Effectiveness of Public Transportation Across Cities

Rohit Kumar, PID - A53238243
Himanshu Gupta, PID-A53281369
Rajat Sethi, PID-A53285419
Mingkun Yin, PID-A53273637

April 26, 2019

1   Problem

Analysing the effectiveness of public transportation networks across cities in USA, Asia, and Europe. Across various parameters like, reduction in commuting time, cost effectiveness, reduction is emissions, reduction in road accidents.

2   Dataset

Publicly available datasets from American Public Transportation Association, Federal Transit Administration, and the Bureau of Transport Statistics.

- APTA dataset

- Federal Transit Administration dataset

- Bureau of Transport Statistics dataset

3   Proposed Solution and Real World Application

There are multiple modes of transportation available in various cities, like the New York City Subway and the Muni Metro in San Francisco. We seek to measure the impact of public transport in the following terms:

- Cost effectiveness from the perspective of city planners and users.

- Reduction in travel time.

- Reduction in road accidents/other casualties.

- Reduction in emissions.

- Effect on traffic congestions.

- Effect on car sales.

- Effect on the overall economy of the city.

4   Project Steps

Steps	Estimated Completion	Persons in charge
1. Data extraction and processing	One week	Rajat, Rohit, Himanshu, Mingkun
2. Data analysis and statistical modelling	Two weeks	Mingkun, Himanshu, Rohit, Rajat
3. Data visualization	One weeks	Rohit, Mingkun, Rajat, Himanshu

5   Github Repo

Link