

COURSERA DATA SCIENCE CAPSTONE
BATTLE OF THE NEIGHBORHOODS

***WHERE IS THE BEST PLACE TO PARK A FOOD TRUCK IN FRANKLIN COUNTY,
OHIO?***

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Background

- I'm a student at the Ohio State University, located in Franklin County, Ohio.
- I'm interested in entrepreneurship and quantifying business opportunities.
- I thought it would be fun to explore the viability of starting a food truck business in Franklin County.



Problem Description

Question:

- Where is the best place to park a food truck in Franklin County, Ohio?

Background:

- People don't drive to food trucks so we need to find an area where hungry people congregate and can afford to spend money at our truck.

Assumptions:

- We have a permit to park anywhere we'd like.



Data

1. City, County, Zip Code, and Coordinate information of the entire US a from CSV from [OpenDataSoft.com](https://opendatasoft.com/).
2. Categorical and Locational information for venues in Franklin County, Ohio, using the [FourSquare API](https://www.foursquare.com/).
3. Population Size, Family Income, and other demographic information of Ohioans from the [IRS website](https://www.irs.gov/).



Methodology

1. Import geographical, demographic, financial, and venue data.
2. Format, sift, and relate the data.
3. Categorize venue categories based on their favorability for foot traffic
4. Calculate an overall food truck feasibility score according to the formula:

$$\text{food truck score}_i = \frac{\text{wealthy}_i}{\max\{\text{wealthy}\}} * \sum_{j=1}^{10} \text{venue score}_{i,j}$$



Results

	zip_code	Score
2	43017	16.845659
4	43054	12.876206
28	43221	11.668810
1	43016	11.000000
7	43085	10.574759

Results Ranked:

1. Dublin (43017),
2. New Albany (43054),
3. Upper Arlington (43221),
4. Dublin (43016),
5. Worthington (43085)



Conclusion

According to the formula, Dublin (43017) was found to be the best choice to park a food truck in Franklin County, Ohio.

This is because it:

- Has a wealthy population,
- Has many office complexes, and
- Has many sports venues,

All of which are great conditions for foot traffic for our food truck.