

Evaluating Boston Restaurants: A Unified Score Based on Transportation, Crime, and Cleanliness Metrics

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Introduction

Goal: Create a metric for evaluating restaurants that reflects non-traditional metrics (i.e. not food quality, price, restaurant experience). We were inspired by variety of extra useful information in online restaurant reviews. Often this information is ignored in favor of food and taste metrics when rating restaurants. Food and taste are important, but sometimes it is the little things that can make or break a restaurant experience. Our project aims to quantify a few of these.

Datasets

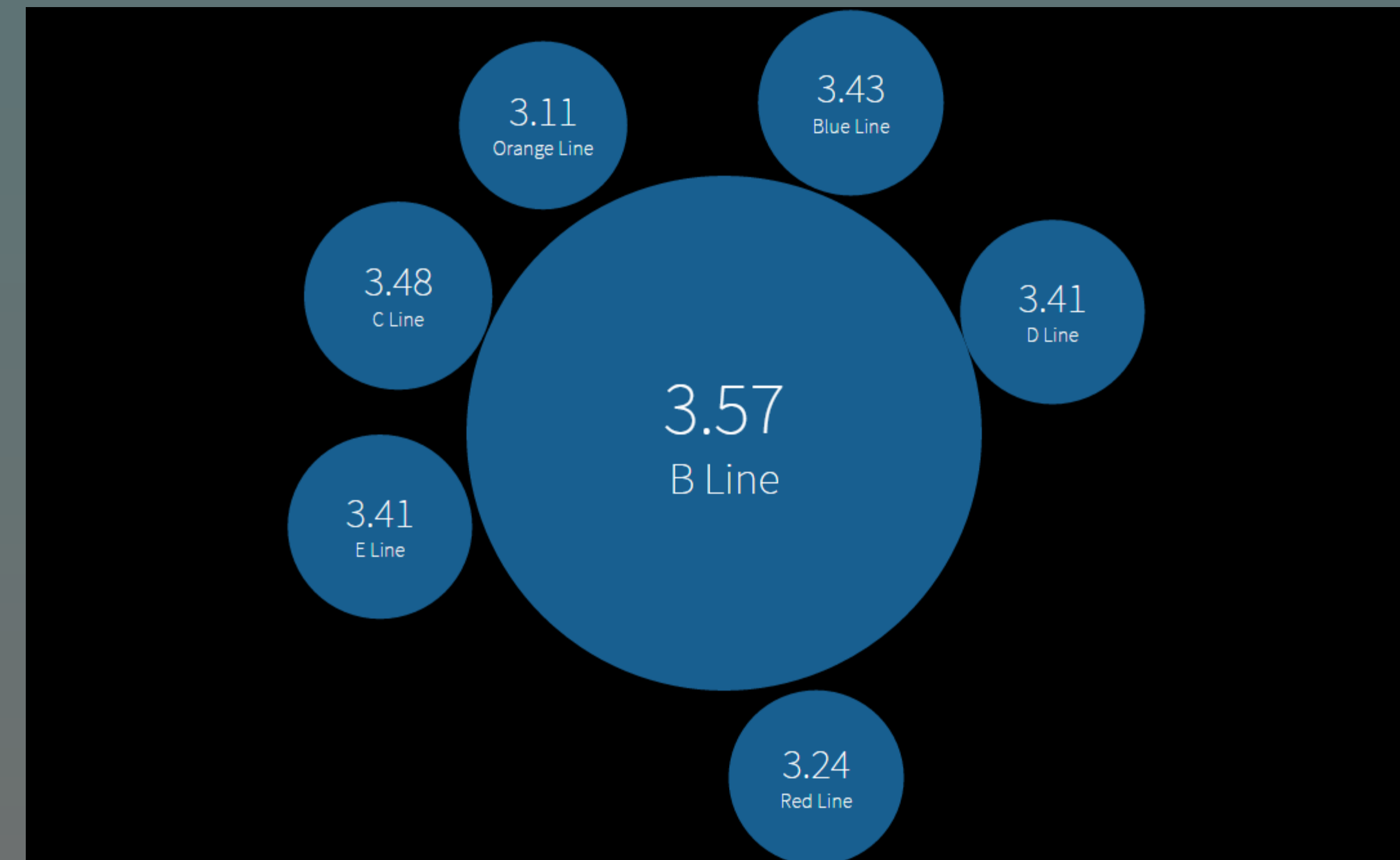
- 311 Reports – Rodent Activity¹
- Food Establishment Inspections¹
- Crime Incident Reports¹
- Active Food Establishment Licenses¹
- Liquor Licenses¹
- MBTA Subway Stop Locations²

