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QAC 251

May 16, 2018

Nutritional Facts and Popularity of Top 12 Fast Food Restaurants

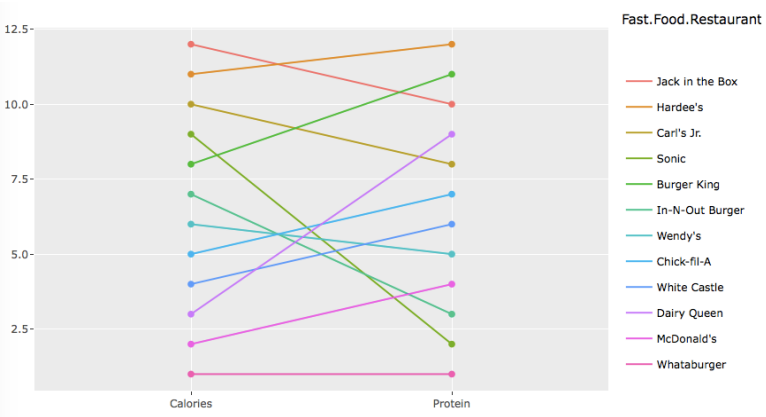
INTRODUCTION

Over the past decades, with the rapid development of modernization, more and more people tend to live in a fast-paced life, seeking for food that comes easily and quickly. Therefore, the fast food industry has been developing rapidly as well due to people's increasing demands of popular fast food restaurants like McDonald's, Burger King, or Wendy's. Furthermore, with the increasing consumptions of fast food and people's concerns about health, they start to pay attention to the nutritional facts of fast food like burgers or french fries, despite the fact that fast food is still generally considered as "bad food". Thereby, I firstly concentrate on the different nutritional facts of various types of fast food from twelve most popular fast food restaurants. Secondly, the distribution of different fast food brands over states has also been a very interesting topic for further explorations. Since there are so many various fast food restaurants nowadays, a lot of people will have their specific preferences as well: for example, I personally love McDonald's because of their chicken nuggets and particularly the salty french fries, and I also like chick-fil-A because of the chick-fil-A sauce. Thus, it is interesting to look at the popularity of specific fast food restaurants in different states.

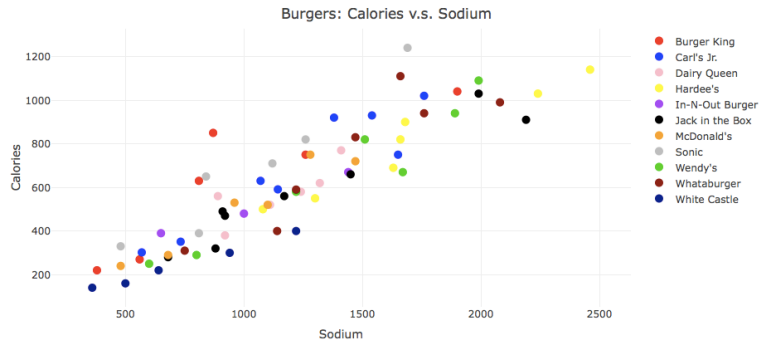
NUTRITIONAL FACTS:

Part 1. Burgers & Milkshakes:

Both of the following two graphs intend to help users make better decisions when getting burgers or milkshakes based on the nutritional facts they are interested in.

