

An Investigation to see whether the use of a GIS can inform Marketing Strategy

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Conclusion

Three workspaces, one for each of the mainland UK countries has been built. Each of the workspaces contains multiple layers of data that are displayable. From the data visualized in the workspace, it has been possible to prove the hypothesis that the use of a GIS can inform Marketing Strategy for the recruiting of students to a University.

Introduction

In an aggressive and competitive market, Universities vie to recruit potential students to their courses. For those who have seen falling numbers, would visualisation of their applicant data on a Geographical Information System identify trends or patterns that reviewing spreadsheets alone would not.

Aims & Objectives

The aim of this ‘proof of concept’ project was

- To prove or disprove the hypothesis.
- Identify a correlation between applicants from areas of deprivation and students recruited to the Faculty of Art & Design.

The project objectives were to

- Build a work base session solution for each country, i.e. England, Scotland & Wales
- Applicant data for each Academic Year, 2011-12 to 2016-17 to be added as separate layers
- Add layers for competing Universities and Local Education Authority offices displayed as a geo point

Materials & Methods

MapInfo selected as the GIS software to be used. MapInfo is a desktop client that required data to be saved in a .TAB format.

Boundary data for the three workspaces was downloaded from the the UK Data Service at the Mid Super Output Layer (MSOA) level.

The Applicant Data contained fields that included full name, home and term time address, applicant outcome and date of birth. This data was cleansed with longitude and latitude co-ordinates added so that points could be created in the workspace.

RecordType	Academic Yr	Course Code	Course Title	Campus Code	Campus Name
Application	2016/17	612C	BA (Hons) 3D Computer Animation	MP	Mount Pleasant Campus
Application	2016/17	678T	BA (Hons) Music Technology	MP	Mount Pleasant Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	TC	Cardiff Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	TH	Town Hill Campus
Application	2016/17	101P	BA (Hons) Photography in The Arts	TH	Town Hill Campus
Application	2016/17	101I	BA (Hons) Illustration	TH	Town Hill Campus
Application	2016/17	101I	BA (Hons) Illustration	TC	Cardiff Campus
Application	2016/17	101D	BA (Hons) Graphic Design	MP	Mount Pleasant Campus
Application	2016/17	101I	BA (Hons) Illustration	TC	Town Hill Campus
Application	2016/17	101I	BA (Hons) Illustration	TH	Town Hill Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	MP	Mount Pleasant Campus
Application	2016/17	612H	BA (Hons) Automotive Design	TH	Town Hill Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	TH	Town Hill Campus
Application	2016/17	612H	BA (Hons) Automotive Design	TH	Town Hill Campus
Application	2016/17	101P	BA (Hons) Photography in The Arts	TH	Town Hill Campus
Application	2016/17	602P	BSc (Hons) Product Design & Technology	TH	Town Hill Campus
Application	2016/17	664H	MDes Automotive Design	TH	Town Hill Campus
Application	2016/17	612P	BA (Hons) Product Design	DY	Dynevor Campus
Application	2016/17	115P	MArts Photography in the Arts	LAD	London Campus
Application	2016/17	105K	Diploma in Foundation Studies (Art & Design)	MP	Mount Pleasant Campus
Application	2016/17	116V	Certificate of Higher Education in Art and Design Foundation	MP	Mount Pleasant Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	LAMP	Lampeter Campus
Application	2016/17	101D	BA (Hons) Graphic Design	LAMP	Lampeter Campus
Application	2016/17	102V	BA (Hons) Digital Film & Television Production	LAMP	Lampeter Campus

Figure 1: Wales Applicant Data 2016-17

Deprivation was displayed as a thematic layer on the work base sessions. Deprivation data used was very similar to that of the Townsend Index, classifying household deprivation using information obtained during the 2011 Census.

