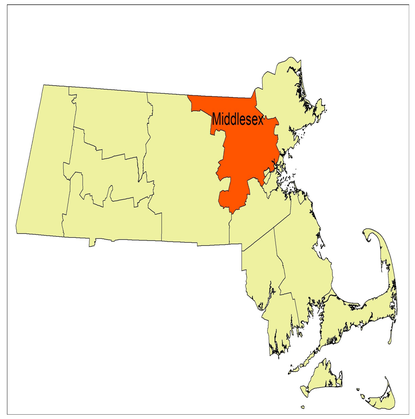
Identifying wholesale grocery store locations in Middlesex, MA

Background:

From big multinational companies to small entrepreneurs, access to data and visualizing the data is becoming more and more ciritical. Data helps businesses to increase their operational efficiency and avoid failures. Data visualization at geographical level becomes very important when it comes to selecting a new location. Businesses across different industrial sectors are using GIS mapping techniques right from sourcing raw materials to selling finished products and are saving millions in the process. This poster outlines different techniques in order to select a location of a new grocery store in Middlesex County of Massachusetts.



Massachusetts Counties

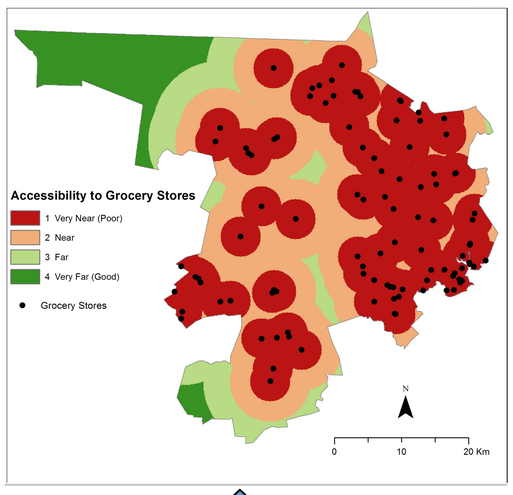
Methodology:

In this project, we are identifying large grocery store locations by evaluating grocery stores at block groups admin level with sales volume of more than $50 million . For the areas with high income concentration, we are looking only at income of individuals more than $100,000. The project identifies where are the high and low concentrations of grocery stores, population density and income density.

Summary

Suitability Analysis of areas	*Ranking*	*Number of Areas*
Most Suitable	**9 and above**	**18**
Highly Suitable	Between 8 and 9	20
Least Suitable	Between 3 and 5	44

Accessibility to grocery stores



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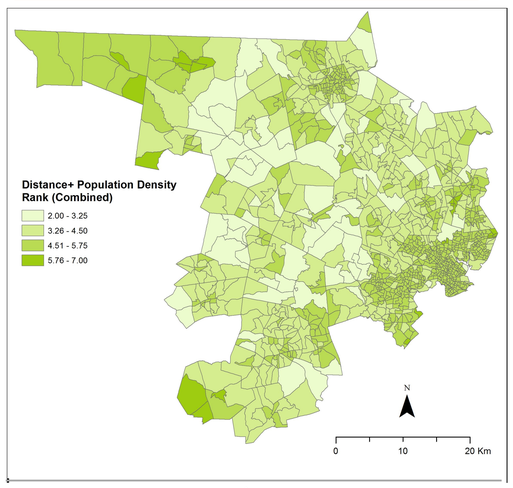
Population density and Distance Suitability



