

Crime Mapping and Spatial Analysis

Trimester 2, 2019-2020

FINAL PROJECT INSTRUCTIONS

Part II: Analysis Component

For the spatial analysis component of your final project, you will need to (1) pick a dataset for which the observations are geographic points or areal units (e.g. census tracts, police precincts, or a custom grid that you create), (2) calculate the global Moran's I statistic from the residuals of an ordinary least squares (OLS) regression, and (3) fit and interpret a spatial regression model:

1. Pick a data set: Ideally, you will be able to find a dataset related to the mapping component of your project, but this is not necessary. You can pick any dataset you want, as long as the units of analysis are geographic areal units. You can also create your own dataset by placing your own areal units over a set of points as we did in the lab.
2. Calculate the global Moran's I statistic from the residuals of an ordinary least squares regression as we did in the lab.
3. Fit and interpret a spatial regression model. This can be any of the models we have discussed in class (spatially lagged dependent or independent variables, spatial errors, or some combination).
4. Submit your do file, your log file, and a short interpretation of your regression results through Aula Global

Deadline: 28 March 2020

This component will be evaluated as follows:

- a. Technically correct calculation of Moran's I: 40%
- b. Technically correct regression model (regardless of whether it is a useful model in substantive terms: 40%
- c. Interpretation of the model results: 20%