



Expanding In The Restaurant Industry

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Introduction



Motivation

A restaurant chain wants to expand

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Goal

Prescribe the best decisions to make
to increase customers/revenue

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Objectives

Obtain data
Create visualizations
Interpret information
Reach conclusion

Data

- ◆ Open Restaurant Applications
 - ◆ Geographic
 - ◆ Outdoor type (Sidewalk/street)
 - ◆ Seating area
 - ◆ Alcohol license
- ◆ MenuStat
 - ◆ Food categories
 - ◆ Nutrition

NYC OpenData

The screenshot shows the NYC OpenData website. At the top, there's a navigation bar with the NYC OpenData logo, a search bar, and links for Home, Data, About, Learn, Contact Us, Blog, and Sign In. The main content area has a large blue header with the text "Open Data for All New Yorkers". Below this, a paragraph explains that Open Data is free public data published by New York City agencies and other partners, and encourages users to share their work during Open Data Week 2021 or sign up for the NYC Open Data mailing list. A search bar is provided with the placeholder text "Search Open Data for things like 311, Buildings, Crime". On the right side, there's a graphic titled "Open Data for All 2020 Report" with the subtitle "OPEN DATA CONNECTING NEW YORKERS". The graphic features a colorful illustration of diverse people interacting with data, including one person in a wheelchair. Below the graphic, there's a link to "Learn about the next decade of NYC Open Data, and read our 2020 Report".

NYC OpenData

Home Data About Learn Contact Us Blog Sign In

Open Data for All New Yorkers

Open Data is free public data published by New York City agencies and other partners. **Share your work during Open Data Week 2021** or **sign up for the NYC Open Data mailing list** to learn about training opportunities and upcoming events.

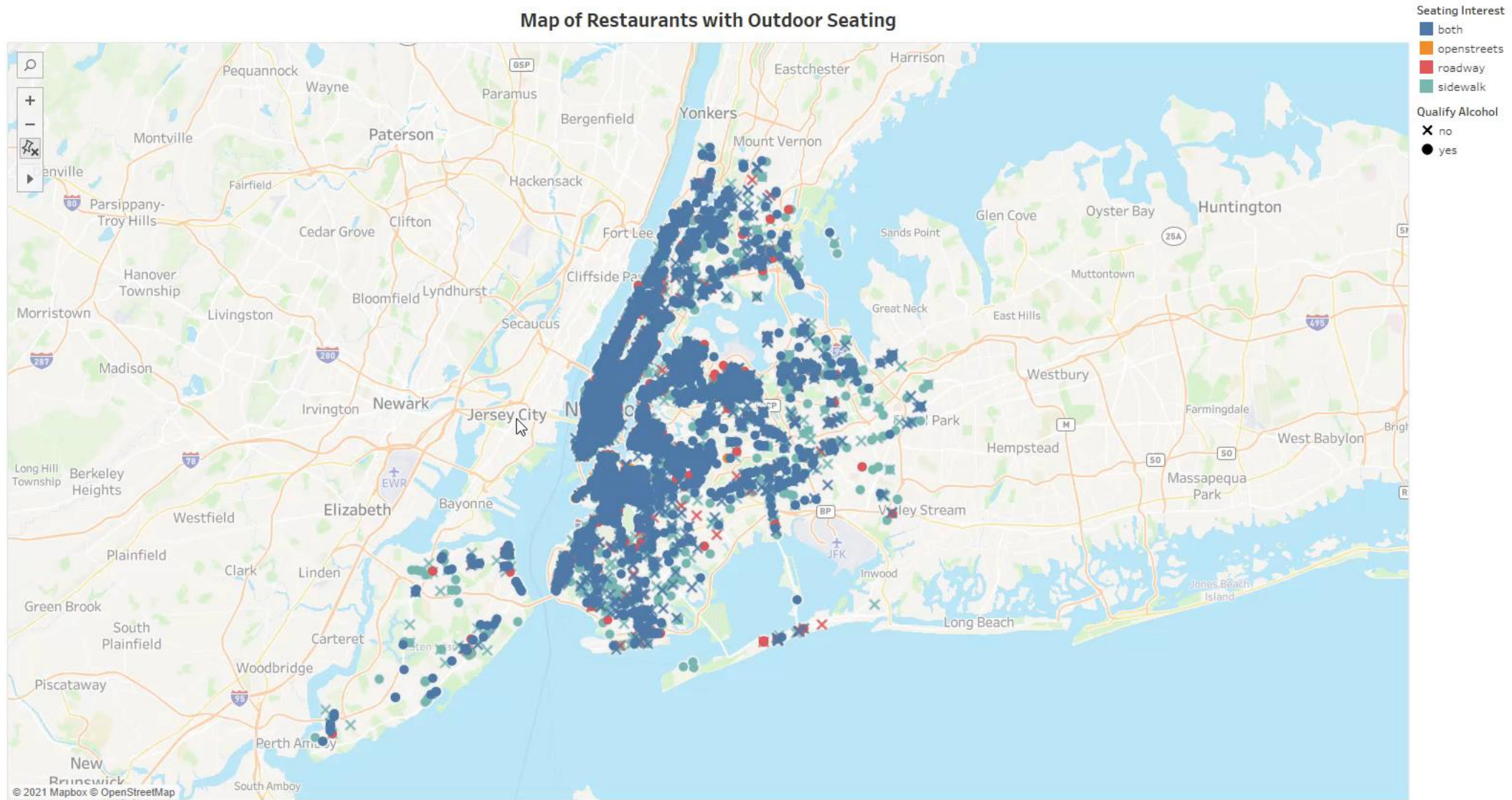
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Open Data for All 2020 Report
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Results

