India's Missing Billion

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This paper quantifies the role of family background in lifetime inequality in India-using the information content in surnames. Indian surnames typically contain information about one's caste, religion, or geographic origin. Based on records of all adult Indians alive (~850 million individuals), a national survey of 130 million families, and historical registers from the British India civil service and university graduates in the 1850s, we develop a novel dataset—the Name Advantage Index Map (NAIM)-to track inequality between family groups over time and space in India. We present five main findings. First, based on family background alone, the bottom twothird of India's population (~1 billion individuals) have a very low chance (i.e., around ten times lower than the top decile) of becoming an entrepreneur, inventor, scientist, sportsperson, politician, or even participating in national entrance exams for top universities. This pattern is unique to India with no other major country having nearly as much name-based advantage in outcomes. Second, the divergence in outcomes across family groups has been persistent at least since the 1850s, suggesting entrenched underlying social stratification in the economy. Third, using a registry of marriages we find that endogamous marriages between advantaged families is a key mechanism of persistence across generations. Fourth, studying the lifecycle of a cohort of half a million individuals who participated in the national entrance exams, we find divergence in lifetime outcomes even among equally-talented teenagers based on their family background—suggesting the inequality of opportunity persists over the lifecycle. Fifth, studying ship-lists to map all historical migration to South Africa and all recent education migrants to the US we find that the inequality across family groups decline among migrants. We find similar declines in inequality in certain states within India with progressive social policies. Overall, the findings suggest that about 1 billion individuals in India may have a near-zero chance to excel over their lifetime based on their family background alone, but the experience of migrants and certain states show that there is scope for policy measures to make India's economic system more inclusive. India's missing billion represents 2 in 3 within India, and 1 in 8 people worldwide. Integrating them will not only benefit the excluded communities within India but will also enable India to enhance its aggregate contribution to the global economy and to the knowledge frontier.

JEL codes: O3, I2, R3 Keywords: Inequality, Intergenerational Mobility, India, Education, Innovation Figure: Name Advantage Index Map and participation in the joint entrance exam (JEE) for entrance in top universities



Notes: The Figure displays the relationship between our Name Advantage Index Map (NAIM) and the rate of participation in the 2009 joint entrance exam (JEE) that governs admission to the top universities in India. The JEE is a national exam where half a million test takers compete for spots in the selective and prestigious Indian Institutes of Technology and other institutions. Our Name Advantage Index Map is based upon the literacy rates of name holders born in the 1940s and is expressed in centiles of the general population. A number of examples of names in particular cells are displayed.