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Rags to riches? Intergenerational occupational mobility in India

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Abstract

We examine intergenerational occupational mobility in India among males using the Indian Human Development Survey survey of 2011-12. Our analysis differs from previous work in two important respects. First, we use a finer-grained categorisation that takes into account differences in skill levels across different occupations as well as their place in India's social hierarchy of labour. Second, we examine both sharp and moderate occupational ascents and descents – that is, both large and not-so-large movements up or down the social status ladder. We compare India with historical occupational mobility elsewhere and examine how such ascents and descents are linked to social identity and urban location. We find that vast differences exist in the upward mobility prospects of urban versus rural residents and upper-caste Hindus versus Scheduled Castes and Scheduled Tribes. Simultaneously, the prospects for downward mobility are large in India, larger among rural residents and among Scheduled Castes and Scheduled Tribes. We also find striking parallels between upward mobility prospects and sharp descent risks in India and China.

Keywords

Occupational mobility, social mobility, caste, tribe, inequality, China, India

1. Introduction

Those familiar with the empirical literature on social change in India will have registered not only a recent polarisation but also a rich myriad of research and findings that make it hard to pass a balanced verdict about the magnitude, precise content and robustness of social and economic mobility, not only during the post-liberalization years, but also in earlier periods. While the latest evidence on poverty suggests that all social groups are moving forward, the pace of this progress has been unequal (Dubey and Thorat 2012). Specific population groups – particularly, Scheduled Castes (SC)[1], Scheduled Tribes (ST), and women – have lagged behind on a variety of fronts, indicating that the educational, occupational and social mobility of these groups merits special attention. On the one hand, Kapur et al. (2010) using census of SC households in two blocks in Western and Eastern Uttar Pradesh finds evidence of important and symbolic dietary changes, less restrictive social interactions, changes in occupations and migration to cities. The findings from a parallel study, with a very similar agenda, are less encouraging. Studying 550 villages of 11 large states, Shah et al (2006) found that SCs were often prevented from full participation in local markets, from entering village shops, and from selling milk to village dairy cooperatives. One possible explanation for this stark contrast in findings could simply be that the two studies address and report on different manifestations and use diverse methodological approaches.

In this paper, we examine intergenerational occupational mobility in India among males using the newly released Indian Human Development Survey (IHDS)-II survey, conducted in 2011-2012. Several papers have examined the extent of intergenerational occupational mobility in India using IHDS-I (Azam 2015, Motiram and Singh 2012). Our paper differs from previous work in two important respects. First, we use a fine grained categorisation that takes into account differences in skill levels across occupations as well as their place in India's social hierarchy of labour. Second, we specifically examine sharp and moderate occupational ascents and descents – that is, both large and not-so-large movements up and down the social status ladder. In an initial foray into cross-country comparisons, we examine historical occupational mobility patterns in other countries and how such ascents and descents are linked to social identity and urban location.

2. Related literature

Social mobility can be thought of as having two components – intragenerational mobility (i.e., the movement up or down the economic ladder that an individual experiences within her or his lifetime) and intergenerational mobility (the incremental

[1] In spite of reservations of government jobs and seats in legislative assemblies and educational institutions, households of Scheduled Caste SC (formerly "untouchables") and Scheduled (indigenous) Tribe backgrounds continue to feature disproportionately on key indicators of deprivation in India.

achievement of a child compared to his or her parent).[2] Both intra- and intergenerational mobility can be assessed in terms of different base indicators, including incomes, asset holdings, educational achievement and occupational status.[3]

While a wealth of literature has accumulated in Western contexts where these aspects have been studied for a longer period,[4] the study of social mobility is still in its infancy in India (and most other developing countries).[5] One advantage in the Indian setting is the existence of representative, large-scale data-sets such as IHDS I and II (and combined panel), National Family Health Survey (NFHS) I-III and the thick National Sample Survey (NSS) rounds. The prospects for analysis and for arriving at balanced verdicts about various facets and forms of social mobility therefore look initially promising. Yet as research from industrial countries (e.g. Black and Devereux 2010) has shown, the data requirements for making credible social mobility comparisons are demanding and typically require longer-period panels and longitudinal surveys. Another complicating factor is that the results tend to be highly sensitive to estimation methods, to variable definitions and sample selection. Azam and Bhatt (2015) note how these issues can be major concerns in an analysis of intergenerational mobility using NFHS or NSS data with considerable caution required when interpreting research findings. Efforts to overcome data limitations using unconventional methods can also add substantive value in contexts where longitudinal data are unavailable.

In this necessarily brief review of existing studies, we will emphasize, in particular, major consensuses and disagreements. We will also draw attention to methodological concerns and information gaps that future studies should attempt to address.

