

Commuting & Wellbeing Research Design Bulletin 1 - February 2016

The **Commuting & Wellbeing** project is an 18 month study funded by the Economic and Social Research Council under their Secondary Data Analysis Initiative. This bulletin presents the **research design** for the project. It covers:

- The study context
- Current evidence on commuting & wellbeing
- Knowledge gaps and research questions
- Data for analysing commuting & wellbeing

We have included some questions throughout (highlighted with a blue background) inviting your views on how the study can meet the needs of interested stakeholders. We would be delighted to receive your thoughts on these. Please email: adrian.davis@uwe.ac.uk.

The study context

Governments around the world are becoming increasingly interested in the notion of ‘wellbeing’. This is because 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 – for example, through questions such as *“How satisfied are you with life overall?”*.

Measuring Personal Wellbeing

Three different measures of **subjective wellbeing** (SWB) are identified in the literature:

- (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 satisfaction with health, work and home life.



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 it is thought that an arduous commute is offset by employment or housing advantages (for example greater income or larger houses). On the positive side, a commute may be relaxing, interesting and productive and if it involves physical activity it can improve physical health and also increase subjective wellbeing.

For large numbers of people, the commute is a feature of daily life and it is therefore appropriate to consider what can be done to ensure it is not detrimental to people’s wellbeing.

Question 1 – In your view, what are the most important ways in which commuting affects personal wellbeing?

Current evidence on commuting & wellbeing

The most recent and relevant studies on commuting & wellbeing are summarised below:

Satisfaction with the commute: Studies comparing satisfaction with different modes have found that commuters using active modes (walking, cycling) are the most satisfied, with bus users the least satisfied (St Louis et al, 2014). Active commuting (walking and cycling) is considered more relaxing and exciting than other modes, with car commuters finding their journeys more stressful (Gatersleben and Uzzell, 2007). Olsson et al. (2013) found that satisfaction with the commute is associated with overall SWB (particularly when measured experientially), thus highlighting the importance of considering the role of commuting for personal wellbeing.

Impact of commute time on SWB: Several studies have shown that longer commute times are associated with lower SWB (ONS 2014, Stutzer and Frey (2008), Roberts et al (2011)). This effect has been shown to be more profound for women compared to men (Munford et al 2015). Higher levels of commuting stress have been found to be associated with longer commute times and more unpredictable journeys (Novaco and Gonzales, 2009). Jones et al. (2008) found that those with long commute times spend less time on leisure activities on weekdays and weekends and sleep less on weekdays, but compensate with more sleep at weekends. Christian (2012) found that longer commute times decrease the amount of time spent with a spouse, children and friends.

Impact of commuting mode on SWB: Drawing on data from the British Household Panel Survey, Martin et al (2014) showed that walking and bus commuting were associated with higher SWB than car commuting. Longer car commutes were associated with lower SWB but longer walk commutes were associated with higher SWB, with the effects more pronounced for women.

Impact of commuting on wellbeing over time: Martin et al (2014) also examined the specific effect of year-to-year changes to commute mode on SWB. A switch from using the car to walking to work was associated with an increase in SWB. The take up of walking, cycling or public transport to replace car commuting was found to be associated with decreases in body-mass index (BMI) one year after the change in commute mode (Martin et al. 2015).

Question 2 – Are you aware of any recent, useful evidence on the relationship between commuting and personal wellbeing?

Knowledge gaps and research questions

Although there is good emerging evidence of a relationship between commuting & wellbeing, the following gaps in understanding remain:

1. No evidence has yet been produced to show how commuting affects SWB **over the longer term** (more than a period of one year).
2. There is little evidence of the **specific aspects of life** that are impacted by commuting (e.g. lack of leisure time, reduced sleep quality) and whether these have knock on consequences for overall SWB.
3. It has been shown that job changes and house moves are significant triggers for commuting changes (Clark et al, 2015). However, it is not yet clear whether **changes in life situation** are more important to SWB than related changes in commuting.

