

# Asian American Participation in Climate Adaptation Planning

## A Case Study of New York City's Heat Adaptation Strategies

Khue Tran<sup>1</sup>, Chaeri Kim<sup>2</sup>

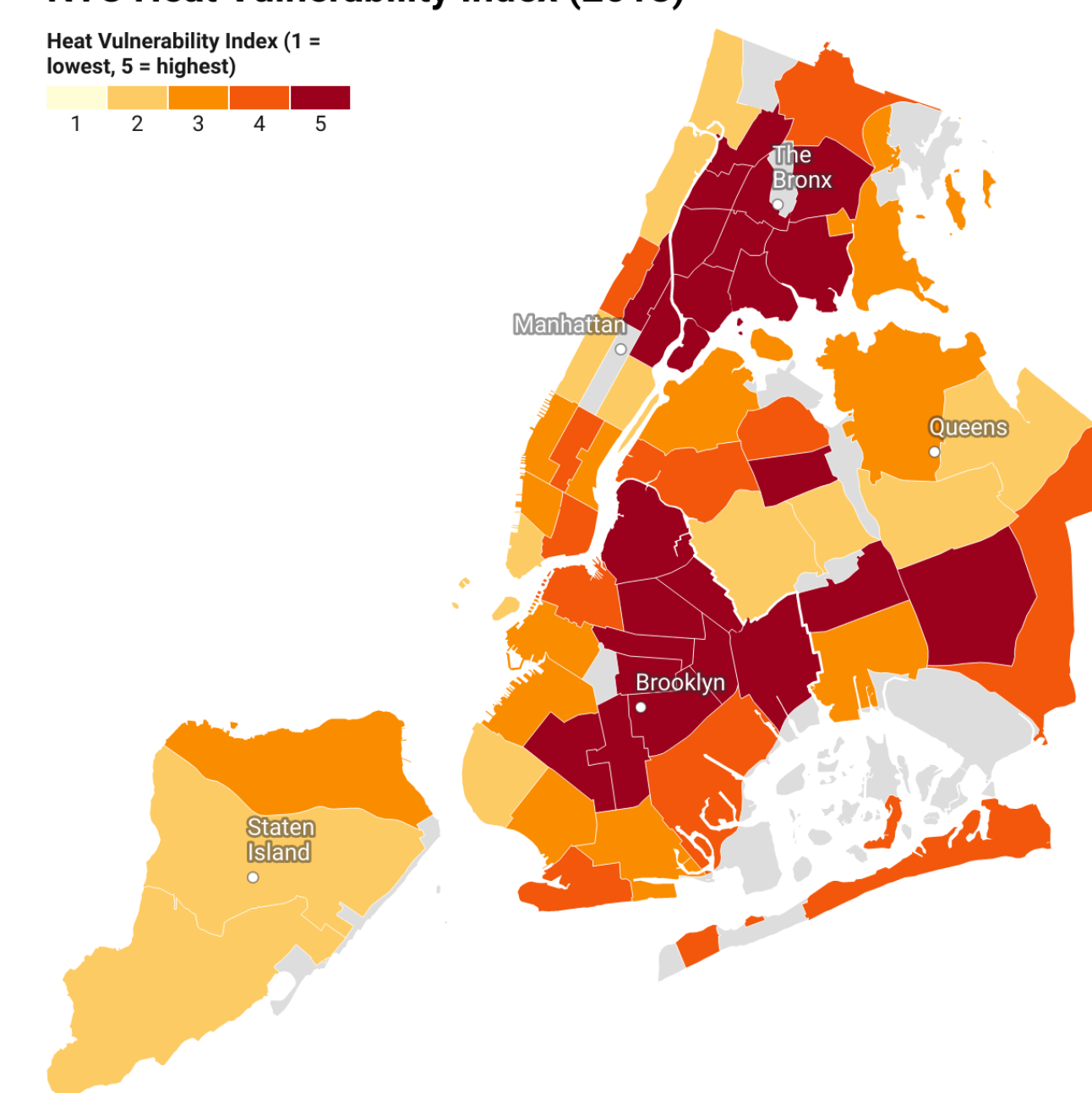
<sup>1</sup>Undergraduate student, University of Pennsylvania. <sup>2</sup>Postdoctoral researcher, Simon Fraser University



### Intro

Since the destruction caused by Hurricane Sandy in 2012, New York City's government has been drafting and implementing plans to adapt to rapidly changing climate conditions, led by the Mayor's Office of Climate and Environmental Justice. Despite the large populations of Asian Americans in New York City, they remain severely understudied by environmental researchers, directly impacting the amount of research-based environmental policy created to serve these communities.

