

Bad Landlord - Team 3

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Jack Ruan, Isabella Taboada, Li Xi

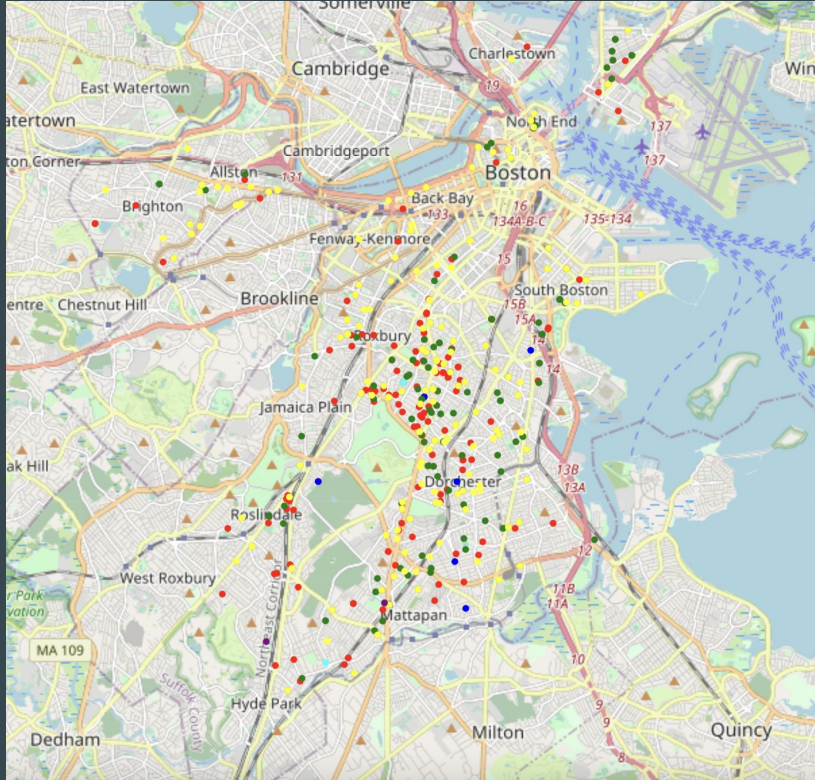
Project Motivations

- **(Project Goal)** Building a trackable system for property violations and a matrix to determine if a landlord is a 'bad landlord'
 - Come up with a watch list of the 'bad landlord' in Massachusetts
 - Figuring out what ordinance is needed to define the threshold for bad landlord list
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- **(Team Goal)** Focusing on buildings with violations on hazardous criterias (mold, heat, hot water, lead, asbestos etc.)
 - How does these violations affect vulnerable communities (Income Restricted Communities)?

Current Progress

- What have we done so far?
 - We have met with our clients and teammates on a weekly basis to discuss our project goal, problem, methods, and analysis results.
 - We have delivered preliminary analysis studying the frequency of hazardous violations in buildings and neighborhoods. We also investigated the connection between hazardous criteria violations and affordable housing..
- How did you divide up the work among the team?
 - Our team divided up the work by allocating the project problem's sub-problems to team members. We also contributed to the project by using different datasets, data analysis and visualization strategies.
- What data have you used?
 - Building and Property Violations Dataset and Violation Codes Dictionary
 - Property Listings | Boston Planning & Development Agency (pre-processed)
 - Income-Restricted Housing Inventory

