



To: Place Directorate

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Subject: Essential Evidence on a page No 150: Change in commute mode: - what is most influential?

Top line: Distances under three miles to work are most critical to active travel. Life events which reduce commute distances are powerful enablers in determining a switch to active travel and are aided by pro environmental attitudes.

The role of life events and habit are reflected in the twenty-first century transport planning literature.¹ This suggests that commuting behaviours become habitual and that changes to commute mode are more likely at the time of major life events. However, evidence to support this has been limited to analyses of small-scale samples. In a recent study which looked at changes in the commute mode from year to year, two categories of commute mode switching were analysed: 1. Commuting by car (driving or getting a lift) and changes to & from this position and 2. Commuting by active travel and changes to & from this position.² The study used two waves of panel data from the UK Household Longitudinal Study (2009/10 & 2010/11) with a representative sample of 15,200 adults in work.

Commute mode changes were found to be primarily driven by alterations to the distance to work which occur in association with changing job or moving home (life events). Increases in distances have a stronger effect than reductions in distance e.g. an increase from two miles or less to at least two miles increases the likelihood of switching to car by 31 times, while switching to non-car commuting becomes much more likely (9.2 times) as the distance drops below three miles. High quality public transport links to employment centres are shown to encourage switches away from car commuting and mixed land uses are shown to encourage switches to active travel. Switches away from car commuting are found to be more likely (1.3 times) for those with a pro-environmental attitude. Switching mode of travel is significantly less common for car commuting than other mode users.

Commuting by car increases in likelihood with having a driving licence, having greater access to household cars and as the distance to work increases, but only up to 25 miles (after which rail competes with car). Nonetheless, the residential context has a strong effect with living in areas with greater access to alternatives to the car reducing likelihood of commuting by car. Living in areas of higher deprivation is associated with higher likelihood of car commuting. Higher economic status, as indicated by educational qualifications and income, is associated with reduced likelihood of car commuting. However, working in higher categories of employment (e.g. management roles) and those working for small employers or in self-employment are less likely to commute by active travel or to switch to active travel.

A willingness to act to protect the environment in the base year (2009/10), increased the likelihood of switching from car to non-car, but was not found to affect the opposite switch. This suggests that attitude plays an active role for car commuters considering alternatives. The pro-environmental attitude exists before the commute mode change, confirming that attitude precedes behaviour change and does not simply adjust to the new behaviour.

¹ Eg <http://travelwest.info/project/ee-role-habit-travel-behaviour> and <http://travelwest.info/project/ee-use-non-motorised-modes-life-stages>

² Clark, B., Chatterjee, K., Melia, S. 2016 Changes in commute mode: The role of life events, spatial; context and environmental attitude, *Transportation Research Part A*, 89: 89-105.