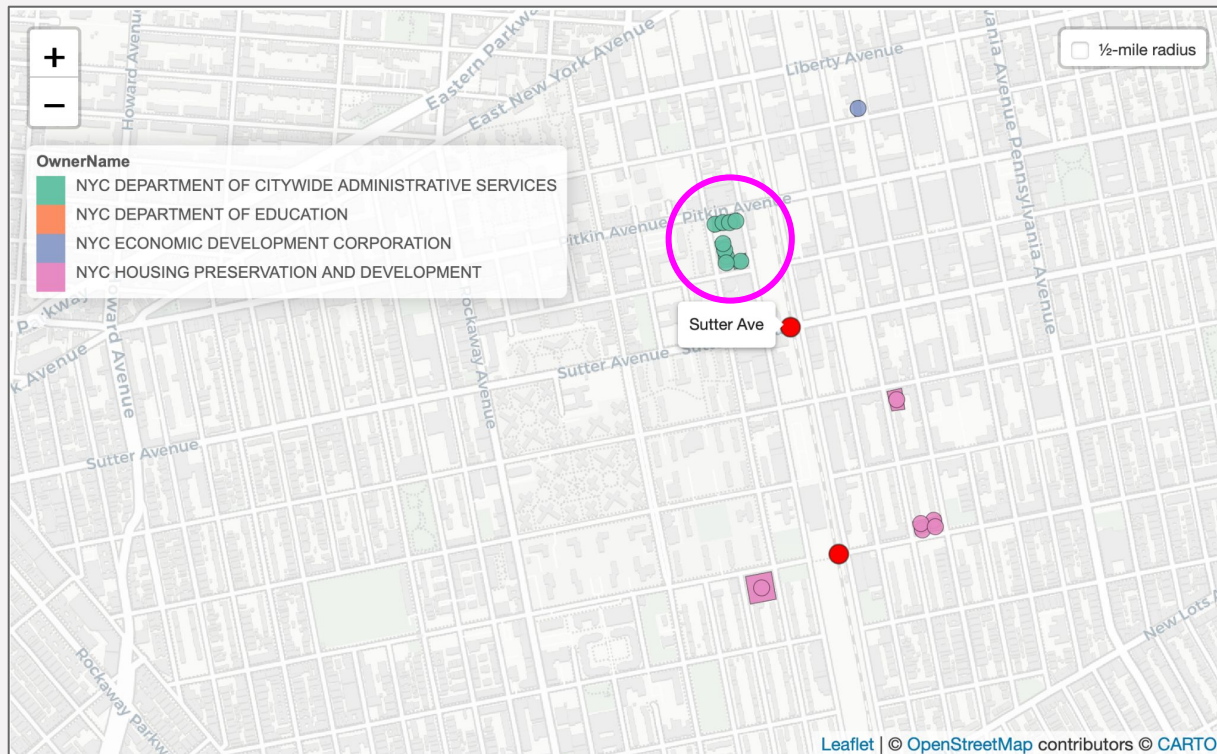


Zoning of Available Public Land Near IBX Stations



Vacant Government Parcels

Sutter Ave Station



Lot Size

40,000 sf

Current zoning

- M1 - 4
- Low Density
- Light manufacturing district

Vacant Government Parcels

Sutter Ave Station



Lot Size

40,000 sf

Current zoning - Low Density

- FAR (M1-4) - 1.25
- est. buildable SF - 50,000 sf
- est. units - 50 units
- est. height - 35' ~ 40'

Upzoning - Mid-High Density

- est. FAR (R8A) - 6
- est. buildable SF - 240,000 sf
- est. units - 235 units
- est. height - 80' ~ 120'

Policy Recommendations

- Upzone for more dense housing
 - **Won't change things overnight**
- Build affordable housing quickly
 - **Use government owned land to kickstart process**
 - Getting long time renters on path to homeownership
- Rent freeze to protect vulnerable people from displacement
 - **Protect existing homeowners from predatory deed theft**