

Coursera Capstone Project

Battle of the Neighborhoods - Oak Park vs. Evanston

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Introduction

In this presentation we show you the findings of the comparison between two affluent suburbs of Chicago, IL.

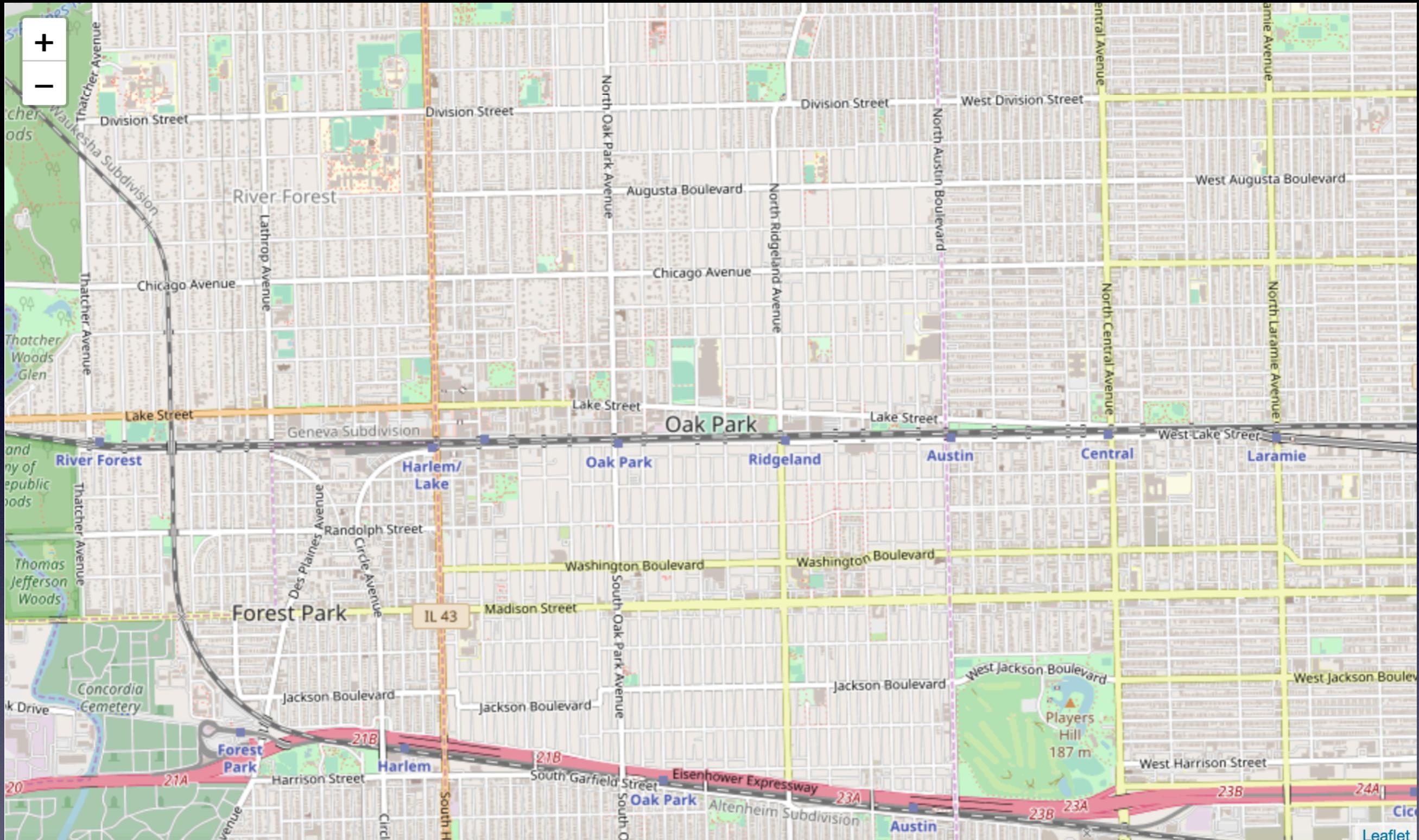
The suburbs are Oak Park and Evanston.

