## **Battle of the Neighbourhoods**

## A description of the problem and a discussion of the background

Obesity rates in the United States are continuously climbing. It's no secret that an unhealthy diet and lack of exercise contribute to the problem, but there are still many unknowns.

Wallethub compared data from the <u>U.S. Census Bureau</u>, <u>Bureau</u> of <u>Labor Statistics</u>, <u>Centers for Disease Control and Prevention</u>, <u>County Health Rankings</u>, <u>United States Department of Agriculture Economic Research Service</u>, <u>Child and Adolescent Health Measurement Initiative</u>, <u>Gallup-Sharecare</u>, and <u>Trust for America's Health</u>, and ranked the 100 'Fattest' cities in the country.

I'd like to take a look at two cities on the opposite end of the list and compare the number of fast food restaurants in the two cities, as well as the number of gyms. If significant differences are found, to what extent?

## **Data Description:**

Wallethub lists **Memphis** as Number 3 overall, while **Portland** ranks 98. I've chosen these two cities because I won't need to adjust for population differences\*.

City	Memphis, Tennessee	Portland, Oregon
Population	650,618	653,115

<sup>\*</sup>population as of July 1, 2018, as estimated by the United States Census Bureau

- To collect the number of gyms and fast food restaurants in a given city, I will use the foursquare API from the last assignment.
- To collect the data on obesity, I will be using the CDC Data Portal
- Multiple Regression and some machine learning models from the Machine Learning course may be used
- Data will be visualized using matplotlib, and folium maps