NYC Heat Vulnerability Index (2018)



#### Asian Americans in NYC

- 30+ ethnic groups
- 50+ languages
- High numbers of immigrants & speakers with Limited English Proficiency (LEP) (Mayor's Office of Immigrant Affairs, 2021)

#### Factors Affecting Heat Vulnerability

- Urban heat island: urban areas that are hotter than their surroundings due to infrastructure and natural elements that absorb thermal radiation (Environmental Protection Agency, n.d.)
- Green coverage (vegetation), building height, imperviousness

Source: NYC Gov Environment and Health Data Portal - Created with Datawrapper

### Research Questions

- To what degree have Asian Americans in NYC been covered by and involved in the city's climate adaptation planning and policymaking in the last 10 years?
  - What initiatives are included in New York City's current climate adaptation plans from the last 10 years? Where are they being implemented?
  - How often are Asian American communities mentioned in the climate adaptation plans?
  - How often are Asian Americans present in the planning process?
- How do the areas covered by the plans geographically relate with the locations of Asian American communities in NYC?
  - Where are the Asian American communities in New York City located?
  - What percentage of Asian American communities are covered or left uncovered by the plans?

### Methodology

#### Case Study: NYC

- Climate adaptation plans created after Hurricane Sandy
- Highly segregated along racial & socioeconomic lines
- Large Asian American communities
- Detailed maps and data banks

#### Mixed-method

- Content analysis
  - Documents (climate adaptation planning, policy, scholarship)
  - Interviews (snowball sampling)
- Spatial analysis
  - Digital map analysis (GIS): climate adaptation projects, heat vulnerability, race & ethnicity demographics, income levels, etc.)

This project was made possible through the Penn IUR 2023 Urban Undergraduate Research Colloquium.

### Literature Review

#### Asian American Literature

- Racial triangulation: Asian Americans are racialized in relation to Black and white Americans (Kim, 1999)
  - Model minority stereotype & racial conflicts
- Impacts of immigration
  - Sociopolitical state of homeland can create scarcity mindsets and/or distrust in government
  - Can build community social capital based on "lived experience" and "historical memory" (Lee, 2016)
- Environmental activism
  - Few Asian American leaders present at First National POC Environmental Leadership Summit (Kim and Matsuoka, 2013)
  - Underrepresentation in modern movement (outside of CA)
- Current political attitudes
  - 2020 Asian American voter survey revealed that 53% of Asian Americans surveyed strongly believed in passing climate change legislation (AAPI Data, 2020)

**Key search terms:** Asian American, climate adaptation planning, community outreach, heat income, race

#### Environmental Literature

- How socioeconomic factors impacted risk perception and levels of response to extreme heat events
- Important factors: location, income, race/ethnicity, family/community networks

