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Geog 579

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Lab 2

1. Would you think that the settlement of Italians in this city tend to be clustered? Why would you state so? (4 points)

No, I do not believe the settlement of Italians in this particular city is clustered both random arrangement and sampling results are not significant. For both Moran’s and Geary’s a results were not significant.

2. What impact would this mistake have on the Moran Coefficient? (You must recalculate the value for this index using the new percentage for Track 1). (4 points)

The impact on the Z score was minimal since we did yield the same result. However, the Z scored did change over time. The tables I built did change but did not impact the Z score significantly.

3. What would be the impact of this exchange on the Moran Coefficient? (You must recalculate the value for this index) (4 points)

Again, the change in the impact is not significant. We still did yield similar Z scores.

4. Are the values of Moran Coefficient for these images the same? Why? Would decreasing spatial resolution ALWAYS result in a decreasing spatial autocorrelation? Why? State why you chose a particular**Conceptualization of Spatial Relationships** for Autocorrelation (Morans I) and which**Distance Method** you chose. (Show your result for the first autocorrelation output.) (7 points)

No, the spatial resolution does not change when we decrease the cell sizes. Given that there are four options when we resample, the nearest option assigns the values to the nearest neighbor and is the fastest of the interpolation methods. This option is best since it will not change the value of the cell in order to keep from reducing spatial autocorrelation. Using Bilinear and Cubic options would decrease spatial autocorrelation because these options change cell size.

In choosing a conceptualized of spatial relationships I shore the inverse distance parameter because if considers along with a Euclidean distance since we are not in a city but are measuring area through time and how to interact. Inverse distance is the best parameter since all neighboring features play a larger role on the computations especially when cell size is not being changed.

Please see attached html reports for the auto correlation output.