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Measuring and Decomposing Household Earnings in Rural and Urban India: Evidence from Recent Data

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This paper seeks to assess the distribution of monthly per capita household earnings (MPCHE) in rural and urban areas of each state in comparison to all India distribution. The analysis is based on unit level data from Periodic Labour Force Survey (PLFS) conducted by National Sample Survey Organization (NSSO) in 2017-18. Our primary attention is on distribution of MPCHE with a secondary emphasis on source of earnings of households. Given the considerable interest in inequality, we also provide estimates of inequality in MPCHE at the state level and further disaggregated by rural and urban.

The approach we take to describing the distribution of MPCHE is similar to that of Milanovic (2012) and Bayer and Charles (2018). While Milanovic (2012) assesses the income distribution of different countries vis a vis the world income distribution, Bayer and Charles (2018) compare the distribution of incomes of white and black men in United States of America. Milanovic finds that the income distribution of Brazil spans the world's distribution, i.e. one would find the poorest and richest people of the world in Brazil. In contrast the "poorest American ventile is at the 68th percentile of the world income distribution", i.e. one would not find the world's poor in United States of America. In their analysis, Bayer and Charles (2018) focus on the earnings rank gap which they define as the "difference between a black man's percentile in the black earnings distribution and the position he would hold in the white earnings distribution". Analogously, we seek to understand what the position of rural and urban households in the 10th, 50th and 90th percentile of a particular state in the corresponding all India distribution of MPCHE. Similarly, we want to understand the position of households from the scheduled caste, scheduled tribe and other backward classes in the all India distribution.

The contribution of this paper is twofold. Our first contribution is that we extend the literature beyond a comparison of the average household earnings across Indian states. This allows us to benchmark states vis a vis India, a line of analysis which is missing in the Indian literature. Second, there is a large international literature on rural income generation activity (Davis et al. 2010) and our findings complement this literature. In a Niti Aayog discussion paper, Chand et al (2017) report that barely one third of the rural income can be attributed to agricultural activities.

We quantify the extent to which households have managed to diversify their sources of income by principal status and industry of work. Third, we extend the empirical literature on estimates of inequality by focusing on earnings rather than consumption expenditure or wages or income of households from a subset of the population.

In the first part of the paper, we analyze the sources of earnings for household and whether heterogeneity at the state and national level exists in terms of a) nature of work- self-employment, wage and salaried employment and casual labour work; b) industry of work- agriculture, construction manufacturing and services.

In rural India, the share of household earnings from self-employment, wage and salaried, casual labour (NREGA, PW, others) are 48, 24 and 28 percent respectively. In urban India, the share of household earnings from self-employment, wage and salaried, casual labour are 33, 58 and 9 percent respectively. There is huge heterogeneity at the state level in terms earnings from various sources of work.

From the industry of work perspective, if we consider rural India, the share of household earnings from agriculture, secondary, construction and tertiary sectors are 45, 9, 14 and 30 percent respectively. Turning to urban India, we find that the share of agriculture sector in total earning is a paltry 4 percent that of construction is 8 percent, secondary and services respectively accounting for 21 percent and 67 percent respectively. Among the states, it is in Gujarat that the share of secondary sector to total earning is highest at 37 percent. In the other major states, Maharashtra, Gujarat, Uttar Pradesh, West Bengal, the contribution of secondary sector is similar to the national average.

In the second part of the paper, we benchmark the MPCHE distribution of a state against the all India distribution. What we mean by benchmark is best illustrated with an example. The poorest 5 percent of rural Kerala is at the 26th percentile of the India's earnings distribution while in rural Uttar Pradesh the state's poorest 5 percent is at 3rd percentile of India's earning distribution. The first fact that is apparent is that the span of 25th to 75th percentile of a state's distribution does not overlap with similar cut off points in India's distribution. This is true in both rural and urban India. The second fact and this pertains to rural earnings is that states whose 25th percentile is above the median of India distribution are Jammu and Kashmir, Punjab, Haryana, Andhra Pradesh, Kerala, Tamil Nadu and Telengana. In contrast, the 25th percentile is below the 20th percentile of India distribution in Uttar Pradesh, Odisha, Jharkhand and Chhattisgarh. Third, unlike in rural, in urban areas, there are no states whose 25th percentile is above the India median. The median of the following states lie clearly below the urban India median: Uttar Pradesh, Bihar, West Bengal, Jharkhand, Madhya Pradesh and Chhattisgarh.

One might ask does it matter from a policy perspective whether we focus on comparing distributions or comparing states using a simple average. In the presence of inequality, averages can be misleading. Yet, on very important issues, like tax allocations, funds transfer as well as for welfare scheme, for convenience averages are used, disregarding inequality considerations.