#### Policy & Planning Documents

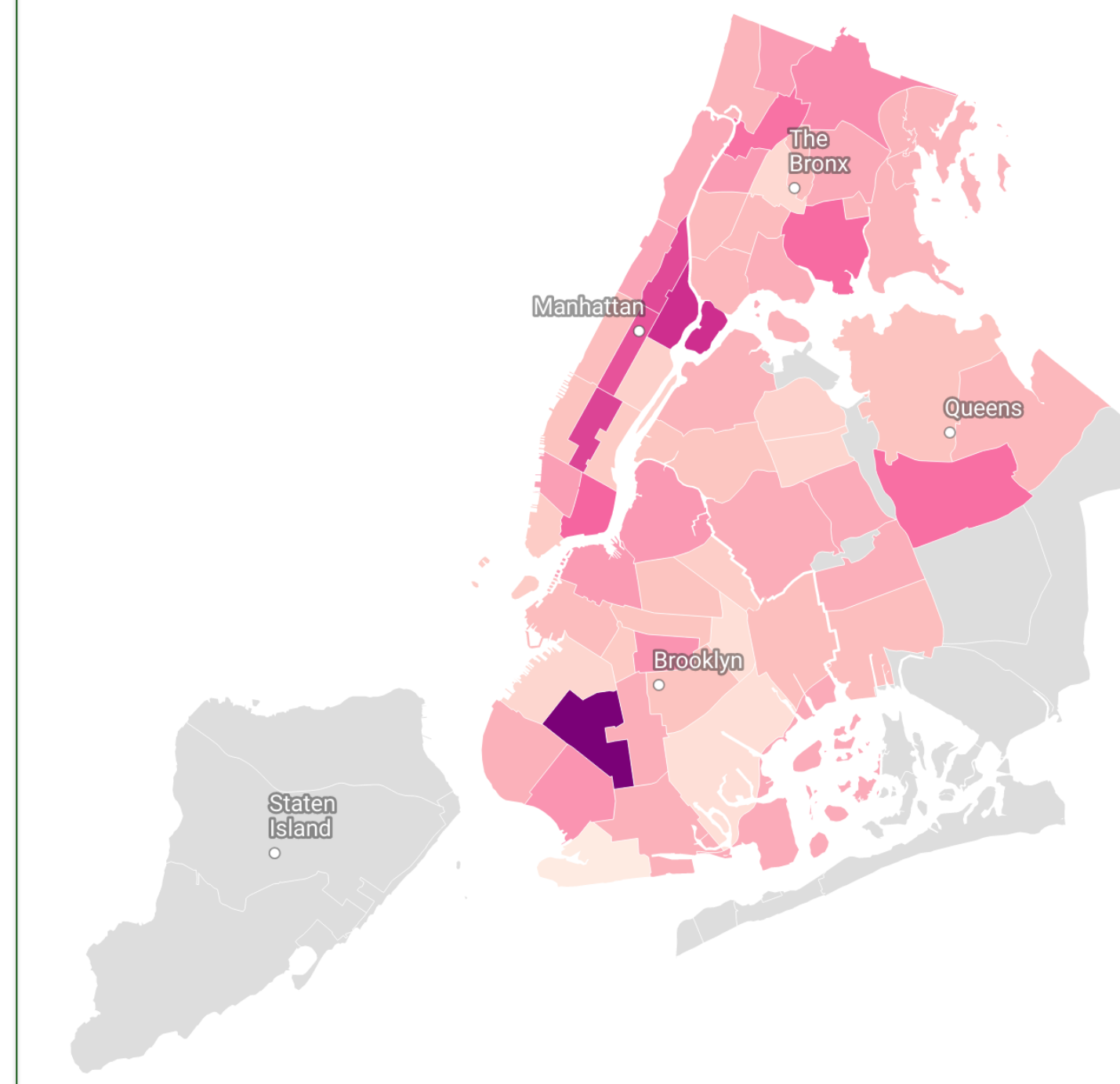
- Most common heat solutions: indoor A/C, outdoor cooling centers
  - Household income is a major barrier (cost of utilities)
- Environmental justice
  - Expand current programs to be more equitable and accessible
  - Target "vulnerable/minority/underserved" populations (low-income, Hispanic, Black)
- City government and nonprofits want to encourage local community involvement in the planning process (feedback and input)

### Policy Recommendations

- The Mayor's Office of Climate & Environmental Justice should establish closer working relationships with the Asian American community organizations in NYC
  - Create materials targeted to each Asian ethnic community that take into consideration: languages spoken, cultural values, immigration histories, locations of enclaves, etc.
- Government agencies or community organizations in NYC should collect more environmental data on Asian Americans that can inform future policies
  - Opinions on legislation, participation in environmental programs, health factors affected by heat, etc.
- Existing programs (such as the cooling centers) should be made more accessible to the common demographics of Asian American households (LEP, multigenerational, etc.)
  - Establish more in the community districts identified as having high percentages of Asian Americans in their population