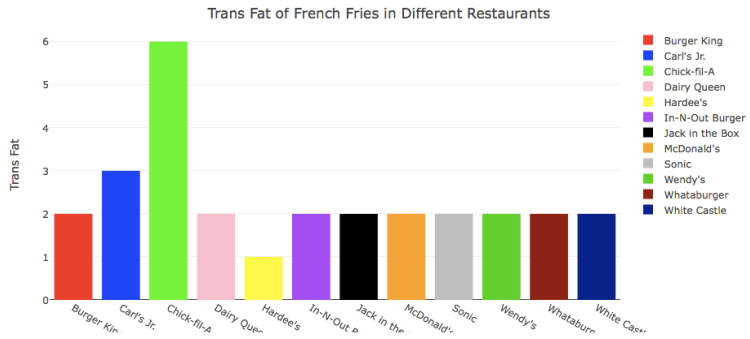


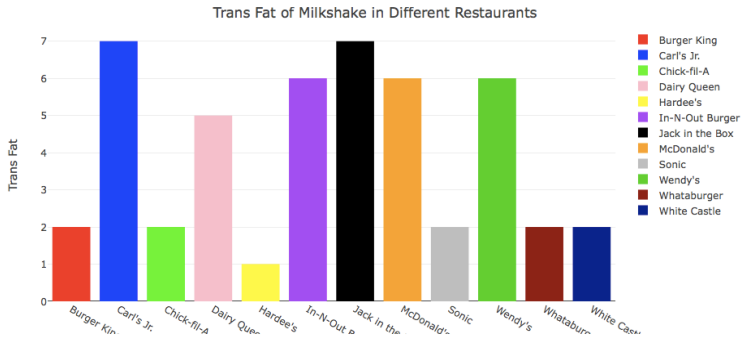
The first graph focuses on the relations between calories and other nutritional components of milkshakes from different fast food restaurants, which would be very helpful for those people who like milkshakes but also worry about gaining weight to choose a relatively healthy fast food chain. That is, for example, they should try to avoid ordering milkshakes from those restaurants whose milkshakes particularly contain high calories but low protein like Burger King or In-N-Out Burger, but they can be less worried with getting milkshakes from restaurants like Dairy Queen which offers much lower calories contained but higher protein contained milkshakes.



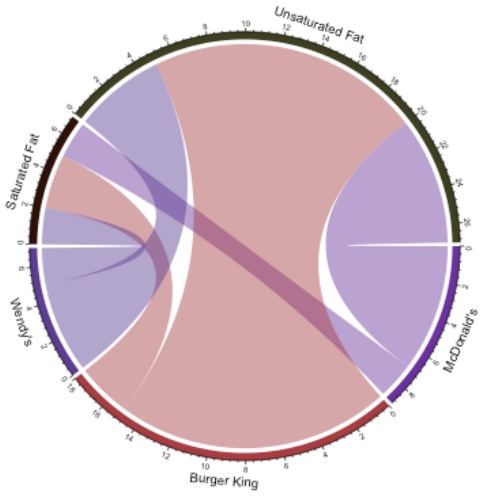
The second graph concentrates on the relations among different nutritional components of burgers. Additionally, users will be able to look at which specific item contains particularly high or low components of the nutrition they are interested in. For example, the 2/3 LB Double Thickburger from Hardee's contains both the highest amount of calories and that of sodium, which makes it seem to be a comparatively very unhealthy choice for burgers, while the Original Slider Burger from White Castle has lowest amounts of calories and sodium; obviously, it is a much better choice than the previous one.

Part 2: Good, Bad, In-Between Fats





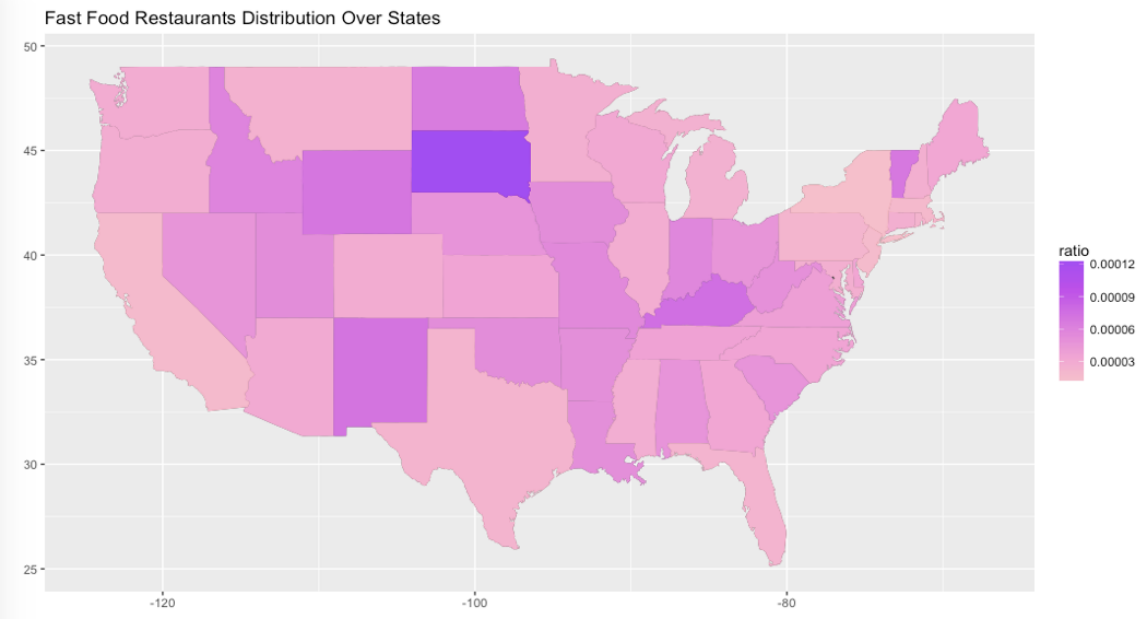
This visualization particularly concentrates on the worst component of fast food, the trans fats, which are known as an evil fat in that they will potentially contribute to unpleasant diseases like heart disease, diabetes, Liver Dysfunction, or even cancer. For instance, based on the graphs above, it is very surprising that the amounts of trans fats of milkshakes in some restaurants, like Carl's Jr., McDonald's, or Wendy's, are even higher than those of french fries. In addition, fast food from Hardee's generally contains less trans fats than any other ones, which makes it relatively healthier.