¹Dataset obtained from City of Boston Data Portal

²Dataset obtained from classmates



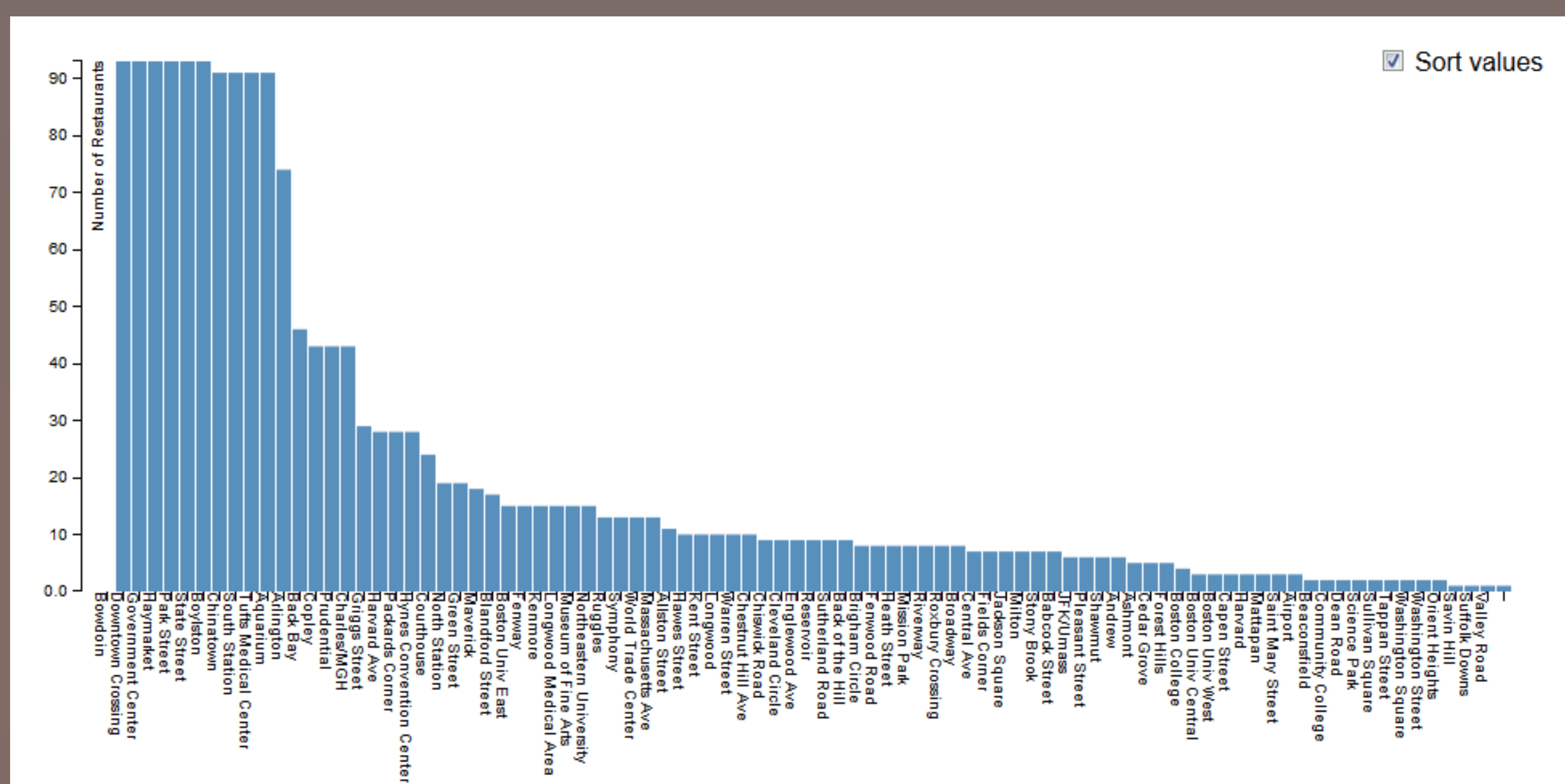
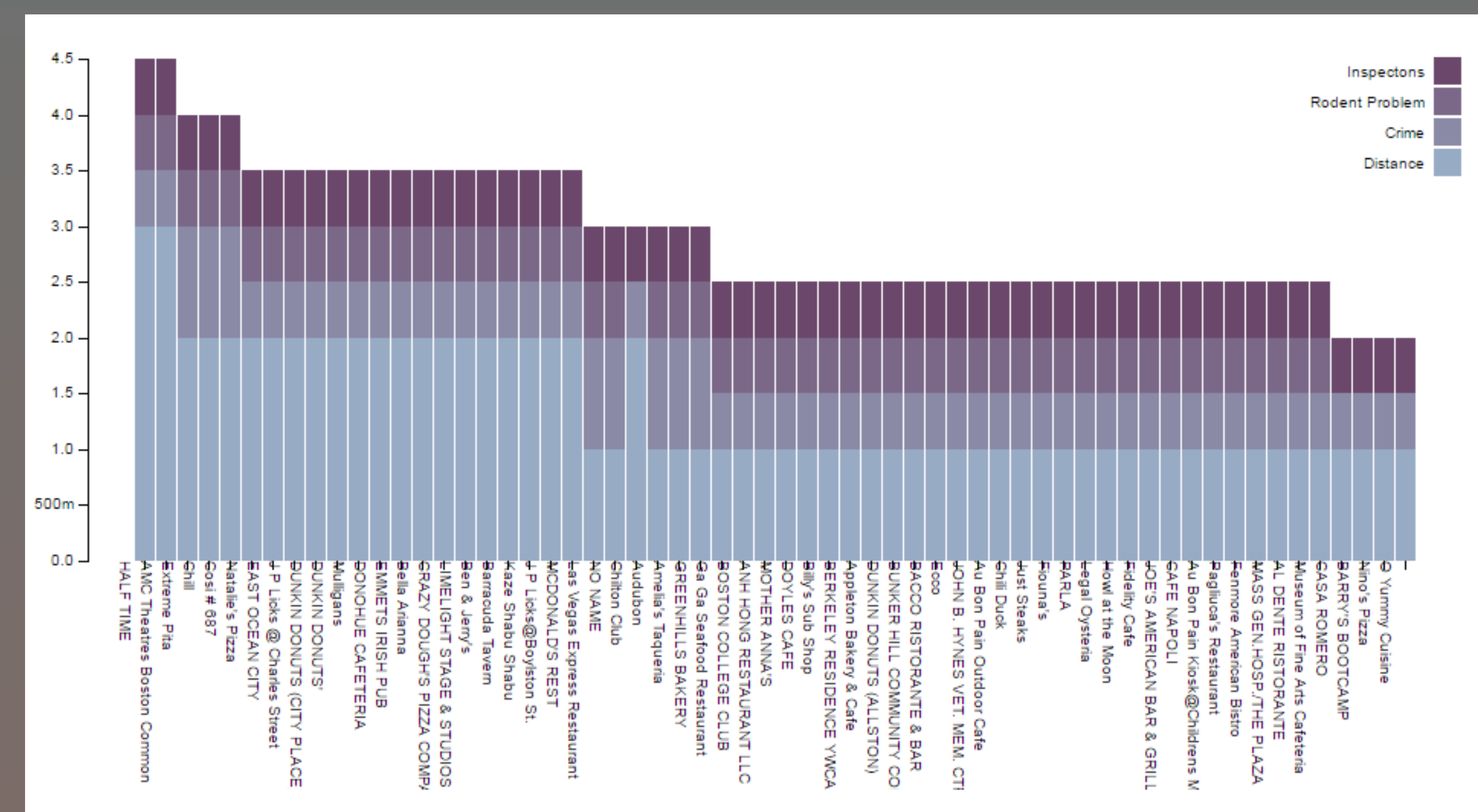
Visualizations



