
Commuting & Wellbeing

The [commuting & wellbeing](#) project is an 18 month study funded by the [Economic and Social Research Council](#) under their Secondary Data Analysis Initiative. The project is examining the **impact of different commuting behaviours on personal wellbeing over time**, using secondary data from the [UK Household Longitudinal Survey](#) (UKHLS, also known as Understanding Society).



Context

The notion of 'wellbeing' has become an increasingly salient issue for governments across the world where it is recognised that measures of economic growth do not necessarily reflect quality of life. In 2010 the UK government initiated a programme of wellbeing measurement to identify factors that influence wellbeing.

Wellbeing refers to the extent to which people's lives are going well and is most often measured subjectively by asking people to evaluate their own lives and to provide affective responses to their experiences. Three dimensions of subjective wellbeing (SWB) are identified in the literature. These are (i) evaluative wellbeing - how satisfied individuals are with their lives; (ii) experiential wellbeing - how often individuals experience different emotions; and (iii) eudaimonic wellbeing - whether individuals feel they are fulfilling their potential (ONS, 2011). Wellbeing can also be considered with respect to specific domains such as health, job and home.

The journey to work has the potential to affect wellbeing in various ways. Commuting may be stressful and adversely affect mood during and after the journey, ultimately affecting mental and

physical health. Time spent commuting may worsen wellbeing by consuming time that workers would rather spend on family and social activities. Unhappiness with the commute may thus spill over to dissatisfaction with job, home or social life, although standard economic theory assumes that an arduous commute is offset by employment or housing advantages. On the positive side, a commute may be relaxing, interesting and productive and if it involves physical activity it can improve physical health and hence increase SWB. For large numbers of people, the commute is a feature of daily life and it is therefore an appropriate target for behaviour change interventions with the prospect that these could achieve substantial benefits to social welfare.

Research Questions

To date, there is limited evidence on the impact of commuting on wellbeing, particularly over the medium term (e.g. five years). In this project we will use longitudinal data from the UKHLS to address this gap and answer the following research questions (RQs):

1. What specific aspects of wellbeing (e.g. satisfaction with leisure time, feeling constantly under strain) are related to commuting and how do personal and spatial characteristics affect this?
2. How do different commuting behaviours influence the development of wellbeing over time?
3. How do changes in life situation (e.g. moving home, changing jobs) and commuting behaviours influence personal wellbeing over time?

Data and Methods

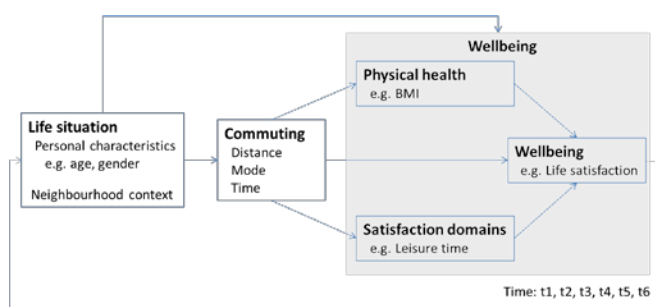
Task 1: Data set preparation: The UKHLS is surveying adult members of 40,000 households every year. It records information on commuting (mode, distance and time) and wellbeing (e.g. life satisfaction, health, BMI). The first six waves of this data set (2009/10 to 2015/16) will be used to identify how the commuting behaviours of employed people have changed over this period

and to examine the impact of this on different aspects of wellbeing. This first work package will involve data cleaning. UKHLS data will also be linked to several other data sets including the UK Census, Indices of Multiple Deprivation, and Department for Transport accessibility statistics. These provide indicators of spatial context (such as accessibility to public transport and local amenities) which are expected to influence commuting behaviours and potentially wellbeing.

Task 2: Cross-sectional analysis: The first *analytical task* will be to gain a detailed understanding of *cross-sectional* relationships between commuting and SWB (addressing RQ1). The analysis will be independently repeated on single waves (one to six) of the panel data set. The outcome will be a cross-sectional path model that provides evidence of the direct and indirect relationships between commuting, mediators of SWB and overall SWB.

Task 3: Panel model analysis: The analysis of the development of wellbeing over up to five years (addressing RQ2) will involve the development of a sequence of panel models with fixed and random effects. These will be estimated using the six wave panel data set for different dimensions of SWB

Task 4: Dynamic path model analysis: The final analysis work package will address RQ3, drawing together understanding of cross-sectional relationships (gained through task 2) with understanding of dynamic relationships (gained through task 3). The outcome will be a dynamic path model that provides evidence of direct and indirect relationships between changes to life situation, commuting behaviour, mediators of SWB and overall SWB (as depicted in the figure below).



Impacts

The [Department for Transport](#), [the Department for Communities and Local Government](#), [the Department of Health](#) and the [What Works Centre for Wellbeing](#) are working with us as project partners. The improved evidence of how different commuting behaviours influence wellbeing over time will be used to support cross-sector policies on commuting and wellbeing. The project will also increase the UK's research capacity in the use of longitudinal data for policy analysis.

Outputs

The project will generate:

- Regular short bulletins with theme-specific findings, distributed to a special interest group and published on the project [website](#)
- Policy briefing notes and a toolkit, mapping findings to policy objectives and interventions
- A six wave panel data set prepared for analysis of travel behaviour and wellbeing
- Self-study training worksheets for the analysis of panel data for transport and wellbeing
- Academic journal papers and articles in practitioner periodicals

Research Team

The research team comprises Kiron Chatterjee, Ben Clark, Adrian Davis and Deirdre Toher (University of the West of England); and Adam Martin (RAND Europe).

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