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Long distance transport access disparities and poverty: The case of the UK Warnock-Smith, D* and Maleki, M

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Introduction

Long distance transport continues to be an under-researched area due to its non-routine nature, its lower frequency of occurrence for many residents and its data collection complexities (Ullman and Aultman-Hall, 2020). Nevertheless, despite the personal inconveniences of undertaking long distance transport, with travel fatigue chiefly among them (see Reilly et al., 2008 for a full discussion), it is often considered to be an essential or at least highly desirable aspect of today's global society. According to Dowds et al., (2018), access to long distance travel and to more distant destinations is increasingly important for maintaining social networks and accessing economic opportunities and specialised services.

This research aims to build on recent work in this area by Warnock-Smith et al, (2023) by testing an initial working definition of Long-Distance Transport Poverty (LDTP) on a UK case-study using a bottom-up approach, to detect if there are any regions and/or urban areas across the UK where there could be some presence of LDTP. Determining disparities in levels of long-distance access between UK regions and urban areas was also an important aspect of the research.

Fig 1: ITL1 regions of the UK

Methodology

The UK is split into 12 International Territorial Level 1 (ITL1) regions (see map) with the UK nations of Scotland, Northern Ireland and Wales counting as stand-alone regions and England being split into the remaining 9 areas. For each statistical region, two urban areas were selection with populations of between 50,000 and 100,000 (with the exception of London where two Boroughs were selected) and centre to centre long-distance (>100kms) transport links were analysed to four other urban areas, one lying inside the same statistical region, one in a neighbouring statistical region, one to the UK capital London and the final one to an large urban area in a neighbouring country. This made for a sampling frame of 96 separate Origin and Destination (O&D) routes. For each O&D route, air (where applicable), road and rail links were assessed for the months of March and April 2024 for average trip durations, frequencies and standard fares/costs (planning two weeks ahead).

Using average household budget data from ONS and a minimum long-distance trip duration convenience threshold (100kms per hour), the selected towns and regions were indexed in terms of long-distance transport convenience and affordability. Data sources primarily included national rail and air operator websites, Google and Open Street Maps and ONS.

Some Next Steps

- Stakeholder workshop and feedback session with the Department for Transport (July 2024)
- Review National Travel Survey and other data documenting traveler experiences from each region/town to corroborate supply related findings (May-June 2024)
- 56th UTSG Conference presentation, Huddersfield, UK (1-3 July 2024)

Some Key findings

- Locations in Wales (Wrexham and Barry) and Northern Ireland (Derry and Newtonabbey) returned the lowest relative affordability and convenience ratings across the UK.
- None of the observed routes from the selected urban areas fitted into the working definition of LDTP as there was always at least one mode (rail, air or road) that met the minimum thresholds. It should be noted, however, that rail and air fares, when booking two weeks in advance, were at a point where a high level of strain on household budgets were observed when on average more than a few long distance trips per annum are needed (using an average household family size of 2.4 – ONS), something that should be of concern to policy makers wishing to encourage modal shift between road and rail, for instance, as a sustainability measure.

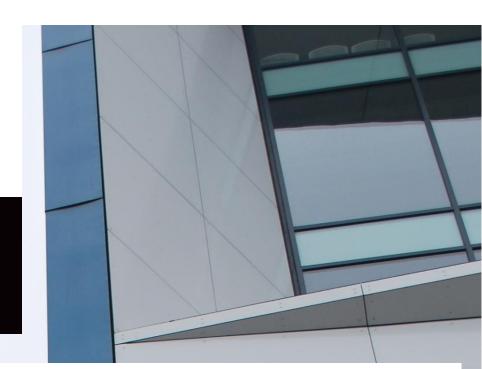
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