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WE FOUND CAUSALITY IN A HOPELESS PLACE CHALLENGES OF CAUSALITY IN DEMOGRAPHIC OBSERVATIONAL STUDIES

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WE FOUND CAUSALITY IN A HOPELESS PLACE. CHALLENGES OF CAUSALITY IN DEMOGRAPHIC OBSERVATIONAL STUDIES

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Demographers are often confronted with the goal of establishing a causal link between demographic events (e.g., fertility, union formation and dissolution) and socio-economic, health and other types of measures. Since experiments are commonly not a feasible strategy, demographic studies often rely on observational studies. Not being able to manipulate the treatment assignment, demographers have to deal with several issues, such as omitted variable bias and reverse causality. The aims of this paper are to review the methods commonly used by demographers to estimate causal effects in observational studies and to discuss strengths and limitations of these methods. In particular, using real data from the British Household Panel Study (BHPS), I will compare propensity score matching, fixed effects and instrumental variables regression. I will also simulate data that mimic the BHPS data structure to better highlight what are the consequences of violations of assumptions underlying each method. I will conclude with a summary of guidelines for good practice in empirical demographic studies and a discussion of alternative methods that received little attention from demographers.