Consider intragenerational mobility first. There is a well-founded consensus that the average educational level of India's population has greatly increased, especially in the past three decades. In rural areas and particularly within states that have hitherto been thought of as backward, impressive improvements have been registered in the share of children attending schools as well as in the average years of formal education. The share of functionally literate individuals in the age group 11-15 years is more than three times higher than for people aged 60 or older (Azam and Blom 2008; Krishna 2013a). Other studies conclude similarly. Subject to some of the above caveats, Jalan and

[2] Such parent-child comparisons are *absolute* and neglect a crucial *relative* dimension of social mobility: in a developing country setting it is possible, in theory, for the (entire) e.g. income distribution to shift upwards from one generation to the next. While this (likely) reduces poverty, this overall improvement can occur without affecting the distributional ranking of households or individuals. A similar argument holds for education: accordingly, intergenerational mobility needs not imply social mobility. To tackle this problem, Bhattacharya and Mazumder (2011) propose a measure where intergenerational upward mobility requires that the son's percentile rank in the income distribution of sons exceeds the father's rank in the income distribution of fathers.

[3] We address the associated measurement problems and challenges in more depth in a companion paper.

[4] For a sample of studies that have looked at different aspects of social mobility, see Bowles and Gintis (2002); Corak (2004); Erikson and Goldthorpe (1992); and OECD (2010).

[5] Illuminating studies undertaken in developing country contexts outside India include Birdsall and Graham (2000); Grawe (2004); Moser (2009); and Perlman (2011).

Murgai (2008) using NFHS data, find that "intergenerational mobility in education has improved significantly and consistently across generations. Mobility has improved, on average, for all major social groups and wealth classes." Similarly, Azam and Bhatt (2015), relying on IHDS I, and with fewer methodological concerns attached, find "significant improvements in educational mobility across generations in India", but also find that educational mobility varies notably across states.[6]

The establishment of educational institutions where previously there were none has contributed greatly to this general uptick. Primary schools have been set up by the government in even the most remote places. In many villages, particularly in some erstwhile Princely states but also in British-governed India, there were no schools until several decades after the advent of national independence. Today, nearly 100 per cent of villages have a primary school, and nearly 80 per cent have a middle school, within a distance of 2 km. Enrolment at schools has consequently increased vastly. More than 95 per cent of all children between the ages of 6 and 14 years are now enrolled at schools, and the difference between boys' and girls' attendance has diminished (ASER 2014). These are vast improvements from an earlier generation. There is broad agreement that among SCs, and to a lesser extent, among STs, educational attainment has increased. Whether the achievements of these groups have converged with those of other social groups is less clear, however. While Hnatkovska, Lahiri and Paul (2013: 468) report "a remarkable convergence in the intergenerational mobility rates of SC/STs to non-SC/ST levels in both education attainment and wages", sample selection and other methodological caveats need to be considered (Azam 2015; our companion paper). Desai and Kulkarni (2008) uncover some equalization of educational achievement across caste groups, but only at the primary level, with continuing high inequality in college. Least optimistically, Majumder (2010: 463) uncovers "strong intergenerational stickiness in both educational achievement and occupational distribution" among SCs and STs. More and better evidence is thus required to judge conclusively.

In terms of income, the weight of the evidence suggests that the income (consumption) levels of SCs and STs have improved in real terms, particularly of the former group (Dubey and Thorat 2012). Their sense of subjective wellbeing has also improved, particularly in villages where these groups are of sizeable number (Kapur et al. 2010; Iversen et al. 2014). But a different picture is presented by other studies, which find that the status of SCs, and particularly that of STs, has not improved by very much (e.g., Shah et al. 2006; Gang, Sen and Yun 2016). Discriminating attitudes, reflected in hiring practices, have worked to keep out SC individuals and Muslims from higher-paying and other private jobs (Deshpande and Newman 2007; Deshpande and Palshikar 2008; Iversen and Raghavendra 2006; Iyer et al. 2013; Thorat and Attewell 2007). Other findings point to different conclusions (Banerjee et al. 2009).

[6] A remaining concern, documented in the Annual Status of Education Reports, is that years of schooling is an imprecise measure of cognitive skill formation (Hanushek and Woessman 2008). Learning outcomes remain much too low and vary notably across states.

Among the rest of the population, income and asset holdings have increased, on average, particularly since the early 1990s. But not everyone has moved up the income scale. Many people's incomes and asset holdings have declined in absolute terms.

India continues to have among the highest rates of downward mobility. Between 3.5 per cent and 6.6 per cent of households in rural areas, according to various calculations, and between 2.5 per cent and 5 per cent of households in urban areas, averaging to 5 per cent of the population as whole, fall below the poverty line each year on account of ill health and medical expenses.[7] Coupled with the relatively low social mobility that the existing group of studies attest to – small improvements for many, but large improvements for very few – this high downward mobility gives cause for concern. Higher achievements, bigger gains in occupational status and income levels, have been elusive for all but a limited few. Put differently, people who are in higher positions now generally had a higher social status at birth. There are, of course, a few notable exceptions, as there are in any country. But in India, these exceptions have been proportionately few.[8] A study by the World Bank of intergenerational income correlation - which measures the extent to which parents' incomes are reflected in the incomes earned by their children – found this measure to be higher in India than in most other countries, higher than in the US and UK.[9] Another project, which compared a selection of occupations of successive father-son connections spanning multiple generations in a group of countries, also found a very high rate of intergenerational persistence in India and very low social mobility, the lowest, in fact, among any country studied.[10] These estimates suggest that there is a smaller chance in India compared to other countries that a child of poorer parents will grow up to become a richer person.

