

Kolloquium „Statistische Methoden in der empirischen Forschung“

Wann: 24. Oktober 2017, 17:00 – 18:30 Uhr

Wo: Robert Koch-Institut | Nordufer 20 | 13353 Berlin (Wedding),
S41, S42, U9 Westhafen | U9, Bus 142 Amrumer Str

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Kleinräumige Schätzung von sozio-demografischen Indikatoren mit Mobilfunkdaten: Alphabetisierung im Senegal

Modern systems of official statistics require the accurate and timely estimation of socio-demographic indicators for disaggregated geographical regions. Traditional data collection methods such as censuses or household surveys impose great financial and organizational burdens for National Statistical Institutes. The rise of new information and communication technologies offers promising sources to mitigate these shortcomings. In this paper we propose a unified approach for National Statistical Institutes in developing countries based on small area estimation that allows for the estimation of socio-demographic indicators by using mobile phone data. In particular, the methodology is applied to mobile phone data from Senegal for deriving sub-national estimates of the share of illiterates disaggregated by gender. The estimates are used to identify hot spots of illiterates with a need for additional infrastructure or policy adjustments. Although the paper focuses on literacy as a particular socio-demographic indicator, the proposed approach is applicable to indicators from national statistics in general.