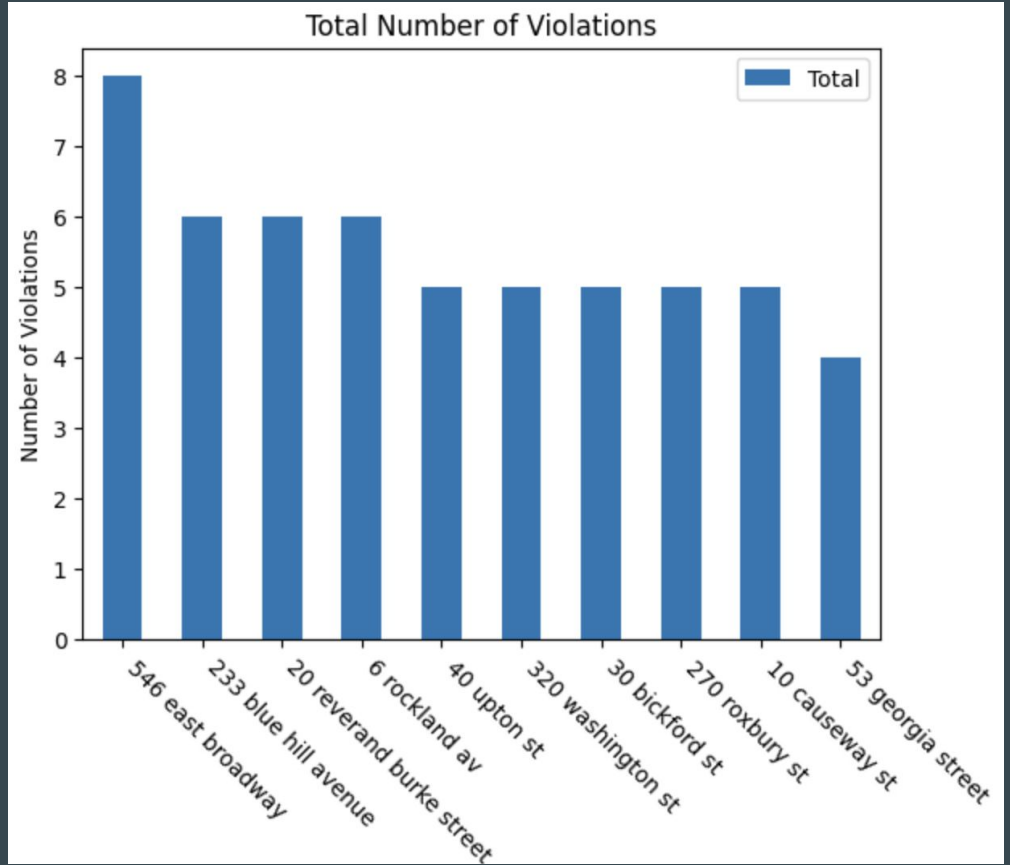
Early Observations



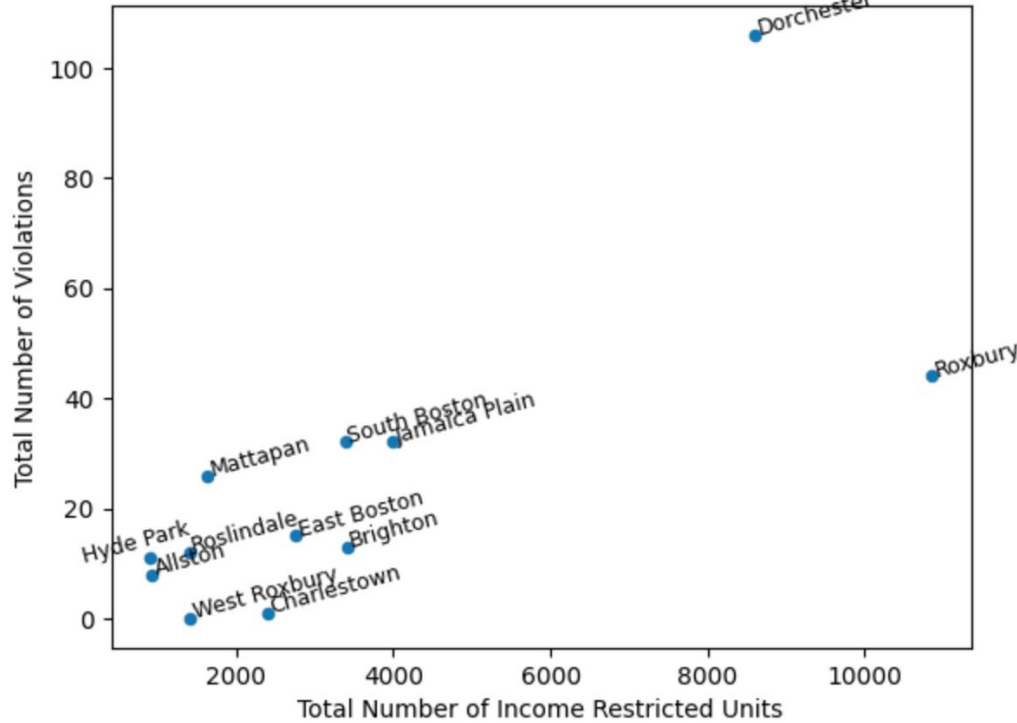
- Here we are look at 6 hazardous criteria violations
- Failure to provide hot water, heating facilities, and meet adequate temperature requirements are the most common

- Hot Water
- Potable Water
- Heating Facilities Required
- Temperature Requirements
- Asbestos Material
- Use of Lead Paint Prohibited

- This bar chart shows the 10 buildings with the greatest number of hazardous criteria violation

