Scrum Report: (Week 4)

What have I worked on?

- We made progress on deliverable 1, using the data sources given to us to answer our 2 chosen questions. The results of that have been submitted on gradescope.

What will I be working on next?

- We will be presenting deliverable 1 in the lab this week. We will be working towards checkpoint A, where we do a deeper dive into the data and start working on the extension questions.

Have I run into any issues? Do I need help?

- Yes, we had difficulties with the nuances regarding the Air Quality data with specifics given late to us. We also had difficulties finding the right data split by neighborhoods and census tracts

Team Lead: Have I talked to the client recently? When are we meeting with them next?

- We have communicated with the TPM on slack regarding challenges we faced with the data and will continue to reach out to them if needed.

Individual Contribution:

Anulika Nnadi:
In this report, my primary role was to gather crucial data from the Census for every census tract in Suffolk County pertaining to race/ethnicity (ACS), area median income/income, and poverty. I encountered some challenges in filtering the questions and sought assistance from Michelle and went CS506 during office hours to overcome these obstacles. Using the Census and ACS data, I organized the data I found by constructing new data sets pertaining to income, race & ethnicity, and poverty rates for all neighborhoods in Suffolk County so it would be easier for my teammates to create graphs using that information. Additionally, I contributed to the report by creating graphs that illustrated the various demographic aspects of each neighborhood in Suffolk County. By analyzing these graphs and the data my team collected, I addressed question 2 to ensure the report's accuracy and comprehensiveness.

Ziliang Wang:
In this report, my responsibilities included collecting a shapefile of the 250-meter gridded population data with associated PPI scores, and using AirNow api to collect and merge 2023 year Boston area air quality data (PM2.5,PM 10, Ozone).In this step, the first challenge I faced was using api to get the data,after group discussion, we find out the efficient way to collect the data.After collect the data. After our group collected all the data, I started to answer question 1. I conducted an analysis on the air quality data for Boston in 2023, focusing on how proximity to transportation infrastructure like public transit stops and roads affects air quality.

Xinzhu Liang
In this report, I am responsible for grabbing the data from the AirNow API. I created a program to extract all air quality data for the Boston area from the API for 2023. After I gained the data, I found it hard to plot the data because I made the query based on zip codes, and the coordinates

it returned are the same. So I also included a “zip-to-coordinates” file online to make conversions to coordinates. After that, I could plot the air quality values across the map.

Hemanshu Bhojwani
I worked on processing the Transit Data, Social Vulnerability and Proximity to roads data sets. I also worked on merging the Transit Data, Social Vulnerability, and Air Quality datasets into a folium map. I created graphs related to all these datasets, including census data which can be seen in our github. I worked on processing the Air Quality data, merging them with datasets to create a summarized csv file by neighborhood. Manipulated data to find nearest air quality sensor and number of stops from each tract and then divided data by zip code/neighborhood. In the report I worked on the problem statement, data collection, metric definitions, PPI analysis in q1 and assisted with q2, and created the AQI graphs, Housing Density vs Population Density graph, MBTA stops by area, and PPI Graph.