Bubble Chart showing the average restaurant rating for each T line. Currently the Green Line B Branch is in focus, but clicking on the various bubbles will bring other lines into focus in the center of the graph.

Stacked Bar Chart showing the ratings for selected restaurants in Boston. Restaurant scores are broken into:

- Inspections: whether the restaurant failed a recent inspection
- Rodent Problem: whether rats have been reported at or near the restaurant
- Distance: the distance of the closest T stop
- Crime: the number of vehicle larcenies that occurred near the restaurant



Sortable Bar Chart displaying number of restaurants at each T stop. Checking the box in the corner sorts by number of restaurants, while leaving it unchecked sorts the T stops in alphabetical order.

Scoring Metric

- **0.5 pts.:** Cleanliness – awarded if a restaurant has had no incidents of rodents at or near its location
 - **0.5 pts.:** Code Violations – awarded if the restaurant has not failed recent inspections
 - **3 pts:** Accessibility – based on distance to nearest T stop
 - **1pts.:** Safety – based on number of vehicle larcenies that occurred nearby
- Accessibility + Safety) + Cleanliness + Code Violations = Restaurant Score**
Max = 5 pts.

Takeaways

- 5 selected restaurants scored at or above 4 points.
- 4 selected Restaurants scored at or below 2 points.
- Green line B Branch was the T line with the highest average restaurant score

Conclusions

This analysis leaves much unsaid, but helps illuminate some often overlooked but important parts of a restaurant experience that contribute to a positive or negative view of a restaurant.