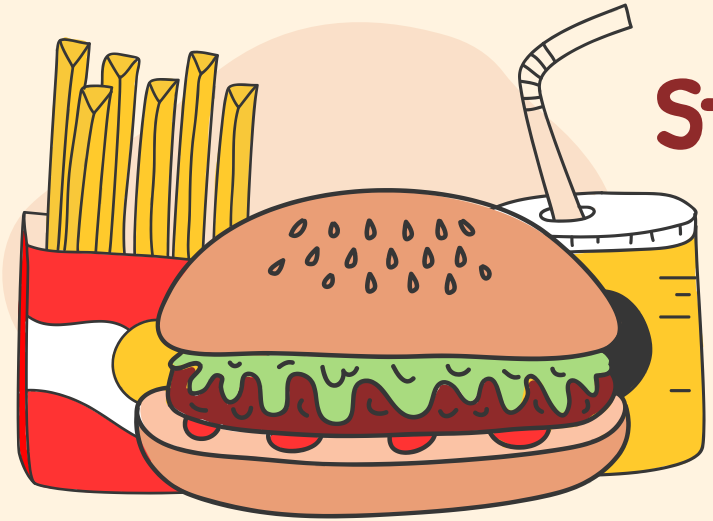

Stat Legends Final Project: Investigation of Fast Food

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INTRODUCTION

FAST FOOD CONSUMPTION

Associated with **high caloric intake** and **poor diet quality**

Significant risk for **obesity, Type II diabetes, cardiovascular disease, etc.**

IN THE U.S.

⅓ of Americans consume fast food on a given day

Contributing factors: **time constraints, low price, accessibility**

INTRODUCTION OF DATA

Origin

September 4th, 2018 by fast food nutrition organization

Data

Entrees from eight different restaurants

Variables

Calories, total carbohydrates, cholesterol, etc.

Re-Level

Cholesterol to qualitative variable: above or below recommended levels

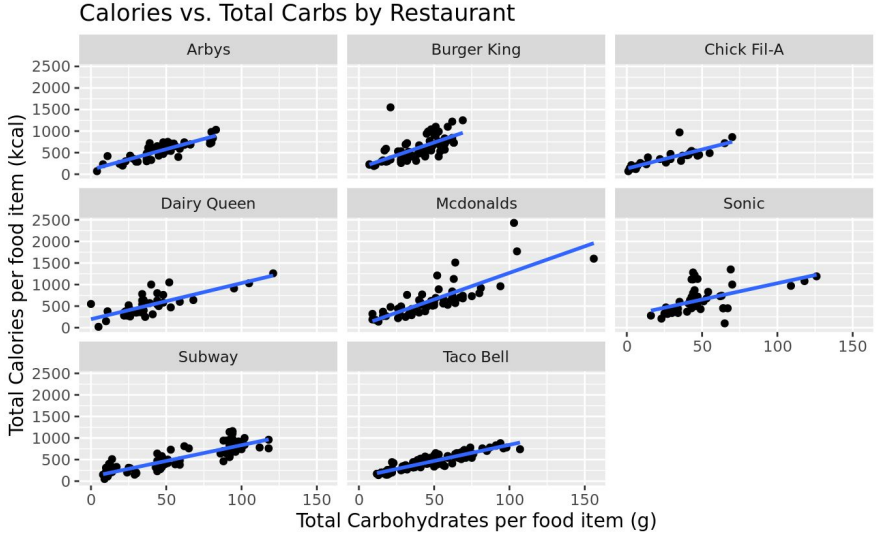
Research Question

Is total carbohydrates or cholesterol a better predictor for calories in fast food entrees?

Hypothesis

Direct, linear relationship between calories and cholesterol level and total carbohydrate content

EXPLORATORY DATA ANALYSIS



MODELS

CHOLESTEROL LINEAR MODEL

Cholesterol is a predictor for calories

ADDITIVE MODEL

Cholesterol and carbohydrates don't influence each other as predictors

CARBOHYDRATES LINEAR MODEL

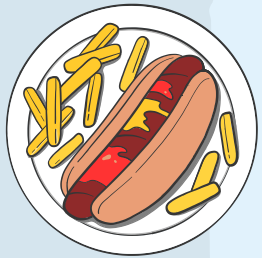
Total carbohydrates is a predictor for calories

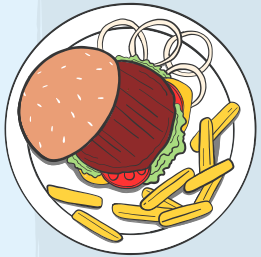
INTERACTIVE MODEL

Cholesterol and carbohydrates influence each other as predictors

WHICH MODEL IS BEST?

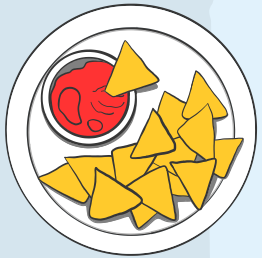
CHOLESTEROL
AIC = **6830.847**

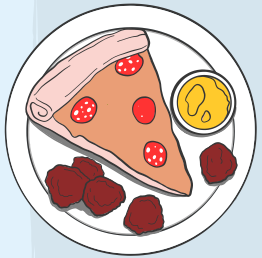




CARBOHYDRATES
AIC = **6914.045**

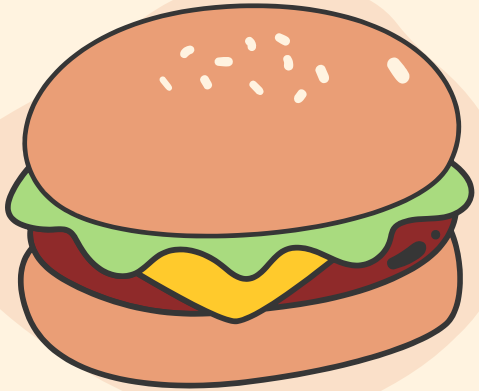
ADDITIVE
AIC = **6656.239**





INTERACTIVE
AIC = **6657.969**

CONCLUSIONS & FUTURE RESEARCH



ADDITIVE MODEL IS BEST

Cholesterol & Carbohydrates don't affect each other as they affect calories

CHOLESTEROL = BETTER PREDICTOR

Cholesterol has a greater effect on calories than carbohydrates

FURTHER EXPLORE THE EFFECT OF CHOLESTEROL ON CALORIES

Create more additive models with cholesterol and other predictors