

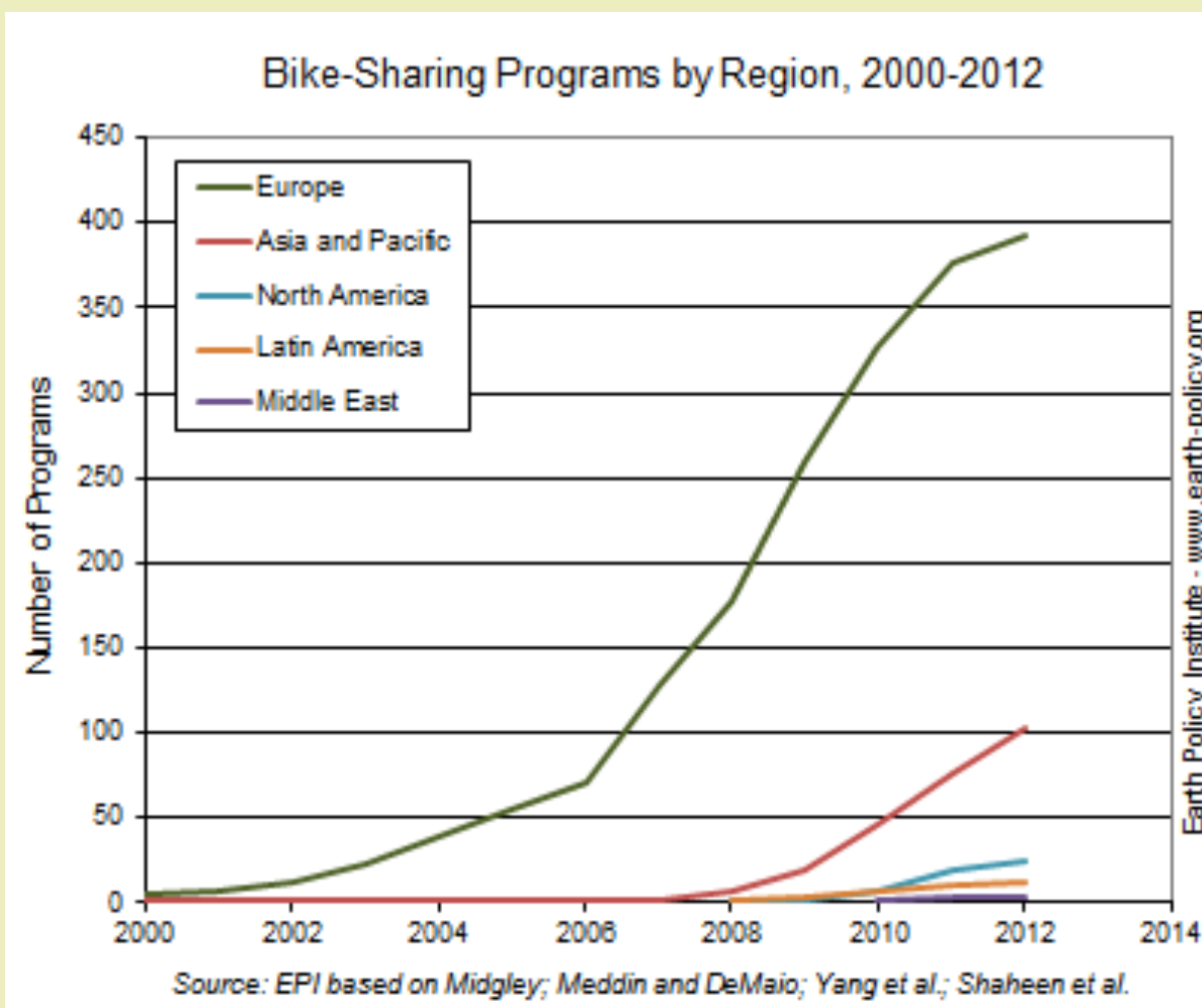
Where should I start a new bike-sharing station?

