

**Affordable Housing Snapshot
(Housing Affordability Index) -
Team 2**

Deliverable 0

1. What is the project focus/overall goal?

This project entails creating an easy-to-understand dashboard exhibiting key information about the housing landscape of Boston City. As the proposal mentions, “One of Councilor Breadon’s missions is to increase the accessibility and transparency of the Boston planning, zoning, and development process.”

The proposal also mentions a few datasets that would come in handy while trying to explore the housing affordability index of Boston City.

The key objectives of this project are:

- Identifying factors that would be considered important while analyzing the housing affordability index of the city
- Finding out patterns and insights that might be representative of the housing affordability index of the city
- Analyzing a few key factors, such as the districts with the lowest rate of affordability over time, bad landlords, building violations, and environmental impact
- Creating an easy-to-understand Dashboard presenting different findings
- Creating a report highlighting different variables (or factors) affecting housing affordability in Councilor Breadon’s district as well as in Boston City
- Find out any other information that might be relevant (supporting or contradicting) to the findings and highlight them in the Dashboard as well as the Report
- Find more data that might be relevant to this project

2. What type of data will you collect or analyze?

The project comes with its set of datasets which will be used to achieve all the project deliverables. We will work on data such as the Land Parcel data containing over 2.1 million entries of land parcel boundaries and its associated taxpayer information, the AMI dataset containing information regarding the required income levels for a particular address, the Boston Affordable Housing Stock dataset, and the Income Restricted Properties dataset (which is similar to the AMI dataset as its name suggests). We will also extract information from reports and articles such as the Student Housing Trends Report, the 2019-2020 University Accountability Report, the 2020-21 University Accountability Report, and the 2021-22 University Accountability Report (if and when it is available).

We will also do our own research to find any data or informative articles/reports that could aid the purpose of this project. We will preprocess the data, extract the key variables pertaining to Housing Affordability in Boston city, perform data analysis and visualization to make the data more intelligible, and then proceed with our analysis using different Data Science strategies.

3. What are potential limitations of the project?

The following are a few limitations of this project:

- The information presented on the Dashboard might also be used by realtors and landlords (who rent their house(s)) to increase prices (misuse of information)
- If the data is erroneous or faulty, the insights we find would be unreliable.
- This project has multiple datasets (i.e., multiple sources of data), which might sometimes be a disadvantage
- In Data Science projects, there is always the threat of Data Privacy Violation.
- Sometimes, the data might be unreliable. We would have to run a preliminary analysis of the datasets provided before making a comment on the quality of the data.
- The datasets might also contain a bias. We will test the datasets for that as well.

4. Why is this project important? Why did you choose this project?

Transparency of any kind is essential for the effectiveness and efficiency of a government. This project embarks on making the Housing Affordability of Boston City available to any and all Boston residents. The project gives important insights into different aspects of housing in Boston with the goal of finding the Housing Affordability Index of different districts in the city.

This project entails serving the public, which is one of the biggest motivations for us to choose and work on this project. This project is really important because Boston city is one of the most expensive cities in the US, and affordable housing is scarce in Boston, and through this project, we would provide key information so that the public can choose affordable housing in Boston city.

5. What are your team's next steps? (include action items/tasks)

Our team's next steps will be as follows:

Work:

1. Study the data and perform a preliminary Analysis of the data
2. Preprocess and Analyze a randomly selected chunk of data
3. Collect a few early insights from all the datasets
4. Answer one or two key questions based on this preliminary analysis of the data
5. Draft a strategy for the next deliverable based on our early insights
6. List down the limitations of the data provided/collected, refine the scope of the project, and analyze the potential risks in completing the project

Logistics:

1. Schedule and Attend Kickoff Meeting (Completed - 10/06/22)
2. Schedule weekly meetings between the team lead and PM
3. Schedule bi-weekly meetings between the team lead, PM, and Client

4. Schedule weekly internal team meetings