The background of the slide is a map with black contour lines on a white background. The map is divided into various irregular shapes, some of which are labeled with numbers. The numbers include 1, 2, 3, 4, 5, 6, and 7. The numbers are distributed across the map, with some appearing in clusters and others in more isolated areas. The map appears to be a topographical or geographical representation of a specific region.

# How to find the optimal locations?

Book Stores Research

Caiwen Li

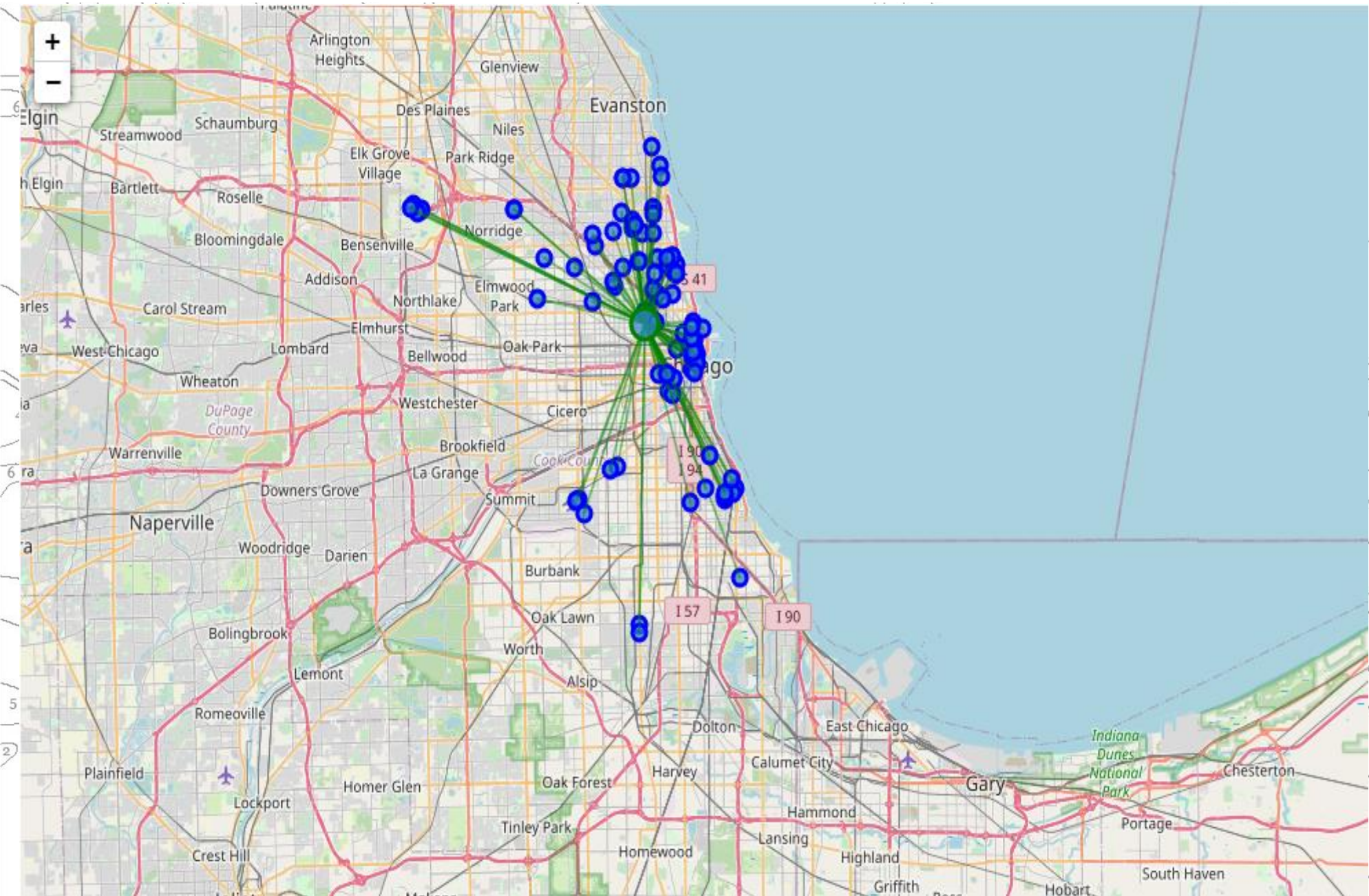
# Which city? Chicago?

```
Total number of book stores in Miami, FL = 67
Showing Top 100
Total number of book stores in New York, NY = 216
Showing Top 100
Total number of book stores in Chicago, IL = 148
Showing Top 100
Total number of book stores in San Francisco, CA = 152
Showing Top 100
Total number of book stores in Seattle, WA = 129
Showing Top 100
```

```
Miami, FL
Mean Distance from Mean coordinates
0.13907263612601747
New York, NY
Mean Distance from Mean coordinates
0.028738798464095376
Chicago, IL
Mean Distance from Mean coordinates
0.0814520755200635
San Francisco, CA
Mean Distance from Mean coordinates
0.030325595084376263
Seattle, WA
Mean Distance from Mean coordinates
0.04411514115570099
```