Scholars comparing the occupations of fathers and sons have found that the apple does not fall far from the tree in India. There is substantial intergenerational continuity in occupation type and income category. Motiram and Singh (2012) find evidence of substantial intergenerational persistence and considerable inequality of opportunity. Similarly, Kumar, et al. (2002b: 4096) conclude that "there has been no systematic weakening of the links between father's and son's class positions… The dominant picture is one of continuity rather than change."[11]

Similar conclusions have been reached by studies that, using a different (and non-conventional) method, have looked at the composition of people entering particular highly sought-after "destinations" – such as jobs in the software industry or places in

[7] See Garg and Karan (2005); Gupta and Mitra (2009); Krishna (2010); and World Bank (2011).
[8] As pointed out earlier, measurement issues matter. The results from regressing parent social status on offspring social status (which is what e.g. Jalan and Murgai (2008), Motiram and Singh (2012), Azam and Bhatt (2015) and most other studies do) deliver different and more optimistic verdicts than otherwise similar analysis reporting intergenerational correlation coefficients.
[9] See Brunori, Ferreira, and Perragine (2013).
[10] Economic historian Gregory Clark used data on surnames as a means of tracking father-son connections. He studied three particular occupations in India – physicians (and medical students), judges, and police sergeants, largely with the help of data from West Bengal.
[11] See also Majumder (2010) and Reddy (2015), who report very similar conclusions.

prestigious higher educational institutions.[12] Krishna (2013), in the most recent of these studies, looked at three different occupational "silos" – engineering, business management, and the higher civil services, finding that on the whole "the conclusion cannot be avoided that an urban professional elite is being reproduced, with the sons and (increasingly) the daughters of salaried and self-employed professionals themselves joining higher education and higher-status occupations."

Much remains to be studied, however, about the extent of social mobility in India and about how its extent has increased or decreased over the years. What factors raise or lower social mobility are also necessary to uncover.

3. Categorising occupations: a proposed social status ladder

In this section, we present the categories of occupations that will be used in the occupational mobility matrices reported below. The IHDS surveys ask heads of households about the main occupation of their fathers (or fathers of husbands, if the head of household is female). Since we focus on father-son occupational mobility, we restrict our sample to male-headed households, with heads aged 20 years and above and who are not retired or unfit for work.[13] The occupational codes are provided at the two-digit level (as detailed in the Appendix). In their analysis of occupational mobility based on IHDS I data, Motiram and Singh (2012) use the Indian National Classification of Occupations (NCO 2004) which in turn draws on the International Labour Organization's occupational classifications (ISCO88 and its antecedents) with adjustments considered appropriate for the Indian context (ibid.). A key feature of ISCO88 is the use of skill requirements as the main principle guiding occupational rank (e.g. Ganzeboom and Treiman 1996). In the Indian context, the translation of skill requirements into occupational status is made more intricate by caste: independently of the skill requirements of their traditional, caste-based occupations, Shudra or Scheduled Caste individuals are e.g. likely to have low social status. We attempt to adjust for this and for other relevant empirical facts when converting the IHDS categories into an occupational ranking.[14] In our analysis, we use the following six occupational categories (with IHDS occupation codes in brackets).

[12] Fuller and Narasimhan (2007) examined the social profiles of employees at one software engineering firm in Chennai; while Krishna and Brihmadesam (2006), followed by Upadhya (2007), looked within small groups of such firms in Bangalore.

[13] Accordingly, IHDS data are not subject to the coresidence-related selection bias that affects social mobility estimates using NSS data: see e.g. discussions in Azam and Bhatt (2015) and Shahe Emran, Greene and Shilpi (2015).

[14] We acknowledge the inevitable coarseness and limitations implied by such rankings: an example of another complicating factor in the Indian context is the status distinction between, say, a sweeper in a government job and a sweeper working for a private household.

Table 1: Occupational categories and codes

Category 6	Professional (Occupation codes 00-29)
Category 5	Clerical and other (Occupation codes 30-39, 40-42, 44-48)
Category 4	Farmers (Occupation codes 60-62)
Category 3	Higher status vocational occupations (Occupation codes 43, 49, 50-52, 56-59, 79, 84-87).
Category 2	Lower status vocational occupations (often caste based, traditional) (Occupation codes 53-55, 68, 71-78, 80-83, 88-93, 96-98)
Category 1	Agricultural and other manual laborers including construction workers (Occupation codes 63-67, 94, 95, 99)

Higher values of the occupational category variable is associated with higher standing on the social status and plausibly on the earnings ladder. While categories 6 and 5 are quite straightforward, the placement of farmers as category 4 is less clear cut given the substantive heterogeneity among India's cultivators.[15] For the main questions that we address and in the tables presented below, this simplification does not represent a major concern. For the three remaining categories our proposed classification departs, firstly, and for compelling empirical reasons, from Azam's (2015), particularly in respect of his granting construction workers a higher occupational rank than other manual labourers. This is a major issue since construction represents India's largest sector of employment outside agriculture. Among the 30 million plus individuals earning a living in the sector, more than 8 out of 10 are reported to be unskilled and informally employed, often earning an insecure pittance (National Skill Development Corporation 2010). To classify an occupational change from manual agricultural labour to construction sector work as upward mobility is therefore problematic. Given the size and relative importance of this sector, this ordering of occupational categories produces an upward bias in mobility estimates.

