




Food Deserts in Chicago, IL





Introduction – Food Deserts

- Defined as an urban area with at least 500 people living more than 1 mile from the nearest large grocery store
- An area where people have limited access to healthful and affordable food
- Can impact the community in: Diet, health/disease, and even education and career



Data Acquisition

- Statistical analysis was performed with Python to analyze the bottom 5 and top 5 zip codes according to Median Household Income
- Data was retrieved from the sources in the following table

	SOURCE NAME/LINK	DATA RETRIEVED
1	Foursquare City Guide	CATEGORY = Grocery Stores per Zip Code in Chicago, IL
2	Zip Atlas	Median household income in Chicago, IL per Zip Code
3	Medical News Today	Definitions and summary of a Food Desert
4	Personal knowledge of Chicago's neighborhoods and geography	Verification of Data Science results

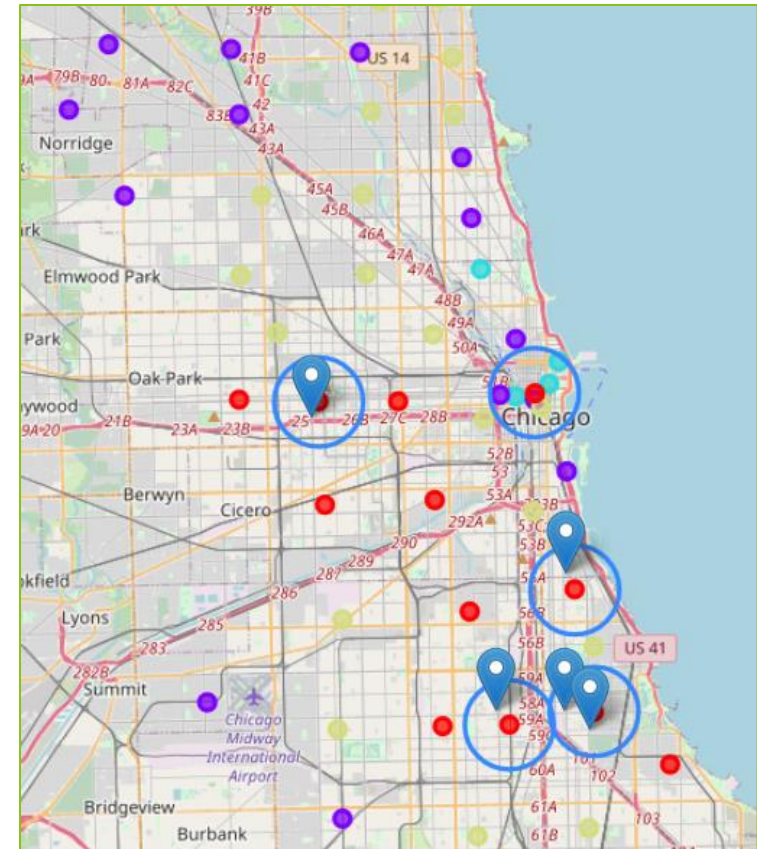


Methodology

- Data was extracted, cleaned, and analyzed using the following techniques:
 - Python Pandas data analysis
 - BeautifulSoup Web Scraping
 - Python Folium Mapping
 - Matplot Plotting Library
 - K-Mean Clustering

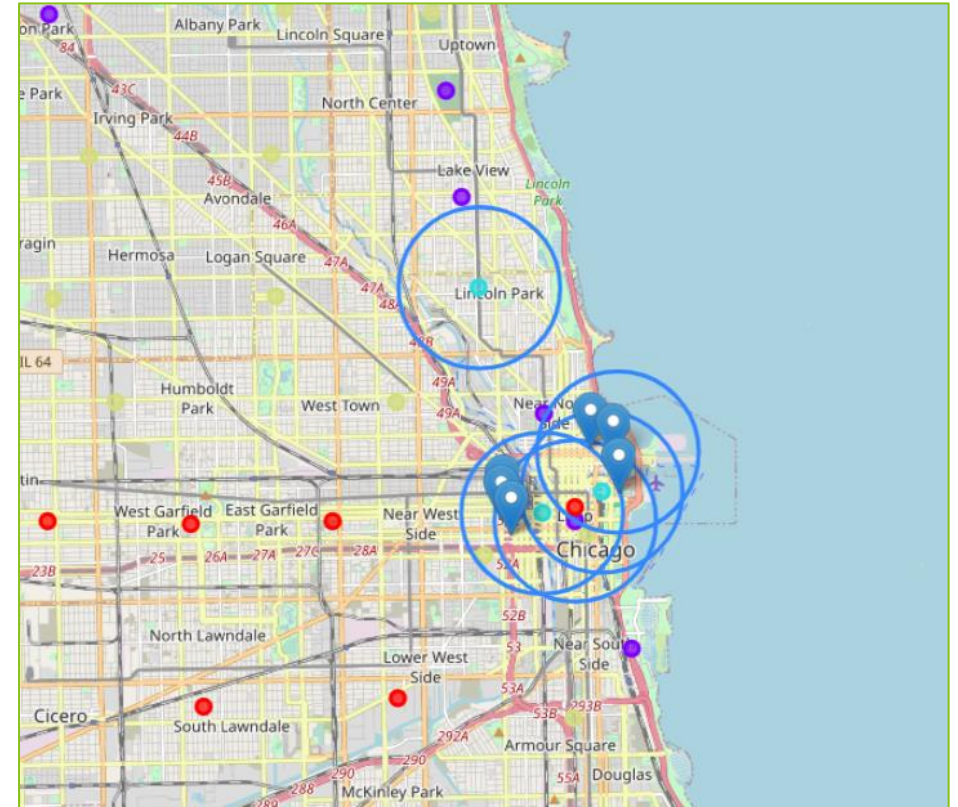
Results: x5 Zip Codes with Lowest Med. Income