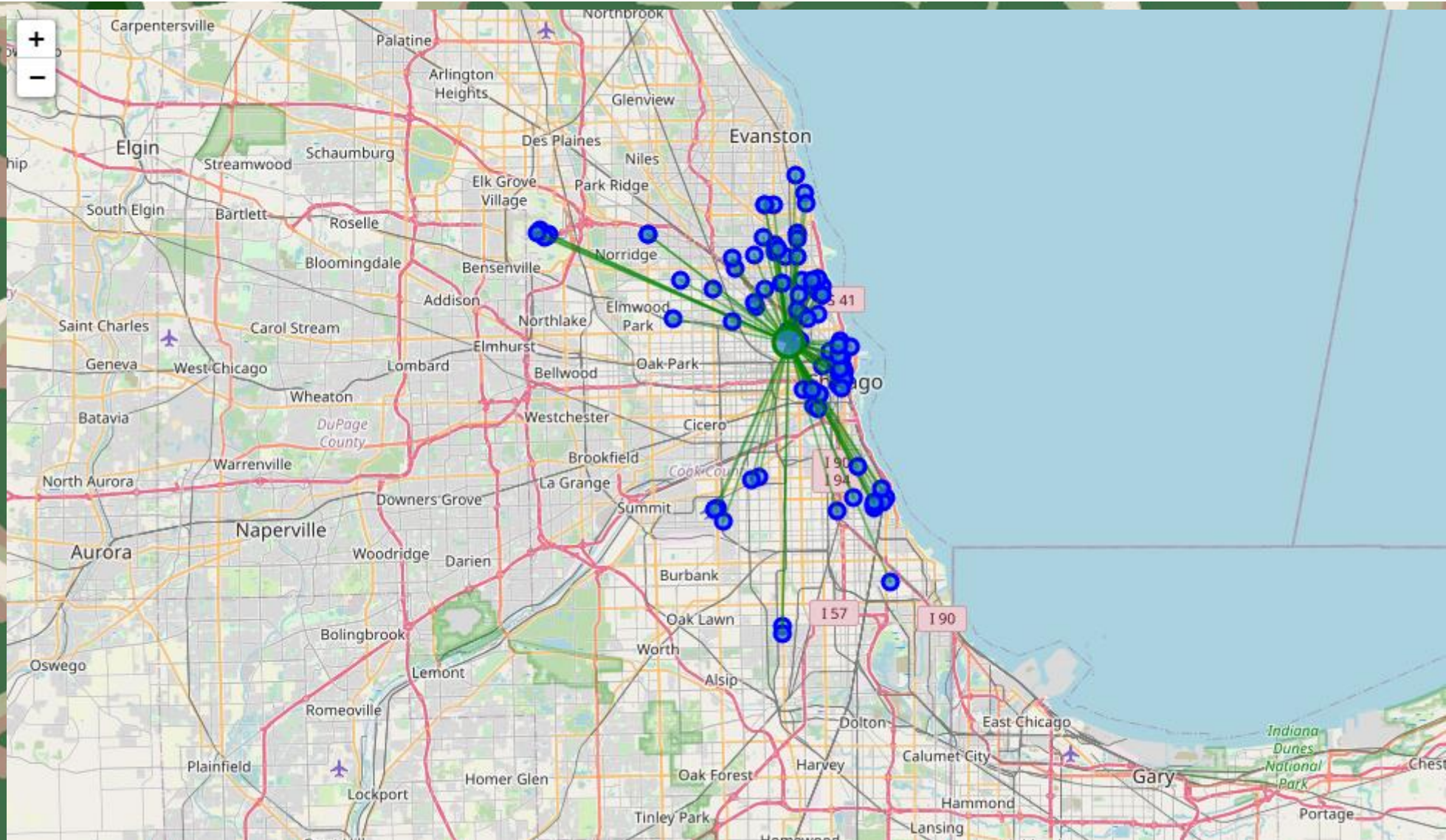


## Chicago Distance to the center

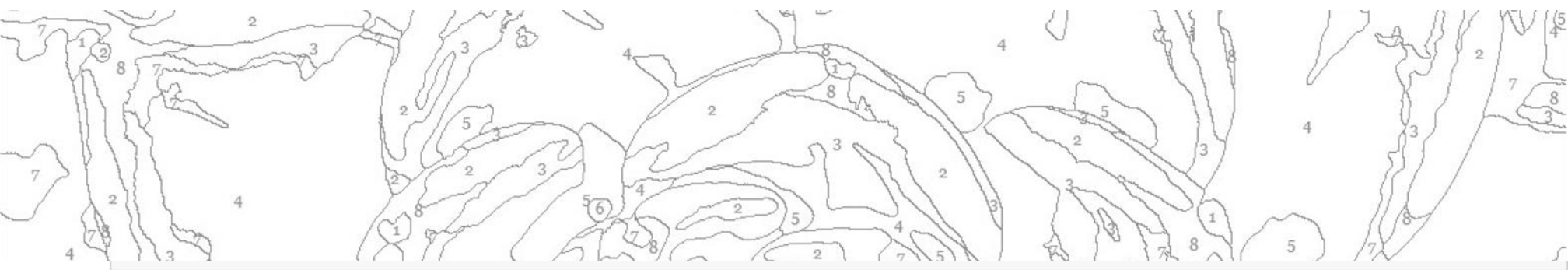




## Schools distance from the center

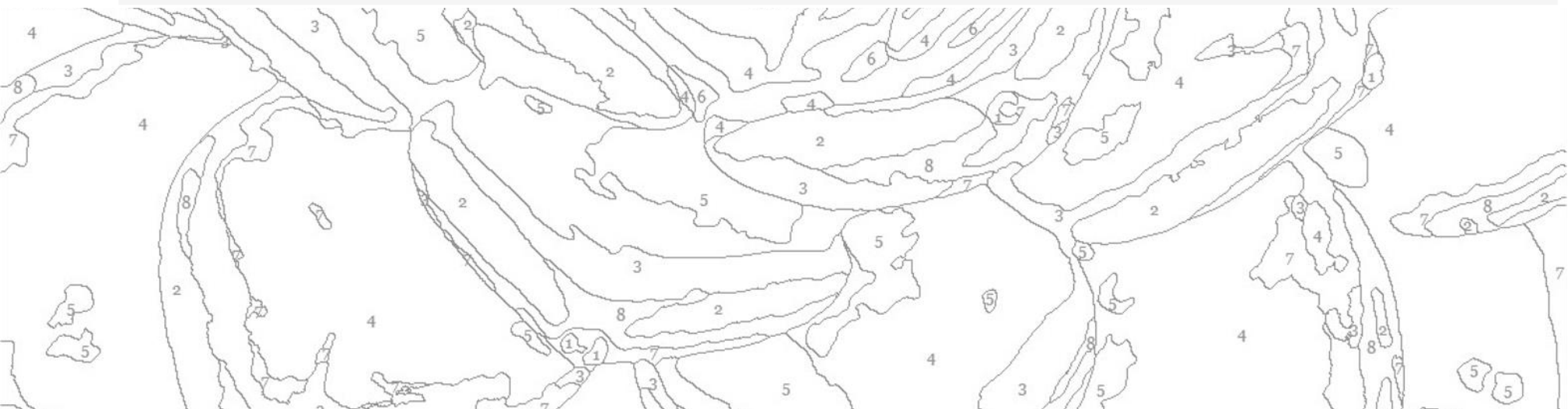


# Example: Schools within 2 miles Bookstores



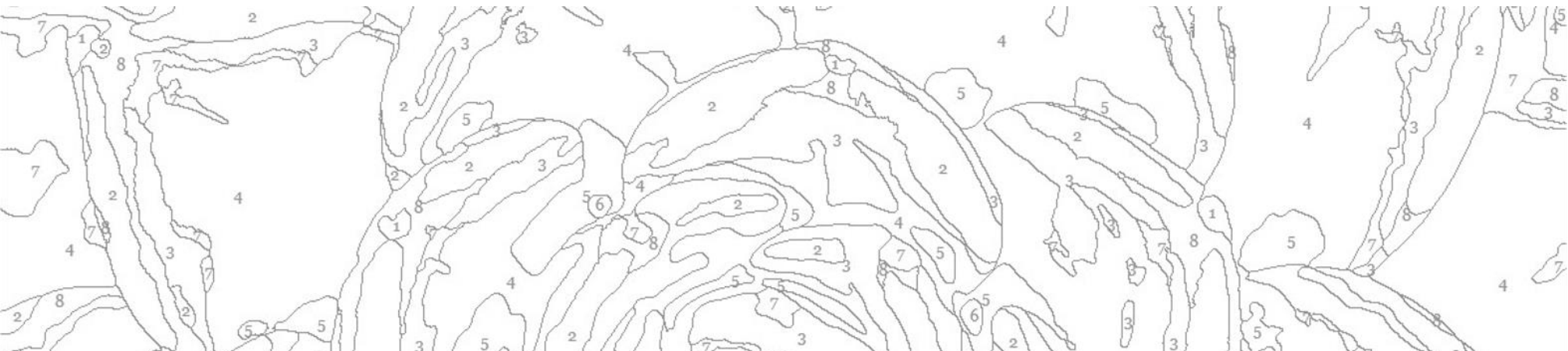
Out[22]:

Num			Name	Address	Lng	Lat	meter	kilometer	miles	school_name
0	1	4	Open Books	651 W Lake St	41.8857188858997	-87.6448720266537	1757.69706036205	1.75769706036205	1.09218198009423	It Takes A Village
1	2	12	Sandmeyer's Bookstore	714 S Dearborn St	41.8729960533556	-87.6292867926672	390.400842816317	0.390400842816317	0.242583762101618	It Takes A Village
2	3	13	Selected Works Used Books & Sheet Music	410 South Michigan Avenue	41.8765292651336	-87.6243478218776	925.084526910335	0.925084526910335	0.574820697570802	It Takes A Village
3	4	22	Pilsen Community Book Shop	1102 W 18th St	41.858009057714	-87.6536723536155	2277.70053942623	2.27770053942623	1.41529706188382	It Takes A Village
4	5	23	After-Words New & Used Books	23 E Illinois St	41.8909470290503	-87.627137973962	2155.97182324206	2.15597182324206	1.33965836777974	It Takes A Village





## Conclusions:



Conclusion:

As we can see, in 2 miles radius for each school, there are 24 bookstores for school named **It takes a village**

Based on the competitors, median income and median age, etc information.

Not really sure whether this could be a good location to open a bookstores. Need to get full list to do accurate calculation.

