

# Predicting the best neighborhood to open a vegan restaurant in NY

## 1 Introduction

### 1.1 Background

In recent years the interest in a vegan lifestyle has increased. There are a lot of reasons as: people concerned with animal rights, animal mistreatment, climate change, health and others. Below are some statistics:

- If the world went vegan, it could save 8 million human lives by 2050, reduce greenhouse gas emissions by two thirds and lead to healthcare-related savings and avoided climate damages of \$1.5 trillion.

(<https://www.oxfordmartin.ox.ac.uk/news/201603-plant-based-diets/>)

- Dairy cows have been bred to produce up to 10 times more milk than they naturally would. (<https://www.ciwf.org.uk/media/5235185/the-life-of-dairy-cows.pdf>)

- Male calves are of no use to the dairy industry and are less suitable for beef production. This means that every year around 95,000 male dairy calves are shot soon after birth and discarded as a by-product.

(<https://www.theguardian.com/environment/2018/mar/26/dairy-dirty-secret-its-still-cheaper-to-kill-male-calves-than-to-rear-them>)

- Animal agriculture contributes an estimated 18% to total greenhouse gas emissions from the five major sectors for greenhouse gas reporting. For the agriculture sector alone, farmed animals constitute nearly 80% of all emissions.

(<http://www.fao.org/3/a-a0701e.pdf>) [p. 112]

For more statistics about vegan, consult

<https://www.vegansociety.com/news/media/statistics>

### 1.2 Problem

As the number of vegan people is growing up, it is interesting using data to decide where in the city of New York open a vegan restaurant. It is ideal to find some neighborhood with few restaurants of the kind and close to a lot of people.

## 2 Data acquisition and cleaning

### 2.1 Data sources and cleaning

Let's use the Foursquare API as a data source and the data neighborhood from [https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset).

We analyse all the venues in Manhattan and drop all the is not a vegan or vegetarian restaurant. There are 24 vegan or vegetarian restaurants in the interest area. So lets see in the map.