- It appears that most of the selected areas of study do not qualify as Food Deserts as they have at least 1 grocery store in a 1-mile radius
- However, an interesting comparison can be made versus the x5 zip codes with the highest median income (See Slide 6)



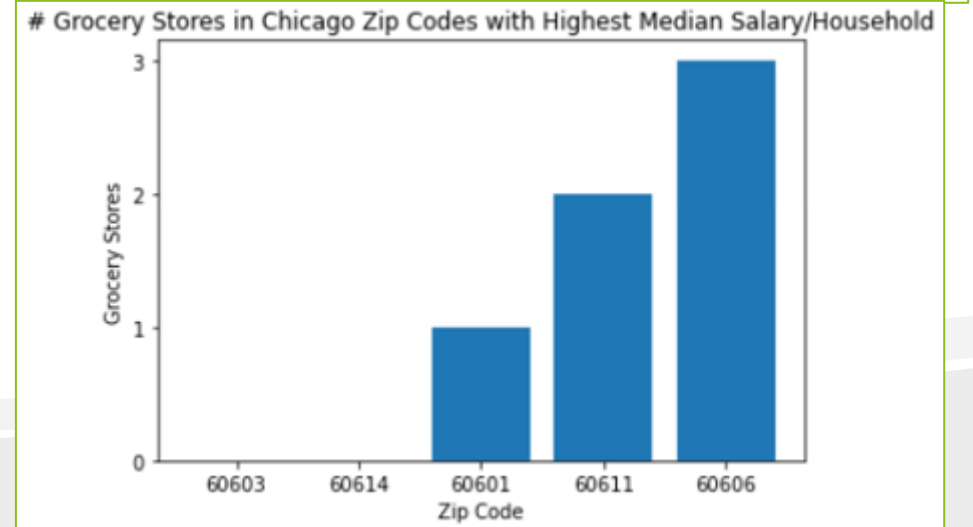
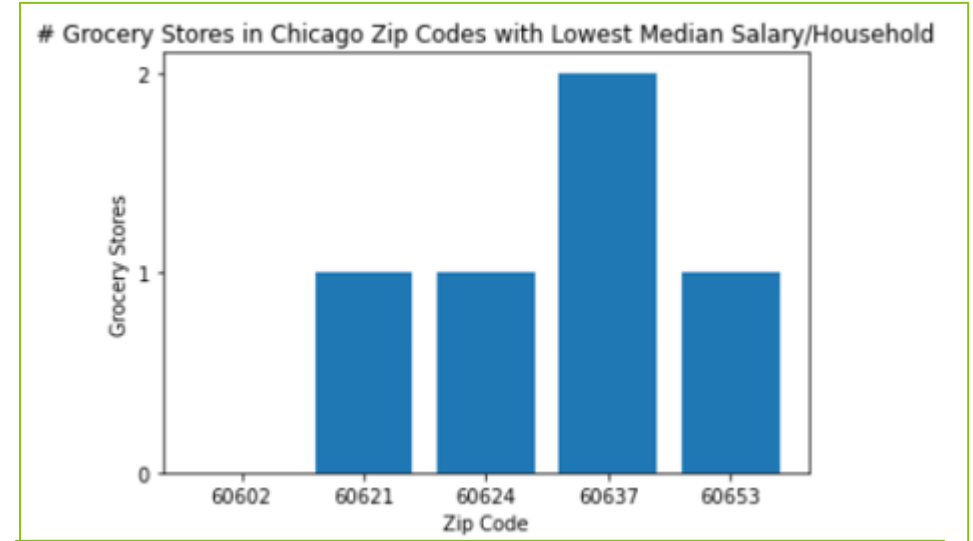
Results: x5 Zip Codes with Highest Med. Income

- The density of grocery stores increases significantly in the areas with the highest median income



Two Content Layout with Table

- Zip codes with the highest median income have a higher geographic density of grocery stores
- Areas with ZERO Grocery Stores
 - Zip 60602: Downtown tourist/business area – a study is required to analyze impact of low-income households surrounded by high-income households
 - Zip 60603: This is in the same area as 60602
 - Zip 60614: Area with restaurants, cafes, bars – but with access to grocery stores in R=1.5 miles





Discussion

- Results show that Chicago is not impacted by food deserts, however, there is a stark difference between highest median income per household vs those with the lowest
- Additional studies could add to the analysis:
 - Transportation and Accessibility
 - Quality and pricing of available food



Conclusion

- Results are promising with respect to Food Deserts as defined
- The City of Chicago and civic leaders have recently made efforts to eliminate food deserts, but much work remains to be done to close the gap between low- and high-income neighborhoods
- This study demonstrates opportunities for civic and business leaders to continue investing and developing Chicago's south and southwest neighborhoods
- Business opportunities for new grocery stores that:
 - Provide healthy food items at an affordable price
 - Are easily accessible
 - Cater to the culinary diversity of the local neighborhoods