

The “First” Demographic Transition: Refurbishment and Revision of a Classical Model in Search of Main Drivers of the Process

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Abstract

Given its dominant position in population science, the (first) demographic transition model (DTM) has been described to be one of the best-documented generalizations in social sciences. The DTM's simple character, providing a clear and reproducible scheme, occurs to be at the same time its major strength and weakness. However, it is especially the DTM's descriptive character, which is subject to criticism. Thus, the 'classical' model we know is considered to be neither transferable, nor to allow any reliable forecasting. Based on the analysis of crude birth and death rates, DTM's results are even likely to be biased, as these values are strongly influenced by the populations' age structure. Having these shortcomings in mind, further conceptual-theoretical approaches have been presented. The United Nation's population projections and assessments are based on a widely shared generic DTM, which takes into account age-standardized parameters. Because of its factual relevance and potentials, this paper aims at revitalizing the DTM through developing a new approach by merging the phase and step models to empirically identify the stage of a population in the transition process. Furthermore, the use of this “refurbished” procedure should contribute to a better understanding of main drivers of demographic transition in those populations which did not complete the process. The latter could provide an improved basis for projecting the future developments, especially as the concerned populations are those, who will significantly contribute to world population growth and corresponding challenges. First application shows that all nation states completed or started the process of demographic transition, also those in Sub-Saharan Africa. In a next step, regression analyses with the phases as dependent variable, and information on education and indicators on economic conditions and urbanization as explanatory variables, are performed. We envisage to overcome the methodological-descriptive perspective and contribute to explanatory scholarly work on demographic transition.

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