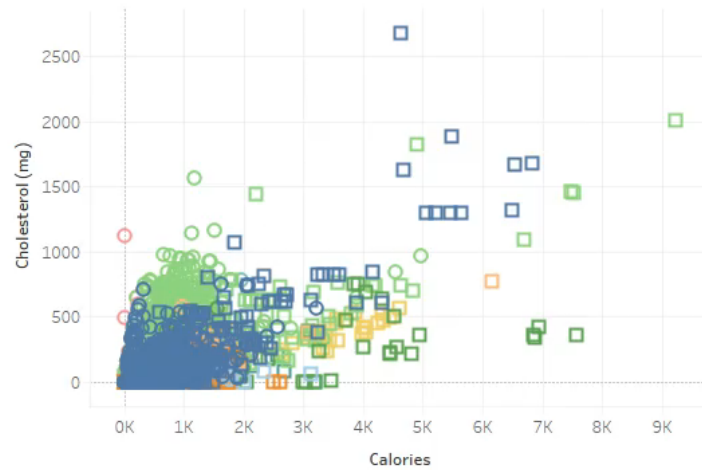
Map of Restaurants with Outdoor Seating



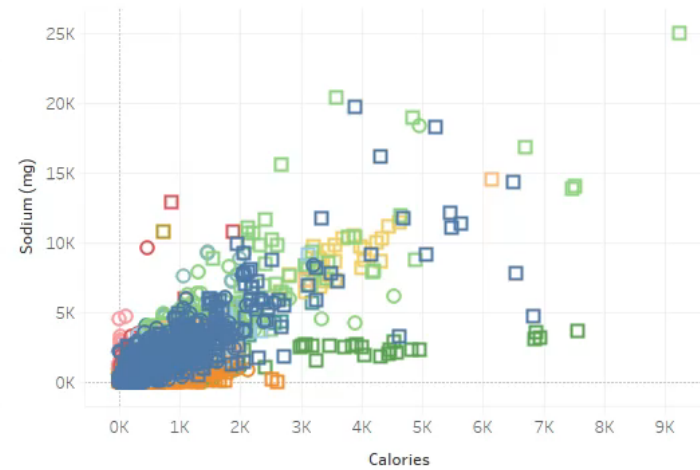
Results

Comparison of Calories and Nutrition of Food Categories

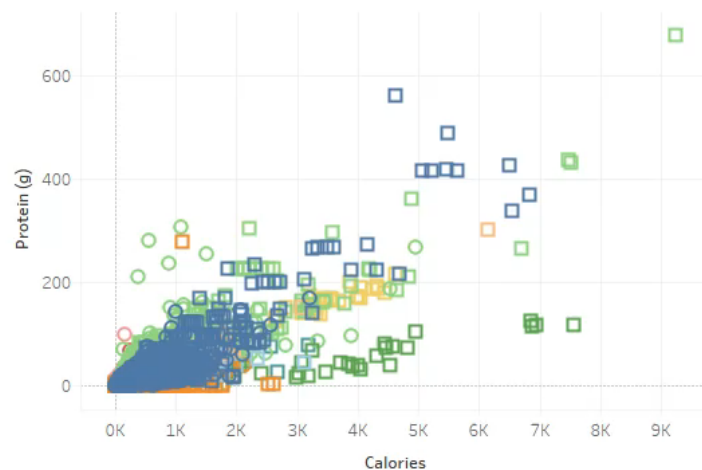
Calories vs. Cholesterol



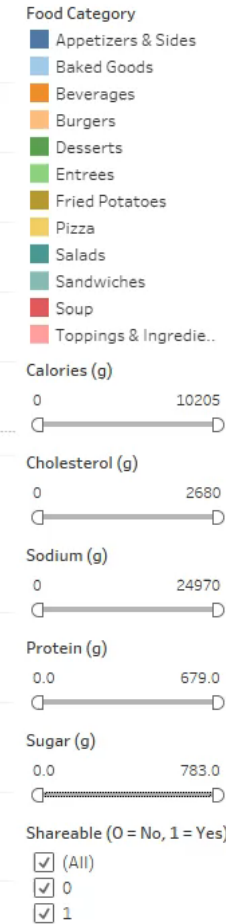
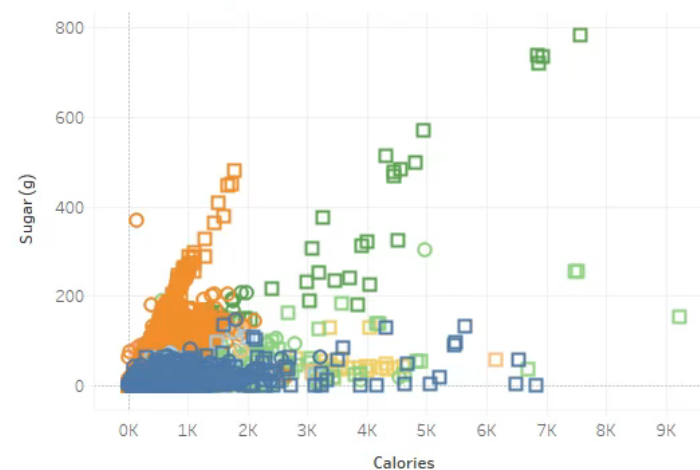
Calories vs. Sodium



Calories vs. Protein



Calories vs. Sugar



Conclusions



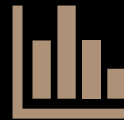
Restaurants
clustering

Risk:
Competition
Reward:
Visibility



Qualities of
different food
categories

Are people
aware?
Do they care?



More data will be useful

Future Work



Acquire additional data

Web scraping

Relationship between location & menu

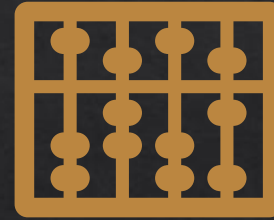
Future Work



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Relationship between location & menu



Create prescriptive model

Locations, menu items

New customers vs. revenue

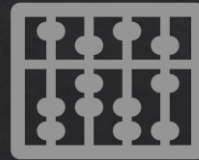
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Expand scope

Function in any area (w/ map
data)

Use for other industry

Appendix

Sources

- ◆ NYC OpenData, opendata.cityofnewyork.us
 - ◆ *Open Restaurant Applications* dataset
- ◆ *MenuStat*, New York City Department of Health and Mental Hygiene, menustat.org

Tools Used

- ◆ Microsoft Excel
- ◆ Tableau