To address caste and occupational status, we distinguish between categories 2 and 3, capturing low and higher status for a spectrum of vocational and other skills. The idea here is to distinguish between occupations that are skilled but low status because of a caste connotation and those that are not: new, modern jobs and vocations form a sub-set of the latter. Examples of low status vocational occupations (category 2) are blacksmiths and shoe makers; higher status occupations include tailors while modern vocational occupations include e.g. machinery/electrical fitters, broadcasting station operators and plumbers. Finally, and given our focus on sharp ascents we examine whether the lower end layer within category 6, which we interpret to comprise of nurses (occupational code 8) and teachers (occupational code 15), account for a substantive fraction of the entrants into this topmost category. [16]

[15] Such cultivator heterogeneity is not unique to India and the challenge this poses is extensively discussed among historians, see e.g. Armstrong (1992), Appendix C.

[16] We have included teachers and nurses in the highest occupational category: there may be an argument for including them in the next highest occupational category (clerical and other workers). However, re-classifying the occupational categories by including these two occupations in the next highest category does not result in a substantially different occupational mobility pattern – only 1.5 percent of fathers and 3.1 of sons were in these two occupations.

To obtain the occupation codes of sons, we first ascertain whether the head of household is a farmer: For those individuals who are not farmers, we use the occupational codes provided in WS4 (for those engaged in wage or salaried work) and in NF1B (for those who have a primary non-farm business). Clearly, any occupational classification includes an element of choice and arbitrariness. Employing a different classification schema did not, however, produce any major changes in the results reported in the following sections.

4. Occupational Mobility Matrices

In Table 2, we provide occupational mobility matrices, first for the combined rural and urban sample, then separately for the rural and urban samples. We note that the diagonal terms dominate the off-diagonal terms, which suggests that sons in India are likely to follow the occupations of their fathers. For example, for the all India sample, 58.6 per cent of the sons of agricultural and other labourers were also in the same occupational category. Such dominance is not a verdict on India per se, since it tells us little about how India compares with other countries. Greater upward occupational mobility would be evident if the off-diagonal elements on the right-hand side of the diagonals dominate the off-diagonal elements on the left-hand side. We do not find evidence of such mobility, independent of rural/urban location, and social group.

The matrices point to higher occupational mobility among Forward Castes than among SCs and STs. Among upper castes, we observe sharp ascents for 24.7 per cent of the sons of agricultural and other labourers who enter the highest two occupational categories – clerical and other workers and professionals. In contrast, in the case of OBC, SC and ST individuals, the respective numbers are 15.7, 10.6 and 9.3 per cent. Also striking and consistent with Motiram and Singh (2012), we find a much higher prevalence of sharp descents among SC and ST sons.

Finally, there is much greater mobility in urban than in rural areas – 10.5 per cent of sons of agricultural and other workers (including construction workers, who are mostly urban based) moved to being clerical and other workers and professionals in rural areas in contrast to 26.8 per cent in urban areas. This stark contrast requires careful, future unpacking. For lower skilled occupations, the corresponding figures are 17.9 per cent and 24.2 per cent for rural and urban areas.

Table 2: Occupational Mobility Matrices, All India, Rural and Urban Samples (percentages), IHDS II

ALL INDIA, RURAL AND URBAN COMBINED							
Father's occupation/ Son's occupation	Agricultural and other labourers	Lower skilled Occupations	Higher skilled Occupations	Farmers	Clerical and other workers	Professionals	Number of observations (n)
Agricultural and other labourers	58.6	13.6	8.0	5.3	10.1	4.5	10,170
Lower skilled Occupations	14.6	50.0	11.3	2.5	12.8	8.8	3,224
Higher skilled "Occupations	11.5	15.4	42.5	4.0	15.3	11.3	2,311
Farmers	32.2	9.7	7.7	32.4	10.7	7.4	15,500
Clerical and other workers	7.4	12.0	14.7	3.8	48.1	14.0	2,830
Professionals	8.9	9.0	14.1	6.5	23.9	37.6	1,692
RURAL							
Agricultural and other labourers	67.1	10.8	5.2	6.5	7.3	3.2	7,436
Lower skilled Occupations	24.4	46.5	5.2	6.0	10.8	7.1	1,189
Higher skilled Occupations	19.7	11.0	40.7	9.6	10.2	8.9	822
Farmers	35.9	8.5	5.4	36.6	7.9	5.7	12,797
Clerical and other workers	15.8	10.5	10.3	10.3	44.3	8.9	719
Professionals	16.3	8.7	9.4	14.9	16.1	34.6	541
URBAN							
Agricultural and other labourers	33.1	22.3	16.4	1.5	18.5	8.3	2,734
Lower skilled Occupations	7.8	52.5	15.6	0.1	14.2	10.0	2,035
Higher skilled Occupations	6.6	18.1	43.7	0.6	18.3	12.7	1,489
Farmers	10.7	17.0	20.7	7.9	26.7	16.9	2,703
Clerical and other workers	3.5	12.7	16.8	0.8	49.8	16.4	2,111
Professionals	4.7	9.2	16.7	1.7	28.4	39.3	1,151

Note: all observations adjusted by household weights. Figures in rows add up to 100.