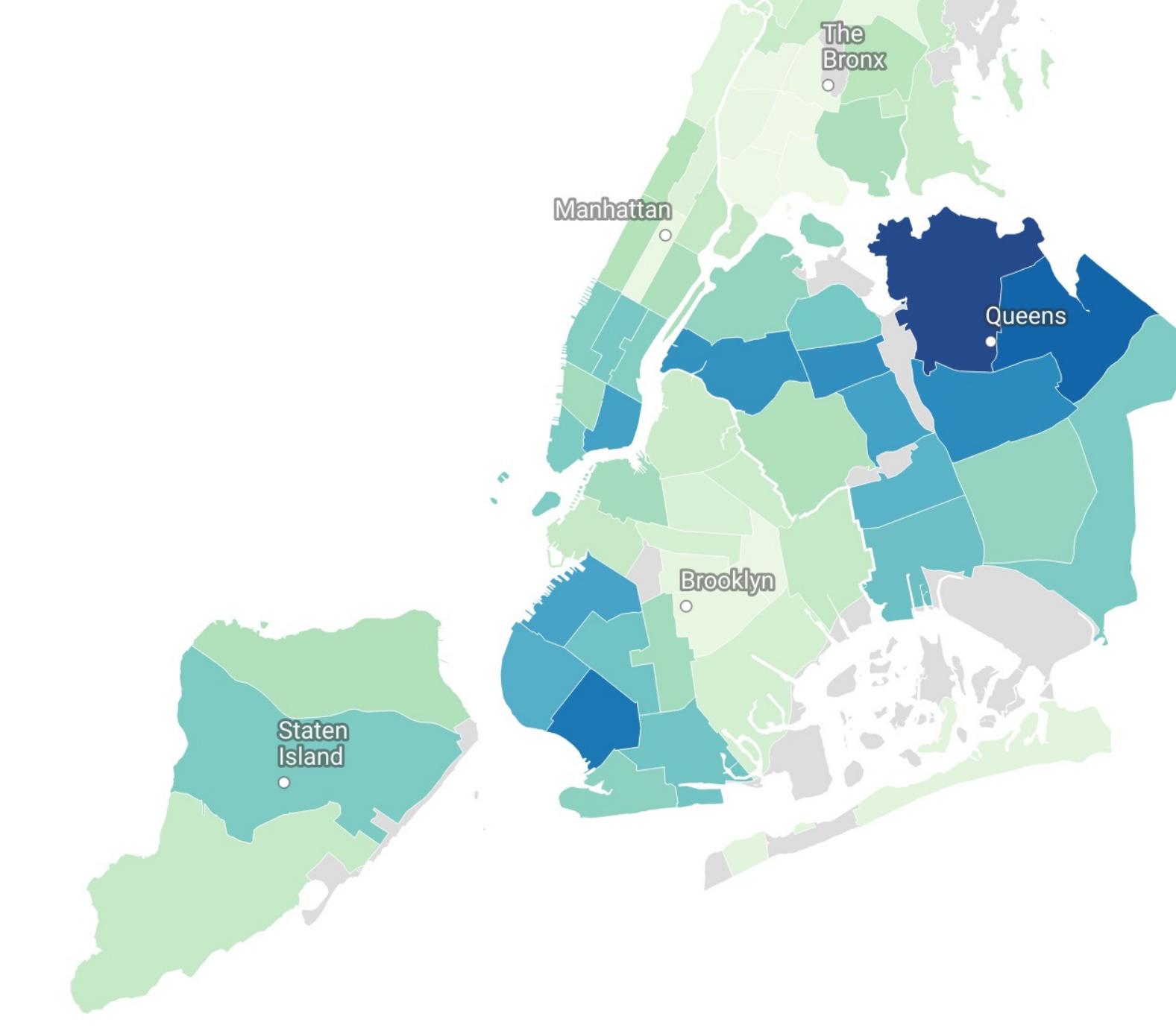
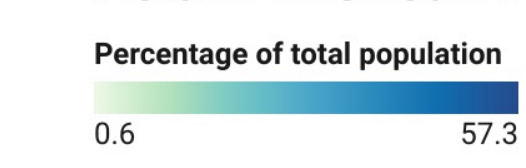
### Preliminary Findings

