

New study about sustainable urban mobility in Berlin and 18 further European cities

Climate-friendly urban planning should reduce car traffic through more residential development in the city center

Feb 28, 2024, 12:26:36 PM

Birgit Holthaus, Climate Change Center Berlin Brandenburg

In the quest for sustainable urban living, understanding the complex relationships between urban form and mobility behaviour is crucial. A recent study in Transportation Research Part D by our researcher team Dr Peter Berrill et al. sheds light on this issue by examining the intricate associations between urban form, car ownership, and travel behavior across Berlin and 18 further European cities. The research received funding from the EU Horizon Program and from the Climate Change Center Berlin Brandenburg.

At the heart of their findings is the importance of residential proximity to the city center. The study illustrates that living closer to the city center is associated with significant reduction of car ownership, trip distances, and the preference for car use over other modes of transportation. Such reductions can in some cases be non-linear, such as the exponential decrease in car ownership beyond 6km from the city center in Berlin.

The research also identifies demographic groups that exhibit different mobility patterns. Factors such as household income, household size are important for car ownership, while age and gender can be influential on mode choice. Trips accompanying children are far more likely to be by car than trips with other purposes, demonstrating that certain demographic groups may require additional support to transition towards more sustainable mobility options, and emphasizing the need for targeted policy interventions.

Substantial differences by geography are also observed – biking makes up a much higher mode shares in Germany cities than cities in France, or in Vienna or Madrid. Car ownership and use meanwhile tends to be lower in larger cities. By recognizing the critical role of urban form in influencing mobility choices, cities can implement targeted interventions promoting sustainable mobility. Policies that encourage residential development closer to city centers, coupled with enhancements in public transportation and active travel infrastructure, can significantly reduce reliance on personal vehicles and associated environmental impacts. By adopting data-driven and evidence-based urban planning practices informed by such research, cities can make significant strides toward sustainability, improved public health, and higher quality of life for their residents.

“The Climate Change Center Berlin Brandenburg congratulates the authors on their latest publication and is grateful to have received funding from the Berlin Senate Department for Science to support this study”, CCC manager Anita Dame declares. The research was also funded by the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101027476 (SUFFICCS project) and grant agreement No 101056810 (CircEular project).

Contact for scientific information:

Dr. Peter Berrill, E-Mail peter.berrill@tu-berlin.de

Original Publication:

<https://doi.org/10.1016/j.trd.2024.104087>

Source:

<https://idw-online.de/de/news829416>

https://www.research-in-germany.org/idw-news/en_US/2024/2/2024-02-28_New_study_about_sustainable_urban_mobility_in_Berlin_and_18_further_European_cities_.html