Table 3. Occupational Mobility Matrices, By Social Group (percentages), IHDS II

FORWARD CASTE							
Father's occupation/ Son's occupation	Agricultural and other labourers	Lower skilled Occupations	Higher skilled Occupations	Farmers	Clerical and other workers	Professionals	Number of observations (n)
Agricultural and other labourers	43.1	13.9	10.4	7.9	17.6	7.1	1,546
Lower skilled Occupations	7.7	40.9	14.8	3.4	17.5	15.7	693
Higher skilled Occupations	7.2	15.5	34.9	7.5	19.5	15.6	804
Farmers	21.7	8.8	8.2	37.1	13.8	10.4	4,766
Clerical and other workers	3.5	10.8	13.6	4.0	49.4	18.8	1,330
Professionals	4.3	6.8	11.5	7.2	28.7	41.5	880
OTHER BACKWARD CLASSES (OBC)							
Agricultural and other labourers	52.6	15.0	10.3	6.4	10.6	5.1	3,840
Lower skilled Occupations	13.2	51.9	11.5	2.5	13.5	7.5	1,586
Higher skilled Occupations	9.5	15.5	48.7	1.9	14.7	9.8	1,026
Farmers	29.5	10.1	8.1	34.9	10.6	6.9	6,519
Clerical and other workers	7.7	12.6	16.4	4.5	48.3	10.6	1,050
Professionals	9.4	11.9	17.3	7.5	21.3	32.6	533
SC							
Agricultural and other labourers	68.4	12.7	5.7	2.6	7.3	3.3	3,627
Lower skilled Occupations	22.7	53.4	7.7	2.5	8.3	5.5	775
Higher skilled Occupations	25.9	14.6	36.9	3.9	10.5	8.3	366
Farmers	46.4	12.6	7.3	20.7	7.9	5.0	2,266
Clerical and other workers	18.6	13.1	13.2	1.7	42.6	10.8	326
Professionals	21.9	10.2	16.3	1.6	18.7	31.4	196
ST[17]							
Agricultural and other labourers	67.5	12.5	3.7	7.1	6.8	2.5	1,006
Lower skilled Occupations	30.4	41.9	9.1	0.2	6.1	12.4	105
Higher skilled Occupations	20.9	18.0	38.9	6.1	9.2	7.0	75
Farmers	51.1	7.0	4.9	25.7	6.7	4.6	1,755
Clerical and other workers	18.9	10.0	17.4	4.2	34.5	15.2	67
Professionals	24.2	10.0	9.8	8.2	12.1	35.7	50

Note: all observations adjusted by household weights. Figures in rows add up to 100.

[17] Note that for STs the number of observations in some cells is very small.

How do our estimates of social mobility for 2011-2012 compare to an earlier period? In Table 4, we present occupational mobility matrices for IHDS I (2004-2005), uncovering a mixed picture. On the one hand, there is evidence of greater occupational mobility among individuals in the lowest ranked occupational category in 2011-2012 compared to 2004-2005. While in 2004-2005, 11.5 per cent of the sons of agricultural and other labourers in the all India sample became clerical workers and professionals, the corresponding number for 2011-2012 is 15.6 per cent. On the other hand, there is less mobility in the second lowest ranked occupational category – the percentage of sons of fathers in lower skilled occupation who entered the highest two occupational categories in 2011-2012 was 21.6 per cent as compared to 29.8 per cent in 2004-2005. Thus, there is mixed record of greater occupational mobility in the seven years between the conduct of the first and second rounds of the IHDS survey.