NYC Cooling Centers (2022)



Source: NYC Office of the Comptroller - Created with Datawrapper

Asian American Population in NYC (2020)



Source: New York City Decennial Census Data - Created with Datawrapper

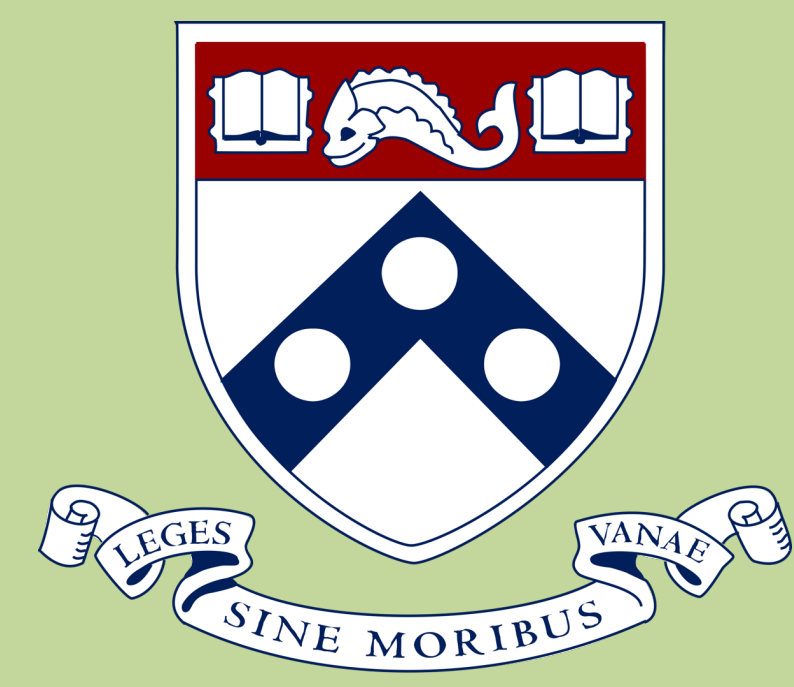
- There is a gap in environmental research on Asian Americans
  - Very few previous studies on how environmental issues affect Asian Americans
  - Found no current Asian American environmental organizations in NYC
- Target populations in NYC's planning documents were described in very broad categories
  - Ex: "vulnerable," "underserved," "communities of color"
- Very few of NYC's planning documents or policy agendas specifically mentioned Asian Americans
  - When Asian Americans were mentioned, there was much less data collected on them compared to other racial groups
- The Office of the NYC Comptroller found inequities across the cooling centers
  - Ones located in senior centers would be inaccessible to multigenerational Asian American households
  - Queens (the borough with one of the highest concentrations of Asian Americans) had the lowest number of cooling centers per 100,000 people

### Next Steps

- Conduct interviews with participants from three groups in NYC (city officials, environmental organizations, Asian American organizations)
- Site visits to target neighborhoods
- Code all interviews and analyze recurring themes
- Draft report for NYC government

### References

1. 2020 Asian American Voter Survey (AAVS). AAPI Data. (2020, September 15). <https://aapidata.com/2020-survey/>
2. Ballew, M., Maibach, E., Kotcher, J., Bergquist, P., Rosenthal, S., Marlon, J., & Leiserowitz, A. (2020, April 16). *Which racial/ethnic groups care most about climate change?* Yale Program on Climate Change Communication. <https://climatecommunication.yale.edu/publications/race-and-climate-change/>
3. Environmental Protection Agency. (n.d.). *Learn About Heat Islands*. EPA. <https://www.epa.gov/heatislands/learn-about-heat-islands>
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6. Mayor's Office of Immigrant Affairs. (2021). (rep.). *A Demographic Snapshot: NYC's Asian and Pacific Islander (API) Immigrant Population*. <https://www.nyc.gov/assets/immigrants/downloads/pdf/Fact-Sheet-NYCs-API-Immigrant-Population.pdf>.



