



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Demand Responsive Transport Systems,
Leeds University Business School



Salary: Grade 7 (£36,333 – £43,155 p.a.)

Due to funding constraints, an appointment will not be made above spine point 33 - £36,914 p.a

Reference: BUSMGS1001

Closing date: 30/06/2023

Fixed-term for 2 years

Research Fellow in Demand Responsive Transport Systems Leeds University Business School and Institute for Transport Studies

Do you have research expertise in Choice Modelling and/or Econometrics? Are you interested in bridging different techniques to advance the state-of-the-art transport models and make a real-world impact?

Shared mobility solutions have been widely studied in the past two decades, but despite their potential to improve efficiency and affordability of travel, they have remained fairly limited in scope and geographical spread and have not significantly reduced the use and ownership of private vehicles. Dial-a-ride is a specific type of shared mobility tool, involving a door-to-door service usually directed to people who cannot access public transport. Scaling up such service to a wider audience in an efficient, sustainable and affordable way is the challenge that we would like you help us address.

Part of this challenge consists in engaging relevant stakeholders and understanding people's preferences and expectations towards such services. This is essential to ensure that the so that their routing, scheduling and pricing can be designed to maximise demand and ensure financial sustainability in the long term. Both qualitative and quantitative data will need to be collected and analysed with choice modelling and econometric techniques to obtain robust insights that will feed into the mathematical modelling needed to design the service.

The project within which you would work, named "A scaled and sustainable demand responsive transport service", is funded by the Engineering and Physical Sciences Research Council (EPSRC) of the UKRI and led by Prof. Rym M'Hallah (King's College London). As a member of the team, you will be working with Prof Julia Bennel and Dr Chiara Calastri and be based at the Leeds University Business School with cross-university collaborations through the Institute for Transport Studies and Choice Modelling Centre ([CMC](#)). You will also collaborate with Prof Christine Currie (University of Southampton) and participate to project meetings in Leeds, London and Southampton.



We are looking for a committed, highly motivated and innovative individual with econometrics and/or choice modelling background to work in this exciting research project.

You are expected to contribute to designing and conducting novel data collection and developing choice models in the context of dial-a-ride services. You will also be expected to produce methodological contributions in bridging choice modelling and large scale optimization. As this is a multi-faceted research project, you will be able to contribute to individual components of the work as well as helping to shape the direction of the research according to your own interests and background. You will be expected to take academic ownership of large parts of the programme and make a lasting contribution to the field.

What does the role entail?

As a Research Fellow, your main duties will include:

- Working with Prof Julia Bennel, Dr Chiara Calastri, Prof Christine Currie and Prof. Rym M'Hallah to ensure the success of the project
- Generating and pursuing original research ideas in bridging choice modelling and optimisation;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team;
- Providing a leading role in a large-scale primary data collection to support the attainment of the research objectives;
- Working with novel secondary data provided by non-academic partners and primary data collected as part of the project;
- Developing and estimating choice models using different data sources
- Willingness to travel within the UK and internationally for training and dissemination events;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Supporting the management of the project (e.g. helping in organising workshops, seminars etc.);



These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:

- A PhD or near completion - i.e. the initial thesis in the field of Choice Modelling, Econometrics or closely allied discipline needs to have been handed in at the point of application;
- A strong track record of developing and refining discrete choice models and applying them to in the area of travel behaviour research;
- Computer programming skills and evidence of working with large datasets in the area of choice modelling or Econometrics;
- A track record of peer-reviewed publications in international journals focused on travel behaviour research;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

You may also have:

- Specific experience in the context of demand-responsive mobility
- Experience in transferring choice modelling insights to other disciplines, e.g. agent based modelling;
- Experience with primary data collection, in particular with focus groups and stated preference surveys;
- Ideas for ways in which this project could stimulate engagement with policy makers and/or the public.

How to apply



You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Dr Chiara Calastri

Institute for Transport Studies and Choice Modelling Centre

<https://environment.leeds.ac.uk/transport/staff/921/dr-chiara-calastri>

Email: c.calastri@leeds.ac.uk

Additional information

Find out more about the [Leeds University Business School](#).

Find out more about the [Institute for Transport Studies](#).

Find out more about the [Choice Modelling Centre](#).

A diverse workforce

The Faculty of Business and the Faculty of Environment has received a prestigious Athena SWAN bronze and silver awards (respectively) from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.



Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