Motivation

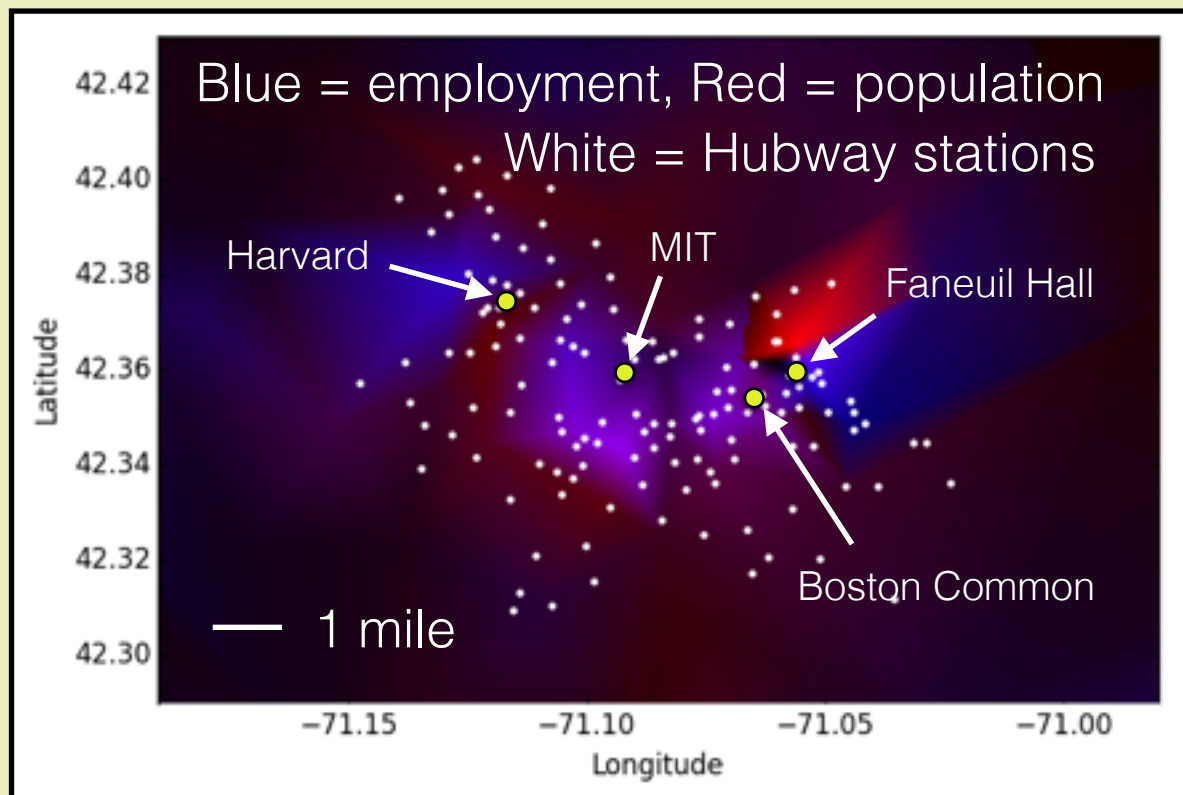
- Massive growth in past decade

Deliverables

- aimed at greater Boston area city managers, Hubway CEO
- web app
 - input: location under consideration for a new Hubway station (longitude, latitude)
 - output: predicted average number of rides per day from 2011 to 2013 for that location