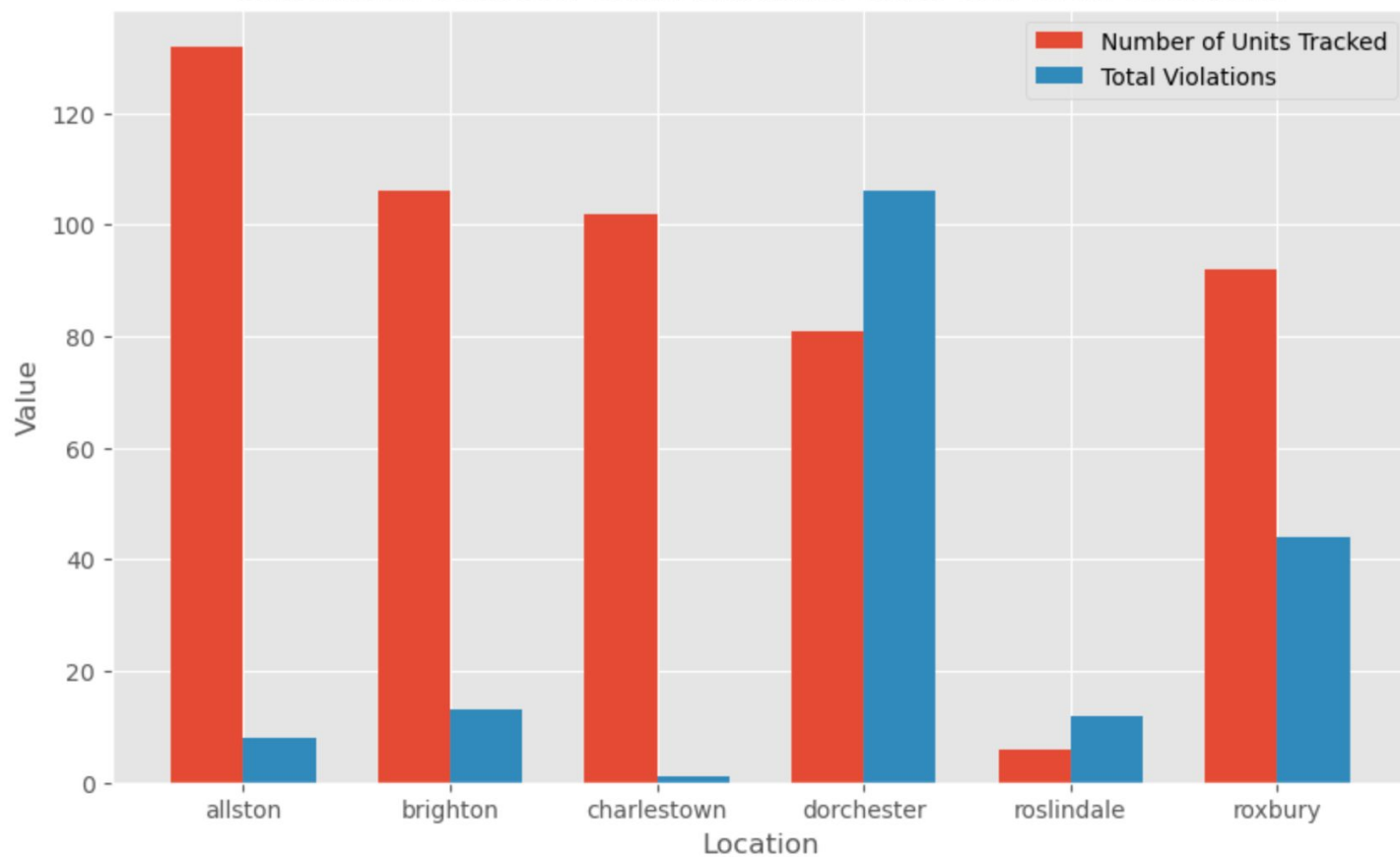


Number of Violations vs Number of Income Restricted Units by Neighborhood



- There is not a strong correlation between violations and income-restricted units
- Neighborhoods with the most income-restricted units have most violations

Correlation between Total Affordable Units and Total Violations



Challenges & Next Steps

- Lacking strict definition of a bad landlord and proposed city ordinance
 - Have assumed which violations count as 'hazardous criteria'
 - Have assumed the definition of a 'bad landlord' or scofflaw
 - Question: Should we follow one specific definition of a bad landlord or should we play around with multiple definitions of a bad landlord?
- Limited violations data
 - Most of the violations are concentrated around Boston area
 - Question: How are these violations collected?
 - Are they collected by each city in Massachusetts?
 - Are some cities more strict on violations than others?
- Large number of houses are owned by the city and the government
 - There are large account of houses owned by United States and City of Boston in the dataset
 - Proposed solution: Deleting houses owned by government entities
- Next Step:
 - Pick a specific definition of 'bad landlord' and run analysis to come up with a list of 'bad landlords'
 - Work on proposed extension if approves

Proposed Extension

- Looking at hazardous criteria violations with regards to population demographics
 - What patterns emerge across demographics? What patterns emerge within a certain violation type?
 - Are vulnerable communities more affected by certain hazardous conditions?
 - Where do these patterns occur and which communities are most impacted? Are certain communities impacted more by certain types of violations?
- We hope this extension will help to better define the spectrum of severity in regards to landlord violations
 - This will help to determine the “bad” landlords or scofflaws by giving more weight to more dangerous violations
 - Determine which landlords are impacting vulnerable populations

Thank You! Any Questions?