

Quantitative Methods: Student Work

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Course: BSc Geography with Economics

What was the focus of your project/dissertation?

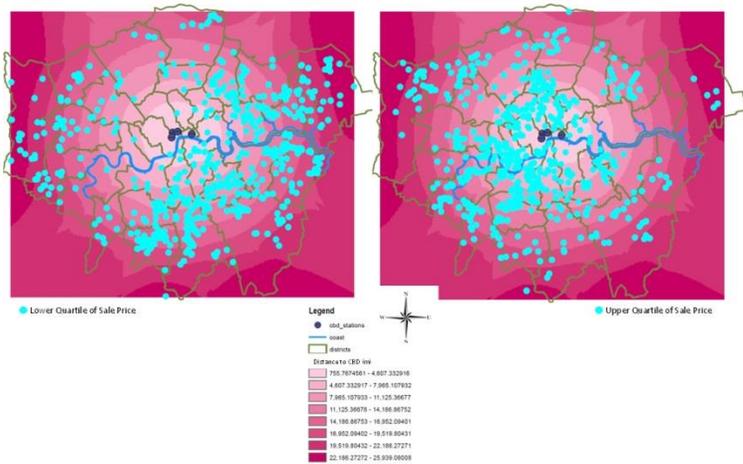
I completed the work in my second year as part of the module Research Techniques (Spatial, Social and Environmental Analysis). The aim of the study was to find which structural and spatial characteristics influence the sale price of a property and which variables have a greater impact on the sale price. I was given data on recent sale prices of properties in London. Using literature, GIS spatial mapping and hedonic regression modelling I was able to draw conclusions.

How did you apply Quantitative Methods to your work?

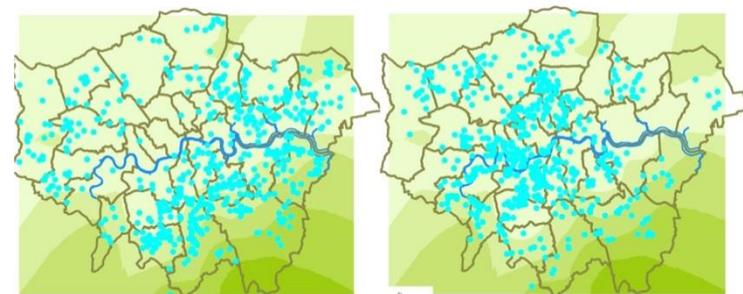
To extend the study of what effects house prices beyond graphical explanations, I used SPSS and GIS to conduct a hedonic regression. I formed a null and alternative hypothesis to test whether the independent variables had an effect on the dependent variable, the sale price of a property.

To be able to reject the null hypothesis I had to be sure that the calculated t-statistics were statistically significant. Using SPSS I calculated the f and t-statistics to assess my model. In order for the OLS method to be the best possible fit and to test for any inaccuracy, I carried out robustness checks following The Classical Assumptions.

Relationship between Distance to the CBD (m) and Property Price



Relationship between Distance to the nearest Tube (m) and Property Price



Assessors views

Why was this a good piece of work?

- The work demonstrated a very sound understanding of econometric modelling and testing and a very strong capacity to choose and apply statistical tools and models to real data.
- Quantitative methods brought capacity to discuss the significance of results, clarity of hypothesis under scrutiny, and the possibility to replicate the analysis.
- Rebecca demonstrated the capacity to handle large datasets as well as spatial data which is a useful skill to gain especially when thinking about employment options post-university.