Table 4. Occupational Mobility Matrices, IHDS I, 2004-2005

ALL INDIA, RURAL AND URBAN COMBINED							
Father's occupation/ Son's occupation	Agricultural and other labourers	Lower skilled Occupations	Higher skilled Occupations	Farmers	Clerical and other workers	Professionals	Number
Agricultural and other labourers	62.7	11.3	6.8	7.6	6.0	5.5	7,457
Lower skilled Occupations	14.5	41.9	10.2	3.5	13.1	16.7	2,403
Higher skilled "Occupations	12.0	13.4	31.1	4.8	19.0	19.9	2,179
Farmers	17.1	6.5	7.5	53.5	8.6	6.8	15,106
Clerical and other workers	6.0	9.5	14.8	5.5	47.4	16.7	2,212
Professionals	10.5	9.7	10.8	12.3	22.2	34.5	1,568
RURAL							
Agricultural and other labourers	69.2	8.6	4.9	9.3	4.1	3.9	5,404
Lower skilled Occupations	19.9	40.9	7.5	6.5	9.4	15.8	1,149
Higher skilled Occupations	19.5	8.2	31.9	10.3	13.1	17.1	855
Farmers	18.4	4.9	5.5	60.8	5.9	4.5	11,761
Clerical and other workers	12.2	8.1	11.1	14.9	44.2	9.5	673
Professionals	16.6	8.9	8.3	25.0	15.6	25.5	665
URBAN							
Agricultural and other labourers	36.9	22.0	14.3	0.9	13.8	12.0	1,877
Lower skilled Occupations	8.6	42.9	13.3	0.3	17.3	17.7	1,424
Higher skilled Occupations	6.3	17.3	30.4	0.5	23.5	21.9	1,550
Farmers	9.5	16.6	19.7	9.0	24.7	20.5	2,676
Clerical and other workers	2.9	10.2	16.8	0.8	49.1	20.2	1,843
Professionals	5.1	10.4	12.9	1.2	28.0	42.5	1,047

Note: all observations adjusted by household weights. Figures in rows add up to 100.

5. Comparisons with other countries

How does social mobility in India compare to other transitional or developing economies and, historically, to countries that are now industrialised? Standardised databases and comparable indices do not so far exist. We consider this question by presenting simple (and coarse) comparisons with Victorian Britain and contemporary China. Table 5 is based on Miles (1999) who used marriage register data from early post-industrial revolution Britain:

Table 5: Occupational mobility in Great Britain 1851-81.

Father/Son	Unskilled manual (Labourer, Porter)	Semi-skilled (Cook, Gardener)	Skilled (Carpenter, Mason, Plumber)	Intermediate (Teacher, Factory Manager, Clerk)	Professional (Lawyer, Doctor, Clergyman)
Unskilled manual	**65**	12	20	3	0
Semi-skilled	15	**47**	33	5	0
Skilled	10	8	**75**	6	0
Intermediate	10	10	23	**53**	4
Professional	5	5	7	30	**54**

Source: Miles 1999, as reported in Clark and Cummins 2014

Table 5 appears to suggest that large ascents (into the two topmost categories) for sons of manual labourers were less frequent in Victorian Britain than in contemporary India. In contrast, modest ascents were about twice as common as in contemporary, rural India, but less common than in India's cities. A completely different image of social mobility in Victorian Britain, covering exactly the same time period, is reported by Long (2013) in Table 6.

Table 6: An alternative picture of occupational mobility in Britain 1851-81

Father/Son	Unskilled manual (Labourer, Porter)	Semi-skilled (Cook, Gardener)	Skilled (Carpenter, Mason, Plumber)	Intermediate (Teacher, Factory Manager, Clerk)	Professional (Lawyer, Doctor, Clergyman)
Unskilled manual	**21**	15	56	7	1
Semi-skilled	17	**38**	38	6	1
Skilled	11	8	**68**	10	3
Intermediate	6	9	46	**35**	5
Professional	6	2	36	21	**35**

Source: Long 2013, based on linking of successive census rounds

Tables 5 and 6 (which are both reported in Clark and Cummins 2014) provide a powerful illustration of the sensitivity of social mobility research findings to the data. While Miles (1999), as noted, relied on marriage register data, Long's (2013) analysis is based on careful linking of successive census rounds. Comparing Tables 5 and 6, the contrast in the estimates of intergenerational persistence – looking at the two diagonals is striking – except for the middle category. According to Long (2013), the dramatic difference (e.g. in manual labour occupational persistence) reflects the fact that sons married at a young age (with registered marriages covering a large percentage of Britain's population at the time), implying that the subsequent career

progress of sons is systematically unaccounted for in the data that were used to construct Table 5. If this explanation captures all there is to these compelling contrasts, career progress and intragenerational mobility in Victorian Britain, even among individuals starting at the bottom end, must have been considerable. There are, at the same time, noteworthy similarities. In both Tables 5 and 6, sharp ascents (from unskilled and semi-skilled and into the two topmost categories) are very few.

How does China compare with historical Britain and with India today? While the first studies of occupational mobility in China suggested a seemingly unprecedented disconnect between parent and offspring occupation, these early studies, which covered Hong Kong and Tianjin, were plagued by severe selection bias (Wu and Treiman 2007). There are data limitations for China, too, but what emerges from the broad-brush approach taken here, are the compelling and unique similarities between occupational mobility patterns in Asia's two giants. Wu and Treiman (2007) present results, reproduced in Tables 7 and 8, which closely resemble our findings for India. While the India data, presented in Tables 2 and 3, point to location and social identity as key determinants of sharp ascent prospects, upward mobility prospects in China are circumscribed by the *hukou* or household registration system, introduced by the Chinese government to control rural-urban population movements (ibid.; Li, Zhang and Kong 2015). Further, urban *hukou* status has been bestowed selectively on individuals of rural background with exceptional educational achievements. Focusing on the overall sample and for the six occupational categories in Table 7, we first consider sharp ascents. For mobility from the bottom into the two topmost categories, and adding the caveat that category overlaps are imperfect, we observe percentages in the 10-11 range. When compared to agricultural and other manual workers in India, sharp ascents are about as likely. A comparison of Tables 7 and 8 shows the compelling contrast between the average Chinese male and the average urban male with *hukou* status. It is tempting to conclude that the privileged in China appear to be more privileged than India's Forward Castes, again with a caveat, since our Forward Caste estimates are not disaggregated by location. This, irrespectively, is an important and striking finding that points to the importance of more in-depth future investigation.