Both cities are common consideration for couples with kids moving out of the city while still retaining good access to the city

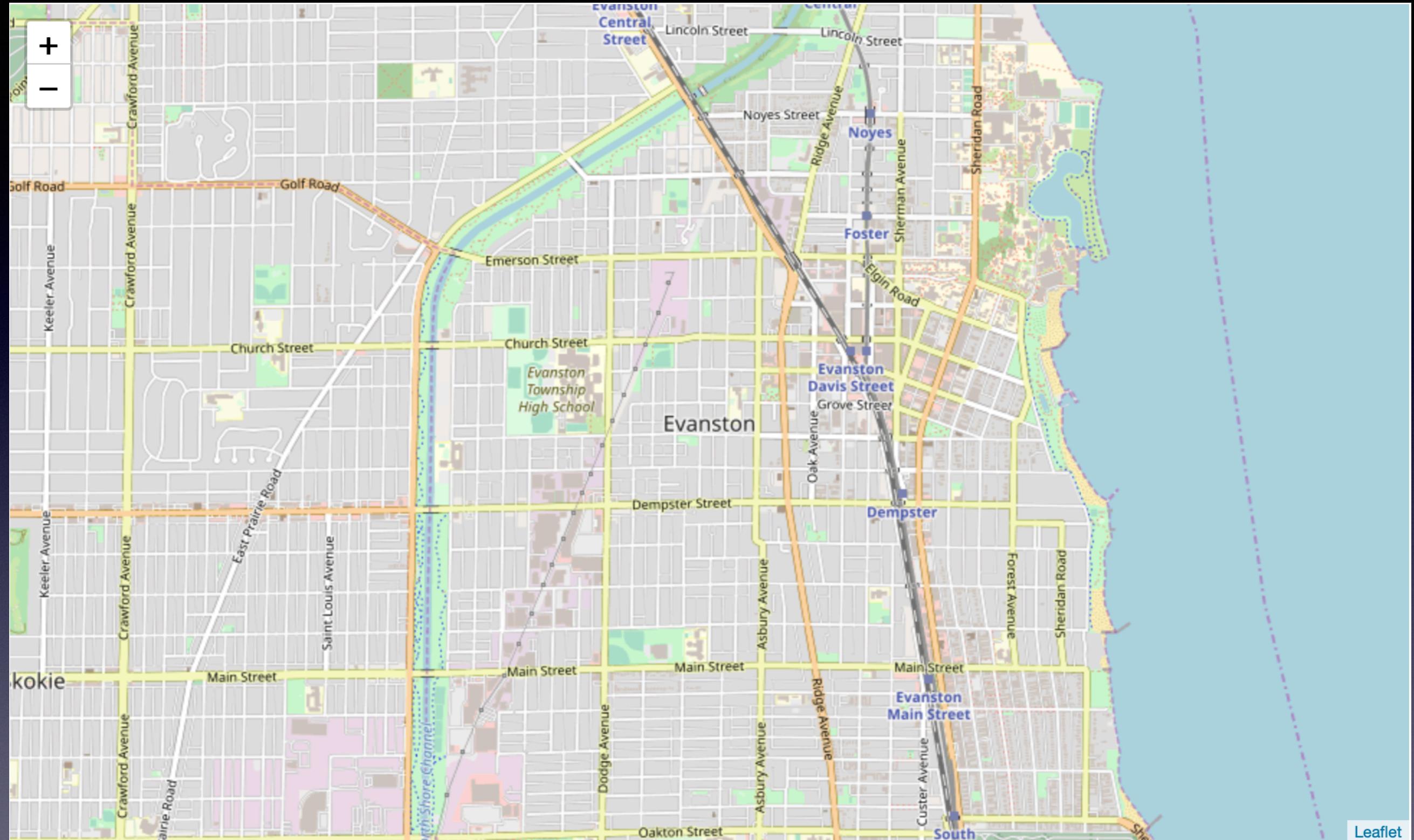
Data Requirements

For this study we leveraged the following Python libraries and services:

- Geocode, to get coordinates from both neighborhoods
- Foursquare, to get information on venues, amenities, etc.
- Pandas and other analytical tools to rank the neighborhood amenities and compare to each other



