**Project Title:**
How do inequalities in housing development and transport provisions affect socio-economic disparities among cities in the United Kingdom?

**Principal Supervisor:** Dr Jens Kandt

**Secondary Supervisor:** Prof Elsa Arcaute

**Department & Institution:**
The Bartlett Centre for Advanced Spatial Analysis (CASA), University College London (UCL)

**Collaborative Organisation:**
UK Department for Transport (DfT)

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**Project Description:**
The goal of this project is to draw on novel data sources to explore to which extent differences in urban productivity can be explained by inequalities in housing and transport provision. There are significant inequalities in cities’ economic performance within the United Kingdom, and medium-sized cities appear to achieve lower productivity levels than continental European counterparts. A recently articulated hypothesis states that differences in public transport provision and compact urban structures play key parts in producing these unequal outcomes.

The project will collect new empirical evidence from publicly accessible time series data pertaining to local economies, novel data sources reflecting urban functional relationships and digital local planning data to address some of the following questions:

- What is the productivity gap experienced by disadvantaged cities due to unequal housing development and provision of public transport?
- How have housing needs, transport accessibility and urban economic outcomes, such as productivity, evolved over the last two decades across the UK?
- What novel analytical methods can be developed to estimate the relationship between housing development, urban densification, transport connectivity and urban productivity?
- How are the relationships affected by different definitions of functional urban regions and the evolution of urban functional relations?
- How can novel big datasets be harnessed and methods be used to render complex and dynamic functional relations useable in public policy?

In addressing these questions, the PhD will review and build on the economic geography and transport economics literature and build long-term evidence, engage with uncertainties arising from interplay of transport, co-dependent housing development and changing urban functional relationships, which in parts
result from a higher prevalence of working from home after the pandemic. The research is expected to contribute debates on transport’s wider economic impacts in the academic fields of economic and urban geography as well as to the long-standing high-priority policy agenda of addressing regional disparities in the UK.

The project will be co-supervised by economists at the Department for Transport (DfT), and the applicant will be expected to work at DfT offices for part of the time. The project will thus offer a rare opportunity to conduct research with an influential policy organisation, advance social and economic analysis on transport-related urban outcomes, translate theory into practice and lead on cross-sector knowledge exchange on pressing policy challenges, notably reducing geographical disparities in the United Kingdom.

**Studentship and Stipend:**

The duration of the studentship is 3.5 years full-time or 6 years part-time. Please note that, for part-time, a minimum time commitment of 50% is required.

The annual full-time stipend rate for 2024/25 is £20,611 (tax-free) and will normally increase annually. The stipend may be enhanced with an Advanced Quantitative Methods uplift of £2,000 per year.

In addition, tuition fees will be covered and there will be access to university funds for conference travel, training and data licences.

**Candidate Requirements:**

We are seeking a highly motivated individual who has a strong interest in transport, urban or economic geography, spatial analysis or econometrics and planning.

The candidate must have

- excellent written and oral English communication skills and
- substantial training in or experience with quantitative methods.

The candidate should have a background in economics, geography, transport studies, planning or a related discipline. Some experience with spatial analysis, econometrics or modelling will be of particular advantage.

**Baseline Personnel Security Standard** (BPSS) will need to be secured prior to the research. This process is expected to take approx. 6 weeks.

Please also note the requirements by ESRC regarding the award of the studentship: [https://www.ukri.org/publications/esrc-postgraduate-funding-guide/](https://www.ukri.org/publications/esrc-postgraduate-funding-guide/)

**Key References:**


PWC (2023) *UK Productivity Tracker, Spotlight on the Regions*. Available at https://www.pwc.co.uk/industries/insights/productivity-tracker/regional.html


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**Further details about the project may be obtained from:**

Jens Kandt, j.kandt@ucl.ac.uk

**Applicant guidance – please read carefully:**

The deadline for application is: 8 April 2024, 23:59

To apply, please fill in this web application form (link: https://ucl.smapply.io/prog/2024_student_application_con-funded_and_collaborative_studentship/).

In the web application form, please follow these instructions.

In the main form, tick the appropriate project and add your personal information.

- Programme of Study: enter Advanced Spatial Analysis MPhil/PhD
- Study route: select 3.5 award
- Masters level programme: n/a
- AQM: select yes

In the training plan,

- please describe your training needs based on your background and the project description. This will be indicative at this stage.
- adapting your project: enter n/a
- related data and feasibility: enter n/a
- Impact statement: enter n/a

**CV upload:**

- Please upload a 500-word (max) letter of motivation and your CV combined in one file.
- In addition, please indicate at the end for your motivation letter your availability during the planned week of interviews (see below).

**Interviews** with short-listed candidates will be held between 23 April and 25 April. Short-listed candidates will receive an invitation by 16 April with details on any presentation you may prepare for the interview.

We look forward to your application.