



SUE'S BBQ

Geospatial Analysis and Site Selection

Austin, Texas

Introduction

The problem addressed in this analysis is to determine the ideal restaurant location for a prospective entrepreneur.

For this project, I am examining the geospatial arrangement of BBQ restaurants in Austin, Texas. I am assuming that my client is a prospective entrepreneur who is interested in opening her restaurant within walking distance of the University of Texas so that her business is accessible to both students and tailgaters for the school's sporting events. Therefore, our two criteria are as follows:

- 1) Within 3000 meters of the University of Texas Tower.
- 2) In an area that minimizes exposure to competing BBQ restaurants.

Background:

BBQ is a culinary mainstay in Texas. While this is a highly competitive field, there is also significant space for product differentiation. There is also a high degree of brand loyalty. The first criterion I identified above is associated with the fact that students and tailgaters are highly sensitive to the distance a venue is away from where they live, work, and play. By locating close to people, we increase the chance that they will try our restaurant, and with luck, become a long-term customer.

The second criterion enable the restaurant to stand out from competitors. Due to the high degree of loyalty to specific BBQ restaurants in Texas, we are assuming that underserved locations are better prospective candidate areas than locations in which there is a higher concentration of competitors.

Data

The data for this project come from the FourSquare API. We conduct a search query inputting the address to the UT Tower (which is roughly the center of campus), the category as 'BBQ', and the radius as 3000 meters to ensure walkability. Upon collection and cleaning, our data will include information such as the restaurant name, its address, its latitude and longitude, the type of restaurant, and various other characteristics about each venue.

Methodology

- 1) Data were collected from the FourSquare through its robust API.
- 2) Upon collection, the data are input into a dataframe using the Pandas library in python.
- 3) Upon cleaning, data are plotted in a GeoPy map to examine spatial arrangement.

Results

The query found 45 BBQ venues within our search radius. These locations were a variety of restaurants and food truck establishments of varying popularity and price level.

Discussion

The majority of the BBQ venues discovered in the FourSquare query are situated to the south and to the west of campus (See map in Notebook). There are relatively few restaurants located to the northeast of campus. I recommend using that location to start the business for two reasons.

- 1) It meets the two conditions of being accessible to students and having few competitors located nearby.
- 2) The majority of the university's athletic facilities (and thus tailgating events) are located on the eastside of the campus increasing this areas appeal.

Conculsion

Following an assessment of data available about BBQ restaurants of FourSquare, I have determined that the area immediately to the northeast of campus will serve as a good location to host a restaurant. It meets both criteria identified by my client and takes advantage of several opportunities to feed hungry students and attendees at the University's various sporting events.