Exploring Convergence of Human Capital in India: A Disaggregated Analysis

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Abstract

A comprehensive study on human capital convergence along with its components (viz. education and health) based on Neo-Classical approach, Inequality based approach and non-parametric approach along with Spatial analysis is attempted here across 26 Indian states and 539 Indian districts over time using NFHS (1–4) data. The result show that both states and districts are improving in respect of human capital, education and health outcomes. State-level analysis shows that there exists both absolute and conditional beta convergence whereas dispersion-based approach shows that there exists sigma divergence in terms of education and health index but not in human capital index. In sub-state level analysis, districts are experiencing absolute beta convergence in respective indices; states are converging in terms of all indices in respect of inequality measurement.

Non-parametric analysis shows that states are forming polarization in terms of education and health whereas in terms of human capital index, there exists a unimodal distribution at the terminal time point. The Transitional Probability Matrix suggests that there exists two states like Bihar and UP who are always found to be poor in terms of all indices. If we extend the range of trap, we find more number of states like that Bihar, UP, Madhya Pradesh, Rajasthan, Orissa and Assam. Non-parametric approach also shows that districts are forming polarization in respect to all the indices. The Transitional Probability Matrix shows that a large number of districts (viz. 62) are caught in chronic extreme low level trap of human capital in terms of all indices if the range is considered 10-50.

I strongly believe that the results of the convergence study of human capital have some important policy options both for state and districts level. In order to reap the benefits of demographic return, a major investment in human capital especially in those backward states (in respect of health, education) is urgently needed.

Keywords Health inequality · Convergence · Kernel density · Markov process of probability transition · Panel data regression ·
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