

# IAB-Colloquium zur Arbeitsmarkt- und Berufsforschung

## Selection Errors of Random Route Samples

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Random route samples are widely used in in-person surveys. Most previous studies of random route sample quality and representativity compare the data collected by random route samples with data from reliable sources, such as the German Microcensus. While these studies usually find few differences in the distributions of demographic variables, it is possible that other substantive variables of interest are biased if random route samples select housing units with unequal probabilities.

This research project takes a different approach to assessing the quality of random route samples. Since random routes are used when not all housing units are known, it is a necessity that all units have the same selection probability. This assumption is tested, by simulating all possible random routes within a German city and calculating the probability of selection for each housing unit. The simulation results show that all three sets of tested random route instructions lead to strong deviations from a uniform distribution. Therefore, these specifications fail to achieve their basic requirement. In addition, two of those instructions create systematic biases with respect to the location of the selected households.

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13:00 Uhr

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