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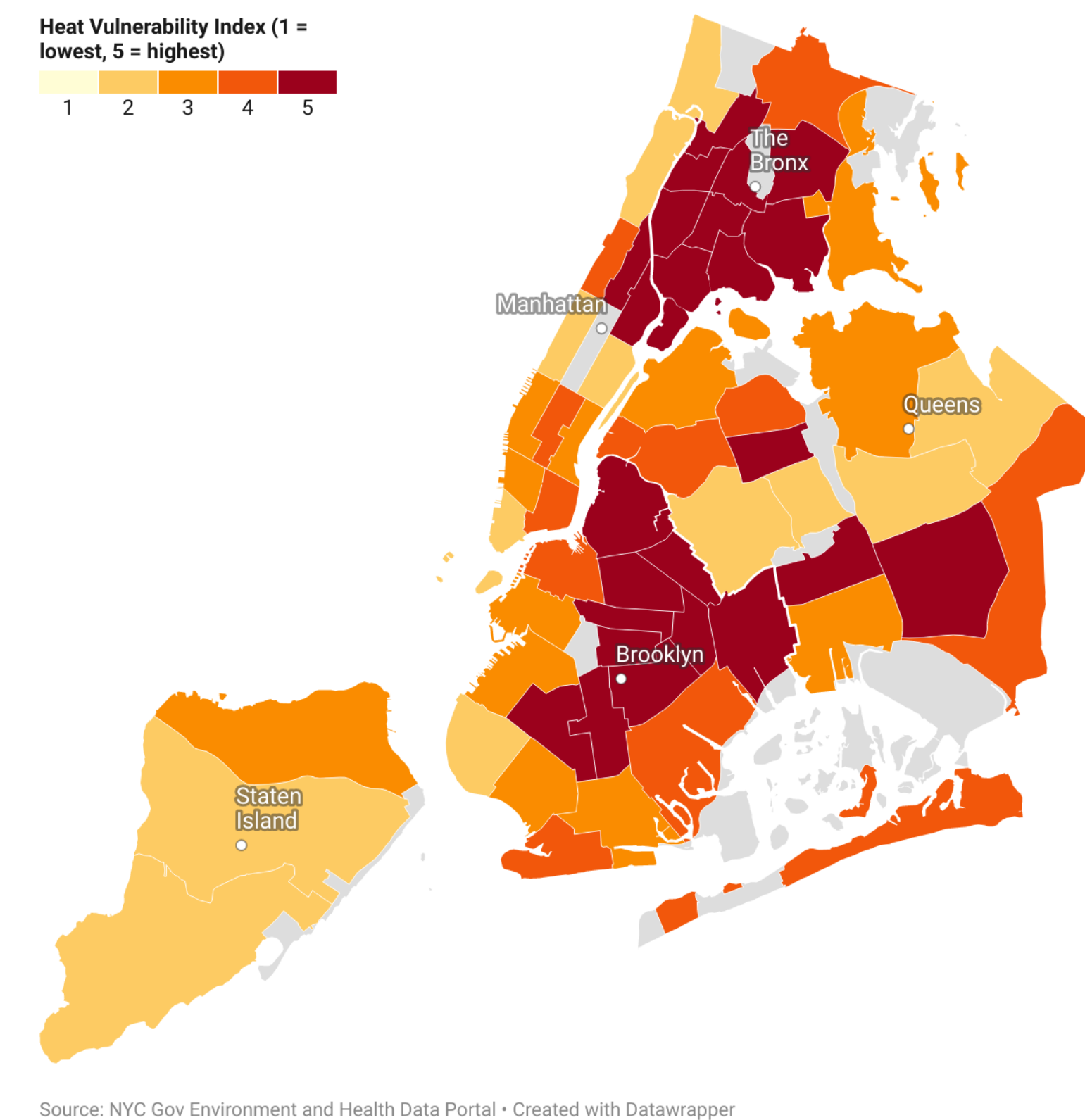
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