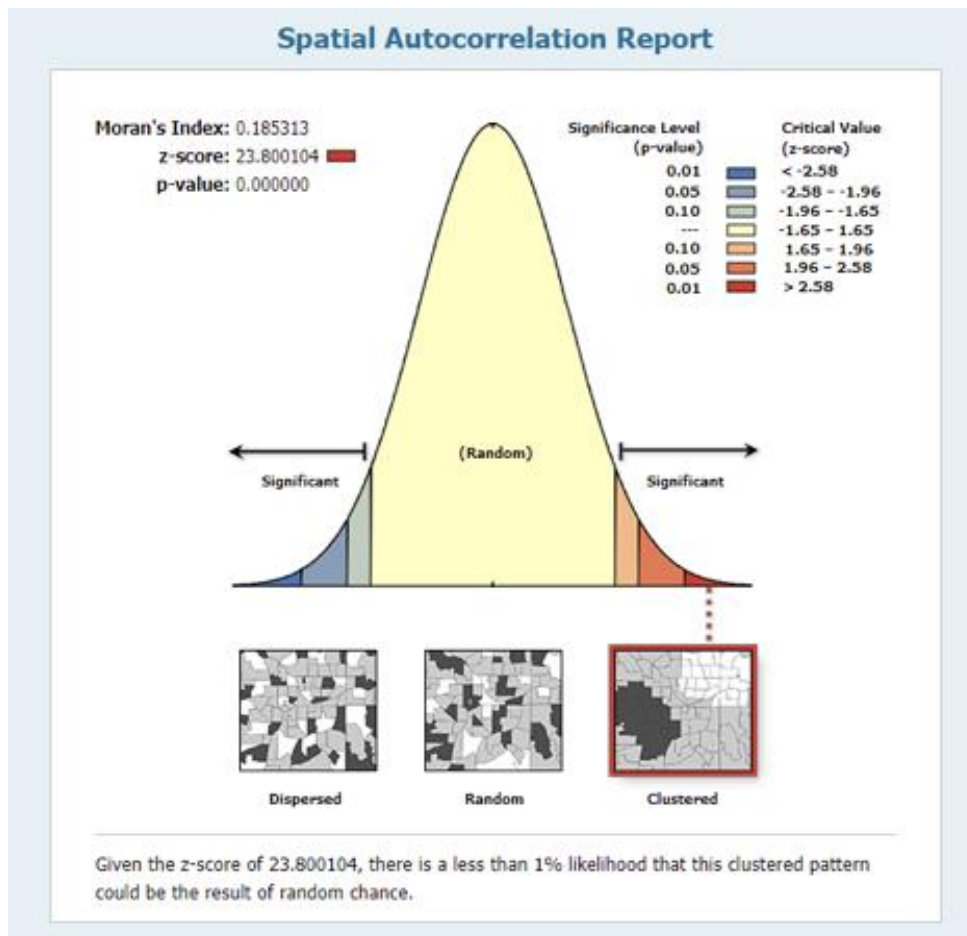


Basic Spatial Statistics

In this assignment I have analyzed houses with 4 or more people in Monroe County of Rochester, NY

Hypothesis – Urban areas of Monroe County have houses with less than 4 people.

Below is the figure showing **Spatial Auto Correlation** which provided more insights in data:



Dataset Information	
Input Feature Class:	monroe_housing
Input Field:	HOUSING
Conceptualization:	INVERSE_DISTANCE
Distance Method:	EUCLIDEAN
Row Standardization:	False
Distance Threshold:	18649.2267 Meters
Weights Matrix File:	None
Selection Set:	False

Figure 1

The z-value that can be seen from Figure 1 is 23.8. The data is in clustered pattern. As the z-score of the above analysis i.e. $23.8 \gg 2.58$ indicates null hypothesis being rejected. Hence, our hypothesis stands true.

To further validate whether null hypothesis is rejected or not, cluster and analysis tool was applied.

Below is the figure showing analysis after **Cluster and Analysis** tool being applied:

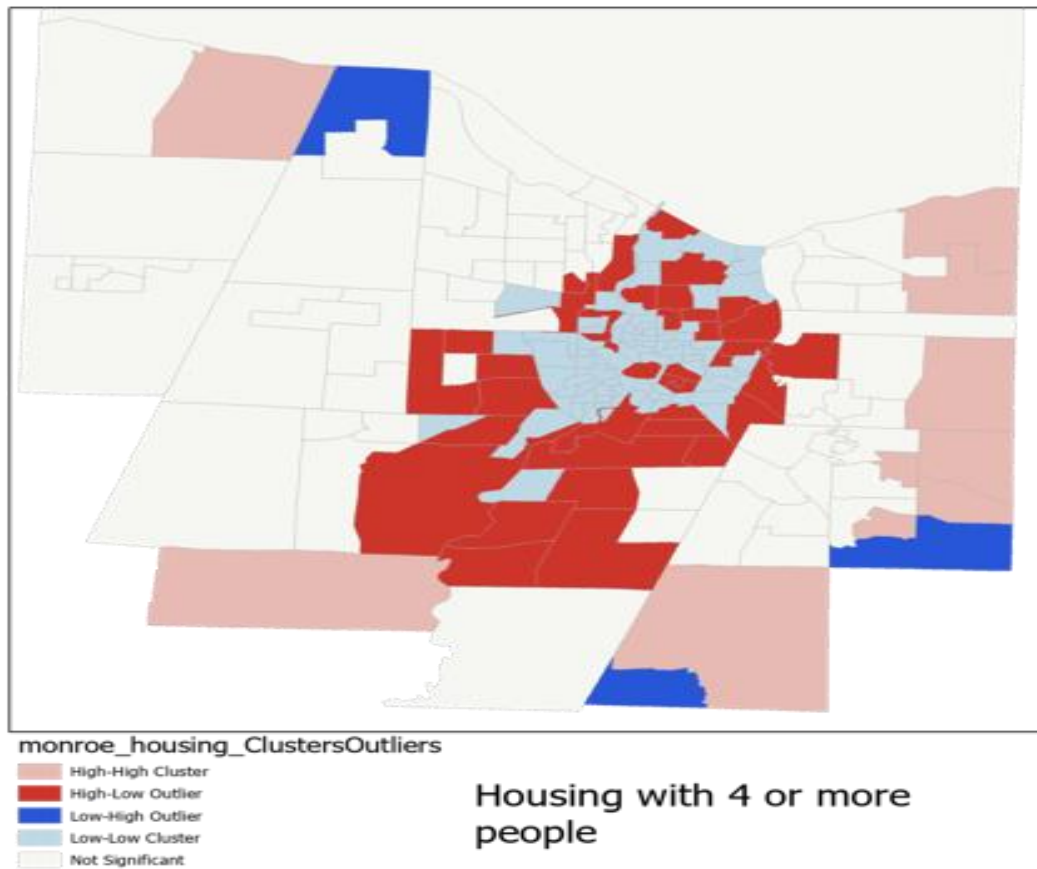


Figure 2

From the above figure, we know that the outskirts of Monroe County have households with 4 or more people which is indicated in pink color [High-High Cluster].

Thus, analysis of households with 4 or less people in urban areas of Monroe County of Rochester stands true.