Masters Dissertation Scheme
Project form

Company / Organisation Name:	Transport for West Midlands / West Midlands Combined Authority
Team / Department:	Data Insight Team / Policy, Strategy & Innovation Department
Address:	16 Summer Lane, Birmingham B19 3SD

Provisional title for project:

'Socio-economic unfairness Index' of Travel – travel ticket purchasing behaviour as barriers to economic and social mobility

Short description of the problem that would be addressed by the project:

Many people in the West Midlands use a Swift travelcard to journey around the region. There are a number of methods an individual can use to buy a travel product, including visiting one of 2397 Payzone agents available across the region. These sites are local corner shops where products can be bought, and cards topped up over the counter.
We acknowledge that Swift customers who use Payzone agents, may have to because they tend not to travel far from home, may not be able to afford long term or continuous products and do not have the access or skills to use the internet. This could mean these customers are not buying the cheapest, most suitable product for their needs and in the most convenient method available to them, creating barriers for these customers in accessing the services they require to improve their economic and social circumstance. We hope this research could develop a 'Socio-economic Unfairness Index' (the price of travel for the most vulnerable in our community) to monitor the provision of services in the West Midlands and ultimately improve the lives of the Swift customers in the region.

Short description of the data sources that would be used in the project, and how they would be used

Customer postcodes – to identify customer sample, Demographic data – to link to customer postcodes e.g. population density, those 'unbanked' (ONS data, CDRC data), Swift sales data at channel agents – to understand customer demand and distributions of products sold and Transactions data on transport – to understand correlation between distances travelled by customers and product type. Key Questions: Where do people get the best value product? How much more do Payzone customers pay?

Would any work by the student need to be carried out on site at the Company with the exception of supervisory meetings?

No

Any issues of data confidentiality and IPR that would need to be resolved

Potential for PII data to be generated through mapping customer postcodes to on vehicle journey transactions.

Essential skills

Confidence accessing and querying databases, data analysis, quantitative research methods

Desirable skills

Statistical methods, hypothesis testing, network analysis

Preferred degree programmes (if any)

Data Science, Statistics, Mathematics, Social Science

Preferred selection method

Support and training offered by the company

The successful student will have support from a Performance Analyst and Research Analyst who are familiar with Swift data.

Financial assistance offered by the company

The organisation will pay the honorarium (£500)

Any other comments

For details on how to apply, please visit:
www.cdrc.ac.uk/education-and-training/masters-dissertation-scheme/details-for-students