Choosing the Best Locations for Opening a New Gym/Fitness Center in the Southwest Suburbs of Chicago
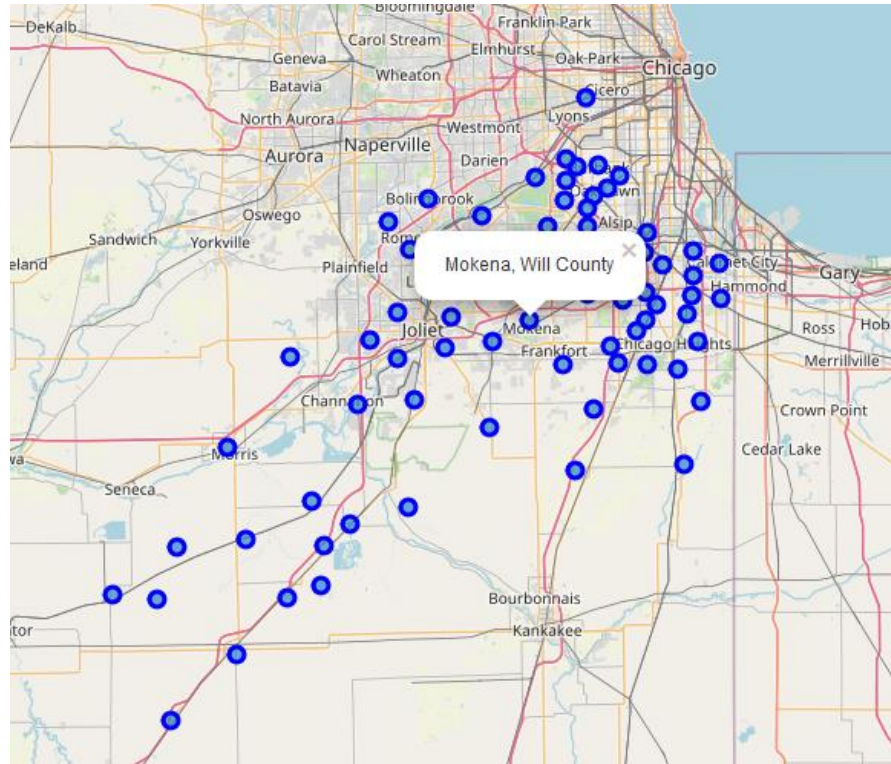
Problems to be considered

➢ How will it set itself apart from competition

➢ Size of space

➢ Products offered

➢ Neighbors

➢ Local ordinances restricting or limiting any aspect of the business

➢ Location

Most important consideration is competition and how to choose a location to minimize it.

Data acquisition and Retrieval

➢ Southwest suburb of Chicago zip code data from Capital Impact:
http://www.ciclt.net/sn/clt/capitolimpact/gw_ziplist.aspx?zip=604

➢ Coordinate data for zip codes from Opendatasoft:
https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/?refine.state=IL.

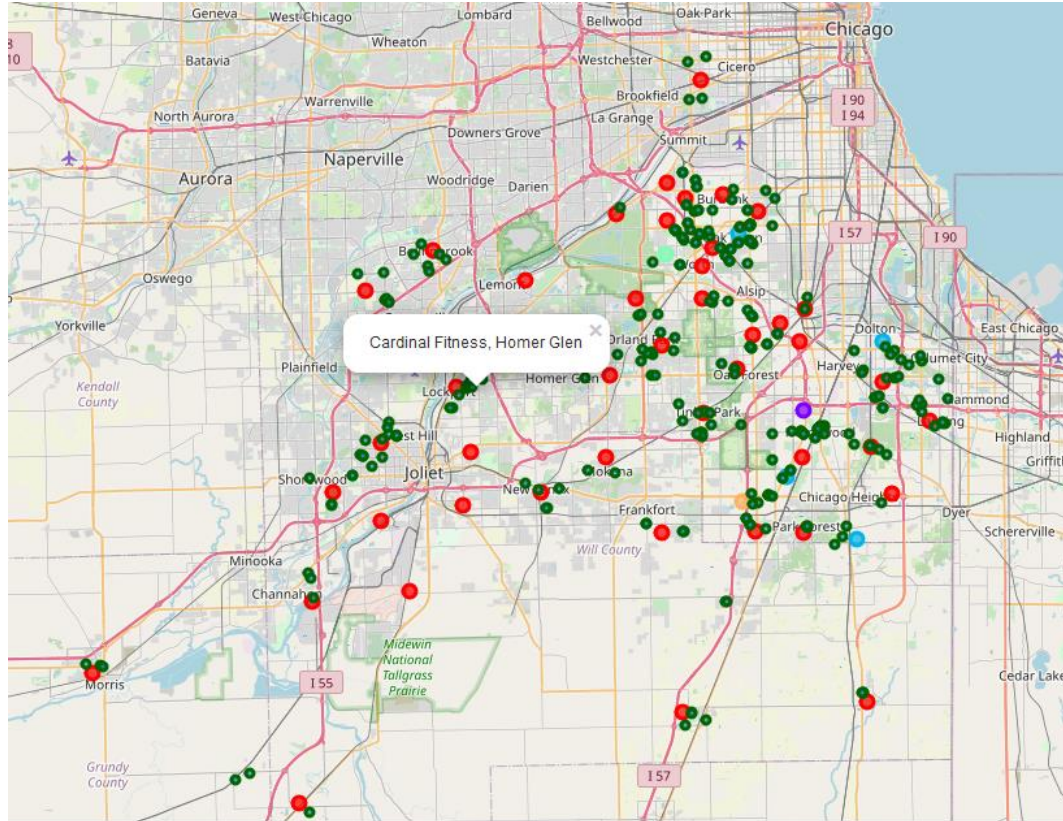➢ Foursquare data for suburb exploration of top venues and gyms in each area.
https://foursquare.com

Chicago Southwest Suburbs that are part of the Study

Foursquare data retrieval

➤ Foursquare data is then retrieved for each one of these zip codes. First, for top venues in each community. This data will be used for k-means clustering to help show the more economically robust communities. Second, data will be retrieved for each zip code showing each gym/fitness center already in the area.

