

Influences of cycle facilities on cycling to work

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Background

In recent years, promoting cycling as a means of transport has been put on multiple policy agendas, including health, transport and climate change. Provision of cycling facilities is important in promotion of bicycle use. However, there are no conclusive findings in terms of what cycling facilities are associated with higher levels of bicycle use.

Objectives

In this paper we aim to assess the influence of off-road cycle paths and on-road lanes, by examining whether proximity to two types of cycle route is associated to the level of cycling to work. The research findings has potential to provide further evidence on policy interventions in promoting cycling to work through development of new cycling infrastructures.

Methods

The cycling to work data are from the 2001 and 2011 censuses at the output area level. Proximity to cycling facilities is defined for output areas if they are within 400 metres from their centroid to a cycle route. We fit regression models to examine the association of cycle paths and cycle lanes with levels of cycling to work adjusting for a number of socioeconomic factors.

Findings

The modelling results show that proximity to off-road paths is associated with increased levels of cycling to work but proximity to on-road lanes shows no effect.

Conclusions

Although this is by no means indicative of a causal relationship, this research provides further evidence on the effects of cycle facilities on cycling behaviour, lending support on policy interventions that cycle facilities can be built to promote cycling to work. We will extend this research using the individual level census data which will give us opportunity to overcome the ecological fallacy. In addition we will use coarsened exact matching to identify a control group in order to make causal inference on the effect of cycle paths.

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