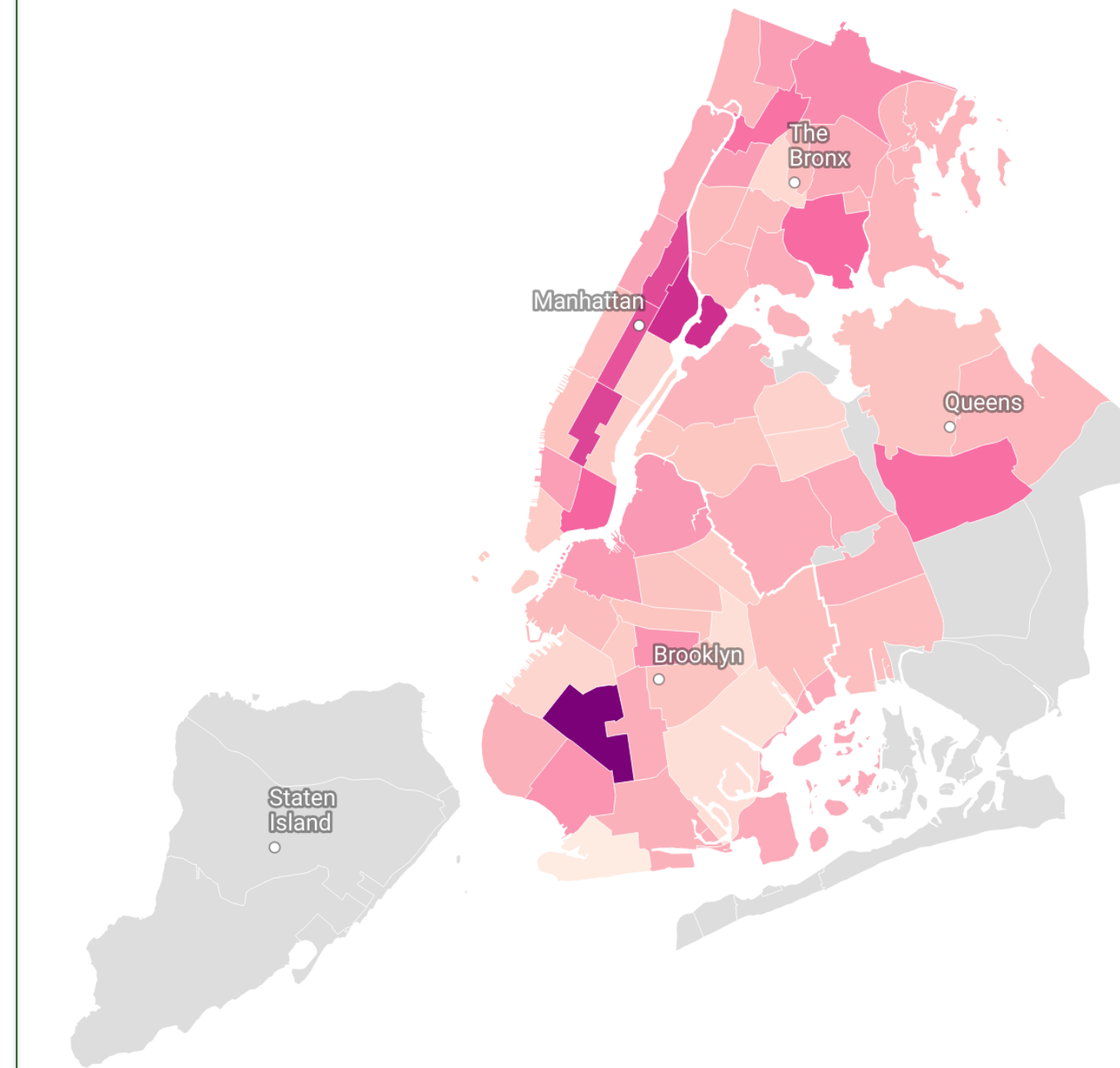
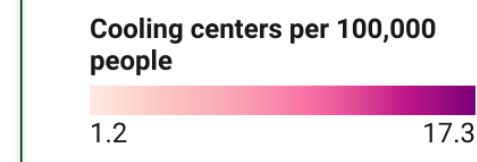
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