

Einfluss des Niederschlags auf den Radverkehr in Wuppertal

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Kurzfassung

The aim of this thesis is to describe and analyse the influence of precipitation on bicycle traffic in Wuppertal and to identify possible factors that influence the impact of precipitation on bicycle traffic in Wuppertal. Bicycle traffic is an important component of transport policy for meeting climate targets. To ensure that bicycles are not only used in good weather, it is important to analyse how bicycle traffic can be promoted even in rainy conditions. This study analyses both count data from a permanent counting station in combination with weather data and the results of an online survey. The data is evaluated using chi-square tests, t-tests, box plots, scatter plots, and other diagrams.

The evaluations show that precipitation in Wuppertal, Germany, significantly reduces bicycle traffic. However, no significant influence can be determined for the demographic factors of gender, age, car availability, and ticket availability. Likewise, travel purposes or work vs. weekends or holidays have no significant influence on bicycle traffic when it rains. People who use bicycles in precipitation are motivated by the advantages of cycling in terms of health, fitness, flexibility, and time savings. The combination of the results of the evaluations, together with a comparison of the current literature, shows that bicycle traffic in precipitation can be strengthened overall by promoting bicycle traffic. This would be possible through the expansion of bicycle traffic infrastructure, as it reinforces the positive aspects. Particular attention should be paid to ensuring that the infrastructure can also be used in the rain, i.e., that parking facilities are covered and bike paths can be safely drained.