

Abstract Title:

The dual role of weather forecasts on changes in activity-travel behavior

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Abstract:

In previous studies, conflicting results could be found regarding the impact of weather forecasts on travel decisions, e.g. Khattak and De Palma (1997) found no significant effect of acquiring forecasted weather information on the probability of adapting mode and departure time, whereas the results reported by Hagens (2005), Niina (2009) and Kilpelainen and Summala (2007) indicated that weather forecast do play an important role. Therefore this paper investigates the changes in activity-travel behavior in response to weather forecasts. The data for this study is collected by means of a stated adaptation survey, which is both administered on the internet and via a traditional paper and pencil questionnaire. In total, 595 respondents completed the survey. To obtain an optimal correspondence between the true population and the sample weights are assigned to the observation. Results indicate that weather information plays a dual role. On the one hand people do alter their activity-travel behavior in response to weather information, albeit these changes are not as pronounced when compared to actual weather. On the other hand the extent (frequency and media type) to which people are exposed to these weather forecasts appears to play only a marginal role. This dual role weather information plays in this study appears to be supported by the conflicting international literature and therefore revealing the underlying psychological motivations to change one's activity-travel behavior is a key challenge for further research.

Keywords:

activity-travel behavior, weather conditions, weather information