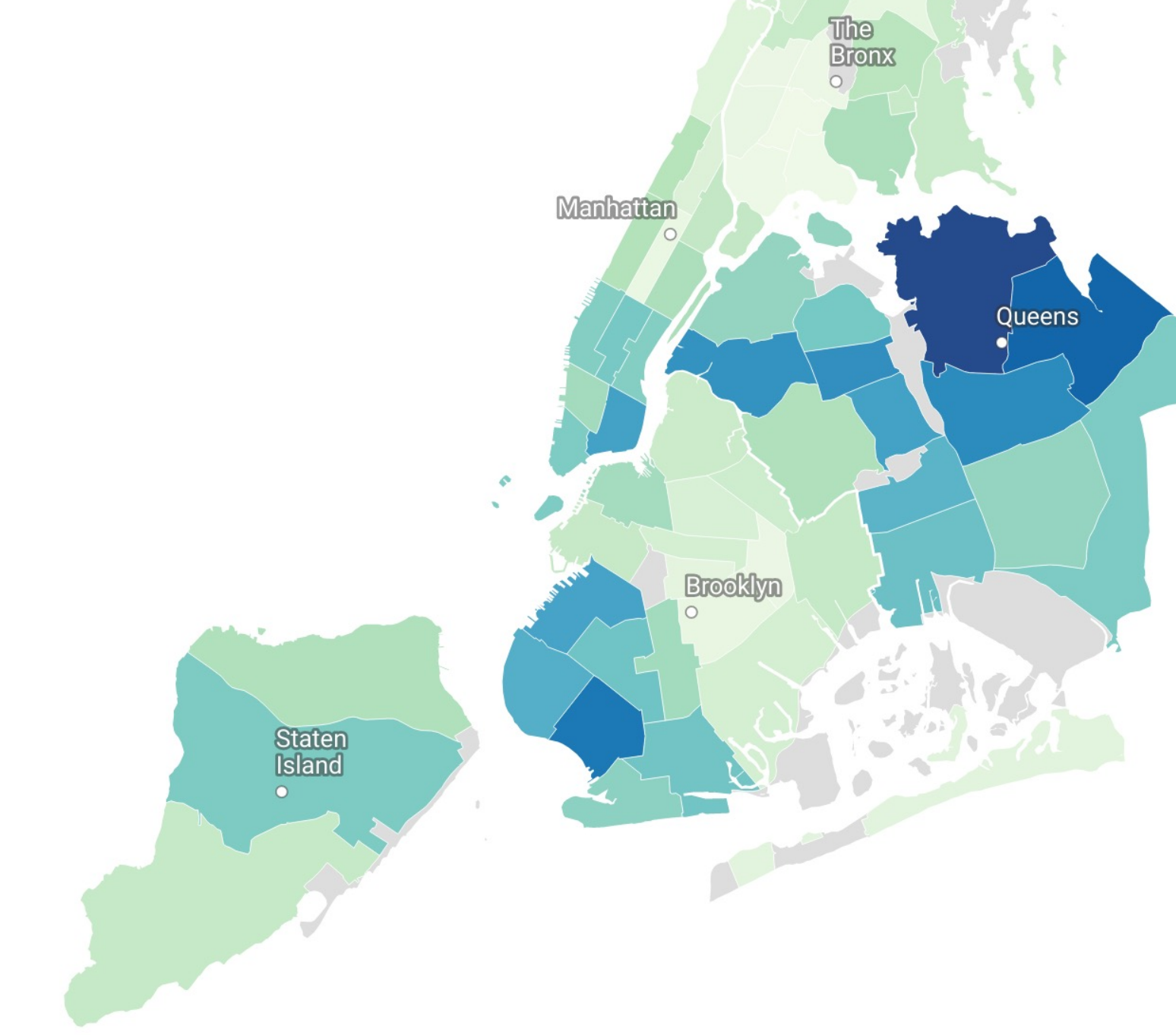
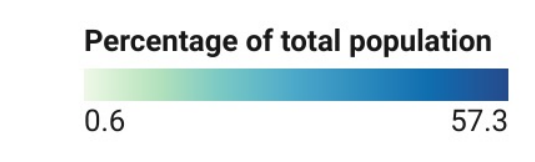
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