Table 7: Intergenerational occupational mobility in China: all men (probability sample: n=6,069)

Father/Son	Agricultural	Semi-and unskilled	Foremen, skilled	Small owner	Routine nonmanual	Professionals, managers
Agricultural	**66**	5.4	7.3	10.4	1.2	9.7
Semi-and unskilled	14.2	**18.1**	22.6	19.8	14.5	10.9
Foremen, skilled	24.5	15.9	**28.2**	12.4	3.7	15.2
Small owner	20.6	8.5	3.9	**46.3**	0.0	20.8
Routine nonmanual	19.8	15.9	14.2	24.2	**12.5**	13.4
Professionals, managers	14.7	8.6	16.5	11.6	6.9	**41.8**

Source: Wu and Treiman (2007)

Table 8: Intergenerational occupational mobility in China: urban hukou (current)

Father/Son	Agricultural	Semi-and unskilled	Foremen, skilled	Small owner	Routine nonmanual	Professionals, managers
Agricultural	44.8	5.1	10.0	3.9	6.7	29.4
Semi-and unskilled	0.0	**21.1**	27.8	19.7	17.5	14.0
Foremen, skilled	0.0	21.2	**39.9**	11.0	5.5	22.5
Small owner	0.0	6.0	0.0	**50.3**	0.0	43.7
Routine nonmanual	0.0	21.4	13.1	31.0	**17.9**	16.7
Professionals, managers	3.2	11.4	22.0	6.6	8.5	**48.3**

Source: Wu and Treiman (2007)

Occupational descents

We return to the India data and the outlook for the sons of fathers who have already made it and are working in professional, official or similar top of the ladder jobs. We note, firstly, that the IHDS II numbers for sharp occupational descents reported in Table 9 are much higher than historical estimates from Victorian Britain (5-6 per cent) and elsewhere where such estimates are available (e.g., 6 per cent for Norway, 1860s-80s, as reported by Modalsli 2014).[18] Further, the within-India comparisons between rural and urban and between SCs and STs and Forward Castes is startling when compared to these historical offerings. For the son of a professional father, the sharp descent risk is about 3.5 times higher in a rural compared to an urban location (16.3 vs. 4.7 per cent) and in the former case much higher than in Victorian Britain. The likelihood that the SC, ST or Forward Caste son of a father in a prestigious professional job will end up as a manual labourer is 22, 24 or 4.3 per cent, respectively. For historically

[18] For the otherwise diverging Victorian Britain estimates, it is important to note that the bias from marriage register data appears to be less of a concern for sharp descent estimates.

disadvantaged communities, the risk of a sharp descent is thus between 3.5 and 4 times higher in India today than it was in Victorian Britain. Notice the stark contrast in the descent risk for a Forward Caste son: for an urban son, the sharp descent risk is on par with the corresponding risk in Victorian Britain.

Table 9: Intergenerational mobility: occupational ascents and descents by location and social group: IHDS II

Social group/location	Father's occupation	Son is agricultural or other labourer	Son is professional, official or related	Son is medium skilled
Rural (average)	*Professional, official or other*	16.3 %	34.6 %	25.6 %
Urban (average)	*Professional, official or other*	4.7 %	39.3 %	45.1 %
SC	*Professional, official or other*	21.9 %	31.4 %	35.0 %
ST	*Professional, official or other*	24.2 %	35.7 %	21.9 %
Forward Caste	*Professional, official or other*	4.3 %	41.5 %	40.2%

Accordingly, occupational status ascents for SCs, STs and rural sons appear to be much more fragile than for other social groups and for sons of an urban background. This adds a crucial insight and corrective to India's affirmative action debate where it is generally taken for granted that the robustness of upward social mobility does not depend on a person's social identity. Further and another crucial parallel between Asia's two giants, the risk of sharp descents (from the top into the two bottom categories) in China is on par with what we observe for India – but likely for very different reasons. Here is, again, an important lead for future research.

6. Conclusions

Our findings seem to provide general support to the assertion by Pranab Bardhan (2010: 132) that India compares poorly to many other countries in terms of opportunities for upward mobility. There are, however, and perhaps surprisingly, striking parallels between upward mobility prospects and sharp descent risks in India and China. These suggestive comparisons require further investigation. In India, vast differences exist in the upward mobility prospects of urban vs. rural residents and upper-caste Hindus v. SCs and STs. Simultaneously, the prospects for downward mobility are large in India, larger among rural residents and among SCs and STs. The combination of these trends makes for a precarious existence for many Indians – with low upward and high downward mobility. Reversing these trends is essential for a just society (Roemer 1998). Remedial measures are necessary. Space limitations do not permit an examination of the reasons underlying the observed trends. Prior analyses have importantly implicated low-quality education, information gaps, and the poor state of health care with the widespread precariousness and vulnerability.

