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TITLE: POPULATION, EDUCATION, ECONOMIC GROWTH AND STRUCTURAL CHANGE: THE DYNAMIC EXTENDED INPUT-OUTPUT FRAMEWORK ON EDUCATION CONSIDERING POPULATION

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ABSTRACT:

This paper builds a dynamic model system--the extended input-output model with assets on education considering population, to investigate the relations of population, education, economic growth and structural change. The framework is based on the extended input-output model on education (Zhang Hongxia & Chen Xikang, ESR, 2008). The extended IO model on education shows the relation of the production and distribution of human capital with the economic growth, but doesn't take the population change into consideration, which is very important for the development of education and economy. Therefore, the model system built in this paper investigates the population system, the education and the economic systems in detail, to analyze the relations of population change, the education development, the economic growth and economic structural change. The framework includes five parts: the population developing equations, education developing equations, consumption determination equations, investment determination equations and output determination equations. The framework can be used to analyze the required education scale, the economic growth and structural change, with certain population system movement and technology development. Finally, the simulation experiments results are given.