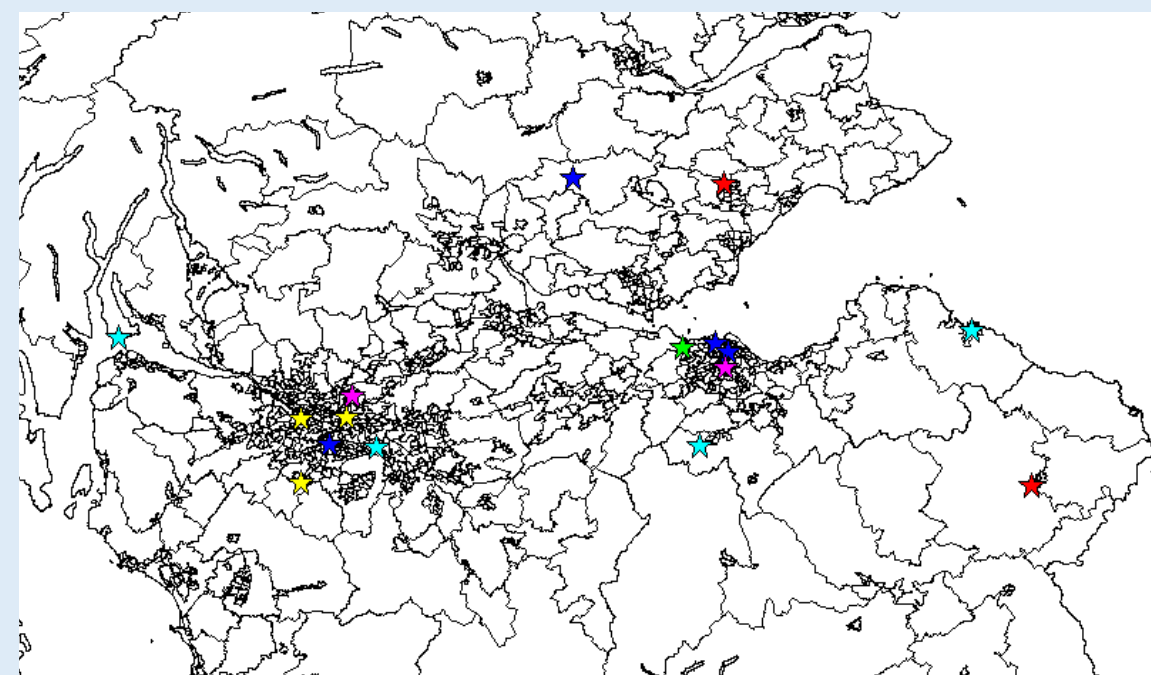


Figure 2: Scotland work base displaying all applicants

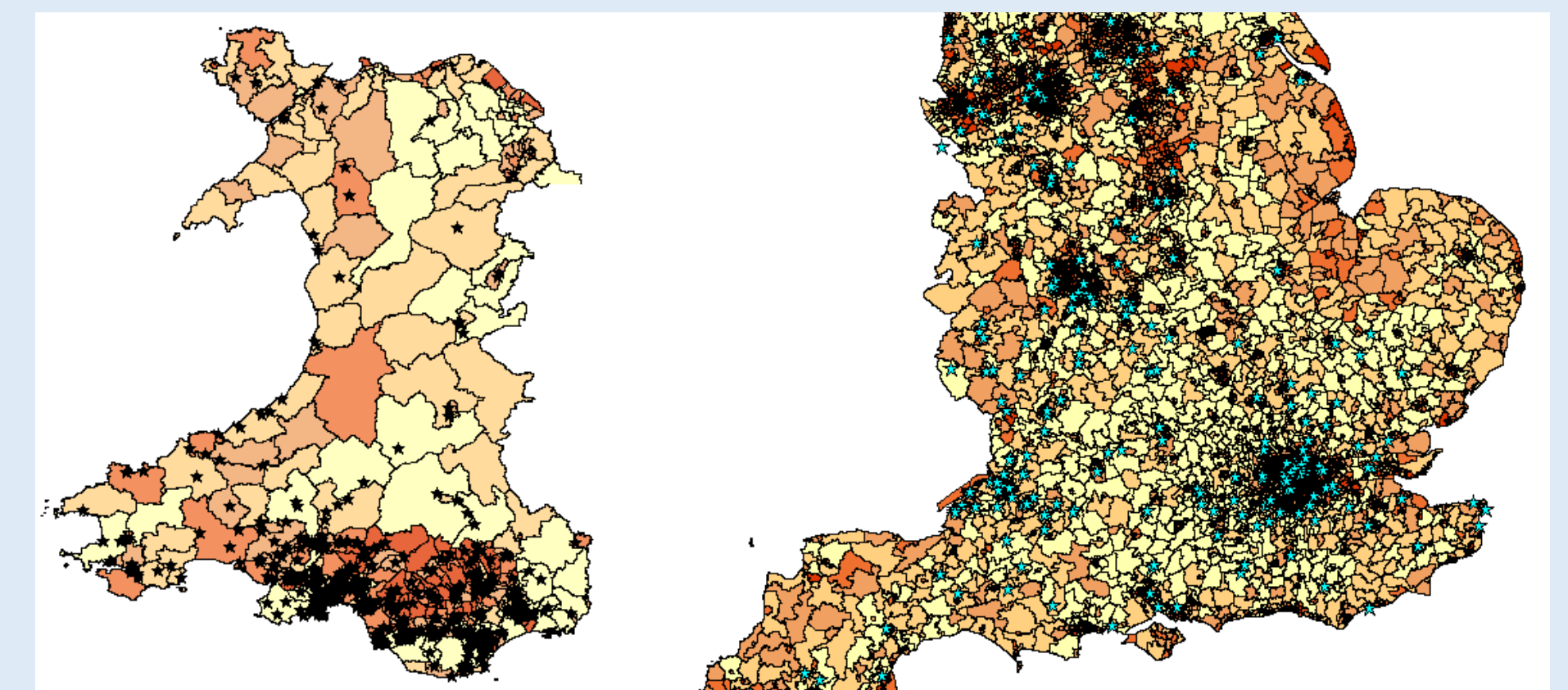


Figure 3: Wales and England work base session displaying 2016-17 applicants and 3 dimensions of household deprivation

Results

The outcome of the project identified the following

- Correlation in England & Wales between applicants and deprivation
- Applicants that apply are on the whole from less affluent areas.
- Scottish applications are mainly from the Glasgow & Edinburgh areas

Further Research

Further research to the project that could be carried are

- Review applications across the remaining four Faculties to make a comparison
- Consider applicants by their outcome, specifically the offer received e.g. rejected, declined or withdrawn
- Design and build a web front-end to display all the maps and applicant spreadsheets
- Investigate the benefits of creating a dashboard in software such as Tableau