The commuting & wellbeing study will seek to fill these knowledge gaps by addressing three research questions:

Research Questions

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 how wellbeing changes over time? and
3. How do changes in life situation (e.g. moving home, changing jobs) and associated changes in commuting influence personal wellbeing over time?

Question 3 – Are there any other key questions that you would suggest need answering?

Data for analysing commuting & wellbeing

These questions will be addressed through an analysis of data from the [UK Household Longitudinal Study](#) (UKHLS). Adult members of 40,000 households have been surveyed every year since 2009/10 and information on commuting (mode, distance and time) and wellbeing (e.g. life satisfaction, health, BMI) has been recorded. The first six waves of UKHLS data (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.

Linked data: Commuting decisions and personal wellbeing are also expected to be influenced by **where people live**. For example, living closer to jobs, amenities and good public transport services may directly influence wellbeing and is also likely to influence whether people choose to drive or use other modes to get to work. Access to green spaces and in particular, travelling through pleasant environments on the way to work, could also have an impact on personal wellbeing.

To examine these effects, UKHLS data will be linked to a number of other data sets including UK Census (for measures of population density), indicators of accessibility to public transport, jobs and amenities, Indices of Multiple Deprivation and distance to green space.



Question 4 – Can you suggest particular features of where people live that are likely to directly affect personal wellbeing or indirectly affect wellbeing through their influence on commuting?

Question 5 – A variety of different measures of wellbeing are available in UKHLS (see the technical appendix) – which do you suggest are most important for us to consider?

For further information about the measures of wellbeing available in the UKHLS and the methods of analysis to be employed, please see the [research design technical appendix](#).

References

- Christian, T. (2012) Automobile commuting duration and the quantity of time spent with spouse, children, and friends. *Preventive Medicine*, 55, pp. 215-218.
- Jones, P. and Thoreau, R. (2008) The impact of commuting duration on family lifestyles: A comparison of the London and Paris regions. *Proceedings of the European Transport Conference*, 6-Oct-2008, Noordwijkerhout, Netherlands.
- Gatersleben, B. and Uzzell, D. (2007). The journey to work: exploring commuter mood among driver, cyclists, walkers and users of public transport. *Environment and Behavior*, 39, 416-431.
- Martin, A., Goryakin, Y., Suhrcke, M. (2014) Does active commuting improve psychological wellbeing? Longitudinal evidence from eighteen waves of the British Household Panel Survey. *Preventative Medicine*, 69.
- Martin, A., Panter, J., Suhrcke, M., Ogilvie, D. (2015) Impact of changes in mode of travel to work on changes in body mass index: evidence from the British Household Panel Survey. *Journal of epidemiology and community health*, doi:10.1136/jech-2014-205211.
- Munford, L., Roberts, J., Rice, N. (2015) Health burden of the daily commute. In: *Understanding Society Insights 2015* [online] Available from https://www.understandingsociety.ac.uk/d/255/Understanding_Society_-_Insights_2015_-_final_version.pdf?1449590577
- Novaco, R., & Gonzalez, O. (2009) Commuting and well-being. In Y. Amichai-Hamburger (Ed). *Technology and well-being* (pp. 174-205). Cambridge: Cambridge University Press.
- Olsson, L., Garling, T., Ettema, D., Friman, M., Fujii, S. (2013) Happiness and satisfaction with work commute. *Social Indicators Research*, 2013 (111), pp.255-263.
- ONS (2014) Commuting and Personal Wellbeing [online] Available from: http://www.ons.gov.uk/ons/dcp171766_351954.pdf [Accessed 15th June 2015].
- Roberts, J., Hodgson, R., Dolan, P. (2011) "It's driving her mad": Gender differences in the effects of commuting on psychological health. *Journal of Health Economics* 30: pp.1064-1076.
- St-Louis, E., Manaugh, K., van Lierop, D., El-Geneidy, A. (2014) The happy commuter: A comparison of commuter satisfaction across modes. *Transportation Research Part F*, 20 (2014), pp.160-170.
- Stutzer, A., and Frey, B. (2008) Stress that doesn't pay: The commuting paradox. *The Scandinavian Journal of Economics* 110(2), pp.339-366.