➤ K-means clustering is performed on each community. As can be seen from the plot below, most all communities fall into the first cluster which have red labels. The larger labels are the communities and the smaller, green labels are the gyms and fitness centers overlaid onto the map. See next page.
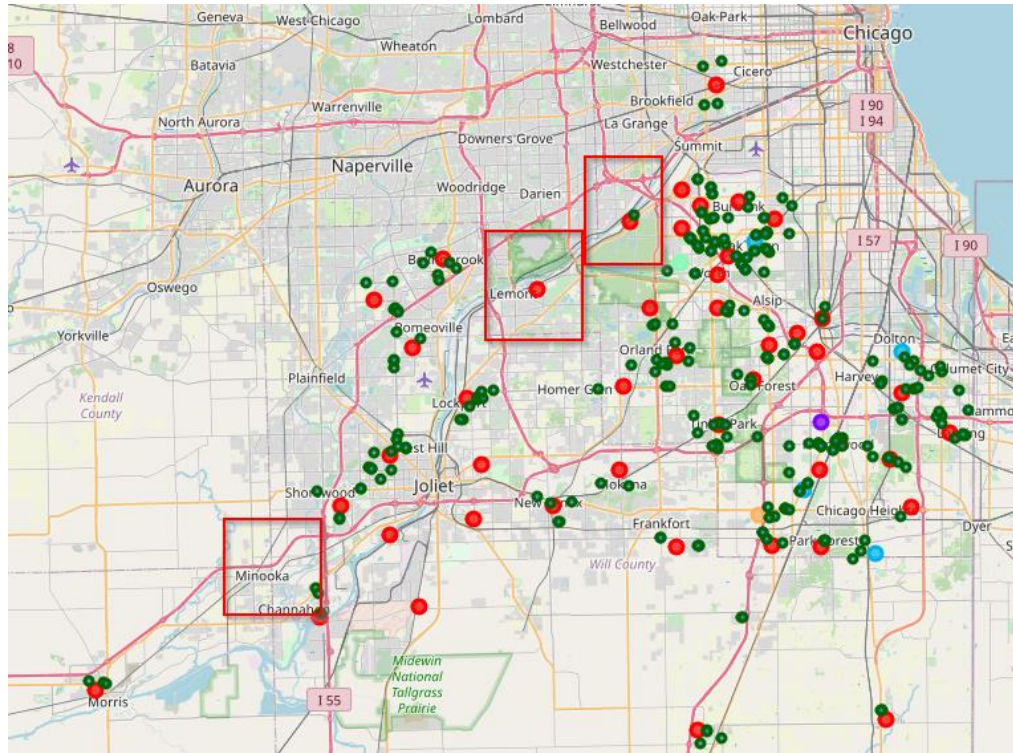
Chicago Southwest Suburbs cluster with gyms superimposed

Top 20 locations based on minimal competition from other gyms or fitness centers

	index	Zip Code	City	County	Latitude	Longitude	gymcount
0	31	60442	Wilton Center	Will County	41.392698	-87.963468	0
1	33	60444	Mazon	Grundy County	41.243115	-88.402732	0
2	3	60407	Braceville	Grundy County	41.234907	-88.261302	0
3	62	60474	South Wilmington	Grundy County	41.179801	-88.266441	0
4	48	60460	Odell	Livingston County	40.998479	-88.536714	0
5	26	60437	Kinsman	Grundy County	41.162929	-88.560435	0
6	69	60481	Custer Park	Will County	41.285524	-88.110548	0
7	16	60424	Gardner	Grundy County	41.164148	-88.327716	0
8	10	60417	Crete	Will County	41.427585	-87.586149	0
9	36	60447	Minooka	Grundy County	41.487239	-88.322166	0
10	58	60470	Ransom	La Salle County	41.168970	-88.641026	0
11	13	60421	Elwood	Will County	41.431182	-88.099710	0
12	28	60439	Argonne	Du Page County	41.676906	-87.977229	0
13	67	60479	Verona	Grundy County	41.232384	-88.526396	0
14	7	60411	Chicago Heights	Cook County	41.508774	-87.590314	1
15	57	60469	Posen	Cook County	41.628359	-87.687037	1
16	4	60408	Braidwood	Will County	41.263739	-88.215536	1
17	68	60480	Willow Springs	Cook County	41.729231	-87.881134	1
18	18	60426	Dixmoor	Cook County	41.610343	-87.653395	1
19	66	60478	Country Club Hills	Cook County	41.563453	-87.725409	2

Using the visualization plot as a guide entries 9, 12, and 17 standout.

Results and Conclusion

Based on the above results, we would like to identify the best locations to open a new gym. The goal is to find locations where competition will be minimal, and the consumer base is strong. For instance, a growing community with lots of other venues. The top choices and recommendations are:

1. Lemont (shown as Argonne in data as have same zip code)

2. Willow Springs

3. Minooka