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Appendix 1: Occupation Codes

Professional, technical and related workers

00 Physical Scientists

01 Physical Science Technicians

02 Architects, Engineers, Technologists and Surveyors

03 Engineering Technicians

04 Aircraft and Ships Officers

05 Life Scientists

06 Life Science Technicians

07 Physicians and Surgeons (Allopathic Dental and Veterinary Surgeons)

08 Nursing and other Medical and Health Technicians

09 Scientific, Medical and Technical Persons, Other

10 Mathematicians, Statisticians and Related Workers

11 Economists and Related Workers

12 Accountants, Auditors and Related Workers

13 Social Scientists and Related Workers

14 Jurists

15 Teachers

16 Poets, Authors, Journalists and Related Workers

17 Sculptors, Painters, Photographers and Related Creative Artists

18 Composers and Performing Artists

19 Professional Workers, n.e.c.

Administrative, executive and managerial workers

20 Elected and Legislative Officials

21 Administrative and Executive Officials Government and Local Bodies

22 Working Proprietors, Directors and Managers, Wholesale and Retail Trade

23 Directors and Managers, Financial Institutions

24 Working Proprietors, Directors and Managers Mining, Construction, Manufacturing and Related Concerns

25 Working Proprietors, Directors, Managers and Related Executives, Transport, Storage and Communication

26 Working Proprietors, Directors and Managers, Other Service

29 Administrative, Executive and Managerial Workers, n.e.c.

Clerical and related workers

30 Clerical and Other Supervisors

31 Village Officials

32 Stenographers, Typists and Card and Tape Punching Operators

33 Book-keepers, Cashiers and Related Workers

34 Computing Machine Operators

35 Clerical and Related Workers, n.e.c.

36 Transport and Communication Supervisors

37 Transport Conductors and Guards

38 Mail Distributors and Related Workers

39 Telephone and Telegraph Operators

Sales workers

40 Merchants and Shopkeepers, Wholesale and Retail Trade

41 Manufacturers, Agents

42 Technical Salesmen and Commercial Travellers

43 Salesmen, Shop Assistants and Related Workers

44 Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers

45 Money Lenders and Pawn Brokers

49 Sales Workers, n.e.c.

Service workers

50 Hotel and Restaurant Keepers

51 House Keepers, Matron and Stewards (Domestic and Institutional)

52 Cooks, Waiters, Bartenders and Related Worker (Domestic and Institutional)

53 Maids and Other House Keeping Service Workers n.e.c.

54 Building Caretakers, Sweepers, Cleaners and Related Workers

55 Launderers, Dry-cleaners and Pressers

56 Hair Dressers, Barbers, Beauticians and Related Workers

57 Protective Service Workers

59 Service Workers, n.e.c.

Farmers, fishermen, hunters, loggers and related workers

60 Farm Plantation, Dairy and Other Managers and Supervisors

61 Cultivators

62 Farmers other than Cultivators

63 Agricultural Labourers

64 Plantation Labourers and Related Workers

65 Other Farm Workers

66 Forestry Workers

67 Hunters and Related Workers

68 Fishermen and Related Workers

Production and related workers, transport equipment operators and labourers

71 Miners, Quarrymen, Well Drillers and Related Workers

72 Metal Processors

73 Wood Preparation Workers and Paper Makers

74 Chemical Processors and Related Workers

75 Spinners, Weavers, Knitters, Dyers and Related Workers

76 Tanners, Fellmongers and Pelt Dressers

77 Food and Beverage Processors

78 Tobacco Preparers and Tobacco Product Makers

79 Tailors, Dress Makers, Sewers, Upholsterers and Related Workers

80 Shoe makers and Leather Goods Makers

81 Carpenters, Cabinet and Related Wood Workers

82 Stone Cutters and Carvers

83 Blacksmiths, Tool Makers and Machine Tool Operators

84 Machinery Fitters, Machine Assemblers and Precision Instrument Makers (except Electrical)

85 Electrical Fitters and Related Electrical and Electronic Workers

86 Broadcasting Station and Sound Equipment Operators and Cinema Projectionists

87 Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors

88 Jewellery and Precious Metal Workers and Metal Engravers (Except Printing)

89 Glass Formers, Potters and Related Workers

90 Rubber and Plastic Product Makers

91 Paper and Paper Board Products Makers

92 Printing and Related Workers

93 Painters

94 Production and Related Workers, n.e.c.

95 Bricklayers and Other Constructions Workers

96 Stationery Engines and Related Equipment Operators, Oilers and Greasers

97 Material Handling and Related Equipment Operators, Loaders and Unloaders

98 Transport Equipment Operators

99 Labourers, n.e.c.