In terms of good fats, they are unsaturated fats which include polyunsaturated fatty acids and monounsaturated fats. Both mono- and polyunsaturated fats, when eaten in moderation and used to replace saturated or trans fats, can help lower cholesterol levels and reduce your risk of heart disease.[1] While unsaturated fats are in between, with

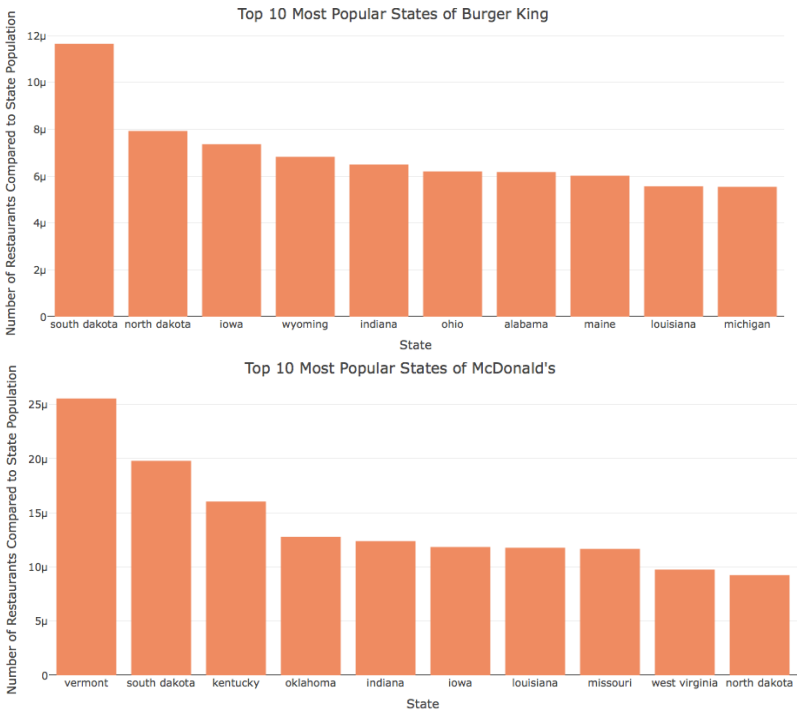
greater possibility to generate bad influences on human body. This visualization aims to compare the amounts of saturated fats and unsaturated fats of different fast food in three restaurants that users are interested in. For example , from the the chord diagram above, which focuses on chicken nuggets in Burger King, Wendy's, and McDonald's, we know that even though the chicken nuggets in Burger King have more fat in total, the ratio between saturated fats and unsaturated fat is relatively smaller than that of Wendy's, so they seem to be less unhealthy.

POPULARITY OF FAST FOOD CHAINS OVER STATES:



The second main topic about fast food restaurants is their distribution over states. The choropleth above focuses on the distribution of fast food chains in general in different states, from which it seems like fast food restaurants in South Dakota and New Mexico are more popular than in other states. An important fact about this visualization is that when comparing the density of fast food restaurants of each state, the population size is also being considered, because some states like California which has relatively large population size will

correspondingly have more restaurants generally. Therefore, it would make more sense to look at the distribution based on population size as well.



This visualization intends to enable users to look at the popularity of the specific restaurants they are interested in, particularly the top 10 states where the restaurants are most popular. For example, according to the two bar charts on the left, it seems that McDonald's is most most popular in Vermont, South Dakota, and Kentucky; Burger King is most popular in South Dakota, North Dakota, and Iowa. Additionally, this visualization also take the population size of each state into account, but it also allows users to look at the raw distribution numbers of the fast food restaurants.

ADDITIONAL WORTH EXPLORING QUESTIONS:

There are also some questions that might be interesting for further explorations, like which type of burgers people like most or people's eating preferences of fast food according to different states.

Reference:

[1]Kathleen M. Zelman, The Skinny on Fat: Good Fats vs. Bad Fats, WebMD, https://www.webmd.com/diet/obesity/features/skinny-fat-good-fats-bad-fats#2