Folium Map of Oak Park



Folium Map of Evanston

Foursquare Results

- Foursquare returned a total of 50 different venues for Oak Park
- Foursquare returned a total of 90 different venues for Evanston
- Evanston has a clear advantage in overall number of venues
- We will present our analysis of those in the coming slides



Oak Park vs. Evanston

Most popular venues

- Using special tools, we determined to top 10 most popular venues for both Oak Park and Evanston
- We can verify from the data some categories are similar but labeled different such as “Gym” and “Gym / Fitness Center”
- Both neighborhoods seem very diverse, with several dimensions different from one another

----Oak Park----		
	venue	freq
0	Italian Restaurant	0.06
1	Toy / Game Store	0.06
2	Historic Site	0.06
3	Bakery	0.04
4	American Restaurant	0.04
5	Coffee Shop	0.04
6	Gym	0.04
7	ATM	0.02
8	Pharmacy	0.02
9	Multiplex	0.02

----Evanston----		
	venue	freq
0	Coffee Shop	0.05
1	Thai Restaurant	0.04
2	Rental Car Location	0.03
3	Gym / Fitness Center	0.03
4	Burger Joint	0.03
5	Clothing Store	0.02
6	Café	0.02
7	Brewery	0.02
8	Playground	0.02
9	Gym	0.02

Venues that are exclusive to Oak Park

- This shows the categories present in Oak Park and not Evanston
- Note the presence of train station which is advantage to commuters. Oak Park has non-stop service to/from Chicago via Metra (train)

ATM
Bank
Food Truck
French Restaurant
Grocery Store
Historic Site
Hobby Shop
Latin American Restaurant
Lounge
Mediterranean Restaurant
Multiplex
Nail Salon
New American Restaurant
Park
Pharmacy
Record Shop
Residential Building (Apartment / Condo)
Southern / Soul Food Restaurant
Tapas Restaurant
Toy / Game Store
Train Station
Vietnamese Restaurant
Yoga Studio

Venues that are exclusive to Evanston

- This shows the categories present in Evanston but not Oak Park
- We can verify the list is significantly longer, which makes sense as Evanston returned more venues than Oak Park
- Note Evanston has a shopping mall, which is absent from Oak Park

Antique Shop
Arts & Crafts Store
Asian Restaurant
Athletics & Sports
Automotive Shop
BBQ Joint
Bed & Breakfast
Bike Shop
Burger Joint
Clothing Store
Cocktail Bar
Discount Store
Donut Shop
Fast Food Restaurant
Food Stand
Fruit & Vegetable Store
Furniture / Home Store
Garden
Gastropub
Government Building
Gym Pool
Hotel
Jewelry Store
Liquor Store
Metro Station
Mexican Restaurant
Mobile Phone Shop
Movie Theater
Music Store
Noodle House
Paper / Office Supplies Store
Pet Store
Playground
Plaza
Ramen Restaurant
Rental Car Location
Salon / Barbershop
Shopping Mall
Spa
Sporting Goods Shop
Steakhouse
Storage Facility
Sushi Restaurant
Swim School
Taco Place
Tea Room
Tex-Mex Restaurant
Thai Restaurant
Thrift / Vintage Store
Wine Bar

Venues that are present on both neighborhoods

- This shows the categories present in Evanston but not Oak Park
- From analysis the frequencies, we have not encountered a significant difference in those venues from one neighborhood to the other
- We can verify the list is significantly longer, which makes sense as Evanston returned more venues than Oak Park

American Restaurant
Bakery
Bar
Bookstore
Breakfast Spot
Brewery
Café
Coffee Shop
Convenience Store
Farmers Market
Greek Restaurant
Gym
Gym / Fitness Center
Ice Cream Shop
Italian Restaurant
Neighborhood
Pizza Place
Sandwich Place

Conclusion

- Looking at the overall data, we can see both neighborhoods differ significantly in terms of venues and options offered
- Oak Park has a small number of venues but certainly strong variety. It benefits from transportation to/from Chicago
- Evanston has an edge in overall sheer number and this adds to convenience, including the shopping mall
- We can finally conclude that a family with kids looking to move out of Chicago would be served well in both neighborhoods, with the differentiation in terms of transport vs. overall neighborhoods convenience and number of venues