WHAT'S HEALTHY AND A FOOTLONG?

London **Business** School

Empower Consumers to Make Healthy Choices and Promote Diversity and Inclusion at Fast Food Restaurants

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INTRODUCTION -

Statement of Purpose

To create intuitive visualizations that will allow all consumers, including diverse eaters such as vegetarians and health-conscious individuals, to make quick and informative choices about their meals

Methodology In order to narrate our story, we divide our presentation into two parts

and a total of 5 plots and lists:

- 1: Healthiness assessment of each restaurant and their menu items - Calorie distribution graph for each restaurant
- Distribution of macro-nutrient balance scores for each menu item - Rankings of menu items with the best and worst balance scores
- Clustering menu items based on their various features (beyond the macros)
- 2: Providing information for diverse consumers (vegetarians and pescetarians)
- Key word analysis of menu items using word cloud
- Finding which restaurant is more vegetarian and or pescetarian

friendly

Data Cleaning

We utilized 4 separate data sets to create our visualizations:

- Data set 1: Fast food menu items and their nutritional values from tidytuesday in 2018 in the United States • Data set 2: Fast food restaurants and their locations from Kaggle in
- 2018 in the United States
- Data set 3: US State names and their abbreviations** Data set 4: US State population sizes**

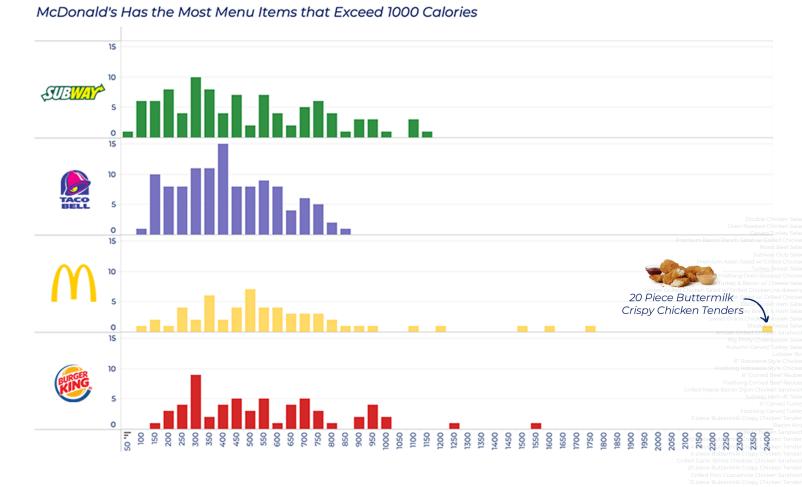
King, and Taco Bell. We created a new variable called Balance Score by finding a score based on ideal macronutrient ratios for a meal. **removed from final report due to limited observations

We only focused on top 4 fast-food chains: McDonald's, Subway, Burger

ANALYSIS -

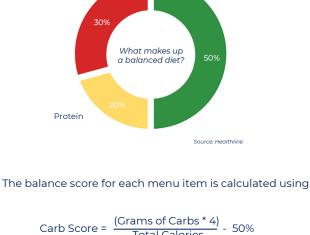
1. Caloric Distribution

What is the distribution of calories for each restaurant?



2. Macronutrient Balance Scores

What is the distribution of the macro-nutrient balance scores? Which restaurants have the most balanced menu items?

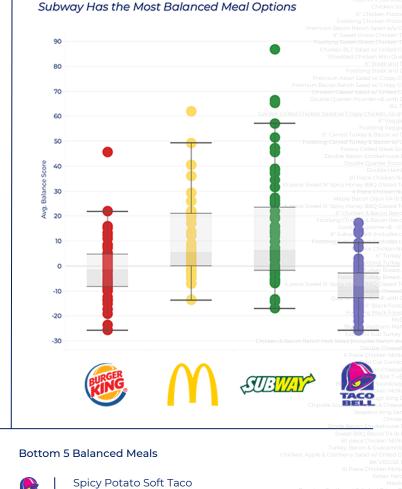


(Grams of Fat * 9) - 30%

Total Calories

(Grams of Protein * 4) - 20% Protein Score = Total Calories Balance Score = Protein Score - (Carb Score + Fat Score)

Double Chicken Salad SUB<mark>WAY</mark> Oven Roasted Chicken Salad SUB<mark>WAY</mark>



SUB<mark>WAY</mark> Carved Turkey Salad

Top 5 Balanced Meals



Roast Beef Salad

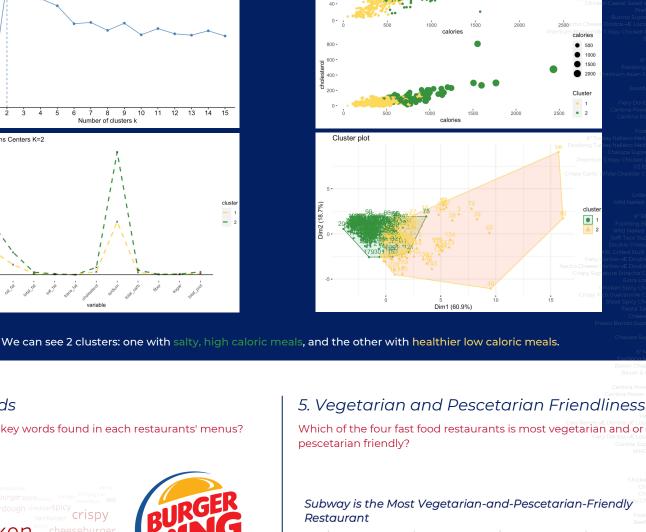


Side Caesar Salad with Dressing

Triple Layer Nachos

Optimal number of clusters





whopper sandwichgardenne double saladking rodeo to be be cheese



yer crunchwrap xxl chalupacantina grilled crunch taco



10

5.00 3.33





DISCUSSION AND CRITIQUE -

Subway has the most health-conscious menu items Machine Learning naturally clumps meals together based on healthy

Key Findings

- and unhealthy factors (can be used to replace balance scores) Chicken is the most common ingredient overall Subway is the most inclusive restaurant
- Critiques
- Met problems when creating density plots with tableau Should include more restaurants and do more analysis More updated and comprehensive data Dig into the data from more varied perspectives

