

Understanding the Linkages of Human Development and Fertility Change in Districts of Uttar Pradesh

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Abstract : India's progress in achieving replacement level of fertility is largely contingent on fertility reduction in the state of Uttar Pradesh as it accounts 17% of India's population with a low level of development. Though the TFR in the state has declined from 5.1 in 1991 to 3.4 by 2011, it conceals large differences in fertility level across districts. Using data from multiple sources this paper tests the hypothesis that the improvement in human development significantly reduces the fertility levels in districts of Uttar Pradesh. The unit of analyses is district, and fertility estimates are derived using the reverse survival method(RSM) while human development indices(HDI) are are estimated using uniform methodology adopted by UNDP for three period. The correlation and linear regression models are used to examine the relationship of fertility change and human development indices across districts. Result show the large variation and significant change in fertility level among the districts of Uttar Pradesh. During 1991-2011, eight districts had experienced a decline of TFR by 10-20%, 30 districts by 20-30% and 32 districts had experienced decline of more than 30%. On human development aspect, 17 districts recorded increase of more than 0.170 in HDI, 18 districts in the range of 0.150-0.170, 29 districts between 0.125-0.150 and six districts in the range of 0.1-0.125 during 1991-2011. Study shows significant negative relationship between HDI and TFR. HDI alone explains 70% variation in TFR. Also, the regression coefficient of TFR and HDI has become stronger over time; from -0.524 in 1991, -0.7477 by 2001 and -0.7181 by 2010. The regression analyses indicate that 0.1 point increase in HDI value will lead to 0.78 point decline in TFR. The HDI alone explains 70% variation in TFR. Improving the HDI will certainly reduce the fertility level in the districts.

Keywords : Fertility, HDI, Uttar Pradesh

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