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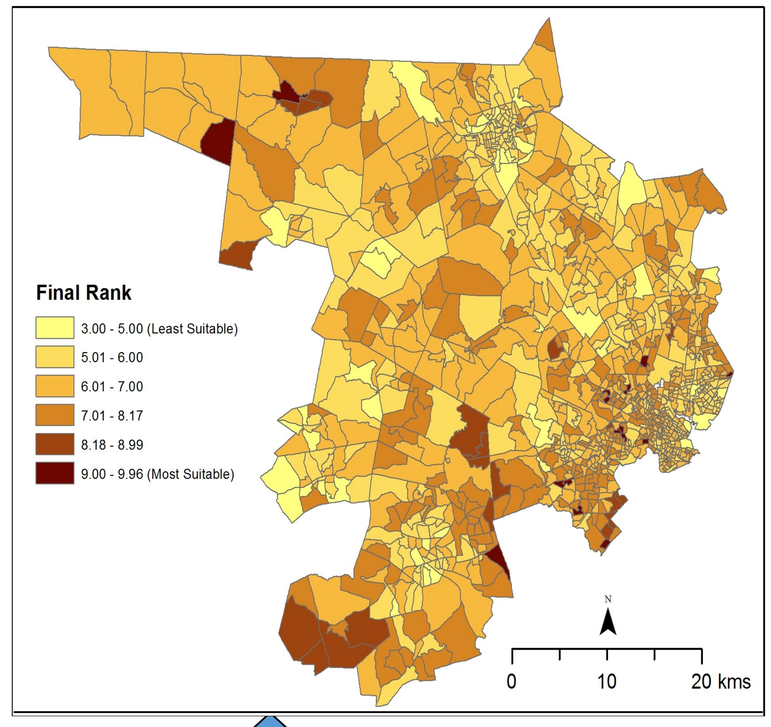
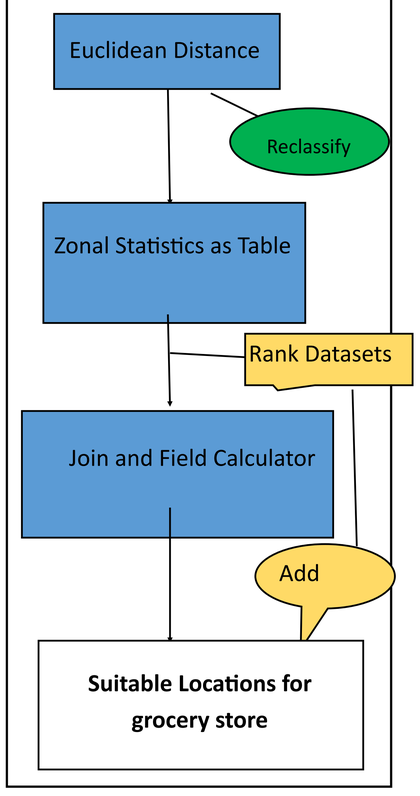
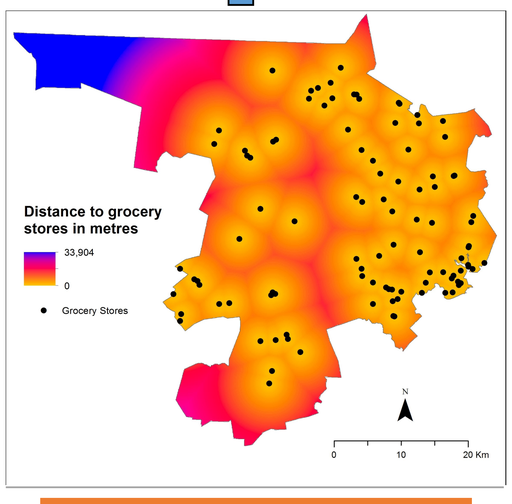
Suitable locations for grocery store

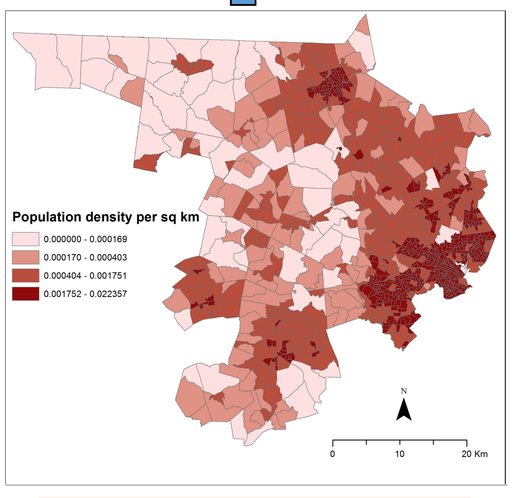


The following spatial tools and steps have been involved in evaluating the final locations:

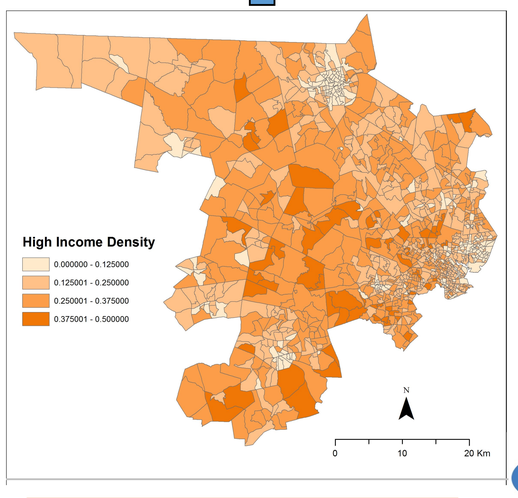




Nearest Distance to Grocery Stores



Population Density of Middlesex



High income concentration

Data Sources

Reference USA (Business Data Set)
US Census 2010 Population and Geographic Data Set
American Community Survey

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