Cycling attitudes and behavior of families in urban areas - temporal development and findings from current surveys

Project Information

Abstract
Looking at modal split values – how trips are distributed across the different transport modes – reveals that cycling is the only mode with increasing values over the past few years. This trend can be investigated by different studies. In this paper, we show the temporal development of cycling in different population groups. We further investigate the attitudes and motives for using bicycles in the context of urban families, because families typically face high mobility requirements in their daily lives.

We use different methods to do so. Data from the German Mobility Panel are analyzed over time and reveal the increasing cycling trend in different population groups. We focus particularly on urban families, who tend to make more trips than the average population. These families rely more on cars than other city dwellers, but still show increasing bike usage. Analyzing the qualitative family study reveals that there are different motives associated with cycling as opposed to other transport modes, namely health and sport-related reasons, flexibility or enjoyment for cycling.

Research questions
- Has the increasing cycling trend already reached families?
- What are the intentions and motives of young families for using bikes for their everyday mobility?

The German Mobility Panel (MOP)
- Multi-day and multi-period travel survey in Germany
- Every year since 1994
- 7-day trip diary including all trips

For this study: Definition of subsets
- MOP data 2000-2015
- People aged between 18 and 60 with no particularities
- People 18-60 living in cities (>100,000 inhabitants)
- Parents 18-60 living in cities
- Highly-educated parents 18-60 living in cities

Key Findings / Results

Temporal Development / Travel behavior over the course of time

Development of walking trips

Development of bicycle trips

Development of car (driver) trips

Development of car (passenger) trips

Development of public transport trips

Cycling today

Cycling behavior and motives in families
Various positive attitudes towards cycling in the majority of families.

- Physical exercise: Cycling can substitute or supplement sports activities; this is especially favorable if they have limited time for such pursuits.
- "... and this was basically the exercise that I did each week, right?"
- Flexibility: Route and where to stop can be chosen very flexibly.
- "When I take my own bike, I can get exactly where I want to be and can usually [laughs] park my vehicle within about ten meters. I can't do that with my car."
- Independent: Being independent of timetables.
- Reliability: Not facing the risk of being stuck in a traffic jam.
- "And if you have to reckon extra time for delays, then this makes cycling a topic again because you don't have to reckon extra time for cycling – you need 20 minutes, finished."
- Cost-efficient
- Quicker: Than public transport, the car or walking (cycling in the city).
- "And you are faster than on foot. It is like this ... on my own, I would also walk to the [shopping center], but with the three of them, taking the bike is a good compromise."
- Enjoyment, relaxation:
- "Cycling is very important as a counterbalance to work. Not just as a commuting possibility, ... but well, really cycling."

Altogether, bike is perceived as an uncomplicated, simple means of transport and as ideal means of transport in the city. Some families perceive it as the ideal means of transport for a family. Older children can cycle themselves and younger ones can be transported on their parents’ bicycles or in bicycle trailers. A few negative aspects associated with cycling. Exposure to the weather; dangers of cycling in the city because of some cyclists' inconsiderate behavior, take too long if the person is not very fit. Nevertheless, positive attitudes dominate the interviews.

Key Findings and conclusions

Trend towards more cycling has also reached urban families: Urban families and especially highly educated urban families use bikes more often in an average week than other groups. Investigated families in the qualitative study make the majority of their trips over the course of a week by bike. Bikes are used for all trip purposes but especially for shopping, leisure and ferrying children. Besides some negative aspects (e.g. cyclists are regarded as more vulnerable and exposed to the weather), the attitudes towards cycling are mainly positive. For the surveyed families, cycling is the optimal mode in cities and they use it as much as they can, especially for short trips.

The families in the qualitative study represent the general trend towards more cycling, can be seen as the "early adopters" of integrating bicycles into their daily lives and everyday travel behavior when compared to the whole group of families. Cycling is suitable for optimized individual mobility, i.e. bikes can match the families' desire for an individual means of transport that complies with their complex everyday habits and lifestyles in a sustainable way. However, bicycle usage has some pre-conditions: On the one hand, infrastructures and facilities need to be designed for cyclists' requirements and, on the other hand, there is a need for different bike types and equipment for families like trailers and cargo bikes. To foster this fledgling trend towards more cycling in general and especially for families, the government should continue and increase the funding available to create optimal cycling frameworks.

Uta Schneider – Fraunhofer Institute for Systems and Innovation Research ISI – uta.schneider@is.isi.fraunhofer.de
Tim Hilgert – Institute for Transport Studies, Karlsruhe Institute of Technology (KIT) – tim.hilgert@kit.edu
Martin Kagerbauer – Institute for Transport Studies, Karlsruhe Institute of Technology (KIT) – martin.kagerbauer@kit.edu

Acknowledgement: This publication was written in the framework of the Profilregion Mobilitaetsysteme Karlsruhe, which is funded by the Ministry of Science, Research and the Arts and the Ministry of Economic Affairs, Labour and Housing in Baden-Württemberg and as a national High Performance Center by the Fraunhofer-Gesellschaft.