Looking for a J-shaped development-fertility relationship: Do advances in development really reverse fertility declines?

Abstract

In their article published in the "Nature" journal, Myrskylä et al. (2009) claimed that in highly developed countries development-fertility relationship becomes J-shaped. This means that further advances in economic and social development can reverse declining fertility rates. The present paper employs threshold regression analysis (Hansen 2000) to examine the existence of the proposed J-shaped fertility-development curve. The findings indicate that the threshold value of human development index is 0.777. The threshold regression analysis reveals that in countries with a low human development index higher levels of HDI tend to be associated with lower fertility rates. Likewise, in countries with a high human development index, higher levels of HDI tend to be associated with lower fertility rates, albeit the relationship is weak. Thus, the findings of this study do not support the proposition that advances in development can reverse fertility decline, neither do they confirm the existence of the J-shaped development-fertility relationship.