

Is “the seven year itch” real? – Regression analysis of randomized response event time data

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Abstract

The randomized response techniques (RRTs), including the related-question RRT of Warner (1965) and the unrelated-question RRT of Greenberg et al. (1969), have been utilized to reduce under-reporting of sensitive characteristics in survey studies by enhancing privacy protection. Currently, the RRT is mainly applied for prevalence estimation of some sensitive event. This work extends the application of the RRT to the analysis of time-to-event outcome. We apply the proposed method to the Taiwan extramarital sex data surveyed by the RRT to make statistical inferences on the time to the incidence of extramarital sex since marriage. In final, we discuss the authenticity of “the seven year itch” based on the Taiwan survey data.