Data



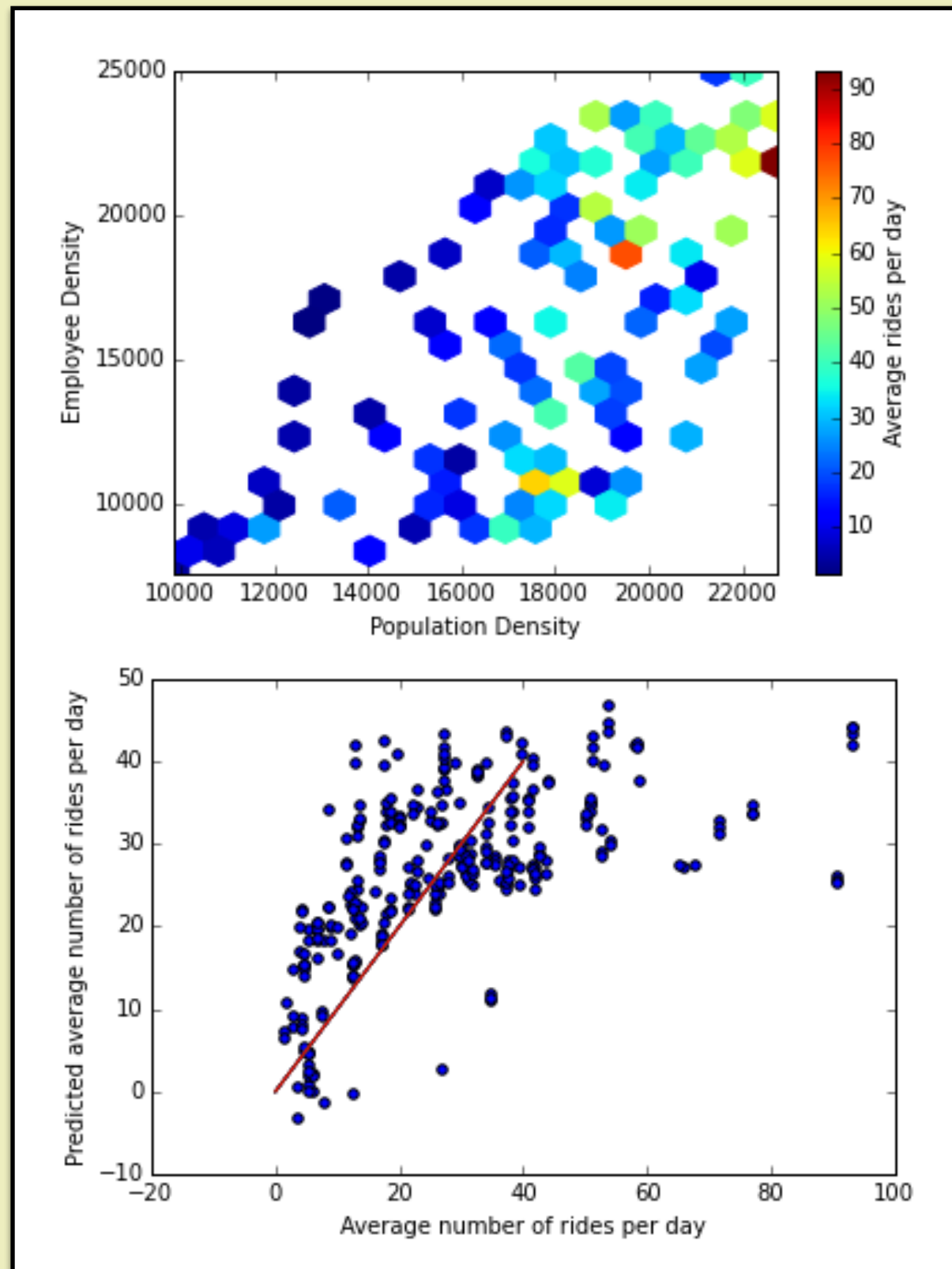
Hubway Data

- July 2011 through November 2013
- Timestamp, start & end station, and duration for each trip
- ~140 stations

Ancillary Data

- US Census: population density, employee density by zip code
- ~~Climate data: NOAA~~
- MBTA data: City of Boston?
- Location of recreational sites?
- Bike lane data: Google maps
- Ambulance data: NEMSIS

Algorithmic Approach



Features

- Average population density within 2 miles of lat/long
- Average employee density within 2 miles of lat/long
- *Proximity to T stop?*
- *Proximity to bus stop?*
- *Proximity to tourist destination?*

Machine Learning approach

- Use linear regression to predict growth trend of a single Hubway station
- Validate using standard cross-validation techniques